

Towerside Framework for Planning and Implementation

Version 2.1

August 2, 2018



TOWERSIDE
THE MSP INNOVATION DISTRICT

Developed by the
Minnesota Design Center
on behalf of the
Towerside Innovation District

MINNESOTA DESIGN CENTER
COLLEGE OF DESIGN UNIVERSITY OF MINNESOTA



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Towerside Framework for Planning and Implementation Workshop
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Thank you to all the City of Minneapolis and Saint Paul elected officials and staff that continue to work with us to make our communities better tomorrow than they are today.

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1 Surly Brewery, Minneapolis, Minnesota

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INTRODUCTION

Towerside is 370 acres of opportunity extending from the University of Minnesota campus in Minneapolis east into Saint Paul. The district is located within the Prospect Park neighborhood in Minneapolis and the Saint Anthony Park neighborhood in Saint Paul. The district is served by three Green Line LRT Stations, at the center of the metro area interstate highway system and adjacent to the University’s medical, academic, athletic and bio-discovery research facilities. The district also overlaps the Creative Enterprise Zone to the east.

Towerside is envisioned as a dynamic engaging place that attracts, connects and inspires thinkers, doers and makers who power the region’s new economy. The vision includes these eight elements:

- Economic Competitiveness
- Research and Innovation
- Public Realm
- Sustainability and Resilience
- Healthy Living
- Diversity and Equity
- Lifelong Learning
- Design, Arts and Culture

Purpose

The purpose of this document is to establish a planning and implementation framework for the Towerside Innovation District that is consistent with the goals and plans for the Saint Anthony Park neighborhood in Saint Paul, the Prospect Park neighborhood in Minneapolis, and the University of Minnesota. A primary objective is also to inform the 2040 Comprehensive Plans for the Cities of Saint Paul and Minneapolis.

Innovation District

In 2016, both the Minneapolis and Saint Paul City Councils passed resolutions designating Towerside as an Innovation District (under the former name University Avenue Innovation District—see Appendices A and B). Towerside is the only designated Innovation District in the region. Its intent is to bring together entrepreneurs, residents, researchers, developers and businesses within a new, equitable, restorative, healthy and arts-inspired community. It is a national model for developing a thriving urban community.

PHYSICAL PLANNING

The Towerside Planning and Implementation Framework takes its lead for physical development and infrastructure from Prospect Park (Minneapolis) and Saint Anthony Park (Saint Paul). This document is consistent with the comprehensive planning documents of these two communities as well as the University of Minnesota.

IMPLEMENTATION

This planning and implementation framework identifies the key regulatory changes, plans and infrastructure projects needed to achieve the Towerside vision with all of its economic, environmental and social benefits. Based on feedback from stakeholders at meetings and the workshop, several recommendations were identified for implementation. These include well-informed suggestions for implementation tools but Towerside is open to other innovative approaches. The recommendations fall into three categories:

1. Innovation District Regulatory Framework
2. Integrated Green Infrastructure Plan
3. Capital Improvement Project Priorities

Executive Summary

The list of capital improvement project priorities in Towerside reveals the unique opportunity to complete road, bicycle and pedestrian networks as well as establish parks and open space for the district and the region. All of these interrelated priorities must be coordinated and addressed with urgency before the opportunities are precluded by unplanned development. These include.

- Granary Corridor
- Granary Crossing (bridge over rail yards)
- Completion of Missing Link of the Minneapolis Grand Rounds
- Granary Corridor Extension Westward
- Completion of Street and Block Patterns
- Relocation of the University Transitway
- Signature Public Spaces
- A Restorative Public Utility

MINNEAPOLIS COMPREHENSIVE PLAN

The City of Minneapolis is required to update the Comprehensive Plan every ten years. Towerside's vision is consistent with many aspects of the current 2030 Plan. The Minneapolis 2040 Comprehensive Plan is based on 14 goals in the categories of people, places and systems. The Towerside vision supports these goals. The following changes are suggested to the 2040 Comprehensive Plan. (See *Appendix F* for complete suggested language).

1. Create an “Innovation District” Comprehensive Plan Policy.

This will fulfill the City of Minneapolis's Resolution 2015R-336 (Aug. 13, 2015), which resolves “that the City of Minneapolis will develop a definition of Innovation Districts to include in the City's Comprehensive Plan update.”

Action steps:

The City will seek to accomplish the following action steps in Innovation Districts to support and experiment with new policies, practices and systems and to support and require developments that are consistent with the City's highest goals as expressed in this plan.

- a. Encourage and support district approaches to systems, including but not limited to energy, stormwater, parking, waste management, and public realm.
- b. Allow for experimentation and innovation consistent with City goals and expressed priorities of a given Innovation District.
- c. Support funding for redevelopment opportunities including housing, business development, infrastructure, and greenspace, with priority given to affordable housing and/or job creation initiatives and projects.
- d. Allow a mix of uses, including residential, with predetermined amounts of production and processing uses in both Production and Processing districts and, in a lesser amount, in Production Mixed Use districts (See Appendix F for further explanation).
- e. In exchange for redevelopment and district systems support—and in exchange for allowing residential uses in Production and Processing districts within Innovation Districts—require above-standard developments and systems in energy efficiency and production, stormwater, parking, waste management, and public realm.

2. Add new infrastructure to all appropriate planning documents.

Transportation

- a. Continue to indicate Granary Road as a proposed future roadway. Granary Road is needed to resolve significant congestion and safety issues

on Malcolm and University Avenue that will get worse with planned growth.

- b. Include Granary Crossing (Bridge) over the railroad tracks connecting to Kasota Road leading to Highway 280 in the proposed road and infrastructure plans and work with Saint Paul to extend the parkway characteristics of the Granary Corridor onto Energy Park Drive to create a unified development with the adjoining industrial lands in Saint Paul. Granary Road and Granary Crossing are needed for truck and other general access to the Towerside district.
- c. Indicate the a new location for the University of Minnesota Transitway as shown in this plan.
- d. Express strong support for district parking solutions.

Open Space and Parks

- e. Update maps and description of Missing Link of the Grand Rounds to include most recent Granary Road and Granary Crossing planning.
- f. Encourage more parks and recreation space in the District including the new signature park at 4th Street SE and 29th Avenue SE in the Prospect Park neighborhood in Minneapolis.

District Systems and Green Infrastructure

- g. Green infrastructure in Towerside is consistent with the Comprehensive Plan for Minneapolis and the aspirations of the city's Resolution establishing Towerside as an Innovation District. Infrastructure projects include:
 - District stormwater system
 - District energy system
 - Restorative development with the Integrated Utility Hub

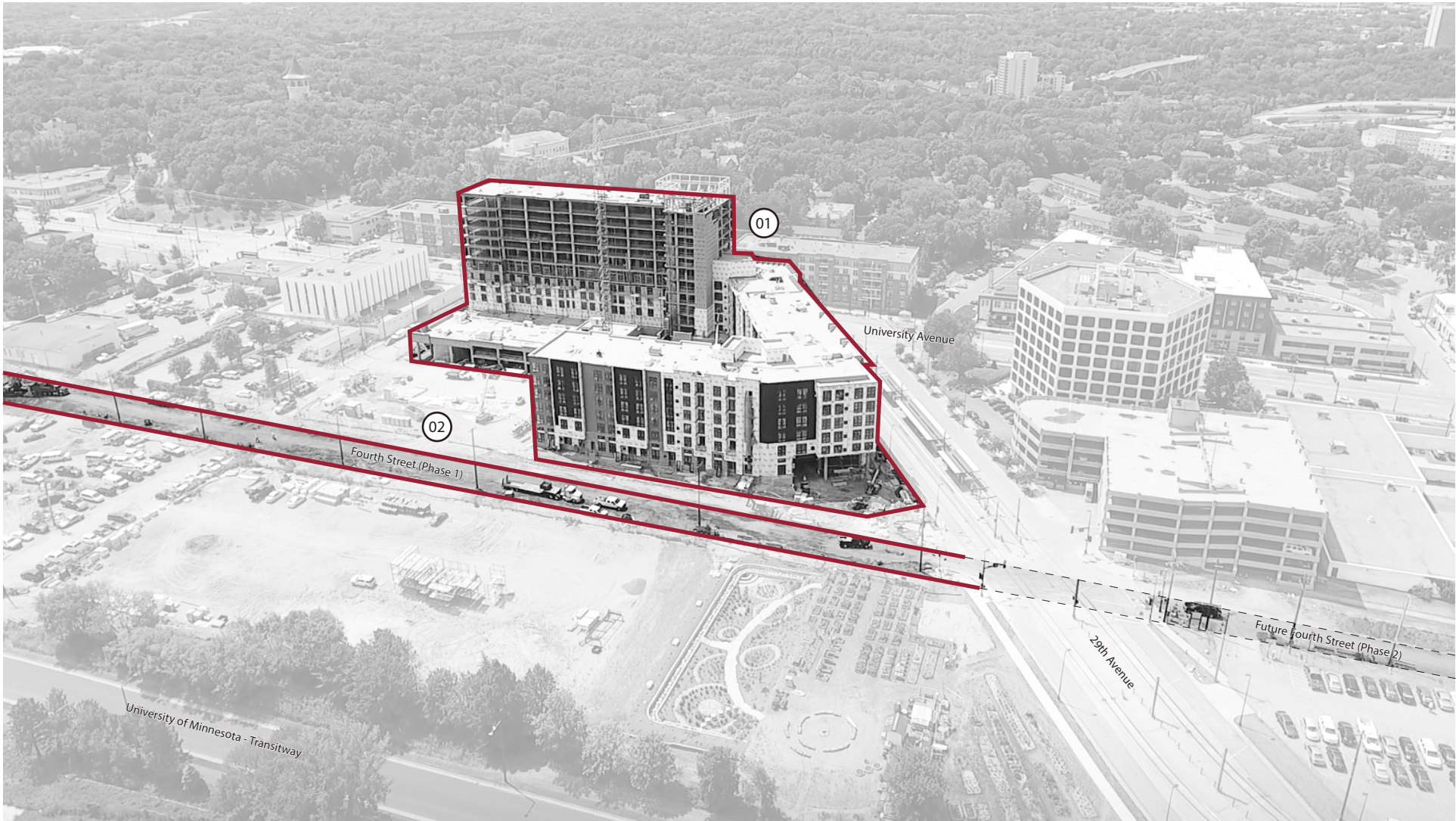
SAINT PAUL COMPREHENSIVE PLAN

The City of Saint Paul is required to update its Comprehensive Plan every ten years. Towerside's vision is consistent with many aspects of the current 2030 Plan. The Towerside vision also supports the 9 themes and priorities of the Saint Paul 2040 Comprehensive Plan. The 2040 Plan is still a work in process. A preliminary draft is available, but not yet out for public comment. The Comprehensive Plan will also include a Ten-Year Plan for Saint Anthony Park (District 12). The St. Anthony Park Community Council has submitted a proposed Ten-Year Plan for review by the City, but the City has not yet provided comments (See *Appendix D*).

