



PLANNING
P2S
2 SUCCEED

ROCHESTER
COMPREHENSIVE PLAN 2040



City of Rochester, Minnesota

April 2018



Acknowledgements

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Special thanks to the Rochester community for providing us with over 7,000 ideas and opinions that helped inform this planning process and, ultimately, shape this plan document.

Map Disclaimer

The Rochester-Olmsted Planning Department is not responsible for omissions or errors contained in the maps used in this plan document. Olmsted County, the City of Rochester and the Rochester-Olmsted Planning Department shall have no liability with respect to any loss or damage directly or indirectly arising out of the use of this data.

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ROCHESTER

Minnesota

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April 16, 2018

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Honorable Mayor and City Council Members,

On behalf of the Planning and Administrative teams, it is a privilege to provide all of you the Planning 2 Succeed: Rochester Comprehensive Plan 2040 (P2S 2040) for your consideration. The recommended P2S 2040 document is the culmination of significant community, Comprehensive Plan Task Force, Planning and Zoning Commission, and City Council input. Upon adoption, P2S 2040 shall serve as the City's lead policy guide for the growth and development in Rochester. Moving forward, all other plans related to the City's growth and development, as well as related infrastructure plans, must be in conformance with P2S 2040.

Your professional team has invested countless hours to ensure the document reflects the City Council's ideas, concepts, and vision for Rochester. More specifically, P2S 2040 will:

- Guide future growth of the City of Rochester;
- Promote a common vision for future development based on community values and priorities;
- Establish a framework for future decision-making; and
- Encourage efficient and fiscally responsible use of public resources, facilities, and infrastructure

At the core of the P2S 2040 process was testing alternative visions for how Rochester could develop in the future. As detailed in the following pages, this included an analysis of 1) the continuation of existing growth and development patterns and policies, and 2) alternative approaches with concentrated development and more limited edge growth. Through the analysis and continuous input, it was determined that P2S 2040 should include elements of both that balance edge growth with infill and redevelopment, especially along transit corridors and nodes to ensure Rochester is positioned to most effectively advance its transportation, housing, infrastructure, environment, and fiscal sustainability priorities.

Creating P2S 2040 was possible because of our Planning Team's dedication and commitment. A special thanks to Mitzi Baker, Sandi Goslee, Charlie Reiter, Jeff Ellerbusch, Dave Dunn, and Muhammad Khan for their efforts in developing, revising, and finalizing the document for City Council consideration.

Sincerely,

Steve Rymer
City Administrator

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RESOLUTION

WHEREAS, On November 29, 2017 the Rochester Planning and Zoning Commission recommended adoption of **Planning 2 Succeed: Rochester Comprehensive Plan 2040 (P2S 2040)**; and

WHEREAS, On January 3, February 21, April 2 and April 16, 2018 the Council held public hearings on P2S 2040; and

WHEREAS, The existing Rochester Comprehensive Plan consists of the following plans and policies that have been adopted by the Rochester City Council as elements of the Comprehensive Plan: 1) Rochester Urban Service Land Use Plan adopted by Resolution #143-80 (as amended), 2) Rochester 2nd Street Corridor Plan (2009), 3) ROCOG 2040 Long Range Transportation Plan (2010), 4) Downtown Master Plan Report 2010, 5) 2012 Rochester Area Bicycle Master Plan (2012), 6) City of Rochester All-Hazard Mitigation Plan (2017); and

WHEREAS, P2S 2040 is intended to establish the overriding goals and principles that will guide Rochester's envisioned future and long range development and will provide guidance on the policy outcomes which the objectives, strategies or recommended actions of other adopted plans and policies will seek to achieve; and

WHEREAS, P2S 2040 will be recognized as the community-wide Comprehensive Plan for the city upon adoption; the Council does not intend for the Rochester 2nd Street Corridor Plan, ROCOG 2040 Long Range Transportation Plan, Downtown Master Plan Report 2010, 2012 Rochester Area Bicycle Master Plan and City of Rochester All-Hazard Mitigation Plan to be recognized as part of the Comprehensive Plan for the city. Rather, these plans will remain separate plans with the intention that any future changes to these plans are guided by the Comprehensive Plan 2040.

BE IT RESOLVED by the Common Council of the City of Rochester that the City does hereby adopt Planning 2 Succeed: Rochester Comprehensive Plan 2040 as the Comprehensive Plan for the City Rochester; and

BE IT FURTHER RESOLVED, in adopting P2S 2040 the Rochester Urban Service Area Land Use Plan (1979, as amended) is hereby repealed except for the "Comprehensive Plan Policy on Affordable Housing and Diversity", which is incorporated into P2S 2040; and

BE IT FURTHER RESOLVED the following types of plans are not adopted as elements of the Comprehensive Plan but are recognized as valid city plans that will be guided by the Comprehensive Plan and serve to further the vision and achieve the goals and policies of the Comprehensive Plan:

- 1) Citywide Functional Plans that direct specialized components of city planning

activities such as transportation, economic development or housing, including: 1) ROCOG 2040 Long Range Transportation Plan, 2) Rochester Parks and Recreation Systems Plan (2016), and 3) Rochester All-Hazard Mitigation Plan

- 2) Sub-Area Plans that reflect refinement of the goals and principles of the Comprehensive Plan to create more detailed guidelines, objectives or strategies for land use, transportation, infrastructure or other public concerns for specific geographies such as regional centers, corridors or neighborhoods, including 1) Rochester 2nd Street Corridor Plan, and , and 2) Downtown Master Plan Report 2010.
- 3) Specific Issue/Specific District Plans that deal with a specific element of community infrastructure or unique use areas with a focus on applying the goals and principles of the Comprehensive Plan to these areas with a focus on implementation. Such plans would include 1) 2012 Rochester Area Bicycle Master Plan, 2) Rochester Airport Master Plan, 3) City of Rochester Energy Action Plan (2017), and 4) the City of Rochester Complete Streets Policy (2009)

The Mayor and City Clerk are authorized to execute any and all documents necessary to implement this resolution.

PASSED AND ADOPTED BY THE COMMON COUNCIL OF THE CITY OF

ROCHESTER, MINNESOTA, THIS 16th DAY OF April, 2018.

ATTEST: 
CITY CLERK


PRESIDENT OF SAID COMMON COUNCIL

APPROVED THIS 23rd DAY OF April, 2018.




MAYOR OF SAID CITY

Graphics

Thanks and credit to the following sources for graphics beyond our team that help to illustrate the concepts presented in the Rochester Comprehensive Plan 2040.

Aurora Campus Tivoli Quad - Wenck Associates

DMC Development Plan

Central Indiana Transit Plan

Med City Beat

City of Cary, NC

Metropolitan Council

City of Boulder, CO

National Association of City Transportation Officials (NACTO)

City of Des Moines, IA

Ontario, Canada, Ministry of Transportation

City of Madison, WI

PACE Transit Supportive Design Guidelines

City of Missoula, MT

Portland Complete Streets Summit

City of Nashua, NH

Smart Growth America

City of Omaha, NE

Sonoran Institute

City of Portland, OR, Office of Transportation

Urban Advantage

Urban Land Institute



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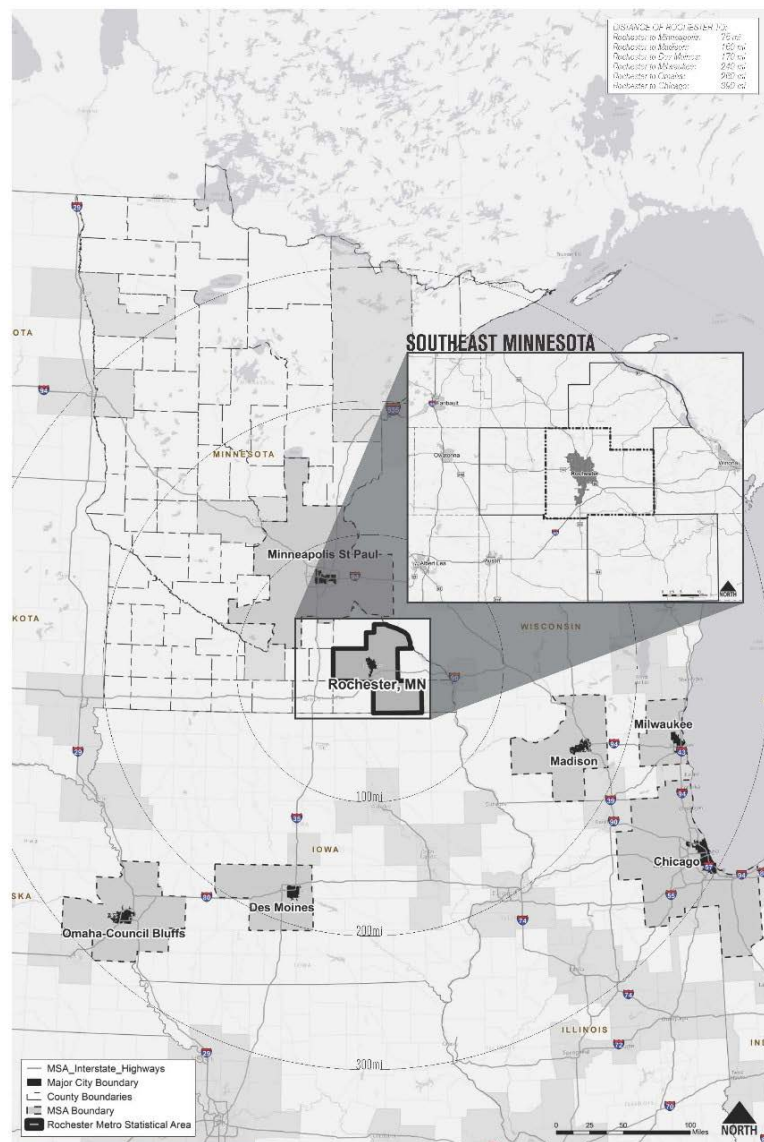


Section 1 | A Vision for Our Future

Part 1 | Introduction

Rochester is a unique city that enjoys a growing and diverse population, a high employment rate and percentage of the population that works, and international connectivity unlike other Midwestern communities of a similar size. As home to the Mayo Clinic and a large IBM campus, Rochester welcomes 3 million visitors annually and competes with cities across the nation and around the world for the best and the brightest minds in health and technology. City residents overwhelmingly believe Rochester offers them a high quality of life, providing arts and entertainment typically found only in larger cities along with an accessible parks and trails system that contributes to community identity and livability. Inclusion on several “Top 10” lists from such renowned sources as US News and World Report and Money Magazine provide national and international recognition of Rochester’s quality of life.

Rochester has experienced steady population growth throughout its history; it has grown to become the third largest city in Minnesota and the largest city in the state outside of the Twin Cities. This trend is expected to continue through 2040, resulting in a more diverse community with a greater variety of economic, housing, transportation, and social needs. If managed strategically, these



WHAT IS A COMMUNITY?

Stanford University’s Social Innovation Review defines “community” as a critical societal component:

First and foremost, community is not a place, a building, or an organization; nor is it an exchange of information over the Internet.

Community is both a feeling and a set of relationships among people.

People form and maintain communities to meet common needs.

Members of a community have a sense of trust, belonging, safety, and caring for each other. They have an individual and collective sense that they can, as part of that community, influence their environments and each other.

That treasured feeling of community comes from shared experiences and a sense of—not necessarily the actual experience of—shared history. As a result, people know who is and isn’t part of their community. This feeling is fundamental to human existence.

changes will provide our city with major opportunities for a prosperous and sustainable pattern of growth and development.

Rochester also serves as the regional economic, transportation, and cultural hub of southeastern Minnesota and is within an hour’s drive of the Twin Cities (see regional context map at the right). Madison, Wisconsin and Des Moines, Iowa are a three-hour drive away. The Rochester International Airport provides quick flights to larger cities in the Midwest and connections to other national airports. Rochester is a convenient destination for a significant number of regional commuters, national and global patients and business travelers, and other visitors.

Rochester’s local economy is thriving, with a 2017 employment base of approximately 116,500 jobs. Destination Medical Center (DMC) is a major economic development initiative that will increase and accelerate the demand for private development and public infrastructure in our city and its neighbors.

Over the next 20 years, the target of the DMC is to grow the local employment base by 30,000 jobs and to more than double the



Community events like Thursdays on 1st & 3rd bring our residents and visitors together.

number of visits to the city, and particularly the downtown core, by Mayo Clinic patients and companions, business travelers, and convention and event attendees. It is hoped that this and other economic development efforts will help to diversify our economy beyond the medical, technology, and service sectors.

But a vital city is more than just a collection of buildings, roads, and parks. It begins with a network of people who feel a sense of belonging, security, and wellness. It's a place where human interaction turns groups of houses into neighborhoods, transportation networks into social connections, and parks into gathering spaces. It's a community.

Competitive communities recognize that a successful city begins with its people and values the importance of the human and social infrastructure to the overall well-being of its residents and visitors. Employment opportunities may draw residents to our city, but good quality affordable housing, livable neighborhoods, and a vibrant cultural scene will keep them here. As Rochester plans the facilities and services needed to attract and retain visitors and residents, the community must strive to ensure it remains accessible and welcoming to all. Parks, open space, trails, child care facilities, libraries, and other cultural facilities should be equally accessible to all socioeconomic groups. Affordable housing choices and multiple travel options are needed to support residents and families. Our challenge is to build a community made up of inclusive neighborhoods that provide safe, secure, and neighborly environments in which all of us can thrive. The City of Rochester is committed to supporting these quality of life factors as our community grows and evolves. It's the PEOPLE and the human environment that transform a great city into an even greater community.



Rochester is in an enviable position. Our local economy and quality of life are nationally recognized. However, we cannot get complacent. We have significant opportunities ahead of us and if we successfully take advantage of them, we will continue to be one of the best places to live, work, and raise a family for new generations of residents. **Planning 2 Succeed: Rochester Comprehensive Plan 2040 (P2S 2040)** will provide city decision makers and staff a solid, fiscally sustainable framework for guiding our future by implementing coordinated strategies specifically designed to meet community needs.

Part 2 | What is a Comprehensive Plan?

Purpose of the Comprehensive Plan

The purpose of the comprehensive plan is to develop a vision, guiding principles, policies and actions to chart Rochester’s course for the future. By identifying issues, staying ahead of trends, and providing an opportunity to consider the future implications of today’s decisions, the comprehensive plan can help ensure that growth makes our community better, not just bigger.

A major benefit of adopting a comprehensive plan is that it takes a big picture view of the city, considering how all of the different geographies and community systems are interrelated and interdependent. Some of the more important considerations that have come to the forefront during the P2S 2040 process include:

- ▶ Enhanced transit service is needed to expand the travel choices available to those looking for alternatives to driving to reduce their personal transportation costs
- ▶ The design of the urban environment affects the livability of neighborhoods, economic success of business districts, and viability of alternative travel modes such as transit, walking, and bicycling
- ▶ Infrastructure to serve both current and future growth requires attention to both maintaining the systems that are in place as well as strategic expansion where warranted
- ▶ Land use patterns, density, natural features, and geographic location greatly influence the capital cost to build infrastructure and the ability to sustain that infrastructure over time
- ▶ Community growth patterns affect the cost and resources needed to provide key city services such as police and fire protection, transit, park and recreation facilities, educational systems, and arts/cultural amenities
- ▶ The city’s physical and social health and well-being can be greatly enhanced by planning our built environment with health in mind

Recognizing these relationships as an integral part of the planning process will help city leaders optimize resources and limited budgets to support a prepared, competitive, and efficient community that can respond and adapt to change as needed.

Legal Scope and Authority

Minnesota Statutes 462.351 provides the policy justification for municipal planning in Minnesota. Minnesota Statutes Section 462.353, Subdivision 1, gives cities the general authority to carry on comprehensive municipal planning activities for guiding the future development and improvement of the municipality. This section also grants cities the power to prepare, adopt and amend a comprehensive municipal plan and implement this plan by ordinance and other official actions in accordance with the provisions of sections 462.351 to 462.364.

P2S 2040 shall be the city's lead and overall policy guide for the growth and development of Rochester. All other plans related to the City's growth and development, as well as related infrastructure plans, must be revised to be in conformance with this comprehensive plan. Future documents such as area plans, resource protection plans, and master plans, will be approved as amendments to P2S 2040 and shall refine the language of the comprehensive plan.

Section 462.3535, Subdivision 4, states that the comprehensive municipal plan may establish an urban growth area (also referred to as the "urban service area") for the urbanized and urbanizing area. This area includes

MN STATUTES 462.351

"The legislature finds that municipalities are faced with mounting problems in providing means of guiding future development of land so as to insure a **safer, more pleasant and more economical environment** for residential, commercial, industrial and public activities, to preserve agricultural and other open lands, and to promote the public health, safety, and general welfare. Municipalities can prepare for anticipated changes and by such preparations bring about **significant savings in both private and public expenditures**. Municipal planning, by providing public guides to future municipal action, enables other public and private agencies to plan their activities in harmony with the municipality's plans. **Municipal planning will assist in developing lands more wisely to serve citizens more effectively, will make the provision of public services less costly, and will achieve a more secure tax base.**"

the current city limits as well as those unincorporated areas that are planned for inclusion to the city within a specified time frame. The city plan must establish a staged process for boundary adjustment as lands within the urban growth area but outside the current city limits are annexed. The plan must also provide for the staged provision of urban services, including, but not limited to, water, wastewater collection and treatment, and transportation.

Supporting Planning Documents

P2S 2040 integrates information and recommendations from various past and current plans. Some of these plans are of particular importance and are summarized below. The Rochester Urban Service Area Land Use Plan, once a separate document adopted as part of the City's comprehensive plan, is now integrated into the P2S 2040 text.

While smaller communities often combine all of their physical development and municipal service plans into a single comprehensive document, Rochester does not; incorporating all of the topical plans the Rochester Common Council has adopted that make up the comprehensive plan into a single plan report would result in a very bulky, difficult to navigate document.

Subordinate Plans & Policies Guiding Implementation of the Comprehensive Plan

The following planning documents have been adopted by the City of Rochester Common Council to guide implementation of the Comprehensive Plan. These documents will continue to be vital tools for achieving the community's vision for the future.

2009 Resolution Establishing a Complete Streets Policy | The City of Rochester will seek to enhance the safety, access, convenience and comfort of all users of all ages and abilities, including pedestrians (including people requiring mobility aids), bicyclists, transit users, motorists and freight drivers, through the design, operation and maintenance of the transportation network so as to create a connected network of facilities accommodating each mode of travel that is consistent with and supportive of the local community, recognizing that all streets are different and that the needs of various users will need to be balanced in a flexible manner.

Comprehensive Plan Policy on Affordable Housing and Diversity | The Rochester Urban Service Area Land Use Plan includes a commitment to building an inclusive community. This

policy includes supporting the availability of affordable housing in our community and providing for safe, secure neighborhoods that are integrated by income class, race, ethnicity, age, and ability. This policy will be retained as part of P2S 2040; the complete text is found in Section 3 of this document.

2nd Street Corridor Framework Plan | This plan was completed in 2009 and is intended to guide growth along the 2nd Street SW corridor that promotes development, connectivity, and safety. The plan identifies and describes three districts within the corridor and identifies opportunity sites and issues related to parking, pedestrian/bike circulation, and transit/transportation conditions. General design principles, goals, and objectives guide development in the corridor along with more detailed guidance for each district as appropriate. The plan also includes streetscape prototypes and implementation strategies for redevelopment, design, community organization, promotion, and public improvements.

Rochester-Olmsted Council of Governments (ROCOG) 2040 Long Range Transportation Plan | The ROCOG Long Range Transportation Plan has provided the framework for major transportation investments in the city since the first plan was prepared in 1972. This plan is periodically updated, with the most recent plan adopted as part of the Comprehensive Plan in 2010. The plan focuses on identifying major transportation investment needs for a 25-year time frame, provides policies and guidelines for managing the operation of the major street system, and provides local street design guidelines. Long term transit needs are identified, and pedestrian and bicycle network policies on topics such as safety and network development are included in the plan.

Downtown Master Plan Report | The Downtown Master Plan was a collaboration between the City of Rochester, the Mayo Clinic, the University of Minnesota Rochester, the Rochester Downtown Alliance, and the Rochester Area Foundation. It was completed in 2010. The plan establishes a vision for downtown and identifies development opportunities as well as design and development guidelines. Mobility is an important component of this plan, and it includes the goal of having 50% of commuter trips to the downtown accomplished by modes other than the single occupant automobile by 2030.

Rochester Area Bicycle Master Plan | The Bicycle Master Plan was adopted in 2012 and identifies improvements to the bicycling environment in the Rochester area. Recommendations

WHAT IS A COMPREHENSIVE PLAN?

address facility improvements, potential routes, support infrastructure, education and encouragement strategies, safety improvements, and implementation actions and priorities.

City of Rochester All-Hazard Mitigation Plan | While mitigation strategies and efforts cannot eliminate all threats and hazards, the City of Rochester endeavors to limit their potential physical, economic, and social impacts as much as possible. Preparation is the key to Rochester's ability to respond to and rebound from adverse situations. With the assistance of technical experts and community stakeholders, the purpose of Rochester's All Hazard Mitigation Plan is to identify and analyze those hazards most likely to impact the city, assess the community's ability to respond to these events, and develop strategies to mitigate their impact. This plan was adopted in 2017.

Other Documents That Inform the Comprehensive Plan

Parks and Recreation System Plan | The Parks and Recreation System Plan, adopted in August 2016, identifies priorities for future system investments and sets direction for the system for the next twenty years. The plan includes an assessment of Rochester's current park and recreation system, facilities, and programming and an overview of demographic, population, and industry trends that will impact the City's system in the future. The plan establishes a vision and guiding principles for the park and recreation system along with goals, policies, and strategies. Its implementation section addresses priorities and funding recommendations and sources.

Olmsted County General Land Use Plan | This land use plan was created by the Olmsted County Planning Advisory Commission and studies the unincorporated areas of Olmsted County. The plan defines the function of Rochester's Urban Service Area and outlines the time horizon and development policies for those areas. This plan also defines a suburban development area and its development policies. The work of the Rochester-Olmsted Planning Department ensures that growth throughout the county's urbanizing areas is coordinated.

Destination Medical Center (DMC) Development Plan | The DMC Development Plan was created by the Destination Medical Center Corporation in 2014 and is intended to guide public and private investment in the DMC District in downtown Rochester. The plan focuses on downtown, but its initiatives will have broader impacts on the City of Rochester and Olmsted County. The DMC plan includes sections dedicated to district land use, transportation, infrastructure, finance, business development, and operations. The DMC Plan also includes an

economic and fiscal impact report. The Integrated Transit Studies in progress concurrent with P2S 2040 preparation also inform the land use and transportation policies of this plan.

2015 Update of the RPU Infrastructure Study | Rochester Public Utilities (RPU) retained Burns & McDonald Engineering Co. to conduct an update to the RPU Infrastructure Plan that was started in 2005. The purpose of the update was to analyze RPU's power supply needs from 2016-2035 to identify short, intermediate, and long-term infrastructure requirements for providing reliable, low-cost electric power and thermal energy to its customers.

Energy Action Plan (EAP) | Adopted by resolution in July 2017, the EAP's purpose is to guide the City in its effort to establish and achieve energy consumption and carbon reduction targets. The plan identifies Rochester's baseline and forecast for energy use and emissions, energy focus programs, opportunities for improvement, recommended best practices, next steps, and potential partnerships. Throughout the EAP's development, its project team gave contextual consideration to the P2S 2040 process.

P2S 2040 is a Living Document

While P2S 2040 generally has a 25-year time frame, it is not meant to be a static document. Periodic reviews are critical when changes in population and employment projections, major land use, and infrastructure policy make amendments necessary. Such amendments to the plan must be made in a consistent, orderly way that recognizes the long-term impacts to the community.

Land Use vs. Zoning

A primary function of P2S 2040 is to serve as the land use plan for the City of Rochester. Land use designations are based on policies that guide the city's vision for growth and development. They are not always parcel specific, nor does a land use designation give a parcel legal rights. Zoning, on the other hand, is parcel specific and legally binding. The relationship between land use and zoning is that zoning districts must conform to the land use designation for the property. To fully implement this updated land use plan, amendments to the City's Land Development Manual will be needed to reflect the policies and guidelines found in P2S 2040

Part 3 | Forces Shaping Rochester's Future

The level of growth expected by 2040 will have significant impacts on the city's land use, transportation, neighborhoods, infrastructure, natural resources, municipal facilities and services, and budget. While natural constraints, such as topography and floodplains, physically limit how and where this growth can be accommodated, public outreach efforts yielded community insights on how to best guide future development and sustainably allocate resources.

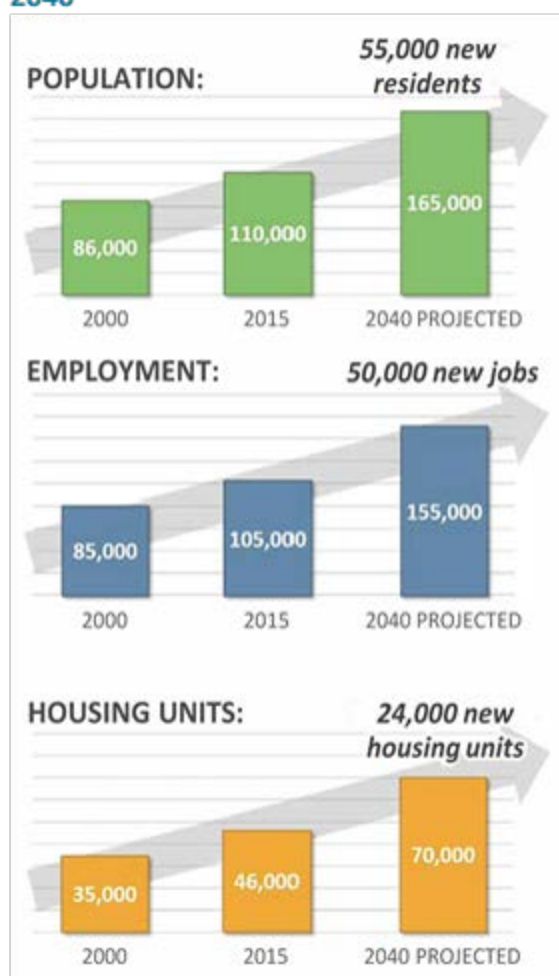
Demographic and Economic Driving Forces

The three charts to the right summarize the growth that is expected in Rochester in the next 25-30 years, with population expected to grow by nearly 55,000 people, employment expected to grow by 50,000 new jobs, and approximately 24,000 new housing units added to the city's housing stock. As a regional employment center and international destination for medical care, it is important that the P2S 2040 framework addresses and balances the needs of local residents, regional commuters, and the City's unique patient/visitor population.

Other key demographic and economic trends include:

Employees and Commuters | With a projected 50% increase in jobs between 2015 and 2040, the resident workforce of the city is expected to grow, but not fully meet workforce needs. The number of regional commuters, which currently approaches 35,000, is expected to grow to approximately

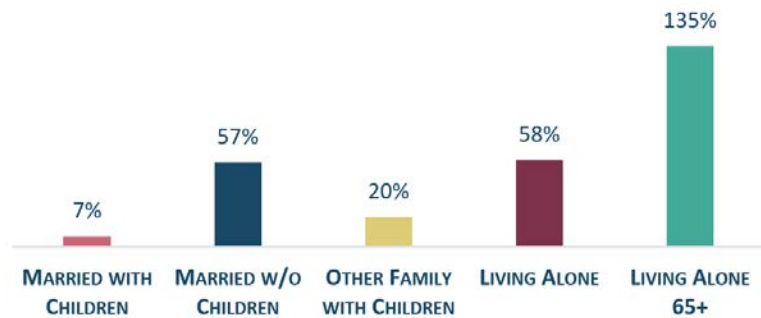
PROJECTED GROWTH IN ROCHESTER THROUGH 2040



50,000 daily. This will increase demands on the regional transportation system, but also presents a great opportunity to develop economically feasible alternatives to single occupant vehicle (SOV) commuting.

Workforce of the Future | With the projected increase in the number of jobs available, it will be critical to consider what is needed to attract and retain young adults, particularly those with college degrees, who will be highly sought after as the baby boom generation retires from the labor force and innovative technologies in the workplace drive demand for new skills and knowledge. To date, this cohort has indicated a

EXPECTED CHANGE IN HOUSEHOLDS

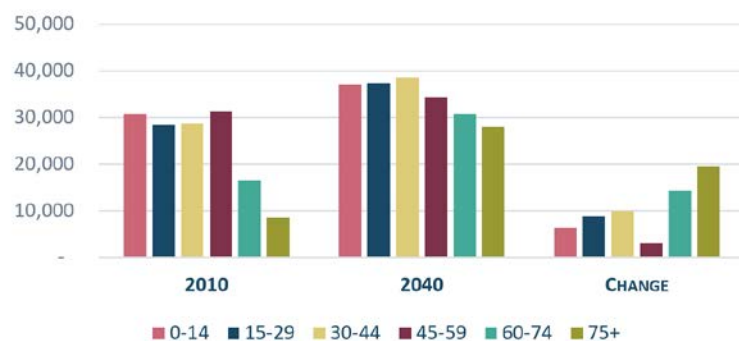


preference for communities with active and highly accessible downtowns, near restaurants and other cultural amenities, with a variety of housing and reliable transportation options. Since these young workers will be important to the economic prosperity of the region, it is critical for Rochester to consider how it can provide a competitive urban environment to attract this generation of future employees.

Increased Number of Small Households | Rochester's share of married couple households without children is expected to rise much faster than the number of couples with children. Combined with a significant projected increase in single-person households (younger individuals as well as the 65+ age group), there is an expectation that greater demand for higher-density, mixed-use housing opportunities, including increased demand for downtown housing in particular, will materialize.

Increase in Number of Older Adults | By 2040, nearly 1 in 3 Rochester residents will be over the age of 60, compared to less than 1 in 5 in 2010. With this increasing senior population, it is anticipated that a larger share of

2010-2040 POPULATION CHANGE BY AGE GROUP



it is anticipated that a larger share of

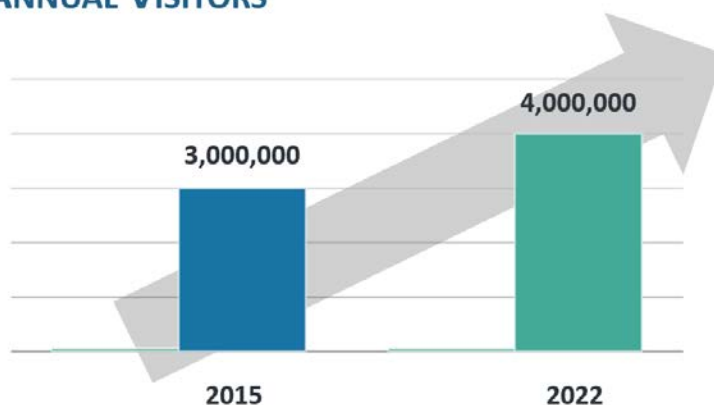
this population will look for housing options other than a traditional single-family home if traditional trends hold. The significant increase in our senior population will also lead to an increase in mobility limited individuals. Older residents are less likely to drive, more likely to be disabled, and increasingly rely on walking, transit, and other newly emerging mobility options to meet their travel needs.

Lower-Income Households | The continued growth in health sector jobs in Rochester brings great economic opportunity in the medical services and technology fields but will also increase the number of lower wage jobs in the health services, hospitality, and retail industries. Lower income residents may lack access to a personal vehicle or struggle with the combined costs of shelter and a personal vehicle. Service-oriented and multiple-shift jobs present an additional challenge in that they often have varying work schedules that require travel outside of the typical morning and afternoon commute hours when transit service is most available. The greater economic diversity of our population will require us to think about how we can provide a high quality of life for people at all points along the income spectrum.

Visitors and New Arrivals |

Rochester has an outsized number of visitors for a city of its size, attracted by local medical services and an active convention and event sector. This market, which approached nearly 3 million visitors in 2015, seeks a seamless experience where they can easily access the services they need as well as places for relaxation,

ANNUAL VISITORS



quality recreation, and entertainment. In addition, Rochester's many medical visitors increase the number of persons present in the city with mobility limitations. Workforce needs as well as the work of local support groups are also expected to drive levels of national and international in-migration back to levels of seen prior to the Recession of 2008. With that, the community must consider the potential housing, service, and transportation needs of these groups as they acclimate to Rochester.

Unique Community Characteristics

Rochester's daytime population swells to nearly 160,000 most weekdays, with approximately 50,000 commuters, visitors, and college students in the city on any given day. Of the more than 3 million visitors to Rochester annually, approximately 2/3 are either seeking medical treatment or accompanying patients while in the city. Many of these visitors stay for extended periods of time to seek medical treatment, coming here in their most vulnerable hour. They may be scared and fragile. Whether it be a friendly face, a wayfinding sign to help find their destination, or our subway and skywalk system to shield them from the harshness of Minnesota weather, our community is uniquely designed to assist our guests.

Having hotel rooms and other arrangements for these visitors to stay in, restaurants for them to eat in, and places for them to visit are important features of our city. On weekends, sports teams and conventions fill many of these facilities and seek similar dining and entertainment opportunities. Our residents enjoy partaking in the local arts and entertainment scene, be that an evening of civic theater or exploring the latest brewpub, and benefit from excellent education facilities.

Rochester is an international community. Rochester Public Schools reports that over 80 languages are spoken in the school district. From doctors to hotel staff, economic opportunities have brought people from around the world to Rochester to build their lives. A significant amount of international investment occurs in our community, particularly in the downtown area.

Rochester's local economy is thriving, but it is not diverse. In 2015, an economic diversity study by the website WalletHub evaluated the local economy of 313 largest metro areas across the country. Rochester's economic diversity ranked 312. That lack of economic diversity indicates that our local economy is



susceptible to changes in the medical field. Expanding our economic base will help attract and retain residents skilled in many disciplines.

One characteristic that is unique to Rochester's physical structure is that in many ways it serves as both a central city with a strong downtown core and as a suburb. As our city ages, this will necessitate the provision of new infrastructure in our developing areas along with the allocation of adequate resources to rebuild the aging infrastructure in our core neighborhoods. The cost of municipal amenities often found in suburban communities, such as parks, trails, and other quality of life enhancements, must be balanced with transportation and other needs more associated with commuters and central cities.

Growth Prospects for Center City Development

The Destination Medical Center (DMC) is a public-private partnership designed to create local, regional, and statewide economic opportunities by leveraging the growth of Mayo Clinic and other related health science and service businesses within Rochester. The DMC Plan provides a vision for transforming Rochester into a dynamic urban center that integrates Mayo Clinic's medical campus with commercial, technology, residential, retail, hospitality, and entertainment uses. It aims to create a global medical destination that both appeals to visitors and stimulates development and investment.

Three specific challenges must be addressed in order to make this economic opportunity a success.

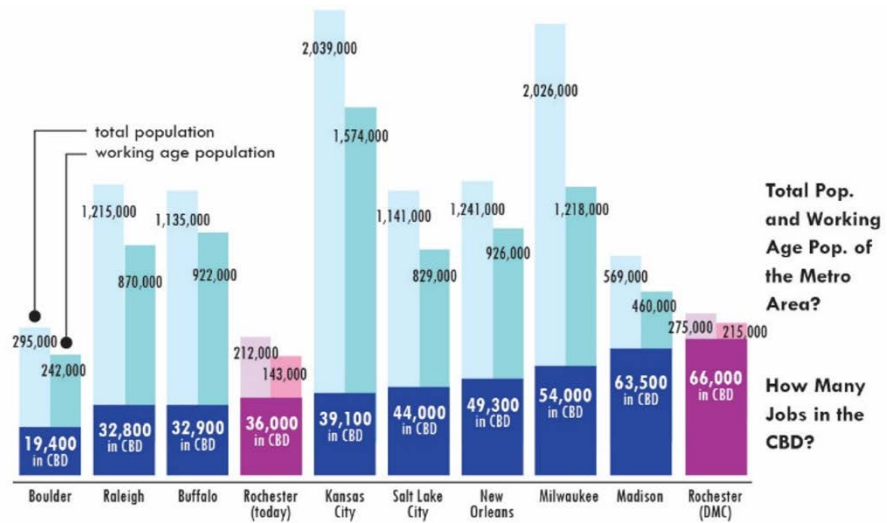
Growth in Downtown Traffic with Limited Opportunity to Expand Capacity |

Approximately 70-75% of current commuter travel to downtown Rochester is by single-occupant automobile. With the expected growth in the number of downtown jobs and visitors projected, driven by the Destination Medical Center initiative, key arterial street corridors connecting regional highways to downtown and major streets within downtown are expected to experience significant increases in congestion during peak travel periods unless an increasing share of travelers arriving downtown shift to other modes of travel for their trip into downtown. With limited ability to expand rights-of-way, adding significant vehicular capacity in and near downtown is not a feasible alternative to ease this congestion. The DMC Plan and Downtown Master Plan recommend that a variety of transportation options be developed to support downtown access, with a goal of shifting commuter travel into downtown during peak periods from over 70% SOV travel to 50% or less SOV travel. Since the most convenient

commute option is to live near where you work, developing diverse, mixed-use residential opportunities in downtown and adjacent neighborhood areas is one part of the solution to reaching this goal.

Achieving a shift in downtown travel choice is affected not only by what happens downtown, but also by the intensity and distribution of land use throughout the city and the ability to attract regional travelers to alternative

travel and parking options. In particular in regard to local area growth and travel, P2S 2040 will need to encourage street design and land use changes that facilitate the ability to complete more trips by walking, transit, or bike. This will require that land use and transportation development are be considered jointly within the context of an integrated land use and transportation framework.



The ratio of downtown jobs to the regional population is very high when compared to other US cities. This ratio is projected to increase further over the next 20-30 years and will result in a widening gap between workforce demand and working age residents.

Source: DMC Development Plan

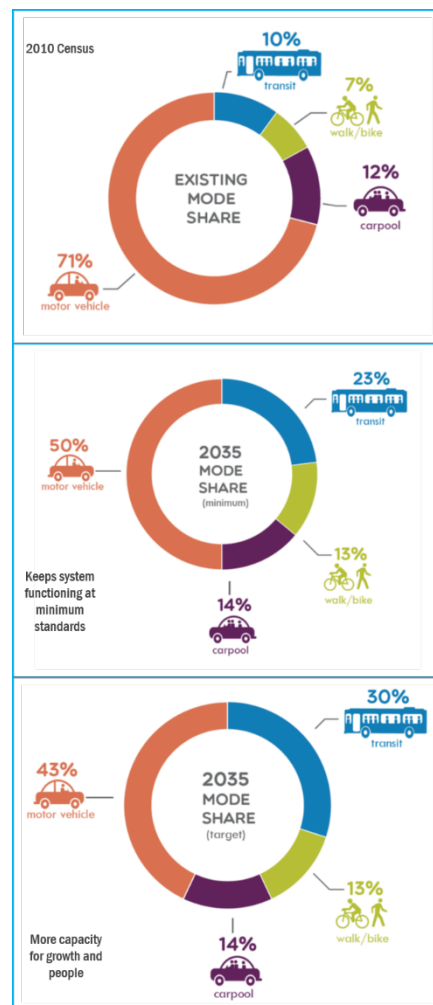
Limited Land and Increasing Property Values | As a result of the DMC initiative, the value of land downtown is increasing. Attempting to meet projected mobility needs of the downtown daytime populations without a shift in how people reach downtown would require an estimated eight to nine city blocks of six story parking structures. In addition to the extremely high cost to construct parking (ranging from \$25,000 - \$60,000 per stall for structured parking), dedicating a large share of downtown land to parking would dramatically impact the vibrancy of downtown as a destination and could stunt physical development over time by diverting valuable land to a use that contributes little in the way of economic activity.

The intersection of challenges created by downtown traffic growth, workforce growth, parking and limited land (and right of way) available to support a continued auto-dependent approach to downtown development articulates one of the major objectives which P2S 2040 must address: the reduction in peak period auto commuting and increased utilization of transit, shared mobility services, and opportunities for walking and biking to meet a greater share of downtown transport needs.

Infrastructure Capacity | Our community must maintain and replace aging infrastructure at the same time that new service needs and the introduction of innovative service options continues. Two major infrastructure systems that illustrate this issue are sewers and streets.

The city is served by six sewer super districts, four of which face some level of service capacity constraint due to issues with aging infrastructure. While edge growth in our community has significantly increased since the 1990s, the ability to serve these areas with sanitary sewer relies on connections to much older trunkline sewer pipes which are creating capacity bottlenecks. As a result, areas such as lands along Highway 14 West and south of the Highway 52/63 interchange to the airport will face development limitations until such time as downstream sewer system improvements are made. Prioritizing and phasing sewer capacity enhancements will be necessary to ensure this infrastructure challenges can be addressed in a timely, coordinated manner.

Street maintenance is another major issue. Streets generally require little in the way of capital maintenance in the first 12-15 years after construction. However, once past that period, a cycle of more expensive repairs begins that typically culminates in the need to reconstruct a street once it reaches an age of 50 to 60 years. The effectiveness of strategies for pavement maintenance is greatly diminished if funding is inadequate. Due in part to insufficient funding for maintenance in the past, it is now estimated the City should be investing \$32 million dollars per year in street maintenance strategies. The current annual investment in Rochester streets is



about \$9 million dollars. This type of shortfall creates an accelerating deficit over time as illustrated by the following changes over the past 20 years:

- ▶ The number of miles of city streets the city maintains has grown from 275 miles in 1997 to 467 miles in 2016, a 70% increase.
- ▶ In that same time frame, the deficit in funding for street maintenance has increased by 750%.
- ▶ The backlog of unmet reconstruction needs has increased by 1200%.

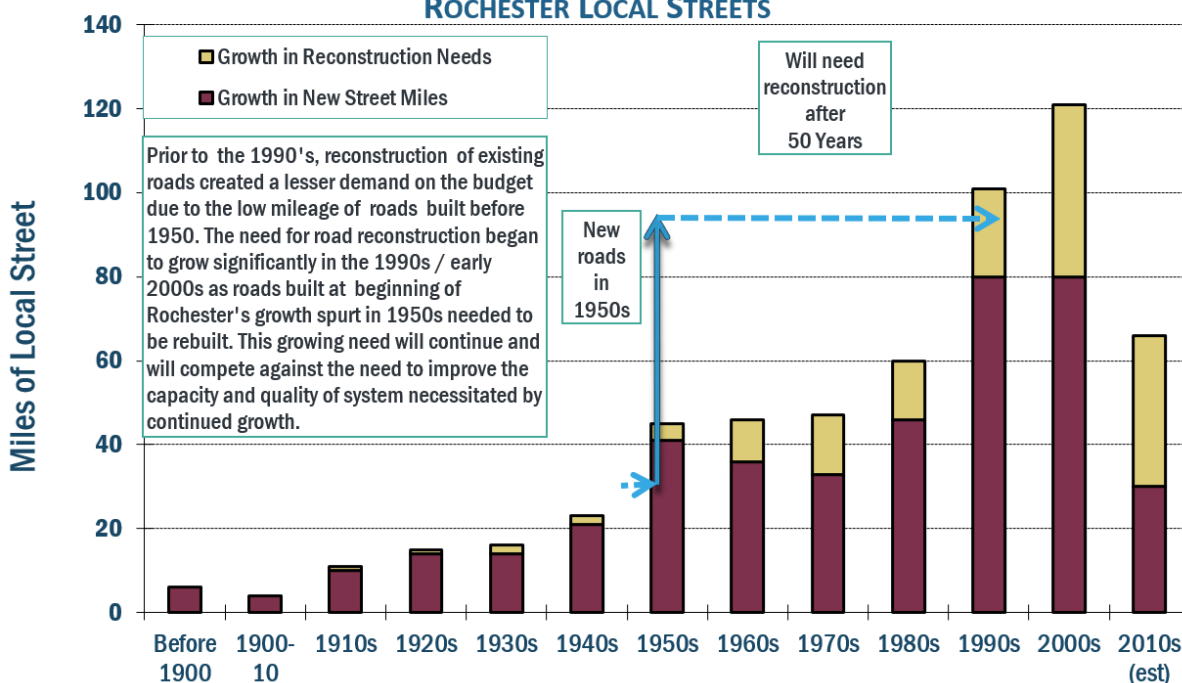


The costs for street maintenance will likely continue to grow in the future due to the timing of when streets were built or annexed into the system. The graph below shows that given the typical 50 to 60-year lifespan of a street; Rochester will likely see increasing reconstruction needs materialize continuously in the future as significant increases in miles of street constructed each decade beginning in the 1950's continues to reach the end of their typical lifespan in coming decades.

Maintaining our existing infrastructure will be a challenging and costly task, but we must explore options and opportunities relative to budgeting, development, and funding that could direct more dollars to the maintenance of infrastructure systems.



THE DEMOGRAPHICS OF A ROAD NETWORK ROCHESTER LOCAL STREETS



Workforce Attraction

If current demographic trends continue, there will be a significant labor force gap in our community. To ensure that Rochester has an adequate workforce to meet future employment needs,

- ▶ Rochester must focus on being an attractive community for persons of all ages, races, and socio-economic backgrounds as we compete to attract workers to the city;
- ▶ Net migration to Rochester will need to increase at a higher rate than it has historically increased;
- ▶ Labor participation desirably will increase, particularly among older age groups; and
- ▶ Regional commuting into Rochester for jobs will likely need to increase.

Rochester must retain as much of its current work force as possible while also taking steps to attract new residents. The Mayo Clinic attracts health care professionals from around the world who have choices of where to live and work. At the same time, lower wage jobs in the service

sector are required to support our major industries. Many of the strategies outlined in this plan are designed to allow Rochester to accommodate a higher percentage of new residents than would otherwise be accommodated under historic growth and development patterns. Creating more affordable housing and building a greater diversity of housing types can help attract new residents and retain existing ones. Strategically increasing density in parts of our city will provide the opportunity for more people to live here while reducing the need for workers to commute from outside the city limits.

Natural Forces Shaping Rochester's Development Patterns

A variety of natural features have shaped Rochester's historical development patterns and will continue to influence future growth strategies.

Local Climate | The Rochester area has a “continental” climate; that is, the area’s seasonal temperature variation is quite large. Winters are long and cold, summers are warm and humid. Severe thunderstorms, potential tornadoes, damaging hail, winter storms, and extreme cold and heat are routine in this part of the country; the impacts of climate change will increase these extreme weather events. As a result, flooding potential, stormwater runoff, temperature extremes, and other weather impacts on road conditions will influence Rochester’s development patterns and financial needs.



The devastating tornado of 1883 led to the founding of St Marys Hospital

Topography | Rochester’s flat to gently rolling terrain is marked by areas of steep slopes along a network of seasonal and permanent waterways. This topography can pose challenges to service extension and development. Water pressure issues, for example, necessitate the need

to use a two-level water system in order to serve the higher areas of the city. Development into the far northern reaches of the city's urban service area necessitate the use of sanitary sewer lift stations to move the sewer flow up to the high point so that gravity can take it the rest of the way to the city's water reclamation plant.

Geology | The area's geology is sensitive to activities occurring at the land's surface. The bedrock units that underlay the Rochester area form a sequence of aquifers that are the source of this region's drinking water supply. Mildly acidic groundwater is slowly dissolving the bedrock in this portion of Southeast Minnesota, producing distinctive groundwater conditions and land features known as "karst." Karst aquifers are highly susceptible to groundwater contamination because cracks and sinkholes form pathways that funnel water and contaminants from the surface into the groundwater system. Surface pollutants can reach the first encountered bedrock throughout most of Rochester in a matter of hours to a few years.



Groundwater flow freezes when exposed at area road cuts.

Soils | A significant portion of the Rochester area's soils are classified as "highly erodible", based on their tendency to wear away due to wind or water movement. This erosion can result in slope instability, particularly during storm events. Proper engineering and potential avoidance of these sites is critical as the city develops in these sensitive areas in order to avoid, for example, the landslides we have witnessed in other parts of the country.

Many of Rochester's soils are shallow to the water table, providing opportunities for contaminants to quickly reach the groundwater as well as the potential for localized water damage to basements and roads. Some of these soils are also considered to be "hydric", indicating the potential presence of sensitive wetlands areas that development should avoid.

Floodplain soils are found along Rochester's perennial rivers and streams, intermittent streams, and in low areas. Their flood prone nature may lead to safety concerns and hazardous and costly damages to adjacent structures, particularly where flooding is relatively frequent.

Groundwater | Virtually all of Rochester's water supply is drawn from the bedrock aquifers located 300-700 feet below the surface. This groundwater began as precipitation that entered the soil and moved into these rock formations. While the Rochester area has very high-quality drinking water, local surface activities in sensitive locations, as well as improper well construction and abandonment, have introduced contaminants into the groundwater system. Since the underground flow of this critical water supply is toward the Rochester area, contaminants entering the aquifer from beyond the city limits will ultimately impact city water supplies. The City has made significant investments in groundwater protection through projects such as subsidizing the cost of sewer and water extension to 1700 homes with failing septic systems on the outskirts of Rochester.

While the aquifer closest to the surface in much of the city is contaminated to the point that it can no longer be used for potable water, a confining layer provides an 80-foot thick sequence of rock formations that separates it from the source of most of Rochester's drinking water. Approximately half of the groundwater recharge for our primary water supply occurs where the "Decorah Edge" meets the lower aquifer. Alteration of the vegetation, soils, and hydrology, therefore, is constrained in these areas by zoning and wetland ordinances designed to protect our critical drinking water source.

Surface Water | All but the southernmost tip of Rochester's Urban Service Area drains into the Zumbro River watershed. The Root River watershed collects water in the far south. Both watersheds drain to the Mississippi River. Numerous reaches of the area's rivers and streams have been placed on the state's Impaired Waters List. A water body is considered "impaired" if it fails to meet one or more of the water quality standards in the federal Clean Water Act. Fecal coliform (a bacterium that can cause disease), turbidity (murky or muddy water), and mercury in fish are the impairments found in Rochester waters. These impairments are typically a result of human activity. While surface water is not a drinking water source in Rochester, recreational



Shoreland buffers help filter stormwater entering Silver Lake.

activities in impaired waters can impact human and animal health. and the karst geology can facilitate the mingling of surface water and the groundwater drinking supply.

Wetlands and Riparian Areas | Wetlands have a wide range of natural functions, from controlling floods, to filtering water pollutants, to recharging groundwater. Retaining water on the landscape, rather than letting it rush into storm sewers, will help these features function as nature intended. Through its stormwater management programs, the City of Rochester is developing strategies to better conserve and utilize natural systems, such as wetlands, floodplains, and shorelands for water quality and quantity control.

Floodplain Management | Rochester was built on the banks of the South Fork of the Zumbro River to take advantage of the water supply, the power of natural falls, and, eventually, the manmade mill races. The city is laced with small creeks feeding the Zumbro, which has made the city subject to periodic severe flash flooding from heavy rainfall events. Working with the federal government, a flood control plan for Rochester was developed in 1976-77 and first submitted for funding in a bill to Congress in 1977. A devastating flood in 1978 further emphasized the need for this project; federal assistance was granted and the flood control project was completed in 1996. Floodplain management continues to this day, with the City choosing to adopt development standards more stringent than those currently mandated by the Federal Emergency Management Agency (FEMA). These updated standards are based on the National Oceanic and Atmospheric Administration's (NOAA) Atlas 14 precipitation frequency and intensity estimates to account for the effects of the increased number of intense storm events experienced here in recent years.



Impact of the 1978 Flood on the Mayo Civic Center

Community Opinions Shape the Planning Framework

Rochester has long been growing in physical size as well as in population. Without suburbs or contiguous cities to limit expansion, Rochester has traditionally grown horizontally rather than

vertically, resulting in a steady decline in the overall density of the city. To date, the physical and natural features discussed earlier in this section have provided the primary limitations on development patterns. Agricultural and other rural lands have been annexed into the city as landowners seek to develop their properties in partnership with developers willing to commit funding to the installation of infrastructure to serve the lands.

To understand opinions about past growth patterns, community engagement opportunities were used to involve residents, employees, businesses, and visitors in developing strategies to guide the next generations of city growth. Leaders from Olmsted County and adjacent cities and townships were included in this process to understand their concerns regarding the impact of Rochester's growth on their communities, and to keep them apprised of trends and issues that may impact the county as a whole.

Community Engagement

The community engagement process was a key component of P2S 2040. Overall, the effort was successful in generating over 7,000 individual ideas and opinions that helped inform the planning process and, ultimately, the final plan document.

Developing the Framework

- ▶ Use interactive toolkits, public meetings, and a transportation survey to identify key community topics and concerns for further evaluation

Trend Scenario Workshops

- ▶ Evaluate how continuation of current development patterns would impact the city's growth and development and provide feedback on potential alternatives

Community Workshops

- ▶ Provide feedback on key concepts proposed for incorporation into the plan

Draft Plan Review

- ▶ Review plan document, provide input and feedback on plan contents

Emerging Priorities

A key element of the participation effort was to gain feedback from the public on the future direction the community should pursue, using the interactive community engagement tool CrowdGauge. The following chart illustrates the primary findings from the engagement sessions, based on the responses from over 1500 participants.

POLICY	PERCENT OPPOSED	PERCENT IN FAVOR
Encourage redevelopment of underutilized and/or dilapidated properties	3%	65%
Protect land critical for groundwater recharge	4%	60%
Encourage healthy eating and active living	6%	58%
Focus development within areas that already have public sewer, water, and streets	7%	48%
Encourage greater transportation choice	9%	52%
Encourage higher density, mixed-use development at major transit stops and along transit lines	11%	44%
Encourage mixed-use development throughout Rochester	13%	46%
Encourage more housing downtown	13%	42%
Create neighborhood commercial centers outside of existing commercial corridors and downtown	14%	41%
Strengthen historic preservation ordinances	17%	40%
Encourage greater housing diversity in my community	18%	35%
Continue current development trends	22%	22%
Annex new land beyond the city limits to create new neighborhoods	30%	22%
Relax development regulations	34%	17%

The importance of certain key themes felt to be important to Rochester's future success were expressed throughout the community participation activities. These themes helped to form the

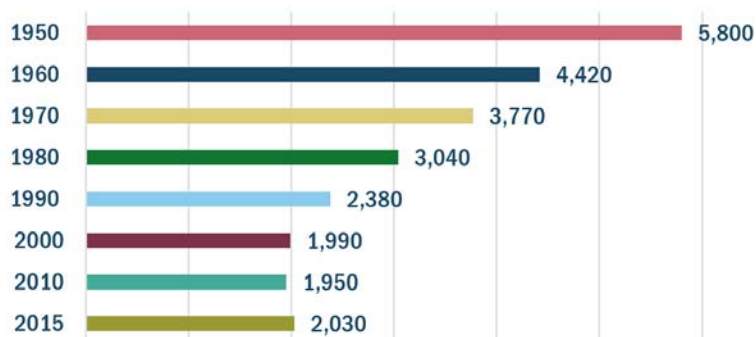
basis for crafting the Comprehensive Plan's vision, principles, goals and policies and implementation strategies and include

- ▶ Expanded transportation options
- ▶ Improve access to amenities
- ▶ Enhanced "Placemaking"
- ▶ Greater housing diversity and affordability
- ▶ Fiscal responsibility
- ▶ Health and wellness

Part 4 | Scenario Planning

Historic growth in the greater Rochester area has generally meant building new homes, retail and business centers – along with the sewers, roads, and utilities needed to support them – on what used to be farmland or woodlands. This pattern of development has been accompanied by a decline in development density as the city has expanded outward. This decline helps explain a growth

**CITYWIDE DENSITY
POPULATION PER SQUARE MILE**



pattern where the rate of growth in infrastructure has exceeded population and employment growth rates, as well as the change in tax capacity, resulting in a condition where the cost of maintenance and operations grows faster than the resources needed to support those activities. This kind of growth is fiscally unsustainable.

In addition to the fiscal challenges posed by growth patterns, changing trends emerging relative to housing, travel, lifestyle choices, and the nature of work have brought into focus the need to evaluate development and public service practices. At the very least, the demands from a more diverse population for additional housing choices and travel options will require some level of adaptation that will provide the opportunity for people to have more affordable housing options, to walk or ride more and drive less, with have less impact on the environment.

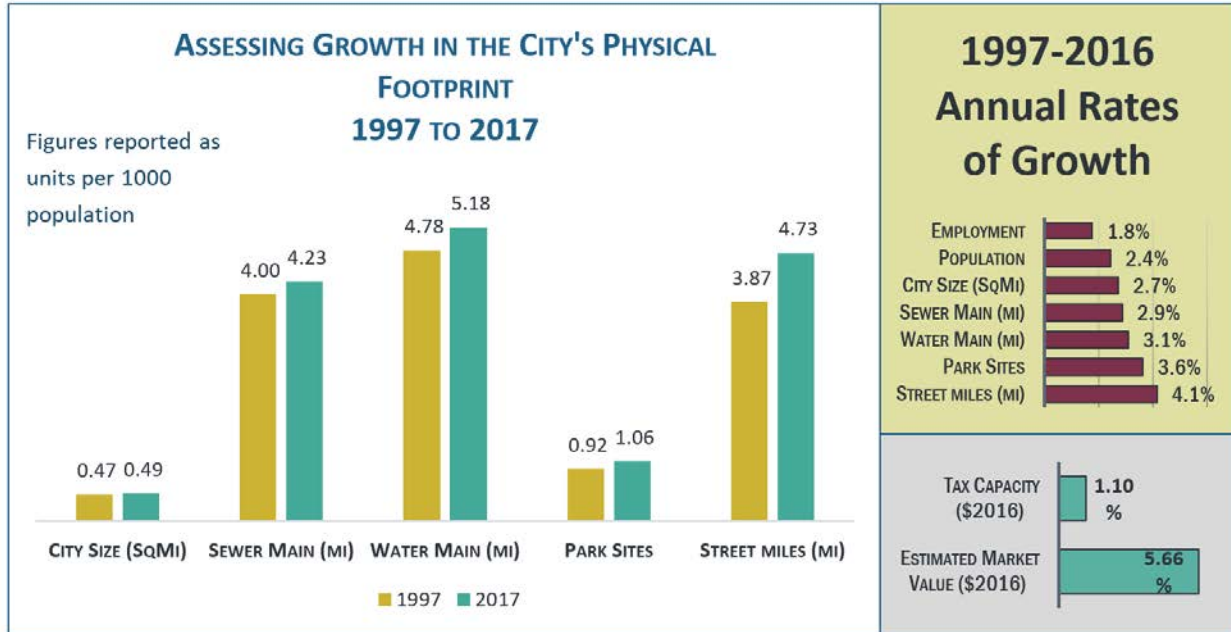
These issues and trends raise questions about how Rochester should grow—and what shape that future growth should take. In addition to anticipating that population and employment

“Companies are recruiting and targeting the next generation of talented workers, the Generation Y/millennials who increasingly prefer urban lifestyles with mass transit.”

Urban Land Institute

will grow by 50% over the next 20 to 25 years, there are also areas where existing structures or buildings have exhausted much of their useful economic value and will likely need redevelopment through renovation or teardown. This combination of growth and redevelopment provides a significant opportunity to shape development that is more

responsive to what people want while at the same time creating an urban pattern that is more fiscally sustainable from a municipal service perspective.



To better understand the implications of alternative development patterns, a Scenario Planning analysis was undertaken to evaluate how different patterns of urban growth could affect future growth outcomes. In the context of preparing P2S 2040, this Scenario Planning analysis was used as a tool to understand the tradeoffs between different growth patterns and to help build consensus around a preferred growth pattern and transportation strategy.

Three key lines of inquiry were identified as important areas to explore as part of the scenario planning analysis. These were:

- ▶ Could an alternate pattern of growth support changes in travel behavior that would create more capacity for economic development in the central core area of Rochester in light of the significant increase in employment and visitor traffic anticipated as a result of DMC?
- ▶ Would an alternative pattern of growth support a more pedestrian and transit oriented pattern of development that would respond to the community's desire for more choices in housing and travel consistent with trends seen throughout cities in the United States?

SCENARIO PLANNING

- ▶ Would an alternative land use pattern create potential fiscal benefits for the City by modifying the relative revenue/expense profile related to physical infrastructure and growth-related services such as transit and public safety?

Fiscal Impacts of There has been a significant amount of research and case study work in the city planning and public finance fields relative to the question of the fiscal impacts of growth. Generally, these studies have taken one of two paths in looking at this question:

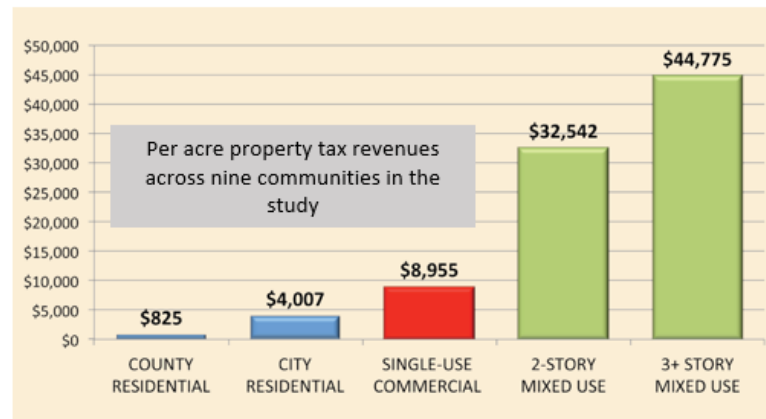
- ▶ A “Cost of Growth” perspective, attempting to understand the net fiscal effect of different patterns of growth and development; or
- ▶ A Tax Efficiency or Tax Yield perspective, attempting to understand how tax revenue per acre varies under different styles of development.

Many of the studies approaching the question from a Cost of Growth perspective have found that a more compact pattern of growth for a given level of development will generally have a greater positive net fiscal impact when comparing the level of anticipated tax revenue against the costs to the public to service the development. The results of two recent studies done for cities of Madison, WI and West Des Moines, IA, illustrated above, show a pattern of typical of most Cost of Growth Studies comparing more compact development to traditional low-density growth.



Studies on tax efficiency or tax yield are more recent and less common, but suggest that the style of development can significantly impacts metrics such as tax revenue per acre. Results from a 2012 study conducted by the Sonoran Institute of nine cities in western plain states found the results illustrated in the graphic below. The limited studies of this type completed have generally found that a more compact pattern of mixed use or traditional commercial development will yield higher tax revenue when compared against auto oriented sites where significant space is devoted to on-site parking and other features such as setbacks.

To illustrate this locally, a 2014 case study by the Rochester Design Forum comparing three local commercial development areas found similar results. The Forum looked at a traditional downtown block in Rochester, the 1950 era Miracle Mile Shopping Center and the 1990’s Rochester Marketplace



development. **The results they found:**

	SIZE (AC)	VALUE PER ACRE	PROPERTY TAX REVENUE PER ACRE (\$/YR)
Traditional Block	3.2	\$6,588,938	\$176,949
1950s Miracle Mile	12.0	\$869,883	\$31,991
21st Century Target North	64.4	\$614,626	\$22,553

To quote the authors of the study:

“The value per acre of a traditional block in downtown Rochester is nearly ten times the value of the 20th century shopping center. The property tax revenue generated by a traditional block is seven times greater than that which is generated by the 21st century shopping center. And for those of you thinking, sure – you take one of the most densely developed blocks in all of downtown for your study. Yes, that is true. But while all other similar traditional blocks may not

currently have such high value and productivity, there exists the potential for higher productivity, whereas the future of the 21st Century does not.”

Assumptions for the Scenario Planning Analysis

Table 1-1 lays out current conditions and the set of assumptions related to population and employment growth that were used in the Scenario Analysis. Of particular note in these assumptions is the greater share of new multi-family and senior housing assumed to be built in the future in comparison to single family detached housing. Also note the smaller share retail and office space growth compared to Industrial / Business space, which is anticipated given trends in online retailing and office space utilization. Noted at the bottom of the table is the growth in non-resident commuting, an important economic factor supporting the city’s workforce needs which factors into the transportation demand profile of each scenario.

TABLE 1-1: BASELINE GROWTH ASSUMPTIONS

MEASURE	CURRENT CONDITIONS	FUTURE CONDITIONS	GROWTH 2015-2040	% CHANGE
Population	110,000	165,000	55,000	+50%
Housing Units	48,800	74,800	26,000	+53%
Single Family	32,800	41,600	8,800	+27%
Multi Family	16,000	33,300	17,300	+108%
Senior Housing	4,670	6,650	1,980	+42%
Jobs	106,900	153,300	47,300	+44%
Retail/Office Space	15.3 million sq. ft.	19.8 million sq. ft.	4.5 million sq. ft.	+29%
Medical Services / Medical Sciences Space	10.4 million sq. ft.	18.5 million sq. ft.	8.1 million sq. ft.	+77%
Industrial/Business Space	10.8 million sq. ft.	17.5 million sq. ft.	6.7 million sq. ft.	+62%
Commuters	Estimated 32,500 (2012)	Estimated 52,000	19,500	+60%

Scenario Planning Alternatives

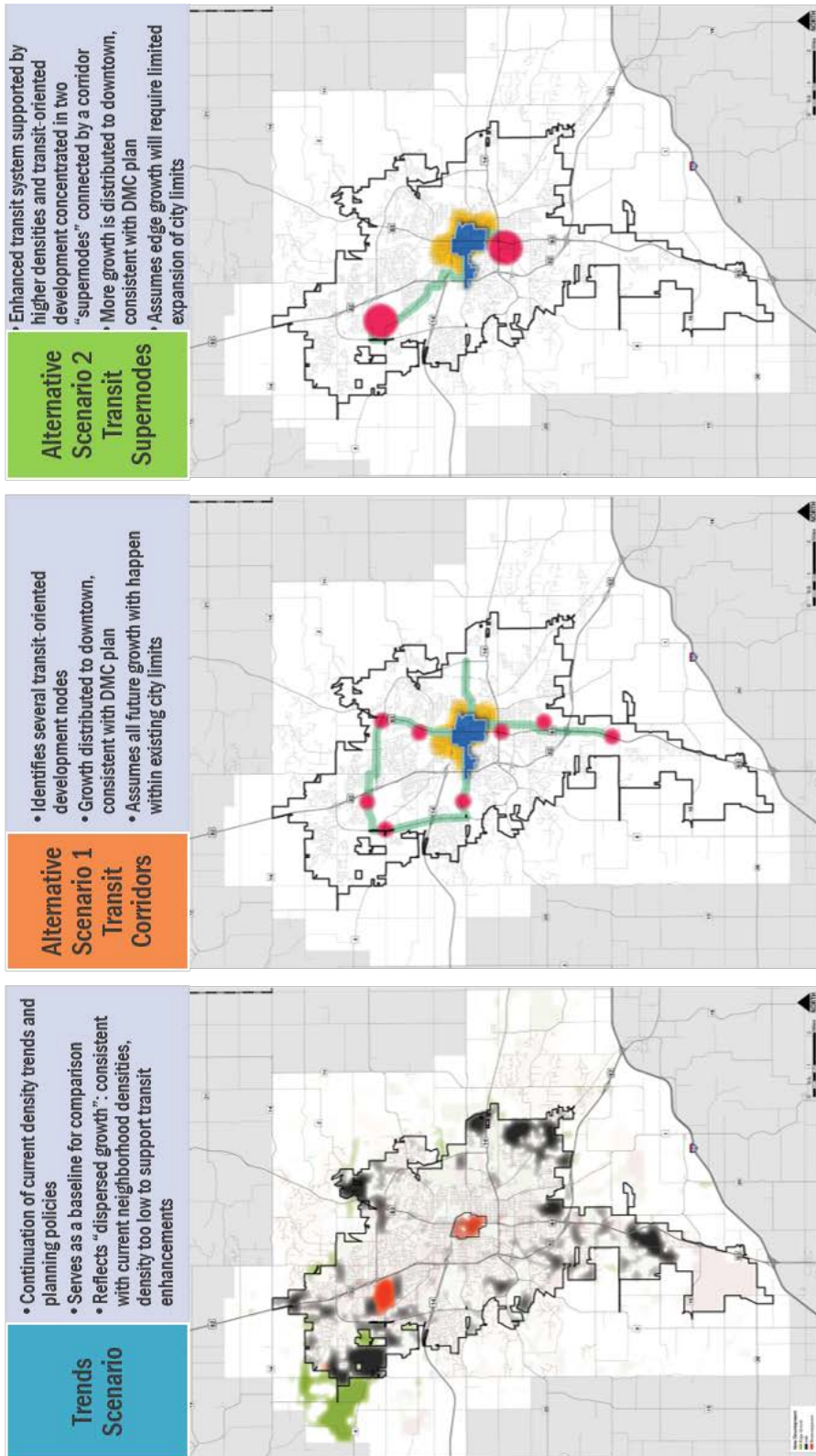
The scenario process used an urban growth model customized for the City of Rochester. The model was created by using assumptions about land availability, spatial attributes, and development constraints to predict potential future land use patterns. The hallmark of scenario planning is that land-use patterns are variables (rather than static inputs) that affect transportation networks, investments, and operations. For the scenario planning process, three alternative



growth scenarios were tested. One scenario, the TRENDS Scenario, served as a baseline and assumed present plans for transportation investment are carried out and most residential development is carried out at a density consistent with patterns of the last 20-25 years. Two alternative scenarios, the **Transit Corridors** scenario and the **Transit Supernodes** scenario, were formulated to examine how different assumptions about growth distribution and transportation investment reflecting a more transit oriented pattern would affect a variety of measures such as vehicle miles traveled, roadway congestion, land consumption and transportation costs.

Scenario Planning Findings

The results of the scenario planning analysis indicated some of the positive community benefits of encouraging a more compact future growth pattern. The following series of graphics highlight the key findings of the analysis.



- ▶ Alternative Scenarios 1 and 2 reduce the growth in total vehicle miles of travel by 14-15%.

VEHICLE MILES OF TRAVEL



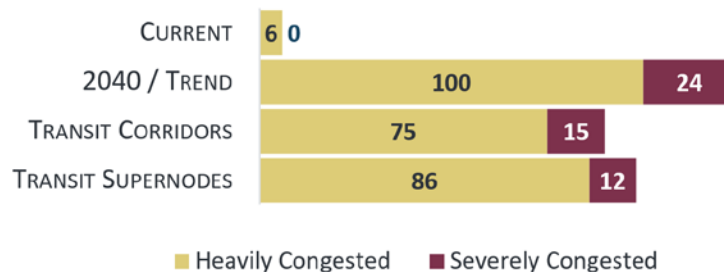
- ▶ Alternative Scenarios 1 and 2 reduce the growth in total vehicle hours of travel by 14-19%.

VEHICLE HOURS OF TRAVEL



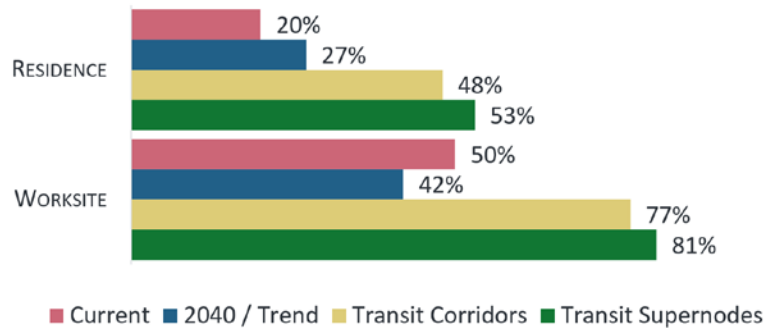
- ▶ Alternative Scenarios 1 and 2 reduce the increase in miles of heavily congested and severely congested roads by 22-28%.

MILES OF CONGESTED ROAD



- ▶ Alternative Scenarios 1 and 2 increase by almost 50% the share of people who have access to high frequency transit service either where they live or where they work.

% WITH ACCESS TO HIGH FREQUENCY TRANSIT



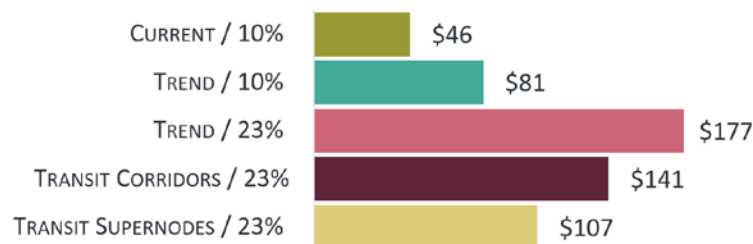
- ▶ Alternative Scenarios 1 and 2 are slightly more cost effective in the long-term relative to the annual per capita cost of providing both transit service maintaining the street network responding to anticipated increased levels of traffic congestion

ANNUAL TOTAL TRANSPORTATION COSTS

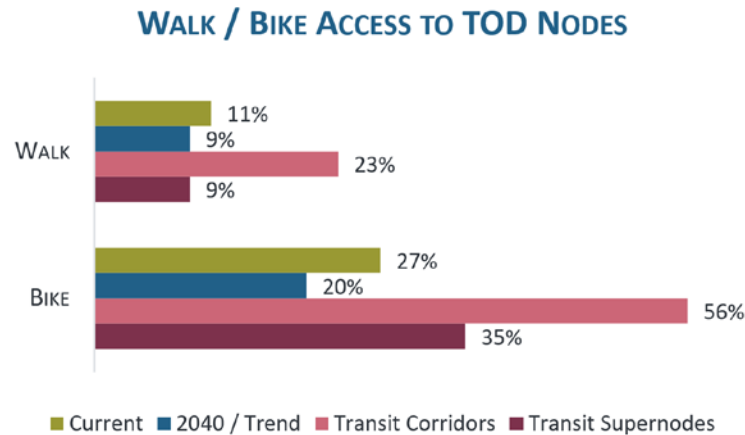


- ▶ All scenarios see an increase in annual transit system operating costs. However, to achieve a mode shift goal where 23-30% of downtown workers arrive by transit, Alternatives 1 and 2 require less funding per capita than the Trend scenario, where the lower density land use pattern does not support more efficient provision of transit service

ANNUAL PER CAPITA TRANSIT COSTS



- ▶ The Transit Corridors alternative scenario significantly increases walk access to transit due to the proposed network of high frequency corridors and associated transit oriented development nodes.

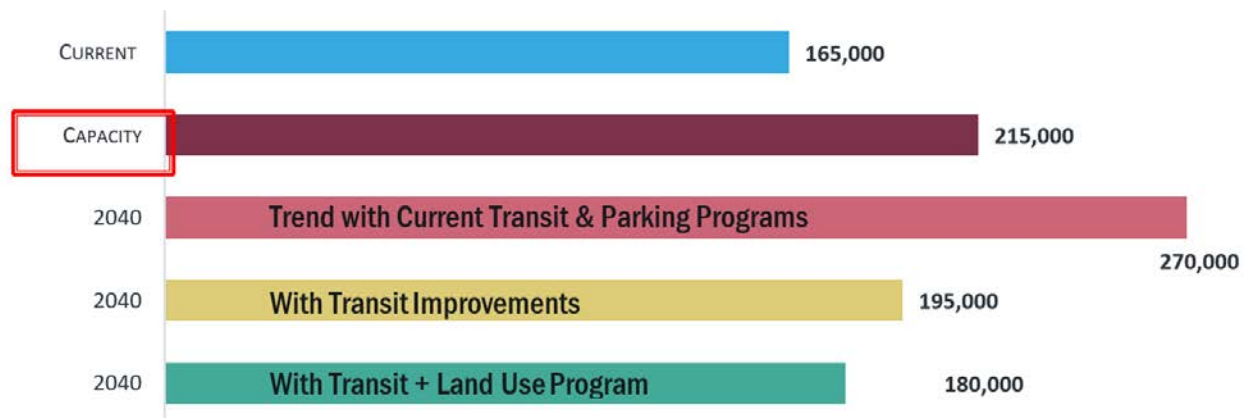


Alternative Scenarios 1 and 2 reduce the acres of greenfield land on the edge of the city that would be converted to new development by modestly increasing densities in proximity to the high frequency transit network and supporting the development of a limited number of medium to high density Transit Oriented Development nodes.



- ▶ Alternative Scenarios 1 and 2 reduce the aggregate level of vehicle traffic entering / existing the street portals serving downtown Rochester sufficiently to provide adequate capacity to support the economic development vision of the Destination Medical Center. Portal capacity across the 14 entries into the downtown is approximately 215,000 cars per day; without transit improvements under the Trend scenario traffic is estimated to reach 270,000 vehicles.

TRAFFIC CROSSING DOWNTOWN PORTALS



Among the key findings of the Scenario Planning analysis are

- ▶ The average annual capital cost associated with creating a network of premium transit infrastructure would be higher than that associated with expansion of the current bus system; however, the difference in annual operating costs associated with a more compact pattern of housing and business activity served by a high frequency transit network would offset the capital cost difference. This would allow the City to achieve the target of a 30% reduction in central city workforce commuting by private vehicle more efficiently than could be achieved under the Trend Scenario with traditional local bus service.
- ▶ The analysis estimates that roughly 25% of potential operational or capacity improvements (measured by lane-miles) on the roadway network can be avoided with a higher frequency transit infrastructure and supportive land use patterns, reflecting a potential cost avoidance on the order of \$1 million per lane-mile that could be diverted to other transportation needs such as maintenance.

The results of the Scenario Planning analysis indicate that the goal of providing a more balanced approach to the distribution of growth between edge areas and infill/redevelopment opportunity sites would provide positive benefits in being able to meet downtown access goals in a cost-effective fashion. Reflecting a greater share of mixed use, moderate to medium density growth settings along major transit corridors provides more people with access to alternative travel options as well as supporting the revitalization of major streets that serve as gateways to downtown and connect major destinations in the city. A more compact growth pattern is also responsive to what the public said during the community engagement phase of

the project would set the city on a path to a more fiscally sustainable pattern of future development.

Using this analysis to guide development of plan policies, the next part of Section 1 describes a high-level Development Vision concept for the City, combining elements of the Trend Scenario while steering more growth in a transit oriented pattern anchored by a set of Transit Corridors (Alternative Scenario 1). This hybrid vision will provide continued opportunity for edge growth but does so at a level representing a smaller share of overall growth than has historically occurred. It suggests balancing edge growth with greater emphasis on infill and redevelopment, particularly in transit oriented nodes and corridors. This hybrid concept serves as the foundation for creating the Plan's land use and transportation frameworks in Section 2. The proposed concept

- ▶ **Supports** the Downtown Master Plan, DMC Plan, and related transportation strategies and goals (including the 2030 Mode Share goals for downtown);
- ▶ **Optimizes** existing infrastructure systems and better supports long-term asset management; and
- ▶ **Balances** redevelopment and reinvestment with new growth on the edge of the community.

Part 5 | The Development Vision

Informed by the priorities expressed by citizens and officials through the community engagement process, results from the Scenario Planning analysis, and key trends and forces influencing urban development, a high-level Development Vision was crafted to provide a guide



A traditional street grid and the South Fork Zumbro River influence Rochester's urban form.

Source: Pictometry.com

to shaping the Land Use and Transportation Framework policies presented in Section 2 of P2S 2040. The Development Vision frames the contours of the city's "urban form", describing the major physical attributes of the community the Plan seeks to achieve in the future. During the city's formative stages, Rochester's urban form

consisted of a network grid of streets with lower-density residential neighborhoods and a single major higher-density, mixed-use downtown center. It included pedestrian-scaled buildings and streets accommodating multiple modes of transportation that were built at a scale measured primarily by "walking time"; most residents could reach the shops and services they needed within a few blocks of their homes and work places.

Over the last half century, development patterns have changed in response to the automobile, largely driven by development models and regulations that encourage a more suburban form. This includes separation of land uses and lower residential densities, with a reliance on the automobile to get from place to place. In parts of the city built during this period, roadways and development patterns designed around the automobile tend to detract from the pedestrian experience and effect neighborhood character. Rochester has generally built following this style, with residential neighborhoods built at a low density of 3 to 5 units per acre and business development typically set back some distance from the street to accommodate vehicle parking in the front of development.

Rochester is experiencing the challenges common with this type of lower density development, where initial development costs are paid by buyers, renters, owners, or tenants but costs of subsequent municipal operations and maintenance are the responsibility of the public. The low intensity of development makes it challenging to provide cost effective transit service, further reinforcing an auto-dependent growth pattern, and services such as schools, fire, and police find it increasingly difficult to meet desired service standards.

The community has indicated an interest in providing a wider array of choices in terms of urban form, with more opportunity for mixed use, pedestrian oriented and transit supportive development, with the goal of improving the fiscal and environmental sustainability of the community's development pattern. It is understood that such a change will occur slowly and will not affect all development throughout the community; the desire is to provide a city where people have an opportunity for less auto-dependent lifestyle should they choose, where more of their daily trips can be made other than in a private vehicle, and where greater attention is given to design features in both private and public spaces that will result in a physical environment that is more place based and human scaled.

The pattern and scale of streets, open spaces, and buildings that make up Rochester's urban form have a direct and daily impact on how residents and visitors move about, access local shops and businesses, meet with friends and neighbors, and enjoy city amenities. Design policies implemented through the regulatory framework of the City's zoning ordinance can help heal the urban fabric by re-introducing or emphasizing elements such as streets and blocks that are efficient and pedestrian-friendly, providing an attractive and interesting



Small-lot single-family housing.



Townhouses



Accessory Units



Residential over retail

Using Transit Oriented Development and a variety of residential densities and styles can add more housing options to the local market.

face on the city’s public spaces. While single-family neighborhoods will remain the predominant land use and cars the primary transportation choice, the Plan will encourage a wider range of housing, business location, and transportation options in a series of mixed use, mixed density corridors and activity centers where more purposeful integration of land use and transportation occurs to meet the diverse needs expressed by residents and business interests.

How Will P2S Expand Choice?

P2S 2040 will create a balanced approach to development that includes more infill and strategic redevelopment of underutilized properties, especially in areas where the ability to support increased residential and business activity with enhanced transit service is most promising. As was demonstrated in the Scenario Planning analysis, urban development that better utilizes existing infrastructure offers the prospect of financial benefit in terms of avoiding costs due to infrastructure expansion associated with accommodating the same level of growth at lower densities on the urban fringe. This cost avoidance should permit the community to direct a greater share of resources to priorities such as maintenance and improvement of existing areas.

This strategy will be complemented by a backbone of higher frequency, high quality transit service that will connect major destinations in the city to the central business district and to each other. This series of transit oriented corridors and activity centers will provide the opportunity to combine increased levels of residential population with employment sites and shopping options, supporting transit and enhanced pedestrian accessibility with a highly linked mix of both trip origins and destinations.

The key elements of this strategy include:

- ▶ Provide sufficient infill and redevelopment opportunities that broaden the variety of housing and business sites available in areas served by existing infrastructure which are transit supportive, pedestrian oriented, and compatible with nearby residential environs.
- ▶ Commit to the development of transit and pedestrian supportive infrastructure that supports expanded transportation choices in strategic locations that are convenient and attractive to the greatest number of potential users.

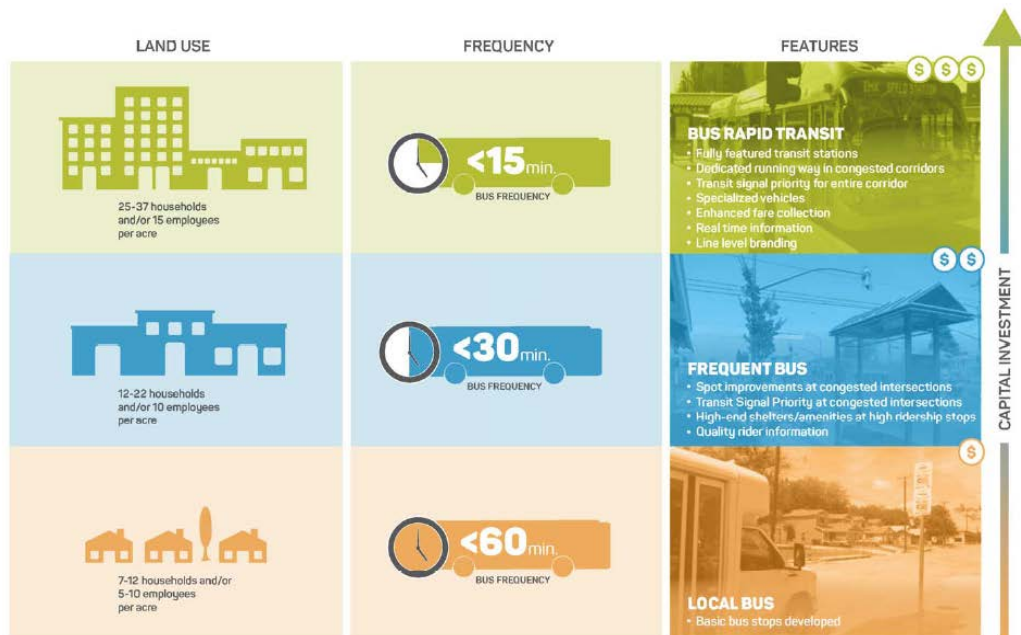
- ▶ By drawing an increasing share of development “back to city”, enhance the sustainability of existing infrastructure investment by reducing the pace at which infrastructure systems need to be expanded while making more efficient use of existing infrastructure.

One of the critical implications of this strategic approach to future growth is to recognize the level of land use intensification needed to support the goal of higher frequency, higher quality transit service. For higher frequency transit service to succeed, a minimum level of housing or employment intensity along major transit corridors is needed to create the level of trip origins and destinations that can lead to increased transit ridership. Figure 1-1 highlights how the intensity of land use can affect the type of transit service that is feasible in a district or corridor area. Starting at the bottom of the chart, standard local bus service running at an off-peak frequency of 30 to 60 minutes

Rochester’s Downtown Master Plan established, and the DMC Plan reinforced, the need to reduce the share of single occupant work trips to downtown by a minimum of 30% over the next 20 years. This would maintain peak hour travel at levels that could be supported by the capacity of the street system.