The Saint Paul portion of the Towerside Innovation District is located in Saint Paul's Creative Enterprise Zone (CEZ). The vision of the Creative Enterprise Zone is complementary to Towerside's vision. The Towerside vision and the vision of the Creative Enterprise Zone are generally consistent with the themes and priorities set out in the current draft of the Saint Paul 2040 Comprehensive Plan and the proposed Saint Anthony Park Ten-Year Plan. However, certain innovative elements of the proposed Saint Anthony Park Ten-Year Plan will need to be recognized and enhanced during the Comprehensive Plan review process to carry forward the vision of the Towerside Innovation District, the Creative Enterprise Zone, and the Saint Anthony Park community.

Innovative Elements from Saint Anthony Park Community Council Ten-Year Plan

1. Proactively address equity in housing, commerce and industry.
2. Reuse and redevelop industrial areas to accommodate modern businesses.
3. Create district systems for infrastructure in redeveloped areas.
4. Change zoning to allow greater flexibility and mixed-use that may include industrial, commercial, and residential uses.
5. Make changes to the industrial area infrastructure to increase its attractiveness for redevelopment.
6. Create a collaborative process bringing together developers, SAPCC, and the City to enhance the contributions of commercial and industrial projects to the neighborhood and maximize their potential for success.
7. Increase the variety of housing types and affordable housing options in Mixed-Use areas.
8. Guide new housing along the Green Line Mixed-Use area to assure it is in appropriate locations and provides a variety of housing types.
9. Encourage bicycling [and other improvements] to provide safer infrastructure and better amenities
10. Work with City, County, and State personnel to reduce the impact of truck traffic on residential streets.
11. Seek ways to develop more public green space.



The Link (01) and Green Fourth Street (02)
Aerial photo looking Southeast - Projects under construction, Fall 2017

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PURPOSE AND OVERVIEW

The purpose of this document is:

- To establish a planning and implementation framework for the Towerside Innovation District that is consistent with the goals and plans for the Saint Paul and Minneapolis neighborhoods where it is located.
- To inform the 2040 Comprehensive Plans for the Cities of Saint Paul and Minneapolis.
- To facilitate development of the Innovation District vision and plans.

This document is in three parts: **Introduction**, **Physical Plan** and **Implementation**. This is followed by a list of resources and appendices. The introduction summarizes inputs to the two city's comprehensive plans.

Towerside is a new century nexus for people to live, work, learn, research, explore and engage. It represents a new way of thinking about a significant area of underdeveloped land in the heart of the Minneapolis/Saint Paul metropolitan region. It is a rich mix of spaces, places and activities supported by a district-wide network of innovative services and systems including stormwater management, heating/cooling and energy, as well as parking and a connecting green public realm. It's an inviting place with a catalytic atmosphere that will inspire a community that is diverse, inclusive, vibrant and responsive to ever-evolving opportunities and discovery.

Towerside is 370 acres of opportunity extending from the University of Minnesota campus in Minneapolis east into Saint Paul. The District is located within the Saint Anthony Park neighborhood in Saint Paul and the Prospect Park neighborhood in Minneapolis. The District is served by three Green Line LRT Stations, at

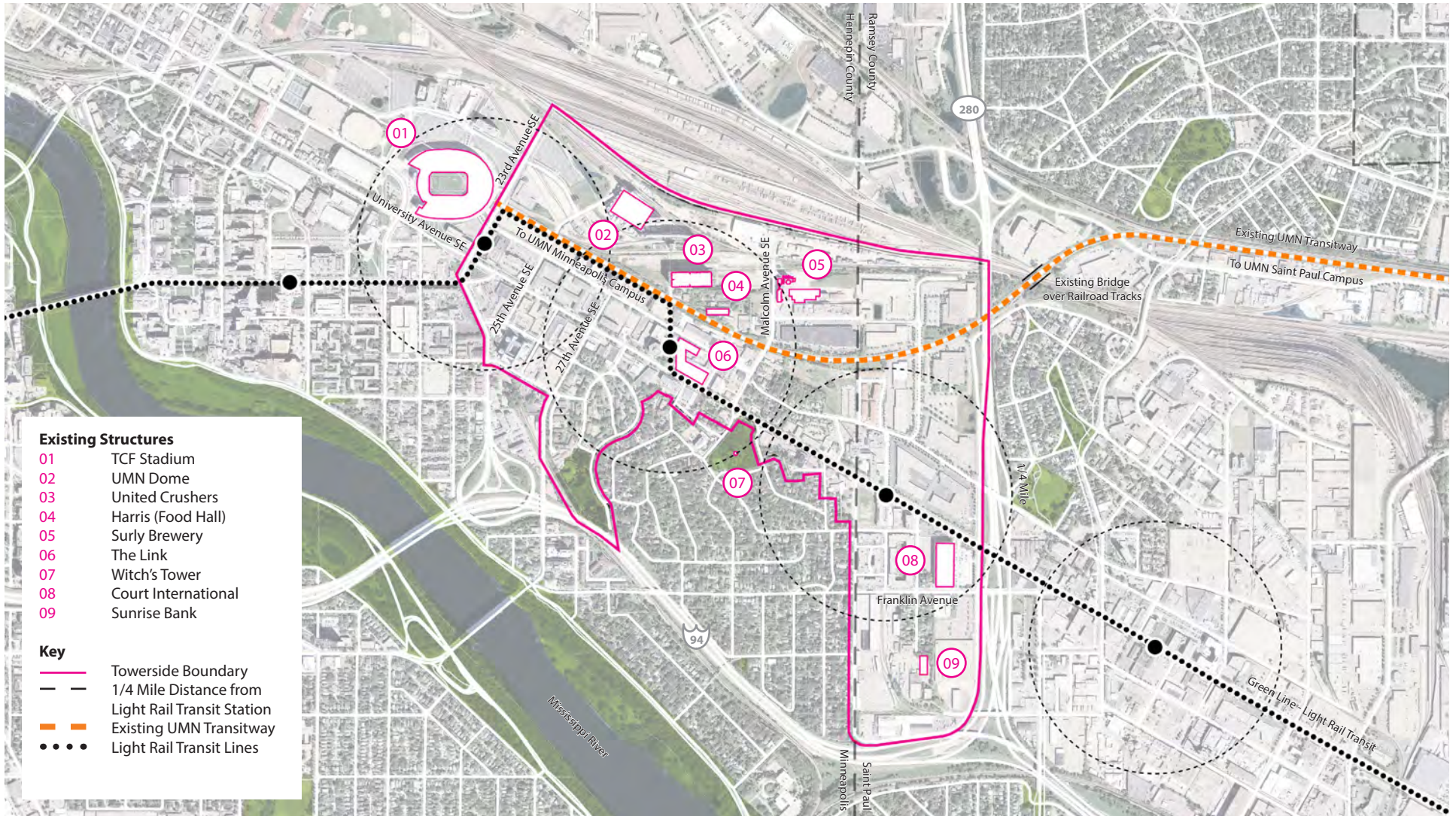
the center of the metro area interstate highway system and adjacent to the University's medical, academic, athletic and bio-discovery research facilities. The District also overlaps the Creative Enterprise Zone to the east.

Towerside is the advancement of a community-born vision where collaboration, planning and investment yield successes well beyond what typical scatter-shot market development could achieve. The vision has come to life as a result of the partnership of developers, businesses, community residents, higher education institutions, non-profit organizations and government agencies working to fuel job growth, redevelopment and innovation adjacent to the University of Minnesota, one of the nation's largest leading research universities. Towerside is envisioned as a living laboratory demonstration of the values and principles of 21st century urban redevelopment and living.

Impacts

A previous economic analysis prepared by the Prospect Park 2020 group estimated that appropriate redevelopment of even a small 80-acre subset of the Towerside Innovation District alone would result in the creation of 5-6,000 jobs, while the current assessed value of the property would rise by a factor of 20 from the current \$43 million to nearly \$900 million. This results in current real estate taxes in the district of under \$2 million rising to over \$25 million.

Introduction



Towerside District Boundary

Towerside extends from the University of Minnesota campus in Minneapolis on the west to Highway 280 in Saint Paul on the east. The railroad yards form the northern boundary while freeways and existing neighborhoods border the south. The District is served by three Green Line LRT Stations.

Innovation District

Towerside is an innovation district in two ways. First, it is located and designed to foster collaboration on breakthrough innovations leading to economic development. Second, it is a living laboratory where the University, private companies, and the public sector test new ideas in urban living and sustainable infrastructure. Towerside is unique from other innovation districts because of the focus on innovation in policies related to healthy living, equity and diversity, and sustainability and resilience.

In 2016, both the Minneapolis and Saint Paul City Councils passed resolutions designating Towerside as an Innovation District (under the former name University Avenue Innovation District—see Appendices A and B). Towerside is the only designated Innovation District in the region. Its intent is to bring together entrepreneurs, residents, researchers, developers and businesses within a new, equitable, restorative, healthy and arts-inspired community. It is a national model for developing a thriving urban community.

When the cities adopted the resolution creating the Innovation District, they recognized the need for additional staff time, funding, regulatory changes, capital project prioritization, economic development assistance, or other assistance. This planning framework addresses what the cities and other implementing agencies need to do to achieve the vision of the Innovation District as indicated in the implementation section. These include:

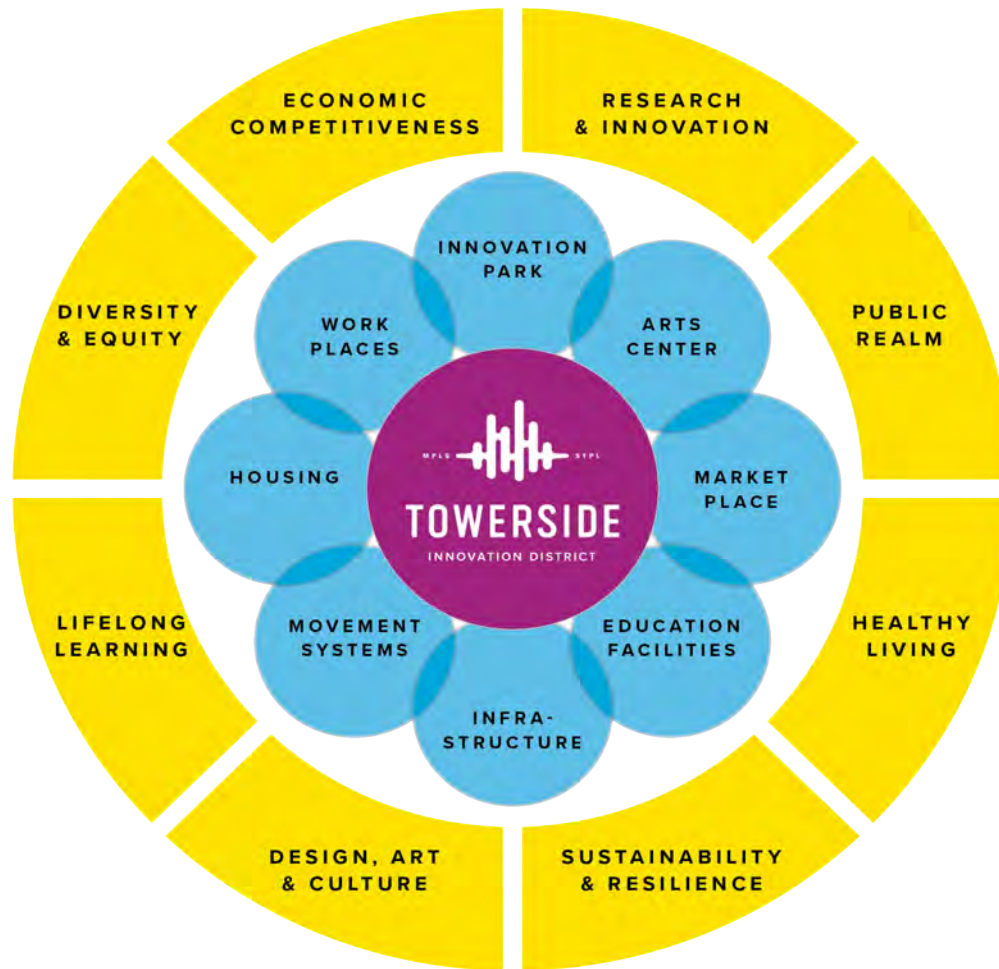
- Job creation,
- Amplify development area of regional significance,
- New and desired density (toward City population and affordability goals),
- New tax base,