(representative of Rochester’s current system) generally can be provided at a density of 10 to 20 residents per acre or 5 to 10 employees per acre. This type of service can be scaled to serve higher peak hour

FIGURE 1-1: DEVELOPMENT PATTERNS CAN INFLUENCE THE LEVEL OF TRANSIT SERVICE THAT CAN BE SUPPORTED

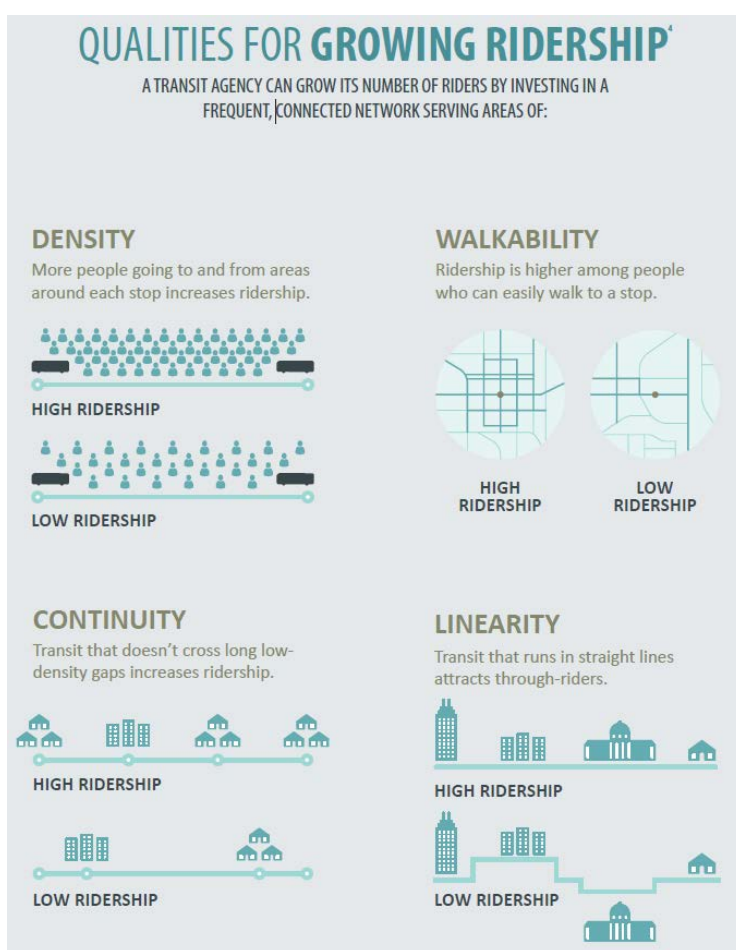


demand, but service in off peak periods will be limited.

As land use intensity increases, service frequency and quality can be enhanced since the potential for ridership increases due to the higher development intensity. To create a system where transit becomes a convenient travel choice, there is a need to increase development intensity to levels of 35 residents per acre or 20 employees per acre, which can support off-peak service with 15-minute frequency. It is at this point that the transit service offers sufficient frequency and convenience that people no longer need to rely on referencing a bus schedule and gain confidence that the bus service can meet most of their daily travel needs.

For P2S 2040, an analysis was completed as part of the Scenario Planning process to identify a logical core transit network with the best potential to meet the following criteria:

- ▶ A minimum average density of 25 persons per acre (combined intensity of residents and jobs)
- ▶ Corridors that are part of a logical route network linking major activity centers and destinations
- ▶ Route anchors that would include downtown Rochester and one or more other major transit generators (e.g., park-and-ride, university, major employer)



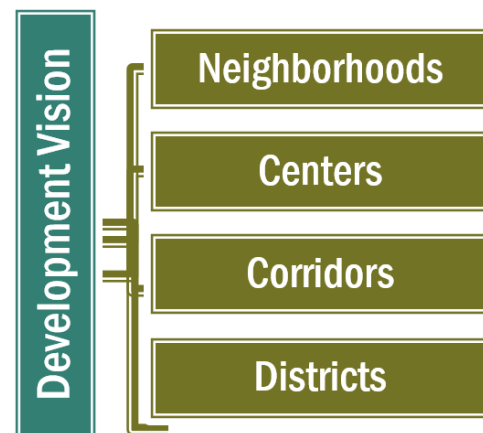
The core network identified is anchored by a north-south spine along Broadway Avenue and an east-west spine along 2nd St SW and 4th ST SE that connect many of the major destinations in the community to the Central Business District and are within easy walking distance for a

significant amount of the community’s residential population. These spines will serve as the initial focus of a core network, with potential extensions identified in later years to create connections to northwest Rochester destinations such as the IBM campus area as part of a long term high frequency transit network. The creation of a high frequency network will also, over time, create the foundation for other types of transit service such as neighborhood feeder routes, more crosstown connections, and subarea circulators outside of the downtown that will improve overall transit service in the city.

Rochester’s Development Vision

The Development Vision map identifies place types that highlight different development contexts or forms that exist or will be encouraged in Rochester’s urban service area. The use of place-based approaches to planning has been growing in recent years as a way to organize thinking about and develop policies for areas of distinct character as well as the public actions and investment needed to support them. Mapping these place types reflects the Core Principles of the Plan, particularly by encouraging more diverse, mixed use development areas supporting compact development, greater access to transit oriented opportunities, and expanded housing choices.

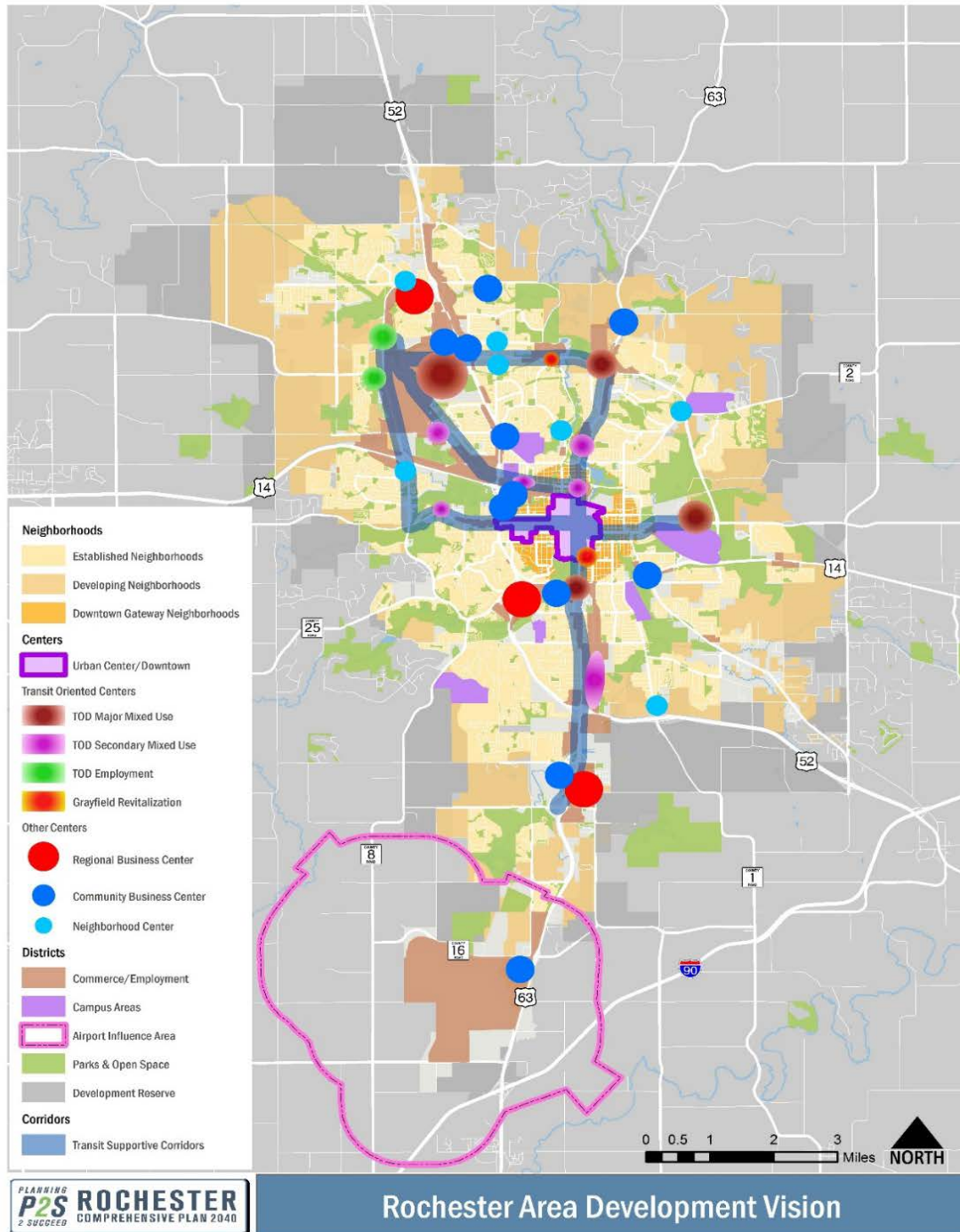
These place types should be thought of as land use “building blocks” that help to define the structure of the city. They incorporate human needs into the built environment and are generally categorized into one of the following four groups as shown to the right:



Rochester’s Development Vision is illustrated in Figure 1-2. Designating areas on the Development Vision Map does not carry specific policy implications and only acquires the force of policy via references to the map in the P2S 2040 policy statements. The intent

of the Plan is to implement the development vision for growth and connectivity illustrated on the map through more specific policy tools, such as the Future Land Use Map, and through amendments to the City’s ordinances, such as the adoption of special overlay districts to implement preferred place-based development patterns.

FIGURE 1-2: ROCHESTER AREA DEVELOPMENT VISION



Neighborhoods

Three types of neighborhoods are identified in the Development Vision for the city: Established Neighborhoods, Developing Neighborhoods, and Downtown Gateway Neighborhoods.

NEIGHBORHOODS

A **NEIGHBORHOOD** is a geographic area in which the residents have a common sense of identity or perceive that they have common interests. Neighborhoods are a basic building block of the built environment in Rochester and are the areas that most residents consider “home”.

Neighborhoods can vary widely in size, composition and configuration, reflecting the diversity of its residents. Neighborhoods can be formed or united by any number of geographic or demographic factors. Neighborhoods should be walkable and connected, include a mix of housing types, with destinations such as schools, parks, neighborhood shopping and desirably some places of work within walking distance.

Rochester’s existing and new neighborhoods must be able to adapt to changing demands of its residents and the local environment. Auto-oriented neighborhood development, without sidewalks or access to transit, are lifestyle choices that the City should discourage, instead focusing on housing and transportation choices that promote sustainability and healthy lifestyles. Prior to the widespread availability of the automobile, Rochester’s neighborhoods provided urban design features that were sustainable such as a highly connected network of streets and sidewalks, street trees, pedestrian scaled blocks and buildings, and shared public spaces. Going forward, careful consideration must be given toward the quality of place and context, as well as sustainable and responsible design in Rochester’s neighborhoods.

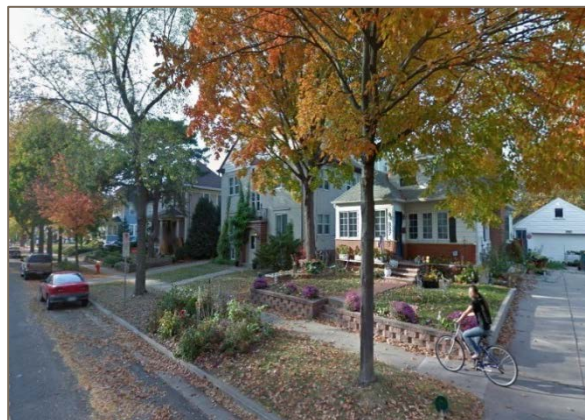
Established Neighborhoods |

The quality of Rochester’s established neighborhoods plays an important part in why many people choose to live here. They help to define the character of the city.

P2S 2040 includes policies to maintain and promote the distinct character and identity of these neighborhoods, providing housing at a variety of prices and styles to enable households at a range of economic levels, family life cycle, and lifestyles to live within a community. Preserving existing housing and promoting homeownership should remain the focus in established neighborhoods, with modest opportunities for infill and redevelopment at a scale and character in keeping with neighborhood while accommodating a broader mix of housing and low intensity employment or neighborhood services.

Developing Neighborhoods | Developing neighborhoods reflect the opportunities that exist primarily near the edges of the city for the creation of new neighborhoods on lands previously not developed. These new neighborhoods should create a distinctive character that relates to the surrounding area and provides traditional development features such as connected streets and sidewalks, pedestrian scaled blocks and buildings, tree-lined streets, and neighborhood amenities like parks, open spaces, and trails. A suitable network of connected streets to provide the ability to effectively provide transit and service access should be incorporated into the planning of new neighborhoods. Environmentally sustainable development and development that enhances healthy lifestyle choices are encouraged.

Developing neighborhoods should provide a variety of housing types and sizes, with compatibly scaled commercial and employment opportunities allowable at the edges of the development on major streets. The different needs and characteristics of lower and higher density housing styles should be considered when locating these uses within a neighborhood.



Downtown Gateway Neighborhoods | Immediately adjacent to the downtown business area are well-established core neighborhoods consisting of a variety of housing and limited small scale commercial and institutional uses. In these areas, a combination of the new and old exist side by side; many neighborhood streets exhibit good examples of accommodating and encouraging the new while preserving and appreciating the old. Ensuring the continuity of neighborhood identity and character will be important as reinvestment and infill development occurs. Future development should feature a carefully integrated mixture of housing of various styles, sizes, and densities generally with attention paid to the walkability of the area given its proximity to the many employment, commercial, and cultural opportunities in the central development core. Over time, the mix of housing is expected to skew more toward attached single family and moderate density multi-family units rather than detached single family units. Mixed use development in the form of live-work spaces is encouraged and limited small scale commercial and service uses are also appropriate.

Centers

Five types of centers are recognized in the Development Vision, including the major center of Downtown Rochester, Regional and Community Business Centers that are more auto-oriented, Mixed Use Neighborhood Centers, and Transit Oriented Development Nodes found along the planned high frequency transit network.

CENTERS

CENTERS provide places of **focused higher intensity development** for residents to **shop, work, and gather**. A differentiated web of centers provides opportunities for development that focuses on commercial activity, sites where a diverse set of **mixed use** development encourages and supports **walkable** urban development and **enhanced transit** services, or sites where smaller centers emerge to support and promotes the development of distinct neighborhoods and districts within the community. Centers are generally located in **highly accessible** areas, in some instances more auto oriented and in others more transit oriented, spaced with consideration to trade area and population served.

Centers have traditionally been conceived in the spatial sense, as places to put people and jobs. This plan, by introducing the concept of transit oriented centers to Rochester, conceives of a new class of centers where transit service and walkability are prime characteristics that **attract people, jobs, and visitors**, with the quality of design and a pedestrian orientation vital to their success. These new centers will support many other regional planning objectives, such as **increasing housing choices**, providing housing in closer proximity to job opportunities, enhancing the cost effectiveness of transit, and providing businesses with synergies from the concentration of possible customers and contacts.

Urban Center/ Downtown | The

Urban Center encompasses the future limits of the Rochester's central development core, serving as the primary business, cultural, and government services hub in the city. It includes entertainment, restaurants, offices, retail, civic, cultural, and historic amenities and is highly connected to local and regional transit options. Expanding available housing, shopping, recreation and transportation in the Urban Center are central to Rochester's desire to accommodate changing demographic needs and lifestyle desires in an active, highly walkable environment. The Urban Center will accommodate the widest mixture of uses and highest development densities within the city. Consistent with the economic development vision created by the Downtown Master Plan and Destination Medical

Center initiative, the Urban Center maintains its importance as the true hub for a growing region.

Transit-Oriented Development Nodes | Transit-Oriented Development Nodes are sites of dense mixed-use development located at the crossroads of major urban streets with the Transit Supportive Growth Corridors identified in the Development Vision. With a mixture of residential, employment, and shopping uses at densities supporting frequent and accessible high-quality transit service, it is expected that the evolution of these nodes will support the creation of a live/work environment with uses that are active throughout the day. Design and connectivity are critical in these areas, with pedestrian amenities, transit orientation, and building siting and massing reflecting the best features of traditional urban form. These nodes will vary in size and character, typically ranging in size from 40 to 100 acres, and are expected to have a city-wide or even regional draw.

Regional Business Centers | Regional Business Centers are concentrations of service and retail commercial uses that serve city residents as well as the larger regional area. They will feature a large concentration of retail floor space, typically anchored by one or more major retail chain stores, with convenient and direct access to major highways that are part of the regional road network. Total building floor areas typically exceed 500,000 square feet and can be much larger, with large expanses of surface parking to serve their customers.

Community Business Centers | Community Business Centers feature commercial and service development of less than 500,000 square feet in size that accommodate a variety of small, medium, and large sized stores. Typically, the marketing formula for community scale retail calls for construction at a low-density, one-story scale with surface parking on the street side of the development, often featuring a full-service supermarket as an anchor tenant with or without other medium scale tenants such as hardware, apparel, booksellers, larger restaurants and sporting goods that draw from a city-wide customer base. Although these sites are traditionally more oriented to the automobile, they should be designed for pedestrian access and other modes of transportation to increase their compatibility with urban form and character where feasible.

Mixed Use Neighborhood Centers | Mixed-Use Neighborhood Centers are comprised of a handful of small - and medium-sized businesses, typically focused in one quadrant of an intersection. These places primarily serve the needs of the immediate surrounding area,

although they may also contain specialty stores that serve a larger urban or regional client base. Neighborhood business prosperity varies throughout the city and is affected by a variety of factors, including the buying power of the surrounding area and competition from other commercial areas. The character of Mixed-Use Neighborhood Centers is defined by the limited scale of businesses operating in these locations. When located in older historical areas, these nodes typically consist of traditional commercial storefront buildings, with a building typology and pedestrian orientation that is appropriate for the surrounding residential area. In newer residential areas, these developments will often exhibit an auto-centric orientation with parking located along the street frontage of the buildings. Where feasible, they should be designed for pedestrian and bicycle access by area residents.

The Key Center: Downtown Rochester

The City of Rochester, Olmsted County, and State of Minnesota have the unique opportunity to establish the world’s foremost medical destination built around a vibrant and growing urban downtown. The Destination Medical Center (DMC) initiative will sustain and support a 24-hour community where employees are able to enjoy dinner after work without fear of missing their ride home, where patients and their families experience a multitude of activities connected by great streets and numerous mobility options, and where downtown residents can meet their daily needs within a short walk. Transportation investments serve as the connective fabric that ties the DMC vision together.



Downtown Rochester is the most intense concentration of commerce in the region and is composed of multiple districts, defined in the Downtown Master Plan and the Destination Medical Center Vision, that form the city’s economic, cultural, and social center. Each district is defined by its concentration of land uses, destinations, public spaces, urban character, and form. The downtown core is characterized by dense tower buildings, with lower scale development radiating outward toward the Zumbro River and the surrounding single-family neighborhoods that ring the downtown in all directions.

Together they make up a compact, walkable, and mixed-use destination. Redevelopment and revitalization are emphasized, supporting an urban design pattern that makes downtown a great place to work, play, learn, shop, and live.

As the major employment center within the region, with an estimated 40,000 daytime employees filling approximately 10.1 million square feet of non-residential space, the downtown has also begun to make significant strides in growing a residential base. The city has a significant number of new public and private development projects that will increase downtown's vitality, provide new uses and services, and transform the skyline. These projects indicate a confidence that downtown Rochester that will continue to build off the Mayo Medical Center business to strengthen its role as the city's premier destination.

The confluence and complexities of uses, scale, activities, and physical spaces in downtown require a finer level of detail than can be achieved using only the citywide policies that appear elsewhere in P2S 2040. The Downtown Master Plan, Destination Medical Center vision, and DMC Design Guidelines will supplement the policies included in this plan to outline development values and strategic initiatives addressing all of the elements that contribute to a vibrant, walkable and livable downtown.

Districts

Five types of Districts are defined in the Development, including a general Commerce and

DISTRICTS

DISTRICTS are larger areas of activity, more general in nature than centers, but not intended to precisely correspond to existing or future zoning districts. These areas will comprise the largest portion of the city's land area, but will generally be **developed at lower densities** or intensity that is most reliant on **private vehicular travel** for access, with **lesser levels of transit** service than found in transit oriented growth centers and corridors. While in most cases districts will **feature a predominant type of land use**, in many instances there will be complementary or possibly conflicting uses located within the district either as a legacy of historic development patterns or purposely planned for as part of new growth or redevelopment. Such areas are expected to remain relatively **stable** through the plan horizon with **limited pressure for significant land use change** or need for redevelopment or revitalization.

Employment District, districts that related specifically to Campus-type development such as University Center on the east side of the city, an Airport District, districts that identify parks and open space areas and the Development Reserve District.

Commerce/Employment Districts | Commerce/Employment Districts typically include free standing office, retail, entertainment, service, or industrial buildings on individual lots in a typical subdivision setting, with each lot having individual access to the street network and limited or no coordination in terms of building design or urban form elements. These Districts generally rely on the major street system to provide the auto-

oriented access they rely on. In some instances, particularly when developing Class A space for office or business use, efforts will be made to create more of a campus type development pattern with open spaces, landscaped parking lots and structures, screened service and storage areas, and landscaped buffers and boulevards all integrated into a park-like setting. The Commerce/Employment District should be directly served by local transit, but given the intensity of development, this service will be more oriented to the peak period and limited during the off-peak.

Campus Districts | Campus Districts in Rochester include major medical and educational facilities as well as selected other sites dedicated to a concentrated range of organizational activities and services, such as the Olmsted County Community Services Campus on the east side of the city. Campus facilities can feature urban and/or suburban-style character, but development of these sites typically relies on integrated master planning to address the full spectrum of site planning issues from infrastructure and access to open space and urban design considerations.

Airport District | The Airport District encompasses the airfield and surrounding environs of the Rochester International Airport. Key functions in this area include airport operations, landside access facilities, areas needed for mitigation of environmental impact, and complementary airport oriented business development. Growth in this area is guided by the development and periodic updating of an Airport Master Plan and Airport Layout Plan.

Parks/Open Space | The Parks/Open Space category applies to permanent open space intended for recreational or resource conservation uses that benefit the community. Included are neighborhood, community, and regional parks and greenways. Also included are publicly owned lands that are managed for watershed protection, hazard prevention, and the protection of important visual resources. Land with this designation is intended to remain in open space in perpetuity.

Development Reserve | The Development Reserve designation depicts areas within the Rochester Urban Service Area, generally comprised of open space, agricultural lands, or very low density suburban style residential neighborhoods, that are located in areas planned to receive municipal services in the future but not needed to meet development projections during the current planning horizon. Designation of the Development Reserve is important for

considering long term city growth patterns and in the planning of municipal infrastructure and transportation systems, which have useful life spans that far exceed the 25-year plan horizon.

Corridors

On the following page, five types of corridors are identified as place types in the Development Vision; with the exception of Transit Supportive Corridors, they are not mapped at this time. The typology suggested for the non-Transit Supportive corridors generally correlates to the adopted Functional Classification of roadways found in the ROCOG Transportation Plan, which will be updated in 2020, as shown in the following table.

DEVELOPMENT VISION CORRIDOR	REGIONAL HIGHWAYS	URBAN HIGHWAYS	URBAN BUSINESS CORRIDORS	URBAN RESIDENTIAL CORRIDORS
Aligned ROCOG Plan Functional Designations	Interregional Corridors Strategic Arterials	Regional Major Arterials Major and Secondary Arterials with auto-oriented land use pattern	Major and Secondary Arterials serving commercial land use with stronger pedestrian and transit orientation	Urban Collectors Local Collectors

It is recommended that as part of that update work be completed to align the non-transit corridor types suggested here with the transportation oriented focus of the ROCOG Plan in order to develop a consistent set of guidelines that can be used as the basis for facility development policy in both plans.

Regional Highway |
Regional Highways are

CORRIDORS

While **CORRIDORS** primarily provide for a means of **connection** between different areas or destinations, in P2S 2040, with its emphasis on **integrated land use and transportation** planning, certain corridors take on meaning as not only a framework for transportation but a place type where consideration of the land use context along these linear facilities becomes an important consideration. Corridors associated with the proposed **Primary Transit Network** and those where a **Complete Streets** context has been identified as a priority in the Transportation Framework of Section 2 are places where the type of land use and the priority given to different travel modes become important considerations, influencing the success of the transit system and the public realm experience for people traveling about.

limited access roadways accommodating high volume and higher speed regional traffic flows. These corridors are typically separated from adjacent land uses by buffers or frontage road systems. Access to adjacent properties will be highly auto-dependent, with transit services generally consisting of regional or local express bus services or limited local service. Efforts to weave or integrate the environment of regional highways into the fabric of the community generally rely on landscaping, public art, gateway treatments, special lighting, or design features on structures such as bridges to soften the edges of these corridors.

Urban Highway | Urban Highways are major street corridors that maintain a focus on moving vehicular traffic across the city, typically at somewhat lower volumes and lower speeds than regional highways. These routes are often important commuter routes with high peak period volumes but volumes more typical of other arterial streets during off peak times. A defining feature of many of these corridors is that adjacent development has been sited with its “back turned” on the roadway, resulting in existing development patterns that are not transit-supportive. Opportunities do exist, however, to promote greater integration of transit or bicycling supportive of future enhanced transit service.

Transit Supportive Corridors | Transit Supportive Corridors form the backbone of a proposed high frequency, high quality primary transit network, providing a level of transit service featuring enhanced bus service or Bus Rapid Transit connecting the Downtown Urban Core to targeted Transit Oriented Nodes and major park and ride sites across the city. A higher density and mix of uses along these corridors will strengthen surrounding urban neighborhoods and ensure the critical mass of ridership needed to support transit investments that provide more frequent and sustainable transit service. Along these corridors, new infill or redevelopment should feature building design oriented towards the street, with the greatest intensity at or near the Transit Oriented Nodes. Pedestrian amenities within developments along transit supportive corridors should be built to a higher level than other corridors.

Urban Business Corridors | Urban Business Corridors are characterized by denser residential and commercial development, where buildings may be brought forward to meet the street and sidewalk. Parking areas in these corridors are located to the side and/or rear of residential buildings, but are often found in front of commercial buildings. These corridors generally host local bus service. Over time, efforts to improve these corridors into safer, more walkable environments should be pursued. Constraints and challenges in Urban Business Corridors may include inefficient site layout, access safety and congestion issues, inadequate landscaping, and

limited pedestrian access and circulation. These areas are high-visibility corridors, such as 15th Ave SE, 3rd Ave SE, and 3rd Ave NE, that would benefit from public investment or criteria to guide future infill or redevelopment towards a more traditional urban form.

Urban Residential Corridors | Urban Residential Corridors are predominantly residential streets that generally serve a major collector street function, with most lots fronting towards and having direct access onto that roadway. Design and development along Urban Residential Corridors is oriented towards the pedestrian experience and residential quality of life. These streets carry moderate volumes of traffic, yet they are important travel routes that will primarily serve neighborhood residents while accommodating some level of through traffic. In many cases, they are part of the city’s regular route bus network.

Summary Comments on Development Vision

The Development Vision has been crafted to provide a high-level overview of the types of places that shape the city and how areas of the city are expected to change or remain stable in character over time. The Development Vision reflects community input and responds to changes including demographic shifts, economic and technological change, and fiscal challenges. Among the most important changes the Development Vision has been crafted to reflect include:

Center City Economic Development | Rochester expects to see 25,000 to 30,000 additional jobs downtown by 2040, bringing the number of total workers to 60,000 or more. While more residential housing is expected in and around the downtown area, the great majority of the workforce will still be commuting to downtown. Given the capacity constraints of the road network serving downtown, more reliance will need to be placed on various forms of transit to carry an increasingly larger share of commuters into the downtown area. This can only happen if a larger share of the community’s growth occurs at transit supportive densities in areas that will complement a network of high quality transit routes providing users frequent, convenient, and comfortable service to downtown.

Revitalization and Redevelopment of Commercial Corridors & Centers | The natural turnover of commercial businesses, combined with forces of technological change affecting retail and business practices, is affecting the vitality of historic business areas within the city. Many of these areas have the benefit of high visibility, existing infrastructure and services such as transit that have the capacity to handle more growth. These underperforming or vacant

retail areas present a challenge but also a great opportunity for Rochester. Over the lifetime of this plan, many of these sites will redevelop; it is in the interest of the City to facilitate revitalization of these into a more sustainable, livable development pattern. The Plan will provide more flexibility for the reuse of these properties and will promote enhanced transportation services to take advantage of what in many cases are prime locations.

Expanding Housing and Transportation Choice | Throughout the course of the public input phase of this planning process, participants voiced an interest in having access to a greater variety of housing options and transportation choices. Driven particularly by individuals at the beginning or end of their working careers, the desires expressed echo those seen in many other cities and surveys done throughout the United States.

The interest in having more affordable choices is driven by new understanding of the combined impact of housing and transportation costs on household finances. While lenders and housing advocates have traditionally used 30% to 35% of household income spend on housing as the threshold for housing affordability, more recent work on the housing affordability has identified transportation costs as an integral part of the affordability discussion. Recent metrics compiled for the Rochester area indicate that approximately 40% of households spend more than 45% of household income on the combined costs of housing and transportation, which is the level typically used to identify affordability.

TABLE 1-2 ROCHESTER AREA HOUSEHOLDS: SHARE OF HOUSEHOLD INCOME SPENT ON HOUSING & TRANSPORTATION

SHARE OF HH INCOME DEVOTED TO H+T	NUMBER OF ROCHESTER HOUSEHOLDS	PERCENT OF ROCHESTER HOUSEHOLDS	SHARE EXCEEDING 45% TARGET
<24%	0	0%	
24-36%	7,440	20%	
36-45%	15,917	42%	
45-54%	11,045	29%	39%
54-66%	3,662	10%	
66-78%	119	0.3%	
78-87%	0	0.0%	
87%+	32	0.1%	
Total	38,215	100%	

Source: Center for Neighborhood Technology 2013

By encouraging alternative styles of housing and business activity (such as live-work spaces) integrated with improved transportation options that reduce the dependency on auto ownership, the Development Vision will provide opportunities for households to reduce their housing/transportation cost burden.

Transit Dependent Households | While the combined cost of housing and transportation for households is often framed by its impact on the majority of households with persons in the workforce, a related issue identified by the Community Networking Group was the limitations of the current transit system in meeting the needs of transit-dependent residents, such as households without a vehicle or the disabled. One of the biggest problems facing these populations is inconvenience; the current transit system, with its focus on bringing workers to the downtown, does not readily connect residents to other work sites, community agencies, schools, or other services in a way that is understandable or accessible at the times of the day it is needed. The proposed high frequency transit network can serve as a backbone for transit service in the community and will open up opportunities to rethink the delivery of transit service in the community in the future in ways that can potentially improve access for the transit dependent population.

Part 6 | The Plan Framework

To translate the future Development Vision into policy, a set of core principles were developed to inform the Land Use and Transportation Framework presented in Section 2. Based on the over 7,000 public

comments received during the planning process, the P2S 2040 Plan Framework formalizes the vision and principles the community is committed to when building our physical environment. It identifies what we hope to achieve with this planning effort and recommends tools to realize these shared aspirations.

Community Vision 2040

The 2040 Community Vision statement is a critical framing element for P2S 2040. It synthesizes public input into a description of how the community wants the city to look, feel, and function over the next two decades. It embodies what community members value most about their city and serves as their inspiration and commitment to work together to achieve it. It informs the goals, policies and strategies that

COMMUNITY VISION 2040

Rochester is a city that cares: where all people are treated with dignity and respect; where residents, employees, and visitors enjoy a high quality of life; where business and industry thrive; and where the land and environment are renewed and sustained for the benefit of all. It is a welcoming and diverse community:

Renowned for its reputation as a center for growth and innovation, its robust economy, and programs and institutions that support life-long learning;

Characterized by its safe and friendly neighborhoods, diverse and affordable housing options for people of all ages and backgrounds, thriving downtown, vibrant public spaces, and easy access to parks and recreational amenities;

Committed to health and wellness, not only of its people, but also of the air, water, and land they depend on for sustenance;

Connected both physically and socially—offering balanced transportation options; well-planned streets, sidewalks, trails, and neighborhoods; and a hospitable cultural atmosphere; and

Dedicated to the sustainable and responsible use of public resources and provision of quality public services, supporting livability and long-term fiscal health.

give policymakers and elected officials the comprehensive perspective needed to make rational and disciplined decisions about Rochester's future.

City of Rochester Mission Statement

A mission statement concisely captures the City's purpose and actions it takes to fulfill its duties. While the vision statement describes the community's desires for the future, the mission statement describes how that vision will be achieved.

"The mission of the City of Rochester is to provide a safe, attractive environment through the responsive, efficient, and cost-effective delivery of municipal services. The City will strive to enhance community pride by improving the physical, environmental, economic, cultural, and social quality of the community."

Core Principles Set the Plan's Foundation

The plan includes six core principles that recognize implementation of the Plan must be balanced, integrated, and multi-disciplinary. The influence of the Core Principles is seen throughout the Plan as they help shape its goals and policies.



Integrate Land Use and Transportation | The attractiveness, accessibility, general feeling of safety and security, and livability of an area is influenced by the design of private development and public infrastructure. These features in turn influence the private and public economic value created in an area as well as personal decisions such as travel choices and personal property investment. A 2015 survey conducted by the Southeast Minnesota Association of Realtors found that the majority of Rochester's current residents would prefer to live in a walkable neighborhood that has a mix of houses and stores and other businesses. It also found that many residents don't think that there are enough different housing options in the community. To achieve these outcomes, the plan should foster land use patterns that can be efficiently served by well-planned transportation networks that include a variety of transportation choices; transportation investments should support a variety of walkable, mixed use, and mixed income development patterns that improve economic opportunity and the quality of life for residents and visitors. In the service of providing a range of choice, these forms of development are not being advocated universally across the city. The Plan will provide strategic direction, such as reinvestments in major gateways to the city center,

where the principles of mixed use, transit and pedestrian oriented development are to be encouraged.



Emphasize Fiscal Sustainability | Sustainability is commonly defined as the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. Rochester’s fiscal sustainability relies on the City continuing to create economic value through growth and innovation, with a skilled workforce driving a strong, diverse economy that provides quality jobs. We must ensure, however, that municipal investments are based on an intentional strategy that makes wise use of the taxpayers’ dollars, does not sacrifice long-term stability for short-term gain, and focuses on:

- ▶ **System maintenance** – Maintain existing infrastructure so it can continue to meet community needs and work efficiently;
- ▶ **System deficiencies** – Determine where infrastructure systems do not meet basic service levels or needs, and who is and is not being served, in order to prioritize needed system enhancements; and
- ▶ **Future needs** – Assess where facilities need to be upgraded or replaced to avoid major problems or to meet growing demand.



Expand Housing Diversity | Rochester has a strong supply of safe, decent, affordable, and attractive housing, much of which consists of single-family detached housing. Options are more limited for young and smaller households, senior households, and those with lower incomes. One of the biggest challenges for the region over the coming years will be to provide an ample supply of the right type of housing in the right locations to meet the needs of a diverse and growing population. Rochester’s ability to attract the workforce it needs and retain those who already reside here requires an expanded range of housing and lifestyle choices.



Enhance the Integrity of Existing Neighborhoods | Rochester will change as the city continues to grow. Neighborhoods located along the edges of city development will see new housing units built on adjacent vacant properties, while redevelopment and infill opportunities will bring new residents into established neighborhoods. The core neighborhoods bordering Rochester’s downtown, for example, have been experiencing some of

these residential changes as developers have sought to serve the market demands for housing close to Rochester’s main employment center. These changes can be positive for residents if they reflect and enhance the integrity of the existing neighborhoods. This plan needs to keep all residents’ interests in mind by incorporating policies aimed to ensure that Rochester’s neighborhoods maintain and strengthen their vitality.



Improve Community Connectivity | Community connectivity involves a wide variety of components that collectively create a system that facilitates the convenient and efficient movement of people and goods to and throughout

Rochester. The transportation and communication networks serving the city are critical to maintaining the high quality of life we value. The City, in partnership with other units of government and private development interests, needs to maintain and enhance accessibility while minimizing the impacts of this infrastructure. To the extent possible, right of ways serving these systems should be viewed as public assets that need to be aligned, planned, and designed to serve multiple functions and a high quality of service.



Champion Social Equity and Environmental Justice | Rochester has a long history of inclusionary planning, recognizing and celebrating diversity in the community. The City’s mission statement and the Community Vision 2040 strongly support social,

environmental, and economic equity. Rochester has made a commitment to creating “a community that welcomes diversity, and that provides a safe, non-discriminating environment with respect and opportunity for all.” In September 2017, the City Council adopted a resolution to affirm the Golden Rule-based “Charter for Compassion” and designate Rochester as a “City of Compassion”. Within this Resolution, the City committed to “infuse and reflect compassion within its policies, procedures and programming including the ‘Planning 2 Succeed: Rochester Comprehensive Plan 2040’”.



Maintain Commitment to Health, Wellness, and the Environment | Rochester has a reputation as a “city for health”, and public input indicates that strong support exists for investing in measures that enhance the health and well-being of our

residents and visitors. These sentiments extend beyond the human level to ecological protection, as expressed through support for initiatives such as protection of land critical to groundwater recharge. Attention to human and environmental health can be accomplished by designing development to work with nature and avoiding or minimizing potential health and

safety impacts while providing opportunities for Rochester residents to lead healthy, active lives.

Key Strategies Guide Plan Implementation

The Core Principles are incorporated into strategies that will aid in plan implementation by informing the goals and policies found in Section 3 of this plan.



Integrate Land Use and Transportation Systems

Rochester cannot maintain current commute patterns and accommodate projected downtown growth. Therefore, we must take the opportunity to invest in systems that change the focus from moving vehicles into and through downtown to those that focus on moving people. While of particular importance relative to downtown, a focus on how we move people—and how urban development patterns affects this—should inform all transportation and land use planning.

For downtown to succeed, changes will be required in both our land use patterns and transportation systems. The transit system must provide a level of service that makes it easy for people to change their commuting habits. This transit investment can only be supported if land use patterns place a sufficient density of people and jobs near the transit routes to make them economically viable. When development proposals are approved that do not support this strategy, the overall ability to meet challenges of the next generation will be limited.

It is important for the land use and transportation frameworks of the Plan to work in tandem to achieve the Community Vision and support its access and mobility policies. An integrated system of land use and transportation policies and guidelines for Rochester will help to respond to the following community growth issues:



- ▶ Lessen the pressure for new greenfield growth featuring low density and segregated land use patterns that have historically led to a high dependency on single-occupancy automobile trips;

- ▶ Encourage a pattern and style of land use that will support transportation options, enabling a more efficient and connected development patterns that can support cost-effective transit with more frequent, dependable, and quality service that captures more trips;
- ▶ Reduce the need for high cost investment in road widening or new roads to decrease automobile congestion hot spots by providing more travel choices during peak travel times;
- ▶ Enable the City to grow its property tax base and increase tax revenues without extending infrastructure by fostering denser development in key areas; and
- ▶ Encourage development towards a pattern that will result in a more cost effective and energy efficient community with reduced climate impact, consistent with the City’s Energy Action Plan.



Emphasize Fiscal Sustainability

Municipal infrastructure (sewer, water, gas, electric, telecommunication infrastructure) is needed to serve future growth. The design and density of land uses and its geographic location greatly influence the capital cost to build infrastructure systems and the ability to sustain that infrastructure over time. As funding sources become less available, city leaders must employ strategies that protect our public investments without overburdening current and future taxpayers.

Prioritize Existing Infrastructure Maintenance

Rochester’s public assets include its water system, sanitary sewer, storm sewer, electric grid, roads and bridges, and parks and recreation facilities. With new growth and increased use of services, the public infrastructure system is increasingly stressed by a combination of growth pressures and maintenance needs due to aging facilities. In older parts of the city, including parts of downtown, public assets are nearing the end of their useful lives. Investment in existing facilities positively impacts the viability if the growth and development strategies described in P2S 2040.

Water Supply

A high-quality potable water supply is critical to human, environmental, and economic health; a city cannot thrive without good drinking water. Rochester Public Utilities (RPU) manages Rochester’s water supply and uses 31 wells located throughout the city to extract drinking

water from underground bedrock aquifers. In 2012, the average amount of water pumped per day was 13,183,000 gallons. The capacity of the system is 35,882,000 gallons per day. The total amount of water pumped that year was almost 5 billion gallons, representing about 37% of the total capacity. Peak water consumption occurred in 2007 when 30,229,000 gallons of water was pumped in one day, representing 84% of total capacity. RPU will need to continue planning for long-term water system improvements to address peak demands as well as general community growth that needs to be supported by the system.

A sustainable water supply meets the public demand and requires the responsible use of water, now and in the future, without unacceptable social, economic, or environmental consequences. Rochester is committed to sustainable growth of its potable water infrastructure system by adopting the following strategies:

- ▶ Provide quality water for human use;
- ▶ Promote water conservation;
- ▶ Continually assess and provide for preventative maintenance;
- ▶ Continue to recognize water's value;
- ▶ Plan for land use;
- ▶ Prevent aquifer depletion; and
- ▶ Prevent drawing contaminants into water wells.

Sanitary Sewer

Rochester's sanitary sewer system is designed to remove sewage from homes and businesses and deliver it to the City-owned and operated Water Reclamation Plant (WRP). Rochester's sanitary sewer system consists of sanitary sewer interceptors (or mains), lift stations, and the WRP. Lateral sewer pipes serve neighborhoods and businesses, while trunk sewer pipes (generally larger than 12-inch diameter) collect sewage from laterals and lift stations that pump sewage from lower areas of the city.

Rochester’s view of a sustainable sanitary sewer system means it is both economically sustainable and technologically superior in how it collects and treats wastewater to preserve and protect our natural resources. The City aims to accomplish this by:

- ▶ Managing volumes into the collection system;
- ▶ Preventing hazardous substances from entering the system;
- ▶ Providing for regular assessment and preventative maintenance;
- ▶ Building reserve capacity into the system;
- ▶ Staging development; and
- ▶ Planning for phased system replacement.

Stormwater Management


Rochester’s water cycle has become “urbanized” by the creation of human habitat with associated hard, or impervious, surfaces like streets, roof tops, and even construction sites. These impervious surfaces prevent infiltration of precipitation, so when it rains or snow melts, this runoff (or stormwater) runs across both natural and constructed surfaces. When the water can’t permeate the surface, it misses the soil filtration step where microorganisms consume many pollutants. As a result, this change to urban areas causes lost recharge and more runoff that moves across the landscape at a faster pace. More and faster moving water can cause erosion and collect pollutants as it moves and transports them to receiving water bodies.

The City of Rochester has a history of stormwater management planning dating back to pre-1990. A utility fee was established in 2003 to help fund the program and demonstrate the important value that water resources have to the community. The primary goal of sustainable stormwater management is to minimize runoff throughout the City to the extent reasonable. Review of the potential for minimizing runoff starts at an individual site scale but is also viewed at a larger watershed scale, as well as city wide. Sustainable stormwater management mimics nature by integrating stormwater into development and utilizing it as a resource, not a nuisance. This approach limits runoff and pollutants leaving a site, and thereby reduces the effects of urbanization on water resources. The City’s stormwater management plan elaborates on these strategies and in general seeks to:

- ▶ Treat water as a resource, not a waste product;
- ▶ Design systems to mimic natural hydrology;
- ▶ Infiltrate, detain, or retain stormwater as close to where the rain falls as possible;
- ▶ Design stormwater management for water quality, quantity, and as an amenity;
- ▶ Be mindful of groundwater and stormwater interaction;
- ▶ Simplify sustainable stormwater BMP design, considering multiple, long-term goals; and
- ▶ Provide public education and involve stakeholders

Electricity

It is common for utilities today to acquire all their energy from the market and sell energy from their resources into the market when it is accepted for dispatch. Currently, RPU purchases most of its energy under contract with the Southern Minnesota Municipal Power Agency (SMMPA). This contract is scheduled to expire in 2030. All of the energy RPU distributes above its Contract Rate of Delivery (CROD) with SMMPA is acquired from the regional MISO market. As a participant in the MISO market, RPU is required to, among other obligations, maintain capacity plus reserves above its peak load obligations. RPU maintains its capacity plus reserves through several diverse generation resources, which enable RPU to effectively and economically meet energy demand.

- ▶ The Cascade Creek Combustion Turbines use fuel oil and natural gas to generate electricity.
- ▶ The Lake Zumbro Hydroelectric Plant uses hydroelectricity to provide Rochester with a renewable supply of energy. The 440-foot spillway and powerhouse is located across the Zumbro River.
 
- ▶ The new Westside Energy Station (WES) is a natural gas-fired “peaking” plant that can provide quick-start power generation when needed.

In 2015, the Rochester Public Utilities Infrastructure Study was finalized. The purpose of this study was to analyze power supply needs within the RPU footprint through 2035 and identify the short-term, intermediate, and long-term steps to be taken in order to continue to provide reliable, low-cost power. The study found that capacity and energy needs within the RPU footprint are projected to increase substantially through 2035. This presents an opportunity to RPU to consider expansion or new energy generation methods to accommodate the forecasted demand. It's clear that the forecasted growth in population will generate more demand for RPU services. The City needs to plan for the long-term and explore RPU facilities expansion or new development in order to maintain the current high level of services that contribute to the overall quality of life in Rochester.

Survey data from RPU customers indicates that RPU must pursue a long-term strategy that balances affordable rates, system reliability, and environmental sustainability. RPU aggressively pursues energy conservation efforts to the benefit of its customers, meeting conservation goals of 1.5% per year. The pending expiration of RPU's contract with SMMPA will create more opportunities to address demand and load growth. The City of Rochester's Energy Action Plan, the development of which RPU took an active role, contains goals for building and transportation efficiency, renewable energy, and other sustainability measures.

Asset Management

Local entities do not have enough funding for every project in need of repair or improvements; the backlog of unmet street reconstruction needs, for example, has increased by 1200% in the past ten years. Deliberate use of asset management strategies helps city officials prioritize projects and make the most of limited tax dollars. Inventory databases, rating systems, and unit price estimates to replace, repair, or reconstruct public assets help department heads and officials evaluate, maintain, and upgrade current and future infrastructure facilities by looking at impacts on the network as a whole rather than in isolation.

Prioritize Greenfield Development in Areas with Available Infrastructure

With the current and projected infrastructure needs in our community, development should initially be focused in areas with adequate infrastructure capacity. In the short term, development must be prioritized to those sewer



super-districts that have available capacity: Kings Run (NW) and Hadley Valley (NE). This type of development strategy will give the City time to formulate a phased plan for adding capacity across the community and also make the city's investment in an enhanced transit service more economically feasible.



Expand Housing Diversity

Rochester's demographic trends indicate that a wider variety of housing options are essential to meet the community's current and future needs, particularly as downsizing Baby Boomer households begin to look for housing options requiring less maintenance and upkeep and a growing number of young adults seek affordable housing choices. As household sizes decrease and service jobs increase, there will be a need for additional smaller-size homes resulting in shifts to higher housing densities in order to accommodate more housing units within the city limits. At the same time, there will likely continue to be an increase in the number of households at the upper end of the income scales, suggesting an increasing demand for higher-end housing. With Rochester facing a need to attract more labor to fill a growing job base, it is important that people can find the housing they need in neighborhoods that offer the amenities they want.

P2S 2040 participants commented that housing and lifestyle options are currently limited, particularly for smaller households and those with lower incomes. The results of a 2015 housing survey conducted by the Southeast Minnesota Association of Realtors (SEMAR) corroborate these needs, noting that 43% of Rochester residents feel that there are not enough housing options available in the city. Quality of life factors such as neighborhood walkability, access to cultural opportunities, and presence of quality schools topped the list of their lifestyle priorities.

Preservation of existing housing stock is important but will not fully meet our housing needs. We must supplement our preservation efforts with responsible new residential development that

- ▶ Is focused within the existing community's footprint
- ▶ Fits within the character of existing neighborhoods
- ▶ Demonstrates any incentives given are necessary for development
- ▶ Promotes fiscally responsible development

A portion of this new development should be focused on infill lots and adding housing units to our existing neighborhoods. These areas create investment in our core neighborhoods which already have the infrastructure in place needed for development.

Given what the commentary has expressed as housing needs, combined with information compiled as part of the assessment of existing conditions, two major strategies surface to diversify our housing stock: expand the range of housing options and increase the supply of affordable housing.

Increase Housing Options and Supply

Rochester is expected to add another 50,000 people by 2040 – a 55% increase in population. These residents, a mix of Rochester natives and those moving to the city for employment or educational opportunities, will need places to live. New and existing neighborhoods located throughout the city will provide the bulk of their housing opportunities, and increasingly, residents have options to live downtown.

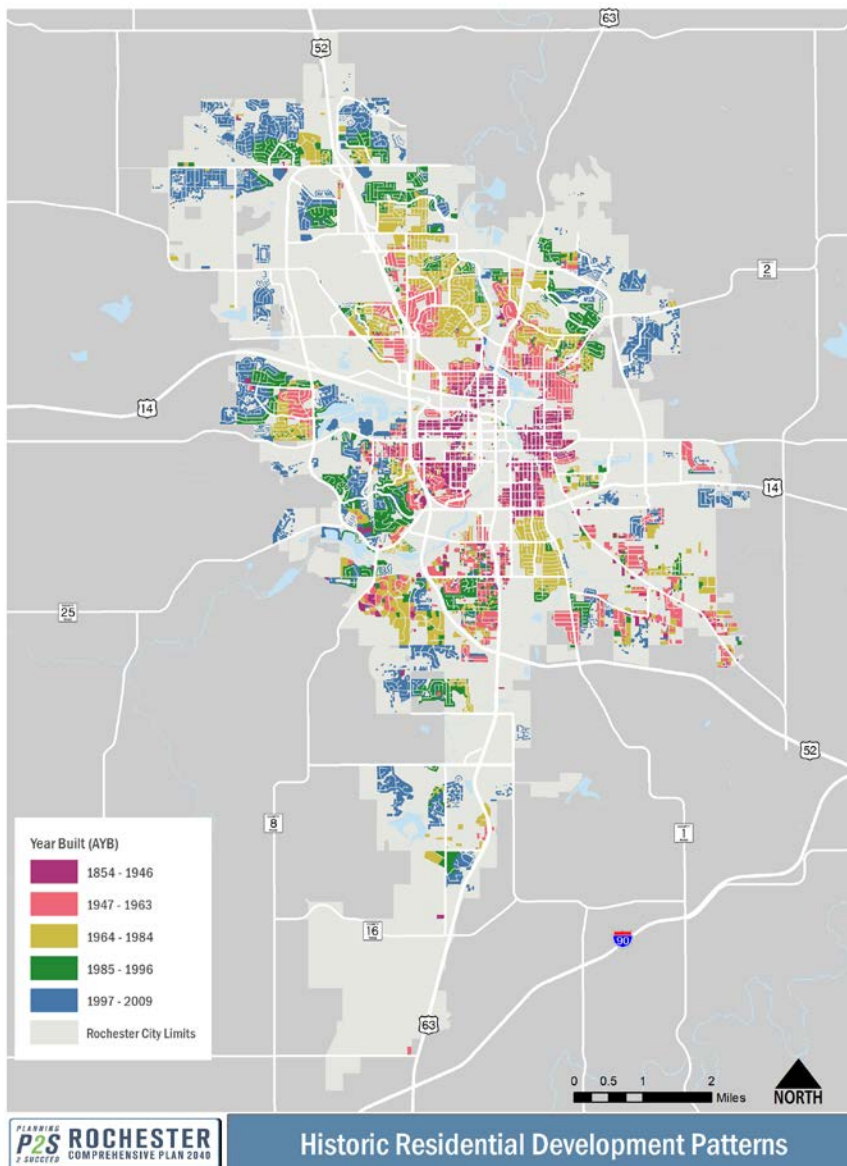
Rochester’s housing has historically developed in a series of concentric rings radiating out from the downtown (Figure 1-3). The core neighborhoods around downtown generally filled in between 1854 and 1946. After World War II, another tier of housing evolved up until the mid-80s and since that time, newer neighborhoods have been created on the edges of the urban service area, pushing out to the city limits in many areas. The vast majority of the housing in these neighborhoods is single-family detached units, most of which is owner-occupied.

Increasingly, other housing forms are becoming available, but their supply is still quite limited. Single-family attached units doubled its share of the housing stock from 5% in 2000 to 10% in 2010; and high-density housing of 20 units or more grew to 13% of Rochester’s overall housing stock in 2010. Rental vacancy rates, however, are very low: 4.5% for market unit rates; 1.4% for affordable units; and 0% vacancy for subsidized units.

Recent Downtown plans have identified growing interest in expanding central city housing opportunity for those seeking a vibrant urban environment within a range of housing styles and an array of amenities. In 2010, only 4% of Rochester’s population lived downtown, primarily in high-rise senior housing properties; 1% of the city’s population both lived and worked downtown. The percentage of people living downtown is expected to grow significantly in the future due to the effect of the Destination Medical Center (DMC) initiative and, to a lesser degree, from an expansion of the student population outlined in the University of Minnesota

Rochester (UMR) Master Plan. In addition to housing in the core, single-family neighborhoods located adjacent to downtown are within an easy walking distance of job centers and most points of interest in the central business district. These mixed-use neighborhoods provide key opportunities for providing additional urban housing choices with great access to jobs as the potential to reduce the proportion of household income devoted to transportation.

FIGURE 1-3: HISTORIC RESIDENTIAL DEVELOPMENT PATTERNS



Even with efforts to expand available housing choices, there will continue to be a demand for single-family detached housing. There will still be a need to provide this type of housing as an option for those who do not want the commute from or the yard maintenance of large lot suburban developments.

The housing market must provide a mix of rental and owner-occupied units. For some, homeownership may not be an option due to finances or employment circumstances. New residents may want to rent while they grow roots in the area.

Millennials have different

views of homeownership than previous generations. Seniors may want to downsize while remaining in the neighborhood they consider home.

The context for housing discussions is commonly based in market rate housing products: single-family homes, townhomes, apartments and condominiums. Maintaining housing diversity, however, needs to go much deeper. Rochester’s commitment to social equity means that a diverse housing supply needs to include residences for all members of our community, including those with physical and mental challenges, those needing financial assistance, multigenerational families, and veterans. It also needs to address housing for homeless individuals and families.

Improve Housing Affordability

Like many cities across the state and nation, Rochester has a critical shortage of affordable housing — housing that, through subsidy or other means, costs no more than 30% of the household income for those earning 80% of the area’s median income. As a result, the 2010 Census indicated that over 27% of Rochester households were experiencing “housing burden”. According to Maxfield Research’s *2014 Comprehensive Housing Needs Assessment for Olmsted County*, 53% of owner households earning less than \$50,000 per year and 75% of renters earning less than \$35,000 per year experience housing burden. Follow up research by the Greater Minnesota Housing Fund (GMHF) has determined a need for an additional 2,000 units of affordable housing by the year 2020.

Achieving this target will require a combination of housing stock preservation and responsible new development. While we have neighborhoods that currently provide quality, affordable,



Blighted properties (before, top) can be redeveloped to create multifamily housing (after, bottom) that fits within the neighborhood fabric.

“naturally” mixed income housing choices, many of the homes in these areas are over 50 years old and will require improvements to remain competitive in the marketplace. Enhancing and preserving these housing units for future generations should be a priority in order to utilize existing infrastructure and maintain neighborhood character.



Affordable starter homes promote entry into homeownership.

There should not be any differentiation in our expectations for market rate or affordable housing. The previously stated studies have shown that affordable housing projects that fit within the fabric of existing neighborhoods do not have any impact on property values. Policies that prioritize mixed income, mixed use projects in locations near amenities such as transit, employment, schools, grocery stores, and services that cater to low to moderate income populations should be prioritized. Affordable housing projects should be dispersed throughout the city and designed so that

there is no difference in materials or character from market rate housing. A proactive housing policy that includes rental housing locations, management, materials, inspections, and design may proactively mitigate any potentially negative impacts.

Rent and mortgage payments, however, only tell part of the affordability story. The true long-term affordability of housing also needs to factor in maintenance and transportation costs. Cheaper housing construction typically carries with it higher long-term maintenance and life-cycle costs; initial savings on lower grade materials and fixtures often results in higher utility bills and repetitive replacement. In neighborhoods where transportation choices are limited, savings on housing costs can be more than offset by increased household expenses on vehicle ownership and maintenance, fuel, and insurance costs. By applying the concept of “Location Efficiency”, which blends consideration of housing location and convenient access to multiple travel choices, Rochester can create affordable neighborhoods where mixed use development combined with walkable streets and transit service can provide access to a mix of uses and services without the need to have a vehicle available for every trip or for every adult in a household.

Many of the jobs created by area employers rely on workers working at moderate wage rates. The ability of employers to attract these workers is adversely affected by the shortage of truly affordable housing. Housing, however, is a regional issue. Policy decisions made by the City will have an impact on other communities in the region. The City has and should continue to lead by example and provide diverse housing types and styles that work for residents all along the socioeconomic spectrum.



Enhance the Integrity of Existing Neighborhoods

Rochester is a city of great neighborhoods. The attractiveness of these neighborhoods to existing and new residents is impacted by housing choices and the proximity of convenient services, schools, parks and other destinations. The strongest, healthiest neighborhoods offer quality affordable housing, good schools, and accessible open spaces. Having good access and connections are also important, including transit, safe streets, trails, and other public spaces.

Maintain Existing Stable Neighborhoods

In order to enhance and maintain the integrity of existing neighborhoods the City will need to provide sufficient investment to preserve the quality of public facilities and services and provide appropriate guidance on new uses and redevelopment to insure compatibility of uses.

The City will look to manage the development of vacant land and the alteration of existing structures in and adjacent to single-family neighborhoods to protect character of these areas, preserve open space, and maintain neighborhood scale. The City should promote the compatibility of uses, encouraging low to moderate intensity uses within predominantly residential neighborhoods, including but not limited to single-family, low density multi-family, and group homes. Other uses that reinforce and do not detract from the primary low density, residential function of the neighborhoods may also be acceptable.

Infill in Neighborhoods

Infill and redevelopment projects should set an enhanced standard of quality in existing neighborhood areas. Design should complement and extend the positive qualities of surrounding development and adjacent buildings. However, compatibility with the design of existing buildings does not mean uniformity. Techniques providing for transitions in features such as height, scale and massing, complementary features such as window and entry styles,

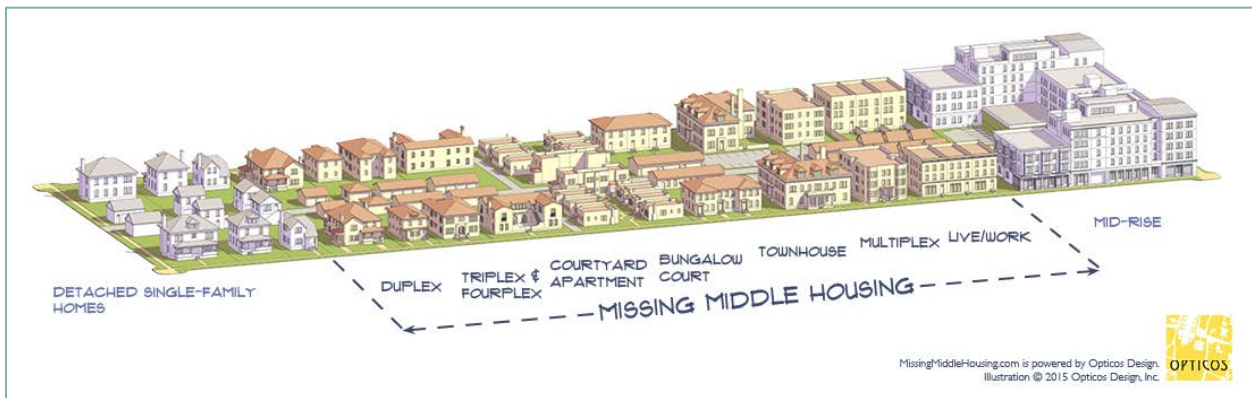
streetscape character and parking or garage placement are representative of factors to consider when assessing compatibility.

One issue will be finding exactly the “right” neighborhood housing mix. We need quality housing options in all areas and at all price points. However, we don’t want to saturate any one residential neighborhood or housing price point with rental properties.

“Missing Middle” housing, a range of housing types compatible in scale with single family dwellings, can help meet Rochester’s growing demand for walkable urban living while enhancing the integrity of our existing neighborhoods. These housing types were once commonly found in pre-1940’s neighborhoods – duplexes, fourplexes, and courtyard apartments interspersed with single family homes – creating a moderate density that can support public transit, services, and amenities within walking distance. These homes typically have small to medium footprints with a structure width, depth, and height similar to a single-family home. The mixture of these neighborhood building types result in the perception of low density, even though they often support more than 16 dwelling units per acre. Their simple construction, density, and access to destinations increases the affordability of these units while creating a sense of community through neighborhood vitality and the integration of shared spaces. The



Kutzky Flats is a local example of Missing Middle housing.



"Missing Middle" housing can help meet demands for walkable urban living.

challenge is to create small spaces that are inviting, functional, and comfortable while ensuring these new housing types fit with the fabric of the neighborhoods in which they are developed.



Improve Community Connectivity

Moving people and goods will become increasingly more complex as the region grows, since as the region grows, so will travel demand. It is expected that if new development follows historic land use patterns, vehicle miles of travel could increase from 700,000 to 1.4 million miles each day in the urban area over the next 25 years.

Keeping up with this anticipated growth in travel demand in an economically viable and environmentally sustainable way will require the City and its regional transportation partners to develop a more balanced transportation system that recognizes the continuing need to move vehicles while understanding that moving people, not vehicles, is the primary goal. To achieve desired travel convenience and reliability, options such as more transit capacity in selected corridors or districts, an improved job /housing and housing/services balance that puts more people within walking or biking distance of daily destinations, as well as additional road space in some parts of the area are all elements that will need to be part of the solution for providing adequate community connections.

Given the nature of travel throughout the day, with high peaks in the morning and late afternoon associated with typical employment and school schedules, plans should ensure that those areas with high job density or school populations are accessible via multiple travel modes —automobile, transit, bicycling, walking— in order for people to access a wider range of commuting options. A major benefit of providing more efficient, higher capacity commute options is the ability to support a greater level of economic growth in key centers of activity, such as the Central Business District.

Providing a more balanced transportation system will benefit residents with increased flexibility, reduced car dependency, and ability to pursue a healthier lifestyle. It is important in planning facilities to insure access for people of all ages and abilities. Research has also begun to show there is benefit to business



activity from being located in areas where quality transit and attractive pedestrian oriented travel facilities are available.

Policies supporting access to public transit, safe pedestrian facilities, and a connected bicycling network are an essential component of P2S 2040 and vital to achieving the vision of a thriving downtown, vibrant neighborhoods, robust economy, and affordable living for people of all income brackets. Among key policy enhancements the plan considers include:

Enhancing the Transit Network

Rochester benefits from high transit ridership for a city its size, primarily due to the number of commuters traveling to jobs downtown by bus each day. Employer policies limiting employee parking while providing free and subsidized transit passes help to support this level of transit usage. In addition to neighborhood bus stops, many downtown workers utilize the city's convenient park and ride lots, while others travel on private commuter bus services operating out of more than 40 regional communities.

Not all Rochester residents and visitors, however, have viable transit options. Rochester Public Transit (RPT) service is oriented towards bringing commuters to and from downtown, which is reachable from most neighborhoods within 15 minutes. While RPT is expanding evening and weekend service hours in response to ridership needs, transit is not available to many low-income residents working non-traditional hours, employees such as medical workers with evening shifts, students taking evening classes, or people wanting to linger downtown into the evening. Further, with most transit lines destined for downtown, people wanting to make trips that do not begin or end downtown face longer travel times. Many neighborhoods are not dense enough to justify the costs of providing more than once an hour service in off-peak hours. As discussed in greater depth in Section 2, the ability to expand transit beyond the successful commuter focused routes currently provided will require an integrated approach that marries land use and transportation strategies to support the development of a high quality, high frequency backbone of transit infrastructure that can serve as the platform for high-level services, such as bus rapid transit.

To support enhanced transit service, access to transit stops, particularly by people walking and bicycling, will be critical to maximizing the usefulness of the transit network. Making all transit stops comfortable and accessible is a priority.

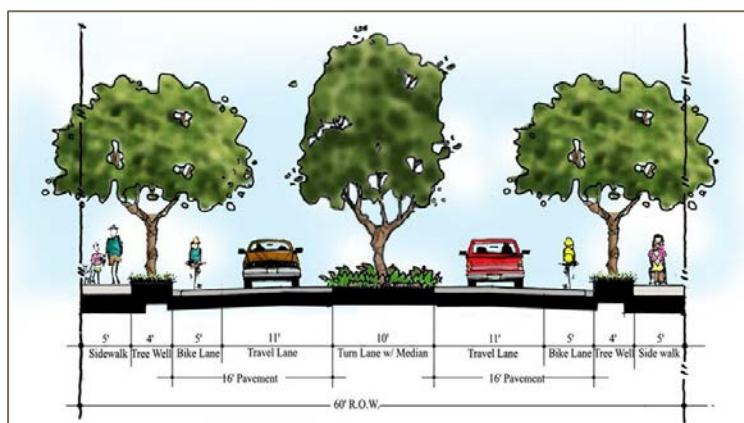
Zumbro Independent Passenger Service (ZIPS) is the City’s complementary paratransit system serving those unable to use the fixed route system due to disability. The importance of this type service will likely grow in the future as the community sees a significant increase in the number of elderly. The coordinated land use and transportation strategy can help meet some of this need by improving the efficiency of this system by encouraging increased the availability of mixed-use housing or accommodation of neighborhood services that will allow disabled and/or elderly residents to live closer to the goods and services they need.



ZIPS buses serve the needs of those unable to use the fixed-route city bus system.

Continue to Build Complete Streets

In 2009, Rochester became the first city in Minnesota to adopt a “Complete Streets” policy. Complete streets are designed to accommodate all users by enabling safe access for pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. Each complete street is designed for the unique needs of the community it serves, but may include features such as sidewalks, bike lanes, bus lanes, and safe crossing opportunities. Complete streets improve community connectivity by providing residents and visitors with choices in how they access the places they need to go to. While the goal of complete streets is to safely and conveniently accommodate all users and



“Complete Streets” are designed for everyone’s use.

desired functions, this does not mean that all modes or functions will or should be equally prioritized on any given street segment.

Improve the Connectivity of the Rochester International Airport

With a local economy anchored by world class medical and technology organizations needing convenient access to national and world markets, the Rochester International Airport (RST) is a significant contributor to the local economy. As a national and global destination, Rochester will need to ensure that RST provides quality travel connections to locations across the United States and the world. This facility is the third busiest commercial airport in Minnesota, following the Minneapolis-St. Paul International Airport and Duluth International Airport.



RST is served by Delta Connection, United, and American Eagle for commercial flights and FedEx for cargo flights. In 2015, RST served about 226,000 commercial flight customers. RST periodically undertakes master plan updates which continue to reveal that the

demand for RST services will continue to increase. To meet this demand, the master plan identifies short-term and long-term improvements for the airport and the surrounding airfield area to insure safe and efficient airfield operations and local access. Chief among improvements are development of an upgraded passenger terminal and continued pursuit of development opportunities on airfield lands to supplement fees collected from airport operations for operational and capital improvements. The Airport Master Plan and an Airport Layout Plan was approved by the Federal Aviation Administration and the Minnesota Department of Transportation’s Aviation Division. Accommodating and encouraging the growth in RST helps to sustain the local economy and generate more economic activity in Rochester and the surrounding area.



Champion Social Equity and Environmental Justice

Mixed use development has been shown to be a more sustainable pattern of land use. While remaining sensitive to incompatible land uses, the establishment of mixed use areas can help address geographic inequities. P2S 2040 emphasizes Rochester’s

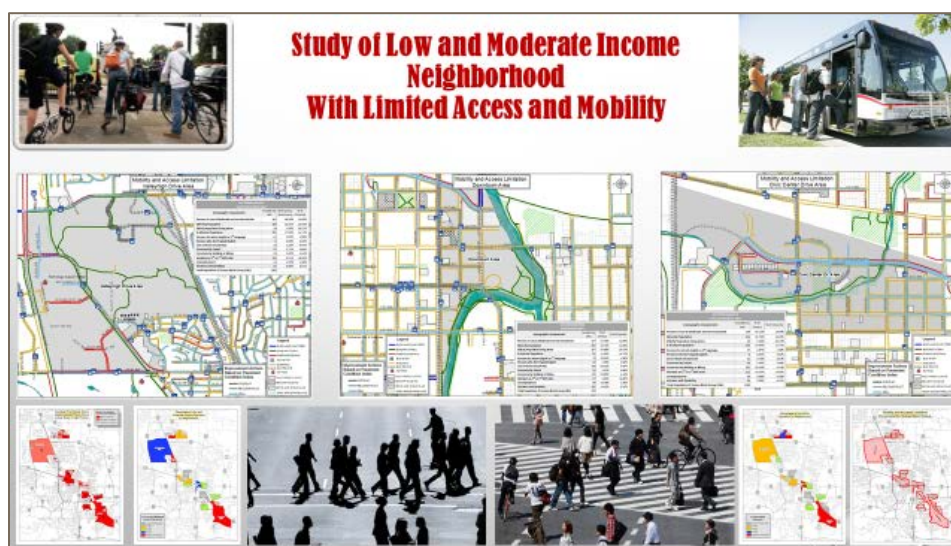
continued evolution as a livable community supported by a convenient transit network. Livability and transit connectivity can promote environmental justice.

Create an Accessible Community for All

Dividing our community by income or by race fosters inequity, isolation, barriers to communication, disproportionate exposure to adverse environmental conditions, and ultimately divisiveness. What is true of income, class, and race is also true of other groups within the community. Separating the elderly and the disabled from neighborhood life inappropriately isolates these residents from community life. Segregation in any form is detrimental to the long-term cohesiveness of our community and to our quality of life, leading to family, neighborhood, and ultimately community instability.

P2S 2040 seeks to equitably distribute public facilities and services throughout the community. Adequate public facilities and services enhance quality of life. Transit, parks, open space, trails, child care facilities, libraries, and other cultural facilities should be equally accessible to all socioeconomic groups. We are at a crossroads in our community. We can design our future to consist of integrated neighborhoods with an adequate supply of housing in a variety of price ranges. Or we can design our community to consist of concentrated pockets of lower cost housing isolated from the remainder of the community. The experience of other cities in the US clearly indicates that integration is the more desirable future.

Enhance Mobility for the Transportation Disadvantaged



As part of the City's commitment to addressing the transportation needs of all households and individuals, the City should use an equity lens when making infrastructure and service decisions to ensure the spatial

and temporal distribution of public investment over time is providing equitable transportation access for all groups including low income communities, communities of color and the disabled. Equity considerations can be incorporated throughout the service infrastructure decision-making process — from long-range system plans, through project design and implementation, and needs to consider such factors as who pays, who is burdened, and how people are included in the decision-making process.

A key to ensuring equitable opportunity is understanding where gaps in access may exist. In recent years, studies of access mobility and access gaps resulting in limitations on travel choice affecting low and moderate-income neighborhoods, the disabled and elderly, or those working 2nd and 3rd shift. have been completed. Work on these studies included identifying projects or actions for enhancing access and mobility to help persons. The results of these efforts should be utilized when decisions regarding public investment priorities are considered, whether that be in Capital Improvement Programming, decisions regarding grant applications, or the distribution of programmatic funds such as Community Development Block Grant dollars.



Maintain Commitment to Health, Wellness, and the Environment

Minnesota Statutes, as described earlier in this section, grant cities the authority to plan in order to ensure “a safer, more pleasant, and more economical

environment for residential, commercial, industrial, and public activities” by promoting the “health, safety, morals, and general welfare.” To many, the meaning of “health” in this passage is a historical reference to public health issues that



Biking to do errands can build physical activity into our daily routines.

were a consequence of early urban development. Unsafe water supplies, inadequate sewer facilities, unhealthy air quality, insufficient access to light, easily spread infectious disease, and high risk of fire were consequences that early planning efforts attempted to address. By 1948, however, the concept of health was expanded when the World Health Organization determined that health “is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity”. The link between the level of overall public health and vitality now contains a broader list of environmental and social factors.

Consider “Health in All Policy”

Since release of the first Surgeon General’s Report on Physical Activity and Health in 1996, the importance of physical activity in the reduction of risk for chronic diseases has come to the forefront of public policy. The provision of parks, open spaces and recreational amenities is a well-accepted planning tool to promote physical activity. More recent work has shown how community design and development - where and how we live, work, go to school, and play - can place unintended constraints on our ability to be physically active.



Rochester is committed to a vision of “health in all policy”, helping to create a livable community that promotes positive physical, mental, and environmental health for all. The City of Rochester has been a leader in promoting active living and community wellness, and that effort continues today. Initiatives ranging from Active Living Rochester to planning for Safe Routes to Schools as part of the Statewide Health Improvement Project (SHIP) to adoption of the Rochester Parks Master Plan have laid the groundwork for land use and development

patterns that allow people to integrate physical activity into their daily routines, support access to employment and services, promote health equity and safety, and stimulate social and economic connectivity. This work is far from done and will need involvement from all sectors of our community if this vision is to be achieved. The environment we strive to protect will be healthier for everyone when we plan to maintain and create places that are considered safe, secure, accessible and attractive to active living.

SAFE ROUTES TO SCHOOL

Safe Routes to School (SRTS) is a national initiative to create **safe, convenient, and fun** opportunities for children to **bicycle and walk** to and from schools, with the goal of reversing the decline in children who walk or bike to school and the trends towards greater childhood obesity and inactivity. SRTS is aimed at promoting walking and bicycling to school as well as **improving traffic safety** around school areas through **education, encouragement, enforcement, engineering, and equity** improvements.

Rochester has benefitted from this program in the past through funds awarded for **targeted infrastructure projects**, such as a traffic calming project on 40th Street NW at Gage School and installation of speed feedback signs at various school sites. The program has also funded programs such as pedestrian and bicycle education and skills training, materials needed for encouragement or promotion activities such as **Walk to School Day**, development of school walk maps, and **Walking School Bus** programs.

In 2016, representatives from Olmsted County Public Health Services (OCPHS), Olmsted Medical Center (OMC) and Mayo Clinic updated the joint community health needs assessment (CHNA)



to determine what our highest priority health needs are. The P2S 2040 Plan will incorporate these wellness concerns into land use, transportation, and quality of life strategies.

Promote Rochester as “America’s City for Health”

One of the goals of the DMC is to help develop Rochester to become an international attraction for those who are focused on wellness, not just coping with illness. That includes providing options for improving health and fitness, effectively managing the increase in visitors and residents, increasing the social connections that foster a vibrant community, and attracting highly trained young professionals to keep Rochester at the top in the health care field.

The community values the benefits of a healthy lifestyle and neighborhood features that make it easy to practice healthy behaviors are appealing to their residents and visitors. Access to safe and convenient sidewalk networks, bike systems that can be used both for recreation and purposeful trips, and sources of healthy foods are becoming a quality of life priority for current and future Rochester residents when looking for a place to live. Land use and transportation policy can contribute to the ability of our city’s built environment to facilitate healthy living goals.

Facilitate Active Living

“Active Living” is defined as a way of life that integrates physical activity into daily routines. The ability to walk to school, bike to work, or wheelchair roll to the store allow people to get the exercise they need without having to hit the gym every day. Lack of sidewalks, accessible curb cuts, bikeways that connect neighborhoods to frequent destinations or appealing public spaces inhibit these types of activities. Accessible neighborhoods are good for our health, good for business, and good for social connection – they promote a sense of community.

Over the past two decades, Rochester has been a leader in promoting active living and community wellness, and that effort continues today. In 2007, the Rochester-Olmsted Planning Department entered into a contract with Blue Cross Blue Shield of Minnesota for Active Living Planning. This initiative laid the groundwork for amendments to the Rochester Zoning Ordinance and Subdivision regulations, the City’s comprehensive plan, and other City policies to increase the supply and safety of an



Community gardens provide access to fresh, healthy foods.

accessible non-motorized infrastructure. This work will continue to be supported through the goals of P2S 2040.

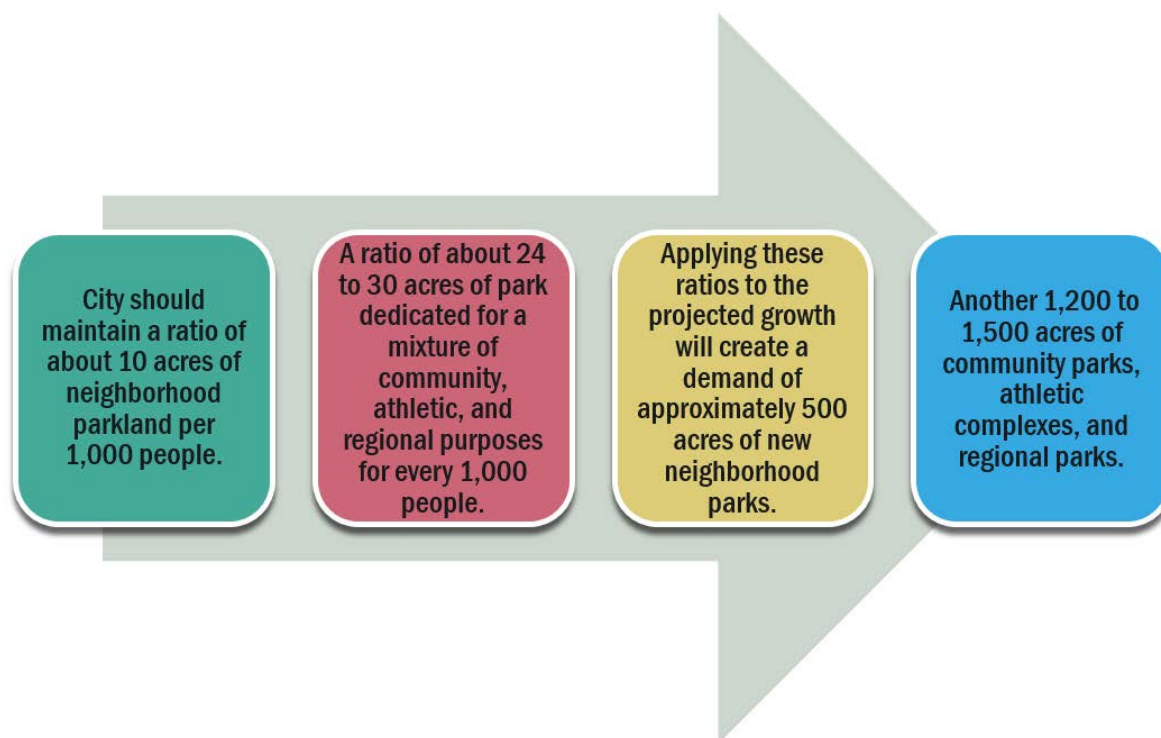
Invest in City Parks and Recreation Facilities

When people talk about the places they love in a city, parks are typically at the top of list. For almost 150 years Rochester’s parks have created civic identity and pride, as well as contributed to neighborhood identity, environmental sustainability, resident health and well-being, and economic development. The City’s existing system is thriving, with more than 4,200 acres of parkland, 120 parks, and 85 miles of trails. Maintaining and updating Rochester’s recreational offerings in order to keep them fresh, exciting, and relevant in light of changing demographic and recreational trends is essential to the system’s continued success. Significant investment will be needed to restore aging parks and recreation facilities.

In 2016, the City adopted the Rochester Parks and Recreation System Plan to guide the preservation, expansion, and programming of these vital community assets. The plan identified more than 30 goals, 100 policies, and 250 strategies focused in nine primary areas to guide the future of the parks and recreation system.

- ▶ Parks
- ▶ Sustainability
- ▶ Facilities
- ▶ Public Health
- ▶ Trails
- ▶ Public Art
- ▶ Natural Areas
- ▶ Management and Operations
- ▶ Programming

The parks and recreation system will need to expand as the community grows. The following four principles will guide system expansion in the future.



Promote Access to Healthy Food

Access to healthy foods is another critical component of a sustainable lifestyle. The 2013 CHNA Survey identified obesity as the most pressing community health issue impacting Olmsted County. Reliable access to affordable, healthy food is a fundamental factor in combatting the prevalence of obesity and diet-related diseases. The four principles below frame ways to think about how the physical environment can improve access to affordable, healthy nutrition.

Household Proximity

- ▶ Improve household proximity to healthy food

Food Production

- ▶ Increase food production and access to healthy food in residential settings
- ▶ Support increased local food production compatible with surrounding development

Transportation

- ▶ Enhance transportation systems that connect people to sources of healthy food

Businesses

- ▶ Support food related businesses and activities

Improve Sense of Safety and Security

Community safety can be empirically demonstrated, but of equal importance is people’s perception of safety in public places and in their neighborhoods. While Rochester’s crime rate is 27% lower than the national average and has been trending downward, a small segment of our population report that they do not feel safe in their neighborhood. One’s feeling of personal security, as it relates to exposure to crime, is recognized as a social determinant of health that can affect a wide range of health outcomes and risks. Neighborhood safety is not only felt through immediate threats to life and physical wellness, but also general unease that impacts long-term quality of life which has a significant influence on population health outcomes. It can be an economic burden that results in lost wages, lowered productivity, increased medical costs and increased costs associated with law enforcement, court services and detention facilities.



The physical design of a neighborhood can impact the incidence and fear of crime while improving community vitality and overall quality of life. Design principles rooted in the traditional “eyes on the street” concept create safer spaces by making them well used. Features such as good lighting, front porches, public art, and active sidewalks help increase visibility, provide the perception of supervision, and communicate care and protection.

Mitigate Natural, Technological, and Manmade Threats

Health and safety is also impacted by natural, technological, and human-caused threats. Hazard mitigation reduces disaster damages by proactively diminishing or eliminating long-term risk to life and property from weather, geologic, and human threats. Events such as tornadoes, hazardous chemical spills, and terrorist attacks may result in the loss of life, property,

THE PLAN FRAMEWORK

infrastructure, and income. The ability of a community to prepare, respond, mitigate, and recover when confronted by these threats, however, may mean the difference between long-term devastation and systemic resilience.

Prior to 2017, the City of Rochester recognized the Olmsted County All Hazard Mitigation Plan (AHMP) as the official mitigation plan for the city. Rochester has now established its own emergency management program and in 2017 adopted its first AHMP focused solely on Rochester’s unique needs.



Historic flooding led to building of Rochester’s flood control project.

Environmental Health

Environmental health is also important for our community’s overall well-being. Strategies that help promote clean air and water include utilization of green infrastructure and incorporating objectives of the City’s Energy Action Plan.

Green Infrastructure

“Green infrastructure” is a strategically planned network of natural areas and open spaces, such as fields, wetlands, river corridors, and forests, to provide flood protection, cleaner air and water, habitat, and aesthetic appeal. It uses vegetation, soils, and other natural elements to treat stormwater at its source while delivering environmental, social, and economic benefits. Neighborhood or site improvements such as, parks, rain gardens, green



Rain gardens help treat stormwater at its source.

Source: Rochester Public Works

streets, green walls and roofs, community gardens, and the urban forest can serve as an integrated part of the community's green infrastructure system or as micro-area improvements serving small sites.

Energy Action Plan

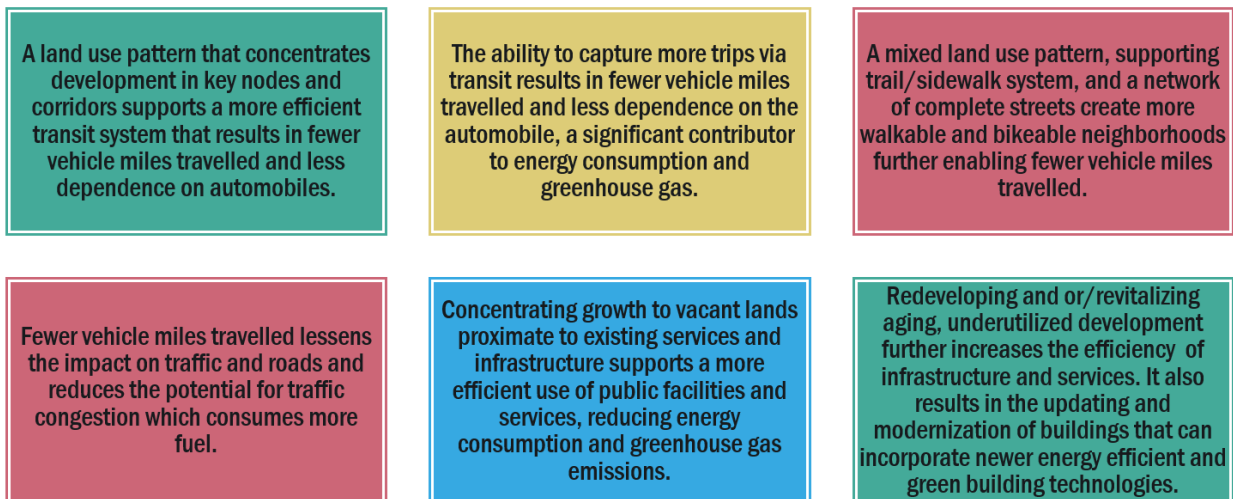
In 2016, upon City Council authorization, the Rochester Energy Commission (REC), prepared an Energy Action Plan (EAP) in conjunction with the Comprehensive Plan update. Adopted in July 2017, the EAP helps guide the community in incorporating sustainability objectives into the planning process. Energy and greenhouse gas (GHG, or carbon) reduction initiatives are two significant components that receive attention in the EAP.