- Transit Oriented Development, and
- Pilot “next city” sustainability concepts.
(Source: Prospect Park Association)

The concept of creating an Innovation District is at the heart of the Towerside vision. According to a report from the Brookings Institution, these districts are defined as “geographic areas where leading-edge anchor institutions (such as Universities) and companies cluster and connect with start-ups, business incubators and accelerators.” (*Katz and Wagner, The Rise of Innovation Districts*).

Innovation districts are economic development tools that use partnerships with higher education institutions, businesses, and government to fuel job growth and redevelopment in targeted locations. Innovation districts are based on the premise that collaboration and productivity result from proximity, and therefore job creation and innovation can be fostered through the intentional clustering of businesses, institutions, ideas and people. Innovation districts have been adopted by a variety of host cities to revitalize their communities and diversify their economies.

Innovation districts are emerging in many cities in the United States and around the world. For the Minneapolis/Saint Paul metropolitan area to continue to compete for the best and brightest minds to fuel economic growth, such a district is essential. Increasingly they are drawn to cities with amenities and services that support collaborative work and an active urban lifestyle. To attract young creative scientists, entrepreneurs and design-oriented thinking, the new innovation districts are “physically compact, transit-accessible, and technically-wired and offer mixed-use housing, office, and retail.” (*Katz and Wagner*)



Towerside Vision Diagram
Developed in 2015

TOWERSIDE VISION

Towerside is envisioned as a dynamic engaging place that attracts, connects and inspires thinkers, doers and makers who power the region's new economy.

The Towerside Vision and Development Guidelines were developed in 2015 and recently updated. The vision includes these eight elements:

- Economic Competitiveness
- Research and Innovation
- Public Realm
- Sustainability and Resilience
- Healthy Living
- Diversity and Equity
- Lifelong Learning
- Design, Arts and Culture

Any of these elements can be the driving force to shape a neighborhood and create a strong positive identity. The unique aspect of Towerside is the intent to integrate all of these elements into one place. In Towerside, infrastructure and the built environment are designed to generate synergistic public benefits amongst each of these eight elements exhibiting a restorative model of systems thinking.



Economic Competitiveness

For the Minneapolis-Saint Paul Region to continue to compete for the best and brightest minds to fuel economic growth, an Innovation District is essential. Increasingly they are drawn to cities with amenities and services that support collaborative work and an active urban lifestyle. To attract young creative scientists, entrepreneurs and design-oriented thinking, the new innovation districts are physically compact, transit-accessible, and technically-wired and offer mixed-use housing, office, and retail.

Research and Innovation

Research and innovation encourage economic growth and job creation. For this research-related economic growth to happen, regional companies need to be in proximity to UMN and other partners in the new economy. Incubator space must be provided that allow start-up companies to scale up without having to leave the center of innovation. Towerside is ideally located for this to happen. Shared district systems planned within the area will provide benefits that improve economic competitiveness.

Public Realm

Public spaces including transit, streets, sidewalks, parks and plazas create a distinct and extraordinary identity grounded in locally-driven planning. This becomes the foundation for a 24-hour culture of interaction and ongoing innovation. The District is designed to put the pedestrian first, by creating a vibrant, safe and completely walkable environment. A Community Commons is situated in the vicinity of the light rail platform, welcoming people into the neighborhood. Places to gather, socialize and exchange ideas are plentiful.

Sustainability and Resilience

Towerside is a living laboratory for the re-thinking and re-tooling of urban living to meet the sustainability

and resilience needs of the future. Efficient buildings, renewable energy production, and restorative self-sufficient infrastructure and utility systems make the local community more resilient while also contributing to the resiliency of larger systems. District projects and culture prioritizes stewardship of water, soil, air, ecosystems and habitat through individual developments and public realm landscapes that are not only beautiful but perform for resilience. Sustainable building practices will be applied to all buildings, especially affordable housing.

Healthy Living

The District will be a healthy community that makes the healthy choice the easy choice. The design and planning of Towerside makes healthy lifestyle choices easy and accessible for all community members from access to everything from healthcare facilities to parks to supermarkets, and infrastructure that welcomes community and activity. A healthy neighborhood image attracts forward thinking individuals, institutions, and companies, and provides the opportunity to measure outcomes around healthy community strategies. Healthy design and construction practices will be applied to all buildings including affordable housing

Diversity and Equity

The economic value and environmental quality of Towerside need historically disadvantaged people and new Americans to become full participants in the region's prosperity. It can be a generator of living wage jobs for diverse population groups that live in the adjacent community as well as those who commute by transit. Equity will be enhanced by providing opportunities for all to participate in governance and management of the community, which is envisioned as diverse in every way. A diverse mix of affordable housing is envisioned.

Lifelong Learning

Towerside will be a real world demonstration of innovative approaches and technologies, which are baked into every facet of the District. It is a place where you see people of all ages, backgrounds, and skill levels engaged through making, teaching, learning, and volunteering. This will create a living laboratory where people of all abilities can learn from these opportunities and continually support the research that will be developed around this community. It can also serve to measure outcomes and educate residents and the general public on sustainable development.

Design, Art and Culture

Authenticity and value come through concentrations of people producing art, cultural activity, and design of all kinds. Towerside is an intentional urban community infused with the arts and design. Residents and visitors view extraordinary art in restaurants, offices, and libraries or take in a performance. In addition, they can watch new ideas emerge in one of the community maker spaces, visit a gallery or museum, buy original art or design at a shop, and interact with public art. It is a place where visual and performing arts are the heart of an active, creative community.

Introduction

TOWERSIDE GUIDELINES

The Towerside Vision and Development Guidelines includes district, project, and community scale guidelines. The District Scale Guidelines represent planning concepts and systems for the district as a whole. The Project Scale Guidelines are to be applied at the scale of individual sites and buildings. The Community Scale Guidelines are used to target the desired outcomes and facilitate the way in which the work of District and Project initiatives unfold.

DISTRICT SCALE GUIDELINES

District Energy

Develop a district heating and cooling system that can expand over time. Design the system to work with multiple energy sources in the future such as solar thermal, waste heat, organic and solid waste.

District Stormwater

Develop a district stormwater system with attention on management of the water budget resources. Utilize the public realm for shared storage and on-site treatment of stormwater.

District Parking

Provide district parking to reduce parking requirements for individual properties and create a more walkable environment. Design parking for adaptability to future use or deconstruction.

Natural Systems

Preserve, enhance, and reimagine natural systems including wetlands, Bridal Veil Creek, and the Granary Corridor area.

Other District Systems

Develop advanced infrastructure that includes renewable energy generation, water and wastewater treatment, solid waste recycling and other integrated systems.

Connected Public Realm

Create a safe, inviting and connected public realm. The public realm gives the district its identity and sense of place.

Signature Public Spaces

Include signature public spaces such as a park near the LRT station and Green Fourth Street.

Streets and Mobility

Design a network of streets favoring pedestrians and bicycles over cars, with well-designed lighting, signage and other landscape elements. Anticipate increased use of shared and autonomous vehicles.

Connections Beyond

Connect to regional transportation systems, essential services, public schools and higher education institutions, regional park systems, and adjacent neighborhoods.

Mixed Use

Create a rich and balanced mix of housing, retail, education, recreation, entertainment, arts, civic functions, business and research.

Diversity of Housing Types

Ensure that there is a mixture of income levels, ages, unit types and sizes in housing including opportunities for live/work units.

District Identity

Establish district identity with signage and landscape design elements.

Sustainability Guidelines at District Scale

Consider establishing sustainability, resilience and health-related guidelines for the district as a whole. The Eco-District Program is one example.

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1 District Scale Guidelines address district systems that help to create a connected public realm.

2 Project Scale Guidelines address building setbacks and heights to shape the public realm.

PROJECT SCALE GUIDELINES

District Systems Connections

Design for connection to district heating and cooling systems, district stormwater system, and other restorative infrastructure systems

Public Space Extension

Provide spaces and pathways on private property designed to complete and extend the public realm. Contribute to and reinforce the creation of signature public spaces, bicycle and pedestrian path networks. Connect to important resources and service centers and ensure access for all people.

Historic Structures

Whenever possible preserve historic structures in the district.

Adaptable Structures

Aspire to create flexible, adaptable spaces with high ceilings and long span structures for evolving uses. Design parking for adaptability to future use.

Eyes on the Street

Design for transparency and activity at street level with 75% glazing on lower levels.

Urban Design Elements

Design to complement the public realm with careful attention to building setbacks, building heights, and materials.

Hidden Parking

Hide parking structures and avoid blank walls by using underground garages and placing parking structures in the middle of blocks.

Flat Roofs

Provide flat roofs where possible to accommodate green roofs and solar panels. Use of rooftops for food production and waste treatment is encouraged.

Affordable Housing

Include adequate affordable housing, encouraging a diverse mix of housing across the District.

Public Art

Integrate public art into all projects.

Sustainable and Healthy Buildings

For every project, require sustainable and healthy building guidelines and a specific set of performance targets related to energy, water, stormwater, materials, waste and other indicators.

COMMUNITY SCALE GUIDELINES

Outcomes-Oriented

Clearly state the opportunity and purpose of a project's ability to solve problems and meet peoples needs, particularly those from underserved communities. Prioritize the opportunity to reduce racial, economic, health, housing, and safety disparities in all phases of district and project work including visioning, design, construction and implementation, maintenance, programming and modeling.

New Economy

Intentionally leverage the unique process and outcomes of District and Project scale work to incorporate job training and skill development opportunities as well as pathways to jobs for people from all backgrounds to fully participate in the new economy, particularly those at the highest risk of being left out of traditional economic growth.

Engagement

Facilitate deep engagement opportunities in all work and ensure communities most impacted by a project's outcomes play an integral role throughout the process.

Communication

Build a broad network of support and trusting relationships with stakeholders. Use regular and

accessible communication methods to inform and enable as many people as possible to participate in the work.

Placemaking

Involve artists, residents, and others in placemaking events in all phases of a project and the District's development.

Introduction

PLANNING AND COMMUNITY ENGAGEMENT

The *Towerside Planning and Implementation Framework* is based on a process that began over ten years ago originating with the Prospect Park Association and then the Prospect Park 2020 group. After a series of planning documents were developed for the area, the Prospect Park 2020 group engaged the Minnesota Design Center at the University to create the *Prospect North Public Realm Framework and Guidelines* in 2015. This is in the process of being updated to become the *Towerside Vision and Development Guidelines* (2018).

This planning and implementation framework has followed a process during 2017-18 that includes these steps:

Phase 1

- Meet with key stakeholders and obtain copies of all relevant project plans.
- Facilitate stakeholder workshop.
- Summarize workshop results including a composite plan graphic and a preliminary report identifying priority projects and initiatives.

Phase 2

- Work with Towerside and the adjacent neighborhoods to facilitate incorporation of the conceptual master plan and implementation framework into the Minneapolis and Saint Paul Comprehensive Plans and other planning documents.
- Facilitate stakeholder meetings and workshop to refine the physical planning framework and identify specific projects and initiatives.
- Outline strategies/actions for each project with a focus on implementation.
- Work with the Towerside Partnership and the neighborhoods to update the guidelines and assist them in implementing a project review process to ensure their application.

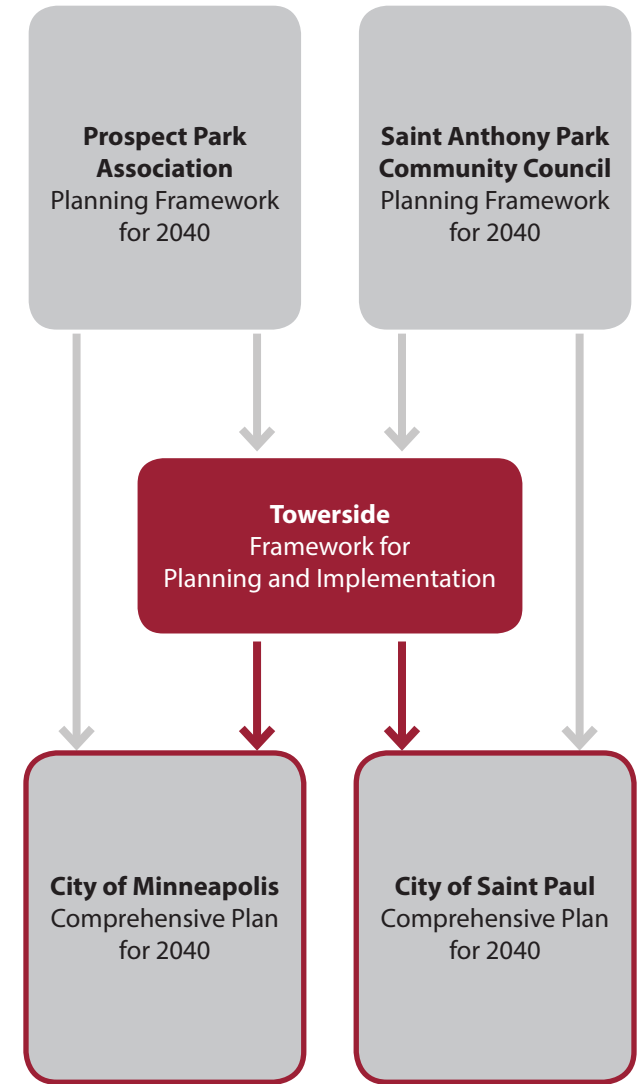
The *Towerside Planning and Implementation Framework* takes its lead for physical development and infrastructure from Prospect Park (Minneapolis) and Saint Anthony Park (Saint Paul). This document is consistent with the comprehensive planning documents of these two communities as well as the University of Minnesota.

PPA Community Planning Process

Prospect Park Association (PPA) launched a community engagement process in May 2017 with the Land Use and Planning Committee. PPA prepared background materials for information and discussion, organized or participated in a variety of neighborhood events to engage community perspectives, convened three neighborhood workshops or listening sessions, led walking development tours, and collected input through three surveys. (See *Appendix C*).

SAPCC Community Planning Process

The Saint Anthony Park Community Council is in the process of completing their Ten-Year Plan. The council conducted extensive community engagement to ensure that the document reflected the diverse experiences and visions held by members their community. More than 400 community members responded to an online community survey distributed between June–October 2017. Respondent demographics were compared with the demographics of the neighborhood to increase promotion of the survey to underrepresented populations. To address gaps in representation, the SAPCC Equity Committee led in-person surveying through community events and canvassing in targeted neighborhoods. (See *Appendix D*).



Community Planning Process

MINNEAPOLIS COMPREHENSIVE PLAN

The City of Minneapolis is required to update the Comprehensive Plan every ten years. This section illustrates Towerside's consistency with the current 2030 Plan, its alignment with the goals of the 2040 Plan, and suggested changes to the 2040 Plan and other planning documents.

CONSISTENCY WITH 2030 COMPREHENSIVE PLAN

The Towerside vision is consistent with many policies in the current Minneapolis 2030 Comprehensive Plan.

Land Use

- Encourage the use of flexible regulatory options that promote high quality development, such as the PUD tool (1.1.3)
- Support context-sensitive regulations for development and land use, such as overlay districts, in order to promote additional land use objectives (1.1.4)
- Encourage the development of high- to very-high density housing within the boundaries of Activity Centers (1.12.6) and Growth Centers (1.15.3).
- Support high-density development near transit stations in ways that encourage transit use and contribute to interesting and vibrant places (1.13).
- Encourage investment and place making around transit stations through infrastructure changes and the planning and installation of streetscape, public art and other public amenities (1.13.6).
- Support the intensification of jobs in Growth Centers through employment generating development (1.15.2).

Transportation

- Maximize the efficient use of off-street parking by developing district parking strategies in high density mixed-use areas such as Activity Centers and Growth Centers (2.8.3).
- Support successful streets and communities by balancing needs of all modes of transportation

with land use policy (2.2).

- Encourage walking by ensuring routes are safe, comfortable, pleasant and accessible (2.3).
- Maintain the street grid, reconnecting it where possible, and discourage the creation of superblocks that isolate pedestrians and increase walking distances (2.3.4).

Housing

- Support the development of new medium- and high-density housing in appropriate location throughout the city (3.1.1).
- Encourage and support housing development along commercial and community corridors, and in and near growth centers, activity centers, retail centers, transit station areas, and neighborhood commercial nodes (3.2.1).
- Increase housing that is affordable to low and moderate income households (3.3).
- Foster complete communities by preserving and increasing high quality housing opportunities suitable for all ages and household types (3.6).

Economic Development

- Attract businesses investing in high job density and low impact, light industrial activity to support the existing economic base (4.5).
- Align workforce investments with targeted industrial employers identifies as "21st Century" and "opportunity" industries. (4.5.1).
- Focus economic development efforts in strategic locations for continued growth and sustained vitality (4.9).
- Attract businesses to the city through strategic infrastructure investments (4.11).

Public Services and Facilities

- Enhance the safety, appearance and effectiveness of the city's infrastructure (5.4).
- Protect and improve individual, community and environmental health (5.7).

Environment

- Integrate environmental, social and economic goals into decision-making processes at all levels (6.1).
- Protect and enhance air quality and reduce greenhouse gas emissions (6.2).
- Promote the development of sustainable site and building standards on a city-wide basis (6.3.5).
- Incentivize compliance with adopted city sustainability standards in projects that receive financial assistance from the city (6.3.6).
- Expand the use of renewable energy (6.4).
- Be a steward of clean water by enhancing its surface and groundwater systems (6.9).

Open Spaces and Public Parks

- Provide a well-maintained, safe, and continuous trail system, giving priority to the "missing link" of the Grand Rounds Parkway (from MPRB Comp Plan).

Heritage Preservation

- Preserve, maintain and designate districts, landmarks, and historic resources, which serve as reminders of the city's architecture history and culture (8.1). Examples are grain elevators and Harris building.
- Recognize and preserve the important influence of landscape on the cultural identity of Minneapolis (8.5). Examples are Bridal Veil Creek and other wetlands.

Arts and Culture

- Integrate and utilize arts and culture as a resource for economic development (9.1).

Introduction

ALIGNMENT BETWEEN TOWERSIDE VISION AND MINNEAPOLIS 2040 COMPREHENSIVE PLAN GOALS

The goals for the Minneapolis 2040 Comprehensive Plan are shown in the adjacent box. The Towerside vision supports these goals as noted below.

Economic Competitiveness

For the Minneapolis-Saint Paul Region to continue to compete for the best and brightest minds to fuel economic growth, an Innovation District is essential.

Goals supported: 2, 4, 12

Research and Innovation

Research and innovation encourage economic growth and job creation. For this research-related economic growth to happen, regional companies need to be in proximity to UMN and other partners in the new economy.

Goals supported: 2, 4, 12

Public Realm

Public spaces including transit, streets, sidewalks, parks and plazas create a distinct and extraordinary identity grounded in locally-driven planning.

Goals supported: 5, 6, 8, 9, 11

Sustainability and Resilience

Towerside is a living laboratory for the re-thinking and re-tooling of urban living to meet the sustainability and resilience needs of the future.

Goals supported: 6, 9, 10, 11

Healthy Living

The design and planning of Towerside makes healthy lifestyle choices easy and accessible for all community members from access to everything from healthcare facilities to parks to supermarkets, and infrastructure that welcomes community and activity.

Goals supported: 1, 5, 9, 11

Diversity and Equity

Towerside need historically disadvantaged people and new Americans to become full participants in the region's prosperity.

Goals supported: 1, 2, 3, 4, 14

Lifelong Learning

Towerside is a place where you see people of all ages, backgrounds, and skill levels engaged through making, teaching, learning, and volunteering.

Goals supported: 4, 14

Design, Art and Culture

Authenticity and value come through concentrations of people producing art, cultural activity, and design of all kinds. Towerside is an intentional urban community infused with the arts and design.

Goals supported: 6, 8

Minneapolis 2040 Goals

People

1. In 2040, Minneapolis will have significantly reduced economic, housing, safety, and health disparities among people of color and indigenous peoples compared with white people.
2. In 2040, Minneapolis will have more residents and jobs, and all people will equitably benefit from that growth.
3. In 2040, all Minneapolis residents will be able to afford and access quality housing throughout the city.
4. In 2040, all Minneapolis residents will have the training and skills necessary to participate in the economy and will have access to a living-wage job.