Within the last decade the topics of sustainability and climate change have become increasingly relevant to land use and transportation planning. The need to conserve and manage energy costs, as well as public concern over climate change, are the primary drivers for this trend. With Rochester expected to grow faster than many other cities in Minnesota or even in the US, will come an increased demand for energy use and, consequently, the potential for increase in greenhouse gas emissions. How Rochester manages this growth will determine the increase in energy consumption and greenhouse gas emissions.

The City of Rochester supports the goals of the Minnesota Next Generation Energy Act of 2007 (NextGen) (Minn. Stat. 216B.169 Subd. 2a). The three primary NextGen goals include:

- ▶ Achieve a 1.5% annual savings in retail energy costs
- ▶ Reach a 25% renewable energy production goal by 2025 (25X'25 Renewable Electricity Standard)
- ▶ Achieve state-wide GHG emissions reductions of 15% by 2015, 30% by 2025, and 80% by 2050

The scenario planning analysis performed as part of the P2S 2040 process evaluated alternative patterns of community development in order to assess the impact of different land use and transportation policy approaches on energy consumption, energy costs, and greenhouse gas emissions. The key findings of this analysis are summarized in the following graphic and are reflected in the development vision crafted in this plan.



Incorporating the EAP objectives and strategies into the P2S 2040 land use and transportation framework will help ensure that development patterns will result in a more cost effective, energy efficient, and climate friendly community. Key EAP recommendations include:

- ▶ **Develop transportation corridors and nodes and parking infrastructure that minimize VMT**- While this opportunity was not evaluated in any detail as part of the development of this EAP, the P2S process includes a detailed analysis of this significant impact and control opportunity to minimize VMT and GHG emissions from transportation.
- ▶ **Increased public transit to reduce single occupancy trips** - The P2S has a goal of increasing transportation options. Increasing transit service options, bus routes, and hours of service could reduce single occupancy vehicle trips and reduce traffic congestion and GHG emissions. RPT’s five-year Transit Development Plan (TDP) guides the City’s transit system, including service hours, frequency, and routes. Increasing awareness of Rochester Public Transit (RPT) and its routes could further increase ridership and reduce vehicle miles travelled (VMTs), as could the geographic expansion and/or frequency of RPT’s service.
- ▶ **Electric charging stations** - There are a few electric vehicle charging stations in the City of Rochester, such as in the parking ramps downtown. The City of Rochester could provide additional electric charging stations and develop incentives and opportunities for residents and employees in the city of Rochester to own electric vehicles.

- ▶ **Increased greenways (pedestrian and bike traffic only)** - Promoting safe ways to make daily travel trips on foot or bike would encourage residents and employees to do so when possible. Adding greenways could also promote a culture of walkability that may extend sustainable social benefits into other aspects of residents’ lives.
- ▶ **Expand sharing programs** - If the City of Rochester independently, or in collaboration with employers and community organizations, initiates and expands transportation sharing programs, single passenger vehicle VMT could be reduced and transportation-related GHG emissions and energy expenditures could be reduced.
- ▶ **Sustainable building policies** – The adoption of sustainable building policies that apply to planning, design, construction, and commissioning of new and significant modification construction projects present a significant opportunity to mitigate GHG emissions.

Other Urban Amenities

Public Spaces

The network of public spaces – streets and sidewalks, plazas, parks and open spaces – that connect the residents and visitors of Rochester, also help define the city’s urban form. The character of public spaces is formed by the arrangement and details of the elements that define them, like building edges, public squares, and storefronts along a mixed-use corridor or homes that line a residential street. Public spaces are successful when they are designed with people in mind for year-round use. Whether a sidewalk, plaza or park, public spaces need to function and draw people to use them by being interesting, attractive, comfortable, and safe. Integrated amenities, such as weather protection, landscaping, public art, seating, bicycle parking, and other features all work toward creating a pleasant and unique experience. A variety of sizes and types of well-designed and programmed public spaces throughout the city will offer people the opportunity to engage with their surroundings and gather with their community.



New public spaces must be created with careful attention to location, accessibility, and sustainability. They should be encouraged close to where there is already activity or where there is a gap in the public space network and easy access is afforded to the site. A variety of uses and amenities for the public space should be explored to maximize interest and functionality. Public spaces may also be green spaces, valued not only for their recreational or social contributions, but also for the ecological functions they serve in the management of stormwater and improving air quality.

Streets and Sidewalks | Street and sidewalk design is shaped by the relationships of land use, buildings, parking areas, sidewalks, landscaping, lighting and street furnishings. Recognizing that a connected street network and a well-designed streetscape can result in a positive, greater impact to the economic, environmental, and social vitality of a community, policies are included to bring



pedestrians and bicyclists back to the streets while seeking to reduce conflict with vehicular traffic caused by such factors as inappropriate speeds or turning conflicts. It is the City’s goal to provide greater amenity and improve mobility, livability, and sustainability through well-designed streetscapes that provide multiple modes of transportation, adequate capacity, and reduce impervious surfaces.

Public Art | Public art is art that is displayed in the city’s public realm. It can be integrated into many locations such as streetscapes, entrances to neighborhoods, buildings, plazas, and parks to name a few examples. Public art is an asset that can transform public spaces in Rochester, encourage personal growth and creativity, increase public gathering and interaction, and enhance the city’s unique image.

As Rochester continues to grow more culturally diverse, the arts can introduce people to new cultures, traditions, and art forms. Public art and cultural events, whether planned, permanent, or temporary, give residents and visitors the opportunity to engage with the community and learn about cultural and historic traditions.

In 2015, the Greater Rochester Arts and Cultural Trust, with financial support from its Trustees, the City of Rochester, and private donors, commissioned a consultant to create a public art master plan to inform the development of public art in Rochester. It was determined that public art would encompass works of art that are free and accessible to the public, including



visual art, dance, festivals, music, theater, literature and photography. Public art could be of a permanent or temporary nature. As of the end of 2017, the first phase of the planning has been completed, including the identification of a vision, goals, and strategic recommendations. A second phase of the plan to develop more specific implementation measures is underway.

Parking Facilities | Certain areas of the city generate demand far beyond their immediate boundaries and need to accommodate significant automobile traffic through the provision of parking facilities. While clearly a necessary element in an urban setting, parking facilities can have serious negative visual

effects on their surroundings if not designed carefully. They can also break up streetscape continuity if not carefully designed and programmed. Any parking facility, regardless of whether it is a surface parking lot or a structured parking ramp, should be designed so as to blend in with its surroundings and fill important gaps in the urban fabric. Design guidance is provided for in both the City’s Land Development Manual and the DMC District Design Guidelines.

Natural Features | Rochester is blessed with dramatic and beautiful natural features that have shaped the development of the city. Since early settlement, the lakes, creeks, karst topography, and the river have been important identifying features for the



city. These sensitive landscape features should continue to inform development patterns and growth within the city.

The Zumbro River winds its way through the city, connecting several neighborhoods, parks, open spaces and small lakes together and providing a greenway connection to downtown Rochester. The river defines the eastern edge of downtown, carving its way through the Arts and Culture District. This district gets much of its identity from the river. Revitalization of the Zumbro River’s edge represents a tremendous opportunity for downtown Rochester. New developments coupled with redesigning and rebuilding public spaces along the waterway would bring improved landscape, continuous trail connections, and open spaces along the river’s edge. Parks, plazas, and trails should be located so that residents and visitors can visually and physically access the riverfront.

Heritage Preservation

Heritage preservation provides a community with reminders of who they are and where they have been. Protecting those structures, sites, and objects deemed to have a special historical, community, or aesthetic value enhance a city’s appeal to residents and visitors while promoting its unique character and economic viability. It can serve to create vibrant public spaces, attract economic growth, foster civic pride, and conserve resources.



The Rochester Common Council adopted a heritage preservation ordinance in Fall 2016. The ordinance establishes criteria for recognition of a site or area as a landmark property or district, resulting in an approved inventory of designated property. These designated properties would be eligible for and have priority to participate in City incentive programs related to financial, developmental or technical assistance that will serve to preserve, maintain or enhance their historic and architectural character.

Conclusion

The Development Vision and Core Principles frame the city’s future in terms of the physical form elements that the community will seek to preserve and strengthen as well as those

elements where change is expected in response to the new or emerging needs. We must continue to make our city an attractive place by offering a high quality of life where **all** people can live the American Dream, regardless of socioeconomic status. Subsequent sections of P2S 2040 will discuss and identify policies and actions that support neighborhoods, centers, corridors and districts with the intent to lay the community framework necessary to ensure that growth is managed in such a way that it preserves our values, enhances our unique community, and embraces all residents.



Section 2 | Land Use and Transportation Framework

Part 1 | Introduction

Section 2 defines the framework that will guide the future pattern of development throughout the city and, in addressing both future land use and transportation, serve as a blueprint for the community's physical growth. The pattern of land use and the network of transportation facilities and services are key foundational elements influencing how the city will grow. It is important to consider land use and transportation as part of an integrated system, as they are linked in multiple ways with decisions in the land use realm affecting transportation and vice versa as development occurs, including:

- ▶ The need for travel and street capacity is impacted by the level of development intensity and trip generating characteristics of land uses in a travelshed. The design and function of transportation in turn affects the character and identity of a neighborhood, corridor, or district.
- ▶ The feasibility of transit is impacted by the intensity of development and mix of land uses in an area. To enable transit to serve a greater role in meeting the travel needs of people, the type and design of land use must create the conditions that will support transit service.
- ▶ The pattern and form of development along with the type of land use affects the ability to serve local travel demand by walking and biking. Urban design and the distance between uses impacts the attractiveness of walking and bicycling as a travel option.
- ▶ Business and industry are dependent on access to major roads to provide convenient employee and customer access as well as access to materials and shipping of goods. For certain businesses, access to rail and air transportation, which is often provided by the road network, is also important.
- ▶ Municipal infrastructure (sewer, water, gas, electric, telecommunication infrastructure) is needed to serve future growth, and those systems often depend on transportation corridors to provide a place to locate.

Achieving the vision set forth in Section 1 will rely on policies, programs, and the investment of public resources to guide public and private sector actions consistent with the Plan's vision and growth principles. The Land Use and Transportation Framework described in Section 2 creates the foundation for the policies found in Section 3 of the plan for the physical development of

the city, providing guidance for decision makers in directing the distribution, intensity, and pattern of land use activity in the city as well as the transportation investment that will support it. This guidance is crafted to support economic development and livability and, over time, will help the City achieve such goals as strengthening the vibrancy of downtown, revitalizing downtown area neighborhoods, redeveloping and reinvigorating the primary commercial corridors that also serve as gateways to the community, and protection of important natural features through an extensive network of green infrastructure. A system of well-organized land uses creates possibilities for enhancing alternative transportation options, support for business expansion, the provision of varied housing and residential neighborhoods for families and future residents to choose from, and the creation of an attractive public realm, while mitigating impacts and improving the compatibility of diverse land uses.

The policies and strategies described in Section 2 are designed to drive a more fiscally and environmentally sustainable pattern of development that reflects the community’s interest to accommodate a wider range of residential and non-residential development styles while encouraging an overall trend towards more compact development. This provides the opportunity for more people to live closer to work or other desired destinations and improves access to various transportation options. In doing so, the Plan will help to achieve the following important outcomes and community development priorities:

- ▶ Reduce the share of growth that occurs in a very low density pattern in greenfield areas located on the edge of the city. This type of growth typically consists of single use developments that require extension of new infrastructure and are almost exclusively dependent on private vehicle travel since density is generally not sufficient to support more than hourly off-peak transit service.
 - **Regional and Community Business Centers, Regional and Urban Highway Corridors, Established Neighborhoods and Employment Districts** | As defined in the Development Vision, areas will continue to be provided to meet demand for housing or business development in settings more typical of the latter part of the 20th Century. These areas will need to rely more on private vehicle travel and have a lower level of transit accessibility. Desirably more of this growth will happen in infill settings, taking advantage of existing infrastructure already in place, and the overall share of development occurring in a low density, auto-oriented style will reflect a smaller share of the growth in the community. Even in these areas, however,

- increasing use of mixed use and mixed density development principles combined with design that fosters walkability and reflects complete street principles can help reduce vehicular travel.
- ▶ Encourage land use patterns at a level of intensity that will support more alternative transportation options. A land use pattern the targets development in key nodes and corridors at sufficient density to support frequent, dependable, and high quality transit service, can reduce the rate of growth in vehicle miles of travel and offer more travel choices for daily trips. Moderate increases in development intensity combined with transit that connects to where people frequently travel can help to reduce the ongoing need for investment in road system expansion.
 - **Transit Oriented Growth Centers and Transit Supportive Corridors** | In the Development Vision, nodes of development that benefit from proximity to and connectivity with frequent, reliable transit services that connect people to the city’s major job centers, education opportunities, institutions, and cultural amenities are envisioned. These centers support moderate increases in development intensity without comparable increases in vehicular traffic by offering housing choices within a walkable distance to business, services and convenient transit.
 - **High Frequency, High Capacity Transit Service** | The plan envisions a core network of Transit Supportive Corridors that are served by transit featuring higher frequency, longer service hours, faster travel times and enhanced amenities for riders. Along these corridors, transit use is facilitated by a highly pedestrian friendly, transit supportive level of growth, resulting in synergies that can make viable a lifestyle more active and less dependent on private vehicle travel.
 - ▶ Enable the City to more effectively grow its property tax base and increase tax revenues by fostering infill, reinvestment, and redevelopment in areas served with existing infrastructure and minimizing infrastructure expansion on the edge of the community.
 - **Mixed Use Development** | The Development Vision reflects a land use approach that supports the growing interest in mixed use development. This concept is predicated on greater attention being given to identifying those conditions that need to be addressed to insure an appropriate level of compatibility and transition between existing uses and proposed infill and redevelopment while providing for
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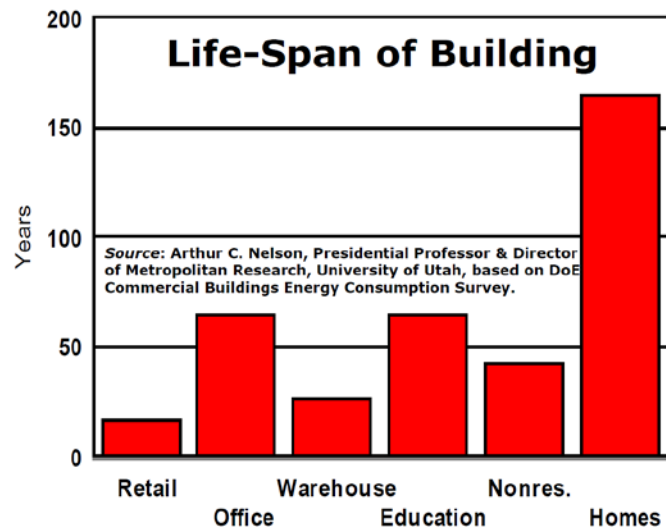
walkable pedestrian environments as part of a network of complete, multi-modal streets.

- **Revitalized Downtown Neighborhoods** | Given their walkable access to jobs and services in the center city, the Plan encourages added attention be given to the revitalization of downtown neighborhoods with improved pedestrian infrastructure and, where appropriate, selected reinvestment and redevelopment that will expand the opportunity for more people who choose to live in traditional or near-downtown neighborhood areas.
- ▶ Encourage a more compact growth pattern that will reduce infrastructure and service costs.
 - **Utilize Existing Capacity** | The Plan encourages directing growth to areas already proximate to existing services with underutilized infrastructure capacity and to encourage the more efficient use of existing infrastructure such as water and sanitary sewer, other public utilities, and fire stations. This pattern of development, consistent with the City’s Energy Action Plan, will also result in a more energy efficient community with reduced climate impact.

Stability and Change

Over time, areas in a city will evolve, passing through different phases starting with a period of significant change resulting from new development, transitioning to periods of relative stability where the land use pattern is established and changes little over time. Eventually, potential periods of decline may result from disinvestment or significant economic change, leading to a new period of regrowth through reinvestment that results in revitalization of an area. At any given point in time, a significant share of the city will reflect stable conditions, and preserving the established character of these areas will be an important goal. With purposeful and thoughtful attention to these cycles, the policies of P2S 2040 will seek to minimize the impact and periods of disinvestment and need for reinvestment by striving to balance the strong desire to preserve those areas with an established character, such as existing neighborhoods, with the need to direct and manage the location, type, and intensity of future development needed to reestablish stagnant properties or areas as assets to the community.

What kinds of land uses are likely to stay the same? | The foundation for any future land use map is based on existing land uses. Some land uses are less susceptible to change once they have been established. For example, single-family and lower-density residential neighborhoods tend to stay in place over long periods, with limited change or encroachment from other uses. Similarly, functioning industry and utility facilities or areas do not tend to move because it is difficult to find new locations, though individual business entities may turnover. In contrast, retail, commercial, and light industrial land uses are more likely to change and do so in more rapid cycles.



What kinds of land uses are likely to change? | Underutilized commercial and light industrial properties as well as public properties no longer needed for their intended purpose are prime candidates for transition to new uses. Vacant agricultural lands within or near the edge of the city, declining shopping centers, decommissioned schools and churches, empty office buildings, and downtown parking lots are examples of the types of uses most likely to change and ready for rethinking as to appropriate future use. A critical dimension to successful new development, particularly in the redevelopment of existing uses or infill on vacant sites in developed areas, is making sure that there are development and design standards in place that can guide the creation of compatible and attractive new development while connecting it with the surrounding area. This helps projects become part of the existing urban fabric, ensuring that the edges of the new development provide appropriate transitions to adjacent neighborhoods

The Stability and Change Map included as part of the Land Use Framework identifies areas where expected change is anticipated to account for the majority of future growth and investment and which neighborhoods or business districts are anticipated to remain relatively stable over the horizon of the plan. Plan policies seek to enhance those qualities in Areas of Stability that attracted people in the first place to a neighborhood or business location by encouraging the preservation of valued community characteristics while accommodating

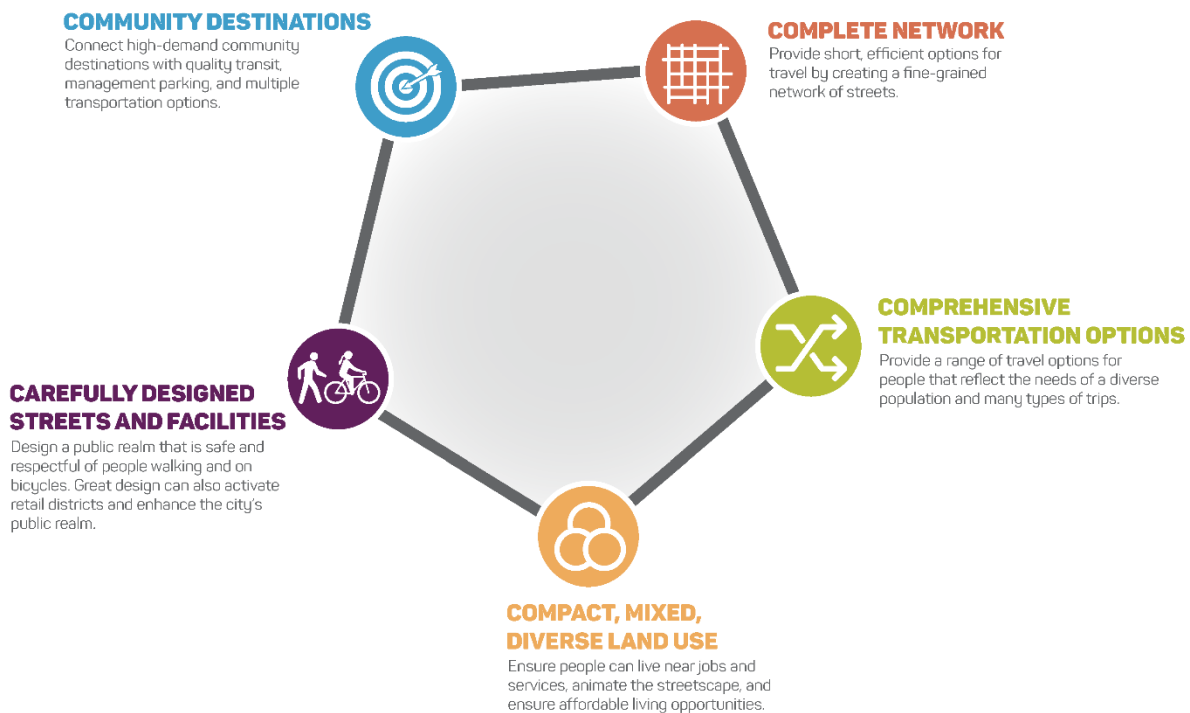
INTRODUCTION

rehabilitation, improvement, or redevelopment that is in character and scale with existing development. Where major change occurs, it will predominantly be the result of one of the following types of development:

- ▶ **Greenfield Development** | Development occurring on agricultural lands or other previously undeveloped land;
- ▶ **Infill Development** | Development on a vacant or substantially vacant tract of land surrounded by existing urban development; or
- ▶ **Redevelopment** | Development on a tract of land with existing structures where all or most of the existing structures would be razed and a new structure or structures built.
- ▶ In these areas of change, the intent of the plan is to establish policies that provide needed flexibility to respond to varied and changing market demands. Policies to guide both growth on the edge of the city as well as infill and redevelopment in developed areas designated for growth are found in Section 3.

Part 2 | Building an Integrated Land Use and Transportation Framework

To create a truly integrated land use and transportation framework that will shape and direct growth and development in a manner consistent with the vision of this plan, the City’s policies, regulations, and programs need to reflect five key tenets of urban form and community design:



Compact, Mixed, Diverse Land Uses | Rochester will develop areas of compact and diverse land uses to support greater use of alternatives to the private automobile, create attractive and active street corridors, and expand affordable living opportunities by ensuring people can live near jobs and services, or near frequent transit services, and reduce their transportation costs. A diversity of land uses (including residential, commercial, institutional, and recreational) within proximity of each other promotes walking, bicycling, and transit and can reduce driving, particularly when sufficient intensity of development is present to support higher frequency transit service. A mix of land uses allows more daily needs to be met within shorter distances and creates a more interesting and active urban environment that makes traveling on foot, bicycle, or transit feel safer and more attractive at all times of day and night.

Community Destinations | An integrated approach to land use and transportation relies on connecting high-demand centers of development with high quality transportation options supported by appropriate parking management and urban design policies. To provide a range of viable transportation options that suit the needs of residents and visitors, major destinations should be in locations efficiently served with frequent and reliable transit service that is competitive with private vehicle travel times. Transit will become more effective and efficient when it is linked to multiple destinations located along direct routes connecting major activity centers at end points to provide a steady flow of passengers. The proposed Primary Transit Network concept envisioned to support these outcomes is based on connecting existing or new activity centers along key transit corridors.

Complete Transportation Network | A well-connected street network shortens travel distances, opening up more options for people to travel quickly and conveniently by different modes to where they want to go. The Rochester transportation network will be enhanced to provide a balanced transportation system that provides for efficient and reliable options for travel by creating a well-connected network of transportation corridors.

Carefully Designed Streets and Facilities | With an emphasis on a more compact development pattern combined with a greater mix of uses and levels of intensity, urban form and design becomes a critical consideration in both private and public realm development. Streets and other facilities should create a public realm that is safe and respectful of people walking, on bicycles, or

KEY URBAN DESIGN CONSIDERATIONS

- ◆ Provide a mix of uses at compatible densities, scale, and bulk to provide the opportunity for meeting more of a person’s daily needs within a neighborhood or district area by a variety of travel modes
- ◆ Create street connectivity that enhances access through provision of short block lengths, safe crossings, multiple routes to destinations, and pedestrian amenities such as pedestrian scale lighting, curb ramps, and appropriate buffers from vehicular traffic for bicyclists and pedestrians
- ◆ Arrange site density so that higher density uses are located close to likely transit streets (such as residential collector in neighborhoods or collector or arterials street in business districts)
- ◆ Guide urban form, particularly in mixed use or downtown districts, with buildings designed to promote active frontages and setbacks, entrances, parking, and building articulation helping to support a pedestrian orientation

accessing transit. Great street design can also activate retail districts and enhance the city's public realm.

With mixed use and mixed intensity development envisioned in a greater variety of infill and redevelopment settings, it is also important that the plan provide policy guidance as to the type of design considerations that need attention in critical transition areas between existing land use and new development. These steps are needed to ensure the new development being introduced is compatible with the area and of an appropriate scale.

Comprehensive Transportation Options | Rochester's transportation system serves a diverse range of persons. People of all ages and abilities should be able to travel in a safe and comfortable manner, whether walking, pushing a stroller, using a mobility device, accessing transit, driving, or riding a bicycle. The transportation system will provide comprehensive transportation options that reflect the needs of a diverse population and many types of trips.

New Directions Reflected in the Plan

The following pages discuss certain development strategies that are new to the City or given greater emphasis in P2S 2040 as compared to past City plans. These include:

Mixed Use Development | Mixed Use Development policy moves from primarily a site-oriented issue in past plans to becoming the fundamental basis for a set of land use districts that will encourage greater diversity and flexibility in certain planned growth areas of the city.

Transit-Oriented Development (TOD) | TOD policy is introduced as a key component of an integrated land use and transportation approach that will support enhanced transit service while creating a more pedestrian oriented style of site development in designated growth oriented transit corridors.

Primary Transit Network (PTN) | The concept of a PTN is introduced to Rochester as the framework for development of an identifiable transit infrastructure intended to create a sense of permanence through investment supporting a Bus Rapid Transit network that will attract private investment to growth oriented transit corridors and nodes.

Infill and Redevelopment | P2S 2040 specifically lays out a vision for infill and redevelopment that seeks to attract more growth inward through greater attention to development character

and recognition that a fiscally sustainable path for growth relies in part on making better use of existing public assets.

Mixed Use Development Strategy

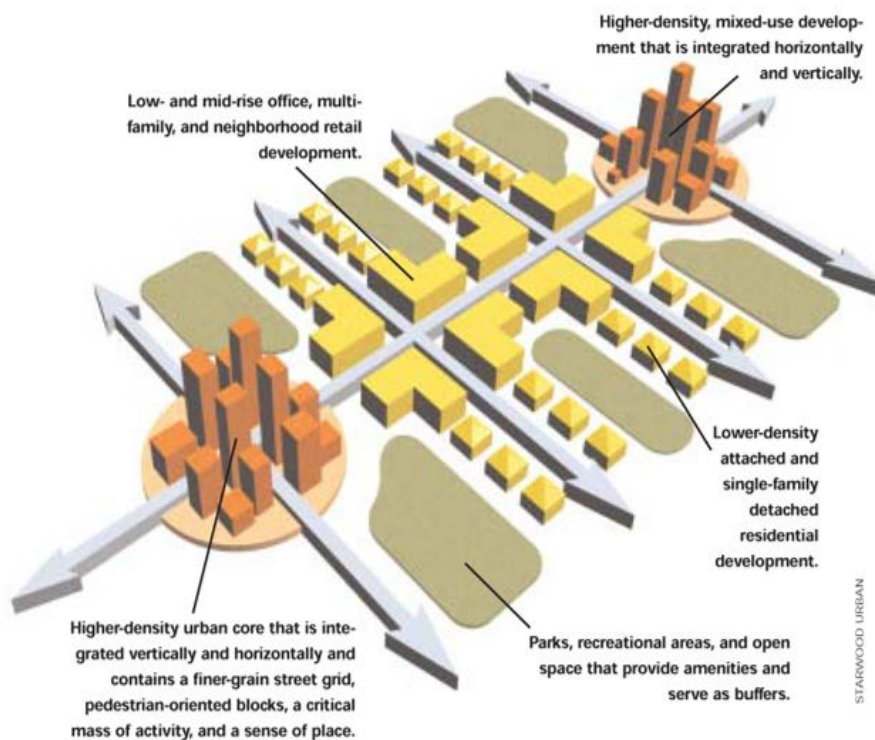
Mixed use development, ranging from vibrant downtown environments to active urban centers, will include a range of housing, office, service, and commercial land uses located in close proximity at various scales – on individual sites, in the context of nodal development, and along corridors.

MIXED USE DEVELOPMENT

Mixed use development is introduced as a major type of land use in the framework for Rochester. While mixed use development has been accommodated on a site specific basis within zoning districts, this plan recommends it becoming the fundamental concept underpinning for a set of new land use plan districts.

One of the main benefits of creating mixed use districts and the rationale for promoting it in the Plan is the potential synergies these areas can create in relationship to travel choice. Creating areas that feature a mix of residential population and daytime activity provides the opportunity to satisfy more trips by pedestrian means, given the proximity of varied uses to other another. Mixed Use development also supports enhanced transit service, particularly when employed at a corridor scale that connects multiple community centers, by providing

FIGURE 2-1: ILLUSTRATIVE EXAMPLE OF CORRIDOR-BASED MIXED USE DEVELOPMENT PATTERN (URBAN LAND INSTITUTE)



for the mixing of many trip origins and destinations with direct connection via frequent transit service.

P2S 2040 sets out to encourage broader use of mixed use development principles in targeted areas to support the Plan’s Core Principles of integrating land use and transportation, expanding housing diversity, and providing improved connectivity through a land use pattern that can support greater use of transit and pedestrian modes of travel—particularly in relation to travel associated with downtown and other major activity centers in the community. These forms of development represent substantial opportunities to promote a more diversified, sustainable pattern of land uses and activities that support numerous Comprehensive Plan policies. These include reducing the need for private vehicular travel, promoting a more walkable environment, making more efficient use of existing infrastructure, and giving people a choice of housing near employment and activity centers that can help reduce total household transportation costs.

Styles of Mixed Use Development

The Plan will encourage various styles and scales of mixed use development, primarily in the downtown area and along transit oriented growth corridors that will connect downtown to other major activity centers throughout the city. This development may take the form of a multi-block area or street facing building development and may include:

- ▶ **Mixed Use Centers and Community Anchors** | A variety of Mixed Use Centers and Community Anchors locations were identified in the Development Vision in Section 1. These nodes will serve as the focus for mixed use development that can include office, retail, artisanal industry, cultural and institutional uses, and medium to higher density housing. The pattern of job concentration and distribution represented by these nodal centers and campus settings are essential to support the transit oriented growth areas and can contribute to more efficient use of infrastructure systems and delivery of public services.

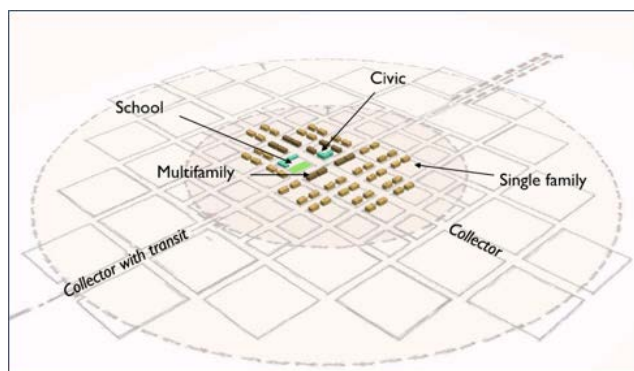
The following illustrations highlight two potential scales of nodal mixed use development. This includes small neighborhood oriented nodes that might be expected in newly planned greenfield areas as well as around major street intersections in older established neighborhoods. Community oriented centers can be expected along transit oriented growth corridors as older commercial areas are redeveloped into vibrant new multi use developments. Major Regional Mixed Use Centers will include the downtown area as well as

BUILDING AN INTEGRATED FRAMEWORK

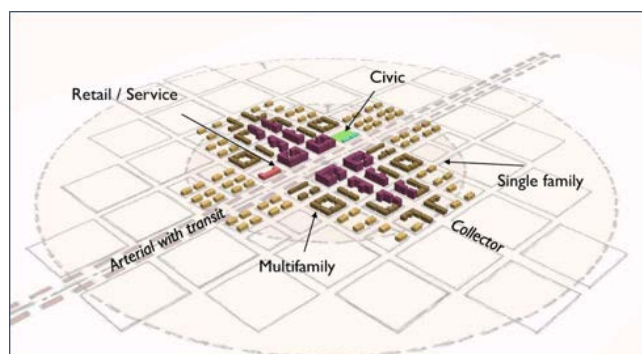
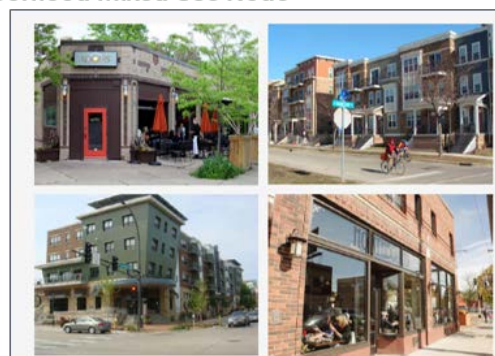
a limited number of TOD nodes such as an envisioned revitalized IBM Campus area in northwest Rochester. Campus areas such as the eastside County Services campus and University Center are also envisioned as mixed development areas with a range of uses and activities that act as multipurpose "destinations." Campus areas are particularly useful in promoting use of public transportation, and the introduction of higher density housing in or near such areas can add additional benefits in terms of creating districts that can meet a wide range of daily needs near residential housing opportunities.

- ▶ **Mixed Use Corridors** | A mixed use development pattern is also envisioned as the underlying development principle for a series of transit-oriented growth corridors envisioned to develop around the Primary Transit Network (PTN). These corridors are envisioned to be anchored by Community and Regional Mixed Use Centers along with the downtown and other selected campus areas, as described in the previous paragraph.

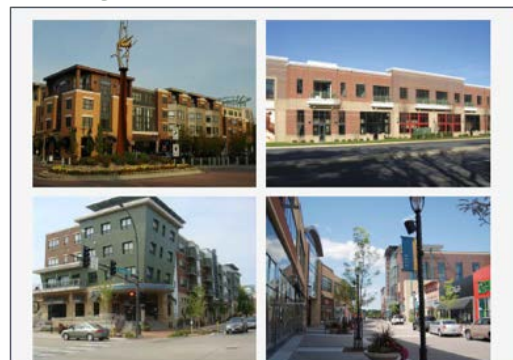
Along these corridors, between these Centers and Campus districts, land use is envisioned to include a mix of small site development that exhibits a similar variety of uses as seen in the centers but at a lesser



Neighborhood Mixed Use Node



Community Mixed Use Center



intensity and more in character with abutting residential areas. The mix of overall uses and level of development intensity created by the combination of nodal Centers and development along these corridors will support more frequent transit service. Development will be expected to incorporate transit supportive features such as pedestrian oriented design and buildings that open to the street. The combination of Centers along with small site development will in aggregate create a mix and diversity of origins and destinations along these corridors that facilitate more pedestrian activity and higher utilization of transit for more trip purposes.



In transit oriented mixed-use areas, attention needs to be given to the type and scale of uses. Stores and services along corridors can improve the quality of life for people who walk, bike, or use transit. They can increase the convenience of using transit on a regular basis. For example, transit riders may be able to pick up groceries for that evening’s dinner, pick up children from daycare, or meet co-workers after work. Conversely, land uses such as car washes, that do not benefit regular transit riders or people who walk, should be located in other parts of the community not well-served by transit. Consideration needs to be given to what locations are most important for retail and keep in mind that scale matters as much as the mix of land uses. Outside of the downtown, retail uses cannot depend solely upon customers using transit and walking. Because of this, smaller-scale uses are better suited to TOD than big-box retail that

would require large amounts of surface parking. Regulating the use, scale, and form of development will help ensure that retail contributes to the success of transit-oriented corridors.

► **Small Site Mixed Use** | Small site mixed use involves the development of individual building sites which incorporate two or more complementary uses, as in the placement of offices or apartments above ground-floor active uses such as dining or retail businesses. This type of development will be found in the mixed use centers and corridors described in the previous paragraphs, but can also be expected as part infill and redevelopment projects occurring in other parts of the community, such as downtown neighborhoods or redevelopment of other business areas identified in the Development Vision.

Small site mixed use is likely to include a variety of housing styles along with small office or business space either in a vertically mixed building or as part of horizontal mixed use development. Figure 2-2 provides an illustrative example of these styles of development.

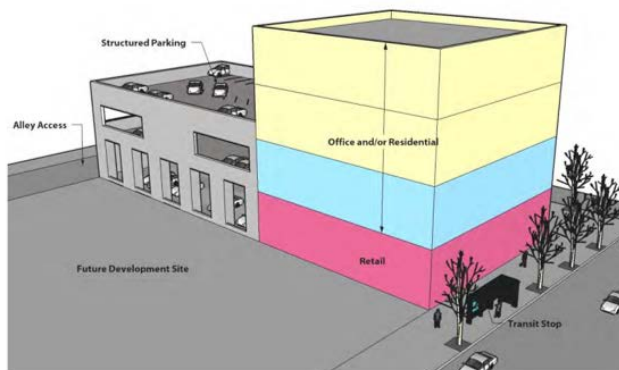
FIGURE 2-2: HORIZONTAL VS VERTICAL MIXED USE

Source: City of Boise, ID

HORIZONTAL VS. VERTICAL MIXED-USE

Vertical mixed-use

"Vertical mixed-use" refers to the integration of two or more land use types within a building, occurring on different floors. A typical example of a vertical mixed-use building would incorporate active uses, such as stores, offices, and restaurants, at the street level and residential or office uses on the upper floors—as traditionally found in Downtown Boise and in Neighborhood Activity Centers such as Bown Crossing.



Horizontal mixed-use

"Horizontal mixed-use" refers to a pattern where several types of uses or buildings, together with residential, are included as part of a cohesive development in proximity to each other – but each building would contain its own separate use. They would be designed as a set of coordinated uses, with common parking areas, strong pedestrian connections, and similar design features, but would contain separate uses in each building.



Multi-Modal Transportation System

Transportation is pivotal to the region’s economy and quality of life. P2S 2040 recognizes that a competitive economy and the economic and social well-being of the region’s residents requires a multi-modal transportation system that provides varying travel options for different types of trips and delivers a travel experience that is safe and reliable.

A multimodal transportation system allows people to use a variety of transportation modes, including walking, biking, and other mobility devices (e.g., wheelchairs), as well as transit where possible, as an alternative to driving. Such a system can moderate the dependence on automobiles and encourage more active forms of personal transportation, while increasing the mobility of those who are unable or unwilling to drive (e.g., youth, persons with disabilities, the elderly).

Planning for a multi-modal transportation system will involve establishing priorities at the system or network level as well as the level of an individual street. Future growth in Rochester will rely on and support the increased use of walking, bicycling and transit modes, as well as a sensitivity to land uses along public rights-of-way. In support of this, some fundamental tenets that are recognized include:

- ▶ Walking is the connector and connects travel by all other modes. The City will prioritize and support pedestrian travel as a primary mode throughout the community and ensure adequate connections to public transit.
- ▶ The street network is the primary infrastructure that unites the physical fabric of the community. It is the critical asset for providing mobility and access and also key to advancing community placemaking. It will be maintained and improved to ensure safety and reliability for all modes of travel.

MULTI-MODAL TRANSPORTATION

A multi-modal transportation system is one that integrates a wide range of choices into a functioning, flexible network that provides people to choose the most practical transportation mode (driving, public transit, biking or walking) for each trip. Rather than relying on one mode of transportation, or expecting that most driving trips can be substituted by transit trips, people need to be able to choose from a network of options, including not traveling at all.

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- ▶ The City will maintain and support and incrementally expand the current bus system. Transit will be further supported by strategic investment in transit infrastructure that will provide enhanced high frequency service to commuters, transit dependent households, students, and major destinations in the city. These services will be supported by the targeted expansion of transit pass programs, land use changes, and pedestrian-oriented design providing seamless connections to other forms of travel and high-quality transit stops and stations.



- ▶ The City will continue to build complete streets, prioritized by project, that take into consideration all modes and people of all abilities. The City recognizes that not every mode may be able to or can be equally prioritized on every street corridor, but all modes should be accommodated within the context of larger travel corridors encompassing multiple parallel streets or linear open space corridors.
- ▶ A complete and safe bicycle system connects destinations within the community and with the regional trail system. System improvements that encourage use by all types of riders for a variety of trip purposes will be a priority.

- ▶ A Transportation Demand Management (TDM) program will be developed that builds on local employer efforts to create opportunities to encourage commuters (and others) to consider how alternative modes to single occupant vehicles can be used to meet daily travel needs. TDM efforts should produce continuous improvement toward meeting transportation goals.

The City will continue to encourage investment in an interconnected multi-modal transportation system that supports sustainable growth. The City will also need to develop or adapt to changing transportation strategies to address emerging needs, opportunities, and priorities. The City is in a strategic position to promote access to multi-modal transportation options that serve residents, businesses, and recreational services as Rochester and the metropolitan region gain population.

Primary Transit Network Strategy

This plan introduces Rochester to the concept of a Primary Transit Network (PTN), a set of corridors envisioned to provide high frequency, high quality transit service that is more than a set of conventional bus routes and represents a departure from the traditional conception of transit as a service.

The PTN will form a foundational element of Rochester’s infrastructure. The concept of transit as a critical component of municipal infrastructure was largely lost many decades ago with the demise of trolleys and streetcars. The ability to adjust or eliminate bus routes based on political influence or interim priorities have decreased public expectations about the permanence and value of transit in shaping development. This PTN concept is intended to create greater certainty among those investing in the community (developers, residents, employers) that transit is in fact a transportation option with permanence around

KEY TERMINOLOGY

Primary Transit Network (PTN) is a policy tool that identifies key corridors in Rochester where coordination of land use and transit infrastructure has the greatest opportunity to result in higher frequency and more sustainable transit service. The PTN is a policy statement about where the city will make the highest level of service and capital investment in transit. In general, the PTN requires a minimum concentration of jobs and housing to support a high level of service, and acts as a guide for siting land uses and incentivizing developments that can create higher levels of transit demand.

Most importantly to the future of the city, as development intensifies in the downtown area as a result of the Destination Medical Center initiative, the PTN will be a key element among the strategies identified to support that growth by minimizing significant congestion increases on downtown streets and improving the quality of the street environment in downtown.

which people can plan and grow.

Advancing PTN implementation actions and supportive land use policies will be the basis for creating long-lasting transit investments.

The Primary Transit Network will create a synergy between land use and transit service by identifying corridors where it is most cost effective to site new transit-dependent development that will

support and benefit from a high level of service. The PTN will serve as a guide for siting land uses outside of the central core of the city that can create high levels of demand for transit, and will connect this development to most major destinations in the city with higher frequencies and higher speeds than can local bus service. The PTN will also benefit users of the current local neighborhood bus service by improving access to non-downtown locations. Figure 2-3 demonstrates how a PTN concept can enhance transit service throughout the community.

For high-density nodes of development in the urban area, such as the Central Business District and other potential major activity centers such as a redeveloped IBM Campus, providing transit is as essential as streets and sidewalks. In the future, the PTN will help guide growth in Rochester along a network of transit corridors where top-quality, high-amenity transit services will connect major destinations and mixed-use nodes. The PTN is essentially a policy that identifies where the City intends to provide the highest level of service and capital investment in transit and where investment strategically aligns with redevelopment and reinvestment priorities. Because it is designed to serve a large share of the city’s population with a minimum of line miles, the PTN can offer not just the best frequencies and spans of service, but also other premium features such as competitive travel times and a high level of reliability.

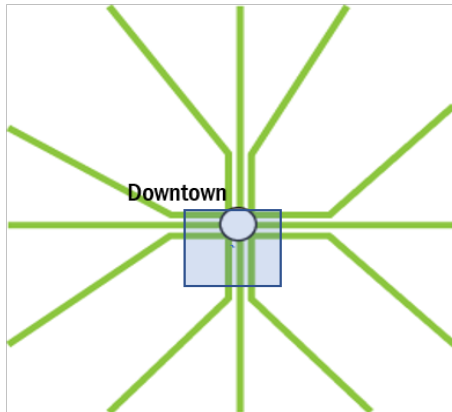
With the PTN, several key features are proposed that will distinguish it from other local and regional transit services.

Convenience | A 10 to 20-minute frequency goal is ultimately envisioned on PTN corridors. This represents the point at which a person no longer needs to consult a schedule, and transfers can be easily made without considering the timing of connections, increasing the ease of using transit. This enhanced transit service will provide better service to commuters and has the

FIGURE 2-3

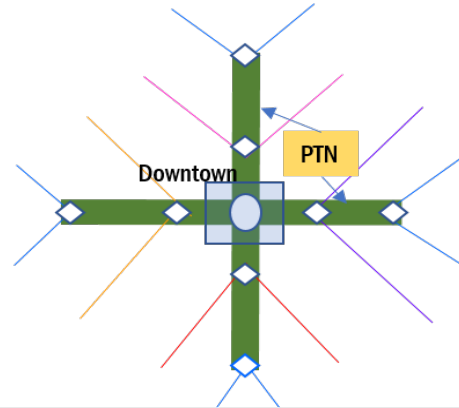
Comparison of Transit Network Design

Conceptual Diagram of Current Bus Network
Radial / Hub and Spoke System



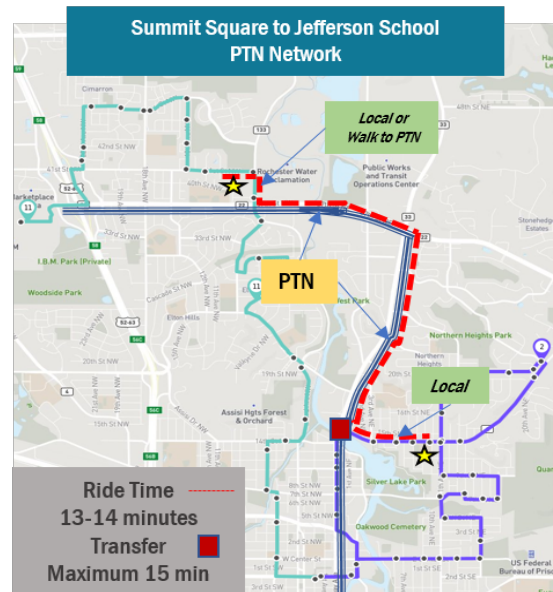
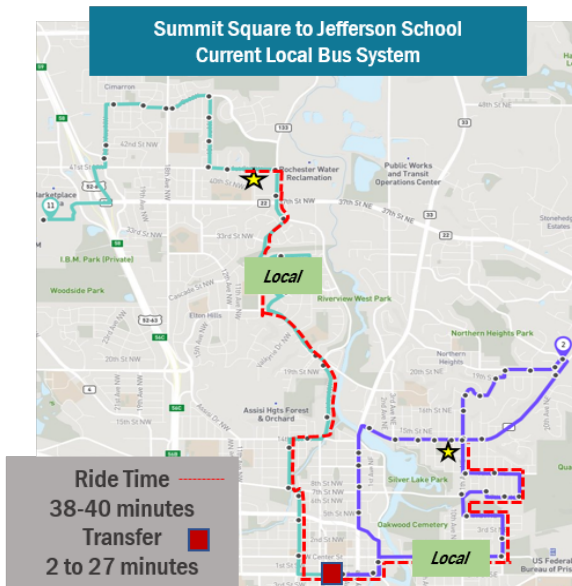
- Routes lead to and from downtown;
- Frequent local stops / on-board fare payment result in low travel speed (Ave 10-12 mph)
- System oriented to serve peak hour CBD worker; low off-peak frequency (30 to 60 minutes)
- Person with non-downtown origin & destination goes to downtown transit center & transfers

Conceptual Diagram of PTN Network
Multiple Hubs along PTN Trunkline



- High Frequency PTN serves as trunkline
- Operates at higher travel speeds due to less frequent station stops, off-board fare payment
- Stations act as mini-hubs that accommodate transfers between routes
- Can accommodate services such as neighborhood or employment area circulators & interconnect other routes not serving downtown
- Facilitates travel between adjacent city quadrants without need to travel & transfer downtown

How a Trip between NW and NE Rochester Compares



potential to capture more non-work discretionary ridership while improving access to destinations for transit dependent populations.

Permanence | The PTN is dependent on both service features and infrastructure investments. Integrated into the fabric of the community through transit-supportive design and amenities, the PTN will be visibly permanent and something around which the City and the development community can build with confidence. PTN corridors will see greater investments in transit stations, transit operations,

and customer amenities that can magnify the attractiveness of transit as a travel option and attract reinvestment and new investment to a PTN corridor

Synergy with land use | Increased investment in transit infrastructure and amenities will support transit oriented development along PTN corridors, helping to reduce the impacts of new development on traffic and ensure transit investments are productive. The PTN reinforces that certain bus service corridors are as permanent as any rail corridor, and can therefore become the foundations of compact, walkable, transit-supportive neighborhoods.

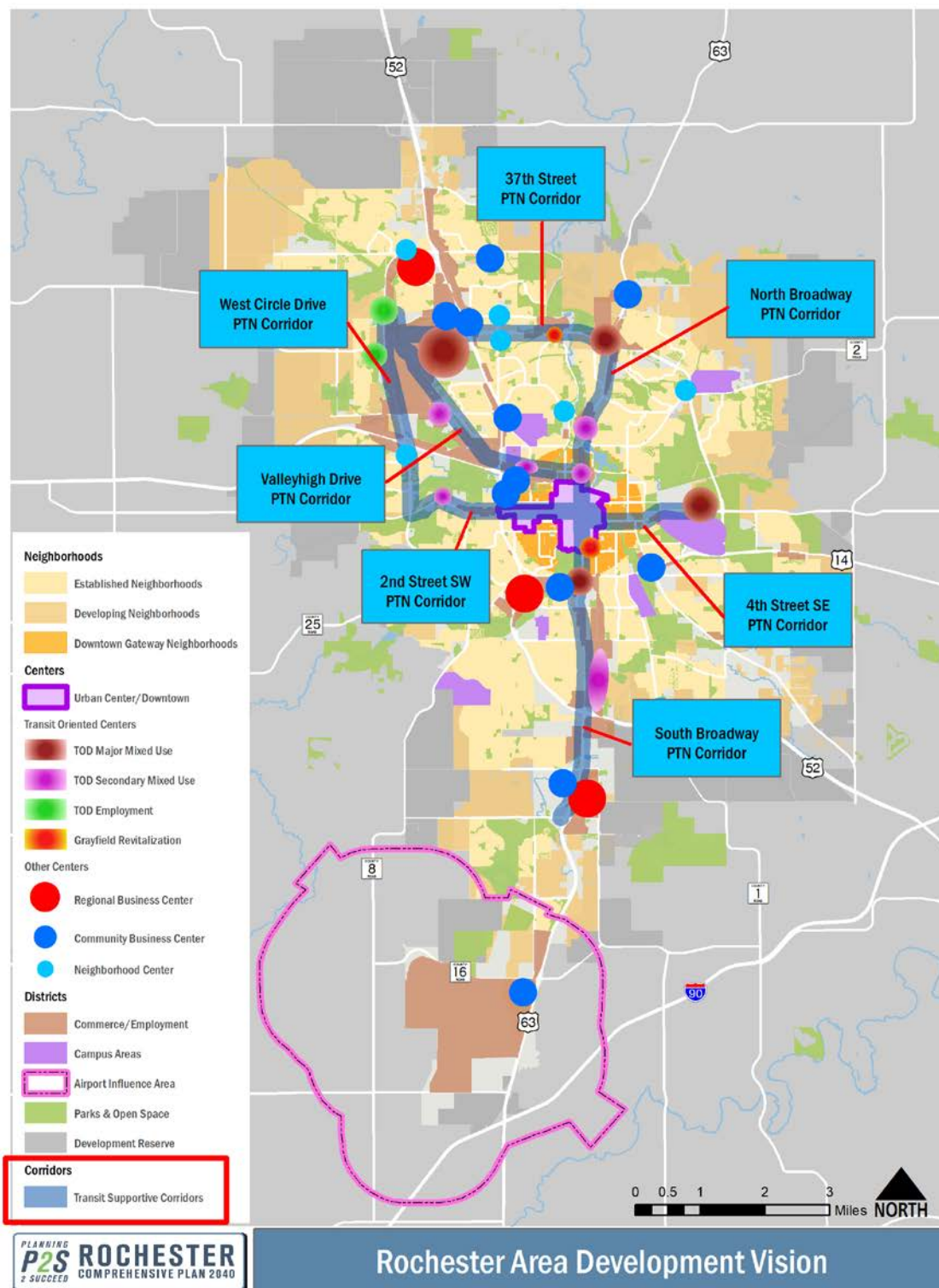
Figure 2-4 highlights the proposed Primary Transit Network. The network is envisioned to serve the highest growth corridors serving as gateways into downtown Rochester, and to ultimately connect these corridors with higher intensity activity areas in northwest Rochester along 37th ST NW and West Circle Drive.

For the PTN network to be successful, it will be important that it aligns with and helps to drive:

- ▶ Transit service and capital investment priorities
- ▶ Arterial street design and signalization
- ▶ Transit passenger facilities investments
- ▶ Siting of future transit oriented land uses
- ▶ Revitalization and redevelopment planning along PTN Corridors
- ▶ Downtown economic development

More so than in any other area of the P2S 2040 framework, the integration of land use with specific transit investment strategies are critical to advancing the vision of the PTN. The next section digs deeper into what is meant by the term “Transit Supportive Development”.

FIGURE 2-4: PROPOSED PRIMARY TRANSIT NETWORK



Transit Supportive Land Use Strategy

For the PTN to be successful in achieving the goal of providing a high frequency, reliable transit experience, transit supportive land use measures will be needed to create a mix and intensity of development that will generate the ridership needed for PTN investment to succeed.

Without the implementation of supportive land use policies—and the concentrations of housing, services, and jobs that will ultimately result from them—the ability to create a viable transit infrastructure will remain a question.

Discussion about “transportation-supportive land uses” or “increasing density to support transit” often creates the impression of the need for dense residential or commercial

development, but this is not necessarily the case. Moderate infill programs that focus on smaller multi-family and mixed use developments in transit oriented centers or along transit corridors can often be enough to change an area from an auto-centric district to a more self-supporting place that offers some walkable local services and amenities with enough density to support quality transit service. Incorporating quality urban design, including creation of inviting pedestrian places, locating parking behind or integrated within structures, and lining streets with small shops, restaurants, and services, can attract additional investment to an area that

KEY TERMINOLOGY

Transit Oriented Development (TOD) refers to the integration of land use and transit via the creation of compact, walkable, mixed use districts within walking distance of a transit stop or station. **TOD** brings together a sufficient mix of people, jobs, and services along connected corridors with sufficient overall intensity to generate sufficient ridership to support higher frequency, high quality transit services. **TOD** is typically associated development concentrated at a node or center, but can also serve as the basis for corridor level transit supportive planning and policies.

Typical characteristics that transit-supportive land use include:

- ◆ A mix of residential and non-residential land uses
- ◆ A highly interconnected street and block network
- ◆ A high level of pedestrian amenity to support walkability of the area
- ◆ Minimum density requirements to support transit ridership
- ◆ Reduced parking requirements
- ◆ Active street frontage

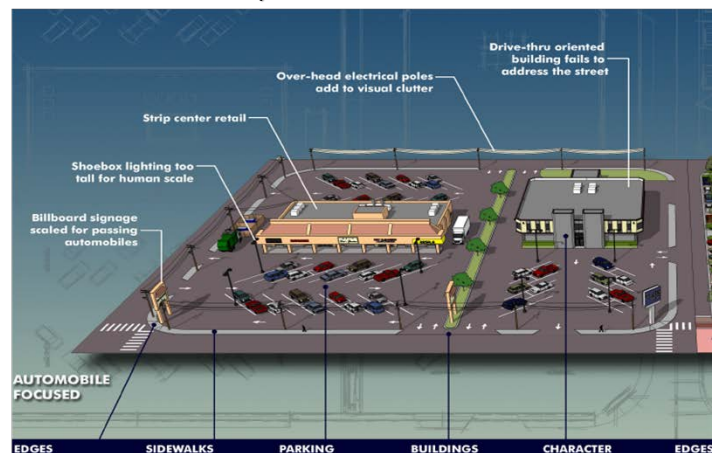
will support a wider range of transportation choices. Part of the goal of developing transit oriented development nodes and corridors should be not only to make it more convenient for people to use transit, but to create attractive nodes or districts that themselves are attractive destinations. As a result, it is not just downtown that is generating trips on a transit corridor, but other activity along the corridor attracts transit trips as well.

Adoption of zoning rules that supports implementation of transit supportive development and quality urban design will be critical as the City advances the concept of the Primary Transit Network. Site design standards combined with transit enhancements can reinforce the image that transit is a permanent investment that provides the foundation of compact, walkable, transit-supportive business district or neighborhood.

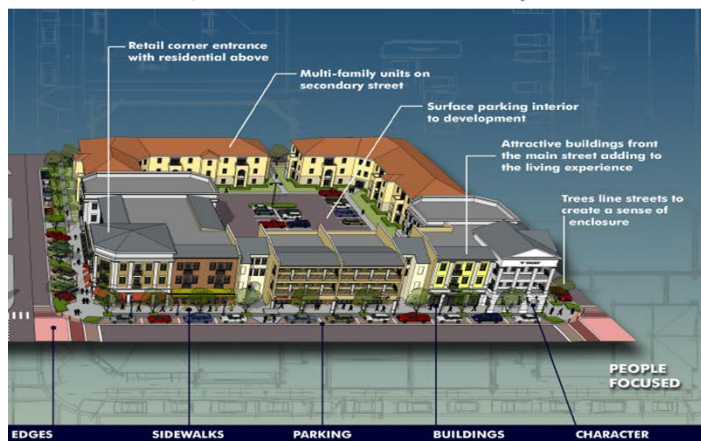
The term **Transit-Oriented Development (TOD)** is used to specifically refer to a style of development characterized by a concentration of higher density mixed use development around transit stations and along transit lines, such that the location and the design of the development encourages transit use and pedestrian activity. TOD typically contains a mix of uses such as housing, jobs, shops, restaurants and entertainment, providing more transportation and housing choices (including townhomes, apartments, live-work spaces, and lofts). TOD design principles emphasize the pedestrian and creating a walkable environment that supports transit use. Figure 2-5 illustrates some of the key differences between an Auto Oriented and Transit Oriented development pattern.

FIGURE 2-5

Auto Oriented Development Pattern



Transit/Pedestrian Oriented Development Pattern



TRANSIT ORIENTED (TOD) AND TRANSIT SUPPORTIVE DEVELOPMENT (TSD)

The identification of Transit Oriented Centers and Transit Supportive Corridors shine a light on the question of what is transit oriented development. TOD refers to the integration of land use and transit via the creation of compact, walkable, mixed use neighborhoods within walking distance of a transit stop or station. TOD brings together people, jobs, and services and is designed in a way that makes it efficient, safe, and convenient to travel by walking, bicycling, or riding transit. These same elements also apply to transit supportive development, which typically is less intensive than TOD development but still occurs at a level of density that can support higher frequency transit service. While TOD typically occurs at a scale associated with nodes or “centers”, TSD can be applied in corridors, districts, or even to a complete neighborhood. Typical characteristics include:

Suggested Land Uses

- ◆ Mixed used development, live-work units
- ◆ Medium to High Residential Density
- ◆ Mixed Employment
- ◆ Professional Office
- ◆ Job intensive light Industrial/research and design/lab



Suggested Prohibited Land Uses

- ◆ Drive-thru restaurants/establishments (or at very least limited components)
- ◆ Car dealerships and storage
- ◆ Industrial (manufacturing, processing, warehousing)
- ◆ Single family residential

Street Connectivity and Access

- ◆ ¼ to ½ mile walking distance to transit station
- ◆ Pedestrians and bicyclists access transit safely and efficiently
- ◆ The number of local routes and intersections can provide for more direct trips, and shorter distances between uses
- ◆ Minimum unobstructed sidewalk width requirements
- ◆ Pedestrian amenities, such as well-lit facilities, landscaping, public art, and clear pedestrian markings (crosswalks, curb-ramps, etc.)

Figure 2-6 highlights some of the key design features that should be emphasized in new development to help provide a transit supportive development environment.

FIGURE 2-6

What makes a good TOD?

Successful TODs use **urban design best practices**, **maximize land use** and **coordinate with local stakeholders** to meet the needs of the community. They are context sensitive and look at the individual characteristics of a site to determine the current and future needs of the neighborhood and transit corridor as a whole.



Building Design

Orientation

- Orient buildings to the primary street with minimal setback from the sidewalk
- Prominently feature all main entrances and connect them to the primary street façade
- Place active uses such as retail, office, light industrial or exercise facilities on the ground floor of buildings
- Intentionally hide elements such as parking and dumpsters and use alleyways when possible

Scale

- Create setbacks of upper floors to make higher density structures less imposing
- Articulate facades for more visual appeal and to prevent wind tunnel effects



Visibility

- Ground floors should have a minimum of 14' ceilings and 40 percent windows to increase transparency and contribute to the vitality of the streetscape
- Avoid large, blank walls or create murals if blank walls are necessary
- Provide a clear line of sight to points of interest such as transit stops and building entrances

Visual Complexity

- Include points of interest to provide landmarks and gathering places for locals and visitors
- Incorporate public art to create a sense of place
- Use a mix of materials to provide visual interest, a sense of character and wayfinding
- Design anchors on larger buildings to establish a sense of place

The Center for New Urbanism is an international organization advocating for compact, walkable neighborhoods. They have a variety of resources available to aid in the design of high quality TOD. For more information, visit: cnu.org/resources.

Convenience & Comfort

- Areas adjacent to transit stations should be designed to encourage use throughout the day
- Landscaping should include seating, pedestrian scale lighting and weather/sun protection provided by installation of trees, shelters, awnings or functional art pieces
- Indoor and outdoor areas should be designed to consider possible noise impacts from public transportation and motor vehicles
- Consider integrating transit waiting facilities into the building or streetscape and avoid landscaping that conflicts with current or future bus stops

Establishing Synergies between the PTN and TOD in Rochester

Analysis of various arterial street corridors that could potentially provide the bones for a transit supportive land use pattern and which could potentially accommodate the development of a Primary Transit Network was conducted. The purpose of this exercise was to identify a PTN network that would best blend land use objectives with transit service objectives to support the intense economic development envisioned in downtown Rochester while supporting a broader array of land use styles and transportation options in appropriate areas throughout the city.

In order to identify the best corridors, an analysis was completed to study the location and density of population, jobs, retail, schools, as well as medical and human services in the city—the major determinants of transit demand. In particular, the following factors were considered:

- ▶ **Transit Dependency:** Where are concentrations of low-income households, seniors, youth between 10 and 17, and zero-vehicles households located in the community?
- ▶ The distribution of existing population and employment density.
- ▶ The distribution of future population and employment density

The results of this analysis identified candidate corridors that were further evaluated in light of the following characteristics, which identify minimum qualitative benchmarks for determining the potential for success of higher frequency transit service. Existing conditions, combined with consistency with these qualitative benchmarks, identified the corridors with the best potential to create a logical connected primary transit network.

Broadway Avenue is a former State Trunk Highway that was turned back to the City in 2012, and is identified as a priority for early PTN implementation efforts. North Broadway, in particular, has considerable opportunity for redevelopment; transit investments in the corridor along with redevelopment in the form of transit oriented and transit supported land uses will be mutually supportive. Land uses along segments of the corridor are reminiscent of historic strip development and are underdeveloped. Its proximity to downtown and access to community assets (parks, schools, services, etc.), in combination with the community's growing interest in urban living with diverse housing and lifestyle choices that offer more opportunities to walk, bike, and use transit, make the corridor a prime area for redevelopment.

- ▶ A minimum average density of 25 persons per acre (combination of residents and jobs)
- ▶ The corridor is part of a logical route network that links major activity centers and destinations
- ▶ Each corridor has anchors –start point and end points – that would either be downtown Rochester or a major transit generator (e.g., park-and-ride, university, major employer)

Table 2-1 lists the seven corridors that were identified as having the best potential for creating a Primary Transit Network in Rochester. Of these corridors, only 2nd St SW and 4th St SE currently meet the criteria that would support consideration of deploying enhanced transit service. 4th St SE, while not a highly intense development corridor, benefits from major generators at each end (downtown on the west end; the combined area of the Olmsted County Human Services and the University Center campuses on the east end) and its potential to serve future commuters through development of park and ride facilities.

TABLE 2-1: DEVELOPMENT INTENSITY

CORRIDOR	EXISTING CONDITIONS	TREND SCENARIO	ADDITIONAL GROWTH NEEDED TO SUPPORT PTN	MAXIMUM FEASIBLE PPA* INTENSITY	COMMUTER PARK & RIDE POTENTIAL
	Existing PPA* Intensity	Projected PPA* Intensity	Growth needed to reach 25 PPA*		
2nd St SW	31.0 PPA	39.9 PPA	0	44-45 PPA	Medium
North Broadway	16.8	20.9	2,500	26-27	Medium
South Broadway	17.8	22.0	2,200	21-22	High
4th St SE	19.5	24.9	0	24-25	Medium
OTHER CORRIDORS STUDIED					
37th St NW	15.1	19.5	5,700	21-22	Low
Valleyhigh Drive	16.9	18.6	6,700	21-22	Med-High
West Circle Drive	10.4	15.5	9,700	16-17	Low

**PPA: Persons Per Acre; combining estimated number of residents and workers living or working within approximately ¼ mile of the identified corridor.*

- ▶ Broadway Avenue North and South were the next set of corridors identified as having the best potential to support enhanced transit. Both corridors will need to attract additional growth, but the presence of land in need of revitalization combined with the potential of these major downtown gateways to service major park and ride demand and connect with other activity centers outside of downtown Rochester support their identification as part of the future PTN.
- ▶ The final set of corridors identified as part of the PTN, which would provide for a network serving major growth areas in Northwest Rochester, include Valleyhigh Drive NW, 37th St North, and West Circle Drive. These corridors would take longer to reach targeted development intensities, but they provide the best opportunity to connect the system while serving major centers in the growing Northwest area of the city, such as potential transit oriented development nodes at IBM and other key locations, and connect Mayo Medical Center’s Northwest Campus with their downtown campus.
- ▶ Table 2-2 summarizes the highest priority transit oriented corridors identified as prime candidates to serve as part of the initial PTN.

To successfully transform these corridors into prime development locations that support high quality transit service, the City will need to develop implementation strategies that address urban form and design, travel management, parking supply and management, and investment in public spaces including the right-of-way to attract quality development. Among the measures that will need to be considered include:

- ▶ Development policies and programs are established which enable and help catalyze reinvestment that is transit oriented and transit supportive;
- ▶ Small area plans that engage stakeholders and inspire transformation; and
- ▶ Property assembly of smaller parcels enabling larger scale developments.

Transit supportive policies and incentives that encourage infill and redevelopment will need to be put in place to reach the long-term development intensity levels that support higher frequency transit use along the core PTN network of corridors. Policies and strategies that must be considered include:

TABLE 2-2 HIGHEST PRIORITY TRANSIT ORIENTED CORRIDORS

PTN CORRIDOR	DESCRIPTION	LOCATION
North Broadway	<p>North Broadway has an urban / suburban character with the southern section of the corridor generally having buildings on smaller lot set close to the street and parking to the rear or sides, while the northern portion of the corridor has a more suburban feel with buildings set back and parking in front. The corridor exhibits a mix of uses. North Broadway presents many opportunities for near term and mid-term mixed use redevelopment. Desirable locations for transit oriented development nodes are at 7th St North, the Elton Hills Drive / 14th St area and the 37th St area.</p>	
South Broadway	<p>South Broadway presents a potentially strong transit corridor. A variety of land uses and urban design character exists currently. There is opportunity for land use change along Broadway where the dominant land use pattern consists of commercial uses with large surface parking areas. The likely near-term anchor point for this corridor would be a node stretching from 12th St South to 14th St, with potential secondary nodes at 16th St, 3rd Ave SE or 25th St.</p>	
2nd St SW	<p>2nd Street West currently represents a strong urban corridor with a mix of residential, institutional, and commercial uses at a higher density of development. Expectations for redevelopment and expansion as part of the DMC development vision will further intensify the corridor and strengthen its function as part of the PTN network. Opportunity for major Transit oriented nodes include the envisioned St Mary's Place concept at 11th Ave identified in the DMC Vision, and redevelopment of the Mayo West Shuttle to take advantage of valuable lakefront frontage and good access to downtown.</p>	
4th St SE	<p>4th Street East connects downtown Rochester to the current campuses housing Olmsted County offices, Olmsted Community Hospital, Rochester Community & Technical College and the Greater University Center of Rochester. Between the two nodes, the corridor traverses a largely mixed single family residential area with scattered low density commercial development. Olmsted County Energy Park development provides opportunity for new mixed use greenfield development on the east end of the corridor. While limited prospects for intensifying development along the central portion of the corridor exist currently, future redevelopment could be facilitated through a small area or corridor planning process, as it does hold potential and is a desirable location for more intensive use within walking distance of downtown.</p>	

- ▶ Specific Small Area plans for proposed Transit Centers and corridors,
- ▶ A Transit Oriented Development program establishing appropriate land development guidelines along the PTN corridors, and
- ▶ An Infill and Redevelopment program to encourage and incentivize development along the PTN.

Infill and Redevelopment Strategy

Infill development is characterized by development or redevelopment of undeveloped or underutilized parcels of land in otherwise built-up areas, which are usually served by or have ready access to existing infrastructure and services. Focusing development and redevelopment on infill sites takes advantage of this existing infrastructure while helping to steer development away from greenfield sites on the urban fringe, which are more expensive to serve with infrastructure and services.

Benefits that infill and redevelopment activity can provide include:

- ▶ Promote reinvestment in areas where infrastructure already exists
- ▶ Channel development into areas where it can improve access to jobs, housing, and services with fewer and shorter auto trips
- ▶ Improve the tax base through revitalization of underutilized properties
- ▶ Concentrate higher density housing and mixed-use development in locations that are currently or will be served by high frequency transit in the future and that can support higher levels of activity

The P2S 2040 Plan encourages infill and redevelopment, prioritizing development in areas with existing infrastructure capacity. Fostering redevelopment was identified as a community priority throughout P2S community outreach efforts, with 82% of participants supporting a more compact development pattern that maximizes use of existing infrastructure, 91% of respondents supporting enhanced transit services, and 53% preferring mixed use development neighborhoods in the city.

- ▶ Increase economic activity in the area to benefit existing business and residents and, where necessary, provide the stimulus to redevelop

Because healthy, thriving regions need both a strong periphery and a strong core, the Plan includes policies that will encourage redevelopment and infill development. Increasing the proportion of infill development compared to greenfield development can lead to a more compact region that provides benefits in terms of slowing the loss of agricultural land, reducing travel distances, and providing some level of infrastructure expansion cost avoidance that can be redirected to maintenance or upgrading of existing facilities.

In recent years, infill and redevelopment in Rochester has become more common. This activity has focused largely in the downtown area and neighborhoods surrounding downtown. The city has also begun to see more commercial redevelopment in areas such as established arterial corridors whose land use character could be characterized as strip commercial. The community recognizes there is untapped potential for revitalization and the intensification of development would support the sustainability of the urban pattern, support for service such more frequent transit, and enhance the quality of development by addressing issues of character and compatibility. Following is a further discussion of the benefits of infill and redevelopment and a look at four types of redevelopment areas.

IMPORTANCE OF MANAGING INFILL AND REDEVELOPMENT IN CHANGE AREAS

Historically, Rochester has experienced the majority of new growth on the edges of our community. While edge growth will continue to occur, the P2S 2040 Plan anticipates that an increasing amount of the City's future growth will occur through infill and redevelopment activity. Areas designated on the Stability and Change Map likely to see the greatest amount of this type of development include the Core Growth area of downtown Rochester, Residential Reinvestment areas abutting the central development core, and Transit Oriented Growth Areas along the high priority spines of the Primary Transit Network connecting to the central development core. Infill and redevelopment interest in more diverse and intense development in these areas is anticipated to grow in response to increasing demand for pedestrian oriented, walkable districts and more intense mixed use development supported by the planned Primary Transit Network infrastructure.

In considering the policy implications of infill, redevelopment, and revitalization it is best to start with defining what the terms mean.

Infill is the reuse, redevelopment, or building on vacant land in an area surrounded by existing development. Infill can range from a single dwelling unit on a residential lot to a more intensive single use or mixed used multi-family residential or business development.

Redevelopment is reuse, renovation, or demolition of an existing building and new construction on the same site. Redevelopment can range from a single building to a more comprehensive development spanning an existing multi-structure site. Some redevelopment may require consolidating multiple parcels to maximize opportunities or make projects feasible.

Revitalization is a broader but somewhat less expensive means of instilling new life and vitality into a place where new infill and redevelopment may not be viable but actions such as building reuse and renovation, façade improvements, beautification efforts, small business loans, and special events may help spark the comeback and stabilization of areas in decline.

Having more of the new growth occurring on Infill and Redevelopment sites will contribute to some of the key goals of the plan, including

- ◆ Removal of blighted areas/structures while providing reinvestment in existing districts or neighborhoods that will increase the taxable value of land while using existing infrastructure more efficiently
- ◆ Reduction in the consumption of greenfield resources, preserving that resource for future needs and reducing the need to extend new infrastructure to previously undeveloped land areas
- ◆ Intensification of activity levels that help make transit options more viable as a means of access to daily destinations by supporting targeted growth in already built areas
- ◆ Reduction in the growth of Vehicle Miles of Travel, the number of private vehicular trips, and the need for costly capacity improvements by concentrating growth in more compact patterns

Reinvestment in a community's older development centers and neighborhoods can bring significant benefits to the community.

Expand housing choice | As part of a strategy to address the region’s growing and changing housing needs, residential or mixed use infill that creates additional housing near jobs and amenities can prove very beneficial to all households, more critically low and moderate income households, by improving access to jobs and services and reducing transportation related household costs.

Retain a sense of place and historic identity | Core districts and neighborhoods hold much of their original historic character and identity. Reinvestment keeps these areas vibrant and ensures that they will continue to serve a vital role in the community.

Maximize public facility and infrastructure investments | Since investments have already occurred for streets, utilities, parks, and public services, use of these existing public investments is more efficient than financing new infrastructure in outlying areas.

Support the value of private investment | In addition to public investment, private property owners and businesses make significant investments in redeveloped districts. Reinvestment in and reuse of existing improvements supports these private investments and creates stable or higher property values along with more business opportunities.

Contribute to the local economy | Traditional city, town, neighborhood, and community centers are ideal locations for integrating small scale business into the community fabric. These businesses provide employment opportunities, represent a significant segment of the local economy, ensure money will be spent locally, and account for an important share of the community’s tax base. These locations also reflect positively on the community’s image, prosperity, and investment—critical factors for recruiting and retaining new businesses and industries.

Reduce growth pressure on outlying areas | Making productive use of existing improvements and accommodating new uses in existing developed areas reduces development pressure in outlying areas. Although developers provide most of the water, sewer, and street infrastructure for development in outlying locations, local governments bear the responsibility for the long-term maintenance of these extended systems.

Convenience | Small business districts, main street areas, and downtown commercial centers are easily accessible from surrounding residential neighborhoods. This proximity of different land uses encourages walking and less reliance on automobiles for transportation.

Core Area Neighborhood Infill/Redevelopment

Recent residential redevelopment projects have been located in the neighborhoods surrounding downtown. In many of these cases, the feasibility of the projects depended on the ability to realize some increase in residential density. The addition of residents, jobs, and businesses to a community can provide advantages in terms of improving safety by creating more “eyes on the street” in the area, increasing the viability of local shops and businesses, or increasing the utilization of underused services such as transit. Residential infill, however, can mean different styles of housing, and potentially different demands on public services and facilities need to be considered.

Redevelopment within established residential areas should be compatible with existing community character. While it is one of the most frequently recurring terms associated with community objectives for infill development, the vagueness of “compatibility” is also a source of contention, especially as it relates to new, higher-density infill development that is typically larger in scale than existing housing. Achieving some measure of compatibility should be a primary focus of any redevelopment effort and will need to be addressed in zoning and development policies. Compatibility does not mean replicating existing scale or reproducing the architectural styles of



How Infill and Redevelopment Can Revitalize a Strip Commercial Corridor

nearby buildings. Rather, the focus should be on how higher-density infill development can be designed to respond to basic neighborhood patterns, allowing change to be accommodated while preserving cherished aspects of neighborhood character.

Housing in most neighborhoods reflect a variety of architectural styles. The architectural styles and details of new buildings change over the years, but basic patterns are more lasting. By identifying the desirable patterns defined by recurring characteristics—

such as proportions, shapes, relationship of structures to the street, and patterns created by architectural features—new infill and redevelopment can incorporate these patterns while still accommodating a diversity of architectural styles. This practice provides an underlying sense of cohesion and “place”, reinforcing the character of an existing neighborhood.

To foster redevelopment along growth oriented nodes and corridors, strategies and actions may be needed to allow for the restructuring of land use patterns and redesign of adjacent streets. To create a more attractive, pedestrian-friendly land use pattern, this can include

- ◆ Use of zoning tools such as mixed use ordinances that put homes, shops, and workplaces close together and reduced setback requirements that bring buildings closer to the street.
- ◆ Public investment that prioritizes sidewalk improvements, lighting, trees and greenery, and other basic amenities that can set the stage for additional public, private, and nonprofit investment.
- ◆ Street design changes to make the street more welcoming and safer for pedestrians and bicyclists, such as narrower traffic lanes that slow traffic, space for bike lanes and on-street parking, and improved street crossings.

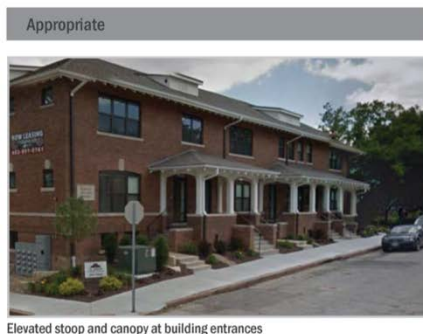
Transit Oriented Nodes and Corridors Infill/Redevelopment

P2S 2040 includes a Development Vision and Future Land Use Plan that encourages the diversification of land use and intensification of development in targeted growth corridors as a means to foster a transit oriented development pattern supportive of greater diversity in residential and business location choice. To achieve this transition outside of the central development core, enabling the redevelopment and reuse of sites and buildings in strip

commercial areas will be key to creation of the mixed use corridors and centers envisioned in this plan.

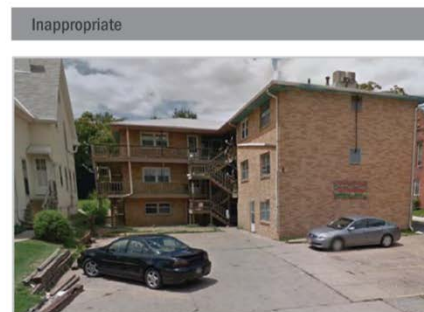
The Mixed Use Transit Oriented Centers and Corridors designation on the Future Land Use Plan supplants what has historically been a ½ or one-block depth of commercially designated land use along corridors such as North and South Broadway Avenues. This is intended to permit a

broader range of land use types including multi-family residential, special needs housing, retail, office, service, and civic uses.



Elevated stoop and canopy at building entrances

Infill & Redevelopment Design Guidelines - Omaha Planning



No transitional element at building entrance

Residential mixed

use redevelopment should be encouraged in these areas, with transit enhancements targeted to support such redevelopment.

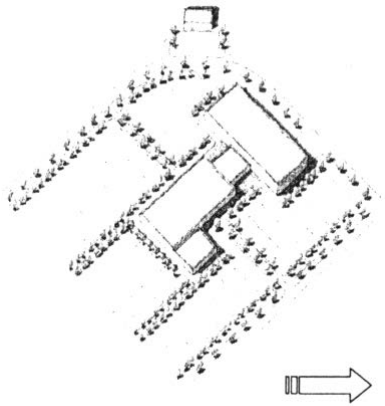
At key intersections along these corridors where the interconnection of the transit routes occur, opportunities for larger scale, more intense reuse or redevelopment may exist given the larger footprint of existing non-residential use typically found at major street intersections. In all cases, these areas should be supported by a pedestrian-oriented character creating a strong linkage between residential and non-residential uses along and adjacent to these centers and corridors.

In most cases, these corridors abut adjacent residential areas either across an alley or directly alongside property lines. This close relationship makes the development of urban and transit oriented design guidelines an important consideration in proceeding with an infill and redevelopment strategy. Establishing some level of guidance will be important to ensure a higher quality of design on these important entryways to the central development core, make them attractive places people want to be, and soften the transition to surrounding neighborhoods. The City may also consider offering incentives for redevelopment or assistance, such as grants for façade improvements that make corridor redevelopment more attractive.

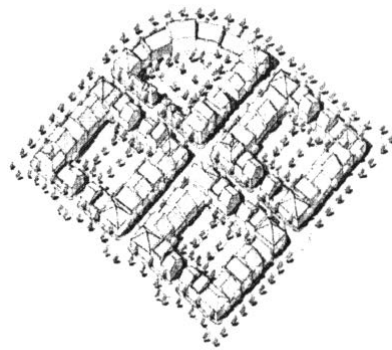
Greyfield Redevelopment

Vacant and underused retail centers present both a concern and an opportunity for Rochester. Greyfield redevelopment refers to giving new life to declining, underperforming, or vacant shopping centers, strip malls, big box stores, and other properties having large unused building and parking footprints. Over the next 25 years, more of these sites are expected to redevelop as a result of changing retail practices and demographics.

These sites offer significant opportunities for our community. First, increasing tax revenues by



"Greyfield" Mall with Large Parking Area



Redevelopment with urban blocks and streets

returning non-productive locations to higher density, higher-value mixed use development is important to the city's financial health. These sites also provide an opportunity to reintroduce an urban street pattern, particularly on sites

proximate to downtown, by dividing large sites into city blocks that can be developed with a mixture of housing, business and civic uses while reestablishing connections with and to the surrounding area. Greyfield redevelopment also provides an opportunity to create new well-planned and well-designed development filled with destinations and the kinds of places people like to visit. To achieve these benefits, the City should:

- ▶ Use small area plans and master site plans to ensure coherent, well planned redevelopment.
- ▶ Employ planning tools such as mixed use overlay zoning to foster the development of both activity-generating uses and a local customer base for such uses.
- ▶ Encourage building and space design organized to entice people out into the public realm, with buildings that define and open onto public streets designed to make walking, sitting, socializing, and meeting a pleasure. Measures such as incorporation of a town square or plaza, smaller blocks with street connections to surrounding neighborhoods, and structuring parking in a manner to support a "park once and walk" experience should be emphasized.

- ▶ Foster higher concentrations of land use intensity at greyfield sites that makes it easy to distinguish them from other parts of the city. They can be visibly taller, denser, and busier than other places if appropriately designed to take advantage of the large footprint of such sites. Development should address transitions to adjacent lower intensity development, appropriate open space provisions, and connections to higher capacity transportation services.
- ▶ Prioritize locations along or in proximity to the transit oriented growth corridors.

Adaptive Reuse

Adaptive reuse can serve as an effective historic preservation tool. Preserving historical, architectural, and cultural heritage can benefit the City in different ways. Historic preservation offers communities a physical reference to the people, places, and events of the past.

Preserving this heritage for the enjoyment of future generations can provide social and economic benefits.

KEY TERMINOLOGY

Adaptive Reuse refers to the process of repurposing an older building or site for a purpose other than which it was built or designed for that may have been built under a different zoning framework. The adaptive reuse of historic or other existing structures is encouraged. To facilitate adaptive reuse, attention needs to be given to issues such as parking, density, setback or other typical zoning requirements as well as building code requirements and procedural steps that a project is subject to.

Infrastructure Concurrency Strategy

Public infrastructure — including transportation facilities, water, sewer, parks, schools, and libraries — is essential to the health, safety, and welfare of the community. To support fiscal sustainability, land development and capital expenditure decisions should align land use, development and infrastructure to make the best use of public and private investment. Using capital improvement programs and infrastructure concurrency provisions (also known as Adequate Public Facilities requirements) can encourage development in the right place at the right time and minimize inefficient or underutilized public investment.

The timing of investment is also an important fiscal consideration. When deciding when is the appropriate time to expand, extend or upgrade existing infrastructure, the following considerations will be taken into account:

- ▶ For new development, the most essential public infrastructure (such as electricity, water, sewer, pedestrian facilities and roads) should be constructed concurrently with that growth. Certain elements infrastructure, such as water and sewer lines, is most efficiently built to serve the ultimate demand of the new area and not simply the current development.
- ▶ While occupancy and use imply an immediate need for water, wastewater, and solid waste services, other public services may make more sense to provide as the demand arises. Infrastructure, such as road improvements or parks, may be provided incrementally in proportion to the initial need, with major improvements scheduled for the future once sufficient growth materializes.
- ▶ For certain other services, a prescribed threshold or critical mass is often needed before construction of a new fire station, school, library, or park is justified. If these facilities and services do not currently exist, commitments for services may be made either from the public or the private sector.
- ▶ Some elements of future infrastructure needs, however, such as securing sites for facilities like parks or schools, should be obtained early in the development process even though they may not be fully improved until more development occurs.

Developing public infrastructure in this manner will protect the public health, safety and welfare of the community while efficiently using capital improvement funds.