5. In 2040, the people of Minneapolis will be socially connected, healthy, and safe.

Places

6. In 2040, Minneapolis will enjoy a high-quality and distinctive physical environment in all parts of the city.
7. In 2040, the physical attributes of Minneapolis will reflect the city's history and cultures.
8. In 2040, Minneapolis will have the creative, cultural, and natural amenities that make the city a great place to live.
9. In 2040, all Minneapolis residents will have access to employment, retail services, healthy food, parks, and other daily needs via walking, biking, and public transit.

Systems

10. In 2040, Minneapolis will be resilient to the effects of climate change and diminishing natural resources, and will be on track to achieve an 80% reduction in greenhouse gas emissions by 2050.
11. In 2040, Minneapolis will have healthy air, clean water, and a vibrant eco-system.
12. In 2040, Minneapolis will remain the economic center of the region with a healthy, sustainable, and diverse economy.
13. In 2040, Minneapolis City government will be proactive, accessible, and fiscally sustainable.
14. In 2040, Minneapolis will have an equitable civic participation system that enfranchises everyone, recognizes the core and vital service neighborhood organizations provide to the City of Minneapolis, and builds people's long term capacity to organize to improve their lives and neighborhoods.

SUGGESTED CHANGES TO THE MINNEAPOLIS 2040 COMPREHENSIVE PLAN

The following changes are suggested to the 2040 Comprehensive Plan. (See *Appendix F* for complete suggested language).

1. Create an “Innovation District” Comprehensive Plan Policy.

This will fulfill the City of Minneapolis’s Resolution 2015R-336 (Aug. 13, 2015), which resolves “that the City of Minneapolis will develop a definition of Innovation Districts to include in the City’s Comprehensive Plan update.”

Establish and support Innovation Districts to employ district-scale infrastructure and systems and to implement flexible policies and practices allowing for experimentation and innovation consistent with the City’s most ambitious goals.

Action steps:

The City will seek to accomplish the following action steps in Innovation Districts to support and experiment with new policies, practices and systems and to support and require developments that are consistent with the City’s highest goals as expressed in this plan.

- a. Encourage and support district approaches to systems, including but not limited to energy, stormwater, parking, waste management, and public realm.
- b. Allow for experimentation and innovation consistent with City goals and expressed priorities of a given Innovation District.
- c. Support funding for redevelopment opportunities including housing, business development, infrastructure, and greenspace, with priority given to affordable housing and/or job creation initiatives and projects.

- d. Allow a mix of uses, including residential, with predetermined amounts of production and processing uses in both Production and Processing districts and, in a lesser amount, in Production Mixed Use districts (See Appendix F for further explanation).
- e. In exchange for redevelopment and district systems support—and in exchange for allowing residential uses in Production and Processing districts within Innovation Districts—require above-standard developments and systems in energy efficiency and production, stormwater, parking, waste management, and public realm.

2. Add new infrastructure to all appropriate planning documents.

Transportation

- a. Continue to indicate Granary Road as a proposed future roadway. Granary Road is needed to resolve significant congestion and safety issues on Malcolm and University Avenue that will get worse with planned growth.
- b. Include Granary Crossing (Bridge) over the railroad tracks connecting to Kasota Road leading to Highway 280 in the proposed road and infrastructure plans and work with Saint Paul to extend the parkway characteristics of the Granary Corridor onto Energy Park Drive to create a unified development with the adjoining industrial lands in Saint Paul. Granary Road and Granary Crossing are needed for truck and other general access to the Towerside district.
- c. Indicate the a new location for the University of Minnesota Transitway as shown in this plan.
- d. Express strong support for district parking solutions.

Open Space and Parks

- e. Update maps and description of Missing Link of the Grand Rounds to include most recent Granary Road and Granary Crossing planning.
- f. Encourage more parks and recreation space in the District including the new signature park at 4th Street SE and 29th Avenue SE in the Prospect Park neighborhood in Minneapolis.

District Systems and Green Infrastructure

- g. Green infrastructure in Towerside is consistent with the Comprehensive Plan for Minneapolis and the aspirations of the city’s Resolution establishing Towerside as an Innovation District. Infrastructure projects include:
 - District stormwater system
 - District energy system
 - Restorative development with the Integrated Utility Hub

Introduction

SAINT PAUL COMPREHENSIVE PLAN

The City of Saint Paul is required to update the Comprehensive Plan every ten years. This section illustrates Towerside's consistency with the current 2030 Plan, its alignment with the goals of the 2040 Plan, and suggested changes to the 2040 Plan and other planning documents.

CONSISTENCY WITH 2030 COMPREHENSIVE PLAN

The Towerside vision is consistent with many aspects of the current Saint Paul 2030 Comprehensive Plan.

Land Use

- 1.2 Permit high density residential development in Neighborhood Centers, Mixed-Use Corridors, the Central Corridor, and Downtown.
- 1.12 Balance the following objectives for Neighborhood Centers through the density and scale of development: accommodating growth, supporting transit use and walking, providing a range of housing types, providing housing at densities that support transit, and providing open space and recreational opportunities.
- 1.14 Plan for growth in Neighborhood Centers.
- 1.19 Promote conditions that support those who live and work in Neighborhood Centers, including frequent transit service, vibrant business districts, a range of housing choices, and community amenities.
- 1.21 Balance the following objectives for Mixed-Use Corridors through the density and scale of development: accommodating growth, supporting transit use and walking, providing a range of housing types, and providing housing at densities that support transit.
- 2.16 Prepare a study of the West Midway industrial area outside the line of change as identified in the Central Corridor Development Strategy to determine how the industrial area may be best used to strengthen Saint Paul's industrial sector

and employment base (Towerside is within this area). The West Midway, one of Saint Paul's historic railroad corridors, is strategically located, with much of its current business activity closely tied to the railroad lines that run through it. Many existing businesses, though successful, do not employ large numbers of people. The study, in part, will focus on how the West Midway can evolve to capture "knowledge-based" business activity and to take advantage of the potential for a jobs/housing match because of its proximity to the Central Corridor.

- 3.12 Preserve and support parks and open space as part of the natural eco-system and as critical elements in the public realm.
- 3.15 Support the development of guidelines to incorporate public art in City-financed capital projects and larger redevelopment efforts to imbue these projects with a distinct sense of place; provide for their maintenance.

Housing

- 1.2 Meet market demand for transit-oriented housing.
- 1.4 Implement citywide policies for new housing developments to promote sustainability.
- 3.2 Support new housing opportunities for low-income households throughout the city.
- 3.3 Provide affordable housing in new production projects.

Parks and Recreation

- 1.1 Ensure convenient and equitable access to parks and recreation facilities.
- 1.2 Ensure attractive, functional, and engaging four-season public spaces.
- 2.10 Require that location and design of parks, open space, and trails be an integral part of large-scale redevelopment projects.

- 2.15 Encourage the integration of public art in the development and renovation of parks and recreation facilities.
- 6.1 Connect parks to new transportation investments, especially the Central Corridor LRT line.
- 6.8 Connect the Saint Paul and Minneapolis Grand Rounds parkways together.

Transportation

- 2.1 Create true transportation choices for residents, workers, and visitors in every part of the city.
- 2.2 Support transit-oriented design through zoning and design guidelines.
- 3.1 Support cooperative efforts in streetscape design, landscaping, pedestrian-scale lighting, and other amenities for people.
- 3.4 Develop and maintain a complete and connected bikeway system.
- 4.8 When redevelopment opportunities become available, reinstate the traditional street grid pattern to increase neighborhood connectivity.

Water Resources

- 2.18 Encourage the use of native vegetation for appropriate land uses.
- 2.19 Promote tree planting and improved tree planting strategies to reduce runoff by increasing the survival rates and lifespans of trees.

ALIGNMENT BETWEEN TOWERSIDE VISION AND SAINT PAUL 2040 COMPREHENSIVE PLAN GOALS

The themes and priorities for the Saint Paul 2040 Comprehensive Plan are shown in the adjacent box. The Towerside vision supports these themes and priorities as noted below.

Economic Competitiveness

For the Minneapolis-Saint Paul Region to continue to compete for the best and brightest minds to fuel economic growth, an Innovation District is essential. *Priorities supported: 6, 7*

Research and Innovation

Research and innovation encourage economic growth and job creation. For this research- related economic growth to happen, regional companies need to be in proximity to UMN and other partners in the new economy. *Priorities supported: 6, 7*

Public Realm

Public spaces including transit, streets, sidewalks, parks and plazas create a distinct and extraordinary identity grounded in locally- driven planning. *Priorities supported: 2, 4, 5*

Sustainability and Resilience

Towerside is a living laboratory for the re-thinking and re-tooling of urban living to meet the sustainability and resilience needs of the future. *Priorities supported: 1*

Healthy Living

The design and planning of Towerside makes healthy lifestyle choices easy and accessible for all community members from access to everything from healthcare facilities to parks to supermarkets, and infrastructure that welcomes community and activity. *Priorities supported: 1, 3*

Diversity and Equity

The economic value and environmental quality of Towerside need historically disadvantaged people and new Americans to become full participants in the region's prosperity. *Priorities supported: 1, 3, 8*

Lifelong Learning

Towerside is a place where you see people of all ages, backgrounds, and skill levels engaged through making, teaching, learning, and volunteering. *Priorities supported: 6*

Design, Art and Culture

Authenticity and value come through concentrations of people producing art, cultural activity, and design of all kinds. Towerside is an intentional urban community infused with the arts and design. *Priorities supported: 9*

Themes and Priorities for Saint Paul 2040 Comprehensive Plan

- 1. Livability, equity and sustainability.** When we asked about regional themes established by the Metropolitan Council, a majority said livability and equity are the most important for Saint Paul. Further public input established sustainability as also being vitally important. Other regional themes to be incorporated into the updated Comprehensive Plan include prosperity and stewardship.
- 2. Parks and open space.** Parks and open space, from Como Park to Swede Hollow to the Mississippi River to local playgrounds, were consistently identified throughout the city as cherished places that we should preserve and enhance.
- 3. Sense of community.** Many people identified social connections, diversity and their neighborhood's character – whether “vibrant” or “quiet” – as key advantages of living in Saint Paul.
- 4. Public safety.** People want to be and feel safe in their communities, and to have positive relationships with police officers. Strategic investment and thoughtful design can improve public safety. While this issue goes beyond typical development policies covered in the Plan, other ways to meaningfully incorporate this deep concern will be explored.
- 5. Road safety for pedestrians and bicycles.** Pedestrian safety at crossings and improved facilities were frequently identified as issues, as were bicycle facility improvements and safety.
- 6. Invest in people.** Whether job training or programming at recreation centers (especially for youth), people identified this as an important issue for Saint Paul. Many commented that these investments pay dividends for livability, prosperity and public safety.
- 7. Jobs.** People said we need more and better jobs to allow people to provide for their families and lift up the entire community.
- 8. Quality affordable housing.** People said we need more affordable housing, and that existing housing must be well-maintained.
- 9. Saint Paul is full of opportunity sites.** The range of “places with potential” identified was astounding. People said there are gems throughout the city, ready for (re)discovery and investment.