An additional set of considerations come into play when development involves the construction of infrastructure to serve development in new greenfield or urban expansion areas. Decisions regarding infrastructure development in these cases should consider:

Feasibility of service | Evaluate the physical feasibility and cost-effectiveness of extending urban public services to candidate annexation areas to ensure sensible investment and to set reasonable expectations.

Orderly service extension | Establish or improve urban public services in newly-annexed areas to serve designated land uses at established levels of service, as funds are available and as responsible engineering practice allows.

Coordination of service extension | Coordinate provision of urban public services to newly-annexed areas so that provision of any given service does not stimulate development that significantly hinders the City’s ability to provide other urban services at uniform levels.

Urban Growth Boundaries | To help guide the infrastructure development and Capital Improvement programming process, the Plan identifies both Urban Expansion and Urban Reserve areas that describe the geographical area expected to meet the City’s development needs to the year 2040 and beyond. Reference to these urban growth boundaries should help inform and guide the timing of infrastructure development to serve new growth areas.

Land Use Framework Overview

P2S 2040 seeks to create a more sustainable and resilient community by balancing existing conventional development patterns with more compact growth styles. Consistent with the Core Principles identified in Section 1, the Plan encourages growth in and along transit oriented centers and transit supportive corridors as well as on lands with readily available utility capacity, thereby supporting continued urban growth while reducing the pace at which the city’s footprint expands. By promoting an adequate supply and variety of housing options, the Plan responds to the desires and affordability needs of our changing population. Mixed

LAND USE FOCUS

- ◆ Create vibrant, walkable neighborhoods
- ◆ Accommodate infill and redevelopment that respects neighborhood character
- ◆ Protect sensitive environmental resources
- ◆ Accommodate added density and mixed use development in corridors that can best connect major centers and nodes with frequent, high quality transit
- ◆ Efficiently use existing capacity in municipal utility systems and facilitate financially responsible expansion of these systems
- ◆ Ensure compatible and sustainable land uses while accommodating the range of uses that will make Rochester a vibrant and thriving place to live, work, and play

use development styles will accommodate greater flexibility in the business and housing markets while providing adequate land area for commercial and industrial needs.

Options will still be available for choosing housing or business sites in areas representative of the lower density development patterns of recent decades. Opportunities for development on the edge of the city will exist where service capacity is available. Preservation of well-established neighborhoods and business districts is a Plan priority. The Plan, however, seeks to attract a greater share of development inward by emphasizing that greater attention be paid to reinvestment and revitalization in areas where convenient transit or walking connections to major destinations are available. Thus, infill and redevelopment of underutilized sites will be encouraged to meet the demand for new housing or business options in walkable, transit supportive locations. By expanding the range of housing and business options, the Plan seeks to support Rochester’s continued evolution as a great place to live and do business.

Growth Distribution Goal

Table 2-3 illustrates a pattern of future community development that reflects the level of residential and commercial growth needed to support successful convenient, higher frequency transit service in the context of a community Development Vision that provides a range of housing and commercial business opportunities both in greenfield locations at the edge of the urban area as well as in emerging mixed use, transit oriented development corridors. Existing and future housing distribution is shown in the upper half of the table and non-residential development in the lower half of the table across five geographic areas, with distribution shown by actual housing or square footage in the middle columns and percentage distribution in columns to the right. The column 2015 reflects existing distribution, while the 2040 Trend columns illustrates what would be expected to happen if historic tendencies favoring low density greenfield development were maintained. The 2040 P2S column indicates the outcomes expected based on the objectives of this plan. The 2040 P2S distribution reflects the concept for downtown Rochester defined in the Downtown Master Plan and refined in the Destination Medical Center Plan, indicating the minimum growth needed along the Primary Transit Network to support the desired level of enhanced transit service.

As noted in the upper section of the table, the distribution of housing by location would change with a more compact growth approach, shifting approximately 15% of expected growth away from traditional low-density single use areas on the edge of the city towards higher-density mixed use areas with good access to transit and more walkable distances to services. The DMC

District, downtown neighborhoods, and PTN Corridors all see higher growth under a more compact growth vision, but significant housing growth is still projected in edge expansion areas (7,300 units versus 10,600 under the Trend Scenario) and in already developing areas or infill areas (5,200 units versus 6,300 under the Trend Scenario).

TABLE 2-3: EXISTING AND FUTURE GROWTH DISTRIBUTION

GEOGRAPHIC SUBAREAS/EXISTING CITY AND URBAN EXPANSION AREA	2015	2040 TREND	2040 P2S	2015	2040 TREND	2040 P2S
	Estimated Housing Units			Distribution of Housing		
Downtown / DMC District	2,935	5,180	5,770	6%	7%	8%
Downtown Neighborhoods	4,751	4,860	5,720	10%	7%	8%
Transit Oriented Corridors	10,536	14,890	17,850	21%	21%	25%
Existing Urban Areas / Future Infill Area	20,912	27,230	26,140	42%	38%	37%
Urban Expansion Areas	8,332	18,965	15,660	17%	27%	22%
	Est. Commercial / Office / Industrial Square Footage (millions of sq. ft.)			Distribution of Commercial / Office / Industrial Sq. Ft.		
Downtown / DMC District	2,559	3,273	3,310	9%	9%	9%
Downtown Neighborhoods	1,959	2,090	2,350	7%	6%	6%
Transit Oriented Corridors	13,901	19,931	21,830	50%	54%	59%
Existing Urban Areas / Future Infill Area	5,181	6,020	6,040	19%	16%	16%
Urban Expansion Areas	1,981	5,854	3,750	7%	16%	10%

A critical finding in this analysis is that the level of activity—as measured by persons per acre—is achievable in a targeted set of travel corridors that would provide a logical and easy to understand backbone for the public transit system. Achieving the level of development intensity needed to support more frequent and high-quality transit service will require deliberate construction of a set of land use policies and implementation measures that encourage and foster the type of development that support the needed level of activity. A pattern of increased development intensity is consistent with the driving forces described in Section 1 indicating more interest is housing options available in walkable, mixed use and transit oriented environments, and a projected housing need tilted towards attached and multi-family styles as aging Baby Boomers begin to downsize and new workforce entrants not yet in

their prime family formation years seeking more affordable rental or ownership options. The Transportation Framework includes the concept of a Primary Transit Network as a promising opportunity to develop high frequency, Bus Rapid Transit service along major gateways to downtown. More detail about the PTN is found later in this section.

Key Elements of the Land Use Framework

Urban Area Growth Map

The Urban Area Growth Map presents guidance on how the physical footprint of Rochester and its environs is expected to change over the 25-year horizon of the plan and where urban expansion can be anticipated. Designation of growth areas considers future demand for developable land, the ability to service lands with infrastructure and public services, and constraints on urban growth within Rochester's urban fringe.

The goal of providing this guidance is to ensure there is sufficient land to sustain future economic opportunities, achieve a balance between urban needs and desires for preserving suburban and rural land use in proximity to the city, and to prevent the premature fragmentation of open space and agricultural lands that may provide the best location for long term urban growth. Establishing guidance on the expected footprint of regional growth provides landowners a level of predictability and certainty that can protect current land uses while anticipating the potential future transition to urban use. While it is the City's goal to promote responsible growth by encouraging a more compact pattern of development, the Plan recognizes that

TRANSPORTATION FOCUS

- ◆ Develop a multi-modal, interconnected system of transportation facilities that reliably serves major activity areas and neighborhoods
- ◆ Increase the viability of transit, walking, and biking through design and management of land uses
- ◆ Emphasize low cost management and operation as first strategies to accommodate increased traffic
- ◆ Approach transit not as just a service but as infrastructure that can shape and support a more efficient and cost-effective land use pattern
- ◆ Design of transportation should be sensitive to the adjacent land use environment
- ◆ Ensure equitable access to alternative mobility options (transit, bike, walk) and community services and amenities (schools, parks, cultural resources)

growth on the edge of the city will continue to meet a portion of future development demand and growth of the city that is expected to occur beyond the 25-year scope of this plan. Land use and development needs to be strategically considered over a longer time horizon to provide some additional context to near-term decisions.

Future Land Use Map

The Future Land Use Map is the centerpiece of the Land Use Framework and one of the primary tools shaping future growth within the City. The Future Land Use Map serves as a policy tool to guide decision making related to questions of appropriate zoning and development intensity throughout the city, providing a geographic framework for the City’s land use and zoning policies. The Future Land Use Map, along with the policies and strategies found in Section 3, is used to determine consistency of zoning requests with the vision and principles of the Plan, as well as inform planning around matters such as infrastructure capacity needs.

Transportation Framework Overview

The Transportation Framework recognizes the evolving nature of travel choices and the community’s desire for convenient, affordable, and feasible alternatives. Walkable neighborhoods, convenient transit options, and safe bike routes to destinations are among the features the community said are important and in need of improvement as the City moves into the future.

Changing Expectations for Transportation

The Rochester Comprehensive Plan recognizes that transportation is not an end in and of itself. Rather, it is a means to realize the City’s goals in areas as diverse as health, economic growth, livability, affordable living, and fiscal sustainability. Transportation affect goals in these areas in the following ways.

Economic Growth | Local and regional transportation is essential to Rochester’s past, current, and future economic success. As a destination medical community that draws visitors from around the region and the world, access to the Mayo Clinic and the City’s many other businesses and cultural activities is essential to economic success. Since employee decisions about where to live and how to travel are influenced by the reliability of the transportation system, Rochester’s economic success will continue to rely on quality transportation.

Livability | Transportation preferences appear to be changing among different demographic groups, particularly post-millennials, younger millennials, and seniors. By coordinating land use decisions with transportation investments, the City can increase the number of convenient and affordable transportation options available. Building communities with convenient pedestrian and transit access to destinations close to home will ensure Rochester continues to offer a high quality of life to its residents.

Placemaking | Transportation corridors account for the majority of public land in the city and play an important role in creating great public spaces in the community. All unique places have a story, which is manifested in their physical design. Corridor design can be used to create areas that attract people by including features such as shaded sidewalks, plazas, and other public realm features that encourage people to stroll, stop, sit, or gather, while adding value to adjacent properties and maximizing public benefit. Improving multi-modal access to such spaces helps to contribute to the vitality of these locations.

Health | Transportation systems impact community health in many ways. Transportation networks can provide opportunities for daily physical activity and improve safety by minimizing the risk of being injured in a collision. Transportation projects also contribute to environmental quality through steps that can be taken to improve air quality, reduce stormwater runoff, or limit the unwanted impacts of traffic noise.

Affordability of Transportation and Housing Options | Nationwide, transportation costs are the second highest household expense and can be the highest expense for low income households. These residents and others—like the elderly or disabled—can enjoy an improved quality of life if opportunities to live nearer jobs, education, and other daily activities are provided, or the ability to access them through options such as convenient and frequent transit service are available.

Fiscal Sustainability | Federal, state, and local transportation funding levels are declining when viewed in inflation-adjusted terms, yet maintenance needs and travel demands placed on urban transportation systems are increasing. Strategic investments in a balanced transportation system can minimize pressure on existing roadways during peak travel periods, reducing the need for costly roadway capacity projects. Furthermore, by aligning land use with transportation to increase the number of residents who live within walking proximity to jobs and services or along key transit corridors, more efficient travel is possible.

Guiding Transportation to Achieve the Community Vision

A transportation system that provides reliable access to destinations throughout the urban area should include a variety of safe and convenient facilities, travel options, information services and management strategies. To provide for the mobility needs of all Rochester residents and visitors, and not just those who can rely on access to a private automobile, the Transportation Framework includes policies regarding a range of physical networks and service strategies that planned in concert can expand and enhance travel choices, including:

- ▶ **Major Street Network** | The largest single infrastructure system the community manages and maintains, the highway network is generally composed of arterial and collector roads that accommodate the largest share of travel in the community and are important to providing access to the day and day activities and destinations of individuals in the community

The integration of land use and transportation, on which the Plan is built, relies on a land use vision that provides critical support for a more diverse set of transportation choices where walking, bicycling, transit, or evolving transportation services are feasible to meet more of a person’s daily transportation needs. This concept supports a pattern of growth that is more fiscally sustainable over time as targeted densification allows for more efficiency in the provision of services at a lower per capita cost.

- ▶ **Pedestrian Systems** | The network that provide opportunities for people walking or using mobility aids for physical activity, for connections from a travel vehicle to a destination, along with the enhancements that create an attractive environment and add value to private investment
- ▶ **Bicycle Networks** | The network of on- and off-road facilities to accommodate bicycle travel for recreational and utilitarian purposes, along with complementary facilities and strategies to improve opportunities to utilize bicycle travel
- ▶ **Transit** | Various types of service strategies involving a mix of bus routes, shuttles, circulators, or future modes such as trams or autonomous transit that provide service on high demand travel routes to high demand locations in addition to providing lifeline services to those who may not have access to other vehicular travel alternatives

- ▶ **Shared Mobility** | Services that reduce the reliance on personal vehicle travel through personal shared ride arrangements, such as carpooling, and the emerging integration of information and mobility technologies through services such as car sharing, taxis or ride hailing services such as Uber or Lyft
- ▶ **Travel Options and Parking Management** | Strategies to incentivize the use of options other than single occupant vehicles, particularly during peak travel periods associated with the typical workday
- ▶ **Complete Streets Policy** | Guidelines regarding the use of design, operation, and maintenance of streets that will facilitate the safe and convenient use of streets by people of all ages and abilities
- ▶ **Commercial Freight and Passenger Services** | Networks and associated strategies to ensure adequate freight access and the availability of commercial freight and passenger transport services
- ▶ **Local Streets** | Local streets, which account for approximately 3/4ths of the total roadway mileage in the city, are responsible primarily for providing direct access to land uses within neighborhoods or business districts.

Looking to the future, **the Plan seeks to enhance access to transit by elevating elements of the transit system from conceptually being just a service to an important element of the city's infrastructure.** Integrated with a supportive land use vision, the Plan provides the framework for an interconnected system of primary transit corridors linking downtown with major activity centers throughout the city that can support permanent investment in high quality, high frequency services such as bus rapid transit. As future housing and business development responds to the potential of permanent transit infrastructure, the Primary Transit Network (PTN) will attract more mixed use, mixed density to these corridors that will make it possible for more people to consider a lifestyle less dependent on or independent of the private automobile. A foundational transit network such as the PTN has proven to be an important piece of many communities' economic development strategy particularly in cities, like Rochester, where land is at a premium in the central development core. By limiting the footprint of vehicular travel in the downtown, more land can be made available for more productive, higher value uses.

The Plan also looks to **support enhancement of a range of multi-modal options by encouraging the development of complete travel corridors** that accommodate travel by all modes between areas such as neighborhoods, downtown and other activity centers in the community.

Complete corridors advance the concept that while not all modes can be accommodated on every street, there should be facilities available within the general travel corridor between places that may consist of multiple streets or linear open space corridors than provide for reasonable direct vehicular and non-motorized access and mobility between the areas.

The Plan also **encourages pedestrian-oriented development in high activity areas such as the downtown district and with nodes and along corridors associated with Primary Transit Network** as a means to enhance the economic viability of these districts and provide safe access to transit. While long standing City policy calls for installation of sidewalks along all new streets, the focus on pedestrian oriented development goes beyond the simple installation of infrastructure to consider the surrounding land use context and additional pedestrian features that can add value in mixed use districts where higher levels of pedestrian travel are expected.

With the prospective growth in employment in downtown Rochester associated with the Destination Medical Center initiative, the plan **encourages greater emphasis in the future on Travel Options and Shared Mobility services**. A new Transportation Management Organization, ARRIVE Rochester, was formed in 2018 focused initially on providing downtown employers and their workers greater access to the information, education and programs they need to understand alternative commuting options and the support they need to effectively utilize these services.

Anticipated Outcomes

P2S 2040 seeks to achieve a balance between meeting the market for conventional development while providing the opportunity for the market to respond to a growing interest for more housing and business location choices available in mixed use, more compact urban environments.

The benefit of capturing a greater share of future growth in more urban settings is that buildings, streets, and public spaces are developed where it is more cost efficient to install, operate, and maintain infrastructure and provide certain services by taking greater advantage of existing unused infrastructure capacity. Development patterns favoring compact growth over conventional suburban or exurban growth patterns can also contribute to lessening the

dependence on the automobile by reducing distances between daily origins and destinations, making other modes such as transit or walking more feasible for travel and reducing the overall amount of vehicular travel needed during the day. By taking a balanced approach to development that encourages infill and redevelopment of underutilized properties, the community at large should be able to avoid expansion costs and direct more dollars to financing maintenance and improvements in existing areas.

The projections in this plan for more compact and transit oriented growth may prove to be conservative if appropriate supports are set in place and successful models are demonstrated early in the planning period. Targeted transit enhancements can both lead and follow redevelopment, forming a virtual circle that can accelerate both private and public investment in transit supportive elements.

The economic rationale for pursuing policies that support these principles is compelling. Successful execution of the Destination Medical Center Development Plan and vision of the downtown as a primary focus for medical services and commercial and cultural intensification will depend on getting more people in and out of Rochester's central core with less dependence on private vehicle travel. To achieve this, more diverse housing and transit options will need to become more convenient and attractive. A vision that offers more diverse land use, transportation, and housing choices can anchor a development strategy attractive to private-sector interests because growth of more urban, mixed use development supports the City's economic development goals and can create high-quality, economically sustainable neighborhoods and districts.

Part 3 | The Land Use Framework

The Land Use Framework will guide changes in Rochester’s physical form and function, providing guidance on where new growth will occur, where infill and redevelopment can be anticipated, and what uses may be expected in different areas. This Framework provides direction on how urban form, growth, and development will evolve in the future. It provides a basis for making decisions about future investments in infrastructure, transportation, parks, housing, and community facilities and services. The Framework defines a series of geographies that reflect the consideration of factors which help to distinguish areas that warrant different land use policy and development considerations. Among the factors taken into consideration are:

- ▶ The land area needed to support projected growth in the community, including residential, commercial, employment, industry, and other non-residential uses;
- ▶ The land area needed to reasonably supply the market demand for greenfield or edge growth over a 25-year planning horizon;
- ▶ What lands are most suitable to meet needs 30 to 50 years into the future, recognizing that the city will continue to evolve beyond the 20-25 year horizon of this plan;
- ▶ How to establish a land use pattern of transit supportive nodes and corridors that will support development of a transit network

The important principles of growth that will guide future development in the city are:

- ◆ Downtown will be a prime focus of future Rochester growth;
- ◆ Medium and higher density growth and development will be aligned along key transit oriented nodes and corridors;
- ◆ Maintenance and, where needed, revitalization of mature neighborhoods through appropriate infill and redevelopment will be encouraged; and
- ◆ Growth on the edge of the city will be more fiscally sustainable with an emphasis on directing growth to areas where adequate infrastructure capacity exists to support the needs of future residents or business.

with the needed capacity to serve the economic development vision for Rochester’s downtown;

- ▶ Existing levels of property investment and whether the value of that investment is being maintained or may be reaching the point where revitalization needs are emerging;
- ▶ The adequacy of public facilities including sanitary sewer, potable water, utilities, roads, and transit to service additional growth or development;
- ▶ Future development potential based on consideration of existing land use and site constraints; and
- ▶ Consistency with the overall plan vision and supporting key growth principles.

The Land Use Framework reflects a layered structure, with 1) an **Urban Area Growth Map** that identifies the expected geographic footprint of future city growth over a 30 to 50 year timeframe along with potential infrastructure constraints affecting the footprint; 2) a **Stability and Change Map** that provides a strategic overview of where the most significant development activity is expected to occur in the city over the next 20-25 years, and 3) a detailed layer of development guidance provided by a **Future Land Use Map**, which guides future land use in the vicinity of every parcel within the Rochester Urban Service Area (RUSA) and serves as a foundation for future zoning and development decisions.

Urban Area Growth Map

The Urban Area Growth Map establishes the area that will potentially be affected by future growth of the City of Rochester. The Growth Map identifies both developed as well as fringe suburban and agricultural areas that could accommodate urban development over the next 30 to 50 years, predicated on the provision of services such as sanitary sewer and water systems, storm sewer systems, upgraded transportation systems, parks, and other utilities in these areas.

The Growth Map provides guidance and direction on where urban growth should occur, identifies sufficient land to meet future development demands, and facilitates the efficient use of land while not compromising the ongoing use of suburban or rural land for its current purpose or interim/temporary uses that are compatible with long term urbanization. A primary goal of joint efforts to define the future urban footprint has been and should continue to be the

minimization of intergovernmental conflict and provision of greater predictability for property owners.

Identification of designated growth areas is based on an approach that recognizes the value of using the provision of future public facilities to steer urban

KEY TERMINOLOGY

The **Rochester Urban Service Area (RUSA)** includes developed and undeveloped areas identified to accommodate future development through the planning horizon year of 2040. Centralized sanitary sewer and water systems, storm sewer systems, transportation systems, public parks, utilities, and school sites should ultimately be provided in these areas.

Note: The scenario planning process determined that Rochester could accommodate all projected future growth within the current RUSA boundary.

development in desired directions, taking into consideration which future uses are best suited in certain areas and whether existing development patterns make future urban development less feasible. Urban Area growth should facilitate cooperation between the City and neighboring jurisdictions on issues that will benefit the larger urbanized area, such as regional stormwater management, district sanitary sewer

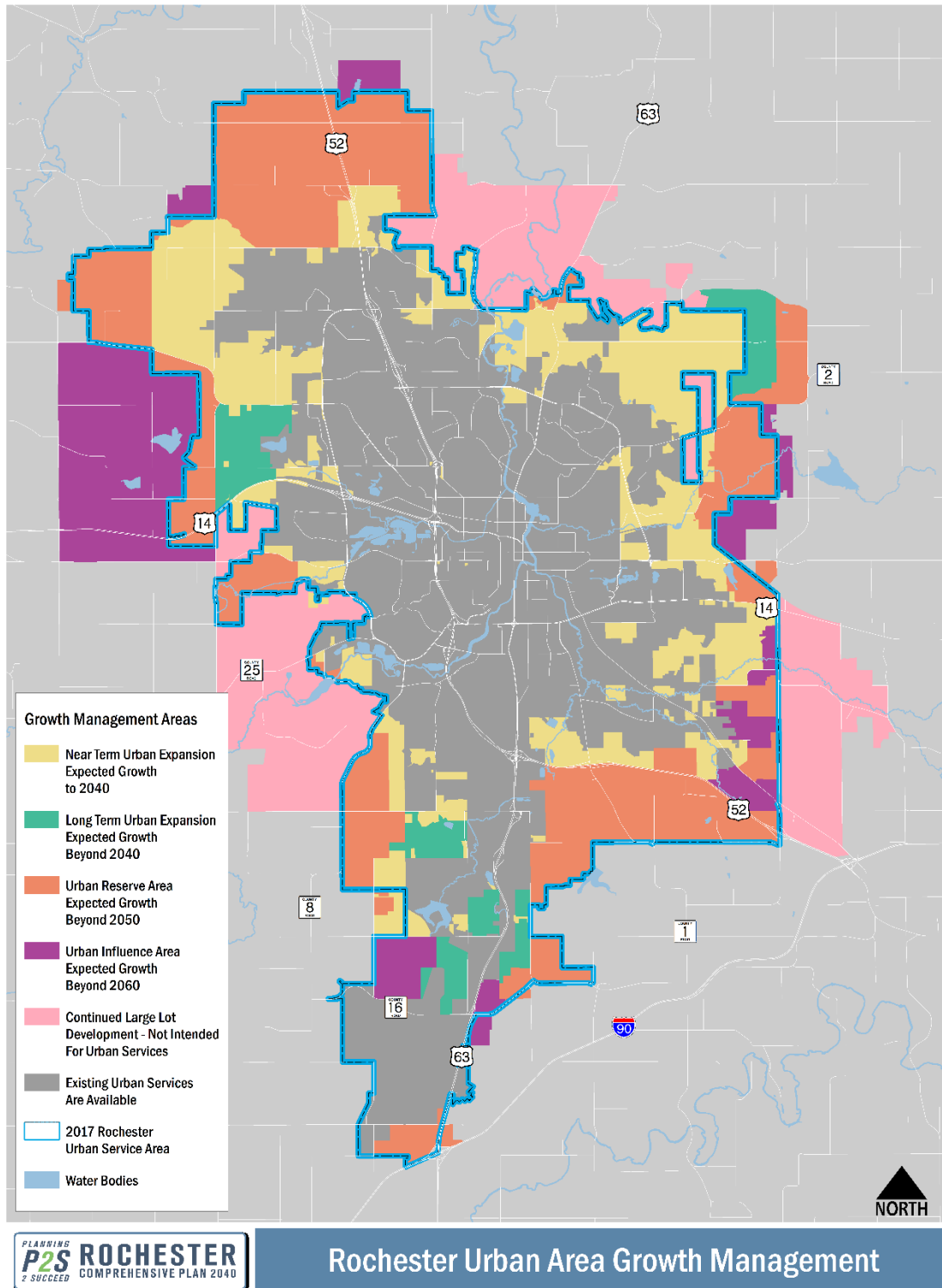
agreements, and regional trails and open space.

Figure 2-7 illustrates the Urban Area Growth Map, highlighting “tiers” of existing and potential future urbanization encompassing the city and its surrounding environs. The Growth Map refines the urban service area boundaries identified in the Olmsted County General Land Use Plan (2014) by providing additional clarification on when urbanization may be expected to occur in different areas. The following tiers are highlighted on the Growth Map.

Current Municipal Service Area | The Current Municipal Service Area consists of lands within Rochester’s existing city limits designated on the Future Land Use Plan for residential, mixed use, or non-residential development; these include areas where municipal water and sanitary sewer infrastructure is in place or easily extended to provide future service. Within the Current Municipal Service Area, staging of development in certain areas will be required due to sanitary sewer capacity constraints discussed in the Stability and Change section of the Land Use Framework.

Urban Expansion Area | The Urban Expansion Area identifies where infrastructure can most efficiently be provided by the extension of current municipal sanitary sewer and water facilities

FIGURE 2-7: ROCHESTER URBAN AREA GROWTH MAP



to accommodate Rochester’s expected demand for edge growth through 2040 and beyond. In the near term, the current use of these lands would desirably remain in place, with allowances for changes in use on an interim basis that do not interfere with future urbanization of the area.

Urban Reserve Area | The Urban Reserve Area defines those areas most suitable for urbanization beyond the Urban Expansion area. The Urban Reserve Area acts as a secondary reserve for growth should the City develop faster than anticipated while identifying reserve areas for longer term growth needs. Urban growth should not occur in the Urban Reserve Area unless and until adequate land area is exhausted in the Urban Expansion Area. The ability to extend urban services into this area would be expected to materialize under normal conditions in a 20 to 30-year time frame. The Urban Reserve Area should be accounted for in future infrastructure planning, with long term needs for water, sanitary sewer, and transportation facilities considered when planning for projects in the Current Municipal Service or Urban Expansion areas. Fragmented, leapfrog, or inefficient development that could compromise future urban development, as envisioned in this Plan, should be avoided in this area.

Urban Influence Area | The Urban Influence Area identifies potential lands that lie within sanitary sewer service sheds where the City has the ability in the long term to extend sanitary sewer service once facilities are built out in the Urban Reserve Area. These areas have generally been identified in either the General Land Use Plan of Olmsted County or through Orderly Annexation agreements between the City and individual townships. It is expected that the urbanization of these areas may be in a 40 to 60-year time horizon or beyond. Little in the way of strategic planning for services is likely to occur in the near term in these areas; however, the potential for future development should be recognized. The City, working with Olmsted County and the townships surrounding Rochester, should consider enacting measures to discourage inefficient development patterns that would hinder possible future urbanization of such areas.

Development in the Urban Expansion Area

Lands outside of the current municipal limits located within the Urban Expansion Area are considered prime areas for future greenfield urban development, subject to annexation, completion of feasibility studies regarding the availability of sanitary sewer and water service, and agreement on how electric service will be supplied to the area.

Prior to annexation and/or development in the Urban Expansion Area, the following criteria should be considered:

- ◆ Contiguity with the existing urban development pattern and present City limits
- ◆ Timing, phasing, and feasibility of providing sanitary sewer, water, and electric power to support orderly growth consistent with the Plan
- ◆ A fiscal impact assessment addressing the short and long-term allocation of public facility costs
- ◆ Whether the timing of development could compromise efforts to develop the Primary Transit Network (PTN) by affecting the viability of growth along those PTN Corridors identified as priorities areas for redevelopment during the time horizon of the Plan

Development in the Urban Reserve

In the Urban Reserve Area, the goal of the City is to work with Olmsted County and the townships bordering the city to promote orderly growth. Factors to consider when identifying areas for future urban expansion include the cost effectiveness of urban infrastructure extension, the location of critical environmental resources, the protection of prime agricultural land from premature fragmentation, and the ability for existing land uses to retain economic viability prior to any urbanization activity. The intent is to preserve these areas at very low development densities that may be compatibly integrated with future urban development, minimizing scattered large lot development that pose future obstacles to efficient, cost-effective service extension. At the same time, the Urban Reserve Area is intended to prevent premature expansion of urban services by ensuring orderly and efficient expansion of future infrastructure.

Successful application of Urban Reserve Area policies should result in the following outcomes:

- ▶ Land conservation in a viable economic status until such time as public utilities may be extended and urban development densities may be supported

- ▶ Reduction of potential urban/rural land use conflicts in both the use of the land and future extension of public utilities and other infrastructure items

Should annexation or a proposal to move land in the Urban Reserve Area to the Urban Expansion or Current Municipal Service areas be entertained, the same criteria for annexation in the Urban Expansion Area (listed above) should be considered along with the following criteria:

- ◆ Whether, based on careful analysis of available land and growth demands, there is a shortage of land in the Urban Expansion Area to meet market needs that warrants the need for conversion of additional land for urban development within the next 1 to 5 years
- ◆ Whether areas currently identified for Urban Expansion Area are determined to be unfeasible to serve with municipal services, warranting the addition of a comparable amount of land in lieu
- ◆ Whether unique fiscal or economic benefits to the City and County are anticipated as a result of the request that do not compromise achieving development of the Primary Transit Network and supportive land use patterns envisioned in this Plan

Development in the Urban Influence Area

The goal of the Urban Influence Area is to identify areas where urban development is not expected to occur in any near-term time horizon but where municipal utilities could be expected in a 30 to 50-year time frame should city growth needs require it. The boundaries of the Urban Influence Area are based on a high-level planning assessment of where the City may be able to extend sanitary sewer and water service in the future. Designation of the Urban Influence Area coordinates public preferences for maintaining an appropriate level of suburban or rural development choices within reasonable proximity to the urban center while protecting agricultural and other resource protection uses from premature fragmentation, facilitating the orderly and efficient transition from rural to urban development far in the future.

Sanitary Sewer Capacity Constraints

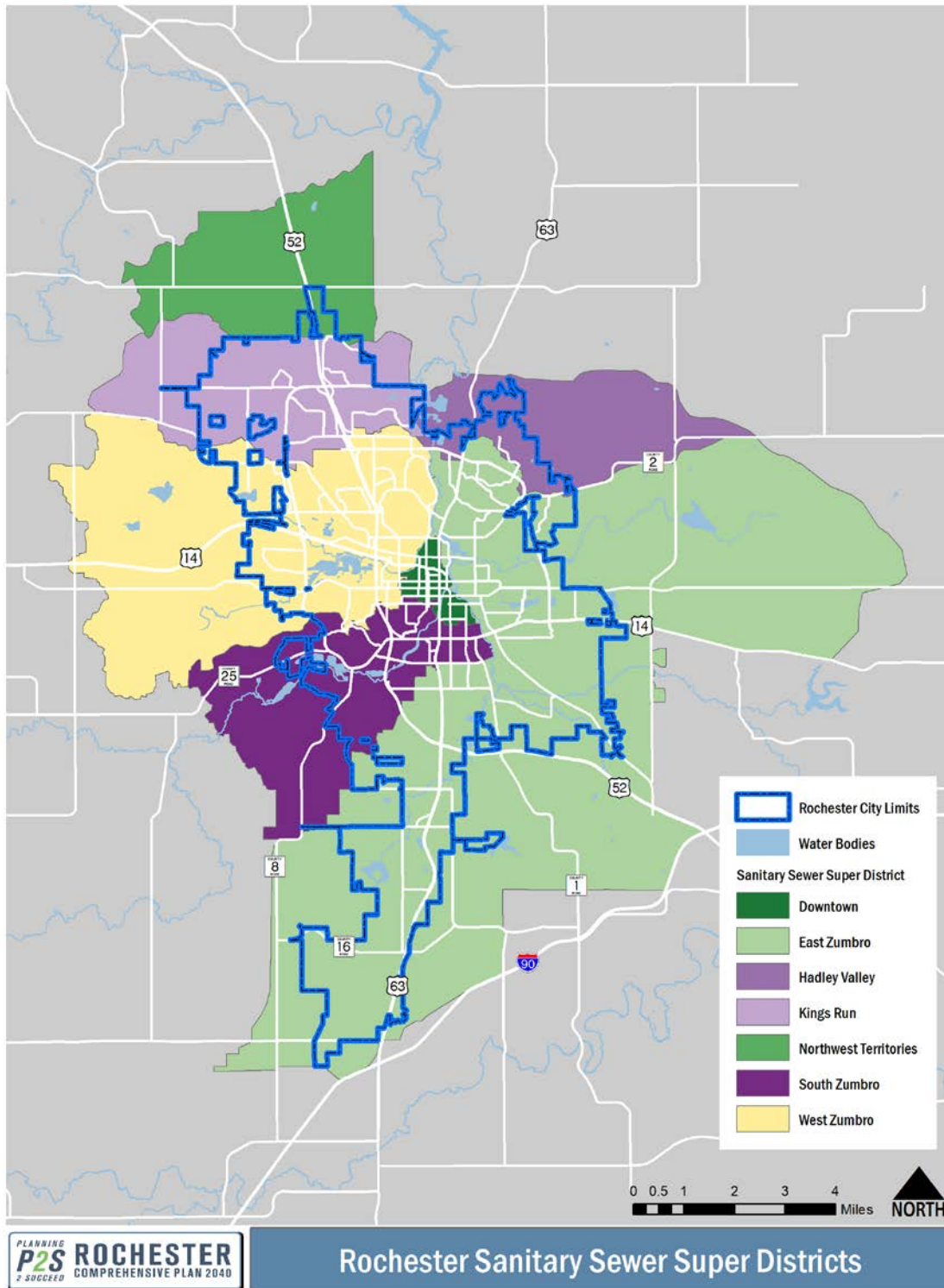
While developing the Comprehensive Plan, the assessment of infrastructure capacity identified potentially significant limitations related to sanitary sewer capacity. The sanitary sewer system, particularly the existing trunkline sewer network, was found to be a potentially limiting factor affecting the ability to develop lands in certain sewer districts throughout the southern 2/3rds of the city. This analysis considered not only the City’s growth needs extending into future Urban Expansion Area over the horizon of the plan, but also growth in Urban Reserve Areas which may not be realized for 40-80 years. These capacity constraint findings inform priorities for the direction of growth through 2040 and key strategies for supporting the P2S Plan objectives. They will inform capital improvement programming related to funding of needed improvements.

The City of Rochester continues to study the issue of sanitary sewer capacity in different sectors of the city. A 2016 study, *A Comprehensive Plan for Sanitary Sewer Capacity*, identified potential infrastructure conditions that could limit the ability to provide sanitary sewer capacity for new development in the southern 2/3rd of the city. A planning level cost estimate of \$150 to \$160 million dollars was identified to correct existing and future deficiencies. Much of this investment may not be needed for 40-80 years as it relates to longer term growth needs of the city. Prior to developing a capital investment strategy for sewer investment, further study is planned to assess the extent to which infiltration of stormwater may be impacting the capacity of the system before detailing potential solutions.

Among the findings of the sanitary sewer assessment were that in the large sewer districts serving southeast and southwest Rochester—known as the East Zumbro and West Zumbro Districts—existing capacity limitations can be expected to restrict the ability to accept additional sewage flows from new development until certain capacity improvement projects are constructed.

In support of the P2S 2040 Plan, the City completed a strategic assessment of sanitary sewer capacity throughout the urban service area. This high-level evaluation focused on providing information to assist in decision-making about future investments in the trunk sanitary sewer system to support growth. This work suggested the following conclusions related to the Sanitary Sewer Districts shown in Figure 2-8:

FIGURE 2-8: ROCHESTER SANITARY SEWER DISTRICTS



- ▶ It would be most cost effective to promote growth in the Kings Run and Hadley Valley sewershed districts in the near term. These districts have the largest amount of available sewer capacity.
- ▶ The East Zumbro District covers a large geographic area composed of a number of subdistricts. The cost to rectify sanitary sewer capacity problems varies among the subdistricts and is affected by their distance from the Wastewater Treatment Plant and the location of constrictions along the East Zumbro trunkline sewer. Findings of note include:
 - The Willow Creek and Cub Foods subdistricts within the East Zumbro area have the least amount of sewer capacity for new growth. Substantial sections of the trunk line within these areas is near or at capacity under existing conditions, with the cost to rectify the constraints in these areas the highest within the East Zumbro District.
 - The remainder of the East Zumbro area north of TH 14 has limited available sewer capacity to serve future growth. Of the subdistricts within this area, additional capacity could most affordably be provided to the Silver Creek subdistrict at a relatively lower cost than improving service to the Willow Creek and Bear Creek subdistricts.
- ▶ The West Zumbro District also has substantial sections of trunk line sewer at capacity under existing conditions. The ability to accommodate new growth without major trunk sewer investment is limited, and the cost to provide added sanitary sewer capacity in this district is relatively high compared to other areas.
- ▶ Previous study has found that a very small portion of the southeast area of the Northwest Territory District could be served with improvements to existing pipes and lift stations. The cost to upgrade the existing pipes and lift stations for this small sub-basin area is comparatively small, while the cost to service the remainder of the Northwest Territory district is high.

Given the existing sanitary sewer constraints that exist, it is recommended that a process be established to consider the following sanitary sewer capacity policy when new development is brought forward:

In areas where sewer capacity is not constrained, development can proceed under the standard development review process that has been in place prior to adoption of this plan.

In areas where sewer capacity is limited or constrained, a technical assessment of the sewage generation characteristics of proposed development in combination with assessment of remaining trunkline sewer capacity in the sanitary sewer subdistrict where the development is proposed should be completed to determine the availability of capacity and/or the potential scheduling of improvements to address this potential Adequate Public Facility deficiency.

Figure 2-9 highlights those areas where remaining sanitary sewer capacity is currently judged to be limited or constrained. These areas will be subject to a more stringent evaluation/assessment of the adequacy of municipal sewer facilities until such time as capital investments to remove identified capacity bottlenecks are made; in some cases, this may be beyond the horizon of this plan. The City should complete additional work to develop a capital improvement plan to maintain existing assets and address longer term limitations to city growth beyond the horizon of this plan. As this work is completed, amendments to this Comprehensive Plan should be completed to reflect updated strategies and the actual work completed that removes existing constraints on sanitary sewer capacity.

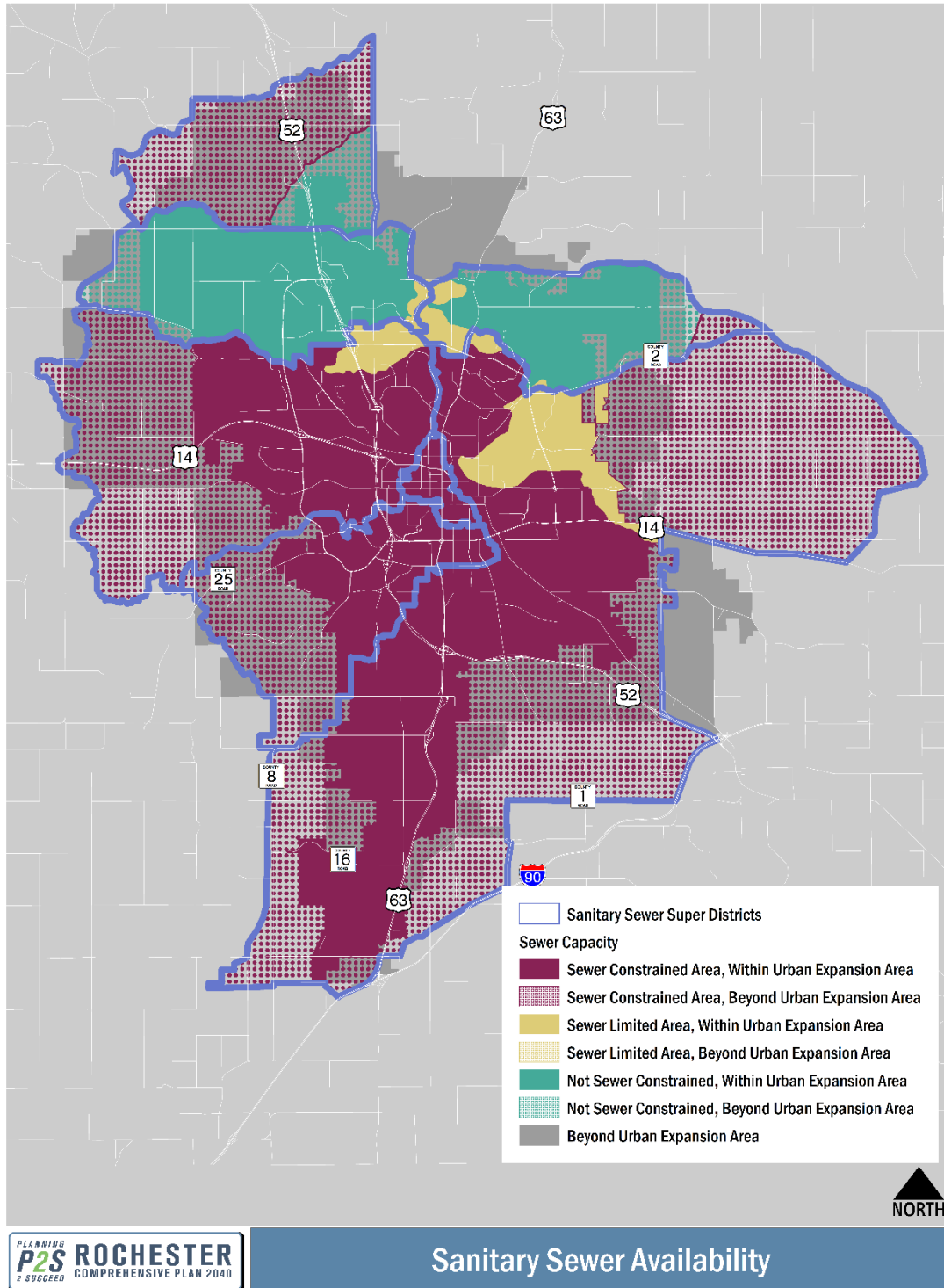
Regional Sewer Service Systems

There may be situations where the City is approached to partner in the solution to pressing public health issues related to utilization of private or on-site sewage treatment systems. One such example is the Chester Heights Sanitary Sewer Service District. Participation in such joint efforts is consistent with the Plan and will further important goals such as protection of the city's potable water supply. Consideration should be given to the effect such efforts may have on the Development Vision and whether an appropriate sewer service framework can be established that is consistent with the Growth Management Plan.

Stability and Change Map

Areas of Stability and Change have been identified based on consideration of property investment patterns, capacity of systems to accommodate additional development, and identification of areas best suited to respond to aspects of the Development Vision such as expanding housing choice and transportation options through development of walkable, transit

FIGURE 2-9: SANITARY SEWER CAPACITY LEVEL OF CONSTRAINT



oriented mixed use districts. The degree of change – the amount of new development or redevelopment likely to occur in different areas of the community - will vary, with some areas, such as the downtown, seeing substantial infill and redevelopment over the coming years, other areas, such as transit oriented development corridors, seeing a more modest level of development or redevelopment, and stable areas such as many existing single-family neighborhoods unlikely to see much development activity at all. The **Stability and Change Map** presents an assessment of the level of urban change that can be anticipated or encouraged. It will inform subsequent implementation efforts such as updating of the City’s zoning district regulations by serving as a guide to expectations about the future level and type of private investment and complementary public investment actions that can be anticipated in different parts of the urban service area.

Stability and Change Area Classifications

The Change and Stability Map classifies lands within the urban service area into four basic types of areas: Growth, Stability, Change, and Growth-Constrained Areas. Subsets of each of these areas are defined in Table 2-4.

TABLE 2-4: STABILITY AND CHANGE MAP CLASSIFICATIONS

AREAS OF GROWTH	
Edge Growth	Edge Growth indicates areas of anticipated future development at the edge of the city, on lands currently not utilized for urban intensity development, where new neighborhoods or development areas will emerge and be served with future municipal infrastructure systems (sewer, water, other utilities).
Core Growth	Core Growth reflects the area typically associated with the central development core of Rochester, where the most intense level of future development is anticipated, with the highest levels of transit and pedestrian access contemplated to support the economic and cultural hub of the city. Under the vision of the Plan, downtown Rochester will continue to serve as the hub for a growing region.
AREAS OF STABILITY	
Established Residential Area	Established Residential Areas are intended to reflect predominantly residential land use that are least likely to see any change from their current land use or from the immediate development pattern/character of a neighborhood. These neighborhoods are anticipated to see a sufficient level of investment in existing properties such that they would be harmed by any significant level of incompatible infill redevelopment.

<p>Established Business Area</p>	<p>Established Business Areas are intended to reflect those non-residential land uses least likely to see a change in the predominant existing development pattern/character, where reliance on auto-oriented access predominates and there appears to be a sufficient level of property investment to anchor property valuations and the viability of these areas for ongoing business activity.</p>
<p>Urban Reserve Area</p>	<p>Urban Reserve Areas are currently characterized by agriculture use, private open space, or large acreage exurban-style development beyond the current city limits where urban development beyond the 20 to 25-year horizon of the Plan could most feasibly be accommodated.</p>
<p>AREAS OF CHANGE</p>	
<p>Transit Oriented Growth Areas</p>	<p>Transit Oriented Growth Areas reflect the major urban transport corridors extending outward from the Downtown Core Growth area, where significant opportunities for new mixed use residential and business development are envisioned, supported by development of major transit infrastructure. These corridors and nodes will expand opportunities to reduce reliance of private vehicle travel by connecting significant concentrations of jobs, shopping, and entertainment downtown with denser walkable, mixed use development that will support frequent, higher quality transit service, by providing a greater diversity of housing and non-residential development that growing numbers of persons find attractive and desirable.</p>
<p>Residential Reinvestment Areas</p>	<p>Residential Reinvestment Areas are generally adjacent to the Downtown Core Growth area, where much of Rochester’s original or older housing stock is found. These areas generally follow a traditional grid street and block pattern, with buildings originally constructed for single family housing. As downtown continues to grow and evolve, these neighborhoods will experience redevelopment pressures as growth in land value outstrips the value of older structures in the area and the high level of accessibility to downtown makes this area prime for reinvestment.</p> <p>The challenge in these areas will be to strike a balance between a desire for neighborhood preservation and the economic logic of intensifying the land use as transition occurs. Developing and ensuring the continuity of neighborhood identity and character will be important as reinvestment and infill development occurs. New and old will exist side by side on many neighborhood streets; accommodating and encouraging the new while preserving and appreciating the old will be the goal. Challenges will include addressing infrastructure, inappropriate land uses, lack of open space, parking needs, and buffering between uses, as well as the availability of certain services such as neighborhood food outlets.</p>

AREAS OF DEVELOPMENT CONSTRAINT	
Airport Protection Area	The Airport Protection Area is the area and environs around the Rochester International Airport airfield where development is constrained by local, state, or national regulations to limit safety or security hazards associated with operations of the Airport facility.
Critical Natural Areas	Critical Natural Areas are characterized by concerns with the impact of natural processes such as flooding, the Decorah Edge, and highly unstable soils that necessitate development limitations in perpetuity due to public safety issues.

Key Concepts of the Stability and Change Map

The designation of areas shown on the Stability and Change Map, along with associated and related policies and actions described in Section 3, will provide guidance on the following issues:

- ▶ Identification of areas where most of the new development is expected to occur based on the adequacy of public facilities and services to accommodate an infusion of new population, activity, and investment (Areas of Growth)
- ▶ Identification of areas where preservation of existing investment is expected to take priority. In these areas minor reinvestment in private and public assets and limited growth are expected with the primary goal of maintaining the stability of the existing development pattern in these areas. This can include both residential as well as non-residential areas, although non-residential areas are expected to see a higher level of infill, redevelopment, or revitalization due to the greater compatibility of new development with the basic mixed use nature of these areas. Additional considerations in Areas of Stability include:
 - When growth occurs in stable residential areas, it should be focused in neighborhood centers or other existing activity nodes and along transit routes or major streets
 - When infill occurs in stable residential areas, consideration of urban form and design character will be important to protect the existing investment in the neighborhood
- ▶ Policies should facilitate economic development while maintaining standards for appropriately located density and compatible urban design

- ▶ Public infrastructure investments are important not only to expand the physical development capacity of areas in the community in support of future private investment, but also as a means to preserve the value of existing investment throughout existing developed areas in the city.

The Stability and Change Map is illustrated in Figure 2-10.

Future Land Use Map

The **Future Land Use Map** provides the most detailed level of policy guidance which informs the future use of parcels within the Rochester Urban Service Area. The policies and assumptions contained in the Plan and land needs reflecting the forecasted growth for the City provide the foundation for this map. The Future Land Use Map is a policy tool designed to guide future decision-making; it provides the geographic framework for the City's land use and zoning policies. Detailed categories describe the types, characteristics, and intensity of land uses that may occur in different sectors of the urban area. This map is used along with the Plan's written policies to determine whether specific development proposals are consistent with the Plan. It is also used to inform the geographically-detailed urban growth projections used to plan for roads, transit, parks, utilities, and community facilities such as fire stations.

This map will evolve as updates to the Comprehensive Plan occur, keeping true to the overall vision while adjusting to new neighborhood plans, unforeseen opportunities, and minor adjustments that will arise. The Future Land Use Map is the centerpiece of the Land Use Framework and a primary means to shape the City's future growth and key elements of the Transportation Framework, such as the PTN.

A total of 20 land use categories are designated on the Future Land Use Map, as listed in Table 2-5 and illustrated in the Future Land Use Map. These land use categories and the policies associated with each are described in detail in Tables 2-6 through 2-10.

FIGURE 2-10: STABILITY AND CHANGE MAP

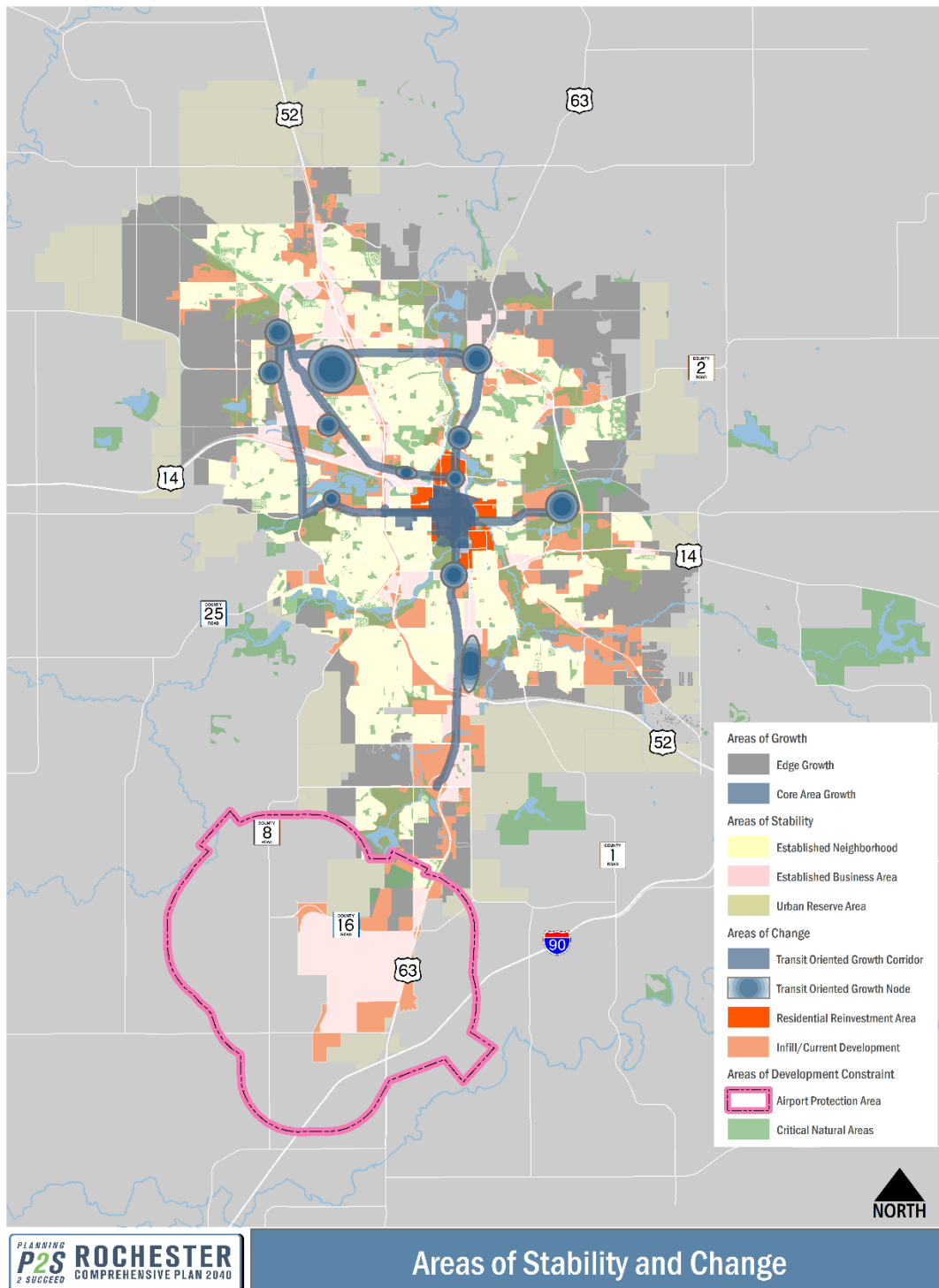


TABLE 2-5: FUTURE LAND USE MAP CATEGORIES

RESIDENTIAL TABLE 2-6	<ul style="list-style-type: none"> ▪ Low Density Residential ▪ Traditional Downtown Neighborhood ▪ Medium Density Residential ▪ High Density Residential ▪ Neighborhood Destinations
MIXED USE Table 2-7	<ul style="list-style-type: none"> ▪ Downtown Development Core ▪ Downtown Development Fringe ▪ Mixed Use Transit Oriented Centers ▪ Mixed Use Transit Supportive Corridors ▪ Transit Supportive Neighborhood Corridors
NON-RESIDENTIAL Table 2-8	<ul style="list-style-type: none"> ▪ Commercial & Business Development ▪ Industrial Development ▪ Small Employment Development
COMMUNITY ANCHORS Table 2-9	<ul style="list-style-type: none"> ▪ Medical Campus ▪ Educational Campus ▪ Civic Facilities ▪ Airport Facilities
PRESERVATION AREAS Table 2-10	<ul style="list-style-type: none"> ▪ Parks & Open Space ▪ Urban Reserve ▪ Urban Influence Area

Future Land Use Category Descriptions

The key characteristics of each Future Land Use Map category are discussed in Tables 2-6 through 2-10, focusing on the following five elements:

- ▶ **Use Characteristics** | discussion of typical site and building characteristics of uses within the land use category
- ▶ **Range of Density/Intensity** | an indication of the development intensity typically associated with uses in the land use Category
- ▶ **Mix of Uses** | discussion of the typical uses associated with the land use category
- ▶ **Locational Characteristics** | Considerations that are important to the siting or development of uses in the land use category

- ▶ **Transportation Requirements** | discussion of the access or locational needs of typical uses relative to the transportation infrastructure of the community

KEY TERMINOLOGY

Floor Area Ratio (FAR) and Dwelling Units per Acre

The Future Land Use category descriptions include a discussion of the range of building intensity compatible with each category. Reference to building intensity for non-residential uses includes the concept of floor area ratio (**FAR**), which is the ratio of a building or project's floor area to its land area. For example, a 45,000-square foot building on a 60,000-square foot parcel has an **FAR** of 0.75, regardless of the number of stories. **FAR** is also the development standard used to measure density and intensity in mixed use areas; dwelling units per acre is provided to help estimate the expected population. Density in residential neighborhoods is measured by the number of dwelling units per acre (**DU/acre**). For example, 12 units on a half-acre project results in a density of 24 **DU/acre**.

While **FAR** and **DU/acre** are standard ways to measure building intensity or residential density, form and character statements are also included in the within the descriptions of node, corridor, and other broad land use geographies to guide how buildings are best integrated into their surroundings. Form and character guidance is further translated into the specific land use policies found in Section 3 of the Plan.

Illustration of **Floor Area Ratio** (left) and **Dwelling Units per Acre** (right)

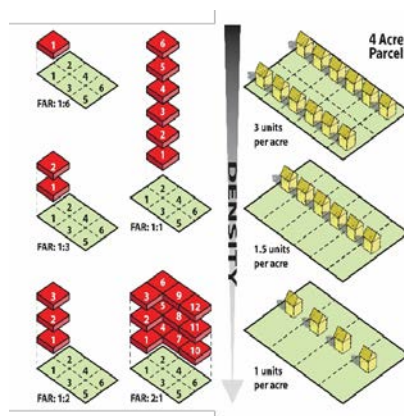


FIGURE 2-11: FUTURE LAND USE

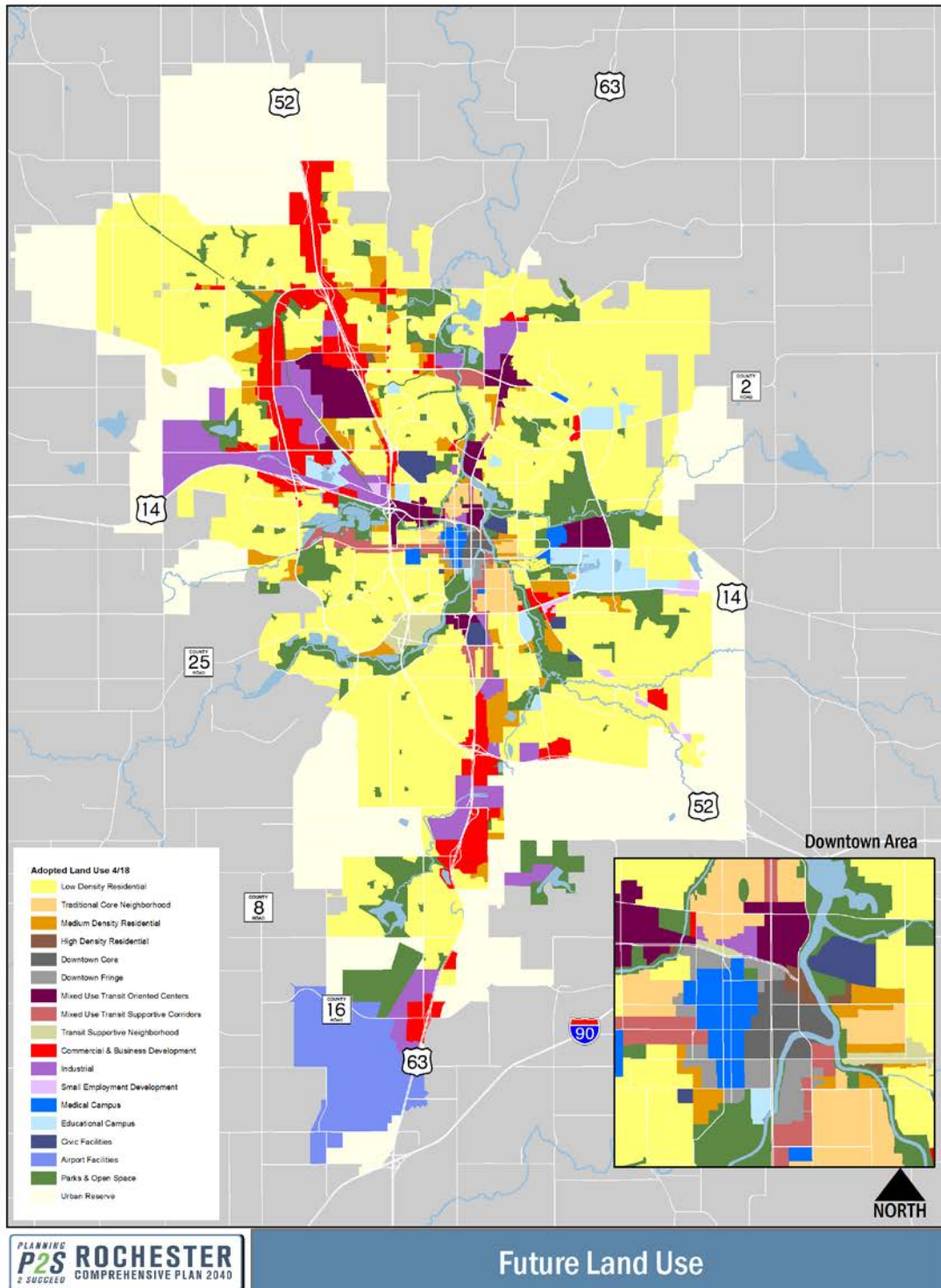


Table 2-6 | Residential Categories

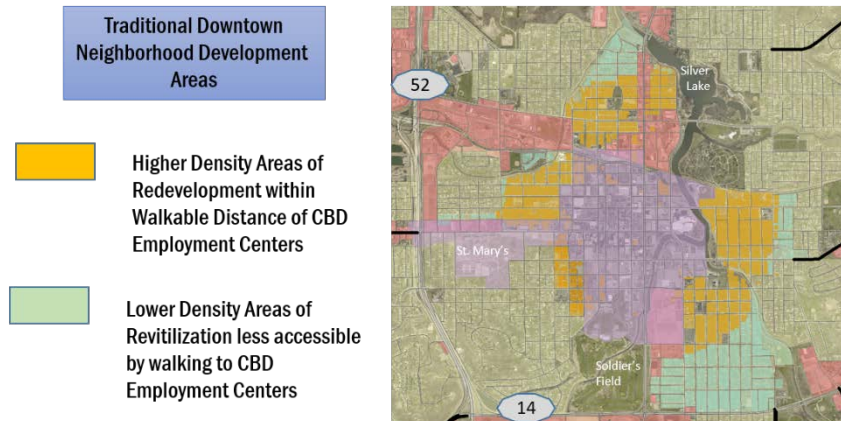
Of all the land use categories, residential land uses occupy the majority of the land area in the city. The Future Land Use Map reflects the wide variety of housing opportunities that currently exists in Rochester. While some residential land uses may occur in mixed use areas, the four categories below describe the areas that are predominantly residential. Five categories of residential development are identified in the plan, including 1) Low Density Residential Development Areas, 2) Traditional Downtown Neighborhood Areas, 3) Medium Density Residential Development Areas, 4) High Density Residential Development Areas, and 5) Neighborhood Destination Development Areas.

LOW DENSITY RESIDENTIAL DEVELOPMENT AREAS	
Characteristics	Neighborhoods intended primarily for single-family housing in a detached or attached home configuration. Where appropriate, low density residential areas may include other single, isolated uses that are of similar character, form, and scale and supportive of neighborhood living (such as small scale neighborhood groceries, convenience retail, or small offices). While the low density range allows a diversity of styles, the predominant use will be owner-occupied housing. It also allows for neighborhood public and institutional uses such as churches, neighborhood schools, and parks. The City recognizes the need to protect and maintain areas of low density housing to meet the market demand for stable residential neighborhoods.
Desired Pattern	Many of the low density neighborhoods developed in the last half century tend to be exclusively residential and isolated from supportive neighborhood uses, requiring residents to rely more on driving to access shopping and employment destinations. In new neighborhoods, a more integrated pattern is encouraged to provide for small areas of neighborhood supportive service and retail uses on sites that may be less desirable for housing use due to impacts of major streets or nearby higher intensity use.
Range of Density	Density will vary, but generally will be in the range of 4-7 units per acre. Secondary neighborhood supportive uses such as office or small convenience retail shall be sensitive to the neighborhood context, with development at a compatible scale and design to the surrounding neighborhood homes and lot sizes.
Mix of Uses	Principal uses include single family detached and attached housing and may include duplexes, townhomes, and small scale multi-family up to six units per building. Small scale secondary uses including small professional offices, live-work units, or small neighborhood oriented markets and shops may be accommodated. Complementary public and institutional uses such as churches, schools, neighborhood parks, and recreation facilities are appropriate in low density areas.
Location	Low density residential uses are most suitable in areas with the following characteristics:

	<ul style="list-style-type: none"> • Having varied terrain, but outside areas that are flood prone, poorly drained, or with slopes over fifteen percent • Buffered from the incompatible aspects (traffic/light/air/noise pollution) of industrial, commercial, and high activity institutional uses • Served by neighborhood park, school, and other public facilities within ½ mile walking distance or less • Near neighborhood or community shopping services • Secondary uses should be located along the major street system or at the intersection of residential collector streets serving the area.
Transportation Considerations	<ul style="list-style-type: none"> • Local residential street designs are suitable to serve dwellings, which should have access onto local residential streets • Residential areas shall also be designed to provide for an interconnected network of streets and pedestrian walks with inter-connectivity to adjacent developments—providing multiple ways in and out of the neighborhood, except where such connectivity is precluded by constraints resulting from physical layout of existing development or environmental features. • Low Density residential development may be bounded by, but should not be penetrated by, major collector or any arterial streets. • New neighborhoods should be served by connections to or have plans identified as to how the development will connect to the city-wide network of off-road trails and paths.
Design Considerations	<p>All housing styles in a low density area should have individual outdoor entrances. Efforts should be taken to avoid creating islands of attached or multifamily in the middle of a block of single family detached homes. Multi-unit structures, along with small office and retail/service, should be located on block corners or along the edges of multi-block neighborhoods of single family dwellings.</p>
TRADITIONAL CORE NEIGHBORHOOD DEVELOPMENT AREAS	
Characteristics	<p>Established residential neighborhoods that incorporate a variety of moderate density housing located near the central development core or major institutions, with small scale retail and service businesses at locations along non-residential collector or arterial streets. This classification is intended to provide flexibility to allow for a range of housing styles that provides housing opportunities for households at various stages of their life cycle. Some buildings may have both housing units and business included.</p>
Desired Pattern	<p>The Traditional Core Neighborhood is typically more compact with small lots (typically between 4,500-7,000 square feet), an interconnected network of sidewalks and streets, and in some cases, alley-loaded garages or parking. This designation encompasses many of the city’s original neighborhood settlements. The incorporation of a variety of housing types and price ranges is encouraged to provide a choice of housing for residents in areas with convenient walking proximity to downtown.</p>

<p>Range of Density/ Intensity</p>	<p>Density varies, generally in a range of 8 to 20 units per acre. Higher density may be accommodated on multi-lot sites in the blocks along the edge of these neighborhoods where abutting the downtown development core or along major travel gateways into downtown. Development at the higher end of the density range should be located primarily in areas whose access or proximity to downtown provides for a 15 to 20-minute walk time to the center of downtown or where access to public transit is available providing a comparable travel time to the downtown transit center. Areas located further away from the downtown core should be developed at the lower end of the density range to accommodate the likelihood that households may be more auto-dependent given longer travel times to downtown or major institutional destinations.</p>
<p>Mix of Uses</p>	<p>Principal uses include a variety of housing styles including single family and multi-family detached, attached, or apartment/condominium styles. Secondary uses include small professional offices, live-work units, and small neighborhood oriented markets and shops. Complementary public and institutional uses such as churches, schools, parks, and recreation facilities are also found in these neighborhoods.</p>
<p>Location</p>	<p>Traditional Downtown Neighborhoods are located in areas proximate to the Downtown Development Core and Fringe as shown in Figure 2-12, where access to destinations in the urban core are walkable and a strong pedestrian orientation exists at a neighborhood scale. New development and/or redevelopment should be targeted towards areas along the periphery of the Downtown Development Core or Fringe or along the major streets in the area.</p>
<p>Transportation Considerations</p>	<p>Areas will typically have a traditional street grid with a fully connected sidewalk system and accessible transit, pedestrian, and bicycle connections to the downtown core. Streets should have a high level of pedestrian amenities and streetscaping.</p>
<p>Design Considerations</p>	<p>Buildings are often on smaller lots and set closer to the street to form a street edge with residential appearance. Primary building entrances should face the street front, with buildings oriented to the street. Off-street parking should be behind or to the side of the buildings. Policies for new non-single family development should address architectural and site design to ensure projects compliment or enhance neighborhood character and compatibility issues.</p>

FIGURE 2-12: TRADITIONAL DOWNTOWN NEIGHBORHOOD DEVELOPMENT AREAS



MEDIUM DENSITY RESIDENTIAL DEVELOPMENT AREAS

<p>Characteristics</p>	<p>Areas intended primarily for all forms of townhome development and apartment buildings and, where appropriate, other uses of similar character and intensity that are supportive of medium density neighborhoods. In some cases, portions of older single-family neighborhoods have been included in the medium density designation where locational characteristics indicate a potential need to encourage redevelopment of the area, and where a significant number of apartment buildings or conversions of single-family units to multi-family use have already occurred.</p>
<p>Desired Pattern</p>	<p>Medium density residential is generally suitable in areas where land is appropriate for residential use but a gradual transition from low density residential use to other higher intensity use is desired or appropriate, or where other site characteristics such as proximity to higher volume roadways make use of the site for lower density residential use undesirable. What will distinguish sites for medium density residential use from sites for non-residential use will be convenient access to public transit, reasonable accessibility to open space areas, the ability to buffer a site from undesirable impacts of non-residential use such as noise, exterior lighting and/or parking, and whether safe and secure multi-modal connectivity for not just cars, but also pedestrians and bicyclists, can be provided to the larger city network of sidewalks, trails, and paths.</p>
<p>Range of Density/ Intensity</p>	<p>Density will vary, but generally will be in the range of 20 to 40 units per acre, with densities at the lower end of the range appropriate for sites abutting low density residential areas. Office and other Service/Retail uses should be scaled so as to provide for comparable per acre vehicular traffic generation and building scale as the primary multi-family residential use.</p>

<p>Mix of Uses</p>	<p>Primary uses include residential multi-family including townhomes, garden apartments, condominiums, zero-lot line dwellings, or suburban style apartment complexes. Student housing and manufactured home parks also fit in this category. Supporting uses include neighborhood-oriented retail and services along major arterial and collector streets abutting the development area. Complementary public and institutional uses such as churches, schools, parks and recreation facilities are also appropriate.</p>
<p>Location</p>	<ul style="list-style-type: none"> • Medium-density residential uses are generally most suitable in areas: • Having level to fairly rolling terrain, outside areas that are flood prone, poorly drained, or have steep slopes • In close proximity (½ to 1 mile) to employment centers or high activity/amenity locations such as near parks, recreation areas, and major institutions • Buffered from the incompatible aspects (traffic/light/air/noise pollution) of industrial, commercial, and high activity institutional uses • With neighborhood parks, school parks, or mini parks within ½ mile walking distance • Near neighborhood or community shopping facilities and services
<p>Transportation Considerations</p>	<p>This land use should have reasonably direct access to the major collector or arterial street system; the primary access should not be a local residential street that serves primarily single family dwellings. The primary access street should generally meet the design criteria for a residential collector or non-residential collector street or a lower volume arterial street as classified in the Long Range Transportation Plan. Site locations should be easily accessible to and have access within ¼ mile of the public transit network. The development site should have connectivity to the existing or planned city-wide network of trails and paths.</p>
<p>HIGH DENSITY RESIDENTIAL DEVELOPMENT AREAS</p>	
<p>Characteristics</p>	<p>Areas typically located near the fringe of the Downtown Development Core or major Campus Institutions, with multi-family residential designed with a strong vertical orientation (multi-story). Uses of similar character and intensity, not in conflict with long-term high-density multi-family residences, such as smaller format business and service uses are also considered suitable for this designation. Areas adjacent to transit oriented centers, or sites adjacent to other regional or community centers intended for markets such as senior housing that generate low levels of vehicular traffic are appropriate if planned at the low end of the recommended density range.</p>
<p>Desired Pattern</p>	<p>High Density residential development will generally be found in areas adjacent to the Downtown Central Development Core or Fringe of the city in a traditional urban setting with relatively small blocks and a grid street system that contributes to a walkable urban environment. In such settings, it is important for buildings to make a positive contribution to the public realm, by minimizing the shadowing of sidewalks as well as public and private spaces, while protecting the quality of life by providing access to</p>

	natural light, views to the sky and privacy, and fitting harmoniously within the context of surrounding buildings.
Range of Density/ Intensity	Density will vary, but will generally be in the range of 40 to 120 units per acre, with higher densities permitted on sites located within a one or two block distance of the downtown development core or downtown medical and educational campus areas. Ground floor commercial street frontage integrated into a residential building is encouraged.
Mix of Uses	Primary uses include high rise apartment buildings and condominiums, hotels, senior housing, or life care facilities providing housing within walkable proximity of downtown employment and services or which support community anchors such as major medical or educational institutions. Supporting uses include ground floor retail and service uses and above ground office uses as part of a vertical mixed used development with no more than a minor portion of the floor area devoted to non-residential uses. Free standing office and service use of a lower intensity nature may be considered, but are not encouraged.
Location	High density uses are most suitable in areas with the following characteristics: <ul style="list-style-type: none"> • Areas where there is demand from households desiring walkable proximity to a diverse urban environment, such as adjacent to major employment centers, the Downtown Urban Core, or major institutional anchors in the community • Not adversely affecting adjoining low-density or traditional downtown neighborhood residential areas • Having convenient access to transit service, open space, and other urban public spaces within ¼ mile walking distance
Transportation Considerations	<ul style="list-style-type: none"> • Having convenient pedestrian access to major employment centers, civic facilities, and high activity commercial and service areas • Having strong connectivity to existing or planned pedestrian and bike infrastructure • Having access to frequent bus service either through proximity to multiple bus routes or location along a Primary Transit Network corridor
Design Considerations	Development should be compatible with the principles of walkable urban development, with architectural elements that add interest at street level, sidewalk widths consistent with adjacent high intensity development areas, appropriate lighting, and streetscaping provided. Building design principles and materials should promote a sense of quality and permanence, with design that contributes to a sense of enclosure and setbacks above a certain height (generally two to four stories) to allow daylight into streets and open spaces.
NEIGHBORHOOD DESTINATION DEVELOPMENT AREAS	
Characteristics	Neighborhood destinations contain the most intensive activity area in a neighborhood, typically drawing persons from the neighborhood as well as from outside the

	<p>neighborhood on a regular schedule. Uses characteristic of a neighborhood destination include institutions such as larger elementary schools or community churches, non-residential uses that exceed the small footprint of businesses permitted with the residential land use categories, and recreation facilities. By providing a focal point for activity, a Neighborhood Destination helps define the neighborhood as a specific place. Because these uses are smaller in scale than community anchors such as middle schools or specialized sports facilities, and are typically integrated in residential neighborhoods, they are particularly suited to a pedestrian friendly design and character.</p>
Desired Pattern	<p>Neighborhood Destinations are not mapped in advance of development but are intended to recognize existing uses as well as potential future uses that should be approved only after consideration of site and locational characteristics.</p>
Range of Density/ Intensity	<p>The size and composition of a neighborhood destination use may vary depending on the location, access, surrounding neighborhood character, local desires, and market considerations. The size will be controlled by meeting performance expectations relative to lot coverage, open space, and ability of the transportation system to accommodate access demand.</p>
Mix of Uses	<p>Neighborhood Destinations can include public or semi-public activities such as community parks; general recreation facilities; government buildings or schools; higher density special purpose housing such as assisted care facilities, commercial day care and pre-school facilities; and small commercial or office centers.</p>
Location	<p>Neighborhood destination uses should generally be located along major collector or urban arterial streets or, where anticipated traffic generation is similar to that generated by single family dwellings on a per acre basis, along residential collector streets. Sites should be generally located at the intersection of such streets so as to provide more street frontage with less abutting private property frontage.</p>
Transportation Considerations	<p>The site should be served by transit and should be served by a connected network of non-motorized facilities (sidewalks, trails, paths) that serves all residences within a ½ mile walking distance of the site. Traffic calming features may be needed to ensure that vehicular traffic operates in a manner consistent with the character of the neighborhood.</p>
Design Considerations	<p>The site should be laid out with generous green or open spaces, with buildings and structures set towards the center of the site and stepped down, transitioned, and buffered towards abutting residential uses.</p>

Table 2-7 | Mixed Use Categories

There is a total of five Mixed Use Development Area types identified in the plan, including 1) Downtown Development Core Area, 2) Downtown Development Fringe Area, 3) Mixed Use Transit Oriented Centers, 4) Mixed Use Transit Supportive Corridors and 5) Transit Supportive Neighborhood Corridor Areas.

DOWNTOWN CENTRAL DEVELOPMENT CORE AREA	
Characteristics	As the physical and economic center of the city, the Central Development Core provides for the highest concentration of employment, activities that attract a high volume of visitors, and a wide mixture of uses in an active, highly walkable environment. This area is intended to provide a range of work, social, and recreational choices that draw people throughout the day and into the evening. The Central Development Core is home to the tallest and most intense building development in the city, with a variety of building types and heights ranging to 20+ stories. Building fronts are located at or close to public sidewalks and incorporate active street frontage designs. The area reflects the goals and objectives of the Downtown Master Plan and Destination Medical Center Vision. It includes creative open spaces that support community gathering and celebratory functions. The highest density of development (jobs and population) is provided in this area; it is the central hub of the city.
Desired Pattern	Mixed use development projects primarily providing for uses mixed on a vertical scale. Development should follow traditional urban forms regarding building siting and massing to produce a pattern of development that provides a significant pedestrian and transit orientation and development integrated with its surroundings. Architectural and site design techniques should be used to define desirable pedestrian and public spaces; building fronts should include ground floor uses along with design features that will provide for active street frontages.
Range of Density/ Intensity	Typical FARs will generally be between 4.0 and 12.0, although higher intensities can be supported with appropriate strategies to manage transportation and site design issues. High residential densities of 50-200 units per acre are appropriate depending upon context and very high densities over 200 units per acre may be considered.
Mix of Uses	The mix of uses includes a broad range of commercial and business services, office, high density residential, lodging, food and beverage, entertainment, institutional uses, as well as clean research and development activities. Uses that diminish transit and pedestrian character such as automobile services or drive thru uses should be discouraged. Further guidance for specific subareas in the Central Development Core is provided by the Downtown Master Plan and Destination Medical Center Vision.
Location	Encompasses those areas typically identified as part of the Central Business District and adjacent areas south of the Canadian Pacific Railroad corridor, west of the Zumbro River and generally north of Soldier’s Field Golf Course and east of the Mayo Medical Center Central Subdistrict Campus area.

<p>Transportation Considerations</p>	<p>Transportation needs in the Central Development Core is uniquely supported by the convergence of a network of major streets that bring traffic into downtown; however, the capacity of these streets is unlikely to fully handle travel demand from the intensity of development anticipated in the Downtown Master Plan and DMC Plan. Strategies to move more people more efficiently within existing transportation corridors will be necessary. As a result, alternative mode enhancements and stricter management of parking will be considered as development proceeds in the area. Reducing vehicle travel demand into and within the downtown will rely on:</p> <ul style="list-style-type: none"> • Expansion of the multiple public and private transit systems that serve the area, supported by development of a downtown circulator system; this expansion will require added transit infrastructure that will need to be considered during review of development • Expanded use of parking strategies such as shared parking, execution of travel demand management measures to reduce vehicular traffic, improved pedestrian and bicycle networks to enhance non-motorized accessibility, and advanced wayfinding systems • Direct or indirect connections to the downtown skyway and subway system
<p>Design Considerations</p>	<p>In the Central Development Core, vertical mixed use buildings are encouraged and preferred over single use buildings. Active street front uses with attractive pedestrian frontages and design that opens up the building wall to allow visual interaction between sidewalk traffic and activities within the street level building frontages is encouraged. Structures should maintain and reinforce the visual distinctiveness of downtown and its subdistricts. New buildings and public spaces should respect and be sensitive to design integrity by enhancing visual continuity and sense of place, using building materials and design features sensitive to the character of downtown and reflecting excellence and high quality in their design. Development should incorporate climate sensitive site and building design practices. Development should incorporate the Destination Medical Center District Design Guidelines.</p>
<p>DOWNTOWN DEVELOPMENT FRINGE AREA</p>	
<p>Characteristics</p>	<p>The Downtown Development Fringe area provides a mix of uses similar to but more limited in scale than seen in the Downtown Development Core. The Downtown Development Fringe should provide a gradual transition between the more intensive business-oriented Downtown Development Core and adjacent lower intensity, traditional residential neighborhoods. Land use intensity, both in terms of height and bulk, should decrease as distance from the central development core increases, further defining the transition between the urban core uses and adjacent neighborhoods.</p>

<p>Desired Pattern</p>	<p>Vertical mixed use development is encouraged, although single use residential buildings are appropriate as transitions to the lower intensity of abutting Downtown Traditional Neighborhoods.</p> <p>Development should be designed to produce compact, pedestrian-oriented development. Human-scale design and architectural elements are encouraged, including elements such as awnings, small storefronts, distinctive streetscapes, and other human-scale building details.</p>
<p>Range of Density/ Intensity</p>	<p>Intensity will vary, but will typically reflect FAR ratios 2.0 to 6.0, with residential densities in the range of 40 to 80 units per acre. Higher intensity development will be located on blocks nearer to the central development core and lower intensity on blocks nearer adjacent downtown neighborhoods. Design factors such as transitional height limitations and setbacks will influence intensity levels.</p>
<p>Mix of Uses</p>	<p>In the Downtown Development Fringe area, the principal uses include medium to high density residential, lodging, professional offices, small shops and restaurants, neighborhood services, institutional uses, and small scale artisanal industries including live-work units.</p>
<p>Location</p>	<p>The Downtown Fringe is intended to apply in those areas of the larger Downtown Development area that provide for a transition between the intense central core area and traditional downtown neighborhoods, as well as along the 2nd St SW corridor between the Mayo Medical Center Downtown campus and the Mayo-St Marys Hospital campus.</p>
<p>Transportation Considerations</p>	<p>The Downtown Development Fringe Area will benefit from the downtown transportation system being developed to support the intensification of the central development core. The same network of major streets supporting the Central Development Core also serve the Downtown Fringe; anticipated capacity limitations will impact the Fringe as well. As a result, enhancing alternative modes and better management of parking demand will need to be considered in the Downtown Fringe to reduce vehicle travel demand.</p> <p>Developments will be expected to accommodate improvements to the downtown transit infrastructure, minimize the need for on-site parking, and consider the role that travel demand management measures can play in reducing vehicular traffic generation associated with a development. Pedestrian and bicycle amenities will also be important, as the Downtown Development Fringe is well situated to facilitate higher use of walking trips and benefit from the eventual development of the City Loop—a high quality urban trail proposed as part of the Destination Medical Center Vision that will interconnect all the various subdistrict areas with the downtown.</p>

<p>Design Considerations</p>	<p>Given the less intensive non-residential nature of the Downtown Development Fringe and higher proportion of residential housing anticipated in this area, there should be an emphasis on creating pedestrian oriented streetscapes that provide for a safe and comfortable environment for travel within the area as well as from adjacent neighborhoods to the downtown development core. While not all buildings will have active street front uses, those that do should provide features that foster a sense of permeability. Non-active frontages should include details that will add interest to the pedestrian environment, supported further by attractive streetscapes and site landscaping. On-site parking should generally be provided within the building or, if provided outside, should be screened and landscaped to reduce its visual impact.</p>
<p>MIXED USE TRANSIT ORIENTED CENTERS</p>	
<p>Characteristics</p>	<p>Mixed Use Transit Oriented Centers are intended to create places that are unique in scale, development intensity, and mix of uses. These include a range of medium to high density housing along with a broad mix of employment, shopping, and civic uses in distinctive “Urban Village” or “Urban Center” settings, within an easy walk of a transit stop or hub. Located at nodes along the Primary Transit Network (PTN), these locations benefit from a combination of good accessibility, access to open space or public amenities, and capacity for increased development. The PTN Network will enhance access to these sites over time by providing increasing transit frequency and improved transit quality. Development in these centers will be pedestrian-oriented with a strong emphasis on design and street level activity, and range in scale from low- to mid-rise.</p> <p>It is important to highlight that transit oriented development (TOD) is an approach rather than a pre-determined program of development, the object of which is to create pedestrian friendly activity zones near major transit hubs along the PTN. TOD emphasizes land use densities that are sufficient to support transit, maximizing the number of residents and employees within a convenient walk of transit facilities. See the sidebar on page 105 for further discussion of TOD.</p>
<p>Desired Pattern</p>	<p>Development within a Transit Oriented Center or Village should accommodate both appropriately scaled vertical and horizontal mixed use and be organized along a density and intensity gradient that considers the pattern of surrounding land use areas and planned multimodal PTN transportation corridors. The highest density and intensity of development shall be located within walking distance of public civic spaces and existing or planned transit facilities. Given the anticipated density of development, parking solutions including reduced parking requirements, shared parking, additional on-street parking, structured parking, and the provision of district parking facilities serving multiple uses should be explored to minimize proliferation of parking serving single sites. Development of these centers should transition away from the most intense area near the core of the center by utilizing</p>

	designs that “step down” towards existing adjacent neighborhoods and ensure that adjacent low density residential uses are properly screened or buffered.
Range of Density/ Intensity	The range of intensity and density will generally vary; FARs will typically fall into the range from 1.0 to 3.0, with more intense FAR levels near the nodal center. Residential densities will typically range from 20 to 60 units per acre. The combined level of population and employment density in the center should exceed 25 persons per acre.
Mix of Uses	This land use is intended to accommodate a mix of uses: commercial (office/service/retail/ entertainment), civic-institutional, clean artisanal industries (without noise, odor, illumination or trucking impacts), and a range of multi-family residential styles and live/work structures. Uses should be discouraged that diminish the transit and pedestrian character of the center or village.
Location	Land uses will generally be concentrated within a ¼ to ½ mile radius of the center of the TOD node which would typically be centered on the PTN corridor and its intersection with a major cross street or major access street to the area. The Mixed Use Center will typically include an area of approximately 40-160 acres of developed land area once fully realized. The size of center or village will generally enable a 10 minute or less walk to the centrally located transit hub from anywhere within the center and a 15 to 20-minute walk across the entire district.
Transportation Considerations	While the PTN corridor serving the Mixed Use Center will provide primary access, these centers should be located where two or more transit service corridors or major collector/arterial streets provide good access from multiple directions. Mixed Use Transit Centers should have a high level of pedestrian connectivity to surrounding residential areas, with a high-quality pedestrian environment featuring street-oriented buildings and attractive streetscaping within the center or village, while improving the ability to accommodate vehicular traffic through access management and street operations improvements.
Design Considerations	The development scale associated with this designation is intended to allow for more intense development in core areas of centers and along the PTN corridor near transit stations, while providing transitions to adjacent residential areas. New development should be subject to architectural and site design guidelines to ensure compatibility with adjacent neighborhood character.
MIXED USE TRANSIT SUPPORTIVE CORRIDORS	
Characteristics	This designation is intended to encourage development of transit-supportive densities of commercial, residential, and employment uses in both vertical and horizontal mixed use configurations along the Primary Transit Network (PTN) corridors where public services are planned to include development of high-quality,

	<p>high frequency transit service. The designation is applied along some of the city’s busiest, widest, and most prominent streets that serve as gateways to the Central Development Core and other major urban development destinations. The intent is to transform these corridors over time into places that can succeed as attractive locations for lower intensity, mixed-use development, developed in a manner that are attractive and safe for pedestrians while continuing to play an important role in the City’s vehicular transportation system. This category is similar to the Mixed Use Transit Supportive Centers category except that the density and intensity of land development is expected to be less than in the Mixed Use Centers, with proper transition provided to adjacent low density residential development.</p> <p>Where applied to roadway corridors characterized by “strip” commercial uses, the intent is to encourage infill and redevelopment to create a more diverse and attractive mix of uses over time. Examples include residential units over commercial uses, a wider array of economically viable uses to replace uses experiencing declining customer traffic, and sites exhibiting physical decline. Such areas may also represent opportunities for the introduction of higher density and/or mixed-income housing, with negligible impacts on nearby single-family neighborhoods. The historic auto orientation of these corridors should be transformed over time to provide a more balanced, multi modal environment that is more accommodating to transit and non-motorized users.</p>
<p>Desired Pattern</p>	<p>In Mixed Use Transit Supportive Corridors, building fronts will be oriented towards the primary transit corridor. Corridor designations will generally extend no more than one block in depth along either side of the corridor. Safe, attractive transit stops and pedestrian and bicycle ways are provided. A variety of housing styles—apartments, condominiums, row-houses, and houses on smaller lots—are located along or in close proximity to the corridor. Buildings shall be oriented to define the street edge, fronting on widened sidewalks with street trees, attractive landscaping, benches, and easily accessed transit stops. Parking should be located to the rear of the building or the side where lots are shallow with appropriate screening.</p>
<p>Range of Density/ Intensity</p>	<p>The range of intensity and density will generally vary, with FARs that generally fall into the range from 1.0 to 2.0 and residential densities that will typically range from 15 to 30 units per acre. FARs and building heights should be great enough to generate a combined population and employment density of 25 persons per acre in order to support planned high-quality transit service.</p>
<p>Mix of Uses</p>	<p>This land use is intended to accommodate a wide range of mixed use development, including neighborhood and community oriented retail and service uses, clean low impact artisanal industrial uses, and all types of low and mid-rise multiple family dwellings such as senior housing, apartments, townhomes, and similar attached housing.</p>

<p>Location</p>	<p>Areas of Mixed Use Transit Supportive Development will be located along block faces facing a PTN corridor in areas located between Mixed Use Transit Oriented Centers.</p>
<p>Transportation Considerations</p>	<p>Mixed Use Transit Supportive Corridors should have a walkable pedestrian environment to provide strong pedestrian connectivity to transit stops and between uses. Street design should be typical of urban business or transit service districts, including wider sidewalks, attractive streetscaping, pedestrian scale lighting, and smaller scale business signage. The ability to accommodate vehicular traffic should be enhanced through access management and street operations improvements.</p>
<p>Design Considerations</p>	<p>New development should be subject to architectural and site design guidelines to ensure compatibility with neighborhood character, with buildings that are of appropriate scale and intensity and developed in broadly consistent manner. Building design should include architectural elements that add interest at the pedestrian level.</p>
<p>TRANSIT SUPPORTIVE NEIGHBORHOOD CORRIDORS</p>	
<p>Characteristics</p>	<p>Transit Supportive Neighborhood Corridors are primarily residential in character with intermittent commercial uses clustered at intersections of collector and arterial streets or where the corridor area is transitioning into more intense development centers or non-residential use areas. Scattered small, neighborhood scale office or neighborhood service uses may be found in the more central parts of these corridors as a result of historical neighborhood development. Housing in these corridors typically will reflect of mixture of housing of various styles, sizes, and densities, generally located within a five to ten-minute walk of neighborhood serving commercial uses, civic or open space uses.</p> <p>New development can include low to medium density residential along with small scale commercial or office use. Small vertical mixed use, generally two stories in height, with pedestrian oriented retail, office or service uses at street level and upper story housing is appropriate. Parking lots should not dominate the frontage and should be located behind or on the side of buildings and screened from abutting single family residential use. Conversion of residential uses in the middle of predominantly residential block areas to commercial use should be discouraged.</p> <p>Transit Supportive Neighborhood Corridors may support development of “Mini-centers” at selective intersection locations which are intended to be small, mixed use centers with residential use as a component. The emphasis on residential is intended to add market demand for neighborhood business and to provide density to support enhanced transit service. Drive-through facilities, including gas stations and similar auto-oriented uses, should not be allowed.</p>

Desired Pattern	Transit Supportive Neighborhood Corridors feature highly-connected street systems and sidewalks networks with development on smaller lots and street-facing buildings.
Range of Density/ Intensity	Typically, non-residential building sites will be developed with a FAR of less than 0.25, with residential densities in line with moderate or medium density residential land uses (an average of 10 to 25 units per acre).
Mix of Uses	Uses may include corner stores, restaurants, bakeries, hair salons, dry cleaners, video stores, small professional offices, retail banking, or similar uses that fit the size, scale, and intensity of the neighborhood setting. Live-work units should be accommodated, with integrated residential use highly encouraged. Moderate or medium density residential use is permitted, with more intensive residential development directed to areas near commercial nodes or where the corridor is transitioning to other predominant uses. New uses that diminish the transit and pedestrian oriented character of the corridor should be discouraged, such as automobile service and drive-through uses.
Location	Transit Supportive Neighborhood Corridors are located along non-residential collector and arterial street corridors where public transit service is available throughout the workday at one-hour headways or better—providing interconnection to the Primary Transit Network—or along parts of the Primary Transit Network that abut established low density neighborhood areas.
Transportation Considerations	Transit Supportive Neighborhood corridors will feature highly-connected street and pedestrian systems as well as safe access to the bikeway network, providing accessibility to employment areas as well as open space and recreation areas. The corridor will be served by transit facilities and services. The designated corridor may be a principal travel route for part of the city.
Design Considerations	Buildings at an appropriate scale and intensity compatible with nearby residential development is critical. Site design should maintain a largely residential building character. Buildings should be oriented to the street and provide convenient and easily identifiable sidewalk entries to encourage pedestrian access. Parking lots should not dominate the frontage and be located behind or on the side of buildings. Street design may take on elements of the “Main Street” design concept discussed in Part 5 of this section to provide more of a village feel to the corridor.

Table 2-8 | Non-Residential Categories

Retail, service, and employment areas provide desirable locations to capture future employment growth and support for a strong and diversified economy. These designations are intended to apply to larger concentrations of commercial and industrial uses. Such properties

may not be expected to undergo redevelopment or a change in use over the plan horizon, and the immediate areas in which they are located may not be suitable for the introduction of mixed uses. Three non-residential categories are identified in the plan, including 1) Commercial and Business Development Areas, 2) Small Employment Development Areas, and 3) Industrial Development Areas.

COMMERCIAL AND BUSINESS DEVELOPMENT AREAS	
Characteristics	<p>This category provides for a wide variety of retail, office, and employment uses. It encompasses areas dominated by existing commercial uses and areas of proposed development where the predominant use is intended to be retail, office, or employment. These areas typically exhibit a style of development referred to as suburban, with customers and employees primarily arriving by automobile, and typically located in areas with convenient access to major roadways featuring large setbacks from the street. Parking is provided by surface lots, often oriented to the street frontage of the development. Building heights generally range from one to two stories, consistent with historic commercial development patterns.</p>
Desired Pattern	<p>Sites are often developed in a conventional subdivision style, with individual uses on individual lots and parking and other site amenities constructed separately for each use. Business centers in the style of a shopping center with common parking and coordinated overall site design may be used and are encouraged. Business development may also occur in the style of a Business or Office Park, where buildings are constructed in a “campus” like setting with coordinated access, parking, landscaping, and stormwater management.</p> <p>Another predominant style of commercial and business development is the commercial corridor, a linear, auto-oriented pattern that stretches along the frontage along major roadways. New strip commercial areas should be discouraged, with existing development constrained to existing corridor areas, and the revitalization of established commercial corridors is encouraged over time to promote the transformation of these areas into locations that are more walkable with a broader variety of uses. Constraints and challenges for commercial corridors to remain viable exist, as they typically will feature dated site design, with multiple mid-block driveway accesses, inadequate landscaping, and limited pedestrian access and circulation. Most of these areas were developed in an ad-hoc manner, creating a number of parcels that have become functionally obsolete and more difficult to assemble than under a unified development scheme.</p> <p>Efforts should be made to enhance the economic vitality of commercial corridors through the introduction of a more pedestrian and transit-friendly pattern of development over time by infill and redevelopment. Those legacy commercial corridors located along future transit oriented growth corridors are generally categorized into one of the transit supportive mixed use corridor categories to</p>

	<p>accommodate a broader mix of uses and promote a change in design character over a shorter period of time.</p> <p>Redevelopment of shopping centers, big box retail, or other large footprint commercial use with large surface parking areas into a more traditional community design—with the introduction of a street and block grid comparable to the historic city grid—is encouraged to revitalize underused or abandoned large footprint commercial areas.</p>
Range of Density/ Intensity	Intensity may vary, with typical development intensity in the range of 0.3 to 1.2 FAR.
Mix of Uses	Mixture of retail, service, office, research and development, lodging, entertainment, food and beverage, and other customer oriented businesses, including community and regional centers. Large footprint retail such as auto dealers, printers, home improvement stores, and garden centers are also found in this category. Housing is not considered an appropriate use due to the lack of residential amenities and deleterious effect of commercial development such as noise, lighting, and traffic. The introduction of residential into predominant business areas also has the potential to restrict the range of uses that can occur in areas intended for this broadest range of non-residential use.
Location	Commercial and business areas typically abut or are located on sites with convenient automobile access to freeways, arterials, or major collectors. They may border medium to high density housing areas. Preferable site characteristics include areas with good visibility from passing major roadways.
Transportation Considerations	Lands in this category should be located in areas where convenient access to regional or urban highways is available. Transit service should be available to improve employee accessibility and improve access for customers who do not have personal vehicles available to them.
Design Considerations	Sites should provide some type of physical buffer when abutting lower density residential uses to reduce impact of site lighting, traffic demand, and truck noise. Office uses may be used to provide a transition between more intense retail uses and surrounding neighborhoods. Signage and other advertising should be attractive and in character with the building.
SMALL EMPLOYMENT DEVELOPMENT AREAS	
Characteristics	The Small Employment Development category is intended for areas that will be developed primarily with business and service uses of a non-retail nature, typically in a low-rise or flex space development pattern on smaller lots in areas of lower land value (in terms of value for non-residential use) that do not have prime access locations along higher volume major streets. These areas are typically found at the edges around more intense commercial or industrial areas, in small isolated

	pockets of land leftover from earlier development eras, and abutting residential uses in areas deemed as transitional zones.
Typical Pattern	Developments will predominantly feature a conventional subdivision pattern –uses developed on individual lots, with surface parking and minimal landscaping.
Range of Density/ Intensity	The range of intensity for uses is generally up to a FAR of 0.50 on contiguous sites that generally will be less than 10-15 acres in size.
Mix of Uses	Uses found in Small Employment Development areas typically include the headquarters of construction tradesmen, small specialty wholesalers, business services, repair services, equipment rental, creative services, and small artisanal industrial users involving light assembly.
Location	Typically found adjacent to or abutting retail or industrial areas on sites that are relatively flat without major impediments to development. May also be located adjacent to mixed use areas in older parts of the city where legacy non-residential development exists. Sites will generally be located near, but not directly front, major roadways.
Transportation Considerations	Local industrial or commercial streets will provide direct access to individual uses. These streets should connect directly to major collectors or arterials and not result in additional traffic on any residential streets.
Design Considerations	When abutting low, medium, or traditional downtown residential use, suitable buffering or screening should be provided in order to lessen impacts of lighting, noise, and outdoor storage of trucks and materials.

INDUSTRIAL DEVELOPMENT AREAS

Characteristics	<p>Industrial Development consists primarily of areas providing for economic activity in the realm of manufacturing, fabrication, assembly, storage, and distribution of products and goods in a manner and character that may generate some external impacts due to the presence of heavy truck traffic on a regular basis or from noise or lighting. Office and/or research and development activities related to primary industrial activity are allowed, and complementary retail and service uses should be limited in scale and carefully integrated with surrounding industrial uses.</p> <p>In addition to industrial activity, this category is intended to include public infrastructure sites such as the wastewater treatment plant, transit vehicles maintenance facilities, and public works maintenance and storage yards that involve combinations of significant truck traffic and/or large areas of outdoor storage of materials or vehicles.</p> <p>Levels of intensity in industrial areas will vary significantly depending on the use; however, a greater intensity of employment and building square foot is encouraged through creative design approaches. Since these uses tend to have greater external</p>
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	impacts than other commercial or business uses, they may require additional buffering or separation from nearby uses.
Desired Pattern	Industrial uses with greater environmental impact in terms of noise, odor, spillover lighting, or large outdoor storage areas should not be located adjacent to residential areas. All industrial uses adjacent to lower density residential use should provide buffering either through landscaping, large setbacks, and introduction of such transitional uses as office or open space.
Level of Intensity	FAR typically will be in the range of 0.5 to 1.0. New Industrial areas should be a minimum of 50 acres in size, with larger planned centers preferred to provide adequate space for buffering of adjacent uses.
Mix of Uses	Typical uses would be all manner of manufacturing, assembly and fabrication, maintenance and repair activities, research and development, small offices or office/showrooms, and clean trade shops. Large footprint uses such as warehousing, distribution centers, and other uses that are quasi-industrial and highway-oriented in character are also found in industrial areas. Uses with the potential for significant off-site impact such as concrete plants, other extractive industries, junkyards /scrap yards, and warehousing with outside storage of materials or equipment are also appropriate for industrial areas with appropriate screening or buffering.
Location	Areas of industrial development should be fairly flat or level, with enough land area available to provide buffers and landscaping to protect adjacent or nearby residential use or open space designations. Industrial areas may be located adjacent to higher-intensity commercial or mixed use areas. Proposed industrial areas should have access to adequate sewer, water, and power infrastructure to meet the needs of businesses in these areas.
Transportation Considerations	Reasonably direct access to arterial roadways should be available. While actual building sites do not need to abut a designated truck route, any proposed industrial development complex when viewed as an entity will have direct access to a 9 or 10-ton truck route. Access to either rail or air transportation is also desirable. Although it is anticipated that industrial areas will be provided transit service, not all sites within an area may be easily accessible by transit.
Design Considerations	Requires effective buffering and careful attention to site and building design if adjacent to less intense land uses. More intense industrial, in terms of externalities, will be subject to performance standards for environmental effects and nuisance mitigation.

Table 2-9 | Community Anchor Categories

Community Anchors include medical, education, and small and large-scale civic facilities that significantly contribute to the economic and cultural life of the community. They are generally

designed through a master plan process, due to the highly integrated nature of infrastructure, transportation, parking, and public service needs as well as the more efficient approach master planning provides to address potential impacts to the community. Community Anchors defined in the plan include 1) Medical Campus Area, 2) Educational Campus Areas, 3) Civic Facilities and 4) Airport Facilities.

MEDICAL CAMPUS AREAS	
Characteristics	Areas include major hospitals, medical clinics, and medical research along with auxiliary and supportive uses, with campus-level infrastructure systems such as integrated on-site parking, utilities, and open space guided by an overall institutional Master Plan.
Desired Pattern	Guided by development of a Campus Master Plan
Density/Intensity	Varying densities; will be established by the campus master planning process.
Mix of Uses	Primary uses include hospitals, medical clinics, and medical research, with auxiliary uses such as outpatient or transitional housing for clients, lodging, and related commercial, office, and residential uses in the fringe areas of the district.
Location	Medical Campuses should be located on transit routes in areas with well-developed pedestrian facilities providing interconnection to nearby residential areas and enhancing workforce access.
Transportation Considerations	Pedestrian oriented design features should be incorporated with attention to streetscape, building frontage design, and wayfinding. Management of parking to reduce impact on street systems and nearby residential neighborhoods is important. The campus should be served by transit routes.
Design Considerations	Protect the livability of surrounding neighborhoods through adequate infrastructure and campus design. Minimize off-site impacts in collaboration with neighbors, especially to reduce automobile traffic and parking impacts. When appropriate, consider use of parking structures to reduce the areas covered by parking lots, thereby making space available for infill and redevelopment opportunities. Campuses abutting lower density residential areas should consider locating higher buildings towards the center of the campus facility and transitioning to lower buildings with generous open space in areas closer to the residential area to provide a buffer.
EDUCATIONAL CAMPUS AREAS	
Characteristics	This category applies to educational facilities for secondary and post-secondary education with sizable student populations planned as integrated campuses with educational, recreational, parking and open space components which generate major peak period vehicular travel demand needs. Supportive retail may be

	integrated into the campus. Encourage post-secondary campus development that provides amenities and services not only for students but surrounding residents, emphasizing the role of campuses as centers of community activity.
Desired Pattern	Sites are typically developed under the guidance of an institutional master planning process.
Density/Intensity	Varying densities that will be guided by a master planning process.
Mix of Uses	This designation includes all education and support services and facilities that serve the mission of the campus, such as associated sport venues, any residential student housing integrated into the campus, and supportive retail or other uses targeted to campus customers.
Location	Location will vary to some degree based on facility type and size. Larger community and regional facilities should be located along major collectors and arterial streets to provide access from other areas of the community. Private facilities with smaller student populations may be able to adequately serve on secondary collectors as well as higher order streets.
Transportation Considerations	Facilities should be located on and served by public transit routes with developed transit stops as part of the campus facility. All facilities should be located in areas with a well-developed network of pedestrian and bicycle facilities. The management of parking to avoid spillover effects in adjacent residential areas is important as is minimizing the impact on any nearby residential streets.
Design Considerations	Minimize off-site impacts in collaboration with neighbors, especially to reduce automobile traffic and parking impacts. When appropriate, consider use of parking structures to reduce the areas covered by parking lots, thereby making space available for infill and redevelopment opportunities. Campuses abutting lower density residential areas should consider locating taller buildings towards the center of the campus facility and transitioning to shorter buildings with generous open space in areas closer to the residential area to provide a buffer. Uses such as parking lots or sports venues should be setback an appropriate distance from lower density residential uses.
CIVIC FACILITIES	
Characteristics	Identifies facilities generally, though not exclusively, managed by public or non-profit entities that serve as gathering places for communal business, social, spiritual, sporting, or entertainment purposes. Examples include Mayo Civic Center, Rochester Recreation Center, Olmsted County Fairgrounds, etc. Smaller institutional uses such as churches are generally not mapped unless they are sites that are more than five acres in size. Institutional properties may be public or private.

Desired Pattern	Large site development will be guided by a master planning process while smaller sites will be guided by general zoning district rules.
Density/Intensity	N/A
Mix of Uses	This category includes uses such as libraries, fire stations, police stations, government office buildings, arenas or stadiums, but not civic uses that are more industrial in nature with maintenance yards or buildings, storage of materials, and daily truck traffic associated with maintenance or service operations.
Location	Civic Facilities that generate a lot of traffic or noise may be most appropriate near major roads or near high activity centers such as the Downtown Development Core or Fringe, or jointly located with other community anchors such as Educational Campuses. Generally, smaller facilities that serve neighborhood residents are best located and most appropriate in the heart of the neighborhood(s) area(s) that it serves with primary access to a collector or minor arterial roadway.
Transportation Considerations	Public facilities that are open for frequent public visitation should be located on transit routes and in areas with well-developed pedestrian facilities. Safe pedestrian access is a priority. Access requirements will generally relate to the size of the facility and the population they serve.
Design Considerations	Large facilities that generate significant traffic or include large buildings may require careful design and buffering when adjacent to less intense residential land uses.
AIRPORT FACILITIES	
Characteristics	The Airport Facilities property shown on the future land use map represents land utilized for the operations of the Rochester International Airport and associated commercial and industrial uses on lands managed by the Airport Authority.
Desired Pattern	An Airport Master Plan and Airport Layout Plan identify the existing and proposed utilization of the airport property.
Density/Intensity	N/A
Mix of Uses	The predominant uses are aviation related activities along with a variety of complementary and other non-residential purposes located on airport property. Uses of abutting property are also managed through an airport zoning ordinance to discourage the siting of incompatible uses that may be impacted by effects such as noise or lighting or the risk of concentrations of persons being impact by hazards such as an airplane crash. Airfield Influence areas are identified as part of the Master Planning process to reduce the potential for impact.
Location	Applies to the Rochester International Airport environs and additional areas covered by the Airport Master Plan.

Transportation Considerations	Access to local airport facilities should be provided from arterial highways.
Design Considerations	The primary consideration for the Airport facility is restrictions established in Federal Aviation Administration (FAA) regulations that limit the height of structures in protected airspace in order to ensure the safety of airplane operations in the airport environs.

Table 2-10 | Preservation Categories

This designation applies to existing large-scale parks and protected open spaces of citywide significance which are expected to remain as open space in perpetuity. It also includes areas outside the city limits which are anticipated at some time in the future to provide needed expansion areas for city growth.

PARKS AND OPEN SPACE AREAS	
Characteristics	Parks and Open Space areas are designated on the Plan to identify existing and future uses of a public recreational nature intended for community wide or regional use as well as areas that contain sensitive natural resources or land features. These areas include parcels of land owned by government or non-profit entities for the purpose of preserving sensitive open space or natural features, as parks and recreational facilities, and environmental corridors that link key destinations. This category includes public and private golf courses. Land with this designation is anticipated to remain in open space in perpetuity. Neighborhood park facilities are generally considered as accessory to neighborhood development and not mapped on the future land use plan.
Desired Pattern	Park development involving some level of active use will usually be guided by development of a park master plan. Passive use areas will generally retain their natural character with limited development of facilities expected.
Range of Density/ Intensity	Varies, ranging from as small as 1-3 acres to 100+ acres for regional facilities. Pocket parks or similar facilities may be smaller than one acre where necessary to provide open space in urban development core area where increased land values and development densities render establishment of large public open spaces unfeasible.
Mix of Uses	Park uses will include a wide range of community and regional parks, trails, community gardens, and recreational facilities including playgrounds. Passive open space will include uses such as nature preserves, wildlife areas, and urban hardscape parks.

Location	Varies based on facility type and size. Larger community and regional park facilities should have access available to arterials or major collectors to provide suitable access from other areas of the community.
Transportation Considerations	Parks and open space areas should be served by well-developed pedestrian facilities as well as have direct connections to the urban area trail and path network. Larger city or regional parks should be served by public transit services, particularly where the location includes venues to host larger events such as concerts, tournament sports, etc. For facilities with the ability to host events attended by large numbers of people, adequate parking should be provided or planned accommodations for off-site parking with shuttle service addressed during the site approval process.
Design Considerations	Where facilities abut residential land uses, the ability to buffer adjacent residents from noise, lights, and other elements needs to be considered.
URBAN RESERVE AREA	
Land Use Objectives	<p>This area should be protected from development that would constrain the efficient expansion of urban growth. Inappropriate development would include low density residential subdivisions on lot sizes ranging from 2 to 10 acres per housing unit, along with other forms of rural development that would create lot sizes below 15-20 acres in size.</p> <p>Limit development in areas that would create a need for the upgrading of roads before they are scheduled in the jurisdiction’s capital improvements program. Where proposed development will potentially increase the traffic volumes exceeding the current road capacity, provide for the cost of road improvements at the time of development.</p>
Preferred Development Style	<p>Rural-type services and development standards are often acceptable in the Urban Reserve Area, but certain minimum or maximum standards may be required in certain critical locations or in response to certain intensities of development.</p> <p>Uses in the Urban Reserve should be limited to agricultural related uses and single family residential at a density no greater than one unit per 10 acres. This limit will allow for more efficient infrastructure provision once the market is ready and the City has determined that more intense development can be provided urban services.</p> <p>Permit interim development consistent with the requirements of the Olmsted County General Land Use Plan and in a manner that will support long-term urbanization of the Urban Reserve. This can include standard subdivisions at a density of 1 unit per 10 acres of non-wetland area, or clustered subdivisions reserving at least 50% of the total buildable land as open space for future development with a street pattern that is compatible with the city’s local street design standards and space identified for future neighborhood park facilities.</p>

Sewer and Water Services	Areas within Urban Reserve may rely on individual or community sewage treatment systems as an interim measure, provided the ability to serve the subwatershed of the affected area with municipal services is not compromised and the city and affected township reach agreement on multi-parcel service area orderly annexation agreements. Individual on-site wastewater treatment systems are not ideal for suburban intensity development and are very costly when they fail.
URBAN INFLUENCE AREA	
Land Use Objectives	<p>The City shall encourage the County and surrounding Townships to retain large lot sizes and an overall gross density of no more than one house per 35 acres in areas without sewer that are intended to remain predominantly agricultural or rural. Permit agricultural/farmstead and strategically located rural non-residential with low requirements for water use and sewage treatment development in areas where municipal services are not expected over the next 30 to 40 years.</p> <p>Limit development in areas that would create a need for the upgrade of roads before they are scheduled in the appropriate jurisdiction’s capital improvements program. Where proposed development will potentially increase traffic volumes exceeding the current road capacity, provide for the cost of road improvements at the time of development.</p>
Preferred Development Style	<p>In general, the existing density/intensity of land use is anticipated to remain in place over the planning horizon.</p> <p>Consistent with Agricultural Preservation designations in the County or Township Plans and ordinances, typical uses anticipated in the Urban Influence Area would include farms and related agricultural uses; small-parcel farms for local food production; single-family detached dwellings at a minimum density of 1 per 20 acres; and limited recreational open space uses (golf courses, public parks, conservation areas, natural preserves, stables and riding academies)</p> <p>Provide for “conservation/open space subdivisions” that cluster housing with remaining buildable land area preserved for future sewered development.</p>
Sewer and Water Services	Developments that are built using some type of community sewage disposal system should be structured such that connections could be made in the future to municipal sewer systems.

Using the Development Vision to Guide Future Land Use

The Future Land Use Map provides a guide to the community’s preferred pattern of physical development, focusing on the mix and intensity of land uses in areas across the city. The Future Land Use Map builds off the Development Vision which identifies a more strategic view of the

existing and planned land use environment in the urban area, reflecting consideration of the functions and constraints of the urban area landscape, the character of neighborhoods and other districts, and the relationship between land use and infrastructure system and service planning. The Future Land Use Map is not a zoning map, but is used in conjunction with governing principles, policies, and strategies to provide direction to land owners, government staff, and elected officials as they make specific land use decisions applicable to specific properties.

There is a general relationship between the land use categories found in the Development Vision Map and the Future Land Use Map that should be recognized and considered when assigning or considering amendments to the Future Land Use map classifications. The relationship is not a one to one relationship; there are typically multiple Future Land Use Map classifications that can be appropriate with a given Development Vision designation, and the classification applied should be considered in terms of factors such as accessibility, abutting area land uses and building character, buffering or transitional development needs, and the adequacy of gray and green infrastructure. Not every land use classification is appropriate for every place type identified on the Development Vision map; a balance needs to be struck between accommodating choice and diversity while protecting existing investment. The Future Land Use- Place Type Matrix (Table 2-11) identifies those Future Land Use classifications that are considered compatible with various Development Vision place types and should be used as a guide to identify the potential range of land use categories that could be considered for a particular development area or site within the Urban Area.

TABLE 2-11: THE FUTURE LAND USE - PLACE TYPE MATRIX

PLACE TYPES FROM DEVELOPMENT VISION MAP	FUTURE LAND USE CLASSIFICATIONS																				
	Residential			Mixed Use				Non Residential				Community Anchors	Preservation								
	Low Density	Traditional Downtown Neighborhood	Medium Density	High Density	Neighborhood Destinations	Downtown Core	Downtown Fringe	Mixed Use Transit Oriented Center	Mixed Use Transit Supportive Corridor	Transit Supportive Neighborhood Corridor	Commercial & Business Development	Industrial Development	Small Employment Development	Medical Campus	Educational Campus	Civic Facilities	Airport Facilities	Park & Open Space	Urban Reserve	Urban Influence Area*	
Neighborhoods																					
Established																					
Developing																					
Downtown Gateway																					
Centers																					
Urban Center / Downtown																					
Transit Oriented Node																					
Regional Business Center																					
Community Business Center																					
Mixed Use Neighborhood Center																					
Districts																					
Commerce/Employment																					
Campus																					
Airport																					
Park/Open Space																					
Development Reserve																					
Corridor																					
Regional Highway																					
Urban Highway																					
Transit Supportive Corridors																					
Urban Business																					
Urban Residential																					

* Urban Influence Area is beyond designated 20 year Designated Urban Service Area (RUSA); no Place Types are assigned outside of the RUSA

LEGEND

- Greatest Level of Compatibility between Land Use Class and Place Type
- Reasonable Level of Compatibility between Land Use Class and Place Type
- Low Level of Compatibility between Land Use Class and Place Type
- Land Use Classification should not be applied in Place Type

Part 4 | The Transportation Framework

A foundational element of any great city is the network of travel corridors that provide for the movement of people and goods about the city, provide space for people to meet and share ideas, and act as conduits for economic opportunity and exchange. Comprised primarily of streets but also including trails, rail lines, alleys, subways, and skyways, these corridors serve many purposes:

- ▶ They move people, provide access to business and homes, and serve as public spaces;
- ▶ They interact with and help to frame and support land use adjacent to the corridor;
- ▶ By providing safe, attractive corridors they encourage human and economic activity by creating gathering places, attracting investment and encouraging opportunities for ‘staying’; and
- ▶ They can help to promote human and environmental health by providing people convenient opportunities to travel as a pedestrian or cyclist and by helping to sustainably manage natural processes such as stormwater runoff.

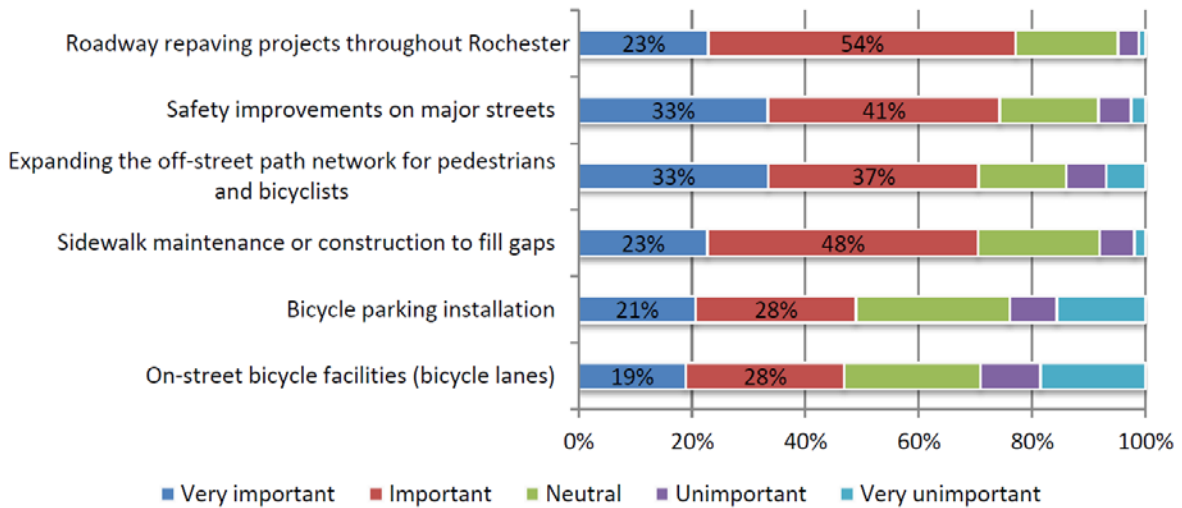
Public rights-of-way make up approximately 40 percent of publicly owned space in a city. The planning, design, and use of this valuable space influences many aspects of city life and affects the quality of life for residents. As the community continues to grow and society continues to change, however, transportation needs and issues will change as well and require ongoing attention. Among the most important transportation challenges the community currently faces include:

- ▶ The ability to fund needed roadway system maintenance and improvements
 - In the 2015 Long Range Transportation Plan update, estimated public revenues that the City would have available for roadway maintenance and improvements over 25 years was \$415 million dollars; estimated needs were on the order of \$800 million, with 65% of the need related to maintenance of the existing roadway system
- ▶ Responding to the continued growth in traffic as the city adds 55,000 new residents and 50,000 new jobs

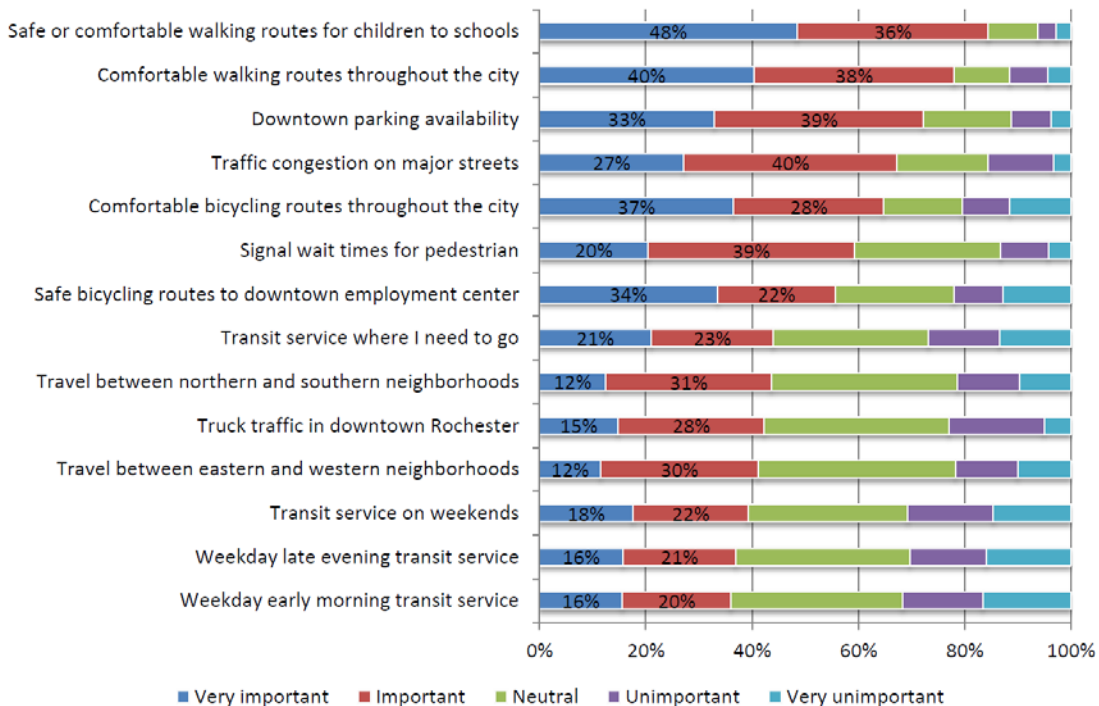
- Vehicle miles of travel are expected to increase by approximately 50% as a result of projected growth. With adherence to a more compact growth pattern and alternative travel and parking options for commuters, this can be reduced by approximately 15%
- ▶ Enhancing the family of travel and transit services to support significant workforce expansion in Downtown Rochester
 - Limited ability to expand roadway capacity and an expected 70% increase in downtown employment will require new solutions for moving people in and out of the downtown area
- ▶ Expanding transportation choices by continuing to improve and add infrastructure for alternative modes of travel as the opportunity arises
 - There is a community interest in having more active transportation choices and opportunities such as improved walking and biking infrastructure available near home and work to provide alternatives for both travel and recreation
- ▶ An aging population and continued increases in visitors to the city for medical reasons means changes in travel patterns and more people with physical challenges navigating the city
 - By building streets and public spaces with accessibility in mind, and providing travel options that work for all people, we can ensure a future that allows everyone to meet their daily needs and participate in activities outside the home

What Did the Community Say?

During the research and development phase of the P2S 2040 plan, a range of community events were held and a community transportation survey was conducted to gather input from the community as to perspectives on the various transportation issues and priorities. The survey was publicized as part of plan related outreach and on the website and through social media posts related to the project, with a total of 640 responses received. The results as shown in the following chart on a question about the importance of potential transportation improvements provides some sense of the priorities of survey respondents related to a list of potential transportation related needs in the city.



Survey respondents were also asked to respond to a question asking them to indicate the level of importance they would assign to various local transportation issues. The following chart highlights respondents’ perceptions of the importance of various transportation issues.



Another survey effort that helped inform the P2S 2040 project was the Rochester Association of Realtors Smart Growth Survey conducted in 2015. Among the questions in this survey included

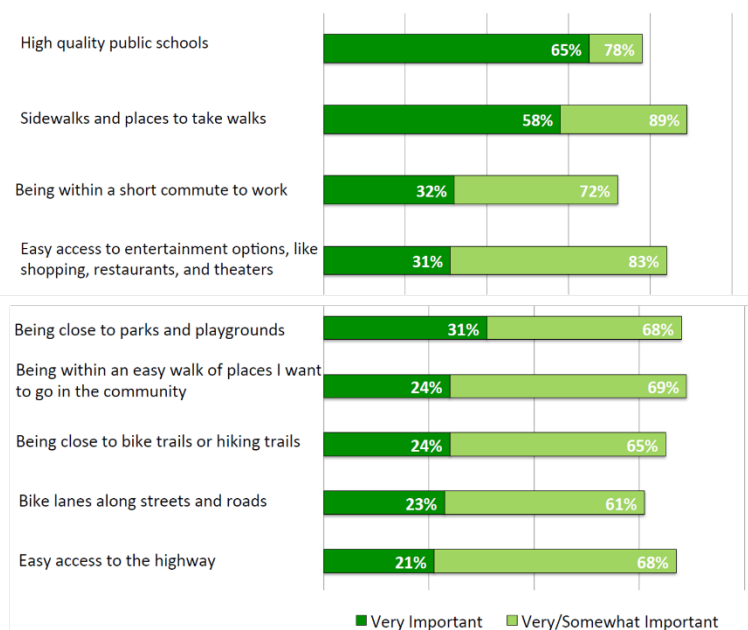
some that probed the importance of various community infrastructure elements that were of importance in deciding where to live. These results help to highlight the importance of having multiple transportation options available, and the desire to have convenient access to everyday destinations such as jobs.

Transportation Objectives

In developing and managing a transportation system there is a tradeoff that has to occur which

seeks to provide a balance between needs and resources. In seeking the appropriate balance for the community, it helps to identify key objectives that inform the decision-making process. The following list cites the key objectives that serve to help inform transportation choices in the community.

Walkability, Access to Culture, and Quality Schools Top the List of Importance in Deciding Where to Live



A transportation network that is safe for all users

- ▶ Provide pedestrian safety
- ▶ Manage the road network to improve safety
- ▶ Prioritize a walk – friendly environment in high activity areas
- ▶ Make cycling safe and comfortable for people of all ages and abilities

A transportation network that emphasizes multi-modal mobility

- ▶ Provide multiple transportation options
- ▶ Enhance access to and use of local transit services

- ▶ Expand the network of bicycle facilities to improve connectivity
- ▶ Manage parking to support local business, visitors, safety and convenience

A transportation system that promotes and supports economic growth and sustainability

- ▶ Invest in a state of good repair before investing in new projects
- ▶ Provide reliable connections and travel times to where people want to go
- ▶ Encourage street design that supports surrounding land uses
- ▶ Ensure safe and efficient truck access to major truck destinations

A transportation network that is equitable

- ▶ Consider the needs of diverse populations including mobility impaired, elderly, children and others

Transportation and the Destination Medical Center Vision

In the last decade, a cooperative partnership between the City of Rochester and major downtown partners including the Mayo Clinic, the University of Minnesota, the downtown business community, and the hospitality and leisure sectors have worked to craft a vision for destination downtown experience that promises to attract new businesses, many new employees, and a significant increase in residents to the downtown area. The ability to meet the travel demand the level of projected activity this vision will create requires new ways of thinking about providing access to downtown and mobility within downtown. The anchor of this vision is the Destination Medical Center economic development initiative, which anticipates attracting 25,000 to 30,000 new workers to downtown Rochester by 2035.

The ability of vehicular gateways into downtown to accommodate additional peak period traffic growth and expand the capacity of the roadway network is limited currently, especially through existing western portals such as Civic Center Drive NW and 2nd Street SW, and will be extremely stressed in the future if the dominant pattern of travel into the downtown remains the private automobile. Figure 2-13 illustrates the existing mode choice breakdown among employees working downtown and the estimated change in mode share needed to maintain a reasonably

functioning central area street network in the future. It has been estimated that the share of private vehicle travel among commutes will need to drop by 20 to 30 %, with a shift to alternative options such as transit, park and ride, carpooling, and walking/biking.

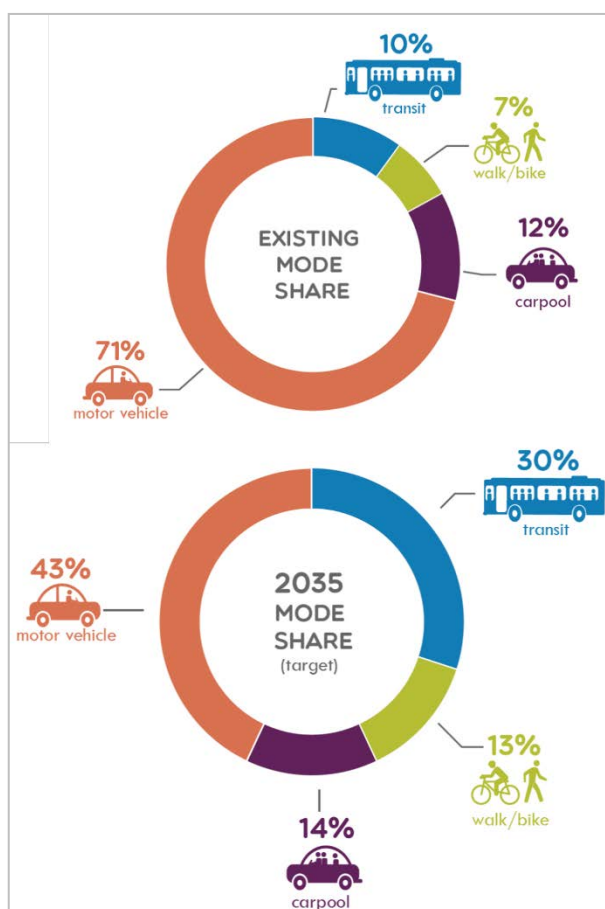
The significance of this extends to areas beyond downtown, since trips ending downtown typically have an origin elsewhere. To help achieve this target, land use, transportation facilities, and services outside of the downtown core will need to evolve as well in order to support the level of alternative travel choices needed in the downtown area.

Added investment will be needed in local and regional transit and other services to sustain quality access to downtown Rochester for workers, visitors, students, customers, clients, residents, and others. The transportation element of the DMC Plan outlines investment

concepts to improve access to downtown and improve circulation within downtown for those on transit, foot, and by bicycle. The plan identifies six elements of transportation investment that will be important, including: 1) access and parking, 2) transit, 3) streets, 4) active transportation, 5) wayfinding, and 6) regional commuter transit services. These plans identified a set of transportation principles that are important to achieving success including:

- ▶ Bring 30% of the workforce to downtown Rochester by transit by 2035
- ▶ Create a “park-once” downtown environment connected by a frequent circulator service
- ▶ Build shared-parking prioritized for economic development
- ▶ Create world-class streets that are designed for people

FIGURE 2-13: MODE SHARE



- ▶ Create an exceptional place for healthy, human-powered transportation
- ▶ Invest in sustainable transportation infrastructure and programs that reduce the city's ecological footprint
- ▶ Establish and maintain a transportation network that is accessible and inclusive to people of all ages, abilities, and states of wellness

There is a strong economic case for implementing improvements consistent with these principles. Cities around the North America and worldwide have recognized that a strong economy attracting a young, diverse, and well-educated workforce requires walkable urban neighborhoods, comfortable streets that accommodate non-motorized transportation, and excellent urban recreation options. At the same time, the transportation network needs to provide residents and businesses with safe, convenient access to various destinations in the city through a balanced system of pedestrian, bicycle, vehicular, and transit facilities and services.

Multi-Modal Transportation Directions

The remainder of Section 2 discusses the various transportation elements that will contribute to achieving the future land use and transportation vision of the community. Although these pieces describe individual modes of travel, this is for organizational purposes only; in reality, Rochester is a multi-modal city. No one person relies on a single way to get around for every trip. Instead people do what is convenient and practical, making different choices depending on where they are going, what the weather is like, and what they have to do that day. To achieve the goal of enhancing our transportation systems to meet the needs of the 21st Century, the vision for the future of transportation infrastructure in Rochester includes:

Public transportation as a cornerstone | Investment in a Primary Transit Network (PTN) will connect major destinations and park & ride reservoirs throughout the city with downtown, while providing a transportation infrastructure that can support private investment in vibrant, mixed use development.

Roadway improvements focus on efficient and safe movement | Investment in roadway and intersection improvements will continue to be made to address safety concerns, enhance transit operations, and optimize roadways for reliable traffic operations.

Manage the transportation system more effectively | Transportation Demand Management (TDM) programs and services will be developed to promote alternatives to single occupant vehicle commuting.

Encouragement of active transportation | Improvements will expand opportunities for active transportation to provide attractive travel options to residents and visitors in the community.

Well-maintained and managed infrastructure | Maintenance and operation of the transportation system is prioritized to achieve a network in state of good repair that facilitates year-round use of all transportation modes.

Physical infrastructure and services/programs are the two legs of transportation on which meeting the mobility and accessibility needs of residents, businesses, workers, and visitors rest. The fundamental building blocks of the transportation system addressed in this plan include development of a Primary Transit Network (PTN) and continued improvement of a robust multi-modal street network that serves all modes of travel safely and effectively. Improved transportation infrastructure and services in concert with thoughtful land-use decisions will create a sustainable transportation system for future generations. Underlying the process is acknowledgement that transportation is one of the key elements that defines a community. In the same way that roadways have spurred development in the past, transit options and ‘living’ streets designed for all users can help create an urban form that will continue to attract new businesses and new residents in the 21st century economy.

Integrated Transit Services

Great transit is essential to our future success as a multi-modal city. Transit complements walking and cycling by extending the range a person can travel by providing connections among and between pedestrian-oriented neighborhoods to key community destinations. Its major benefit is that it can move large numbers of people in small amounts of space, supporting a growing economy without contributing to congestion, and at a reasonable cost. By providing low-barrier access to key destinations, it supports an inclusive city where everyone can meet their daily needs.

A comprehensive transit network should include a family of services that cater to different patterns of land use and travel needs. This could include a range of route configurations,

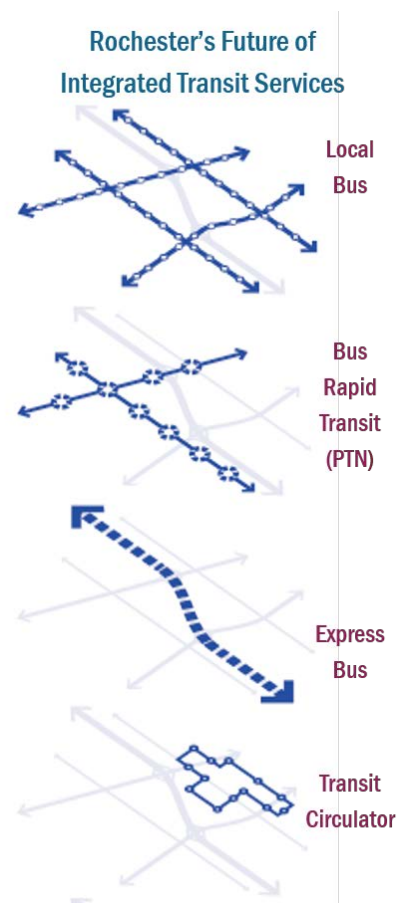
different levels of service between routes, and variations in transit mode and vehicular sizes. Rochester is served by a variety of different transit services, distinguished by operator (either public or private) and by service type (service along a fixed route or point to point), with various vehicle capacities to maximize the cost effectiveness and efficiency of moving people to and from higher demand destination or areas such as downtown. These include distinct services such as local fixed route transit, dial-a-ride service for the elderly and disabled, park and ride express service for commuters, private regional commuter buses, and local shuttle services operated by a variety of private entities such as hotels and the Mayo Medical Center.

P2S 2040 promotes the continued development of a transit system that includes a hierarchical network anchored by a proposed core network of frequent rapid transit service referred to in this plan as the Primary Transit Network (PTN), complementing a wider network of lower speed but more widely accessible local bus service. These core services will be further enhanced by services that target specific markets and include

- ▶ Peak Hour Express Bus service providing direct connections to downtown Rochester from Park and Ride facilities located throughout the city
- ▶ A downtown circulator service to facilitate lower cost parking opportunities for downtown workers and visitors on the periphery of the DMC District and to support a “Park Once” downtown environment allows people to move within the district throughout their day without the need to use private vehicles for short trips.

The proposed family of transit services will help to support the following goals:

- ▶ **Develop a transit system that supports downtown growth and vitality** | In the next 20 years, the central core of Rochester is expected to see a 70% increase in jobs and 150% increase in population. Meanwhile, there is no realistic options to widen streets or increase capacity for automobiles. Accommodating growth in the central city will require space-efficient, sustainable modes of transportation, particularly



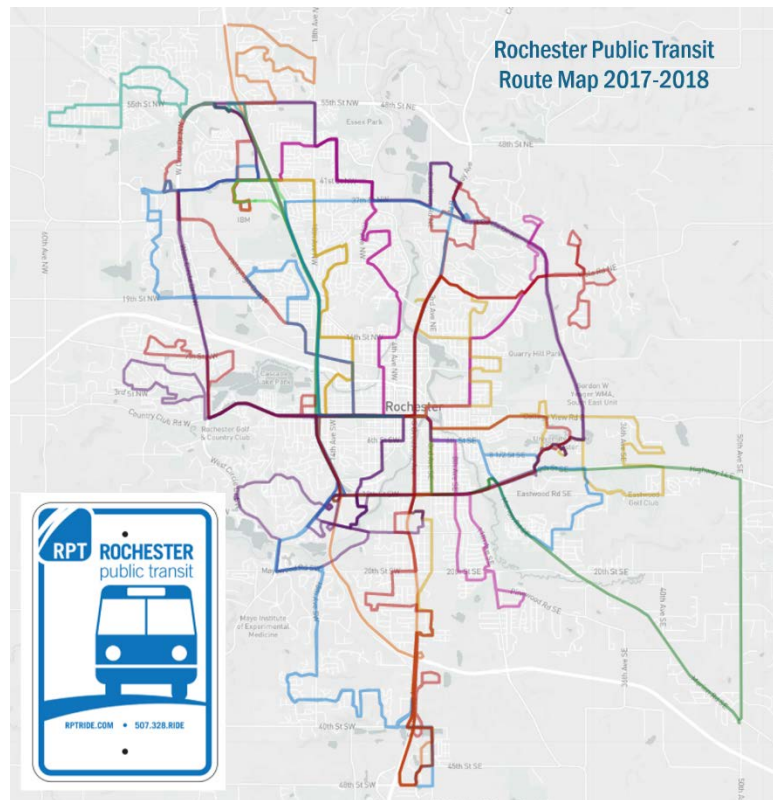
transit, walking, and cycling, to provide needed access and mobility to help support a growing economy and residential population.

- ▶ **Enhance the transit system with higher frequency, higher speed transit service** | P2S 2040 identifies corridors where investment in higher frequency, higher speed bus rapid transit will provide support for population and job growth throughout the city by improving transit connectivity while creating high quality infrastructure that has proven in many cities to attract new private reinvestment and development. Investment in this mode of travel can make transit more competitive with the private auto by enhancing transit speed, reliability, and service frequency in priority bus transit corridors. These corridors can provide an opportunity to provide meaningful improvements in service quality for passengers and can anchor changes to the transit system such as crosstown service, multiple transfer locations, and local neighborhood or employment area circulators that will enhance overall service.
- ▶ **Enhanced walk-bike-ride access** | Combining improved transit with investment in pedestrian and bicycle facilities and safe arterial crossing treatments near bus stops can help more residents use transit with a sense of safety and security. The development of transit supportive land use policies incorporating best practices for developing neighborhoods that promote walking, biking, and transit for more types of trips can leverage transit investments to support urban development, enhance placemaking, and achieve environmental goals.
- ▶ **Improve transit information and system usability** | Improvements to transit service offerings through the addition or improvement of service mean more choices and potentially more trips that involve multiple modes and/or service providers. To achieve the maximum benefit from these enhancements, it will be important for transit providers and advocates to ensure information on transit options and usability is conveniently available to the widest range of people. A new Transportation Management Association, **ARRIVE Rochester**, is being created to work in partnership with Rochester Public Transit and other providers, local employers, and the general public to provide this service.

Local Public Transit Service

Local public transit service is provided by Rochester Public Transit (RPT), a publicly funded transit system managed by City of Rochester, with service provided through a contracted operator. RPT operates **Fixed Route Local Bus Service** that serves neighborhoods throughout

Rochester and provides express service from park-and-ride lots to downtown Rochester. RPT also operates a demand responsive service, the Zumbro Independent Passenger Service (ZIPS), that provides origin to destination transportation service for those who are unable to use the fixed-route system due to disability. RPT’s current level of ridership on fixed route service is due to the alignment of route services with supportive land uses and demand generators, the provision of safe and secure pedestrian access to stops, and service such as park and ride express bus that provides a competitive travel time for commuter trips to downtown Rochester.



As the highest density employment center in the region and the seat of a transit hub-and-spoke network, downtown Rochester generates the majority of passenger destination demand in the Rochester Public Transit (RPT) system. Transit generating corridors and activity centers outside downtown are generally much lower in intensity and exhibit a more limited mix of uses, resulting in lower transit trip generation than downtown. Routes serving areas with transit dependent populations, particularly where residents are connected to service sector employment, also draw higher ridership. This transit dependent population typically includes low-income households, seniors aged 65 and over, youth between 10 and 17, and households without access to a private vehicle.

With the introduction of the concept of a **Primary Transit Network** (described in the following section), which will create a strong organizing element to fixed route transit service in the city, the role of RPT Fixed Route Local Bus Service will take on a slightly different role in the future, serving in part as a feeder service that will complement to the PTN and evolving to provide

more cross town route connections in combination with the PTN to offer a greater choice of destinations to riders. The local transit network will continue to provide a basic or ‘lifeline’ level of service within ¼ to ½ mile of most Rochester residents, connecting to most employment, commerce, education, health care, and social services not on the Primary Transit Network, but the combined PTN/Local Bus Service will provide higher quality and more frequent service to major travel destinations across the city. In areas not served by the PTN, the level of service provided by the Fixed Route Local Bus Service, given the low development densities common across the city, will likely remain defined by a minimum of 60-minute frequencies during off-peak daytime hours.

Access to local transit stops, particularly by people walking and bicycling, will continue to be critical to maximizing the usefulness of the local transit network. While transit access improvements and station amenities on the fixed route local bus service will be less than those provided on the PTN, making all transit stops comfortable and accessible is a priority to insure good connections for all transit passengers.

The city’s complementary paratransit service, the **Zumbro Independent Passenger Service (ZIPS)** will continue to serve those unable to use the fixed route system. Due to inevitable demographic changes, the significance of this service will likely only increase over time. The Rochester population is aging, with nearly 1 in 3 Rochester residents forecasted to be over the age of 60 by 2040, as compared with less than 1 in 5 today. ZIPS carried an average of 39,500 passengers per year from 2007-2013. Eligibility to use ZIPS is determined by federal Americans with Disability Act (ADA) guidelines. Operations are contracted at a per vehicle hourly rate with a private company that provides drivers, vehicle maintenance and storage, dispatching, and customer service. RPT continually seeks to increase the effectiveness of the ZIPS service by working with users, social service providers and disability advocates to provide user training, education, and the introduction of alternative options such as taxis where cost effective. In addition, the coordinated land use and transportation strategy of the Plan will desirably increase the amount of mixed use housing that will provide disabled and/or elderly residents more choices in the future to live closer to the services they need.

Ongoing service planning is conducted for both the local RPT Service and the ZIPS service. An updated Transit Development Plan was completed in 2017 to address short term needs and changes to these local transit service systems, including the expansion of service hours, addition of weekend and holiday service, and legibility of the system. Continued monitoring and

adjustment of routes and service will occur annually as it has in the past. Given the relative ease of adapting these services to new market opportunities or changes in routing to better match demand with service, planning for Fixed Route Local Bus Service and ZIPS service will continue to be able to respond to more immediate short-term needs in the community.

Longer term, planning for Local Transit and Paratransit services will need to continue to address fundamental service questions and needs, to the extent they have been identified, including:

Service Delivery

- ▶ Expanding service hours (primarily between 6 AM and 7 PM) to respond to potential transit riders seeking to travel during off-peak times (e.g., Mayo employees with evening work shifts or students taking evening classes).
- ▶ Overcoming longer travel times for trips that do not begin or end downtown resulting from the radial hub and spoke nature of the current route network.
- ▶ Expanding the utility of the system for transit dependent populations currently limited by the service hours and ease of accessing destinations outside of downtown.

Transit Capital and Access

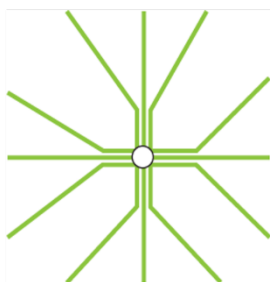
- ▶ Consistency in passenger amenities across the system such as shelters, seating, lighting, posted time tables, and real-time information.
- ▶ Addressing anticipated capacity challenges at the existing Downtown Transit Center as city growth prompts new routes and the prospect of a proposed downtown circulator needs to be fitted within the 2nd Street SW corridor as well.
- ▶ Establishing permanent park-and-ride sites at higher demand locations to avoid future disruptions to this critical service for downtown employers.

The city's current [Transit Development Plan](#), contains the full detailed complement of Goals and Objectives and a short term (1-5 years) Implementation Plan along with priorities for the period beyond the immediate 5 year period.

Primary Transit Network (PTN)

Rochester Public Transit (RPT) service is oriented towards the transit user traveling to downtown, which is reachable from most neighborhoods within 15-30 minutes. However, the radial nature of the system, with most routes starting and ending at the Downtown Transit Center, forces most riders, even those whose trips are not starting or ending downtown, to

**CURRENT SYSTEM ORGANIZED AROUND
A HUB & SPOKE CONCEPT**



transfer through the Downtown Transit Center. To add convenience for these users, the transit network is designed as a “pulsed” system, meaning that most routes converge on the transit center within a 5 to 10-minute window each hour or half-hour in order to facilitate route transfers, creating bus and traffic congestion one or two times an hour. Maintaining this system design as demand grows, particularly given the expected 60-70% increase in downtown employment levels, will exacerbate these problems in the future.

Recommendations in recent plans, including the Downtown Master Plan and Transit Development Plan, have suggested a future rethinking of the city-wide transit system in order to meet downtown mobility goals and improve service for non-downtown trips. An element of these recommendations has been to develop a network concept involving Transit Priority Corridors which would facilitate the future transition of the bus network into a system featuring multiple secondary hubs along a core of high frequency, high capacity transit corridors incorporating aspects of a transit “grid” system typical of larger cities. Evolution to a system anchored by high frequency priority corridors can support improved downtown access while offering improved access and mobility for trips not related to downtown destinations. In the P2S 2040 Plan, a fundamental element of this transition, the establishment of a network of transit priority corridors, is recommended in the form of the Primary Transit Network (PTN).

What is the Vision for the PTN?

The Primary Transit Network (PTN) is envisioned as set of key transit corridors where top-quality, high-amenity transit services will connect downtown Rochester with major destinations and future transit oriented development nodes in the city along the PTN. The PTN will provide a framework to guide policy and investment by identifying where the City intends provide the highest level of service and capital investment in transit outside of the downtown, to better align these investments strategically with redevelopment and reinvestment priorities.

Segments of Broadway Avenue, 2nd Street SW, and 4th Street SE are priorities for early implementation given their alignment with economic development opportunities, service to existing neighborhoods, and ability to serve major remote parking reservoirs to be developed to serve downtown needs. Additional corridors, including Valleyhigh Drive NW, 37th Street North, and a segment of West Circle Drive are identified as potential long-term additions to create a fully connected PTN network, emphasizing service to downtown Rochester and the major northwest growth area of the city while also providing connections to all other quadrants of the city. Figure 2-14 highlights the locations of these corridors.

How a Transit Network Can Evolve

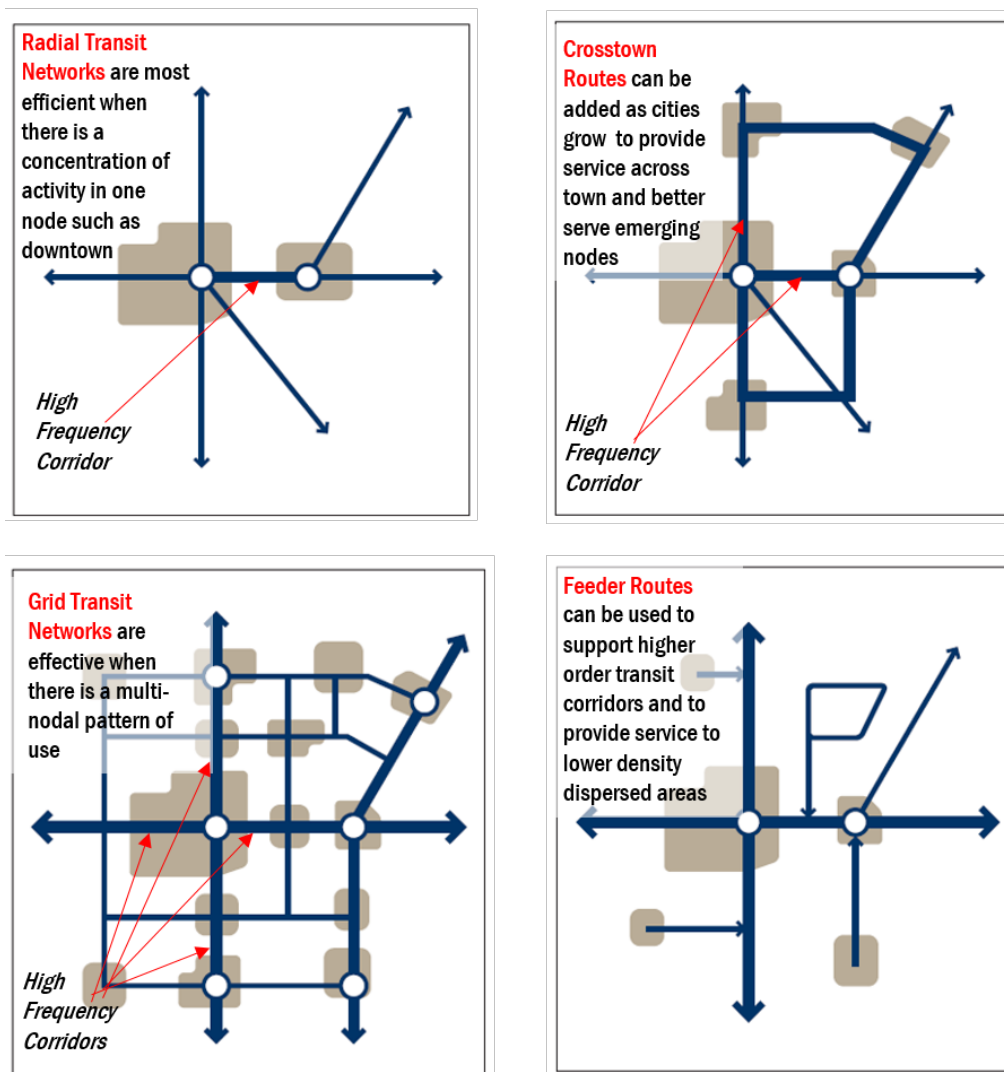
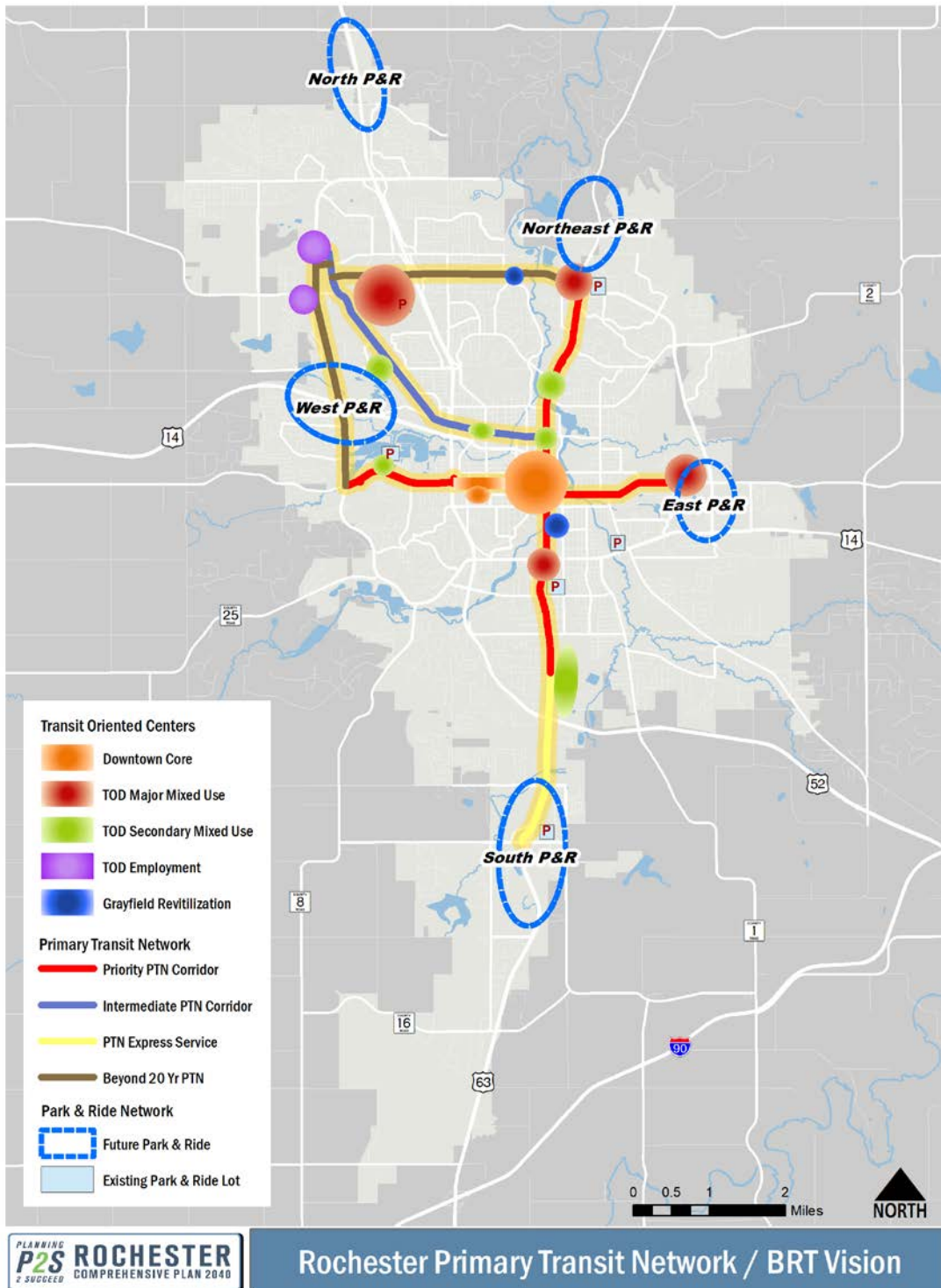
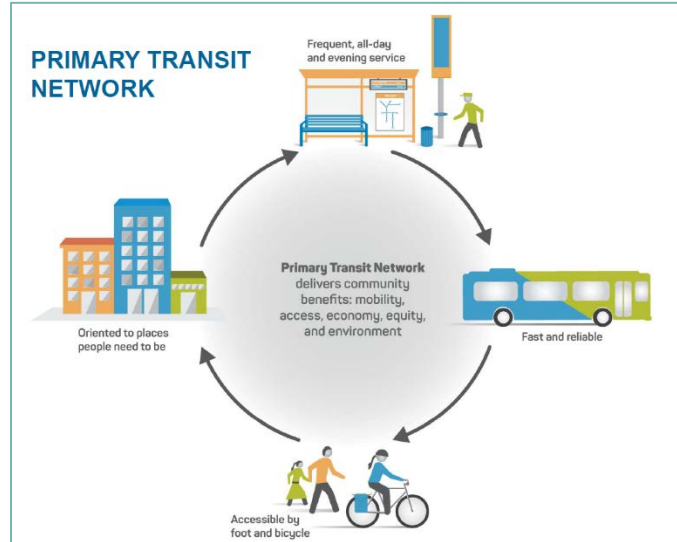


FIGURE 2-14: PRIMARY TRANSIT NETWORK CONCEPT



The elements of transit service that will be enhanced by development of the PTN corridor network include:

- ▶ **Route structure** | frequent and direct service connecting major trip generators that create demand for service throughout the day
- ▶ **Hours of service** | at least 16 hours of service on weekdays and 14 hours on weekends may be realized
- ▶ **Frequency** | convenient 15 to 20 minutes service to minimize waits and reduce the need to refer to the schedule of service
- ▶ **Speed and Reliability** | service is on-time and competitive with the private automobile in connecting key destinations, with an average operating speed no less than 30% of the speed limit
- ▶ **Marketing** | service is identifiable, legible, and easy to understand for new riders



What are the Features of the PTN Network?

The development of the PTN can create a foundational infrastructure that, through an integrated land use and transportation approach, can align public investment with private development of new housing, service uses and job growth by providing people the opportunity to move around the city in a reliable, convenient, and dignified manner. The PTN should be thought of as an “infrastructure plan” for transit. In P2S 2040 it is aligned with priority areas envisioned for revitalization and redevelopment along corridors such as North and South Broadway and 7th St NW with transit oriented and transit supportive land uses.

The type of improvements that lend a feeling of permanence to the PTN may include intersection priority features, enhanced stations, specialized vehicles, shared or dedicated runningways, off-board fare collection systems, and distinctly stylized branding, as illustrated in Figure 2-15.

FIGURE 2-15: TRANSIT FEATURES OF A PRIMARY TRANSIT NETWORK

STANDARD BRT FEATURES



- A. Transit Signal Priority
- B. BRT Branding
- C. Enhanced Stations
- D. Enhanced Fare Collection Systems
- E. Specialized Vehicles
- F. Dedicated Running Way

BRT Components

Service



BRT service typically runs every 15 minutes or better, throughout most of the weekday and on weekends.

Runningways



BRT can use dedicated or preferential lanes to allow buses to move more quickly through traffic. Runningways significantly impact travel speeds, reliability and identity in a system. Minor intersection treatments can make a big difference in a mixed traffic environment.

Stations



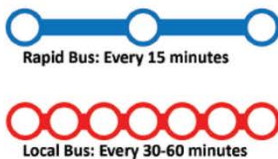
Bus stops are often upgraded to premium transitway stations with enhanced amenities and information kiosks. BRT Stations can be simple or complex, but they offer passengers increased comfort, safety, and security.

Vehicles



BRT vehicles should have a unique look distinct from regular local and express service and could be hybrid or alternative fuels.

Route Structure



Stations are spaced at similar distances to LRT stops, generally one stop every half mile, to provide express service. Local bus service, with stops spaced generally every quarter-mile, can be maintained along a BRT route.

Fare Collection



Innovative fare collection methods such as electronic pre-pay smartcards and pre-payment kiosks allow for off-board fare collection to speed boarding and increase convenience.

Transit Signal Priority



ITS components such as transit signal priority and real-time arrival signs make the system faster, more reliable, and more user-friendly.

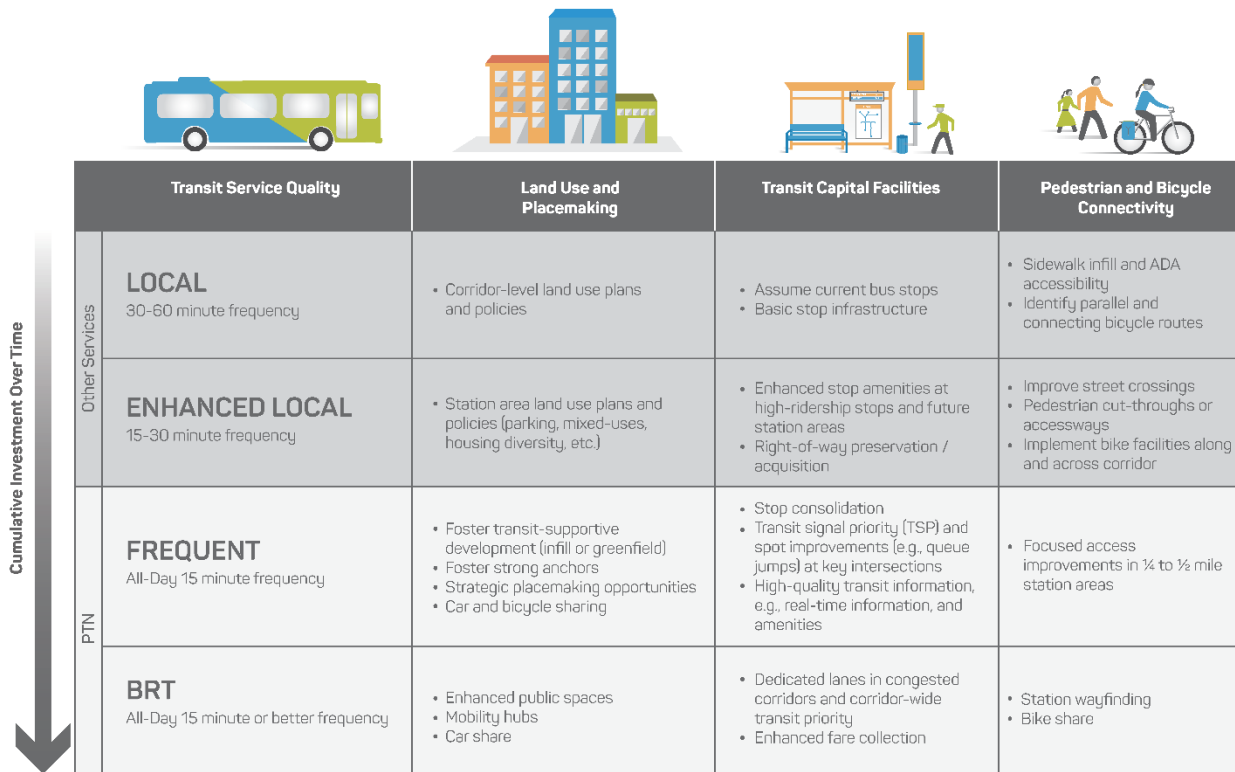
Branding



A system brand is developed to differentiate BRT transitways from other transit service.

It is anticipated that the ultimate service in all PTN corridors will be Bus Rapid Transit (BRT). Rochester does not have the operating and capital resources to fully implement this level of improvement on the PTN in the early years of the planning horizon. However, with a system design based on ultimately transitioning to BRT service, the features can be implemented incrementally and the PTN framework can be used to guide investment as land use and street design begin to take on good transit oriented forms. A phased-in approach could follow the steps illustrated in Figure 2-16 to upgrade service over time to BRT. One of the benefits for the City with this incremental approach is that an investment plan can be structured so that early investments will have the dual benefit of improving current service while also building towards the ultimate goal of BRT service with minimal loss of value in the features deployed early in the process.

FIGURE 2-16: ELEMENTS OF A PHASING PLAN LEADING TO ULTIMATE BUS RAPID TRANSIT



Each service category assumes all investments and infrastructure from previous categories are established.

When and How is the PTN Implemented?

Transit elements of the PTN can be developed with incremental investments in quality transit as land use and street design begin to take on more transit oriented forms. Local regular route

WHAT LEVEL OF BRT INVESTMENT & WHEN?

- Even in 20 year timeframe, Rochester PTN corridors are primarily candidates for Arterial Bus Rapid Transit (BRT)
- Dense areas of downtown or congested corridors may merit dedicated running way
- Corridor ridership of ~1,500 or more weekday riders
- Federal funding may dictate:
 - 0-5 yrs focus on circulator grant
 - 5-10 yrs focus on initial BRT corridor(s)



bus service can evolve to a Bus Rapid Transit (BRT) service over time by employing a variety of strategies that will improve transit travel speed, reliability, passenger comfort, and transit identity over time. Since the operating and capital resources do not exist to implement the PTN in full today, the purpose of including it in the P2S 2040 Plan is to create a policy framework that ensures quality

transit will be available as land use and street design take on transit oriented forms. The elements of this policy identify the conditions needed for enhanced transit to succeed, and can be best thought of in an IF-THEN framework as follows:

- ▶ IF development along a corridor achieves the minimum density required to support “high quality network” service, AND
- ▶ IF street design permits the operation of service at a given minimum speed and reliability, and maximizes the pedestrian access to each transit stop on the corridor, AND
- ▶ IF funding sources for high-ridership transit grow at an adequate rate to permit transit growth;
- ▶ THEN, the corridor will be permanently upgraded to high-quality network service levels, along with a corresponding higher priority for passenger amenities, fleet improvements, and other elements of transit quality.

Implementation of the PTN will require new strategies not previously employed in the community. Land use and development policies will need to incorporate transit oriented and transit supportive provisions and address urban design features needed to reach its full potential. As land uses along the PTN corridors begin to evolve into a transit supportive form,

capital resources, infrastructure improvements, transit operations, and connectivity of non-motorized systems will need to follow to achieve the vision of the PTN. Strategies and actions will be focused on those segments (Broadway Avenue, 2nd Street SW, 4th Street SW) where the vision of Bus Rapid Transit service within the horizon of this plan is most feasible, with policies, programs, and investments aligned to support implementation.

Developing a series of policy actions will ensure that the PTN will be properly implemented. These actions are intended to prioritize PTN corridors for future development and coordinate ongoing efforts by the City and others. The following policy steps are necessary for effective PTN implementation:

- ▶ Use the City’s zoning and development policies to encourage intensification of land use around Primary Transit Network corridors
- ▶ Use small area plans to create a coherent and coordinated transit oriented development strategy for specific geographic areas along the PTN network
- ▶ Catalyze transit-supportive development by creating incentive

SMALL AREA PLANS

The success of the PTN will depend on creating destinations and housing of sufficient density along the network to generate ridership levels that can sustain higher frequency service. This may mean mixing uses, such as commercial uses, next to or within residential development or developing housing at higher densities. This can be difficult when concerns about traffic, parking, noise, building design, and other compatibility issues are perceived to outweigh the merits of the proposal. A small area plan can help in addressing neighborhood issues, particularly those related to redevelopment or increased development densities.

Small area plans provide more specific guidance for land use, transportation, and public improvements, and may include design guidelines, overlay zones, and public amenity requirements. They are developed through a public planning process that involves property owners, neighbors, and local government.

Benefits of small area planning may include:

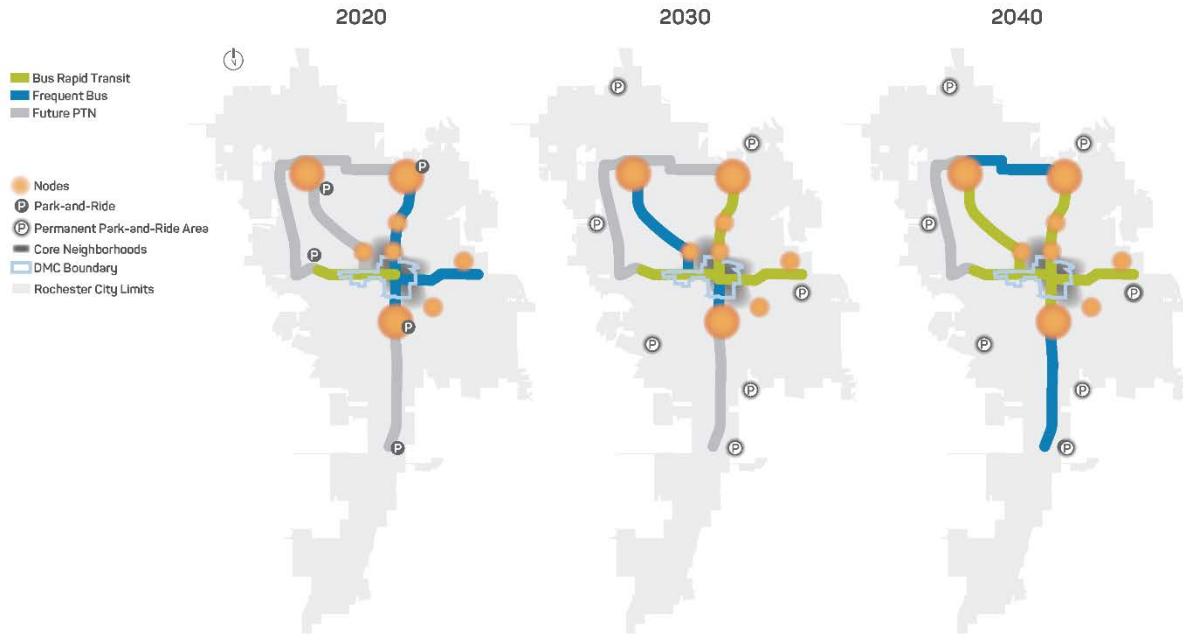
- ◆ Opportunity to explore alternatives that can result in higher and better use of the area
- ◆ Reducing neighborhood opposition by engaging people in design conversations early on
- ◆ Defining expectations relative to the varying roles and partners
- ◆ Increasing the opportunity to achieve community wide goals while leveraging and adding value to private investment

programs to ensure that it is economically feasible for developers to build mixed use projects within proximity of PTN corridors

- ▶ Plan utility infrastructure to support higher-intensity development along PTN corridors and establish direction regarding the design and traffic management of PTN street corridors to help maintain transit operation speed and reliability
- ▶ Ensure pedestrian and bicycle policies and strategies align with PTN transit investments
- ▶ Review City codes to ensure policies promote, require, and/or create incentives to provide transit stop and pedestrian oriented amenities that enhance accessibility to PTN service
- ▶ Work with businesses to evaluate the feasibility of district funding mechanisms, such as a Business Improvement District, that can help to fund transit information and marketing programs and make streetscape and transit stop improvements
- ▶ In response, private land use and development will respond as the following actions materialize:
 - ▶ Development policy and programs are established which enable and help catalyze reinvestment that is transit oriented and transit supportive;
 - ▶ Small area plans engage stakeholders and inspire transformation;
 - ▶ Property assembly of smaller parcels enables larger scale developments; and
 - ▶ Investors realize the opportunities for mixed use commercial and residential adjacent to well established neighborhoods with great access to community assets and relative close proximity to downtown, where walking, biking, and transit are viable.

Figure 2-17 illustrates the anticipated priorities and phase-in of enhanced transit service on different corridors identified in the PTN network corridors over the 25-year horizon of the Comprehensive Plan. As noted, the 2nd Street SW, North Broadway, and 4th Street SE corridors are envisioned as the first set of facilities to emerge as PTN enhanced corridors. Further on in the horizon would be a first segment of South Broadway extending south from downtown, and the Valleyhigh Drive corridor extending into northwest Rochester. Other segments, including

FIGURE 2-17: POTENTIAL PHASE-IN OF BUS RAPID TRANSIT SERVICE



the southern extension of South Broadway, 37th Street NW and West Circle Drive would likely not achieve full PTN status with BRT service until beyond the 25-year planning horizon.

The following figures provide a preliminary vision of the changes that would be needed for North Broadway, South Broadway, and 2nd Street SW to emerge as strong foundational elements of the PTN System. The graphics highlight features that would support the transition to PTN service.