Introduction

SUGGESTED ELEMENTS FOR THE SAINT PAUL 2040 COMPREHENSIVE PLAN

The Saint Paul 2040 Comprehensive Plan is still a work in process. A preliminary draft is available, but not yet out for public comment. The Comprehensive Plan will also include a Ten-Year Plan for Saint Anthony Park (District 12). The St. Anthony Park Community Council has submitted a proposed Ten-Year Plan for review by the City, but the City has not yet provided comments.

The Saint Paul portion of the Towerside Innovation District is located in Saint Paul's Creative Enterprise Zone (CEZ). The vision of the Creative Enterprise Zone is complementary to Towerside's vision. The Towerside vision and the vision of the Creative Enterprise Zone are generally consistent with the themes and priorities set out in the current draft of the Saint Paul 2040 Comprehensive Plan and the proposed Saint Anthony Park Ten-Year Plan. However, certain innovative elements of the proposed Saint Anthony Park Ten-Year Plan will need to be recognized and enhanced during the Comprehensive Plan review process to carry forward the vision of the Towerside Innovation District, the Creative Enterprise Zone, and the Saint Anthony Park community. These innovative elements include the following:

1. Proactively address equity in housing, commerce and industry.

The Saint Anthony Park Ten-Year Plan is built on a theme of equity, diversity and inclusion. Innovative elements set out in the plan seek to eliminate disparities in housing, employment, and economic opportunity. Absent these innovative elements, the area will experience gentrification in housing and the kind of industrial redevelopment that fails to promote urban job growth.

2. Reuse and redevelop industrial areas to accommodate modern businesses.

EDB1.1 Collaborate with the City and the Creative Enterprise Zone to identify and support infrastructure needs for maker spaces.

EDB1.2 Identify opportunities for planned assemblage of underused industrial land to open up opportunities for more community influence on redevelopment.

EDB1.4 Support use of art and creative enterprises as a catalyst for redevelopment.

3. Create district systems for infrastructure in redeveloped areas.

EDB2.1 Collaborate with the City and property owners to create shared parking districts at University Avenue businesses.

EDB2.2 Support locating stormwater holding devices under new green spaces. Encourage new developments and public infrastructure to connect to these systems.

EDB2.3 Support creation of local district energy systems.

EDB2.4 Work with Prospect Park and the Towerside Innovation District to create a common set of development guidelines where appropriate.

EDB2.6 Collaborate on plans to construct a lid over TH 280 between Territorial Road and Franklin Avenue to create new opportunities for commercial and open space use.

4. Change zoning to allow greater flexibility and mixed-use that may include industrial, commercial, and residential uses.

EDB3.1 Work with the City to create a new zoning overlay district in the CEZ, similar to the Towerside Prospect Park Overlay Zone in

Minneapolis, to promote transitional industry/creative enterprise that allows work/live space while preserving jobs.

EDB3.2 Encourage the use of zoning techniques (such as zoning overlays allowing residential/industrial mixed use and Planned Unit Development (PUD) zoning) to provide design flexibility in meeting community goals of building designs and zoning that promote flexible use to support changing needs of residents.

5. Make changes to the industrial area infrastructure to increase its attractiveness for redevelopment.

EDB4.1 Encourage the completion of the street grid as redevelopment occurs.

EDB4.4 Support improvement of the Energy Park Drive connection to TH 280 to provide better access to the adjoining industrial areas without infringing on the Kasota Ponds.

6. Create a collaborative process bringing together developers, SAPCC, and the City to enhance the contributions of commercial and industrial projects to the neighborhood and maximize their potential for success.

EDB7.1 Develop stronger local development guidelines and encourage public input into all new commercial and multi-family residential projects.

EDB7.2 Implement a collaborative Memorandum of Understanding (MOU) process to detail the commitments each developer makes to the neighborhood to secure community support for projects requiring City approvals.

EDB7.5 Encourage development of financial tools, policies, and resources to support

redevelopment in Saint Anthony Park, such as a defined area of Tax Increment Financing (TIF) district for pooling resources to support affordable housing, affordable business spaces including maker spaces, infrastructure and district systems, and creation of living-wage jobs.

7. Increase the variety of housing types and affordable housing options in Mixed-Use areas.

- H3.1 Support the community goal of intergenerational housing by requesting that new developments include at least 30% of units for families.
- H3.2 Support the community goal of equitable housing by requesting that new developments with more than 12 units include at least 30% of units that are affordable for people/families making less than 60% of the average median income of Saint Paul.
- H3.3 Support consideration of changes to zoning to provide inclusionary zoning requiring a portion of any new development over a certain size to include affordable units.

8. Guide new housing along the Green Line Mixed-Use area to assure it is in appropriate locations and provides a variety of housing types.

- H4.1 Strongly encourage a variety of heights and interspersed public open space with varied architectural expressions and landscaping for new buildings to create an interesting streetscape.
- H4.2 Use density bonuses for taller buildings to provide opportunities for open space or

indoor community centers, and for affordable units as part of new residential and mixed-use developments.

- H4.3 Promote mixed-use structures for new housing that include maker space and other commercial and industrial uses.
- H4.4 Work with the City on a new zoning category (or zoning overlay) for a transitional industrial/creative enterprise zone that allows mixed use including housing while preserving jobs.

9. Encourage bicycling [and other improvements] to provide safer infrastructure and better amenities

- T4.4 Work with the City to create park-like links between the Minneapolis Grand Rounds and the Saint Paul Grand Round by working with the City and County to provide off-road bicycle/pedestrian paths along key connecting streets and adding other parkway features. Priorities: (1) The railroad spur from Pelham and Wabash to the new park at Berry and Myrtle; and (2) Energy Park Drive between Snelling and the Minneapolis border to connect with the future Granary Road bridge.
- T4.7 Encourage the City to resurface Territorial road from Vandalia to Berry with bike lanes and clear pedestrian infrastructure. Provide a bicycle and pedestrian connection from Territorial at Berry to Bedford (in Minneapolis), connecting to the Towerside Innovation District.

10. Work with City, County, and State personnel to reduce the impact of truck traffic on residential streets.

- T5.2 Advocate for a new north-south street connection between Granary Road and Energy Park Drive, facilitating truck access to the highway system with the least impact on residential streets.

11. Seek ways to develop more public green space.

- PR2.3 Work with the City to develop and maintain the new park at the Weyerhaeuser site.

In addition to the foregoing elements contained in the proposed Saint Anthony Park Ten-Year Plan, the following additional elements should be considered for inclusion in the final Comprehensive Plan and Ten-Year Plan:

1. Collaborate with the City, the Creative Enterprise Zone, and property owners to create and preserve affordable makerspace within the CEZ and other industrial areas for use by artists, artisans, urban manufacturers, nonprofits, and other creative enterprises.
2. Work with the City, the Minneapolis Park Board and the Mississippi Watershed Management Organization to include the Kasota Ponds and adjoining wetlands in the Bridal Veil Regional Trail that is proposed to extend through the Towerside district.



Aerial of Towerside District

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In Phase 1 of this study, plans and other information were collected and a composite plan was prepared to reveal issues that represent potential areas of agreement as well as conflicts needing resolution (see Resources). Through the workshop process, priorities were identified that have been moved forward during Phase 2 of the project.

Issues revealed in the Phase 1 work include:

- A railroad crossing bridge is an essential connection to access the District from Highway 280, to unlock land for economic development, and relieve traffic congestion. The bridge also can be used complete the missing link of the Minneapolis Grand Rounds and connect to the Saint Paul Grand Round.
- Street and block plans need coordination north of the University Transitway and south of Granary Corridor between TCF Stadium and Malcolm Avenue. Completion of the street and block patterns is also needed in the “eastern core” of Towerside around the Westgate Station.
- The 27th Avenue Corridor must be preserved for the Missing Link Parkway. Completion of the missing link should also include a link between the Minneapolis Grand Rounds and the Saint Paul Grand Round at Raymond Avenue.
- Crossing the University Transitway is an issue for access to development sites north of the Transitway.
- A better pedestrian connection is needed from the Prospect Park LRT station area to the Glendale Townhome community.

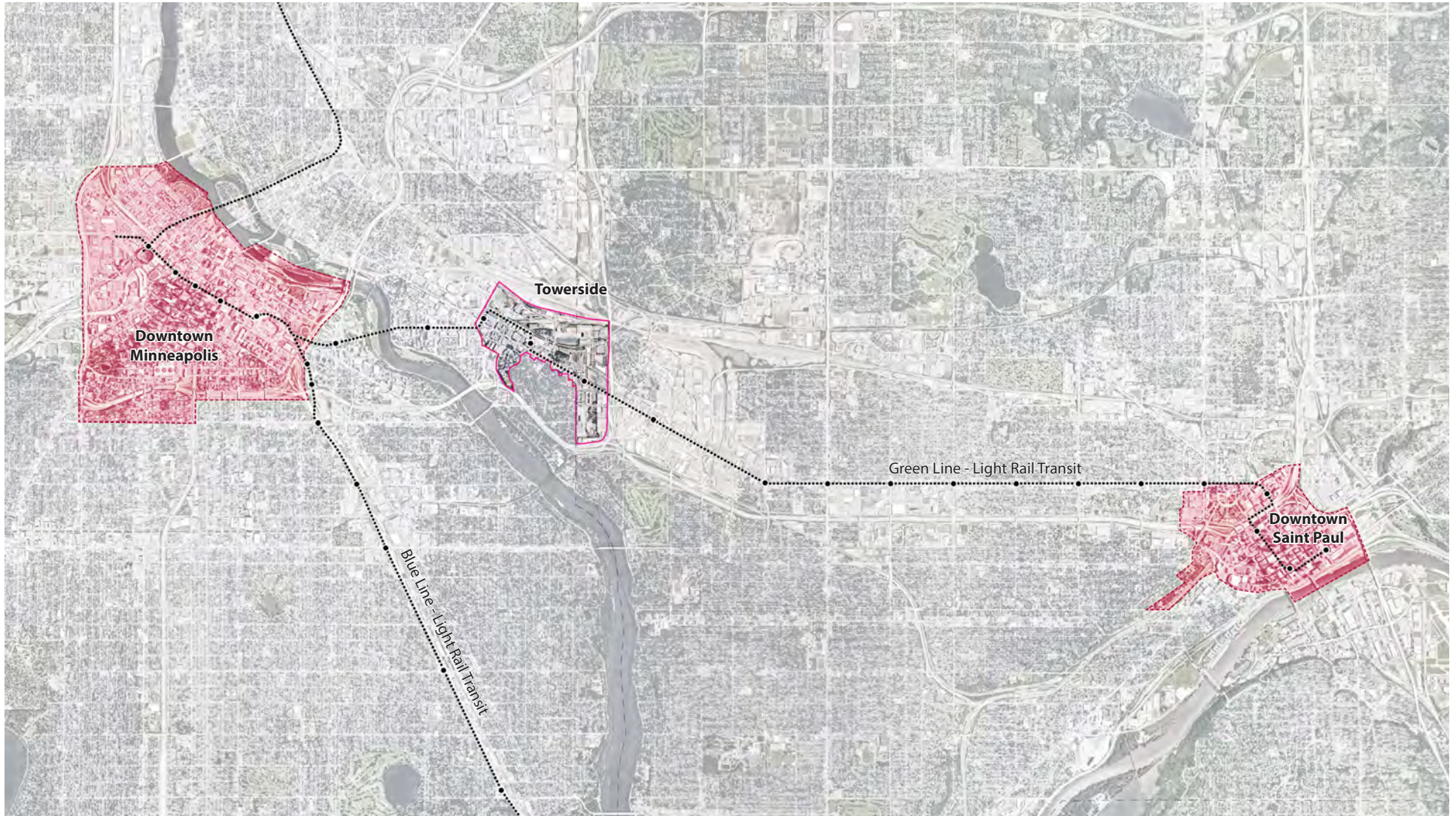
During Phase 2 of the project, the Towerside Partnership worked with the Saint Anthony Park Community Council in Saint Paul and the Prospect Park Association in Minneapolis to refine the physical plan and priorities identified in Phase 1. The new plans were

presented in a workshop where both neighborhoods and other stakeholders were represented. As shown at the end of this section, the Towerside planning recommendations are aligned with the Prospect Park Planning Framework for 2040 and the Saint Anthony Park Community Council Ten-Year Plan.