FIGURE 2-18: NORTH BROADWAY PTN FEATURES

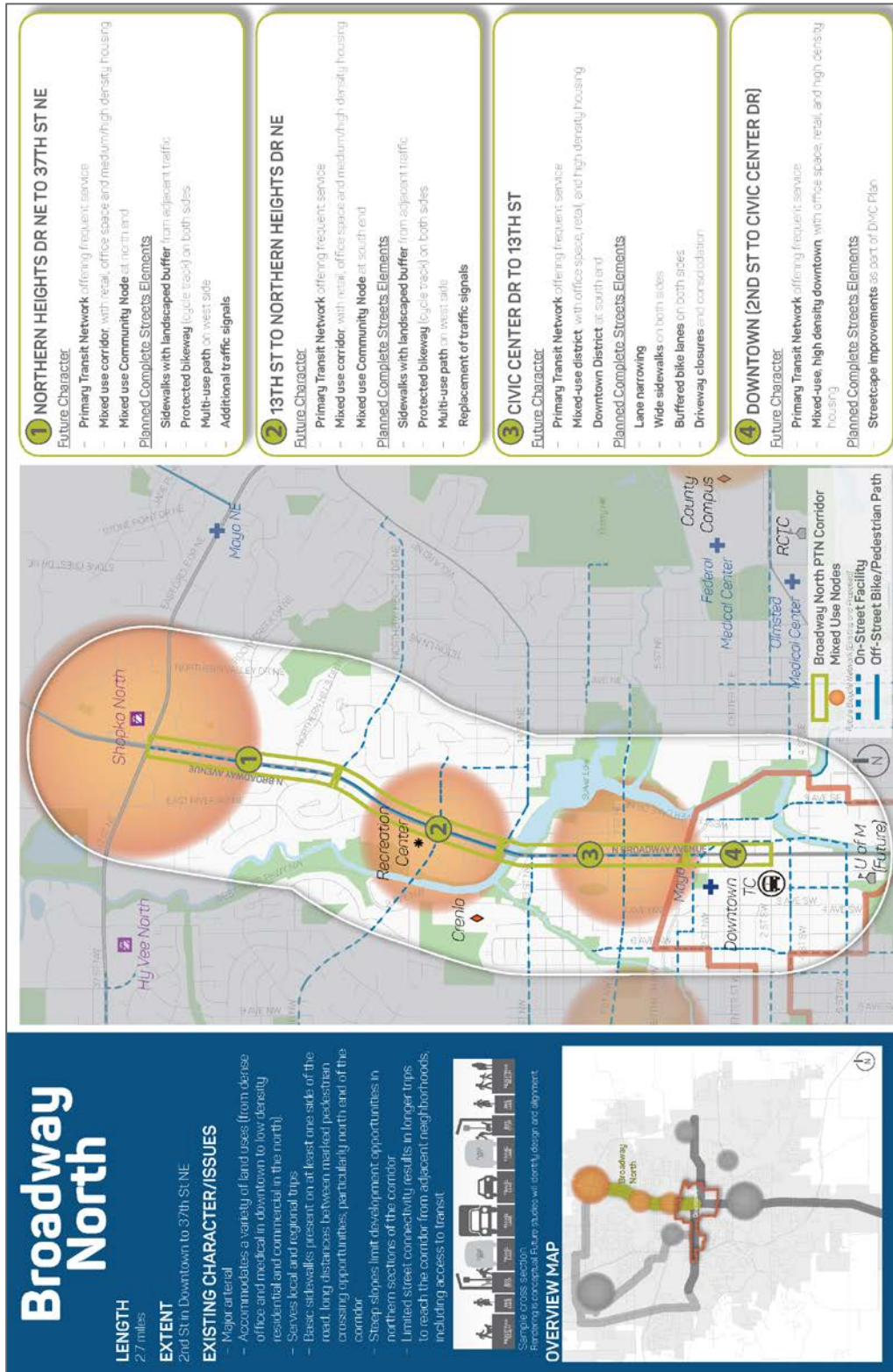


FIGURE 2-19: 2ND STREET SW PTN FEATURES

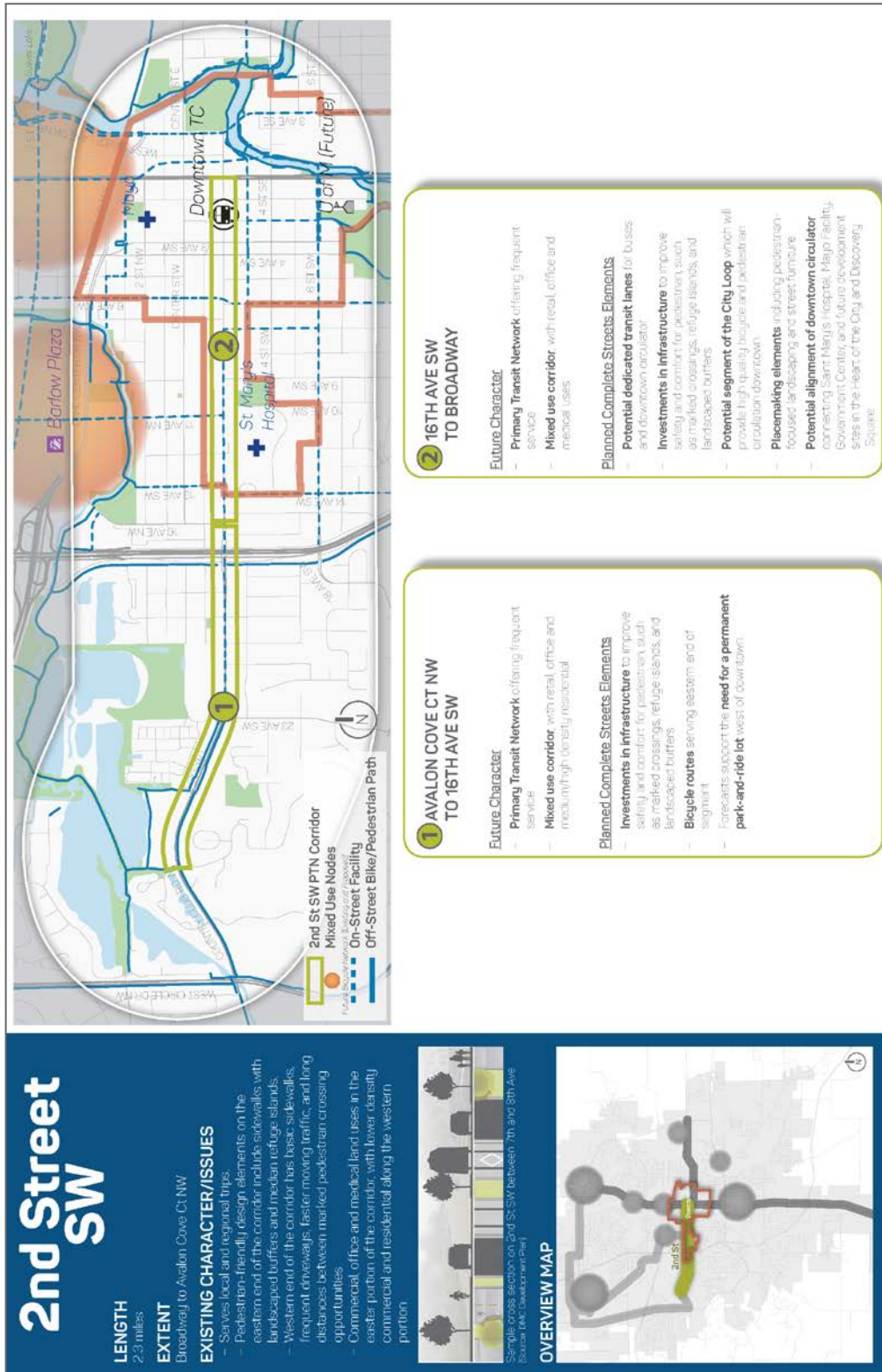
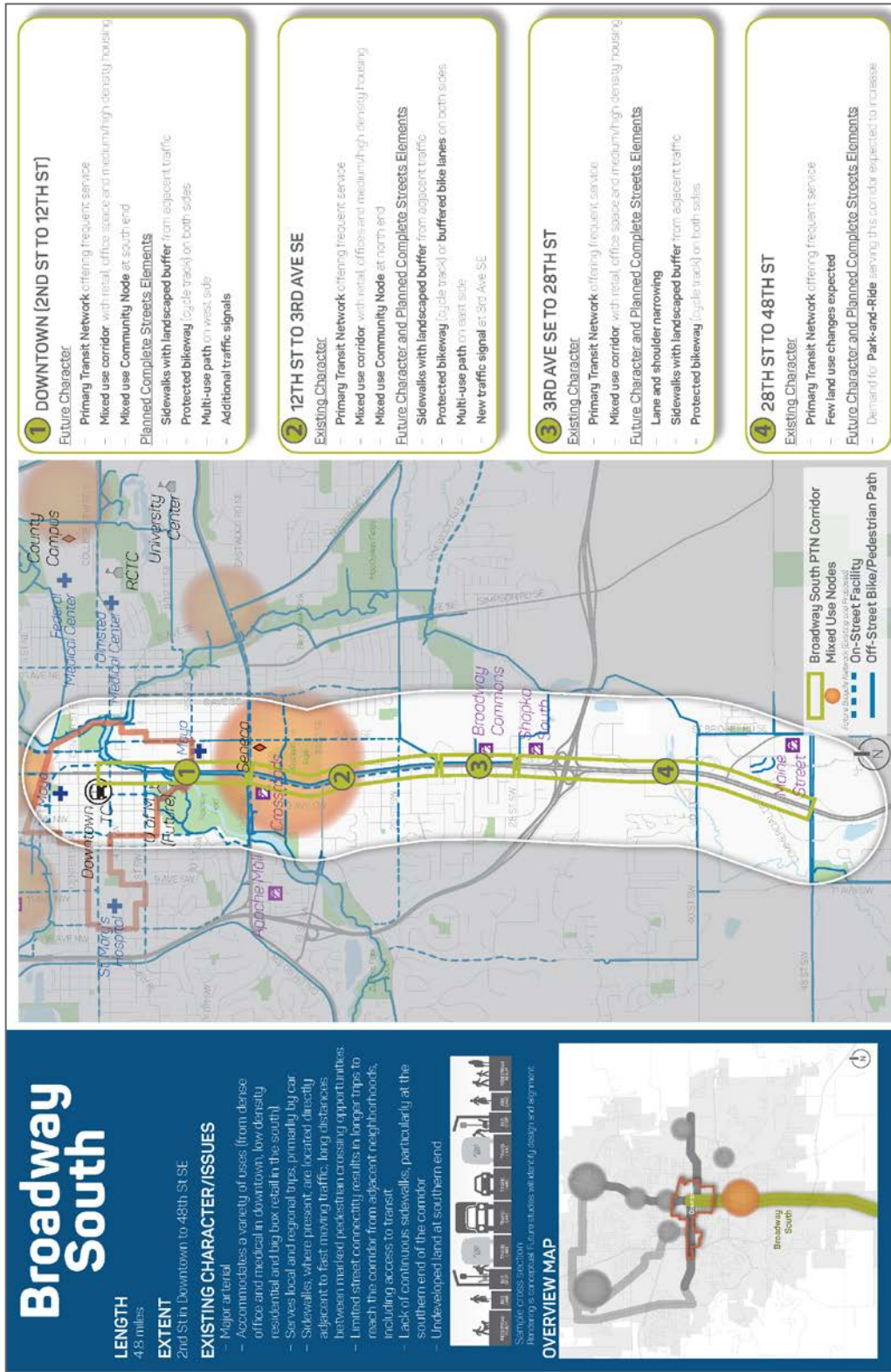


FIGURE 2-20: SOUTH BROADWAY PTN FEATURES



Downtown Transit Systems

The need for improved mobility within downtown Rochester will increase as anticipated increases in the level of employment, commercial activity, and residential housing occur. To support the anticipated level of future development, Downtown Master Plan and DMC Plan advocate for a “park-once” environment for downtown commuters and visitors. To accomplish this, people need convenient, reliable options to circulate within downtown between various areas as well as to and from future parking reservoirs that will be developed. Achieving the target mode split goals identified in these plans, particularly for peak hour travel periods, will require that people who travel to or within downtown can do so quickly and reliably without a vehicle.

Trips within downtown will be made by many diverse types of individuals. It is expected a significant share of trips can be completed by walking as many trip origins and destinations are well within a comfortable $\frac{1}{4}$ to $\frac{1}{2}$ mile walking distance. For others, however, physical limitations or time sensitive travel needs require alternative options, as will periodic adverse weather conditions typical of Minnesota weather.

Downtown Circulator

The Destination Medical Center (DMC) Development Plan proposed a downtown circulator system to provide high quality, frequent, reliable, and transparent all-day service with safe and convenient pedestrian access to satisfy the increasing need for travel within downtown. Work outside the scope of P2S 2040 as part of the DMC Integrated Transit Studies begun in 2016 and concluding in 2018 will provide further refinement of the Circulator Concept presented in the DMC Development Plan.

As of the 1st Quarter of 2018, some fundamental planning criteria for a Downtown Circulator have been endorsed. These include:

Mode | A Downtown Circulator should operate at street grade and should be a rubber tired service

Service Type | The Downtown Circulator should include most if not all of the features of a Bus Rapid Transit type of service to provide a convenient, high quality experience to users. These features are the same as recommended for the Primary Transit Network as described in the

THE TRANSPORTATION FRAMEWORK

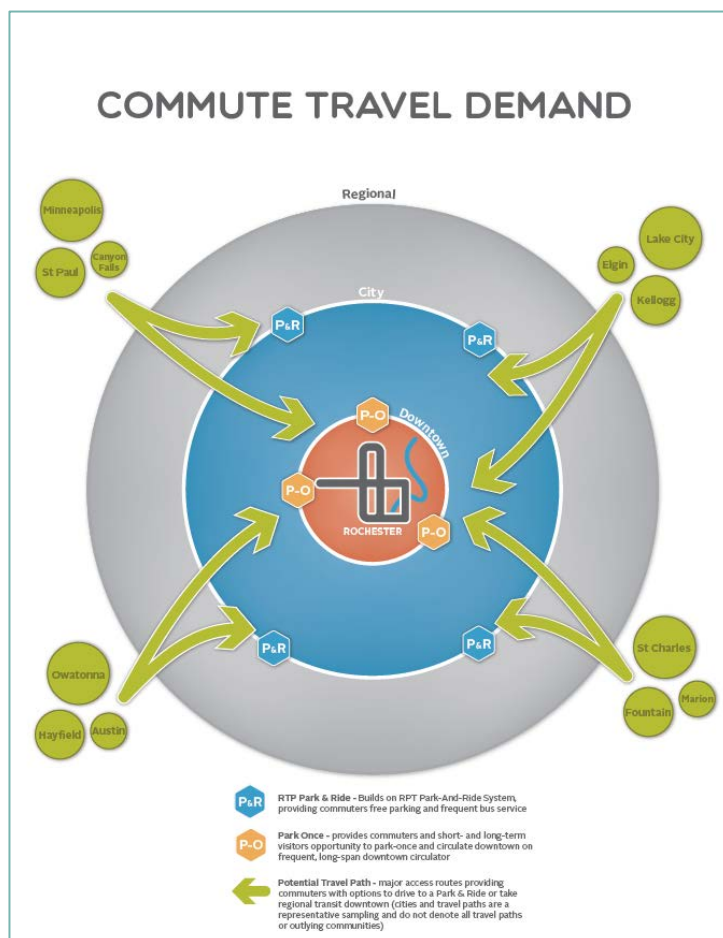
previous section this plan, including off-board fare payment, level or near-level boarding, climate controlled shelters and real-time information services.

The DMC Integrated Transit Studies have identified an ultimate potential need for an east-west and north-south downtown circulator alignment as identified in Figure 2-21. The east-west connection along 2nd Street is identified as a more immediate priority given the high level of transit and shuttle demand that exists in this corridor and significant projected growth in these services.

Park & Ride with Circulator/Shuttle/Express Bus Services

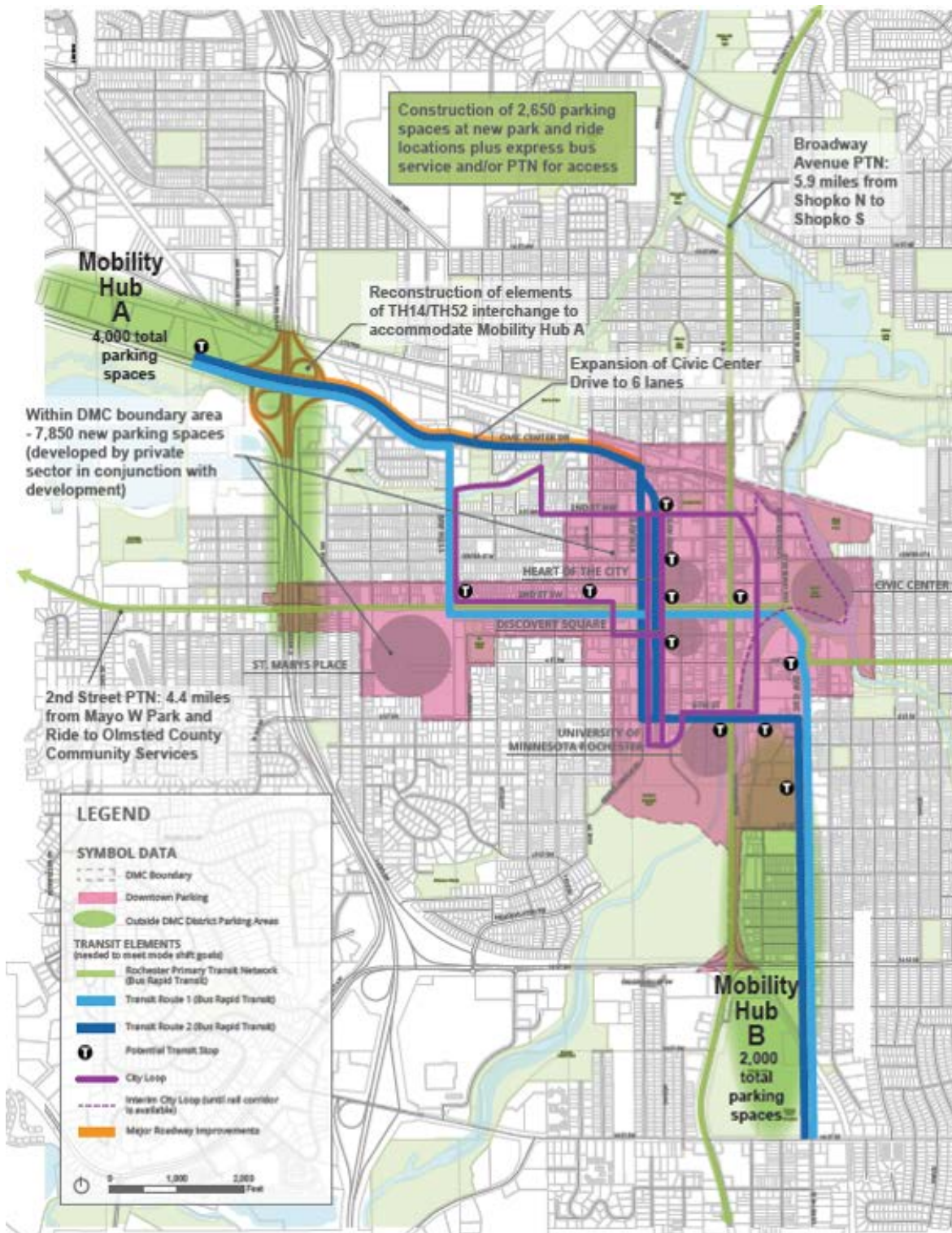
Given the significant regional workforce needed to meet labor market needs in the city and the concentration of employment in downtown Rochester, Park-and-Ride services have evolved as an important tool to minimize traffic congestion and parking needs while maintaining reliable peak period accessibility to the downtown job market.

The park and ride system is tightly integrated with the local public transit system, with park and ride sites outside of the Central Business District serving as transfer point to move drive alone commuters onto the transit system to provide more efficient movement of people into the downtown. While approximately 2000 employees already park in designated lots at the edge of the city and travel by bus to downtown, this number is set to increase significantly, as the number of commuters traveling to Rochester is projected to increase from approximately



Transit offerings in Rochester, including Park-and-Ride lots with express service to downtown, serve a commute market from well beyond the city boundaries. *Source: DMC Development Plan*

FIGURE 2-21: ROCHESTER CIRCULATOR CONCEPT, SOURCE: DMC INTEGRATED TRANSIT STUDIES



32,500 in 2013 to approximately 50,000 by 2040.

With approximately 40% of employment in the city located downtown, and the downtown workforce expected to exceed 60,000 by 2040 (from approximately 35,000 today), there will be a growing need for park-and-ride facilities and services to play an increasingly important role in meeting Rochester’s workforce travel needs. The changes anticipated are described in the following section.

City Ownership and Siting

Historically, Rochester park-and-ride lots have been leased from private entities, including commercial, business, and institutional land users with capacity to absorb additional on-site parking during typical weekday work hours. While studies and local experience shows that accommodating park-and-rider users in their lots increases retail sales while providing transit access for employees, these leases are not guaranteed. Retailers in Rochester have at times chosen not to renew, triggering the need to identify suitable replacement locations on short notice.

Failure to renew a park-and-ride lease could leave Rochester without viable alternatives to replace parking capacity in a given travel corridor, forcing commuters into potentially higher cost or less convenient options. Establishing permanent park-and-ride facilities in high-demand locations would solidify the critical role that these lots play in Rochester’s transportation network. Permanent, City owned locations also would allow the City to make investments that enhance the user experience, such as improved passenger waiting facilities, access to multiple travel options, and access to daily services. Given the importance of maintaining an established park and ride system immune from interruption, the City has begun and will continue planning for future development of municipal park and ride sites to meet expected growth needs for this service.

With utilization already exceeding 100% of current capacity at some locations, total demand for park-and-ride lots is projected to increase by an additional 50% by 2020 and by 100% by 2030. Corridors with the highest projected growth in demand are the highest priority for City ownership. These corridors are generally the major regional highways providing access to Rochester from surrounding areas, including Hwy 14 to the west and east, Hwy 52 to the northwest, I-90 and TH 52 to the southeast and Hwy 63 to the south/southwest and northeast.

Based on the expected travel patterns, as well as the existing location and capacity of the City's park-and-ride facilities, Figure 2-22 identifies key target areas that should be considered as priorities for development of future park and ride facilities.

Factors that were important in identifying these key target areas include:

North | The northwest will remain a primary access point for regional commuters that enter Rochester via Highway 52 and this area potentially see the largest increase in regional commuter travel. Currently served by a leased site that is the largest park and ride in Rochester, a City owned facility in the 65th Street NW to 75th Street NW area would provide greater certainty for this market area.

West | A large number of existing commuter trips, along with a significant projected increase in commuters, are expected to come from the west of Rochester, an area currently served by a small public lot in addition to a current Mayo Clinic surface lot. To meet current demand and address a major issue with downtown access capacity off of Highway 52, development of new park-and-ride capacity along Highway 14 is a high priority among areas identified.

Southeast | The existing Fairgrounds/Graham Park surface facility is located along the proposed PTN network and within an area designated as a future proposed mixed-use development node. The ability to utilize the PTN during off peak hours for access to the downtown makes this a desirable site to consider serving not only peak period commuters but workers whose shifts start at off-peak times, since access to downtown jobs can be provided by established transit service rather than special park and ride service.

South | Highway 63 South is expected to see continued commuter travel growth as communities such as Stewartville, Spring Valley, and areas west on I-90 such as Austin remain attractive options for those wanting to live in smaller cities. Next to the northwest, this direction is expected to see the second highest amount of commuter growth, suggesting that existing park and ride facilities likely need to grow to accommodate future demand for service from Highway 63 and I-90.

Northeast | With improved access provided by extension of 55th Street and anticipation that the northeast quadrant of the Rochester area will be a prime future residential growth area, the development of expanded park and ride capacity in this area has the potential benefit of serving not only regional but also local commuters.

East | The eastern approach to Rochester from areas along Highways 14, 42 and CSAH 9 is currently underserved in terms of park and ride capacity, with only a surface lot reservoir available at the Cub Foods Market Center. Projected demand entering Rochester from the east suggests the need for expanded park-and-ride capacity at a location with improved access to the larger eastern travelshed, potentially near Rochester Community and Technical College.

These park-and-ride locations are general site locations for which more detailed study will be needed to inform final siting decisions.

Regional Commuter Transit

Workers commute into Rochester each day from throughout Southeast Minnesota and beyond. Approximately 32,500 people were estimated to commute into Rochester on a daily basis from outside the city in 2013, with half coming from seven surrounding counties.

With the significant amount of employment growth forecasted for the city, how commuters choose to travel to work is an important issue for the City to consider. Regional commuters to Rochester are expected to increase by about 50% by 2040. While many regional commuters choose to drive into Rochester on a daily basis, a network of privately operated commuter buses serving more than 40 regional communities has been established to serve those willing to consider an alternative to driving, bringing over 2000 commuters a day into Rochester.

TABLE 2-12: TOP ORIGINS FOR TRAVEL INTO ROCHESTER FOR ALL TRIPS AND WORK COMMUTE TRIPS, 2015

COMMUNITY (COUNTY)	DAILY TRIPS	AVERAGE DAILY WORK TRIPS
Dodge Center/Kasson (Dodge) Byron (Olmsted)	10,000	4,600
Eyota (Olmsted)/St. Charles (Winona)	11,200	4,100
Pine Island/Zumbrota (Goodhue)	9,200	3,800
Stewartville (Olmsted) / Brownsdale (Mower)	9,900	3,700
Plainview/Elgin (Wabasha)	5,500	2,400
Chatfield/Preston (Fillmore)	3,900	1,700
Spring Valley (Fillmore)	3,800	1,600

Source: 2015 Household Travel Survey conducted as part of the Southeast Minnesota Travel Study

Ridership on regional commuter buses into Rochester is estimated to grow by approximately 150% by 2035, which is estimated to more than double the number of vehicles that will be coming into Rochester each day. With every vehicle currently and expected in the future to end or begin their trip in downtown Rochester, accommodating this increased demand will require identifying convenient locations for both loading and unloading passengers downtown in addition for layover of vehicles during the midday off-peak periods, when many drivers of privately operated regional buses are at work at various locations in the city.

Regional population growth offers opportunities for buses to operate out of additional communities. A 2015 regional travel survey identified the counties where participants were most likely to use transit to commute to Rochester. These include several with existing regional bus service—Dodge, Fillmore, and Mower—as well as Freeborn and Rice counties which did not have service as of 2015. The study suggests that expanding regional bus service into Albert Lea, Faribault, and Northfield (the largest communities in Freeborn and Rice counties) and increasing trips into the other three counties would likely result in more induced demand than additional services to other counties. Working through partnerships with MNDOT, ROCOG, regional communities and counties, and private partners such as DMC Economic Development Authority, the City will need to pursue avenues to accommodate expected expansion of regional commuter bus service to Rochester.

While the DMC Integrated Transit Study has considered the issues associated with identifying space for boarding and alighting of passengers downtown as well as layover of vehicles, no final recommendations are anticipated in the study. Assessment of this issue will require further work with landowner and employers, particularly the Mayo Clinic, to identify functional locations for meeting the needs of regional commuter passengers.

Managing Motor Vehicle Travel

Private automobiles will continue play an important role in Rochester in the foreseeable future. The goal this plan advances for motor vehicle travel is to make roads as safe and operationally efficient as possible, recognizing in some instances that may involve improving capacity as well, as in the case of upgrading gravel roads in urban edge or urban expansion areas to accommodate new growth.

The City’s challenge is to accommodate the trips that need to be made by automobile while encouraging a shift towards more sustainable modes and improving overall quality of life. We

know the number of people living, working, and visiting the city will continue to grow. However, in certain areas, such as the central city and other constrained arterial corridors traversing built-up areas of the city, this means more trips on finite road space—travel that cannot fully be accommodated by driving. A multi-modal strategy that shifts some trips to other modes will create more space for the cars and trucks that *do* need to be on the road—for goods movement, services and deliveries, and emergency response, for example.

Rochester aims to balance the efficient operation of the major street network with the need to provide other safe and affordable transportation options that meet the needs of all existing and future residents and visitors. Rochester benefits from a well-spaced network of major streets that facilitates both local and regional travel. At the same time, streets that may work well for people who drive can present issues for transit riders, pedestrians and bicyclists. Busy arterial streets can be difficult to cross, uncomfortable to walk or bicycle along, and unpleasant places to wait for transit. P2S 2040 encourages greater consideration of not only vehicle mobility on streets but mobility for all modes within travel corridors in order to implement designs that work for all users and are sensitive to the surrounding land use context.

Implementation of this Plan’s Integrated Land Use/Transportation vision will result in new mixed use, transit oriented development areas that will require street designs to balance the movement of automobiles with other modes. Additional multimodal facilities, design cues, and reduced vehicle speeds may be needed to accommodate the increasing number of people walking, bicycling, and taking transit along many corridors that today have few signs of such activity.

The integrated approach to land use and transportation advanced by this plan requires consideration of a range of factors when considering the appropriate design for major streets in the city. This section of the plan outlines the key factors that affect the vehicular mobility function of street design, including street classification, areas to monitor for future congestion, level of service and access. This discussion is followed by a discussion of Complete Streets and Context Sensitive Design policy and principles which will help to guide investment in transportation that will serve all users in a way that is supportive of the land use environment and character of served by the city’s transportation network.

Street Classification

The Rochester-Olmsted Council of Governments (ROCOG) has adopted a 2040 Long Range Transportation Plan endorsed by the City of Rochester that classifies major streets based on the function they serve in the overall network of streets. The ROCOG plan identifies the major street network and designates the role of each major road in satisfying the demand for various types of travel. The ROCOG Plan identifies basic design parameters for different classifications of streets, such as expected accommodations for different modes of travel, guidance on factors such as minimum lane widths, and criteria such as driveway spacing and access requirements.

The [ROCOG 2040 Long Range Transportation Plan](#) should be referenced for further information regarding the functional and minimum design expectations regarding different classes of major streets. Figure 2-23 illustrates the general classification of major streets in the Rochester urban area that are found in the ROCOG Plan.

Active Monitoring of Potential Congestion Hot Spots

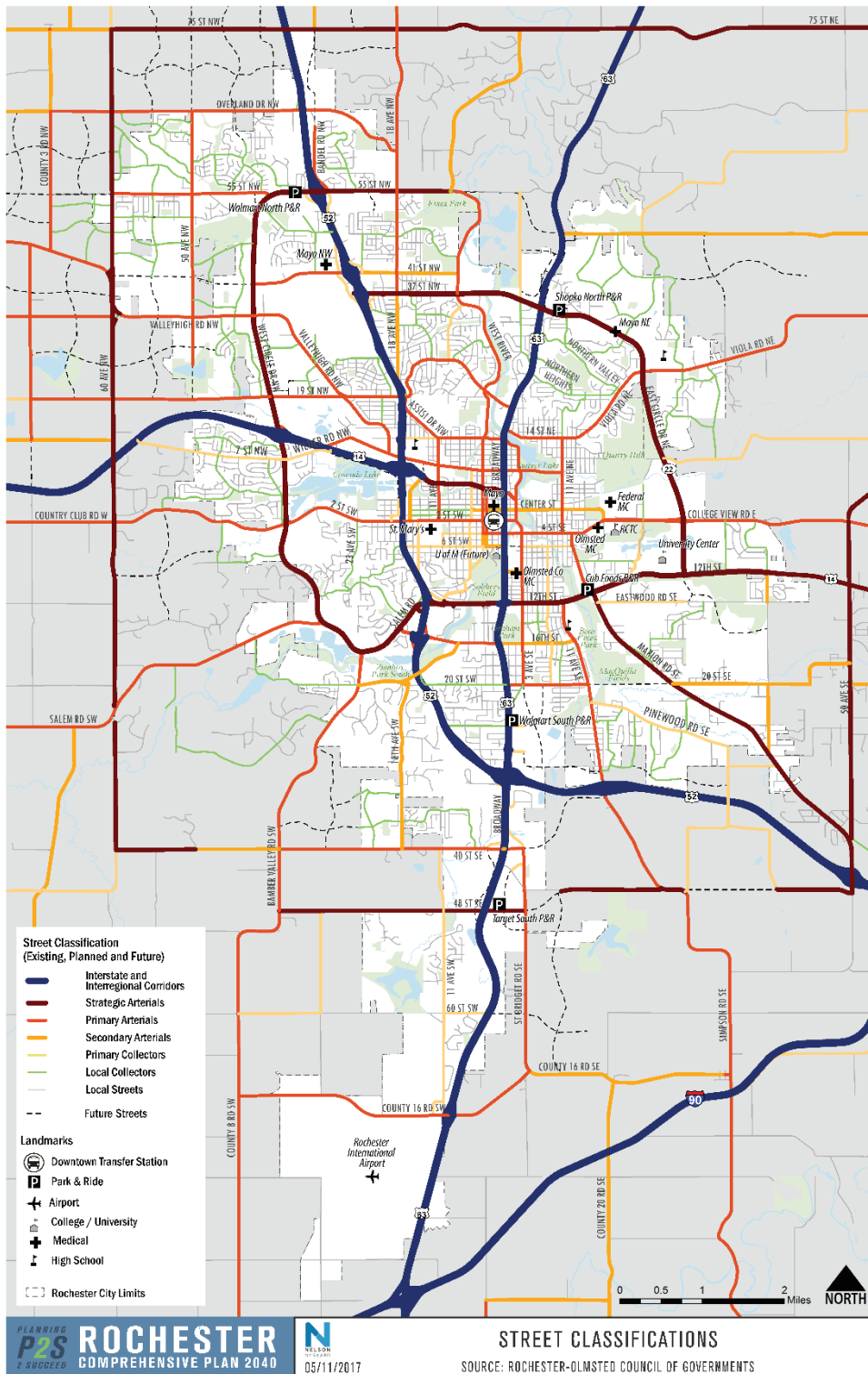
Rochester generally experiences favorable automobile travel conditions, with only limited periods of vehicle delays during peak travel periods—primarily along major travel corridors providing access into downtown including Broadway Avenue, Civic Center Drive near the US 52 interchange, US 14 across the south side of the downtown area, and along West Circle Drive, particularly near the US 14 and Hwy 52 interchanges.

Growth projections suggest several corridors where traffic congestion may increase over time. These areas will be monitored by the City and ROCOG, which is responsible for monitoring traffic and addressing issues as part of a federally required metropolitan area long range planning process. ROCOG works cooperatively with the City of Rochester, Olmsted County and the State of Minnesota Department of Transportation on an ongoing basis to address issues on the major transportation networks in the urban area.

Potential Congestion Mitigation Needs and Strategies

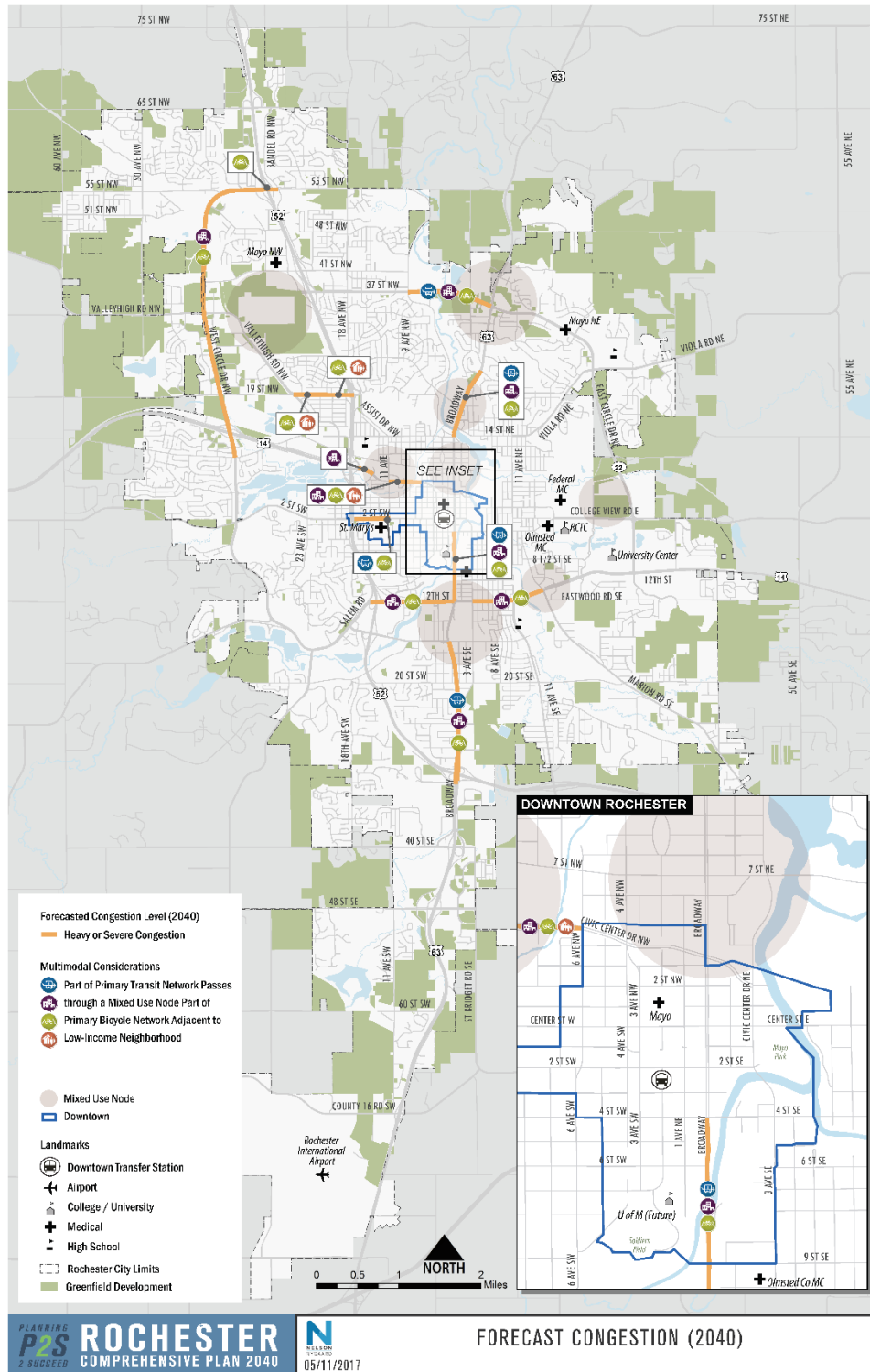
Figure 2-24 highlights corridors where analysis of projected 2040 traffic volumes, reflecting assumptions regarding future growth patterns and expectations regarding future transit use, identifies potential congestion concerns emerging or worsening over time. As stated above, ongoing monitoring and periodic reassessment of operations should be conducted to identify where conditions suggest mitigation measures may be needed in a 5 to 10-year timeframe based on traffic trends. A 5 to 10-year lead time may be needed to ensure sufficient time to

FIGURE 2-23: STREET CLASSIFICATIONS



THE TRANSPORTATION FRAMEWORK

FIGURE 2-24: FUTURE CONGESTION MAP



identify funding sources for any major improvement projects, particularly those that may involve state or federal funding sources.

Initial congestion mitigation strategies to consider should focus on lower cost traffic system management and operations (TSMO) measures, which could include

upgraded traffic signal systems or improvements to existing signal timing, additional turn lanes, access modifications, enhanced efforts to encourage use of travel options, and investments in new or improved transit service, including transit priority features to maintain competitive travel times for transit on congested corridors. It is important to consider TSMO measures initially for reasons of cost and the opportunity they present to improve conditions for other modes including transit, walking, and bicycling. Since many TSMO strategies can improve operations without adding lanes or increasing the size of intersections, the risk of increasing barriers and obstacles for people taking transit, walking, or bicycling can be minimized.



Part of Primary Transit Network

Roadway design should facilitate transit access, with pedestrian features that provide for a comfortable environment to wait for transit, facilitate roadway crossings, provide bicycle access to stops, and consider the need for transit stop enhancements such as shelters, bike parking, and transit priority features.



Passes Through a Mixed Use Node

Roadway design and speeds should support the multi-modal character of these areas. Considerations including appropriate sidewalk design, pedestrian crossing spacing, and slower speeds. Transit stop design and bicycle access to the node should also be considered.



Part of Primary Bicycle Network

Roadway design should include planned bicycle infrastructure, including on-street facilities or off-street trails, to eliminate network gaps and improve bicycle access to destinations.



Adjacent to Low-Income Neighborhood

The City has identified Mobility and Access Limited low income neighborhoods throughout Rochester. Roadway design on streets passing through these neighborhoods should support multi-modal travel needs, including pedestrian mobility and transit access.

LEGEND for symbols included in Figure 2-24, Future Congestion Map

If TSMO measures prove insufficient to address emerging congestion problems, the next step should be to consider strategies to distribute the impact across the network more broadly, including consideration of roads that increase the connectivity of the street network by reducing street spacing and reduce barriers such as lack of appropriately spaced local access.

If TSMO combined with network connectivity prove insufficient to address potential congestion issues and evaluation results are still showing or are projected to show unacceptable congestion, the next step typically will include involvement of ROCOG and coordination of study efforts through the ongoing long range transportation planning process. In some cases, long range solutions may be recommended that include new or expanded arterials or minor arterials, as well as new or modified interchanges on the major highway network. These major projects typically need sufficient lead time to identify funding sources and, where state or federal funding is involved, to complete needed state or federal-level project development and environmental review processes. Projects with state or federal funding also require inclusion in the ROCOG Long Range Transportation Plan. The ROCOG Plan is updated every five years, and will be updated to align with the priorities and policies of this plan. The Plans are coordinated, with the ROCOG Plan focusing primarily on major travel networks and regional travel.

For those corridors where forecasts suggest future congestion may develop, the legend for Figure 2-24 identifies important user groups beyond motorists that should be considered, based on the location of future transit oriented development nodes, recommended Primary Transit Network (PTN) investment, the importance of the corridor as an element of the primary bicycle network, and freight routes. The symbols that identify the multi-modal considerations along these corridors are described to the right. In considering these users, the City Complete Streets Policy should also be referenced for guidance on accommodations needs for various travel modes.

Roadway Management Strategies: Level of Service Policy

Level of service (LOS) is a metric commonly used to evaluate land-use development and transportation projects based on how a project will affect congestion on existing or planned roads. LOS itself is rarely a sufficient gauge of how effectively a roadway operates, and tolerating a moderate level of peak hour congestion encourages travelers to consider other travel modes or to shift travel times away from peak times when roadways are most congested.

Reliance on LOS alone to measure the impacts of proposed land development projects can also lead to the implementation of street improvements to improve vehicular mobility that adversely affect other modes of travel such as pedestrians or transit service by ignoring potential effects on accessibility and reliability of these alternative modes. There is also the potential to discourage infill development and encourage the dispersion of development activity to the fringes of the city where there is less risk of tripping a LOS threshold and associated mitigation project costs. This can increase overall vehicle miles traveled (VMT) and prevent development in areas where there are a variety of viable transportation options. Many cities with thriving downtowns and commercial corridors consider peak hour congestion levels that do not allow for free-flowing travel not only acceptable, but indicative of a strong local economy. Efforts to minimize congestion in urban areas to reflect typical suburban levels can affect the vitality of local stores and businesses and compromise pedestrian activity.

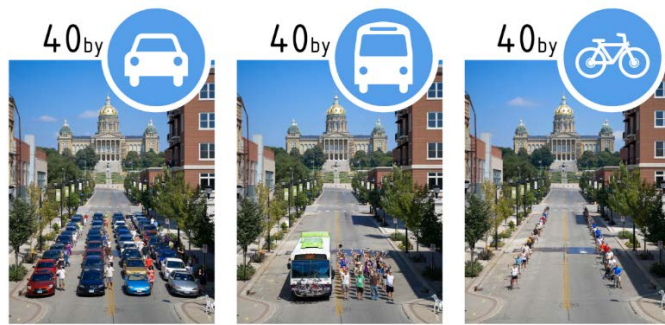
Travel by modes other than single occupant vehicle can make more effective use of existing infrastructure and can be more cost effective than capacity expansion projects designed to mitigate conditions that only occur during one or two hours of the day.

The Comprehensive Plan promotes investments that improve the **person** throughput of existing streets and improve the quality of the walking, bicycling, and transit experience.

Given the cost of adding roadway capacity, Rochester should seek to

support lower cost mobility and access investments that improve the person throughput of streets and the quality of service for other street users. Approaching roadway capacity from the perspective of person throughput rather than vehicle throughput is relevant particularly in areas of high pedestrian activity and frequent transit service such as the Central Business District and, in the future, along the Primary Transit Network. In these areas, alternative Level of Service criteria should be considered to encourage the level of development intensity that will support pedestrian oriented, mixed use development activity at a level of intensity that will provide greater support for transit services.

In areas such as the Central Business District (CBD) and along the PTN network, the use of alternative quality of service factors such as the transit and pedestrian experience aligns with



Amount of space required to transport the same number of passengers by car, bus, or bicycle.
Event info at www.facebook.com/UrbanAmbassadors - Photos by www.tobinbennett.com
 (Des Moines, Iowa - August 2010)

broader community goals to improve residents' quality of life and leverage transportation investments to support a vibrant and diverse economy. In targeted areas, potential mitigation measures should be expanded as well to include alternative travel mode improvements including impact fees that are used to improve multi-modal infrastructure, inclusion of travel demand management (TDM) measures in new developments to reduce new vehicle trips, and LOS exemptions in areas where multi-modal travel are a priority.

Management Strategies: Access Management

Integrating the land use access and transportation mobility functions on arterial streets can be a challenge, since the primary transportation function on these streets is to support travel through an area, with property access often a secondary consideration. When designing the supporting local street network for areas adjacent to arterial streets, the following land development practices paired with use of complete streets design elements should be utilized to balance the needs of travelers passing through the corridor with local area access needs for people traveling by car, walking, bicycling, and transit.

Desirable Best Practices for Land Access

The best time to consider access management is early, at the time of developing general development plans and small area plans when they can more easily be adjusted to accommodate access and multi-modal considerations. Among the best practices in terms of land development that can appropriately balance access and mobility considerations include:

- ▶ Applying context sensitive designs that support implementing the Future Land Use Map
- ▶ Develop parallel local street systems to serve the local access function and handle short distance local trips
- ▶ Where dictated by parcel sizes and access restrictions, provide or preserve the opportunity for internal site circulation between sites, shared access, and the use of frontage or backage roads
- ▶ Develop secondary street spacing that supports traffic management on the major street with primary access provided from lower classification roads; preferred spacing of signalized intersections is $\frac{1}{4}$ to $\frac{1}{2}$ mile on secondary arterials and collectors and $\frac{1}{2}$ mile or more on major arterials and expressways

- ▶ Encourage proper lot layout and orientation to minimize direct access to major streets and promote residential access onto local streets
- ▶ Coordinate commercial development in nodes and centers using joint access connections, with a limited number of access points to major streets
- ▶ Encourage connectivity on local streets between developments to reduce the need for short trips on the arterial system, promote neighborhood connectivity, and improve efficiency of mail, garbage, and bus services and street maintenance activities
- ▶ Restrict turning movements to reduce conflicts; if access points cannot be eliminated, consider turning movement restrictions (e.g., left-in only, or right-in/right-out only) through installation of raised median or other channelization
- ▶ Avoid offset or “dogleg” intersections and entrances to minimize driver errors and impacts to mainline flow; in areas where offsetting access points cannot be avoided, adequate spacing is needed to eliminate the conflict created by overlapping turning movement and acceleration and deceleration maneuvers

Retrofitting Access on Major Streets

Access management improves traffic safety and protects the public’s investment in the road system by preserving its functional integrity. The City’s Land Development Manual and the ROCOG Long Range Transportation Plan provide guidance on desired access spacing and location. The application of these ideal standards is most appropriate in the planning or platting stage of new development in previously undeveloped areas. In situations where existing development make it unfeasible to achieve desired access spacing or design, referred to as “retrofit” situations, the City may need to focus its access management efforts on minimizing potential safety hazards to users of the right of way or disruptions to traffic movement that would reduce the highway’s safety and efficiency. For example, there may be many pre-existing driveways and a pattern of land ownership that make it difficult to meet the desired access location criteria. In these cases, retrofit techniques should be used to the maximum extent feasible to accomplish access policy goals.

Situations where the feasibility of bringing nonconforming access into greater compliance to address access-related safety or operational issues generally fall into one of two types, those

being either point improvements or route improvements. More specifically, access should be reviewed whenever:

- ▶ Redevelopment is proposed (generally will be a point improvement); or
- ▶ A new driveway access permit is requested (a point improvement) ; or
- ▶ Proposed increases to the square footage of a building or a change in use will increase peak hour trip generation by 50 or more trips (a point improvement); or
- ▶ A roadway improvement project is proposed for a corridor (a route improvement).

The types of safety and operational issues that are of critical importance in considering whether an access retrofit improvement should be considered include:

Safety

- ▶ Locations where existing crash experience indicates unsafe conditions that could be mitigated by access improvements
- ▶ Locations where roadway design or travel speeds in conjunction with sight distance or reaction time limitations create unsafe conditions for street or side approach traffic
- ▶ Locations where anticipated volume of turning movements in combination with existing or projected through traffic will result in high risk conditions
- ▶ Whenever a retrofit situation presents itself consideration should be given to coordinating the locations of proposed access with driveways on the other side of the street

Operations

- ▶ Situations where location of access results in substandard access spacing that results in high congestion or congested traffic flow along a major street corridor that could be mitigated by access modifications
- ▶ For route improvements, the opportunity to improve design consistency through application of consistent access management consistent to enhance driver expectations

- ▶ Where it is practical to reorient access to a minor cross street as part of a major roadway improvement
- ▶ A variety of access techniques that can be used in the retrofit of existing access can be considered depending on whether the proposed project involves a point improvement or a route segment. General retrofit methods by which physical improvements might be implemented are identified in Table 2-13.

TABLE 2-13: TECHNIQUES FOR IMPLEMENTING ACCESS POINT OR ROUTE IMPROVEMENTS

PHYSICAL ELEMENTS	POTENTIAL RETROFIT MEASURES
Driveways (Point improvement)	<ul style="list-style-type: none"> • Relocate to lower class street • Remove • Consolidate on-site or with adjacent sites • Improve throat width/curb return or realign • Increase corner clearance • Align with access across the street
Medians/Point Improvement	<ul style="list-style-type: none"> • Close median • Redesign to permit only certain movements • Add turn bay / improve turn geometry
Medians/Route Segment	<ul style="list-style-type: none"> • Add a non-traversable median • Close/Redesign median openings • Add a 2-way continuous left turn lane
Auxiliary Lanes/Point Improvement	<ul style="list-style-type: none"> • Right turn deceleration lane • Right turn acceleration lane • Left turn bay
Frontage or Backage Roads (generally a route improvement though may have application to large sites)	<ul style="list-style-type: none"> • Add inter-parcel circulation • Reverse site access to backage road • Increase separation from main roadway • Enhance/add on-site circulation system

Using Transportation Investment to Enhance the Community

The vision of P2S 2040 highlights the importance of quality of life considerations to residents and businesses who make our neighborhoods and community spaces the vibrant places that will attract and retain people who make Rochester a great place to live. With street right of way

accounting for approximately 40% of the public space in Rochester, how these corridors are designed and improved plays an important role in supporting a lively city with vibrant spaces that encourage a culture of walking and cycling, and increased opportunities for commerce and social interaction. There are couple of key planning policies that help to drive public realm improvements in street corridors, those being planning for Complete Streets and the use of Context Sensitive Design principles when rebuilding or renovating street corridors. This plan also supports street improvement concepts such as Shared Streets or Festival Streets, which are being used to great effect in planning associated with the Heart of the City and Discovery Walk in the DMC District area. The following sections discuss the Complete Streets policy and the application of Context Sensitive Design principles to street improvement projects.

Complete Streets/Complete Corridors

The City of Rochester adopted a Complete Streets Policy in 2009, with the goal of improving access and mobility for all users of streets in the community, including pedestrians, people requiring mobility aids, bicyclists, transit users, motorists, and freight drivers. The policy sets the framework for a healthier, safer, more livable Rochester. Many of the transportation improvements that contribute to Complete Streets are also facilities and amenities that support active living. Being able to walk and bike for transportation or recreation makes it easy to incorporate physical activity into daily routines.

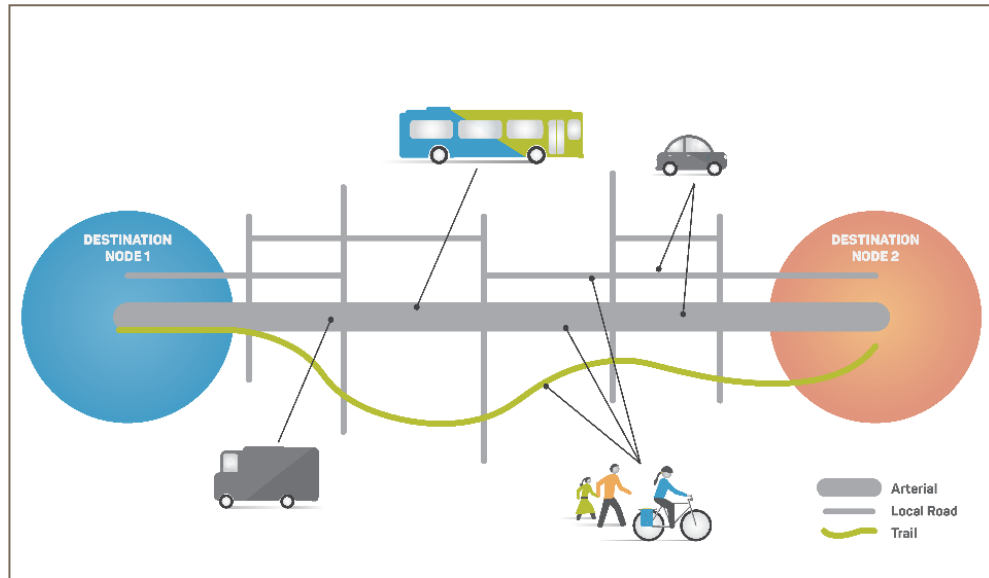
Rochester is expected to see an increase in older adults, racial and ethnic minorities, and lower-income residents in the next 30 years. Complete Streets approaches will increase the number of affordable transportation options available and accommodate the mobility needs of an aging population as well as the changing travel preferences of younger generations. In combination with transit supportive land use strategies in this plan, the community will offer more choices to in or near active centers where pedestrian movement is generally heavier.

Recognizing that it is not always possible to accommodate all travel options on a major street, nevertheless all modes will be accommodated within broader corridors to ensure the transportation “system” for

Key destinations, including the land use nodes identified in this plan, will be connected via complete networks for all modes, including walking, transit, bicycling and motor vehicles.

each mode connects important origins and destinations for users. Developing “Complete Corridors” can provide users with multiple travel options that are safe and reliable.

Complete Streets and Safety
Rochester residents are increasingly traveling by a variety of modes of transportation, as evidenced by increasing transit



ridership, bike commuting, and downtown pedestrian volumes, underscoring the importance of safely accommodating all types of road users. At its core, Rochester’s Complete Streets policy emphasizes the need to design streets for safety.

Currently, many arterial roadways in Rochester give priority to vehicle travel with wide, open corridors that emphasize vehicular mobility and make it uncomfortable to walk along and difficult to cross. A variety of design and operational elements can be implemented to improve the safety and comfort of major roadways for all users, some of which are illustrated in Figure 2-25.

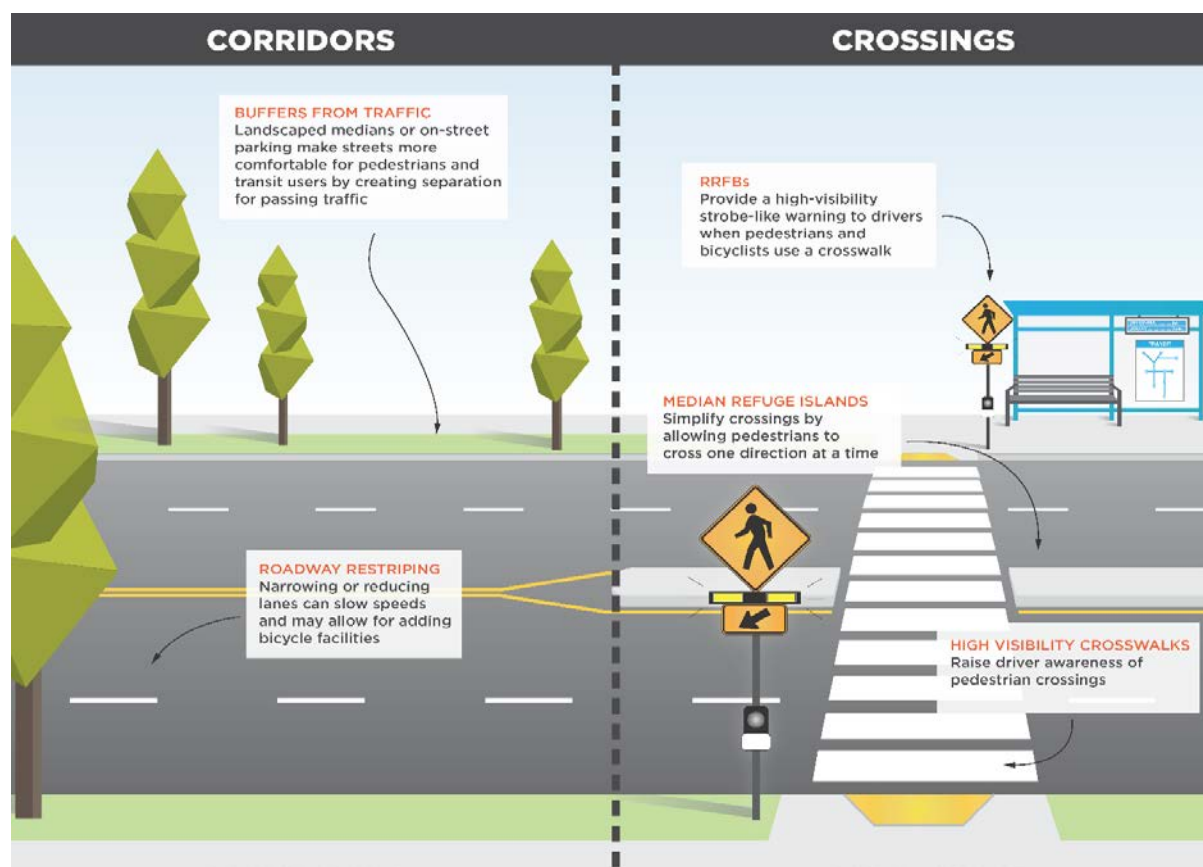
Complete Streets Implementation

Successful Complete Streets policies change the way cities prioritize and design roadway projects, as well as day-to-day operations and maintenance decisions. The policy adopted by Rochester calls for accommodation for bicycle, pedestrian, and transit facilities to be considered in all street construction, reconstruction, repaving, and rehabilitation projects, except under certain conditions such as where the cost of providing accommodation is determined excessive or disproportionate, or where construction is determined to not be practically feasible.

Identifying Complete Street Priorities

Other sections of this plan, along with the ROCOG Long Range Transportation Plan, identify priorities for streets in Rochester from a transportation perspective. Layering land use considerations onto this mobility-centric view and considering key origins and destinations where access for other modes is important, a Complete Streets Priority Map has been developed that identifies streets that have been prioritized for accommodating multiple modes

FIGURE 2-25: DESIGN STRATEGIES TO IMPROVE PEDESTRIAN COMFORT AND SAFETY ON MAJOR ROADWAYS



to ensure the Complete Streets vision creates corridors that connect to key destinations across the city.

In framing the identified Complete Street priorities, Table 2-14 defines a set of Complete Street Types that have been identified and applied to the street network as illustrated in Figure 2-26, highlighting where this plan recommends Complete Street considerations be given priority.

Table 2-15 describes the transportation purpose, land use context, and typical design features that should inform the design of these priority complete street corridors.

TABLE 2-14: COMPLETE STREET TYPES

STREET TYPE	DESCRIPTION	ROCOG CLASS
Main Street	Vibrant, pedestrian oriented streets that provide access to retail businesses, employment centers, and some higher density residential areas. These streets typically serve short-term vehicle parking and balance the needs of people whether they are pedestrians, bicyclists, drivers, or transit users. Traffic speeds should generally be kept low with opportunities for streetscaping, street furniture, transit amenities, and wide sidewalks. This makes a more comfortable, inviting street environment and creates a smooth and reliable flow of vehicle traffic.	Multiple street classes apply
Active Downtown	Identified in both the DMC Master Plan and the 2011 Downtown Master Plan, streets where non-motorized accommodations are prioritized over those for private vehicles and transit facilities. This category will include multimodal streets intended to serve as part of the City Loop route as well as other shared streets identified as primary pedestrian or bicycle access travel corridors. The design of these streets may accommodate a greater range of activity and design features “behind the curb line” or may include wide, extensively landscaped median areas with space for activities. Pedestrian and bicycle amenities could include providing mid-block crossings for the City Loop at cross streets, leading pedestrian intervals, pedestrian scale lighting and wayfinding signage, and amenities such as benches and bike repair stands.	Multiple street classes apply
Residential Multi-Modal Street	Connect residential areas to the primary roadway network. Residential Multi-Modal Streets identified on the Complete Streets map typically have some level of transit service or connect residential streets to transit on a nearby arterial street, but at present lack adequate pedestrian facilities to facilitate transit access. These streets must balance the mobility needs of all transportation users, as they can be key links in the network for all modes of travel including pedestrians, bicyclists, transit, and private vehicles. These streets are a priority to add sidewalks and marked crossings. They can also be key future links in the bicycle network with appropriate facilities to connect neighborhoods to the Priority Bicycle Network.	Collector
Transit Priority	Corridors where the PTN serves higher density development areas. These corridors currently have transit service and are part of the designated PTN. Land use along the corridor is anticipated to be higher-density commercial and mixed use development that will support high capacity transit service. These streets are designed to serve people of varying ages and incomes that want to live near frequent transit service that provides access to jobs and	Arterial

	<p>needed services. Transit Priority streets will prioritize transit amenities including bus shelters, marked and signalized crossings near stops, bus bulbs, and wide sidewalks.</p>	
<p>Mobility Corridor</p>	<p>Streets that may or may not currently have transit service that are part of the longer term PTN. The existing land use context of these corridors, such as West Circle Drive, suggests a longer time frame for infill commercial and mixed use development in the future that will support high quality transit service. Stops will have a high level of amenities, but will likely be spaced further apart than Transit Priority streets. They may also feature park and ride lots, elements to support bicycle access to transit such as secure bicycle parking, as well as pedestrian lighting and wayfinding signage surrounding the transit stations.</p>	<p>Arterial</p>
<p>Residential Mobility</p>	<p>Residential streets make up the majority of street-miles in Rochester. The quiet nature of these streets invites residents to use them as gathering places, recreational spaces, and for vehicle access. Some streets have limited connectivity to the larger street network, but those that do connect can represent an important link for people walking and bicycling. Residential mobility streets are part of the primary bicycle network and should be designed to maintain low vehicle volumes and speeds and primarily serve local traffic. Traffic calming measures can be used if vehicle speeds or volumes are uncomfortably high.</p>	<p>Local Street</p>

FIGURE 2-26: COMPLETE STREET PRIORITY CORRIDORS

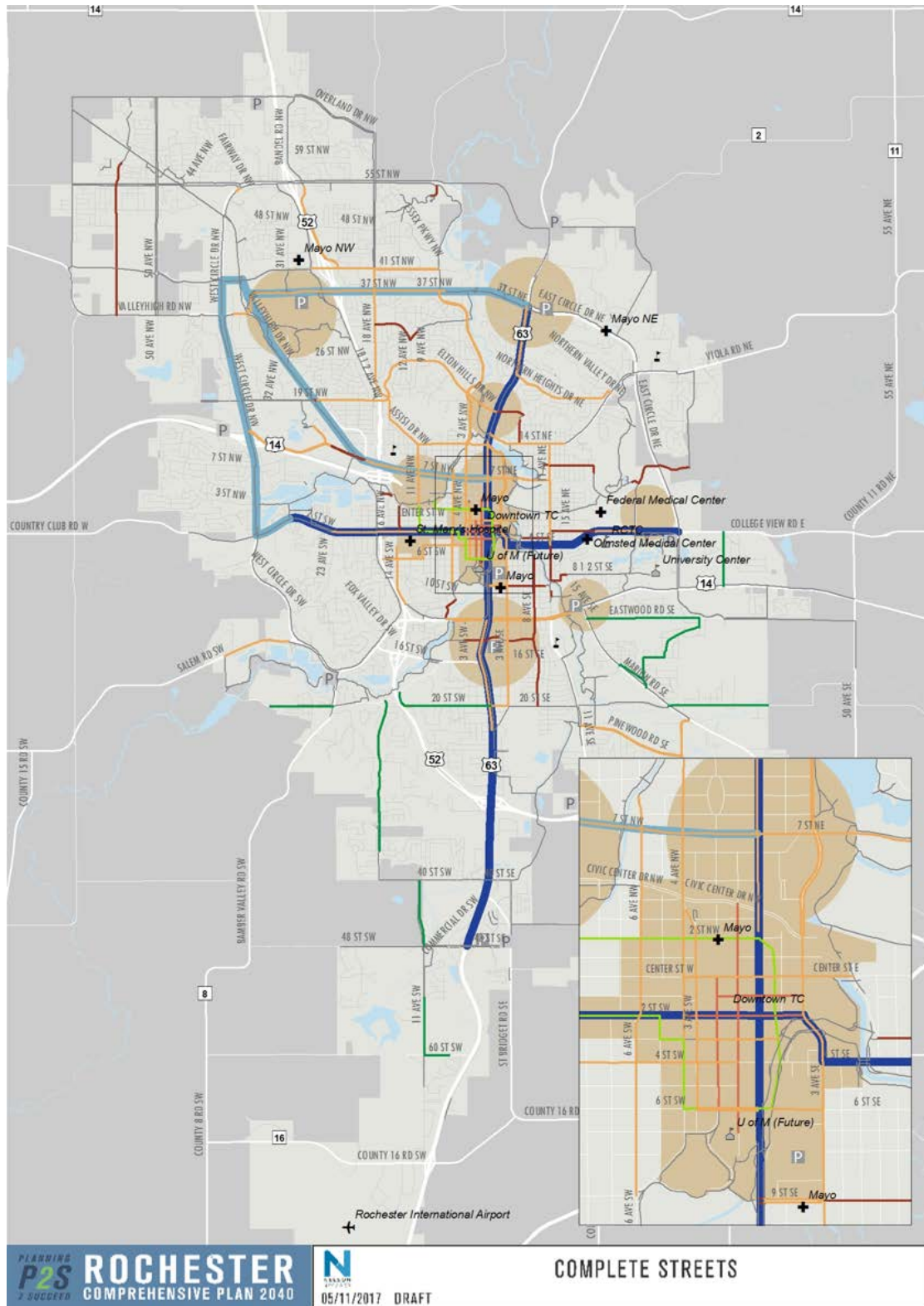


TABLE 2-15: COMPLETE STREET TYPES

STREET TYPE	PRIORITY OF USERS	CRITICAL DESIGN ELEMENTS	EXAMPLE STREETS
Main Street	Pedestrian > Transit & Automobile	<ul style="list-style-type: none"> • Pedestrian scaled sense of place with wide sidewalks, streetscaping, street trees, and street furniture; parklets and sidewalk cafes are also desired features • High-visibility crosswalks and curb extensions; pedestrian recall and reduced assumed walking speed at signals to accommodate medical visitors, older adults and the disabled • Bus bulbs and curb extensions, transit shelters at stops and stations, wayfinding signage, and high visibility crosswalks • Bicycle parking and some on-street vehicle parking. 	1 st Ave SW, 2 nd Ave SW, 1 st St SW, 3 rd St
Active Downtown	Protected Pedestrian and Bicycle	<ul style="list-style-type: none"> • Off-street trails will have wayfinding signage, pedestrian scale lighting, and landscaping features, such as benches, bike parking and public art. • On-street corridors will have wide sidewalks and protected bicycle facilities with mid-block crossings where needed. 	City Loop alignment not finalized
Residential Multi-Modal	Pedestrian > Transit & Automobile	<ul style="list-style-type: none"> • Complete sidewalk networks and marked crossings • Protected or conventional bicycle facilities and transit stop amenities if part of these modal networks • Slower posted speed limits with narrower travel lanes. 	Residential Collector streets that serve or access transit such as 20 th St SW or 36 th Ave SE
Transit Priority	Transit & Pedestrian > Automobile	<ul style="list-style-type: none"> • High frequency transit service, with transit priority lanes, bus bulbs, and transit stop amenities, such as shelters, signage and maps • Marked pedestrian crossings near transit stations and stops and wide sidewalks on connecting streets • Key bicycle facilities to connect between destinations or other major bikeways or transit stops • Limited on-street parking if provided at all 	PTN overlap w mixed use (Mixed Use PTN Corridors)
Mobility Corridor	Equal Priority	<ul style="list-style-type: none"> • Transit stop amenities, such as shelters, signage and maps, as with off-road bicycle accommodation • Marked pedestrian crossings near transit stops with connecting sidewalks on local intersecting streets • Signal timing advantages for pedestrians and transit where needed 	PTN through lower density land uses (Lower Density PTN Corridors)
Residential Mobility	Pedestrian > Bicycle > Automobile	<ul style="list-style-type: none"> • Traffic calming may be used to ensure low vehicle volumes and speeds so people driving and bicycling can share the road • Complete sidewalks and bicycle connections • Enhanced crossings where routes cross busier streets 	Low-stress Roadways on the Bicycle Network Map

Context Sensitive Design

At the project level, an organizing framework for integrating land use principles with transportation corridor design is known as Context Sensitive Design (CSD). Context sensitive design reflects a process and a way of thinking about how to balance or prioritize the infrastructure for each mode of travel in the context of adjacent land uses, and how transportation investment can contribute to the economic viability and livability of an area.

CSD encourages an interdisciplinary approach to street design, including the perspectives of traffic engineers, planners, urban designers, architects, emergency responders, and the community when designing new corridors or reconstructing existing ones. The goal is to create not only better facilities, but also better places. Historically, streets have been designed to have a similar layout throughout their length. CSD adapts the lanes, parking, and sidewalks to meet the needs of the surrounding area, while still accommodating vehicular traffic flow.

Land use context and roadway type are the key organizing elements that guide the selection of appropriate roadway design values. Understanding the land use context provides guidance on who will need to use the road and how. This understanding influences the geometric design of the roadway and the types of amenities required in the right-of-way. A context area is a land area comprising a unique combination of different land uses, architectural types, urban form, building density, roadways, and topography and other natural features. The existing and planned land use context should be defined on every project and highlight the need for land use and engineering professionals to work collaboratively. The roadway design should be compatible with the existing land use context, or a planned land use context that reflects the community vision. It is the intent of the City to incorporate these principals into all street projects.

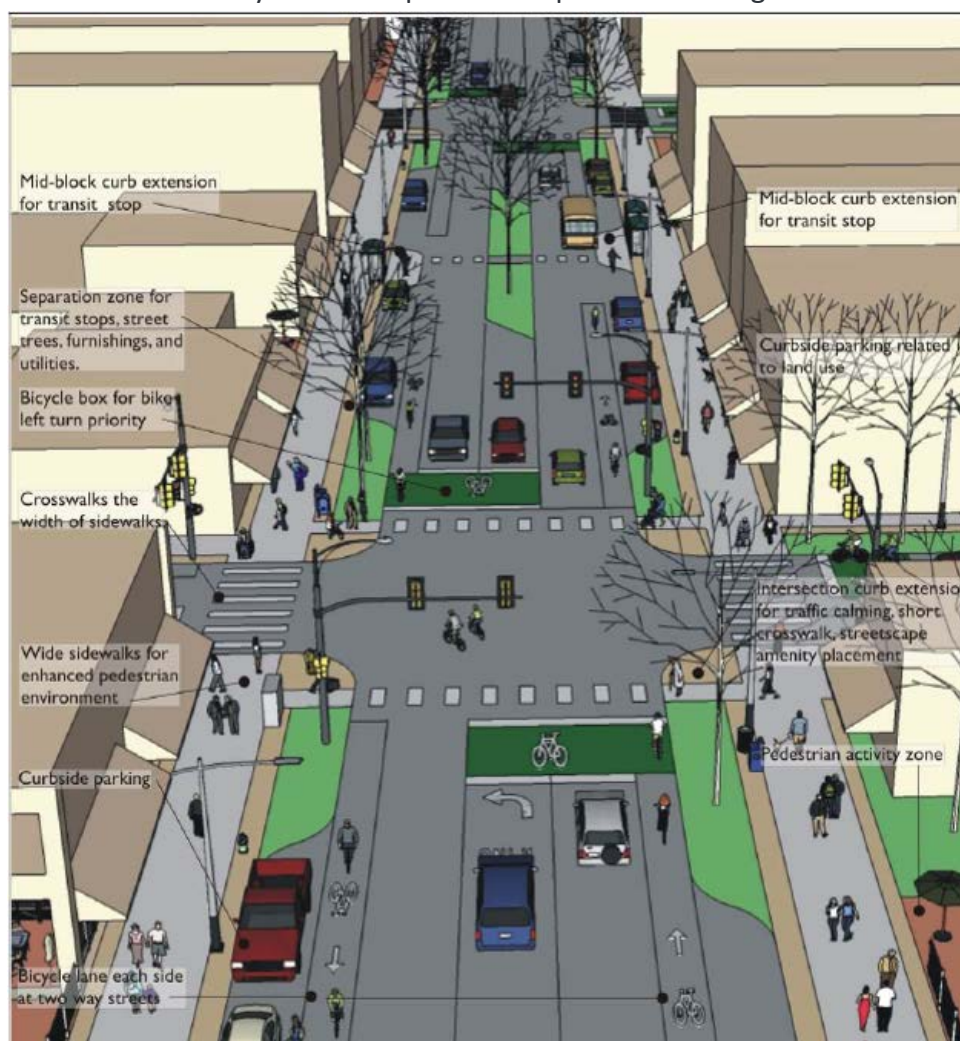
This relationship between land use and street design also affects the character of the street. Character is reflected not only in the travel lanes but also in the overall dimensions and design treatments from building face to building face along the street. Character is also reflected in the space between a building's edge, a street tree, or a parked car. This aspect of character is influenced by the location and quality of street elements. Character can be defined by its surface qualities and landscaping. The manner in which the elements are applied to streets creates its formal character and consists of qualities such as the shape, material, colors, textures, pattern, and compilation of the street elements.

Successful use of CSD principles rests on a vision that identifies Context Sensitive Street Design as an important objective in community development. With a vision in place, the next task is to identify ways and means to accomplish the vision. For the P2S 2040 Plan, one of the key outcomes of the guiding principles and land use vision is to focus efforts on encouraging Transit Oriented Growth Centers and Corridors that will expand the range of choices available in housing and business and serve as an anchor for making a transit oriented lifestyle possible. To support this outcome, one of the key approaches that builds off the approach of CSD is emphasizing

the creation of pedestrian oriented districts within designated Transit Oriented centers and Transit corridors to support the vision of an integrated land use and transit district. Figure 2-27 illustrates how a pedestrian oriented approach could inform the design of streets and the right-of-way

FIGURE 2-27: CONTEXT SENSITIVE DESIGN PRINCIPLES

Illustration courtesy of Indianapolis Metropolitan Planning Commission



both between and behind the curb line in designated district areas.

A connected street network and a well-designed streetscape can result in a positive impact to the economic, environmental, and social vitality of a community. It is the City’s goal to provide these amenities and improve mobility, livability, and sustainability through well-designed streetscapes that provide for multiple modes of transportation, adequate people moving capacity, and reduced impervious surfaces.

CSD in Practice: Main Street Design

Balancing the needs of shoppers, employees, business owners, residents and other pedestrians along with vehicle traffic on traditional “Main Streets” in the older commercial districts is one of most challenging projects faced by designers. For example, in the Downtown Master Plan, the 1st Avenue SW/NW corridor was identified as a potential “Main Street” corridor where the interface of many different interests are found. Though at a different scale, other emerging areas such as the 6th Avenue NW on the near-northside of downtown illustrates another potential opportunity where a similar range of interests come together.

FIGURE 2-28: MAIN STREET DESIGN

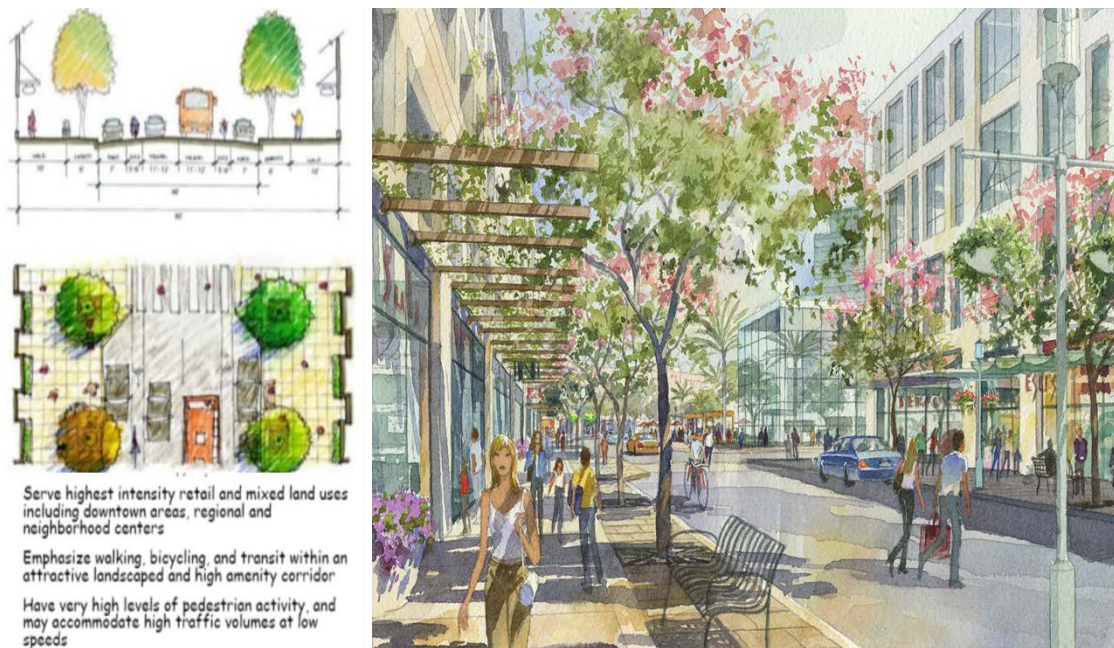


Figure 2-28 provides a conceptual illustration of the elements of a Main Street Design that can help establish a district identity, promote multi-modal transportation, and support economic growth. Among the elements that would be considered in development of a Main Street design plan include:

- ▶ Sidewalk improvements to enhance the retail environment
- ▶ Intersection improvements that reduce conflicts between people driving and walking
- ▶ Streetscape improvements such as ornamental lighting, planters, benches, trash receptacles, light poles and traffic signals, overhead banners, artwork, bus shelters and other street furniture combined with Façade Improvement Programs
- ▶ Coordinated parking

The tenets of a Main Street Design approach should be considered as changes or upgrades to pedestrian oriented commercial corridors come forward in the future, especially in older areas of the city where the bones of Main Street character exist. These concepts also have application in the redevelopment of older shopping centers where redevelopment involving the introduction of a local street grid may occur.

Great Connections to Great Places

Streets in the city should be thought of as more than just a means of mobility. Streets themselves are public spaces that can serve more than just the function of transporting people and goods; they can lend richness to the social, civic, and economic fabric if designed with a broader purpose beyond moving traffic that considers the surrounding context and larger social and economic goals of the community. Figure 2-29 highlights the contrast between the narrow view of a street as a travel corridor and a street that benefits multiple parties through creation of an attractive, comfortable environment for travelers, property and business owners, customers, visitors, and workers.

FIGURE 2-29: CONTRASTING A VEHICLE-ORIENTED VS COMMUNITY-ORIENTED STREETScape



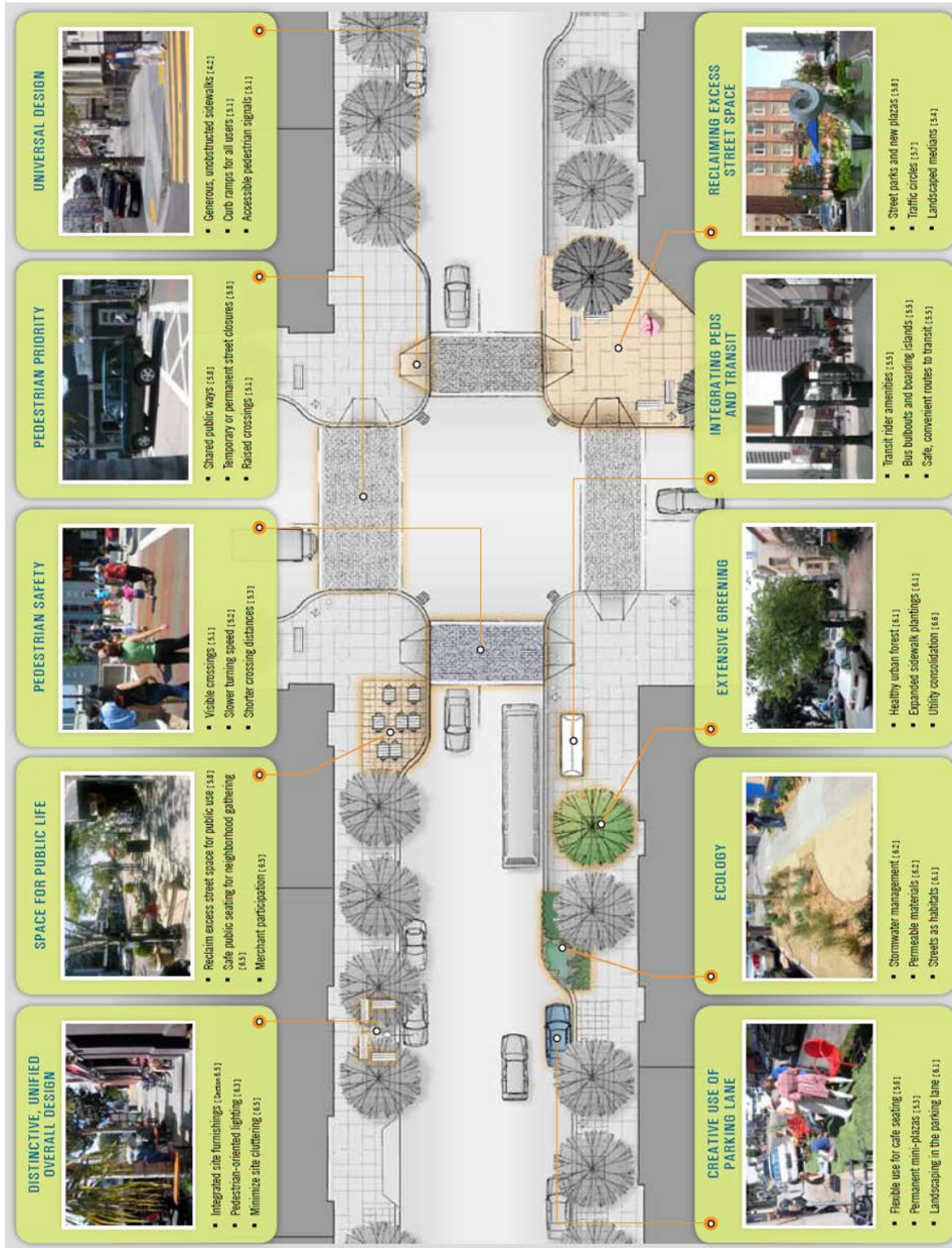
Building upon the principles of Context Sensitive Design and Complete Streets, the plan proposes a “Great Connections to Great Places” policy that recognizes the role street design can play in drawing attention to important public places that people visit frequently by creating inviting gateways providing access and entry to these places. The “Great Connections” concept takes inspiration from the concept of great streets and green streets programs across the country, highlighting a variety of design features to consider along the entries to major public places or districts that are integral to the creation of a vibrant public realm.

To enhance the sense of importance and place a “Great Connection” conveys, features such as those illustrated in Figure 2-30 should be considered. Measures may include elements such as sidewalk gardens, landscaped medians or intersection islands, widened sidewalks, unique paving treatments, art installations, special signage, or green stormwater features to create streets that appropriately balance the accommodation of movement with a sense of place—more closely integrating the corridor with the destination to encourage people to visit and spend time in these high amenity public spaces.

The intent of the “Great Connections” policy is to create streets with a tangible sense of place that connect major activity areas such as downtown or future transit oriented development nodes with locations such as major community parks or important civic facilities by incorporating features that enhance the experience of moving through the connecting corridor and are as uplifting as the destination itself. Examples of corridors that may lend themselves to consideration under the “Great Connections” policy include:

- ▶ Center Street from the Heart of the City district to the Zumbro River corridor, providing access to the Zumbro River Trail, Silver Lake Park, and Mayo Memorial Park
- ▶ 7th Street NE from the future transit oriented development node centered on the intersection of 7th St and North Broadway to Silver Lake Park
- ▶ A north/south corridor extending from the Heart of the City district south to Soldier’s Field Memorial Park

FIGURE 2-30: DESIGN FEATURES OF GREAT CONNECTION STREETS



To develop truly unique and signature corridors, the planning and design for selected corridors should focus on elements of the street design principles highlighted in Figure 2-31 that can contribute to the creation of unique and distinctive public spaces.

FIGURE 2-31: STREET DESIGN PRINCIPLES

Principles for street design

The design approach outlined in this manual is guided by the following principles:

					
<p>Safety Streets must be safe for all users. This implies that every street needs to have a slow zone where pedestrians have priority. In smaller streets with a shared space format, the entire street becomes a slow zone for all users, including pedestrians, vendors, cycles, and cars.</p>	<p>Mobility Larger roads can include a mobility zone for vehicle movement. This mobility zone—for private vehicles and public transport—is physically separated from the slow zone. The mobility zone may include a segregated cycle track if the speed differential between cyclists and motor vehicles is high. In addition, dedicated bus lanes can improve service quality for public transport users.</p>	<p>Pedestrian accessibility All streets need to have continuous footpaths or safe shared space with minimal grade differences and adequate clear width for pedestrian through movement.</p>	<p>Liveability Elements such as tree lines, landscaping, and furniture enhance a street's slow zone, creating space for relaxation, interaction, vending, and other activities.</p>	<p>Sensitivity to local context Street design should factor in local street activities, patterns of pedestrian movement, and nearby land uses.</p>	<p>Creative use of street space For example, the width occupied by a parking lane can become multi-functional if it includes occasional bulb-outs for street vending or street furniture.</p>

In designing these important public spaces, emphasis should be on balancing the mobility and access function of the street with the following functions or objectives:

- ▶ Create a street that has a personality that identifies it as a special place, welcomes people, and provides opportunity for walking, talking, stopping, sitting, and allowing people to go about their business in a setting where they feel they belong whether interacting with others or not
- ▶ Create a design that enhances the connection to the natural and built environment by incorporating opportunities for the enjoyment of open spaces, window shopping, or other interactive experiences

- ▶ Create a design that is useful and marketable to people with diverse abilities, that can accommodate a range of individual preferences, where the design is easy to understand and communicates necessary information effectively to all users

Process/Policy Approach

As part of the implementation of the Comprehensive Plan, the community should consider a process for identifying “Great Connections” corridors and develop small area or corridor plans to include identified corridors using a community-based planning model that ensures local needs and desires are integrated

into the finished designs to the extent possible. A cooperative, community based approach will also build a sense of stewardship to increase the likelihood that stakeholders will stay invested throughout the planning and implementation stages of a Great Connections project.

The cooperative efforts of diverse groups and interests in a community are necessary to ensure that varying concerns are addressed, to help smooth out any differences that might arise, and to engage community energy and skills. This will require an openness to new ideas and building mutual trust based on shared responsibility and dedication of all participating community interests. Community participation from the start and involvement in all the steps along the way will assist in developing and implementing the vision of what these “Great Connections” should be and how to get there.

Enhancing Pedestrian Travel in Rochester

Pedestrians will continue to be a top transportation priority for the City— not only residents and workers, but also the large number of visitors from outside the city who are in Rochester on a daily basis. Almost everyone is a pedestrian for at least part of each journey, whether that journey involves only walking or cycle, transit, or driving as well. The benefit of enhancing and expanding the opportunity to complete trips by walking, which includes movement with wheelchairs and other mobility aids, is that it is the cheapest and most space-efficient way to travel, increases opportunities for community interaction, and is healthy for both people and the environment. It’s also good for business—our most successful commercial streets tend to be the ones with the highest pedestrian volumes.

Good land use planning is critical to planning for pedestrian travel, as bringing people closer to their daily destinations and incorporating safe and comfortable pedestrian features can make

walking the easiest and most convenient option for many trips. Building an environment that is accessible and interesting for pedestrian can add to the attraction of walking as travel mode.

However, as with all our transportation infrastructure, there is plenty of room for improvement. In some parts of the city, sidewalks are missing, are too narrow, bumpy, or missing curb ramps. Some streets are unpleasant to walk along because there is little or no buffer between people on foot and moving traffic, or the streets have long blocks with limited opportunities to safely cross. Insufficient pedestrian lighting or poorly designed buildings and spaces can also make some places feel less safe, particularly at night.

P2S 2040 plan seeks to build upon our successes and address deficiencies by focusing on pedestrian safety and accessibility, by addressing gaps in the network, by encouraging an enhanced level of pedestrian oriented infrastructure in areas with existing or expected levels of high pedestrian traffic, and by creating more interesting streets and public spaces that feel safe and support a vibrant public life.

New development, especially in areas outside the downtown, will be encouraged through use of mixed use development principles to bring destinations closer so as to make walking a viable travel option. As Rochester grows, the vision of transit oriented corridor development and infill/redevelopment in traditional downtown neighborhoods supporting new housing will create choices for people of all ages and abilities to walk more for daily trip purposes. Creating transit oriented, pedestrian focused nodes throughout the city will provide new opportunities for existing residents to access amenities and will attract new residents to meet Rochester's growing workforce needs.

Investments in the pedestrian network are essential to meeting the broader goals of this comprehensive plan, including improved connectivity, expanding the availability of affordable housing, and creating compact and transit supportive neighborhoods. The ability to safely and comfortably walk to everyday destinations is a key element to providing a high quality of life for Rochester residents.

Elements of the Walking Network

Rochester is in some ways a very walkable city, with extensive networks of sidewalks and multi-use trails. Marked pedestrian crossings, curb ramps, and amenities at signalized intersections serve existing pedestrians in many areas. Subways and skyways provide winter protection for people walking downtown. Key opportunities for improvement include upgrading pedestrian

accommodations along and across many busier streets and creating pedestrian oriented districts in new centers along the PTN network and districts within and abutting the Rochester’s central development area.

As a Bronze-level Walk Friendly Community, Rochester is committed to supporting safe and convenient pedestrian travel. The city has been deploying state-of-the-practice pedestrian infrastructure, including countdown timers and audible signals at intersections, mid-block crossings, flashing beacons, and high-visibility ‘zebra’ style crosswalks at selected locations. In addition, Safe Routes to School efforts have been undertaken at various school sites to improve safety on primary walking routes to school. Key elements of the walking network include:

FACILITIES	DISCUSSION OF FACILITY TYPE
Sidewalks	While Rochester has had a long-standing policy regarding installation of sidewalks in residential areas, and in 1990 adopted a policy that required all new development to install sidewalks, notable gaps exist in the sidewalk network. These gaps are largely the result of annexation in areas that developed originally outside of the city, including significant portions of neighborhoods in SW and SE Rochester, gaps along some major corridors such as Broadway Avenue last reconstructed decades ago, and gaps along some primary collector roads originally constructed outside the city when areas were still rural in character. Going forward, filling gaps near schools and along the PTN transit corridors should be a priority. Potential mechanisms to bridge these gaps include property redevelopment, roadway maintenance and reconstruction projects, or stand-alone city funded or shared-cost sidewalk infill projects.
Multi-Use Trails	An extensive network of paved and unpaved multi-use trails is a tremendous community asset that supports pedestrian, bike, in-line skate, wheelchair, and stroller use. Key trails in the downtown area and selected trails outside of downtown are maintained with year-round snow removal. Future investments should be made to fill in gaps in the network and expand its reach to ensure safe connections to residential neighborhoods.
Curb Ramps	Curb ramps are present at intersections in most high-volume pedestrian areas to help people with physical disabilities and people pushing strollers. New ramp construction increases accessibility for people with vision impairments by including detectable warning strips. The city continues to fund installation of ramps as part of its goal to make all intersections ADA accessible.
Intersections	Intersections are points where pedestrians enter space shared with motor vehicles to cross the street, with the location of most pedestrian collisions occurring at signalized intersections. Efforts should continue to expand the number of intersections that increase pedestrian visibility, reduce crossing distances where feasible and increase separation where possible to reduce the potential for conflicts. Measures can include

	<p>high-visibility crosswalks, curb extensions or median refuge islands, road diets that reduce the number of lanes to cross, and adjusting the phasing of traffic signals to separate conflicting pedestrian and vehicle movements.</p>
<p>Subways and Skyways</p>	<p>Downtown Rochester features a well-connected subway and skyway pedestrian network that shields people from inclement weather. These facilities are well utilized due to the concentration of medical, retail, office, and entertainment uses in downtown. This system allows residents and visitors, particularly medical patients, to navigate our community in a climate controlled setting. Discussions continue on the need and desirability to expand the reach of the skyway system in downtown Rochester in order to connect more blocks to this weather controlled network.</p>

Opportunities to Enhance Walking Infrastructure

Given the limitations on resources that the city has available to enhance walking infrastructure, certain areas or locations should be prioritized for improvement. Among key locations to consider are:

Walkable Nodes and Neighborhood Centers | The walkability of the community is more than just the presence of sidewalks, but also includes land use, street design, and urban form considerations. Developments that mix residents and jobs with coffee shops, grocery stores, and small-scale retail create interest and open up the pedestrian realm, while streetscapes elements that activate the environment, such as sidewalk cafes and parklets, build community and stimulate the desire to walk to destinations. The density of the street network, shorter block lengths, and reduced vehicle speeds also help create a quality pedestrian environment.



The Pedestrian Priority Map later in this section establishes a framework for a series of pedestrian oriented nodes and neighborhood centers outside of the downtown core aligned with the Primary Transit Network. Pedestrian infrastructure is important to the success of such

centers and include features such continuous sidewalks, active and interesting streetscapes and storefronts, improved safety at street crossings, buffering from adjacent vehicular traffic, limiting the number of driveways, inclusion of attractive landscaping, and human scaled lighting. New development or redevelopment will offer the opportunity to incorporate many of these elements in targeted development areas.

Transit Access Points | With development of the Primary Transit Network will come the introduction of a new style of transit access points – the PTN Station. PTN stations will be more than the traditional bus stop shelter seen across the city currently, as features such as weather protection, fare payment kiosks, bicycle storage, benches and other amenities are incorporated to create “mini-hubs” that will attract riders from the larger surrounding area and facilitate transfers between routes at locations outside of the Downtown Transit Hub. The quality of the pedestrian environment around these transit stations is a critical element of the transit network.

Walking provides an easy and affordable means to access transit stations and stops. Ensuring pedestrian access to transit can be achieved with:

- ▶ Connected, well maintained sidewalks to access bus stops. Short blocks lengths also facilitate more direct routes to transit.
- ▶ User safety and comfort through the provision of lighting and buffers from adjacent traffic.
- ▶ Well-marked, safe crossing opportunities close to and connecting inbound and outbound stop locations on opposite sides of roadway corridors.
- ▶ Accessibility for all users at stops and crossings.
- ▶ Aesthetics including landscaping and amenities such as benches or shelters.



- ▶ Prioritizing mid-block crossings, lighting, traffic calming, and wayfinding along the frequent transit network to improve access to transit.

Arterial Street Crossings | For many people in Rochester, conditions exist that limit walking as an option to routine destinations. As in many cities, for many years the transportation focus was on giving priority to and improving motor vehicle mobility. As a result, many major arterial streets lack safe pedestrian facilities. While efforts have been ongoing to install trails and paths along many of these corridors, there are still a number of primary streets that do not accommodate walking and create barriers for pedestrians. Analysis of the pedestrian environment identified potential opportunities to enhance conditions with focused investments as identified in the Pedestrian Priority Maps (Figures 2-32 & 2-33).



Sidewalk Network Connections | As mentioned previously, sidewalk gaps are primarily a legacy of commercial, industrial, and residential area development that originally occurred outside the city or at a time when development regulations did not require sidewalk installation as part of the basic package of site improvements. Similarly, major roadway corridors were developed without pedestrian facilities because properties did not directly front them and vehicle movement was the priority. Sidewalks are an extremely effective safety measure, as well as a basic component of a walkable city. The City of Rochester should continue to work toward installation of sidewalks where it is not appropriate for pedestrians and cars to share the street or where shoulder use is unsafe for pedestrians. Potential mechanisms to bridge these gaps include incorporating pedestrian facilities into property redevelopment, roadway maintenance and reconstruction, or as part of a stand-alone city funded or shared cost sidewalk infill program. Figure 2-33 illustrates some of the typical pedestrian safety concerns observed at these locations.

Accessibility for People with Disabilities | Streets that are designed for safe use by children, the elderly, and people with mobility impairments serve everyone better. The Federal Americans with Disabilities Act (ADA) require that all new and altered facilities—including sidewalks, street crossings, and related facilities. The Americans with Disabilities Act Accessibility Guidelines (ADAAG)

CREATING WALKABLE CENTERS AND CORRIDORS

As demographic trends, quality of life considerations, and personal preferences shift, more residents of Rochester are looking to live in walkable neighborhoods with access to nearby shops that can be reached without the need to drive. These demands—also seen in national trends—are expected to form a growing segment of the real estate market in the coming decades. Responding to these trends will be important to preserve the attractiveness of Rochester as a place to live and the economic



competitiveness of the region. Walkable districts represent a basic building block for a city that is more sustainable – socially, environmentally, and economically. Walkable districts mix complementary uses, maintain reasonable walking distances, and orient building entrances and façades to the street. Benefits that may be expected to accrue from successful policy and investment in walkable urban districts include:

- ◆ Safer communities with fewer pedestrian injuries and deaths from vehicle collisions
- ◆ Improved public health because of more opportunities to walk or bike and the ability to take short trips by walking rather than driving
- ◆ More economically viable places, stabilized property values, and reduced retail leakage (where potential customers consider alternatives due to a lack of safe walking conditions)

- ◆ Public investments are direct expenditures that change the form of the built or natural environment, such as changes to the street right-of-way to reduce pedestrian crossing distances and raising awareness through special paving materials or raised crosswalks. Public investments can improve an area single-handedly and can change the climate in which private decisions are made.
- ◆ Partnerships involve a sharing of efforts, money, or expertise between a local government and either another governmental agency, a business entity or private person, or a nonprofit organization. Partnerships can accomplish a wide array of goals, such as developing the land, providing pedestrian amenities and street improvements, and ensuring adequate diversity of uses including housing near a business district.

Another important set of strategies that will help create walkable districts involve land use and zoning. Walkable commercial districts are created not just through the design and land-uses of the immediate district, but they also must have a market of potential pedestrians within walking distance. Zoning in potential walkable districts, such as the proposed transit oriented centers in the Plan, should always allow residential development and require connectivity be provided to surrounding residential areas.



The private sector almost always is the primary engine behind creating a walkable business district. Therefore, it is important to allow enough development intensity to make new development in these areas financially viable. This is especially important in built-up areas where more expensive redevelopment will be the primary method through which change will occur. In developing areas where new walkable commercial development is feasible given nearby residential density and a sufficient base of employment, zoning standards could be considered that specify a minimum FAR (preferred) or maximum parking standards to ensure new development is compact and transit supportive.

A purposeful approach to creating walkable urban districts will be needed to overcome existing conditions in proposed transit growth corridors, but the benefits of such as strategy will create a more livable and attractive community.

FIGURE 2-32

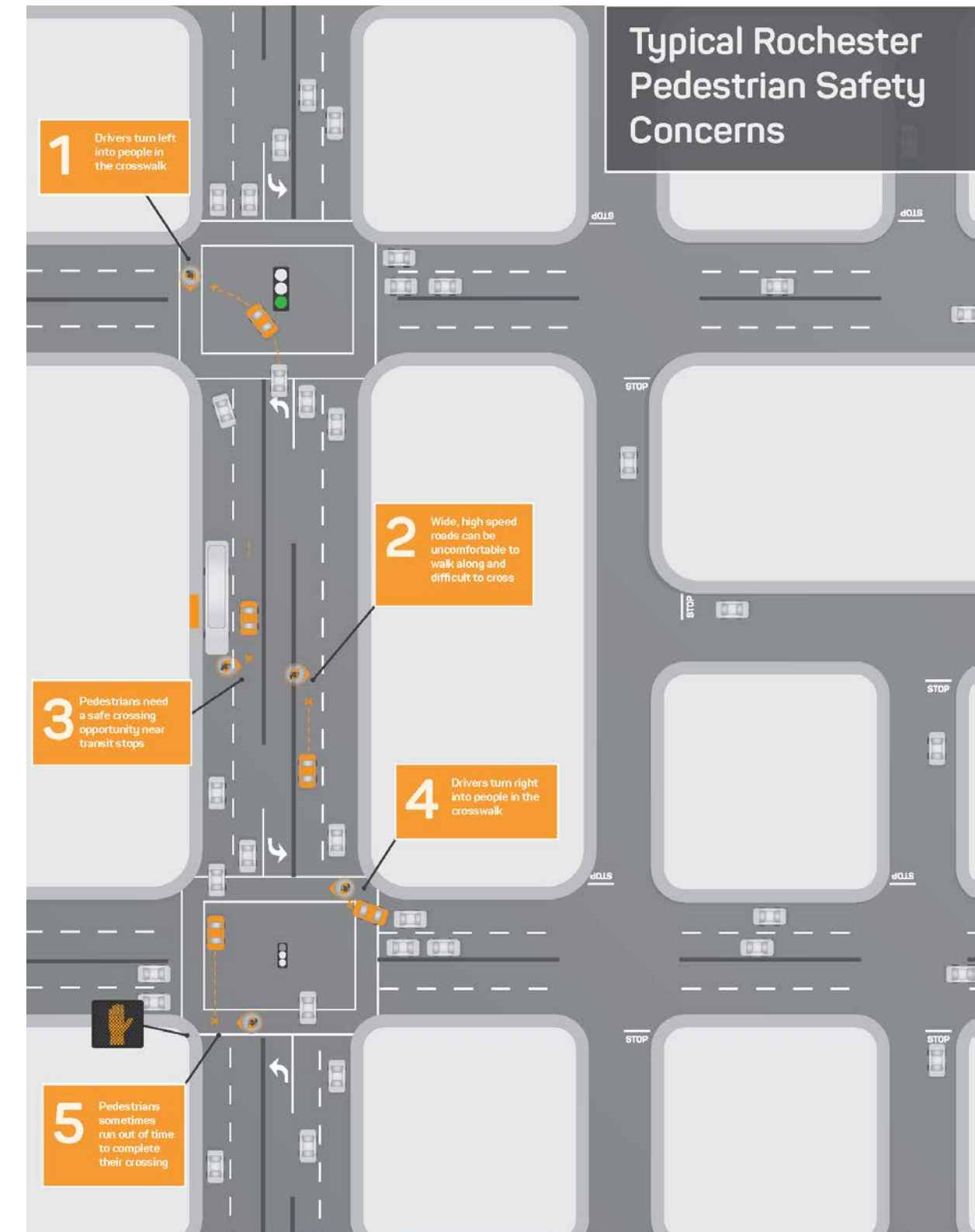
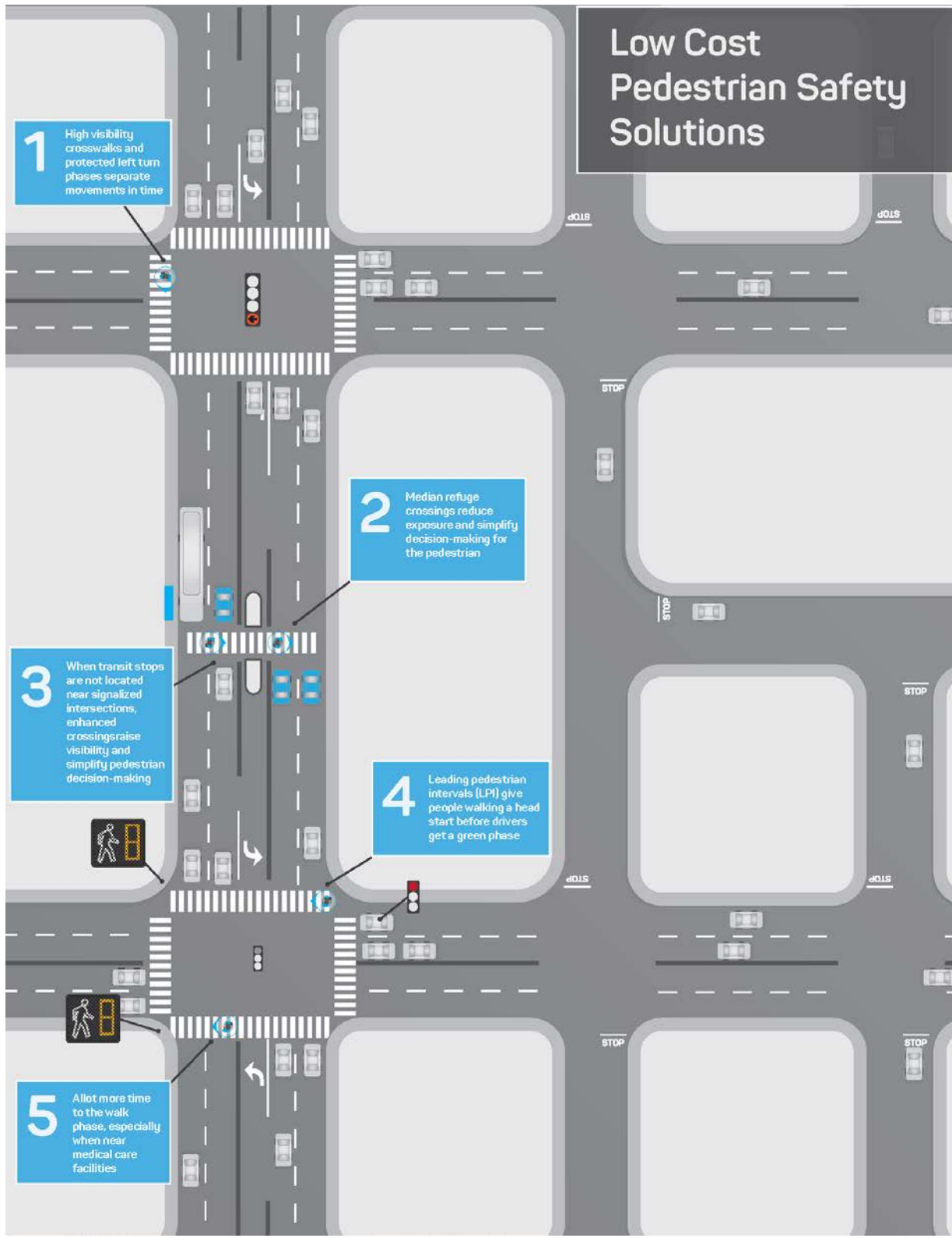


FIGURE 2-33



provide guidance for the design and construction of accessible pedestrian facilities. The United States Access Board anticipates issuing Public Rights-of-Way Access Guidelines (PROWAG) that will provide greater guidance on how issues of accessibility should be addressed along existing streets and highways.

Pedestrian Priorities Map

The Pedestrian Priority Areas Map (Figure 2-34) and the Arterial and Collector Pedestrian Street Needs Map (Figure 2-35) highlight priority improvement areas that should be considered for investment to improve conditions for pedestrian across the Rochester area.

The Pedestrian Priority Areas Map identifies the following types of improvement areas:

Pedestrian Districts | areas which are priorities for pedestrian and transit oriented development that would benefit from the elements described in the sidebar on creating Walkable Centers

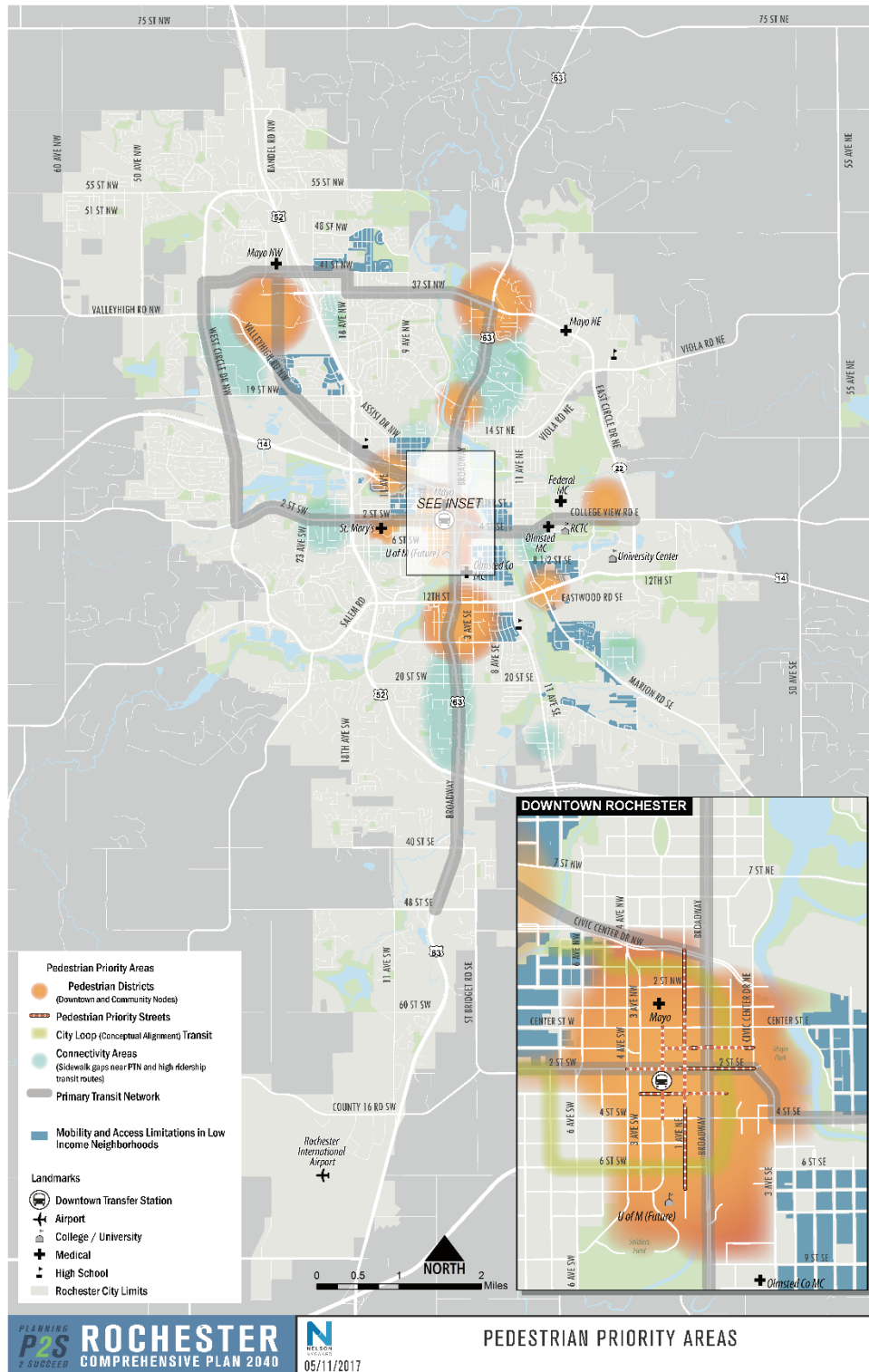
Pedestrian Priority Streets | key streets for pedestrian mobility downtown; more is included in the Complete Streets section relative to “Commercial Streets”

Transit Connectivity Areas | areas where sidewalks gaps exist within ½ mile of the PTN or high-ridership transit routes; filling in such gaps will enhance access to transit

Primary Transit Network | pedestrian investments are essential to provide access for pedestrians to, along, and across streets on the Primary Transit Network

The Arterial and Collector Street Needs Map identifies auto-oriented travel corridors where non-motorized improvements in the form of trails, paths, and sidewalks are identified to improve mobility for both pedestrian and bicycle users. These corridors primarily provide connectivity to residential neighborhoods which do not have uninterrupted connectivity to the off-road network of trails and paths in the city.

FIGURE 2-34: PEDESTRIAN PRIORITY MAP



Enhancing Bicycle Travel in Rochester

Bicycling is an affordable and popular transportation choice in Rochester for recreational with interest growing in improving bicycle infrastructure to support other trip-making purposes. Rochester has an extensive system of off-street, multi-use trails and paths that provide a safe and accessible backbone for the citywide bicycle network. Trails connect many parks and open space areas with neighborhoods in the community in a riding environment that is comfortable for people of all ages and abilities. However, there still remain neighborhoods without connection to the trail system, and major employment and commercial destinations that lack connections due to the limited amount of safe “last mile” on-street connections that would be needed to provide this access. Gaps in the bicycle network require people to ride on the road with faster moving vehicular traffic, on the sidewalk where they conflict with pedestrians, or to not ride at all due to safety concerns.

To make cycling safe, convenient and comfortable for people of all ages and abilities who have an interest in riding it will be essential to improve and expand the network of low-stress, high quality bike routes. But building a complete network will not happen overnight. The city has focused much effort on developing the network of off-road trails and paths, many of which serve a broad spectrum of the population. Development of on-road system segments has largely resulted from using opportunities that have arisen through construction or maintenance projects to install, where feasible, bike lane projects, but these existing segments only address a share of the improvements that would be needed to fully address the connectivity and destination access needs identified.

One of the most significant area of gaps in the bicycle system that has long been articulated is the lack of routes that penetrate into or through the Downtown area to provide connections to major worksite and community facilities located there, as well as providing for routes through downtown to serve trips with origins and destinations outside of the CBD. With the work being completed as part of the DMC Integrated Transit Studies in 2018 a planned network of corridor improvements has been identified and an initial programming of some projects segments has begun

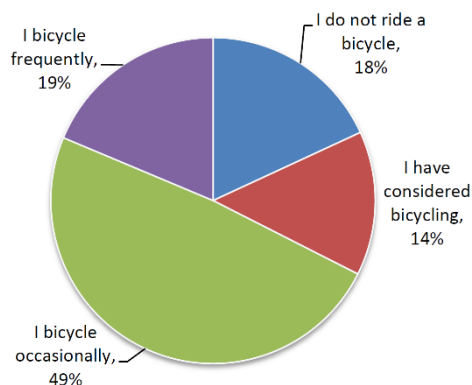
In 2012 the City Council adopted a Bike Master Plan for the City of Rochester as part of the City’s Comprehensive Plan. As part of the Bike Master Plan development process an assessment of needs was completed which include looking at gaps in the current system as well as strategies in the realms of bicycle education, enforcement and encouragement that should be

considered. The Master Plan identified a set of travel corridors across the city that were identified as candidates for bicycle facilities that would address neighborhood and destination connectivity needs, and offered preliminary recommendations as to the type of bicycle facility improvement thought to be feasible for each corridor.

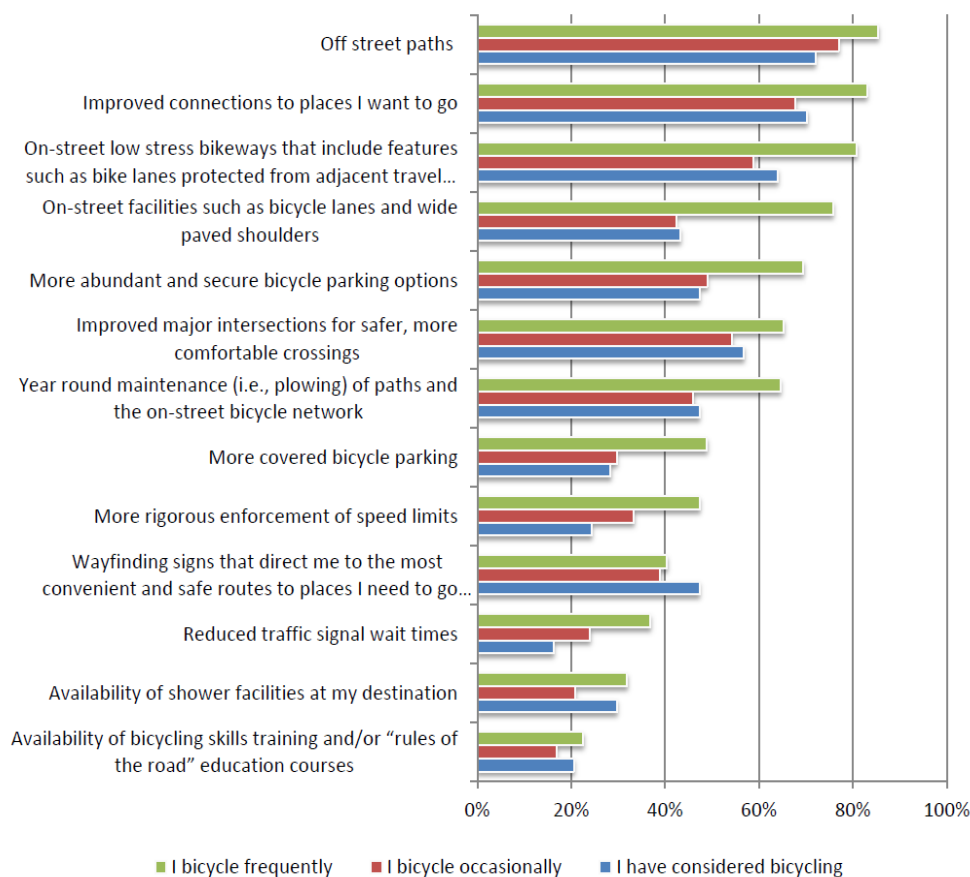
What the Community Said

As part of the Community Transportation Survey conducted as part of community input phase of the P2S 2040 Plan process, respondents were asked what types of improvements or enhancements would have the most influence on their decision to bike most often. Among the survey respondents, the majority were people who bike occasionally, with the rest split relatively evenly between those who don't bike at all, those who don't bike but have considered it, and those who bike frequently.

For all respondents who said they bike or at least would consider it, the following chart identifies



FACILITY ENHANCEMENT PREFERENCES BY FREQUENCY OF BICYCLE RIDING



those features or actions that would have a high or moderate positive impact on the choice to cycle, broken down by the type of cyclist. The presence of off-street paths or on-street low stress bikeways such as protected bike lanes rated the highest along with having improved connections to the places that they want to go. Other strategies, such as having more abundant bike parking and improved safety at major intersections, also were identified by a majority of the frequent riders and slightly less important to those who ride less frequently. The largest divergence came on the question of whether standard bike lanes and wide shoulders would be seen as a positive factor; upwards of 75% of frequency riders found these types of improvements attractive but only 40% of the less frequency or those who would consider riding find these types of facilities attractive.

Improving Bicycling for all Users

In order to make bicycling an attractive recreation or travel choice for more people, efforts will need to continue to make cycling appealing to a wider audience. This includes building routes that are comfortable existing and potential uses of all ages and abilities. As noted in the Bicycle Master Plan, efforts related to bicycle education, encouragement programs, and enforcement are important parts of a comprehensive community cycling enhancement strategy. The Bicycle Master Plan includes a wide range of strategies for addressing these types of supporting actions that can provide infrequent or potential cyclists with the information and tools they need to ride more often.

Building on-street facilities to provide first/last mile connections to employment and commercial destinations, transit stops or stations, or to facilitate non-driving options for trips within the downtown area while continuing to expand the trail and path system to more neighborhoods are included as goals of this plan. These goals will support a healthy community, increase affordable travel options, increase the reach of transit, and support downtown access. In order to identify the right type of facility for a given location, the following factors must be considered.

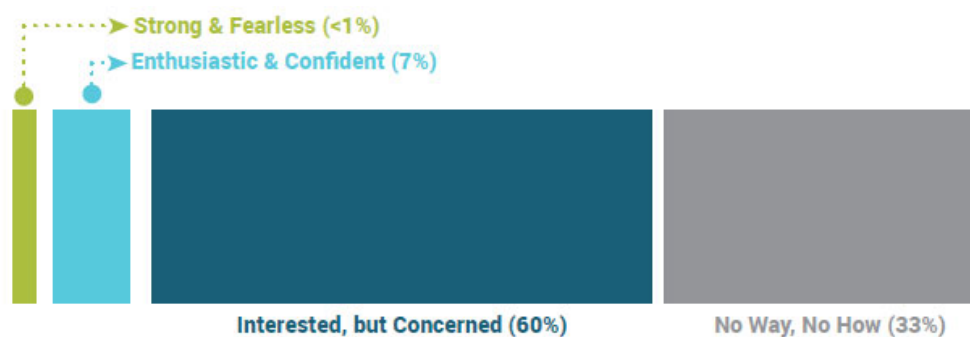
Types of Bicyclists

The Rochester bicycle network needs to accommodate a variety of users with different skills and abilities, such as:

- ▶ Recreational users with a wide variety of skills ranging from families with young children to skilled cyclists on training or exercise rides

- ▶ Employees who commute by bicycle and may use a bike for midday errands or meetings
- ▶ Students bicycling to classes who wish to drive less or save money
- ▶ Visitors, including travel companions of medical patients, who would like to ride for recreational or utilitarian purposes
- ▶ Persons heading to a social gathering such as a restaurant or cultural activity in the downtown
- ▶ Persons who use bicyling as their mode of choice to access transit

It is also important to remember that cyclists bring a range of confidence or uncertainty to their decisions

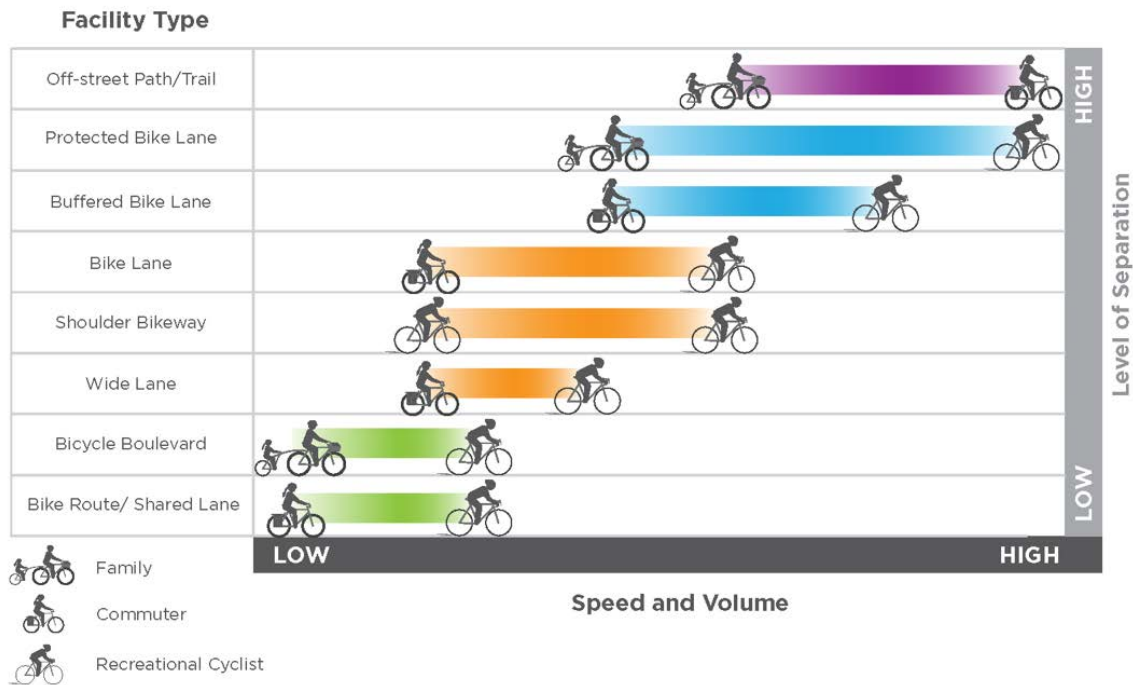


regarding riding given the conditions they encounter. Studies have shown that about 10% of all cyclists are confident in most situations, whereas a large proportion, as shown in the transportation survey, will be much more comfortable in situations that provide some level of protection or separation from vehicle traffic.

Types of Facilities Matched to Use Groups

The existing bikeway network includes a variety of facilities to serve people of various ages and abilities. Figure 2-36 highlights the type of facilities best suited for different types of users. The city network, while predominantly composed of off-road facilities, does include some on-road facilities that have been implemented to improve connectivity; and with adoption of a Complete Streets Policy in 2009, the City has been more active in incorporating facilities in new roadway projects.

FIGURE 2-36: APPROPRIATE FACILITY TYPES FOR VARIOUS TYPES OF CYCLISTS



The 2012 Bicycle Master Plan identifies infrastructure improvements needed to complete a more robust bicycle network connecting destinations across the city. The Bicycle Master Plan discusses as well supportive in-trip and end-of-trip infrastructure needs, education and encouragement strategies, and measures to advance implementation of programs and projects. The Master Plan recommends use of a more varied palette of on-street facilities and supportive infrastructure, as illustrated in Figure 2-37.

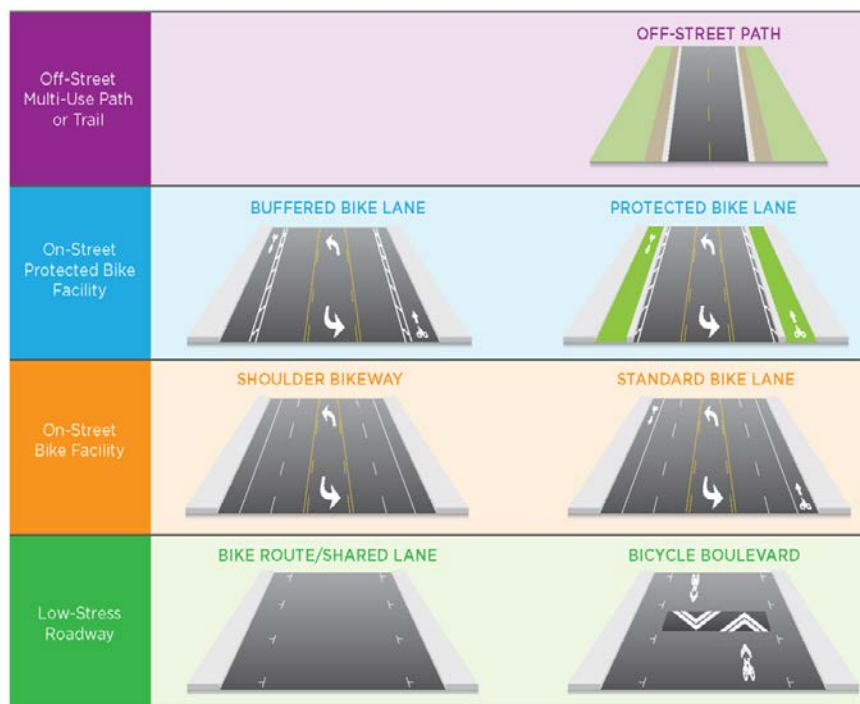
A fuller discussion of these basic facility types along with other infrastructure options to address options such as intersection safety, refer to Chapter 5 of the Bike Master Plan.

Key types of other supportive biking infrastructure found in Rochester are important to expanding opportunity or exposure to use of the bicycle network and to provide an enhanced level of comfort when traveling. Two of the most visible types of supportive infrastructure are:

Bike Share | As described in the Shared Mobility section, deployment of a bike share system both downtown and in other key locations has been planned. Bike Share allows persons to rent a bicycle for short trips between destinations as well as leisure time recreational opportunities.

Bicycle Parking | Increased availability of short-term bike parking near commercial destinations and long-term (secure, weather protected) parking at worksites, college campuses, major transit hubs, and apartment buildings/residential complexes is essential to encourage people to make both short term trips to commercial destinations or long-term trips to employment or educational centers by bicycle.

FIGURE 2-37: TYPE OF BICYCLING FACILITIES



Bicycle Network Improvement Objectives

Bicycle Travel and its Role in Downtown Mobility | Expectations for 2040 are for a significant increase in the population of people downtown, including significant growth in the number of downtown workers, residents, out of town visitors resulting from more Mayo Clinic patients and their travel companions; more events at the expanded Mayo Civic Center; and a continued increase in cultural and social events. Based on trends observed around the country, all these groups will include people with an increased interest in being able to meet some of their travel and social/recreational needs by bicycle. Of particular importance, maintaining reliable peak period travel downtown will require some change in travel behavior among commuters, with the Downtown Master Plan and DMC Vision Plan setting a goal for bicycle and walk trips to capture approximately 13% of all peak period commute trips by 2035, up from a level of about 7% today. With a need to limit growth in peak period vehicular access into downtown, the bicycle stands as an attractive alternative commute option for trips of up to 3-5

miles. With deployment of a bike share program as an added incentive, this level of trip making is achievable with proper facilities and programmatic support.

The Role of On-Street Bicycle Facilities | A bicycle network comprised solely of off-street trails will result in a discontinuous network, longer trip distances and poor service to certain areas. Implementing on-street facilities can bridge these gaps by increasing the density of the bicycle network, resulting in more direct routes which is a critical consideration when deciding whether to use this ‘active’ form of transportation.

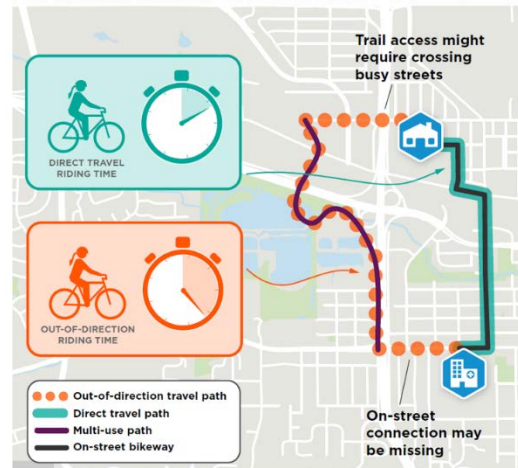
Relationship to the Bicycle Master Plan | The 2012 Bicycle Master Plan identified increased education and promotion of bicycling as a needed element to increase the confidence of and growth the pool of potential bicyclists as strategies are implemented.

Priority Bicycle Network | While the Bicycle Master Plan identified a Priority Bicycle Network to provide access to key destinations, the P2S 2040 Plan has identified a set of future transit oriented centers and corridors not considered in the Bicycle Master Plan. Connections should be available for cyclists to access these new emerging development nodes.

Neighborhood Network and Connections | Even with the existing trail and path network, there are still neighborhoods without safe, convenient connections to that network. While in some instances neighborhood streets will provide that connectivity, in others additional corridor enhancements will be needed to achieve the goal of having all neighborhoods ultimately connected to the trail network.

Downtown Bicycle Facilities | Downtown Rochester is the region’s major travel destination and could become a top destination for bicycle travel, particularly to reach jobs. While the existing trail network gets people to the edge of downtown, lack of on-street connections within the downtown leaves bicycle users on their own to navigate the last blocks of their route to downtown destinations. Because the majority of city streets downtown do not have bicycle accommodations, many riders end up on the sidewalk, where they come into conflict with

On-street facilities make bike trips direct, comfortable and more likely



pedestrians. Identification of a network of dedicated bicycle facilities is being conducted as part of the DMC Integrated Transit Studies to be completed in 2018.

The presence of incomplete networks can lead to safety issues as bicyclists adjust their riding style or riding location with a street corridor to account for the lack of a designated space. The typical types of safety problems related to the lack of connectivity and designated bicycle facilities are illustrated in Figure 2-38. A combination of facility indicators combined with other low-cost solutions as illustrated in Figure 2-39 can help to address some of these problems. General curbside activity such parking turnover and freight or passenger loading is also another area of safety concern. The National Association of City Transportation Officials (NACTO) recently released some guidance on how to address curbside safety issues involving bicyclists which is reproduced here.

Curbside Activity	
Source of Stress	Design Strategy
Frequent freight and passenger loading either happens in the bikeway or adjacent in the curbside lane. Loading activities increase conflicts crossing the bike lane, or even blockages by double-parked vehicles that imperil bicyclists and rapidly decrease assurances of safety.	Provide designated truck loading zones and provide space for other curbside uses to prevent blockages of the bicycle lane. Consider restricting freight loading to off-peak periods. If frequent freight or passenger loading is observed, provide protected bicycle facilities regardless of speed and volume, or move passenger and freight loading uses to a cross-street.
High parking turnover results in frequent weaving and door zone conflicts.	Where parking turnover is high, provide protected bikeways regardless of speed to avoid sudden conflicts and reduce injury risk, or remove parking. Cities should establish local guidance on acceptable levels of parking maneuvers across bicycle lanes.
Freight loading is present throughout the day, but motor vehicle speed and volume are consistently low.	Implement a robust bike boulevard or shared street treatment with traffic calming strategies to provide comfort and safety across the entire roadway.
Car doors open into the bicycle travel path during vehicle exit and entry, but parking turnover is low to moderate.	Provide a wide marked buffer adjacent to the vehicle door zone to guide bicyclists clear of dooring conflicts for both buffered and protected bike lanes.



FIGURE 2-38

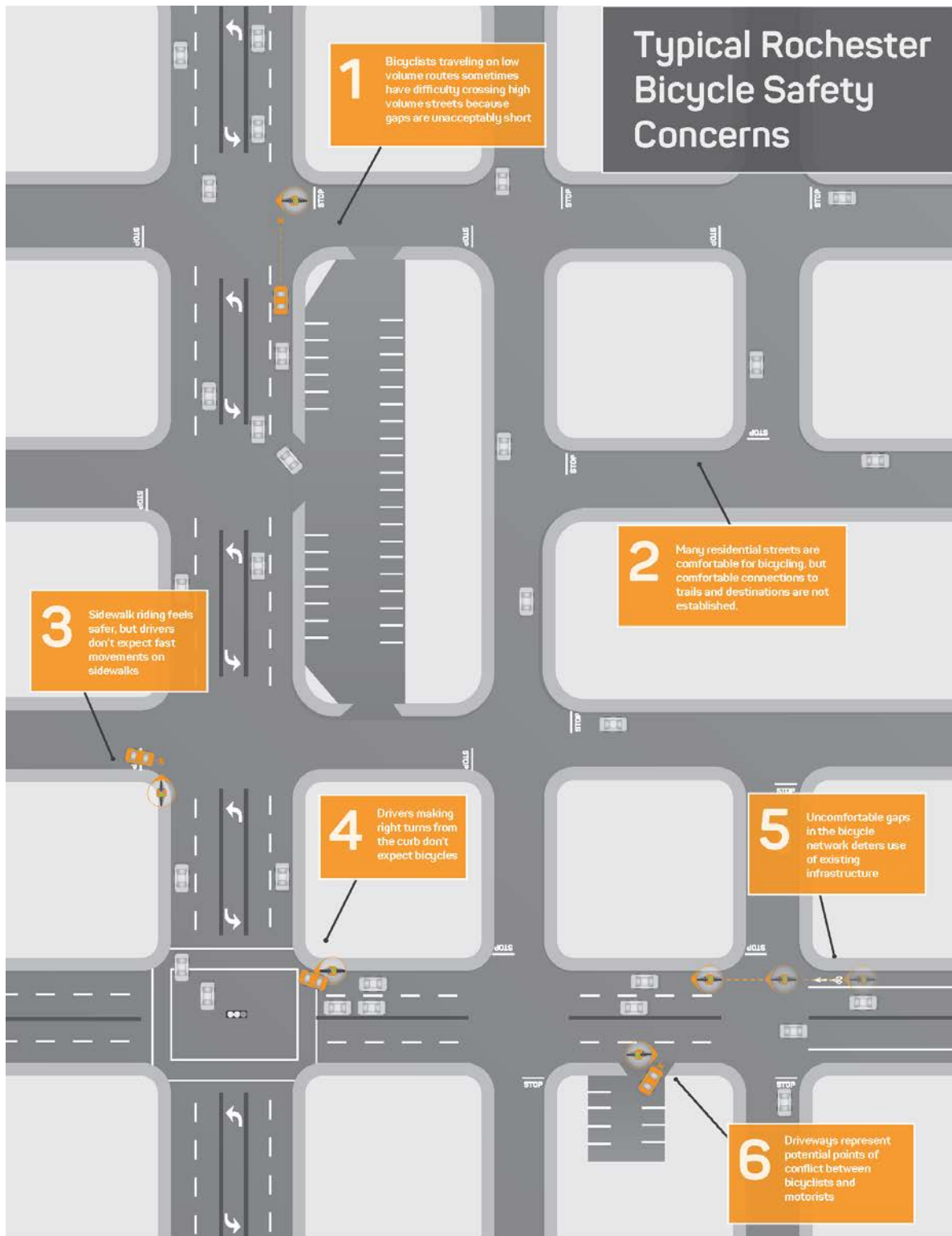
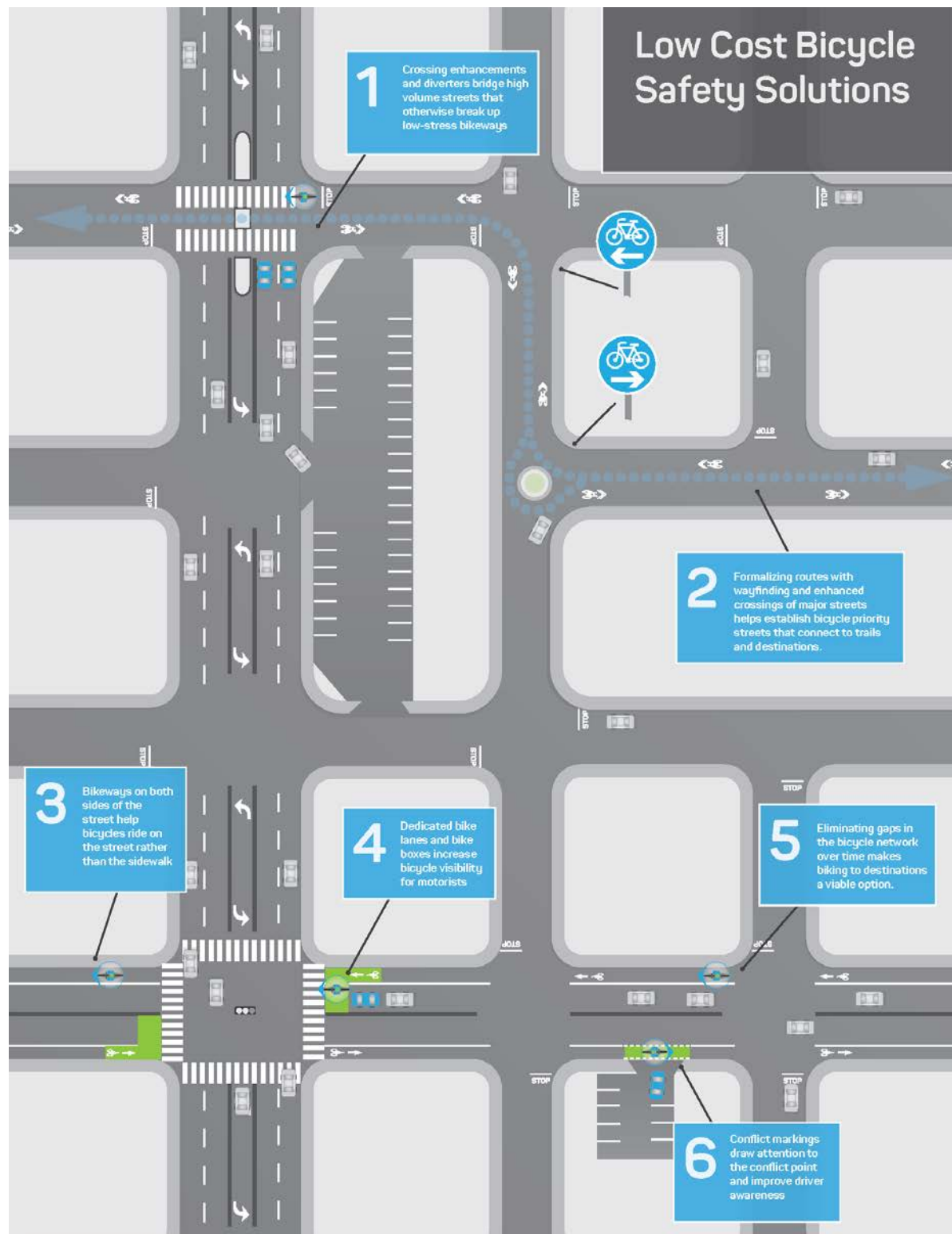


FIGURE 2-39

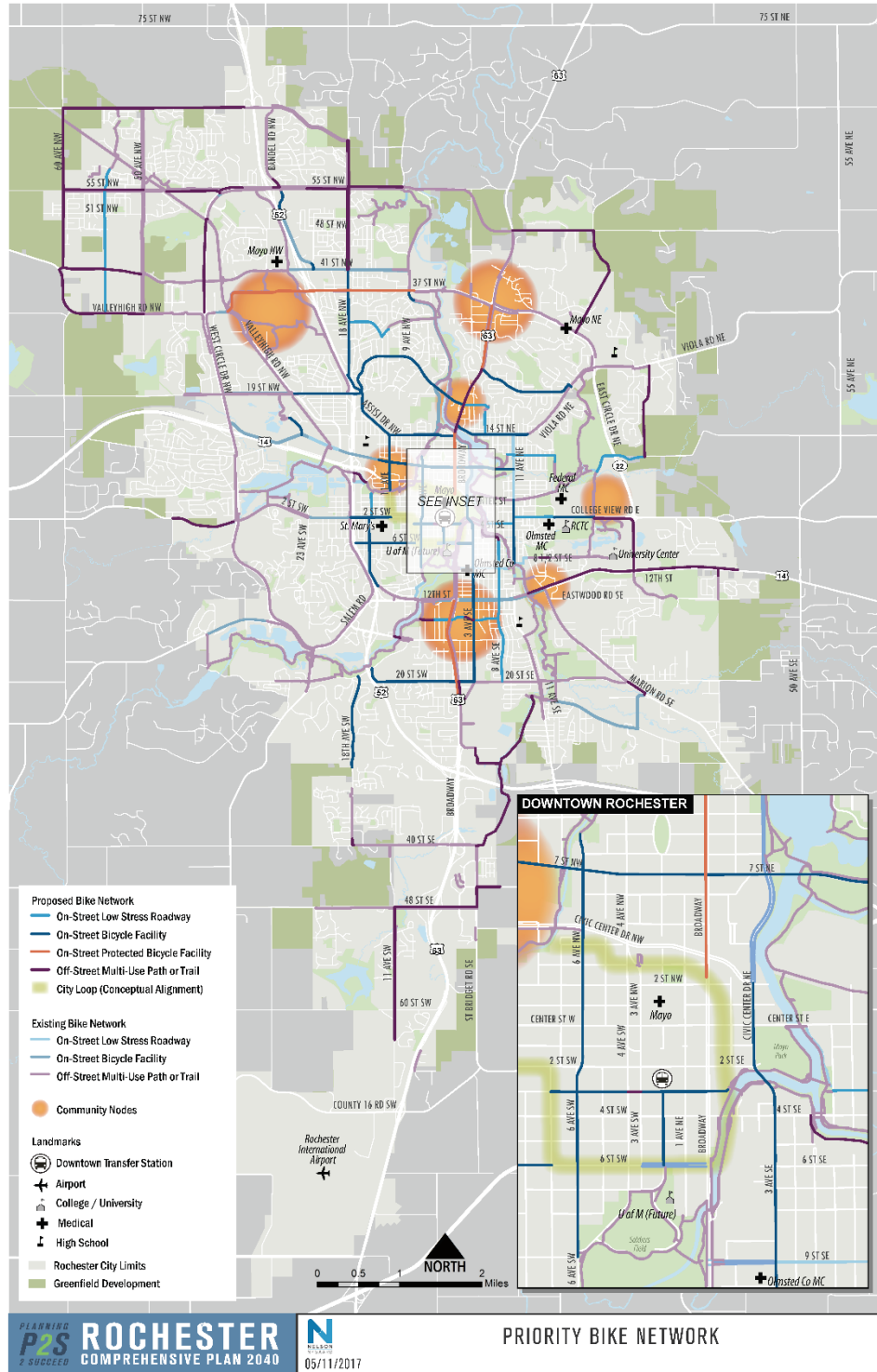


Priority Bike Network

Figure 2-40, the Priority Bike Network Map, identifies key corridors where improved bicycle facilities can provide important connections to envisioned transit oriented centers and nodes of development as well as other destinations throughout the city identified as part of the 2012 Bicycle Master Plan process.

The map identifies whether corridors are recommended to be served by on road or off road facilities given the constraints that exist, and for on-street facilities the level of separation from vehicle traffic that should be aspired to.

FIGURE 2-40: PRIORITY BIKE NETWORK



While this plan does not specify an actual facility type, the adopted Bicycle Master Plan provides guidance on appropriate design types to consider, and final design decisions will occur on a project by project basis as funding is identified a final project design work is completed.

Local Street Development Policy

Local city streets are needed in a variety of land use contexts to provide adequate access to private and public lands in the city. The most important vehicular function of these streets is to provide property access to residential or business properties located along these streets. Walking and bicycling is also a priority of equal importance along these streets, particularly in residential areas and near community facilities such as schools, and their design should support slower vehicle speeds and lower volumes to foster a safe and pleasant pedestrian and bicycling environment for residents. students and visitors.

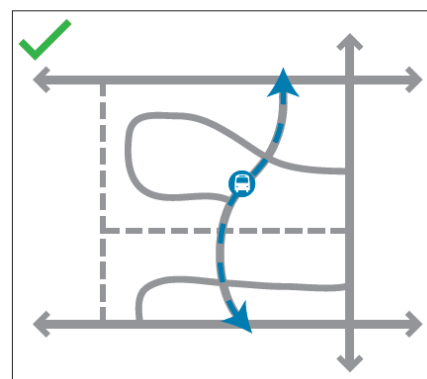
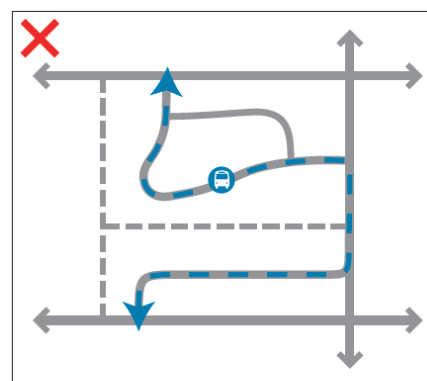
The alignment of local streets and local collector streets is established as part of the General Development Planning process required under the City of Rochester Land Development

Manual. The general need for local collector streets in new development areas is identified in the ROCOG Long Range Transportation Plan as part of the major street planning process in order to allow for consideration of access management needs along major collector and arterial streets.

Traffic speed and volume control can be influenced by local street design, and a high level of street connectivity can serve to discourage speeding, disperse traffic, and provide more route options for non-motorized travel. Conversely, uninterrupted continuity of local street alignments should be discouraged as they can lead to excessive travel speeds and unwanted cut-through traffic.

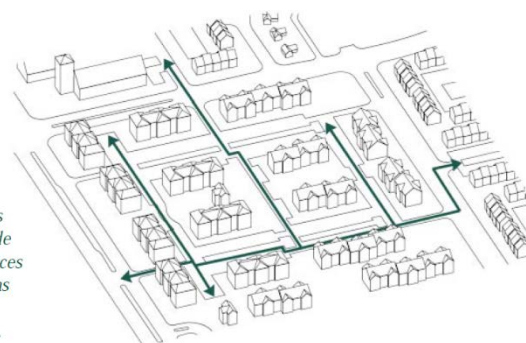
Principles of Local Street Design

In addition to promoting accessibility through encouraging interconnectivity, other principles that should be considered in the design of local street networks include:



Layout of road networks should be coordinated between subdivisions and neighbourhoods to eliminate backtracking or jogs and provide as direct a route as possible for transit vehicles.

- ▶ Local street systems and land-development patterns should support the safe flow of traffic on bordering arterial streets and generally distribute neighborhood traffic among several streets through creation of an adequate number of neighborhood connections to the major street system. Contiguous residential or business development areas served by a network of local streets and bounded by the major street network, should 1) provide spacing of connections to the major street system consistent with access management principles for the major street system, and 2) insure that any single street within a local development area does not bear a disproportionate volume of traffic exiting or entering the area. Where higher traffic volumes are anticipated, measures such as design of the street as a residential collector, alternative lot patterns to reduce direct access, and the introduction of traffic calming measures should be considered to mitigate impacts.
- ▶ Roads within a local street network should be designed to support slow speeds and safe intersections without the extensive use of traffic controls, regulations, and enforcement. Speed management principles should be considered in all development planning.
- ▶ The amount of land within a development area devoted to motor vehicle use should be minimized.
- ▶ The arrangement of local streets should permit economical and practical patterns, shapes, and sizes of development parcels.
- ▶ Roadway design should be considerate of and utilize natural topography from the standpoint of both economics and amenity.
- ▶ All streets should include sidewalks on both sides.
- ▶ Local street and collector networks should be highly connected to allow emergency services quick access to incident sites.
- ▶ Development areas should include connections to adjacent developments in order to limit the number of local trips between



Roads within developments should provide multiple choices of connections to collectors and arterials.

abutting development areas that are diverted to the major arterial system. All new development plans should provide for future public street connections to adjacent unplanned but developable parcels by providing local street connections spaced at intervals not to exceed 660 feet along each development boundary that abuts such lands.

TABLE 2-16: LOCAL RESIDENTIAL NETWORK DESIGN

<i>Design Measure</i>	<i>Guideline</i>
<i>Local Street Intersection Spacing</i>	300-800 feet without topographic constraints; 1320 feet maximum
<i>Require Street Stubs</i>	Yes; provide average of 1 connection every 66 feet
<i>Cul-de-Sacs Allowed?</i>	Yes
<i>Maximum Length for Permanent Cul-de-Sac</i>	Limit length to maintain traffic below 600 ADT
<i>Sidewalks Required</i>	Yes
<i>Street Connectivity Encouraged</i>	For subdivisions with over 125 lots, Index > 1.2 desirable
<i>Unimpeded Street Length</i>	1,200 feet if ADT < 500 900 feet if ADT > 500

- ▶ Internal street systems should provide adequate connectivity, creating internal routes to neighborhood destinations such as schools and parks and to major street system connections points, which will provide the added benefit of more route options for walking or biking to such destinations.
- ▶ To insure adequate connectivity within low density development for convenient and direct pedestrian and bicycle travel, the principles in Table 2-16 should be used as a guide to lot and block design and connections to non-motorized facilities along major streets.
- ▶ Plan for adequate multimodal accommodations in development by providing direct bicycle and pedestrian connections within and between residential areas and supporting community facilities and transit.

Acceptable Traffic Volumes Impact on Residential Streets

Street network or access proposed for new development should be designed to limit the amount of traffic on residential streets. Table 2-17 identifies the acceptable range of volumes on residential streets.

TABLE 2-17: RESIDENTIAL STREET VOLUME GUIDELINES

TRAFFIC FLOW (VEHICLES/DAY)	PEAK HOUR TRAFFIC FLOW (VEHICLES/MINUTE)	ACCEPTABILITY ON LOCAL STREET	ACCEPTABILITY ON COLLECTOR STREET
0 to 600	0 to 1.0	Excellent	(Reassess Function)
600 to 1200	1.0 to 2.0	Good	Excellent
1200 to 1800	2.0 to 3.0	Poor	Good
Over 2000	Over 3.0	Avoid	Poor

Right of Way Guidelines for Local Streets

Table 2-18 summarizes recommended guidelines for right-of-way and roadway width on local residential and non-residential streets and local collector streets in the City of Rochester. All streets are to include pedestrian facilities along both sides for all land use types, with little exception.

TABLE 2-18: ROW GUIDELINES FOR LOCAL STREETS

STREET CLASSIFICATION	SUBCLASS	WHEN TO USE	ROADWAY WIDTH (FT.)	RIGHT OF WAY WIDTH (FT.)	
Local Collector Streets	Industrial	Industrially zoned area where ADT > 1000 vehicles per day	44	66	
	Commercial	Commercially zoned area where ADT > 2500 per day	44	80	
	Residential		Streets designated as Residential Collector with parking on both sides	36	62
			Streets designated as Residential Collector with parking on one side	30	60
			Streets designated as Residential Collector with no on-street parking	26	56
Local Street Non-Residential	Industrial	Minor Street in industrially zoned area with C&G drainage	34	60	
		Minor Street in industrially zoned area with swale drainage	32	70	
	Commercial	Minor Street in commercially zoned area with C&G drainage and parallel parking	38	66	

Local Street Residential		Minor Street in commercially zoned area with C&G drainage and angle parking	60	85
		Minor Street in commercially zoned area with swale drainage	36	80
	Urban Conditions	Local Residential 2-way street with swale drainage	28	60
		Local Residential 2-way street with C&G and parking on both sides	32	60
		Local Residential 2-way street with C&G and parking on one sides	28	56
		Local Residential 2-way street with C&G and no on-street parking	24	52
		Local Residential Limited Local:2-way traffic with C&G; no parking and ADT < 300	22	50
		Local Residential 1-way street with C&G and parking on one side	20	44
		Local Residential 1-way street with C&G and no on-street parking	16	40
		Residential 2 lane parkway with landscaped median & parking	20 Each side	64
		Alley with C&G and no parking	20	20
	Rural	Local Residential Street with swale drainage and ADT < 300	20	60
Local Residential Street with swale drainage and ADT > 300		24	66	

Traditional Street Network Standards

The following paragraphs serve as a guide to local street design in compact urban residential neighborhoods. These guidelines provide support for the types of neighborhood street systems in the style of more traditional residential neighborhoods developed in the early years of the city where walkability was a primary consideration and neighborhood lot size and street patterns reflected little need to accommodate vehicular traffic. To facilitate this type of design, a set of alternative “Traditional Street” guidelines are identified. To utilize the alternate standards for “Traditional” residential street networks the proposed development should meet the performance guidelines in Table 2-19.

Where the performance criteria for establishing a Traditional Street Network are met for a proposed development, the following minimum roadway and right of way width guidelines can be utilized.

TABLE 2-19: CRITERIA FOR TRADITIONAL STREET NETWORKS

<i>Performance Measure</i>	<i>Performance Guideline</i>
<i>Connectivity Index</i>	Connectivity Index for the development must exceed 1.4
<i>Block Length and Block Perimeter</i>	Maximum block length of 600-700 feet or a maximum block perimeter of 1500-1600 feet
<i>Cul-de-Sac Length</i>	Maximum length of cul-de-sacs should not exceed 300 feet
<i>Pedestrian Connections to Major Streets</i>	Pedestrian connections to facilities along major streets should be provided every 300 to 500 feet
<i>Speed Management</i>	Features intended to moderate travel speeds are incorporated into the initial design on any continuous corridor over 1000 feet in length

TABLE 2-20: TRADITIONAL STREET RIGHT OF WAY GUIDELINES

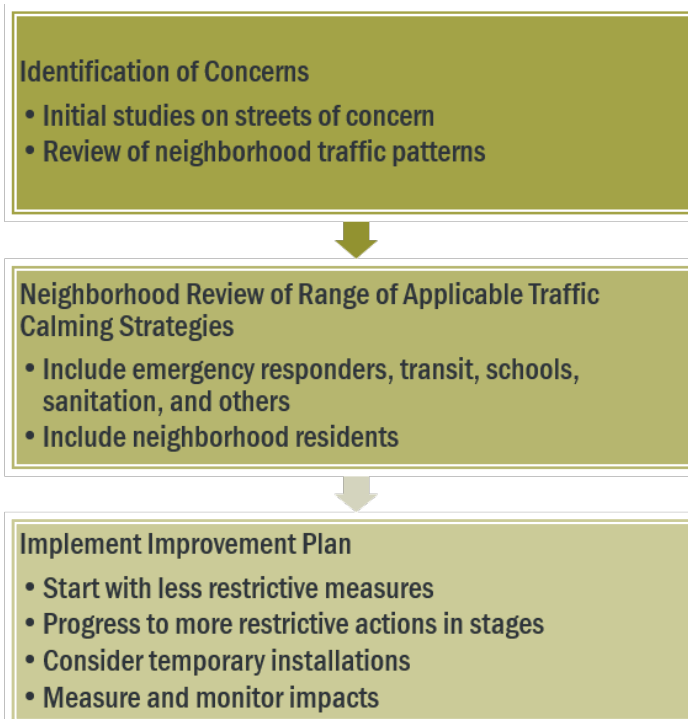
STREET CLASSIFICATION	SUBCLASS	WHEN TO USE	ROADWAY WIDTH (FT.)	RIGHT OF WAY WIDTH (FT.)
Traditional Neighborhood Design	Residential Streets	Streets designated as Residential Collector with parking on both sides	34	62
		Streets designated as Residential Collector with parking on one side	28	60
		Streets designated as Residential Collector with no on-street parking	24	54
		Local Residential 2-way street with C&G and parking on both sides	30	60
		Local Residential 2-way street with C&G and parking on one sides	26	56
		Local Residential 2-way street with C&G and no on-street parking	20	48
		Local Residential Limited Local:2-way traffic with C&G; no parking and ADT < 300	20	46
		Local Residential 1-way street with C&G and parking on one side	20	44
		Residential 2 lane parkway with landscaped median & parking	20 per side	56
		Alley with C&G and no parking	18	18

Traffic Calming

Issues of excessive speed and volume on conventional residential local streets can impact the public safety and welfare of a neighborhood. Traffic calming refers to the process of incorporating design features to moderate traffic speed or reduce cut-through traffic.

Rochester’s Neighborhood Traffic Management Program Handbook provides the framework and guidelines for selecting and prioritizing streets in neighborhood areas for installation of neighborhood traffic management devices. The guidelines ensure the fair, equitable and consistent treatment of community neighborhoods that is essential to address documented traffic concerns and prioritize the implementation of traffic calming measures. Procedural issues to be addressed should include those illustrated in Figure 2-41.

FIGURE 2-41: TRAFFIC CALMING PROCESS



Additional Local Collector Street Considerations

Local collector streets include neighborhood residential collectors or local collectors within business or industrial districts that provide the primary connection between local land use areas and the major street system and are designed to distribute traffic within a neighborhood, commercial district, or employment area. Multiple objectives must be accommodated in establishing these collectors, including connections between adjacent developments and with neighborhood activity centers as well as dispersion of traffic to major streets. While through traffic is discouraged, traffic generated from directly abutting neighborhoods is appropriate. These streets are different from streets classified as Primary Collectors, which function more like minor arterials and are considered part of the major street system.

Principles for Local Collector Street Design

The following principles should guide the alignment and design of local collector streets.

Performance features including acceptable traffic volumes on local residential collector streets are found in Table 2-16, recommended roadway and right of way width in Table 2-17, and connectivity and continuity of local collectors should be considered in combination with local streets under the principles listed in the initial paragraphs of this section. Additional considerations irrespective of significant topographic or environmental constraints, include:

- ▶ Individual property access is compatible with the function of local collector streets.
- ▶ The local street network should provide sufficient connectivity so that trips to destinations within a mile of origin could be made on the local and collector street system. Without this, short trips may be forced onto the arterial street system, reducing capacity on that system for through trips as well as local trips with a start or end outside of the immediate area.
- ▶ While local residential collectors are designed to discourage through traffic, traffic generated in abutting neighborhoods is not considered through traffic where these neighborhoods are not divided by a higher order street.
- ▶ Where the arterial street system is generally established on a one mile grid, there should be within the square mile a minimum of one East/West and one North/South local collector corridor provided for development proposed at the lowest residential densities (essentially creating ½ mile spacing). For curvilinear networks, the equivalent network density of 2.0 centerline miles of residential collector streets per square mile should be provided. At higher residential densities or where commercial, office or industrial uses are proposed, 1/3rd mile spacing of collectors or an equivalent network density of 4.0 centerline miles of residential collector street per square mile of land should be provided.
- ▶ Connectivity of collector streets in residential areas to the major street system is important for public transit and the provision of emergency services (police, fire and ambulance). Design and operational features should be used to balance the downside of uninterrupted route continuity with relatively direct connections to provide efficient routes for bus and emergency vehicle routing.
- ▶ Long segments of continuous local collector streets are not compatible with functional design of the street network. Long continuous collectors will encourage higher speeds and

through traffic, essentially turning them into secondary arterials. Ideally, collectors should be no longer than ½ to ¾ mile without the introduction of discontinuity into the route.

- ▶ The Plan assumes that not all collector routes will be pre-defined but will be established when the development patterns in an area are defined through a general development plan or a small area planning process. The ROCOG Long Range Transportation Plan provides additional guidance as to where collector street corridors are needed based on principles of network spacing.
- ▶ Residential Collector Streets should be located so as to connect to adequately spaced signalized intersections on major streets or at full median openings of divided roadways at a relatively uniform spacing of one-half to one-quarter mile (depending upon proposed land uses) in order to maintain good progression on the arterial network if future signalization is required. Residential collectors should be used as the development streets that will connect to future signalized intersection locations or full median openings along divided roadways.

All existing local collectors are two lane facilities and it is anticipated that future local collectors will also be two lane facilities except in limited instances where non-residential land uses served by a local collector may generate high volumes of traffic.

Travel Options & Parking Management

The P2S 2040 Vision for Rochester envisions a community with a range of transportation and housing options to meet the needs of a diversity of residents, commuters, and visitors. As Rochester continues to grow, demands on the transportation system and demands for parking will increase. The City has limited ability to invest in significant

KEY TERMINOLOGY

What’s the difference between **Travel Options** and **Transportation Demand Management**?

“**Transportation demand management**” or “**TDM**” programs reduce congestion in urban areas during peak times by shifting **HOW** and **WHEN** people travel through programs such as carpooling, high-occupancy vehicle lanes, transit passes, flexible work hours, and other strategies. “**Travel options**” programs and investments go beyond focusing just on peak commute travel in cities and recognizes that having transportation choices offered throughout the day and in all communities meets broader goals such as improved health, accessibility, and economy.

new roadway capacity due to the high cost of expanding roadways and the reduced buying power of transportation funding.

Developing viable options for peak period single-occupant travel and households wishing to reduce their transportation costs and ensuring people are comfortable using them is critical to achieve the land use and transportation vision described in this plan.

Travel Options programs encourage residents, commuters, and visitors to get out of the private automobile for more trips and provide opportunities for them to walk, bike, share rides, and take transit. These programs will require coordinated efforts – between the City of Rochester, the business community, educational and other institutions universities and area nonprofits – to provide education, information, incentives, and other resources to encourage alternatives to driving alone. Partnerships – particularly with the business community – are key to the success of any Travel Options program.

A particularly useful organizational structure for advancing the work associated with a Travel

What is a TMA?

Transportation Management Association

- A non-profit, member-controlled organization that provides transportation services in a particular area or district, with particular focus on more efficient use of transportation and parking resources to *support economic development*.
- TMA's are generally a public-private partnership, consisting primarily of area businesses with local government support.
- TMAs provide an institutional framework for programs and services and allow employers to collectively provide transportation services, which can create economies of scale, leverage and equity.

TMA's in Minnesota

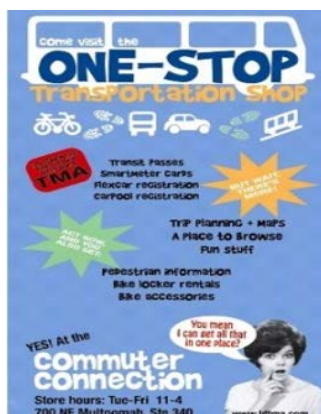
- Commuter Connection (Minneapolis)
- Anoka County TMO (Andover)
- Smart Trips (St. Paul)
- Edina TMA

Options program is a Transportation Management Association (TMA). A TMA is an organization that may be organized through a public agency program, a non-profit organization or a business community partnership for the purpose of delivering programs and services in a comprehensive manner Transportation

Demand Management (TDM) programs are a way for businesses and other institutions to individuals, private businesses and public organizations to encourage reduced driving. They employ multiple strategies that are complementary and coordinated, and typically include

THE TRANSPORTATION FRAMEWORK

initiatives to expand travel choice as well as incentives to reduce automobile travel. A clear mandate, ongoing institutional support, effective marketing, and a commitment to monitoring results are important aspects of successful TMA programs.

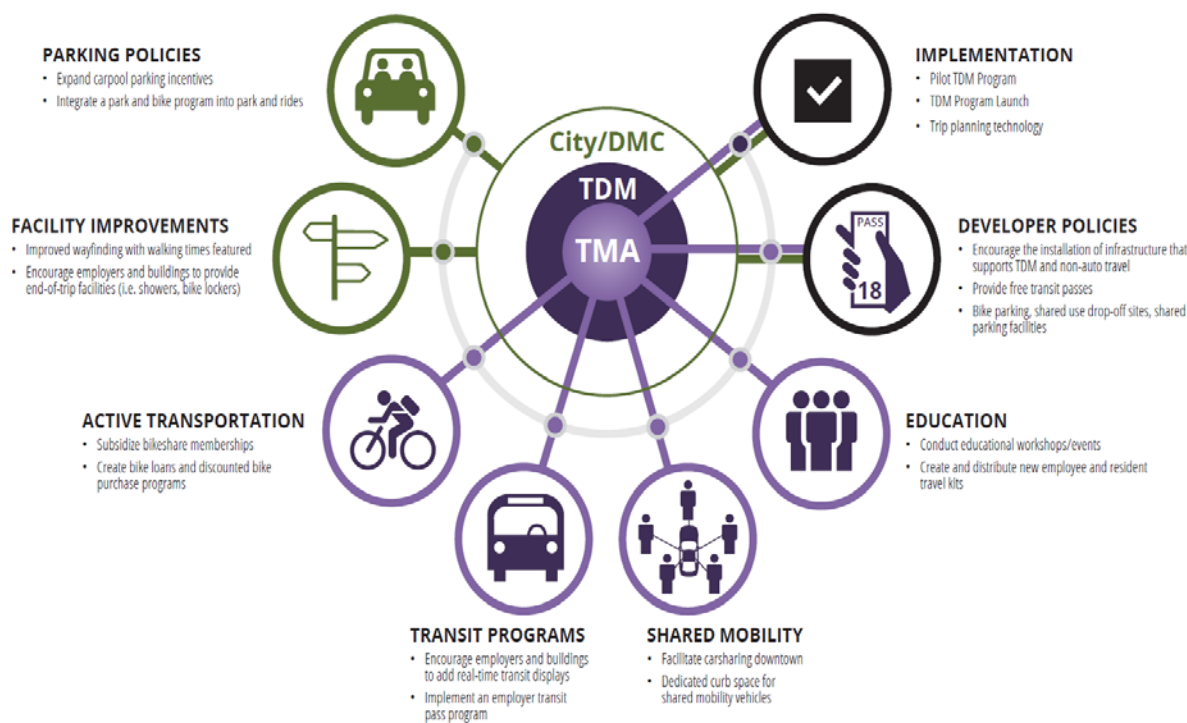


Types of services a TMA provides

- Transit Fare Programs
- Coordinated Incentive & Reward Programs
- Shared Parking Coordination
- Telework Support
- Parking Management
- Marketing and Promotion
- Individualized Commute Planning Services

As part of the DMC Integrated Transit Studies a partnership effort between the City of the Rochester, the DMC Economic Development Authority (EDA) and downtown businesses have led to the creation of a TMA to be known as **Arrive Rochester**. The City of Rochester is housing the TMA on an interim basis as part of the Public Transit and Parking Program until it is up and running and fully staffed. Subsequent efforts anticipated in 2019 include determining a

FIGURE 2-42: ARRIVE ROCHESTER PROGRAM ELEMENTS





permanent organizational home for the TMA and how to provide for the financial sustainability of the organization. As part of the work associates with the DMC Integrated Transit Studies, a vision for the range of services that will be provided by the TMA has been tentatively identified as

illustrated in Figure 2-42.

As part of the organizational efforts around setting up the TMA, a local employer survey was conducted to identify the level of interest in having various TMA programs and services available and employers' willingness to participate in offering such programs. Figure 2-43 indicates the results of this survey.

FIGURE 2-43: EMPLOYER INTEREST IN POTENTIAL TMA PROGRAMS



Figures 2-42 and 2-43 identify elements where the City will have primary responsibility for implementation. These include, in addition to managing responsibility of TDM related infrastructure, addressing the issue of parking policy. Parking policy is an important complement to any TMA/TDM program and its application is discussed in the following section.

Parking Management

Management of the downtown parking influences the character, vitality, and safety of downtown. Successful downtowns have long relied on an understanding that parking demand can be “managed” by making some transportation and parking choices faster, more convenient, easier, or cheaper. Our unique, vibrant downtown is surrounded by suburban style office, retail, and dining options offering their own unique virtues – which generally includes plentiful free parking. While competing with such locations on pure parking terms is unwise – playing to downtown’s strengths, including promoting a balanced multimodal transportation culture, maintaining viable on-and off-street parking options will remain an important component of downtown’s economic success.

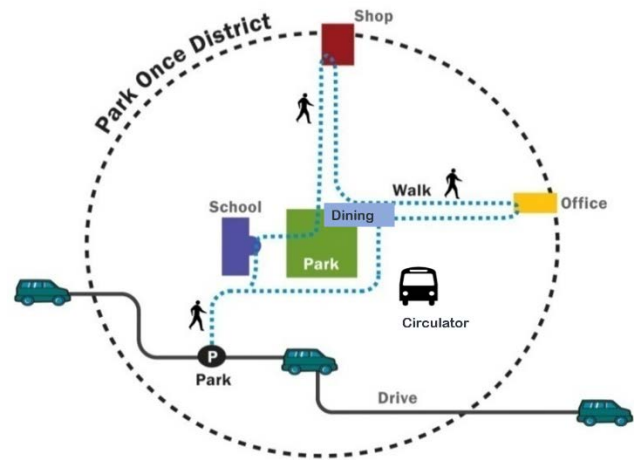


Planned growth in downtown Rochester will increase demand for all types of trips to and within downtown. How Rochester manages its parking system (both current and future supply) is fundamental to achieving the community vision set forth in this plan, the Rochester Downtown Master Plan, and the Destination Medical Center Development Plan. To accommodate increased travel demand and support for the adopted mode split goals for downtown access, a partnership between the City, transit providers, downtown economic development partners, and employers will be needed to develop a balanced vision for downtown access, recognizing a need to provide option for people beyond driving while at the same time accommodating those who must drive and park.

The Parking /Travel Options element of the DMC Integrated Transit Study provided the framework for an integrated parking/mobility strategy to support economic development and enhanced vitality in downtown Rochester. The recommended goals of that framework, which are recommended as the basis for the P2S 2040 Policy on Parking management, include:

- ▶ Ensure that those who drive the economy of downtown Rochester – Patients and their companions, retail/restaurant/business customers - have easy access to convenient parking.
- ▶ Ensure that parking and transit adequately serves all ages and abilities including those who are physically or medically challenged.