These maps are shown on the following pages:

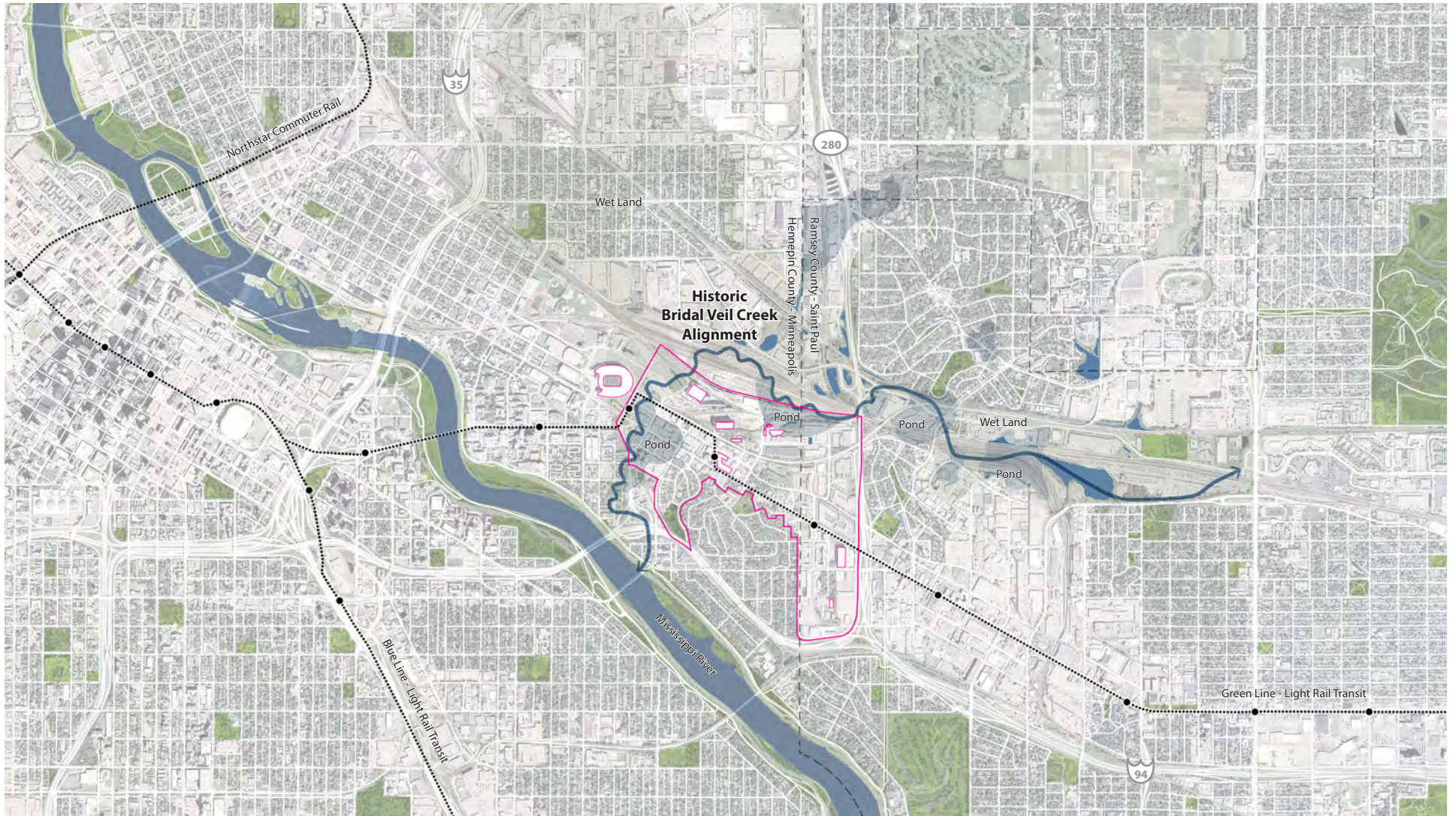
- Context - Location Map
- Context - Natural Resources
- Context - Adjacent Neighborhoods
- Context - Relationship to the University of Minnesota and Creative Enterprise Zone
- Existing Street Network - Vehicular
- Proposed Street Network - Vehicular
- Existing Pedestrian and Bikeway Routes
- Proposed Pedestrian and Bikeway Routes
- Existing Parks, Trails and Open Spaces
- Proposed Parks, Trails and Open Spaces
- Existing Land Use
- Generalized Proposed Land Use

Physical Plan



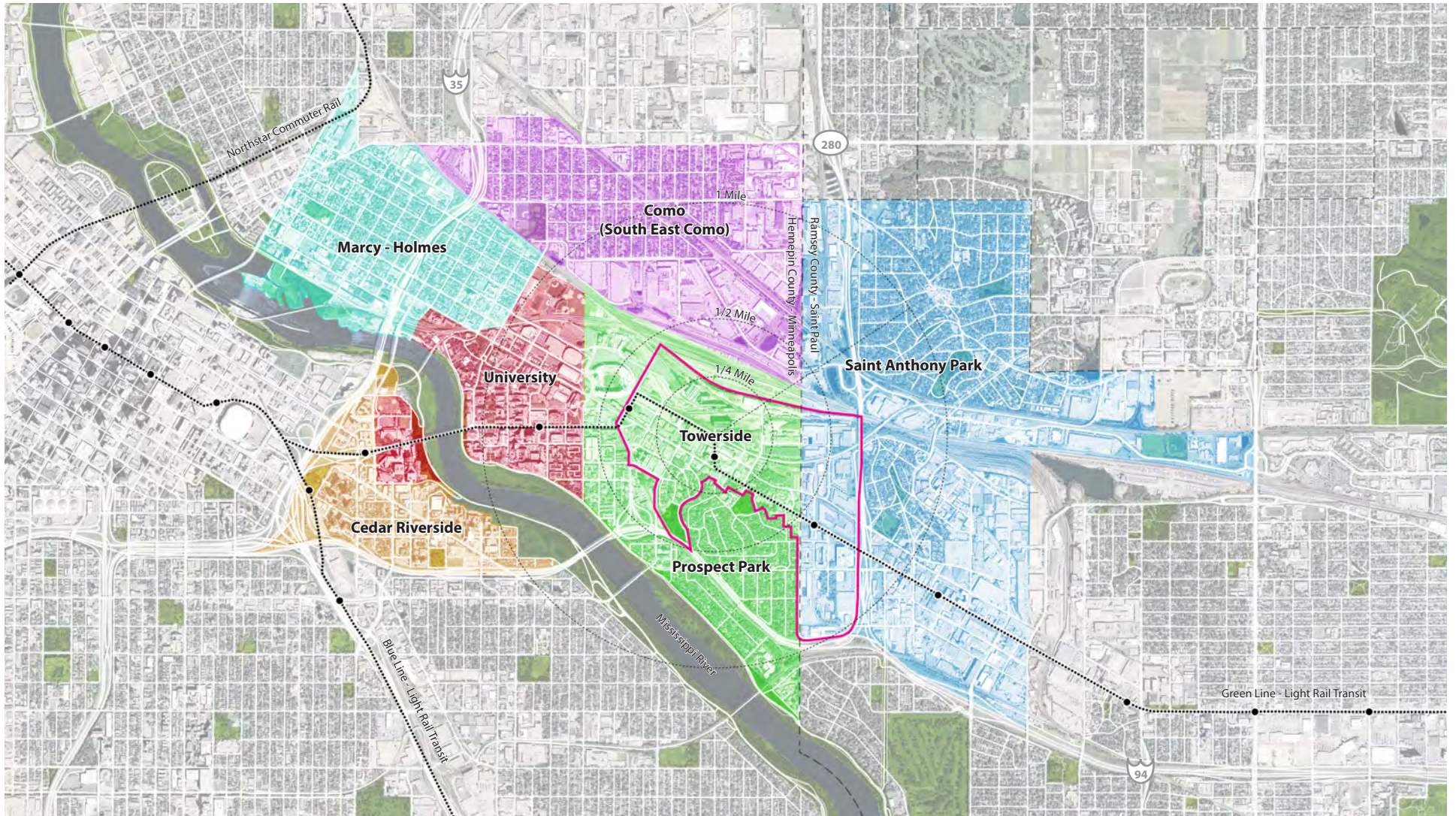
Context – Location Map

The Towerside Innovation District (its boundary defined by the city councils of Saint Paul and Minneapolis) sits along University Avenue between Highway 280 and 23rd Avenue, including properties on both sides of the City/County line.