- ▶ Provide high quality facilities for those who choose to bike, walk or use transit to get to work reducing the need for parking in downtown.
- ▶ Provide employee parking in high quality multi-modal hubs that provide convenient access to work destinations.
- ▶ Encourage a “park once” philosophy for downtown encouraging patients, visitors and employees to walk, bike and use transit to access multiple destinations in downtown.
- ▶ Support 16-hour/7-day parking and mobility services that encourage retail, service, restaurant, and entertainment activities beyond the “8 to 5” workday.



Based on an original illustration by Walter Kulash.

The ITS Parking/Travel Options report went further to suggest a series of Parking Management Strategies to achieve these goals. Among the strategies that help to frame the approach to Parking Management include:

- ▶ Adopt a broader mobility management program development model centered around the concept of finding the most efficient strategy for moving people, not vehicles, in and out of the downtown.
- ▶ Expand the scope of the City’s Transit and Parking program by incorporating TDM strategies into the portfolio of services provided.
- ▶ Incorporate parking as a key element of a community-based economic development policy.
- ▶ Continue to evaluate demand-based parking pricing strategies in the future as a key element to support achievement of modal shift goals.

- ▶ Adopt changes to the city’s zoning code regulations that shift away from “parking requirements” in favor of a more flexible and mobility oriented approach that utilizes “access requirements” as the preferred methodology.
- ▶ Enhance the customer parking experience.
- ▶ Develop strategies to maximize the use of existing parking resources (both public and private), as well as aggressively promoting shared parking and demand management strategies.
- ▶ As new transit options evolve in the downtown area, adopt recommended “station area” design.
- ▶ Expand parking and TMA program branding, marketing, and community engagement strategies.
- ▶ Focus on curbside space management – this includes policy development for use of curbside space in the downtown core and potential parking districts.

Managing parking is probably the most effective means to manage vehicular access demand downtown as well as in newly planned transit oriented nodes and corridors associated with the Primary Transit Network. It is a key strategy to ensure that the vision of the Comprehensive Plan can be achieved and that parking facilities do not become a dominant land use in these areas. Parking management in Rochester will need to balance expected growth in demand, support adopted mode share and access goals, and support the continued development, vitality, and sense of place of the community.

The work of **ARRIVE Rochester**, the newly organized TMA for downtown Rochester, will be an important complement to parking management, providing information, resources for people to understand their transportation and parking choices, and incentives to try alternative transportation choices. Working in partnership with the Mayo Clinic, other employers and stakeholders, the TMA can help to incentivize travelers to shift all or part of their automobile trips to other modes. This can be done by increasing the availability of convenient, reliable travel options, setting appropriate prices for parking, providing information and marketing about available parking options, and using a market based approach to the allocation of parking.

Facilitating Travel Options with Mobility Hubs

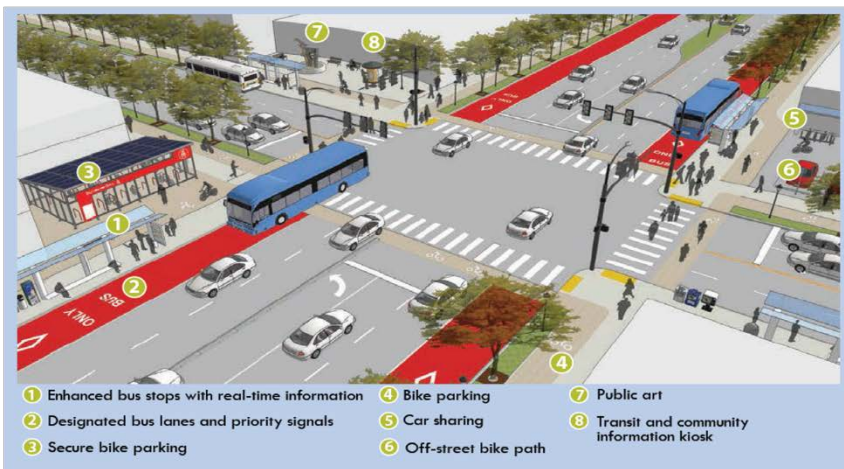
Mobility Hubs are nexus points that are intended to provide for the seamless integration of various transit and emerging mobility services to facilitate a wide range of linked trips. Travel options normally found at mobility hubs typically can include transit services, bike share, car/ridesharing loading

space and context sensitive parking supply. Mobility hubs also emphasize excellent pedestrian infrastructure to facilitate access from surrounding areas and to make transfers between modes as comfortable and seamless as possible.

The mobility hub concept originated as branded public spaces designed and programmed to integrate travel modes with information to guide trip planning and mode-selection. An initial emphasis on on-site information kiosks soon eased as smartphones became widely adopted.

The concept has proven broadly useful to call attention to points of intersection between two or more travel modes, and to reduce barriers to their use. Mobility hubs can include a variety of multimodal infrastructure components customized for their location within the transportation network, and they can range from simple to complex in their range of features. The newest adaptation for Mobility Hubs has been to add “Placemaking” elements such as public art, public seating,

Mobility Hubs can be created along streets...



...or integrated into parking structures



Mobility Hub Features

Bike Storage



Transit Waiting Area



Car Charging



Convenience Store



Bike Share



Car Sharing



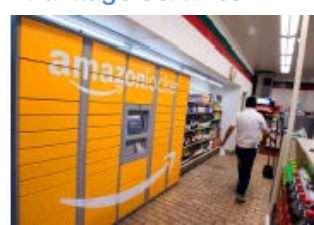
Kiss & Ride



Ticketing & Information



Package Services



and interior waiting areas that invite social interaction and vibrant business opportunities, which may include such opportunities as small markets, coffee shops or cafes, package delivery or automated banking kiosks. Mobility hubs may also serve as automated field offices for the local Transportation Management Association, with services such as kiosks to assist travelers with mobility planning or ticket and pass purchases.

From the beginning, parking has been a common component of mobility hubs. Depending on the place and circumstance, mobility hubs are typically viewed either as a means of reducing the need for parking, or as an opportunity to make use of existing parking facilities to facilitate non-driving travel modes for longer stages of a trip. In the former case, parking will be minimized, eliminated, or restricted to shared cars or ride-service vehicles. In the latter case, however, placing alternative modes and services near concentrations of parking can greatly increase awareness of the available transportation alternatives.

For Rochester, investments in mobility hubs respond to an opportunity to create an attractive, seamless interface between parking and transit infrastructure that will serve concentrated development in the central area of the city. Among the locations to consider as possible future hub locations are parking reservoirs that may be located near the edge of downtown, permanent park and ride facilities on major commuter corridors with highest level of daily travelers, and major transit oriented development nodes along the Primary Transit Network. In addition, to facilitate the planned multi-modal network serving downtown, a mobility hub within the downtown area would also be a priority.

Realizing the Benefits of Travel Option Programs

Programs that provide education, information, and resources to employees, visitors, and residents about available transportation options are most effective when focused on specific markets. Individualized marketing programs make travel options personal by engaging directly with residents and employees in a targeted area, with information and resources tailored to the needs and options in that area. New programs can be developed to inform the public about and maximize the benefit of new transportation investments, such as transit service enhancements, or as new development occurs.

Travel option programs can also be an important complement to capital investment projects, helping to manage vehicular travel demand during periods of extended disruption due to construction. Providing alternative travel options as part of a workzone management program can be used as a strategy to not only improve conditions during construction but as a way to expose individuals to travel options. Marketing efforts can also accompany new infrastructure projects (e.g., a new multi-use trail connection) and service investments (e.g., improved transit service on a given corridor) at the time of implementation. These efforts can be very effective when they are integrated into the planning and project development processes, and funding can be included in the project budget to help promote and educate potential users about new transportation choices.

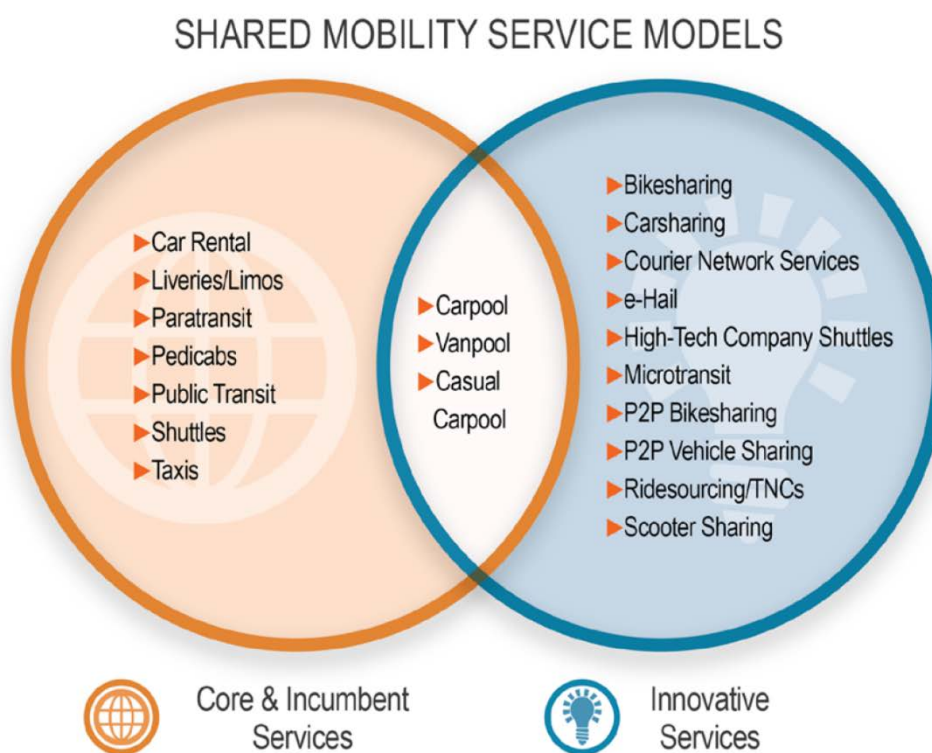
Consideration of commuter benefits, travel information, and assistance services should also be incorporated into the development review process as means to reduce the impact of new development on the transportation system. Incentivizing or requiring travel options programs as part of the development review process helps to ensure programs and supportive infrastructure are in place throughout the lifetime of a building. Travel options strategies can range from something as simple as one-time installation of bicycle or pedestrian supportive

amenities and infrastructure to developing a site based travel options program involving education, incentives, and services.

Shared Mobility Services

Many transportation services involving various modes of travel are available in the city of Rochester. These range from public services such as the local regular route bus service to various type of private services ranging from shuttle and commuter group services to newly emerging point to point services provided by individuals to individuals. Figure 2-44 illustrates the array of travel services available, ranging from the traditional types of Core and Incumbent services such as public transit to the ever-broadening range of emerging and innovative

FIGURE 2-44: THE CURRENT LANDSCAPE FOR MOBILITY SERVICES



Shared Mobility Service Models				
Membership-Based Self-Service Models	Peer-to-Peer Self-Service Models	Non-Membership Self-Service Models	For-Hire Service Models	Mass Transit Systems
<ul style="list-style-type: none"> • Bikesharing • Carsharing • Carpooling • On-Demand Ridesharing • Scooter Sharing • Vanpooling 	<ul style="list-style-type: none"> • Bikesharing • Carsharing 	<ul style="list-style-type: none"> • Bikesharing • Car Rental • Casual Carpooling 	<ul style="list-style-type: none"> • Courier Network Services (CNS) • Liveries/Limousines/Pedicabs • Ridesourcing/TNCs • Taxis/E-Hail 	<ul style="list-style-type: none"> • Public Transportation • Micro and Alternative Transit Services (including Microtransit, Paratransit, and Shuttles)

services such as car sharing and ride hailing. Various service models also exhibit different organizational structures, from for-hire services to self-service models, public services, and various types of membership models.

The emergence of a growing array of emerging services has been enabled by new communications technology, which is influencing travel choice today through the provision of applications that provide information about and access to transportation resources as well as efficiency applications to help people make informed decisions about travel modes.

Mobility services have just begun to provide people the opportunity to rethink how they travel for different purposes; it is possible over time that different travel markets may gravitate to certain service models as costs, efficiencies, and benefits of different services become more apparent. There will likely always be a need for a higher capacity transit type service to serve certain travel markets, while other low ridership, low frequency trip making will benefit from demand responsive type of services.

With the ascent of shared mobility over the last decade as people across the country realize the benefit in distributing the costs of ownership across multiple subscribers. It can offer new options for beginning or end of trip connections to transit, support resident and visitor mobility to/from mixed use nodal developments, and help Rochester achieve its downtown commuter mode split goals by providing new ways of reaching and travelling within downtown.

What is the City's Role in Emerging Shared Mobility Markets?

Many organizations such as the National League of Cities as well as larger cities that seeing the leading edge of change as emerging mobility services become more common have put much thought what this means for the way the cities do business in the area of transportation and the kinds of actions municipalities may need to consider to ensure Shared Mobility seamlessly blends into the transportation ecosystem. Figure 2-45 lists a number of emerging practices and strategies that communities are considering to ensure new mobility services provide good value to the residents and visitors of a city. New partnership models are emerging wherein certain services can help to address gaps in travel service. At the same time, there is interest that Core & Legacy mobility services have the opportunity to operate on a level playing field with new emerging services. It will be important for Rochester as the new Shared Mobility economy starts to establish itself that the strategies and actions suggested in Figure 2-45 are considered.

TABLE 2-21: EMERGING PRACTICES AND STRATEGIES FOR SHARED MOBILITY FOR MUNICIPALITIES

CATEGORY	EMERGING PRACTICES AND STRATEGIES
Data Access and Sharing	<ul style="list-style-type: none"> Negotiating access to shared mobility usage data Involving third-parties to coordinate data sharing Including data sharing provisions in partnerships and regulatory agreements
Regulating Use of Public Infrastructure	<ul style="list-style-type: none"> Establishing guidelines for use of the public right-of-way Regulation of pick-up/drop-off zones for ridesourcing/TNCs
Strategic Planning	<ul style="list-style-type: none"> Scenario planning and visioning to grapple with uncertainty Shared mobility planning programs
Operational Partnerships	<ul style="list-style-type: none"> Partnerships to enhance public transit service Partnerships to enhance ridematching, carpooling, or vanpooling services Policies for public agency promotion of shared mobility services
Publicly Operated Shared Mobility Services	<ul style="list-style-type: none"> Public microtransit pilot projects Public ridesourcing/TNCs to complement or optimize transit
Integrating Shared Mobility into Modeling and Forecasting	<ul style="list-style-type: none"> Incorporating shared mobility in travel surveys Collecting data continuously Using off-model approaches to estimating shared mobility impacts
Technical Assistance to Member Local Communities	<ul style="list-style-type: none"> Developing model templates for regulations and agreements MPOs as forums for convening local governments and transportation agencies

Among the areas where public agencies will have a key role relative to the growth of Shared Mobility services is in addressing the following consumer and community issues

- ▶ **Health, Safety, and Consumer Protection** | Local and state governments have established administrative regulations, ordinances, and laws that may require insurance, driver physicals, and/or the disclosure of factual information to provide transparency about services and/or prevent the dissemination of inaccurate or misleading information.

- ▶ **Taxation** | The role of tax incentives and taxation on shared mobility, such as rental car excise taxes, sales taxes, and commuter tax breaks, is an issue for local authorities.
- ▶ **Insurance** | Insurance limits and requirements for shared modes are key problems for state, local, and regional governments, particularly among P2P vehicle sharing and on-demand ride services.
- ▶ **Parking and Access to Rights-of-Way** | Local governments have been addressing the key issue of managing on-street curb space for shared modes, including equity issues pertaining to the use of public space for a private business or non-profit purpose, as well as competing operators and modes.
- ▶ **Signage and Advertising** | Local authorities play a key role in regulating the signage and advertising of shared modes.
- ▶ **Multimodal Integration** | Local and regional governments need to consider the role of public transit operators in advancing multimodal integration with shared modes. Local and regional governments also often investigate the role of fare integration and public transit discounts in mitigating obstacles, such as technological barriers, lack of integration within existing transportation systems, skepticism regarding multimodality, and age-dependent travel limitations.
- ▶ **Data Sharing, Privacy, and Standardization** | It is critical for local and regional governments to develop best practices that identify data standards and balance data sharing (open data) and privacy among individuals, companies, and public agencies.
- ▶ **Accessibility and Equity Issues** | Local governments and public agencies are impacted by reporting trends in shared mobility as they relate to accessibility, including how public agencies and shared mobility service providers define, measure, and address equity for low income households, older adult mobility and disability access.

Summary: Travel Options and Shared Mobility Services

A paradigm is emerging that suggests social, economic, and technological trends will converge sometime in the next decade or two to disrupt mobility as we know it and create the potential for change in urban transportation. Whereas cities considered to be the most advanced in terms of transportation sustainability today emphasize public transit, encourage cycling and

walking, and integrate land use and transportation in the form of transit oriented development, the addition of shared mobility, vehicle autonomy, and electrification of vehicles in the future will likely change how people move about cities.

In more immediate terms, e-hailing companies are already operating all over the United States,

Strong partnerships that make it easy to blend public transit and private mobility will likely produce the best solutions. Why does this matter? Because getting mobility right could be a significant competitive advantage for cities. Policy makers also need to rethink how to finance transportation to support a more realistic balance between operations and capital funding, with the current capital emphasis that favors large and expensive infrastructure, even when it may not represent the optimal or most cost-effective solution for users or regional economies.

and services such as car sharing and on-demand shuttles, while small today, have found consumer acceptance—which is the key to getting bigger. To reap the full benefits of the new-mobility revolution, city leaders and policy makers will need to embrace and nurture the transition. Leaders need to expand their view of transportation policy beyond highways to include the whole

suite of areas related to the complex future of transportation in an urbanizing world.

Commercial Transportation

Adequate Infrastructure to support commercial activity and manufacturing is a key element of the City’s economic development vision. Regional truck routes, the Rochester International Airport, and freight rail service represent important transportation connections to the larger regional, national, and international markets served by local businesses.

While the regulation and planning of commercial transportation services are primarily the responsibility of state and federal agencies, the City of Rochester is committed to ensuring an adequate transportation network is available that supports commercial shipping and customer needs. This system will provide, adequate transportation access, limited encroachment by incompatible land uses, and operational safety to minimize conflicts between users of the Rochester transportation network.

Freight Network Service Considerations

Adequate access | Freight service in the Rochester area is anchored by a network of 9 and 10-ton truck routes illustrated in Figure 2-44, primarily on roads owned by the State of Minnesota and Olmsted County, supplemented by privately owned rail lines, and the Rochester International Airport owned by the City but operated by a private management company. The City of Rochester supports these networks by providing ‘first and last mile’ truck route connections on city streets to provide access to suppliers, manufacturers, and other commercial destinations throughout the community. Important considerations include ensuring that freight and commercial passenger connections are safe, reliable, and in a state of good repair. The City has an interest in ensuring reliable travel times and predictability to commercial transportation providers. Working with private partners, manufacturers, and logistics companies, the City can ensure all parties are aware of construction delays, major development projects, and any changes to the transportation system that might impact deliveries. Proactive construction management can reduce truck idling and air quality impacts, and lessen impacts on local businesses. Local policies need to consider adequate and accessible commercial loading zones for local business delivery.

Land use compatibility | The City of Rochester also plays a role in protecting commercial transportation facilities and intermodal transfer sites from incompatible land uses that could compromise freight operations. For example, normal commercial operations generate noise that might result in complaints if residential developments were allowed near existing commercial transportation facilities. The Canadian Pacific Railways east/west freight corridor and the Rochester International Airport are examples of areas within the community where commercial and industrial uses adjacent to these facilities should remain to buffer any nearby residential use.

Ensuring operational safety | Rochester is committed to ensuring that commercial freight movement does not conflict with the safety of other roadway users, including passenger vehicles, buses, bicyclists, and pedestrians. Truck delivery and intermodal transfer activity can create conflicts with other street users. Temporal strategies for deliveries and spatial strategies to create effective, low-conflict pick-up and drop-off zones can mitigate these potential issues. New or redesigned streets with significant truck traffic will need to be designed to move both people and freight safely and reliably.

Freight rail service is provided by Canadian Pacific Railways through mainline sidings and a spur-line. While uncertain if train traffic levels will increase in the future, areas where railroads cross local streets at grade will need to be closely monitored.

Intermodal Transport Functions

Intermodal transport functions refer to passenger or freight transportation that involves multiple modes of transportation to complete common trips within a certain travel market segment. In the case of passenger transport, the most common form of intermodal travel is referred to as mixed-mode commuting, which involves using two or more modes or facility types—such as private vehicles combined with park and ride facilities and some type of shuttle service for the last leg of the trip. Similarly, intermodal freight transport will involve transportation in an intermodal container or vehicle across multiple modes (truck, rail, air, ship) with limited handling of the freight itself. The goal of any type of intermodal transport is to combine the strengths (and offset the weaknesses) of various transportation options.

Intermodal transport in the context of personal travel occurs in many forms including transit centered trips linked with driving, biking, or walking or vehicle based trips linked with walking (such as from commuter parking locations to workplaces). Throughout the Plan, these issues have been discussed in the context of concepts such as mobility hubs, the need for safe and convenient “last mile” connections to work or schools, and transit accessibility. In terms of intermodal freight movement, truck route interfaces with both the rail system and, more importantly, cargo shipping activities at the Rochester International Airport, are matters needing periodic attention during the course of road system planning or facility planning such as the Airport Master Planning process.

AN INTERMODAL SHIPPING EXAMPLE

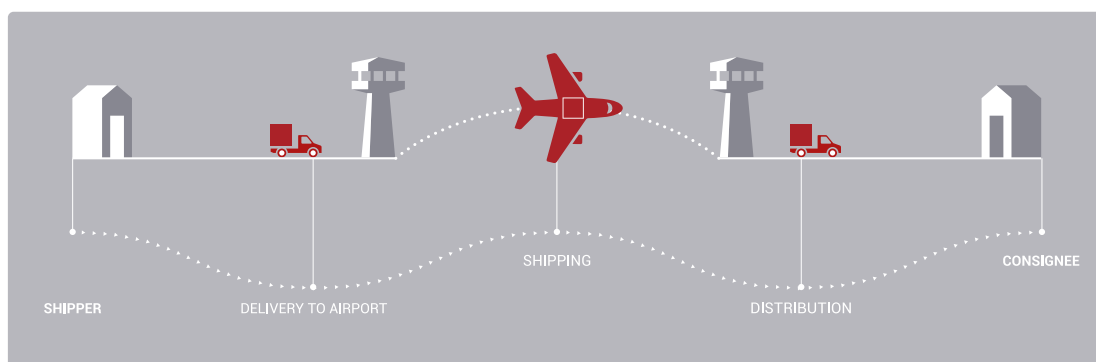
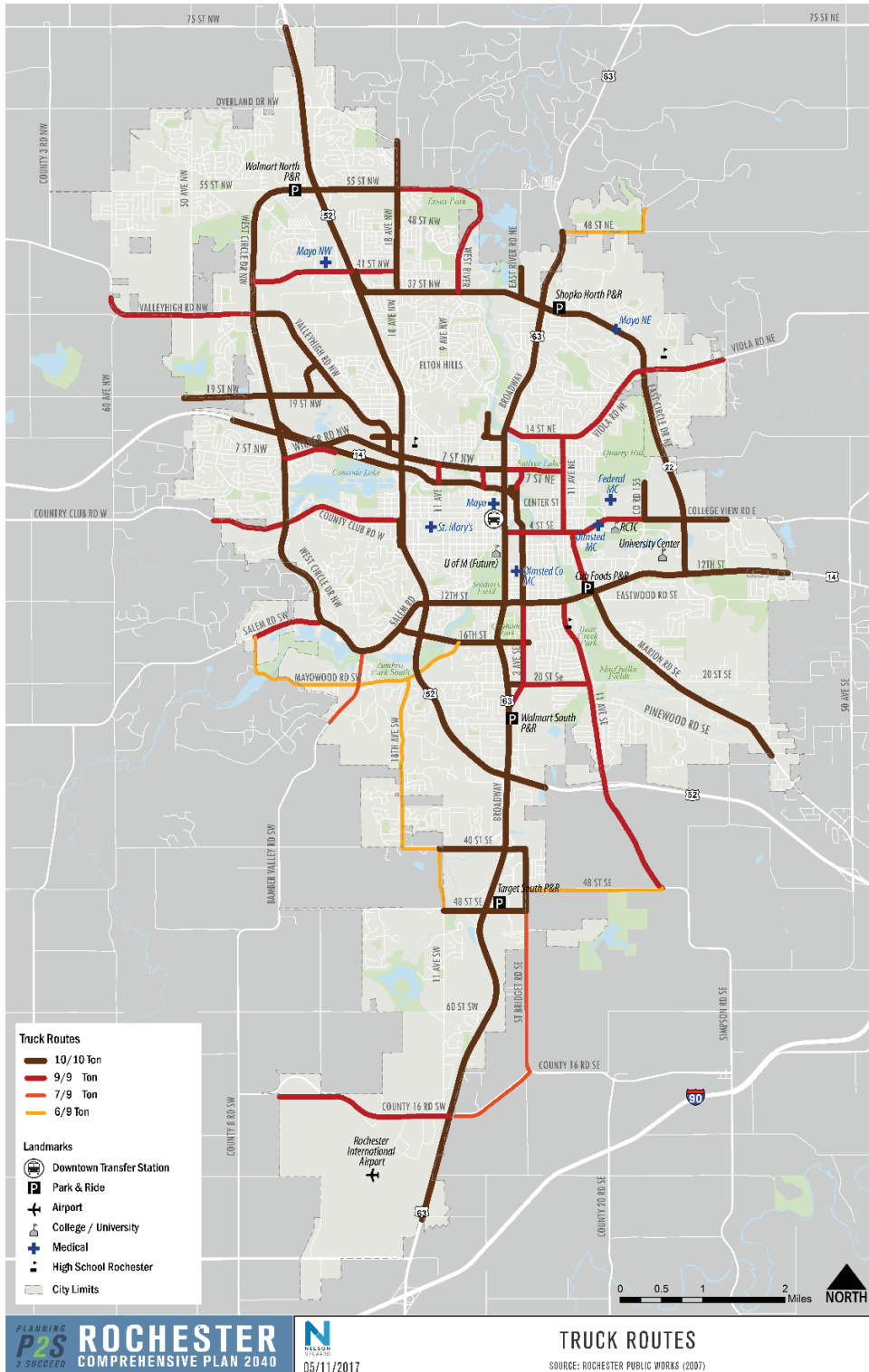


FIGURE 2-45: EXISTING TRUCK ROUTE NETWORK/ROCHESTER AREA



Rochester International Airport (RST)

The Rochester International Airport is the third busiest commercial airport in Minnesota, following the Minneapolis-St. Paul International Airport and Duluth International Airport. RST employs almost 300 people and is a significant contributor to the local economy.

Currently, RST is served by Delta, American, and United Airlines for commercial flights and FedEx for cargo flights. In 2015, RST served about 226,000 commercial flight customers.

In 2007, the last Airport Master Plan for RST was completed to study infrastructure needs and provide guidance for future development. The master planning process revealed that the demand for RST services will continue to increase but at a moderate rate. To meet this demand, the master plan included 60 short-term and long-term improvements for the airport layout. The plan was approved by the Federal Aviation Administration and the Minnesota Department of Transportation's Aviation Division, many of which have been completed in the intervening decade. Work on an updated Airport Master Plan began in 2017 to update anticipated service and capital needs for the future. Accommodating and encouraging growth at RST helps to generate more economic activity in Rochester and the surrounding region. A key part of the approach to fiscal sustainability for the airport will involve continued development of the Airport Business Park with an expanding list of tenants.





Section 3 | Putting the Plan to Work

Part 1 | City-Wide Growth Patterns

While the previous sections of this plan have chronicled its vision for the community, the principal purpose of P2S 2040 is to provide goals and policies that serve to turn this vision into a reality. Community members, business leaders, City staff, and government officials can look to this guidance when planning for current and future growth. P2S 2040 will be used to make decisions about proposed ordinances, programs, and capital budgets, particularly as they relate to land use and transportation. Finally, P2S 2040 will recommend an implementation strategy that will help us put our boots on and get to work to realize our collective vision.

The City of Rochester must ensure sufficient land, transportation systems, and infrastructure are available to sustain economic opportunities and strive to achieve a balance between residential, industrial, commercial, institutional, natural, and recreational land uses in the city through land development policies and decisions. Application of the Plan's goals and policies are intended to meet the following objectives:

- ▶ The Comprehensive Plan shall be the City's lead overall policy guide for the growth and development of Rochester. All other City plans related to the City's growth, development, and infrastructure should support and be consistent with the policies of the Comprehensive Plan.
- ▶ The City will encourage development and infrastructure to occur in a contiguous manner in order to accommodate growth in an orderly and economical fashion. This policy may be waived and services extended beyond the Urban Services Boundary if service extension is necessary to protect the public health, safety, or welfare due to imminent public health or environmental threats.
- ▶ The policies of the Plan are intended to create places, streets, and public spaces that in aggregate meet the needs of people at all stages of life and are visually attractive, safe, accessible, functional, and inclusive by providing for
 - The preservation of the character of existing single family residential neighborhoods;
 - Downtown as a major mixed use, high intensity center with a growing residential population, expanded entertainment and cultural options, and an entrepreneurial environment for economic innovation and employment;

- An interconnected green network of parks, paths and trails, passive open spaces, and recreational facilities that support the community’s social and environmental goals;
 - Support for the revitalization of underperforming or declining development areas through infill and redevelopment;
 - Creation of an integrated network of walkable, transit oriented development nodes with sufficient residential and employment density to anchor higher frequency enhanced bus service in the short term and support a transition to a high-quality Bus Rapid Transit service over time;
 - Strategic redevelopment opportunity areas based on Transit Oriented Development principles along a Primary Transit Network that will anchor the physical revitalization of these corridors;
 - A diversity of housing choices facilitated through new development on greenfield sites as well as infill and redevelopment in targeted areas;
 - Concentration of industrial use in a few major locations to protect such areas from the intrusion of incompatible uses and provide adequate separation and buffering from residential uses;
 - High-quality transit service as a basic and necessary component of the region’s transportation system in an increasingly competitive arena for attracting employers, linking businesses to workers, and maintaining a high quality of life; and
 - Appropriate transitions from higher density and higher impact land uses to lower density and lower impact land uses.
- ▶ P2S 2040 will strive to encourage new development, redevelopment, and infrastructure investment to promote healthy communities and active lifestyles by providing or encouraging enhanced bicycle and pedestrian circulation, access, and safety along roads near areas of employment, schools, libraries, and parks.
 - ▶ P2S 2040 will strive to encourage new development and redevelopment towards a more compact land use pattern to expand housing and transportation choices while supporting

the efficient provision of public services, improving the performance of transportation networks, preserving open space, and reducing the negative impacts of low intensity and non-contiguous development.

Part 2 | Goals and Policies

GOALS are broad statements that define our community’s hopes and vision of the future.

POLICIES, on the other hand, are more specific statements of intent that begin to define the approach to achieving the goals. The following goals and policies are rooted in the Community Vision 2040 Core Principles, and Key Strategies expressed in Section 1 of this plan. It is recognized that these goals and policies are intended to be carried out to the maximum extent practicable.

Goals and Policies

<p>1. Utilize urban area growth strategies to guide sufficient, efficient, and cost-effective development.</p>
<p>1.1. The boundary of the Rochester Urban Service Area (RUSA) will generally remain as configured in this Plan, but limited amendments can be considered according to established criteria.</p>
<p>1.2. Require annexation of unincorporated areas within the City’s Urban Services Boundary as a prerequisite to receiving urban services. This requirement may be waived and services extended beyond the Urban Services Boundary if service extension is necessary to protect the public health, safety, or welfare due to imminent public health or environmental threats.</p>
<p>1.3. Focus growth in areas adequately served by existing or planned utility infrastructure, such as sanitary sewer and water.</p>
<p>1.4. Utilize the provision of public facilities and services to direct development in desired directions consistent with this Plan, where it can be adequately served by critical public facilities and services such as water, sewer, police, transportation, schools, fire, stormwater management, and parks.</p>
<p>1.5. Approve development only when the appropriate transportation, water, stormwater, and wastewater infrastructure is in place or programmed to be in place concurrent with the development.</p>
<p>1.6. Provide a low-maintenance, cost effective water system that serves the City’s residents and businesses with high quality and affordable potable water for daily consumption and fire demand.</p>

1.7. Utilize a sustainable stormwater management system to reduce or maintain existing runoff, control flooding, and maintain surface water resources.
1.8. Continue to invest in a reliable, sustainable, and affordable municipal power system.
1.9. Use a data driven approach to ensure the long-term sustainability of existing systems by utilizing system condition and capacity inventory data, rating and risk assessment, and unit cost estimates to evaluate and prioritize City infrastructure investments and inform decisions on development patterns by looking at impacts on the network as a whole rather than in isolation.
1.10. Maintain a Future Land Use Plan and map that clearly identifies the preferred location and distribution of use types and desired density/intensity of use necessary to implement this Plan.
1.11. Utilize the Future Land Use Plan and map as the basis for zoning implementation.
2. Increase Rochester’s housing diversity and supply.
2.1. Support all people having fair and equal access to adequate affordable housing, now and in the future.
2.2. Establish a diverse, community-wide mix of housing types that meets the needs of all residents.
2.3. Support housing in locations that contribute to a neighborhood identity, a sense of community, and a welcome and inclusive residential environment.
2.4. Avoid creating isolated residential developments in locations that are not part of a larger neighborhood, compromise community values, or communicate unwelcomed or marginalized standards as a means to provide lower cost housing.
3. Maintain the community’s commitment to health, wellness, and the environment. (Note: Section 1 contains a more detailed description of how to achieve the following policy statements.)
3.1. Employ a “health in all policy” approach to major policy and implementation decisions.
3.2. Improve household access to healthy food.

3.3. Support active and healthy living through design and investments in the built environment that will provide access for all people to multi-modal transportation choices, parks and open space, and recreation opportunities.
3.4. Improve the water quality of groundwater, creeks, rivers, wetlands, and lakes.
3.5. Reduce emissions generated from electricity through changes in supply as well as consumption.
3.6. Support the use of green infrastructure as a means to improve health and environmental sustainability.
3.7. Ensure that our built environment and social structures are designed to promote public safety throughout our city.
3.8. Engage with residents to create a safe, welcoming environment in all neighborhoods for persons of diverse age, ability, race, ethnic, and economic backgrounds.
4. Use a Development Vision to define the city's character.
4.1. Create people-oriented places as an integral component of the urban development process.
4.2. Support preservation of structures and sites that represent our community's heritage.
5. Integrate land use and transportation planning.
5.1. Ensure that transportation decisions, strategies, and investments are coordinated with and support the City's land use policies and the objectives of this Plan.
5.2. The physical organization of land uses and associated activities in the city will support a framework of transportation options that balances access and mobility, safety, quality of life, and the ability to provide adequate emergency response throughout the city.
5.3. Work towards reducing the <u>rate</u> of growth in vehicle miles of travel and dependence on the private automobile.
5.4. Land use planning decisions, management strategies, and incentives will support and be coordinated with the City's transportation vision.

6. Develop Node and Corridor based Transit-Oriented development opportunities.

6.1. Mix housing, employment, recreation, retail, and small civic uses within Transit Oriented development nodes along a Primary Transit Network to create a variety of destinations with an active street environment throughout the day

6.2. Support safe and convenient multi-modal transportation options; promote walking, biking, transit use, and consider features for accommodating emerging transportation technologies through incorporation of pedestrian-friendly design principles and transit-supportive density patterns in Transit Oriented Nodes and along the Primary Transit Network supported by investment in transit features such as increased frequency of service and transit service advantages such as signal preemption and high-quality stations.

6.3. Encourage development in nodes and corridors to include amenities that create a pedestrian-oriented environment and provide safe and secure places for people to sit, spend time, and gather.

6.4. Ensure appropriate transitions are made between mixed-use node and corridor areas and adjacent residential neighborhoods.

7. Create and maintain neighborhoods attractive to current and future residents.

7.1. Provide selective investment and supportive regulatory measures that reflect the stability or need for revitalization that exists in individual neighborhoods across the city.

7.2. Accommodate growth in newly developing neighborhoods of the city based on mixed-use development principles featuring a variety of housing types that further the vision of this Plan.

7.3. Encourage a compatible mix of housing options, community-serving institutional uses, and neighborhood-oriented retail or service uses within the neighborhoods surrounding downtown.

7.4. Design neighborhood streets that will serve local transportation needs, enhance safety, and contribute to the creation of a livable neighborhood environment.

8. Accommodate a greater share of future urban growth using infill and redevelopment techniques.

8.1. Infill and redevelopment within residential areas will be compatible with the established character of the neighborhood and will set an enhanced standard for quality in areas where transformative change of block level areas is deemed appropriate or the desired character of the neighborhood is not yet established.

8.2. Implementation of the City’s vision will require an increased emphasis on infill and redevelopment, placing a priority on reinvestment in areas where infrastructure capacity already exists and revitalization of underutilized areas to accommodate a significant share of new growth.

8.3. The City will encourage infill and redevelopment of strategic areas through actions including capital investment, public incentives, and modification of development procedures and practices to reduce and resolve barriers to infill development and redevelopment.

8.4. Stimulate the revitalization and redevelopment of Rochester’s underperforming commercial corridors and centers through the use of targeted economic development tools, zoning and use regulations, public investments in infrastructure, and incentives.

9. Ensure new development is compatible with the surrounding area and community.

9.1. Address transitions between areas of differing types of activity and scale of development so that new development opportunities within the existing urban fabric are implemented without adverse impacts on local character and appearance.

10. Maximize the social, cultural, and economic potential of the urban center.

10.1. Create a vibrant, economically healthy downtown that serves as the civic, economic, educational, and cultural center of the city and region which is walkable, livable, and promotes human interaction.

10.2. Increase the amount and range of housing choices available in Downtown and adjacent neighborhoods.

10.3. Set a high standard for the quality of urban design, building design, and construction in Downtown, especially in the CBD, by promoting building design and character that enhances the image and form of Downtown, while providing appropriate transitions at the edges of

Downtown, and protecting and preserving the scale, character, and architectural quality of historic places and buildings.
10.4. Develop design guidelines that carry forward the vision, design principles, desired character and development objectives stated in adopted plans for Downtown, recognizing that the design guidelines may set higher standards for the CBD than for the periphery of Downtown.
10.5. Downtown Rochester should be well served by the broadest range of transportation options, including infrastructure for bikeways, buses, greenway trails, roadways, sidewalks, and local transit circulators, with an emphasis on bicycle, pedestrian, and transit circulation and safety.
10.6. Manage traffic and parking impacts Downtown by establishing Parking and Travel Demand Management guidelines and programs that encourage travel by a variety of modes and minimize the amount of valuable downtown real estate devoted to long term, low turnover parking use.
10.7. Coordinate various Downtown public parking resources, including parking garages, surface parking lots, and on-street parking into a seamless system for primarily meeting the needs for short term, high turnover parking for customers, visitors, and event attendees.
10.8. Move toward coordinated management of parking and travel demand reduction programs based on a public-private partnership approach, with emphasis on shared use of parking facilities and the use of parking pricing to right size the amount of new parking supply needed downtown.
11. Develop a comprehensive transportation system.
11.1. Offer residents, commuters, and visitors safe and attractive choices for local travel including bikeways, pedestrian walkways, public transportation, and roadways as well as an entrepreneurial environment that will attract emerging shared mobility services.
11.2. Develop and implement policies and programs to aid in achieving mode shift targets for employment trips to and from the downtown.
11.3. Collect, track, and report data on aggregate commuting and travel trends to determine movement toward mode shift targets and inform policy.
11.4. Maintain and enhance the current level of travel network connectivity.

<p>11.5. The functional classification and street typology of the road system should guide the design and use of streets and highways in order to protect the community’s investment in the transportation infrastructure.</p>
<p>11.6. Provide, support, and promote programs and strategies aimed at reducing the percentage of car trips and miles driven (for work and non-work purposes) to increase the efficiency of the transportation system and reduce demands on the downtown transportation system.</p>
<p>11.7. Work with developers to maximize the positive impact of new development on the downtown transportation system.</p>
<p>11.8. Support development of a mobility platform that pushes real-time transit, rideshare, vehicle sharing and other mobility service data to web and mobile platforms to connect users to a variety of information about transportation options.</p>
<p>11.9. Multiple modes of safe, affordable, and convenient travel will ensure mobility for people of all ages and abilities. Multiple travel modes will make it easy to choose transportation options that support a healthy lifestyle. Innovative travel modes will be accommodated through flexibility in transportation system development.</p>
<p>12. Enhance the local transit network.</p>
<p>12.1. Create an environment in which transit can compete as a viable transportation choice and thereby increase ridership and reduce auto trips and parking needs.</p>
<p>12.2. Provide transit stops within easy walking distance of most residences and destinations. Design and locate transit stops as an integral part of these origins and destinations and provide adequate accessibility, lighting, security, pedestrian amenities, bicycle parking, and weather protection.</p>
<p>13. Establish a Primary Transit Network (PTN).</p>
<p>13.1. Develop the Primary Transit Network to provide high frequency/high quality transit travel opportunities linking major activity centers and districts in the city as well as connections to regional travel services such as park and ride locations. Priority segments for implementation include North and South Broadway, 2nd Street SW, and 4th Street SE.</p>
<p>13.2. Promote land use density and urban design that supports transit, as well as walking and bicycle access to transit along PTN corridors.</p>

<p>13.3. Include amenities and other infrastructure in PTN corridors to specifically promote bicycling, the use of mass transit, and walking.</p>
<p>13.4. Prioritize the highest level of service feasible on the PTN and incrementally improve service and extend the PTN as funding and the evolution of land use along the corridor permits.</p>
<p>14. Improve Rochester’s bicycle network to accommodate users with different skills and abilities.</p>
<p>14.1. Make bicycling a safe, easy, and convenient mobility option for users of all ages and abilities.</p>
<p>14.2. Increase bicycle safety through education, enforcement and physical measures to increase awareness among cyclists, motorists and pedestrian of desired behaviors and actions in an increasingly multi modal environment.</p>
<p>14.3. Enhance supporting facilities and services to make bicycle travel more convenient and improve in-trip and end-of-trip service quality. Identify actions and program projects to improve complementary accessory uses for bicycling.</p>
<p>14.4. Identify and secure funding for long-term maintenance of bicycle facilities, infrastructure, and ongoing education and outreach programs.</p>
<p>15. Enhance Rochester’s walking infrastructure and conditions.</p>
<p>15.1. Pedestrian facilities will provide a safe, easy, and convenient mobility option for people of all ages and abilities within a 10 to 20-minute walking distance of their trip origins. Connections will create a continuous and seamless pedestrian system, with amenities to create an attractive pedestrian environment.</p>
<p>15.2. Improve the city’s system of sidewalks, trails, and paths to form a complete pedestrian network that links residents, visitors, and workers across the city to transit, schools, workplaces, parks and trails, civic facilities, and other activity centers.</p>
<p>15.3. Promote compact, walkable development patterns.</p>
<p>15.4. Improve safety and security at key pedestrian activity locations where conflicts exist.</p>

16. Facilitate safe, efficient motorized travel.
16.1. Provide a safe and cost-effective roadway network that will provide reliable travel times for regional and local traffic within the limits of fiscal and environmental constraints.
16.2. Manage the impact of automobiles within the framework of a multi-modal transportation system to insure safety for all users and sensitivity to the local land use context.
16.3. Manage traffic to improve traffic flow and mobility through a balanced approach that emphasizes lower cost management strategies and respects other community values.
17. Enhance Park & Ride/Commuter Services.
17.1. Expand the use of park-and-ride facilities to reduce demand for vehicular travel on key roadways that serve as major gateways to downtown and to reduce the demand for downtown parking facilities.
17.2. Increase the use of regional transit or shared mobility services for commuters or day trips into Rochester by expanding the availability of services that provide regional accessibility.
18. Embrace and nurture shared mobility services and innovation.
18.1. Leverage existing and new partnerships to maximize technological opportunities, raise awareness of programs/services, and offer improved and new cost-effective programs/services for underserved populations or captive markets.
18.2. Experiment by implementing small-scale pilot projects which are limited in scope but may have the potential to make an outsized impact in the pursuit of new travel solutions that work for residents, workers, or visitors to the city.
19. Incorporate design considerations as an integral component of transportation system development.
19.1. The city's streetscapes will be designed with consideration given to the visual character and the experience of users and adjacent properties, recognizing the layout of the street network and the streets themselves contribute to the character, form, and scale of the city.

<p>19.2. Ensure that the design of all non-local streets incorporates Complete Streets features, <u>as appropriate</u>, to facilitate compatibility between different modes of travel, including bicycling, driving, public transit, and walking.</p>
<p>19.3. Transportation infrastructure will be designed to be sensitive to the surrounding land use context.</p>
<p>20. Maximize the benefits of transportation investment and maintenance.</p>
<p>20.1. The City will be a responsible steward of transportation resources by integrating land use and transportation investment to create affordable, accessible, low energy, low impact, and efficient development patterns.</p>
<p>20.2. Use a “fix it first” strategy whereby the City’s top priority for investment of transportation dollars is to maintain existing roadway, transit, and pedestrian/bicycle systems to ensure safe operation and long-term preservation of existing assets to maximize useful life.</p>
<p>20.3. Capital projects will support the goals of the Comprehensive Plan, city related elements of the ROCOG Long Range Transportation Plan, and various City modal plans.</p>
<p>20.4. As development occurs, concurrent transportation investments should be made to support increased demands for travel.</p>
<p>21. Facilitate convenient and efficient commercial movement of people and goods to and throughout Rochester.</p>
<p>21.1. Support regional industry and local business and provide area residents with high quality commercial transportation services.</p>
<p>21.2. Actively participate in conversations with other local municipalities, the State of Minnesota, and regional leaders to collaborate on upgrading regional transportation infrastructure to support Rochester’s economic goals.</p>
<p>21.3. Protect the long-term viability of the Rochester International Airport as part of the City’s multi-modal transportation system.</p>
<p>21.4. Promote safe and efficient rail service to and within the Rochester area.</p>

In 2012, the **Comprehensive Plan Policy on Affordable Housing and Diversity**, originally adopted as part of the Comprehensive Plan in 1999, was adopted as part of the Rochester Urban Service Area Land Use Plan. This updated and revised form serves as a reaffirmation of the City’s commitment to an inclusive community made up of integrated neighborhoods. Since the Land Use Plan is now incorporated into the P2S 2040 document, this policy will also carry over; its full text is found in the following section.

Comprehensive Plan Policy on Affordable Housing and Diversity

The Need for Affordable Housing

The City of Rochester is suffering from a critical shortage of affordable housing (housing that, through subsidy or other means, costs no more than 30% of the household income of households earning 80% of the area’s median income). The proportion of households in Rochester paying more than 30% for housing has increased from around 20% of households in 2000 to over 27% in 2010. There were 11,430 households in Rochester paying over 30% of income for housing in 2010.

However, this understates the true extent of housing need. The true long term costs of affordable housing to the tenant or owner or the community can be represented using an index made up of

H - The initial Housing construction or purchase cost is reflected in the rent or mortgage payment. Housing costs (excluding furnishings, supplies, and utilities) made up 21.9% of consumer expenditures in the U.S. in 2009. (Adding utility costs brings the housing cost share up to 29.3%.)

E – The cost of Energy used to light or heat the apartment or house and the cost of energy used in travel. Utilities (electricity, heat, and so on) comprised 7.4% of total consumer expenditures in the US in 2009. Energy is one of the most volatile components of total housing cost Energy codes have come a long way in the last 25 years, but there can still be huge difference between the best and the worst of construction. As a general rule, multifamily housing will always be more efficient than single family detached housing.

A - The Associated costs, sometimes in the form of an association fee but more commonly showing up as maintenance, averaged 2.3% of consumer expenditures in 2009. The long term

maintenance cost is typically inversely correlated with the upfront housing costs (H). Cheaper construction carries with it higher long term maintenance costs and higher life-cycle costs. Using interior and exterior materials that are designed to last no more than 10-15 years will reduce the upfront price but increase the life-cycle costs.

T - The final component of examining the true cost of affordable housing is transportation (T). The energy cost of transportation and the costs of vehicle ownership, insurance, maintenance, and so on add significantly to household budgets, averaging 15.6% of U.S. consumer expenditures in 2009. Over the last decade public agencies have started to reflect the cost of transportation as part of the true cost of affordable housing. Most medium to large sized cities have the transit capacity to locate affordable housing in places that potentially eliminate all or most of this expense. By providing affordable housing opportunities in mixed use, mixed income, transit oriented areas we can create an environment where resources and opportunities are present without the need for expensive transportation options. The location of housing significantly affects transportation costs; correspondingly, providing for transit service and mixed use development can significantly improve the affordability of housing.

In addition to associated costs that pertain to the resident, there are associated costs incurred by the city or other taxing authorities contributing to the cost of a project or absorbing costs as a result of a development. Such costs may include subsidizing new infrastructure such as roadway, water, sewer, or stormwater infrastructure. By examining the total Housing, Energy, Associated, and Transportation costs, we can make a better determination as to whether or not housing is truly affordable.

Many of the jobs that are created by area employees rely on workers working at moderate wage rates. According to a number of economic forecasters, the major impediment to the continued economic growth of the Rochester-Olmsted community will be difficulty in attracting the labor force needed to replace retiring baby boomers. The ability of employers to attract workers is adversely affected by the shortage of truly affordable housing.

The Need for Integration

Some neighborhood groups have opposed affordable housing proposals based in part on concerns about increased traffic, increased crime, and adverse impacts on property values. Opposition to affordable housing in areas adjacent to established neighborhoods threatens to exclude affordable housing from newly developing areas. Such exclusion may result both in a

shortage of affordable housing as well as in a community that is segregated by income class. Segregation by income class may lead to de facto segregation by race in our community. Continuing to curtail the supply of sites for affordable housing in fringe locations will jeopardize the supply of affordable housing and will result in concentrating affordable housing in a few heavily impacted neighborhoods.

The 21st Century Partnership Diversity Task Force Report discusses the need to increase the supply of affordable housing and the need to provide affordable housing in scattered locations throughout area communities. Evidence from a number of national studies confirms that scattered subsidized and other lower cost housing development does not adversely affect adjacent areas. On the other hand, studies indicate that segregating lower cost housing in a few neighborhoods clearly destabilizes those neighborhoods, leading to declining housing stock quality, declining performance in neighborhood schools, and other social problems.

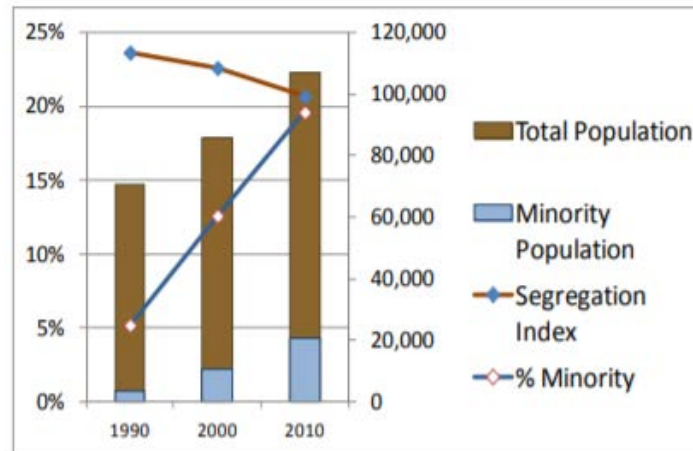
We are at a crossroads in our community. We can design our future to consist of integrated neighborhoods with an adequate supply of housing in a variety of price ranges. Or we can design our community to consist of concentrated pockets of lower cost housing isolated from the remainder of the community. The experience of other cities in the US clearly indicates that integration is the more desirable future.

Dividing our community either by income or by race fosters inequity, isolation, barriers to communication, and ultimately divisiveness. Income class segregation, even without corresponding race segregation, is inimical to the long term cohesiveness of our community and to our quality of life. Community segregation leads to family, neighborhood, and ultimately community instability.

What is true of income class and race is also true of other groups within the community. Separating the elderly and the disabled from neighborhood life inappropriately isolates these residents from community life. Our challenge is to build a community made up of inclusive neighborhoods that provide safe, secure, and neighborly environments in which all of us can thrive.

Segregation is measured using a statistic called the “dissimilarity index,” adjusted for random variations introduced by the size of the geographic unit used and the size of the minority population whose segregation is being measured. Using the census tracts that make up the Rochester/Four Township area (roughly equivalent to the Rochester Urbanized Area), we can

measure and track trends in race/ethnicity and income segregation over the past few decades. In comparison with other metropolitan areas, Rochester’s levels of segregation are relatively low. The following chart shows trends in minority population and minority segregation since 1990.



Despite a very large increase in the minority population over the preceding twenty years, by 2010 levels of segregation for minority populations (nonwhite and/or Hispanic taken as a whole) had actually declined. Income segregation (as measured by the dissimilarity index for persons in poverty) has stayed relatively constant over the period at around .32 to .35.

Implementing Rochester’s Diversity Policy The City of Rochester is committed to building an inclusive community. To this end, the City of Rochester is committed to:

- ▶ Supporting the Olmsted County Human Rights Ordinance and the work of the Olmsted County Human Rights Commission in implementing the Ordinance;
- ▶ Supporting low income tax credit housing and other subsidized housing of high quality, in locations that are accessible to employment, neighborhood amenities, and commercial services.
- ▶ Supporting well designed private development proposals that include townhouses, condominiums, apartments, and appropriate commercial uses as part of neighborhood development areas.

GOALS AND POLICIES

- ▶ Enforcing minimum standards for housing and enforcing such ordinances as the Disorderly Use Ordinance in order to address neighborhood concerns about crime and potential impacts on property values.
- ▶ Increasing the supply of land zoned for lower cost housing, especially providing for mixtures of housing by style and cost.
- ▶ Providing for neighborhoods that are integrated by income class, race, ethnicity, age, and ability, and that are accessible to all modes of travel by all age and ability levels.
- ▶ Providing incentives to developers to accommodate affordable housing up front as part of well-planned neighborhoods.
- ▶ Communicating to neighborhood groups and community members
 - that lower income households are not equivalent to lower quality families
 - that the "goodness" of a neighborhood is not measured by the price of its structures but by the character of its residents, and
 - that the quality of a community is not measured by the degree to which it is exclusive.
- ▶ Encouraging neighborhood organizations to create a welcoming environment in all neighborhoods for persons of diverse age, ability, race, ethnic, and economic backgrounds.

Measures of Effectiveness

- ▶ For affordable housing: vacancy rates for owner and renter occupied housing, the share of households paying more than 30% of income for housing costs, the estimated share of households paying more than 45% of income for HEAT costs, and the ratio of housing costs to median income.
 - ▶ For the enforcement of minimum standards of housing and crime-free neighborhoods, police calls and housing violation data.
 - ▶ For segregation, the "dissimilarity index," adjusted to reflect population size and minority proportions (in this case, low income and racial and ethnic minorities) in the community.
-

The adjusted index is a measure of the evenness with which two groups are distributed across the Census tracts that make up the Rochester Urbanized Area. The closer to zero the index gets, the more equal is the distribution of majority and minority populations.

Part 3 | Implementation

Introduction

P2S 2040 establishes a broad vision for Rochester over the next 25 years. The community now must take on the task of implementing realistic strategies to translate the words and images into a physical reality. The adoption of P2S 2040 is the first step in the implementation process. Continuing action to implement the Plan will be needed for it to have lasting impact. At one level, P2S 2040 will be used to guide private and public development by using the policies to determine public investment priorities and to act as a general framework for future development. The policies of the plan will also be used to assess the appropriateness of proposed development projects, including zoning actions. All elements of the Comprehensive Plan come into play when assessing development applications, including both the narrative policies and applicable maps. Through this, P2S 2040 provides the flexibility to address changing conditions and adapt to new situations that may not be anticipated today.

This implementation element describes how the policies and actions recommended in P2S 2040 should be carried out. It addresses how the day to day administration of the development review process and linkages between the Comprehensive Plan and the Capital Improvement Program activities need to be updated or adjusted to reflect the policies of the Plan. It should be noted that previously adopted design guidelines and overlay districts associated with existing subarea and corridor plans will remain in effect and continue to be applied, although these will need to be reviewed and adapted to function within the framework of P2S 2040.

P2S 2040 is also intended to work in concert with the City's various functional master plans, including the Parks and Recreation Master Plan, the Long Range Transportation Plan, and other service and utility master plans. Implementation of P2S 2040 will require coordination and alignment between P2S 2040 and these other plans to ensure a common vision and consistent policy recommendations.

What follows is a set of targeted actions necessary to begin to implement P2S 2040 over the next one to three years. Actions are organized under the umbrella of the Plan's key elements, primarily the Land Use Framework and the Transportation Framework. This component should be reviewed annually and updated as needed to direct future planning management activities related to city planning.

Performance Measures and Fact-Based Analysis

The principles and policies of P2S 2040 are shaped by the community's vision for future growth and development. This vision is grounded in a fact-based analysis of existing conditions and future needs. Citizen surveys of community priorities, a land demand and transportation systems analysis, and buildout study were some of the tools employed as part of this planning process to create a reliable picture of Rochester's challenges and opportunities, and where it might be headed in the future.

Successful implementation of the Plan will require ongoing analysis and review to evaluate where the community's vision is being successfully fulfilled and where challenges remain. To assist in this, the City should develop the tools needed to measure and monitor progress towards achieving the goals of the Plan. In order to track the city's progress toward creating a more compact and connected community, specific benchmarks should be identified and efforts should be undertaken to measure changes over time in the overall pattern and intensity of development, transportation performance, and the provision of services that the residents and visitors of the community have identified as important.

Implementation Priorities

Because P2S 2040 is a guide, the City relies on other tools such as the Land Development Manual, the annual operating budget, and the Capital Improvement Program to implement the Comprehensive Plan. Priority actions outlined below are intended to focus the City's efforts and resources on actions that should be taken as soon as possible to ensure that future decisions are aligned with the goals and policies contained in this Comprehensive Plan. The actions outlined are not intended to address steps needed to implement each and every policy contained in P2S 2040; rather, they should be viewed as reflective of the city's highest priorities related to the Plan for the next one to three years. Some of these actions may reflect the continuation of ongoing City efforts and partnerships, while others represent movement in an altogether new direction for the City as a result of the planning process. This list of actions should be reviewed and updated periodically to reflect the City's accomplishments, available resources, and potential shifts in policy direction.

The policy structure is intended to transfer important decisions about how a place should look, feel, and function to the long-term planning stage. Changes to development regulations should

identify what is needed and desired and develop a clear set of strategies or standards to guide private investment and development. To this end, important follow-up elements will include:

- ▶ Updated zoning regulations
- ▶ Transit supportive development standards
- ▶ Urban design policies/standards
- ▶ Travel demand management strategies
- ▶ Density incentives
- ▶ Coordinated land use and transit implementation phasing
- ▶ Other infrastructure phasing and prioritization
- ▶ Tools to enhance aesthetics

The Stability and Change Map (Figure 2-10) and the Development Vision Map (Figure 1-2) do not carry specific policy implications and only acquire the force of policy via references to these maps in the P2S 2040 policy statements. The intent is to implement the vision for growth and connectivity illustrated in these two maps through specific policy tools, such as the Future Land Use Map, and through amendments to the City's ordinances, such as the adoption of special overlay districts to implement the preferred development pattern in specific areas of the city. Likewise, the designation of centers does not carry with them any recommendations for specific uses, heights, or densities for particular parcels, and will be used by the City only as reference points during the review of any zoning map amendment or development plan review.

Priorities Related to the Land Use Framework

Review and Update the City of Rochester Land Development Manual (Ordinance #2785)

The City of Rochester has a history of amending its zoning and land development regulations to address changes in state or federal laws or as emerging technologies or development trends might merit different guidelines and standards. State zoning laws require that zoning regulations be consistent with a community's comprehensive plan.

Subsequent to adoption of this plan, it is recommended that updated zoning regulations be adopted to reflect the policies of the Land Use Framework and to implement the vision of this Plan. It is the intent that one or more zoning districts can be applied to categories within the Future Land Use Map. For example, parcels in a transit supportive corridor could be zoned for higher intensity commercial or residential use. More desirably, they could be zoned for mixed use corridor development, which would provide for the greatest diversity of use.

A review and update of Rochester’s zoning and land development regulations should include the following components:

- ▶ Update the Land Development Manual to better reflect the future land use map classifications and associated land use recommendations to provide for higher-quality development and more predictability for residents, property owners, and developers.
 - ▶ Develop new tools in the Land Development Manual to provide additional flexibility and guidance related to the goal of encouraging compact, mixed use development in targeted areas.
 - ▶ During the update of the development regulations, consider changes to existing zoning districts or the creation of new districts that will result in development patterns that implement the City’s land use policies for more walkable, transit supportive, and compact development. Consider the use of minimum densities and requirements for more integrated mixed-use development.
 - ▶ Develop a series of mixed-use zoning districts to promote a more transit-supportive pattern of development. Include design approaches where appropriate to achieve designed outcomes including placemaking and location identity. This may take the form of new Transit Oriented Development (TOD) district(s) or overlay zone(s) to encourage transit supportive uses and development practices along the Primary Transit Network and at key development nodes located along the PTN. Among the features this may include are:
 - Setbacks, buffering, urban and site design requirements, and architectural guidelines within designated TOD centers and corridors to ensure compatibility with adjacent residential neighborhoods and encourage dynamic communities;
 - Incentives for residential development in TOD districts to support pedestrian and/or transit accessibility goals and to promote housing diversity and affordable housing
-

choices for households within and in the immediate area around transit corridors;
and

- Updated parking standards for residential and non-residential uses that recognize the availability and capacity of transit service.
- ▶ Reexamine standards for parking in downtown Rochester to reflect recognition of the availability and capacity of transit service, availability of alternative commute modes, access to off-site and on-street parking facilities, and the availability of joint-use parking in mixed-use areas.
- ▶ Consider incentives that offer a more clear and sure path to development entitlements.
 - Create a regulatory environment to promote the redevelopment of brownfields and grayfields into compact, mixed-use, and walkable environments by:
 - Developing design expectations and objectives to be achieved;
 - Increasing development rights through changes in regulations, density bonuses, and other incentives;
 - Revising parking requirements that promote walking, biking, and transit;
 - Providing assistance in securing funding for redevelopment;
 - Ensuring appropriate transitions to less intensive residential areas; and
 - Expediting the permitting and approval process for developments meeting the design expectations and primary objectives.

Small Area Plans

The preparation of area-specific planning studies is recommended for parts of the city where detailed direction or standards are needed to guide land use, economic development, transportation, urban design, and other future physical planning and public investment decisions. The focus should be on areas and corridors that offer opportunities for revitalization or new residential, commercial, and mixed-use development and redevelopment, as well as areas with challenges or characteristics requiring place-specific planning actions and public interventions. Small area plans will provide more detailed land use and development guidance

for targeted areas around the city. These plans must be grounded in the community-wide vision and conform to this Plan, ensuring the “big picture” and systems are not lost when focusing in a small geographic area of the city. Initial areas on which to focus include:

- ▶ Conduct small area master plans for key nodes and corridors aligned with the highest priority segments of the Primary Transit Network. The following areas should be considered for near term small area master planning:
 - A recent corridor study for North and South Broadway was completed that focused on roadway configuration, traffic management, and complete street configurations. Additional planning should focus on land use and redevelopment opportunities supportive of the Primary Transit Network corridor designation identified in P2S 2040.
 - The South Broadway and 12th Street SW node includes an existing mass of shopping areas with surface parking areas that could be redeveloped. Long term exploration of reuse of the county fairgrounds should the county fair ever be relocated would benefit with a small area plan.
 - The IBM campus area provides a high-profile area with available vacant land and a significant amount of existing office space that could be repurposed. The site has needs for roadway connectivity, is a potential site for park and ride, and is an anchor for the future PTN network. Small area planning should be a collaborative effort with major property owners, Rochester Public Transit, and key agencies.
 - The County-owned property at the intersection of CR 22 and CR 9 consists of the Human Services campus and adjacent undeveloped lands that can also be served by steam from the Waste-to-Energy facility.

- ▶ Areas that should be considered for mid-term small area master planning include:
 - The Valleyhigh Drive NW Corridor is a strategic link between downtown and the IBM campus node connecting key schools and industrial job centers along the way.

Infill and Redevelopment Program

Implementation of the City’s vision will require an increased emphasis on infill and redevelopment that supports the conversion or reuse of underutilized lands already serviced

with a full complement of public infrastructure and services. This can help achieve the goal of more compact, fiscally sustainable development and provides an opportunity to integrate mixed land use with multi-modal transportation opportunities. The following actions are intended to help encourage infill development within the community and to ensure that it is compatible with the city’s established neighborhoods.

Infill Standards | As part of the zoning code update, introduce new zoning districts and/or other zoning tools to accommodate infill or redevelopment within areas of change as well as for scattered site infill developed in areas of stability.

Infill Procedures | Consider changes to the procedures (including administrative review) for approving infill residential development proposals to improve consistency and predictability of the process that will ensure that such developments are compatible with the built environment of established neighborhoods into which they are placed.

Infill and Redevelopment Incentives | Assess opportunities for incentives or other economic development assistance that can be targeted to owners of properties in strategic revitalization areas. Target incentives for designated redevelopment areas and areas for public intervention to encourage strategic reinvestment that implements the Plan’s vision.

Developing Funding Resources | Develop specific funding resources to encourage private reinvestment in targeted areas.

Design Guidelines, Standards, or Pattern Books

Consider development of design standards or guidelines that are highly illustrative of the key concepts and policies contained in this Comprehensive Plan related to

- ▶ Transit oriented and transit supportive development; mixed use development areas along the Primary Transit Network that abut lower density residential areas;
- ▶ Infill and redevelopment in core downtown neighborhood areas;
- ▶ Development along the edges of the downtown fringe land use area that abut adjacent lower density residential areas; and
- ▶ Modernizing older housing stock.

These guidelines would define exemplary practices illustrating the desired physical form of buildings and site layout for developments in areas such as the transit oriented growth corridors where a multi-modal transportation environment featuring high quality pedestrian facilities providing easy access to transit is envisioned. Key features include consideration of setbacks, building orientation, how building facades meet the public realm, location and amount of parking, building design and heights, and activating the street level environment.

Capital Improvement Program

The Capital Improvement Program (CIP) is a financial planning tool that enables the City to plan for priority capital projects such as parks, street and drainage improvements, utilities, and public facilities over a period of time. The CIP matches the cost of capital improvements to anticipated revenues and provides the policy framework for the allocation of funding. It is used as an alternative to considering individual public projects one at a time without reference to overall community priorities or fiscal capacity.

Since public dollars are limited, it is important to balance priorities with available resources and other funding source options to effectively leverage public expenditures. The principles and policies contained in P2S 2040 should be considered when updating the annual CIP. In particular, the City should continue to review, prioritize, and fund capital projects which are consistent with and implement the Comprehensive Plan. In addition, the City should consider developing:

- ▶ A sustainable program for maintenance of neighborhood streets;
- ▶ A long-term program to address sanitary sewer system deficiencies in order to more fully utilize the investment in areas where city services have been provided but further development is constrained by limited sewer capacity; and
- ▶ A comprehensive building and grounds maintenance strategy.

Priorities Related to the Transportation Framework

The P2S 2040 Transportation Framework documents the vision for a long-term multimodal transportation system that will support the Rochester community well into the future. The Plan provides policy direction for decisions regarding implementation of the transportation system to support the City's vision and the Plan's community development principles. The framework

builds on previous plans including the ROCOG Long Range Transportation Plan, the Rochester Area Bicycle Master Plan, the transportation elements of the Rochester Downtown Master Plan and the Destination Medical Center Vision Plan, and the 2017 Transit Development Plan.

This section sets forth priority actions and strategies that should be undertaken in the short-term to achieve the long-range goals for the ultimate transportation system the City strives to achieve. A major goal of the P2S 2040 transportation element is to build on the Downtown Master Plan and DMC Vision Plan by closely integrating land use and transportation actions to support the key principles of the Comprehensive Plan, including encouraging compact, mixed use development while improving connectivity, encouraging transit supportive development, supporting downtown mode shift targets, and enhancing the integrity of existing neighborhoods.

Downtown Transportation

Since 2010, the City of Rochester and various partners with interest in the success of Downtown, including the Mayo Clinic, University of Minnesota-Rochester (UMR), the Rochester Area Chamber of Commerce and others, have advanced planning for the downtown area through development of the Downtown Master Plan (2010) and the Destination Medical Center (DMC) Vision Plan (2014). These efforts have identified various transportation and economic development goals, the most important being the need to shift a larger segment of commuter travel away from single occupant private vehicle (SOV) use from over 70% to under 50%. To achieve this, various efforts underway or being considered that should be advanced in the near-term future include:

- ▶ Complete and begin implementation of the four DMC Integrated Travel Studies looking at street use, a downtown transit circulator system, development of a high-quality downtown “City Loop” urban trail for pedestrians and cyclists, and deployment/expansion of Travel Demand Management (TDM) and Parking Management (PM) strategies as a way to incent more people to consider travel alternatives.
- ▶ Identify mechanism(s) to facilitate delivery of travel demand management (TMD) and parking management (PM) strategies or services which may include initiation of a Transportation Management Organization or a broader Downtown Access Authority along with deployment of TDM programs and revised parking requirements for downtown development.

- ▶ Initiate efforts to implement the recommendations of the downtown circulator study with deployment of an initial circulator service or specific services to targeted circulator user markets.
- ▶ Pursue funding to program the initial development of an initial segment of the Downtown City Loop to serve as a catalytic public investment to attract private sector development to the district.
- ▶ Utilize the recommendations and principles developed in the street use study to begin project development work on priority street use projects including Broadway Avenue.
- ▶ Facilitate strategic growth outside of the downtown that supports implementing early phases of the Primary Transit Network.

Non-Motorized Travel

During development of P2S 2040, respondents to the Community Transportation Survey expressed a high level of support for addressing pedestrian and bicycling needs, with 80% identifying the need for better walking routes to serve the public, particularly children going to school, and 65% identifying the need for better bicycling routes throughout the city. The recommendations in P2S 2040 coordinate with those found in the 2012 Rochester Area Bicycle Master Plan and Chapter 7 of the city version of the ROCOG Long Range Transportation Plan to advance development of the pedestrian and bicycle network. The following actions should be considered in the near term:

- ▶ Develop an action plan to complement the Downtown Pedestrian and Bicycle Action Plan to provide improved non-motorized access that prioritizes safety and convenience in and near the Transit Oriented Development nodes and corridors as part of the package of actions supporting the proposed Primary Transit Network;
- ▶ Create a Safe Crossings Program to implement improved pedestrian crossings of major streets including unsignalized, signalized, and mid-block crossings combined with working with the Rochester School District and other educational entities to develop safe walking and biking to school programs that include infrastructure, education and encouragement elements;

- ▶ Revise the Primary Bicycle Network Map in the Bicycle Master Plan and ROCOG Long Range Transportation Plan to include new key on-street connections identified in P2S 2040 that facilitate access to the transit nodes and other key destinations;
- ▶ Consider applying existing and future best practices to guide local planning, design and reconstruction of projects; and
- ▶ Continue to actively pursue various federal, state, and non-profit funding opportunities to implements improvements to the bicycle and pedestrian environment in Rochester.

Travel Options/Transportation Demand Management (TDM)

The use of innovative travel options and travel demand management programs will take on added importance in the future for Rochester as the daytime population of downtown in terms of workers, patients, visitors, residents, and customers expands significantly as a result of dense downtown employment and the Destination Medical Center initiative. The expected doubling or tripling of the downtown daytime population expected to materialize over the next 25 years creates an access challenge in that the downtown street portals or gateways are limited in terms of their physical capacity to handle growth in vehicular traffic. As a result, more efficient use of the available space needs to occur and can only be achieved by moving more people in and out of downtown via more efficient modes of travel such as transit, circulators, walking, or biking. Improved utilization of available street space will involve pairing expanded or new travel alternatives with TDM programs and new parking management strategies in order to create an effective access strategy for Downtown Rochester.

- ▶ Develop a downtown parking management program that considers the use of the “SUMP” principles - **S**hared, **U**nbundled, **M**anaged, and appropriately priced **P**arking—to minimize the amount of additional parking needed, increase parking efficiency, and support mode shift, paired with Travel Demand Management guidelines and programs that encourage travel by a variety of modes. These principles should be applied not only downtown but in and along the Primary Transit Network nodes and corridors. Minimizing parking demand will have the added benefit of contributing to high quality urban design and creation of a more pedestrian friendly environment in the key activity centers of the city.

- ▶ Review site development and parking codes and regulations to develop TDM supportive requirements. Integrate consideration of travel options into the development review process by requiring or incentivizing travel options in new developments with triggers for the requirement tied to factors such as geographic location, size of development, or number of employees or residents.
- ▶ In conjunction with a Transportation Management Authority or Downtown Access Authority, create a centralized Commuter Program and online mobility platform with resources for individuals and businesses to promote, educate, and guide persons to resources related to local and regional transit, park-and-rides, carpooling, bicycle parking, walking and biking routes, and other transportation options information as well as provide real time travel information and data tracking about various mobility choices and trends.

Park and Ride

The network of public Park and Ride facilities that Rochester manages, along with the private facilities that Mayo Medical Center provides, are an important element of the system used to reduce downtown travel demand, particularly during peak hour periods. As the daytime population of downtown Rochester continues to grow, efforts will be needed to expand the Park and Ride system and integrate it more closely with the transit system serving the city.

The City, in coordination with key partners, should complete studies to identify future locations for permanent park-and-ride lots, including options to fund the advance purchase of sites for future use. As part of this work, locating mobility hub services at these locations should be considered as part of a package of services to make use of park and ride sites more attractive to potential users.

Transit

Creation of a Primary Transit Network will form the foundation for a convenient and inviting transit system that will incentivize residential and commercial development along key corridors and create opportunities for people to choose a car-free or “car-lite” lifestyle in the future. To achieve this, incremental expansion involving addition of higher frequency and more amenities is seen as the path to eventually developing a Bus Rapid Transit system serving the city. The City, therefore, must coordinate transportation and land use planning, and should consider a series of PTN corridor studies to establish a specific land use concept and transportation

investment plan that can support desired changes and maximize the effectiveness of City action towards the creation of the ultimate PTN.

Street Design and Operations

Street design has historically been driven by standards that responded primarily to the needs of motorists. With the adoption of a Complete Streets Policy in 2009, the City reset the relationship among different roadway users to give added emphasis to the needs of pedestrians, bicyclists, and transit users. As the City moves into the future, continued interest in providing improved active transportation opportunities, transit oriented development, and enhancements to the public realm to support livable community goals will necessitate consideration of additional measures in the area of street design and operations. Four focus areas have been identified for short term attention including:

Complete Corridors and Streets

- ▶ Continue to use the Complete Streets Policy to prioritize accommodation of all modes in design, construction, and maintenance of the transportation network in the city.
- ▶ Be open to new ideas such as “bicycle boulevards” or shared streets and other techniques in appropriate locations to improve transportation choices for all modes of travel.

Context Sensitive Design

- ▶ Recognize that maximizing the efficient trip carrying capacity of roadways may require improving the relationship between multiple modes of travel, adjacent land uses, and urban design.
- ▶ Adopt Context Sensitive Solution practices to determine the most appropriate transportation improvements to minimize environmental impacts and serve adjacent and future land uses within a multi-modal network.
- ▶ Consider creation of Rochester Urban Area Street Design Guide to establish a process and set of standard principles for use in the street design process.
- ▶ Closely coordinate Planning and Engineering expertise to support design solutions addressing the changing and expected future context that may not be evident in the current design and land use.

Street Typology

The Downtown Master Plan and the DMC Development Plan established the concept of “Street Typology” as a way to move beyond traditional street design classification to a system that guides the selection of street elements to support the desired character of the street based on its combined land use context and roadway function. These types of guidelines can be used to coordinate transportation investments with anticipated changes in land use to support community desires for high quality design and place creation, and their creation can provide an opportunity to reexamine standards for public and private streets, pedestrian facilities, bicycle facilities, landscaping and street furniture.

- ▶ Development of updated local roadway standards should consider national best practices. Application of guidelines will typically occur through corridor or subarea planning studies and can be used at the site development level.

Efficient Traffic Flow

The City should continue to implement efficiency improvements to the overall roadway system. Measures to consider include:

- ▶ Continue to invest in enhanced traffic operations equipment and periodic updating of corridor signal timing plans;
- ▶ Develop a process for selecting and implementing intersection safety improvements that provides a framework for considering and comparing innovative measures such as roundabouts to traditional traffic signal control;
- ▶ Reexamination of Access Management requirements; and
- ▶ Reexamination of Traffic Impact Study requirements of the Land Development Manual to broaden consideration to include multiple modes of travel and travel demand management measures, including consideration of revisions to the use and definition of Level of Service particularly as it relates to the downtown core area and other transit oriented development areas.

Part 4 | Amendments

P2S Regular Review and Updates

The development of the P2S Rochester 2040 Comprehensive Plan has been a multi-year process grounded in significant research, data analysis, community input, and consideration of alternative solutions. However, it is important to acknowledge that conditions in a growing and innovative regional center can change—sometimes in a relatively short period of time—due to an evolving economy, potential changes in the marketplace, or lifestyle and workplace trends affecting everything including people’s housing, work, shopping, and travel choices. As recently as five years ago, the Destination Medical Center was not a factor in driving the future of the region, but is now the critical economic development engine moving forward. As we look ahead, the continuing evolution of technology such as autonomous vehicles and impacts of other disruptive changes in areas such as housing, energy production, and construction materials highlight the need to recognize the Plan as a living document that will need to be revisited periodically to reflect new realities.

Acknowledging the potential pace and breadth of change which may affect the community in years ahead, an evaluation and update of the Comprehensive Plan should be completed by the City every five years and include the following:

- ▶ Evaluation and updates of underlying assumptions that determine land use and transportation needs, including population, economic, demographic and transportation trends and projections
- ▶ Evaluation of metrics that identify the direction the community is moving toward achieving mode shift targets in the Downtown Master Plan and transportation solutions that result from the DMC Integrated Transit Studies currently underway
- ▶ Evaluation of metrics that identify the whether the community is moving closer to achieving P2S 2040 Core Principles
- ▶ Trends in housing needs, housing stock, diversity of housing options, and availability of housing in close proximity to the Primary Transit Network anticipated to be served by 2040

- ▶ Assessment of information from new or updated infrastructure studies, in particular information informing capacity, service areas, and costs
- ▶ Assessment of changes occurring in transportation, including the status of autonomous / connected / electric vehicles (AV-CV-EV), the evolving role of Transportation as a Service (TaaS), local transit infrastructure investment and services, coordinated transportation management, and new technologies that impact how cities grow and change
- ▶ Consideration of a potential need to adjust the Growth Management Plan and designated Urban Expansion Area in order to maintain a 15-20 year supply of land area designated for urban growth
- ▶ Evaluation of new or innovative strategies that contribute to the evolving compact urban form of the City
- ▶ Analysis of trends impacting the City's ability to compete with other economic regions and medical destinations
- ▶ Changes in State or Federal law, rules or policies that inform local decisions about community growth and development
- ▶ Whether the timing, phasing, and feasibility of providing sanitary sewer, water, power and other public infrastructure supports orderly growth, and is consistent with City's ability to incur short and long term public facilities costs.
- ▶ The timing of development supports efforts to develop the Primary Transit Network (PTN) by affecting the viability of growth along those PTN Corridors identified as priorities areas for redevelopment during the time horizon of the Plan.

Amendments to the Growth Management Framework, including changes to the Urban Area Growth Map, will only occur in conjunction with a full plan evaluation and update within a regular review cycle.

General Criteria Applicable to All Proposed P2S 2040 Updates and Amendments

All updates and amendments shall be evaluated for consistency with the following criteria:

AMENDMENTS

1. Changes have occurred since the adoption of P2S 2040 that necessitate the proposed amendment; and
2. Resolving inconsistencies between policies in P2S 2040 is needed to not impede the City's efficient growth and development; and
3. Rochester's ability to achieve the goals of P2S 2040 will be improved or the operations of City government will be enhanced by the amendment; and
4. Adoption of the proposed amendment is necessary to accommodate public policies that are not reflected in P2S 2040; and
5. The proposed update or amendment is consistent with the P2S 2040 Core Principles described in Section 1; or
6. Adoption of the proposed amendment is necessary to reflect consistency with changes in State and Federal laws, rules, and policies; or
7. New strategies to meet community objectives warrant this change.

Specific Criteria Applicable to Future Land Use Map Amendments

The Future Land Use Map will be reviewed, and may be modified, in conjunction with the City's regular review and update cycle.

A Small Scale Land Use Map Amendment is any change to the future land use map that involves land areas 10 acres or less. A Small Scale Land Use Map Amendment may be initiated by petition of the property owners or by agents of the property owners by written consent of the property owners.

All Future Land Use Map amendments shall be evaluated for consistency with the following criteria:

1. The proposed amendment will address an unanticipated shortage of land designated and available for a proposed type of land use as evidenced by a detailed and objective market analysis commissioned by the City with costs covered by the applicant.
2. The proposed amendment is consistent with the goals and strategies of the Integrated Land Use and Transportation Framework.

3. The impact of and cost to municipal or regional utility agencies and on existing road and transit infrastructure as a result of the proposed land use change have been considered.
4. An assessment of natural features on the proposed site has found that that site is suitable for urban development.
5. The proposed redesignation will not adversely affect the supply of land designated for the type of land use the area in question is currently planned for.
6. The fiscal impact of the proposed amendment is judged to have a positive net benefit to the community.
7. The proposed Future Land Use Map amendment is consistent with and will help further the Vision, Principles and Goals of the P2S 2040 Comprehensive Plan and
 - a. Will not compromise the direction of the plan to create an integrated land use and transportation vision
 - b. Will not compromise the strategies identified in the plan to implement the Primary Transit Network or the anticipated phasing of the PTN identified in the plan
 - c. The development characteristics of uses in the proposed land use plan category as described in Tables 2-6 through 2-10 are compatible with surrounding land use classifications
 - d. The locational characteristics and transportation features of the site are consistent with the locational and transportation factors described in Tables 2-6 through 2-10 for the proposed land use.
8. Where the proposed amendment involves the redesignation of land currently in a Non-Residential Area (Commercial & Business Development, Industrial Development, Small Employment Development) to a category of Residential Development or otherwise considered for Residential land uses, the following considerations should apply:
 - a. The proposed residential site provides safe and convenient access to a minimum of 12 to 14-hour transit service within a ¼ mile walking distance to and access point of such service.
 - b. Connection to the network of non-motorized transportation infrastructure including access to pedestrian facilities and safe access to the city's network of off-road trails and paths is available.

- c. Access to passive or active public park space meeting the service standards of the City Park Plan is available.
 - d. The site provides adequate space to develop appropriate buffering between residential development and the adjacent non-residential use which predominates in the area.
 - e. The site will not be impacted by the externalities from non-residential uses that predominate in the area such as noise or exterior lighting.
 - f. The site provides adequate space to meet parking needs and will not create residential on-street parking demands on any non-residential business street.
 - g. The character of the traffic on streets providing access to the site do not involve high volumes of truck traffic or peak hour commuter traffic that may compromise the travel safety of residents.
 - h. Existing business development in the area will not be impacted by residential intrusion into the area.
 - i. The site is adjacent to a residential neighborhood, or land planned for residential development, or is of sufficient size to be a complete neighborhood with amenities serving households with parks, access to schools, and other features typical of a neighborhood.
 - j. Will not result in a small pocket of residentially developed land, or isolated residential development that is not part of a larger neighborhood or area planned for residential neighborhood development.
9. The proposed amendment is consistent with community goals and policies as expressed in other adopted plans of the city.

Annexation and Development in the Urban Expansion Area

Prior to annexation and/or development in the Urban Expansion Area, the following should be considered:

- 1. Contiguity with the existing urban development pattern and present City limits
- 2. Timing, phasing, and feasibility of providing sanitary sewer, water, and electric power to support orderly growth consistent with the Plan

3. A fiscal impact assessment addressing the short and long-term allocation of public facility costs
4. Whether the timing of development could compromise efforts to develop the Primary Transit Network (PTN) by affecting the viability of growth along those PTN Corridors identified as priorities areas for redevelopment during the time horizon of the Plan

Application of the Plan and Relationship to Other City Plans

The Land Use and Transportation Framework established in P2S 2040 will guide a range of actions by the City on matters including development policy, development project evaluation, rezoning, capital improvement programming and budgets, organizational and personnel needs and matters related land use or infrastructure policy decisions. As P2S 2040 is implemented, zoning guidelines and overlay districts will be reviewed and adapted to function within the Land Use and Transportation Framework. Existing area and corridor plans will be retained as supplementary information and serve as ongoing resources in application of the plan.

The P2S 2040 Land Use and Transportation Framework is intended to work in concert with the City's various functional master plans, including the Parks and Recreation Master Plan, the ROCOG Transportation Plan, service and utility master plans, and City strategies that guide the delivery of services. Implementation of P2S 2040 will require coordination and alignment between this plan and these other plans and strategies to ensure a common vision and consistent policy approach. P2S 2040 will provide the primary guidance, direction and vision for the community. Where conflicts may exist between plan documents, the P2S Plan will supersede all other plan documents.