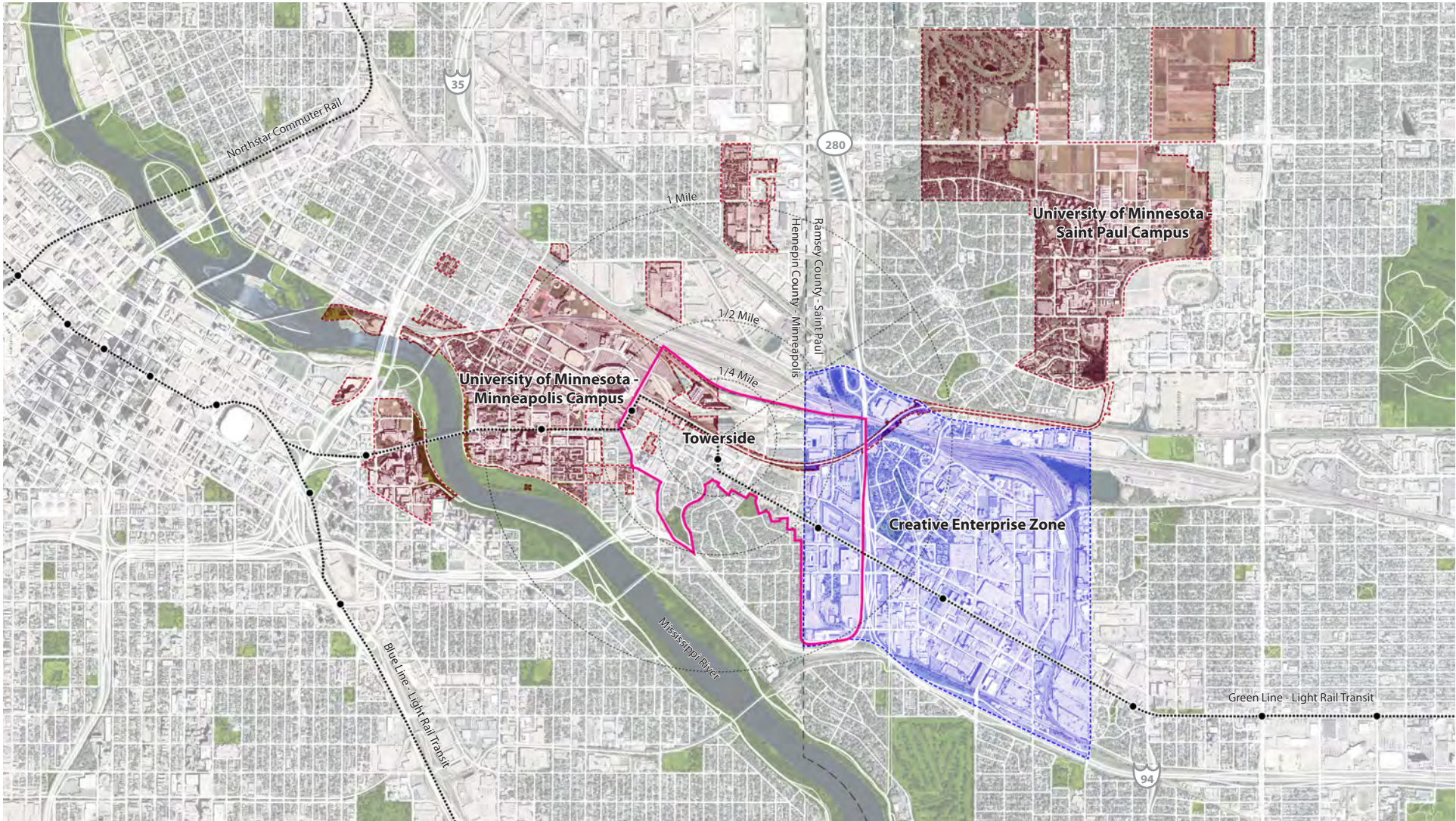
Context – Natural Resources

Historic maps of this area show a variety of natural features including creeks, small ponds and wetlands. Most of these features have disappeared as railroads, highways, industry other new development patterns reshaped this part of the Twin Cities.



Context – Adjacent Neighborhoods

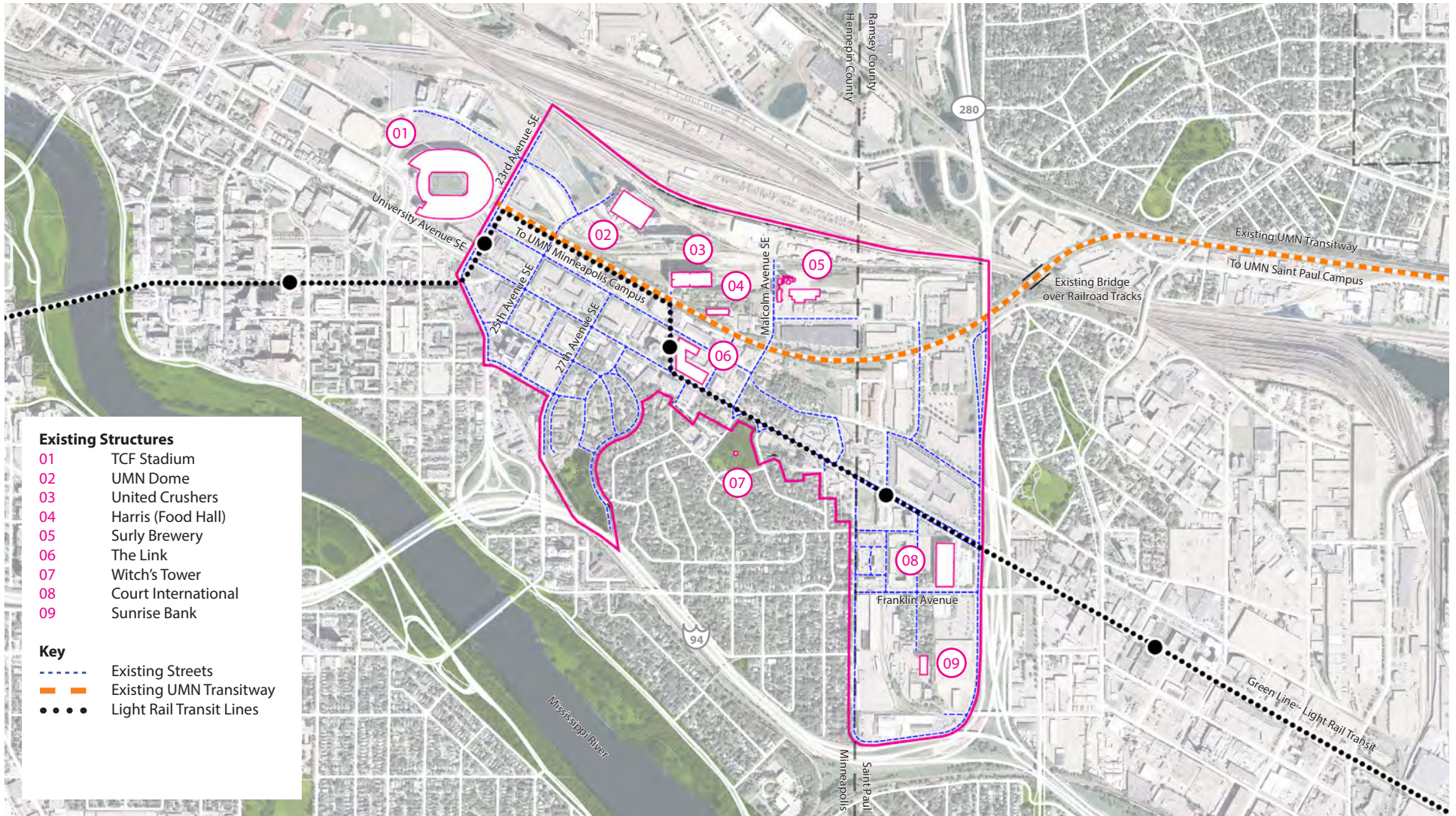
The Towerside Innovation District shares its borders with several Minneapolis/Saint Paul neighborhoods. Properties within the District boundary include (and are represented by) the three significant and key stakeholders – Saint Anthony Park neighborhood, Prospect Park neighborhood, and the University of Minnesota.



Context – Relationship to the University of Minnesota and the Creative Enterprise Zone

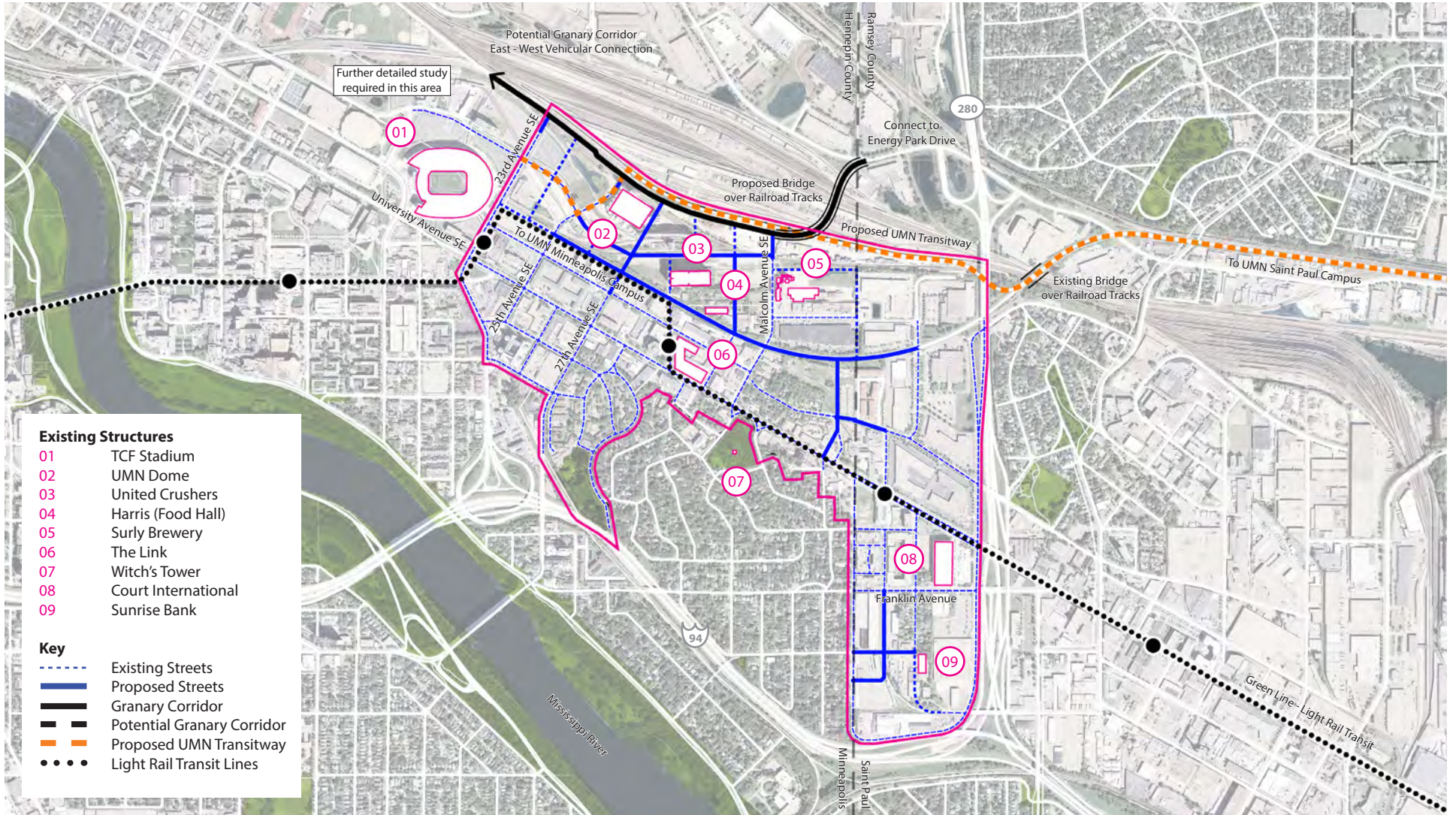
The Towerside Innovation District is situated between the University of Minnesota East Bank Campus and the Saint Paul Creative Enterprise Zone, which shares geography and overlapping interests in the redevelopment of the Towerside Innovation District.

Physical Plan



Existing Street Network – Vehicular

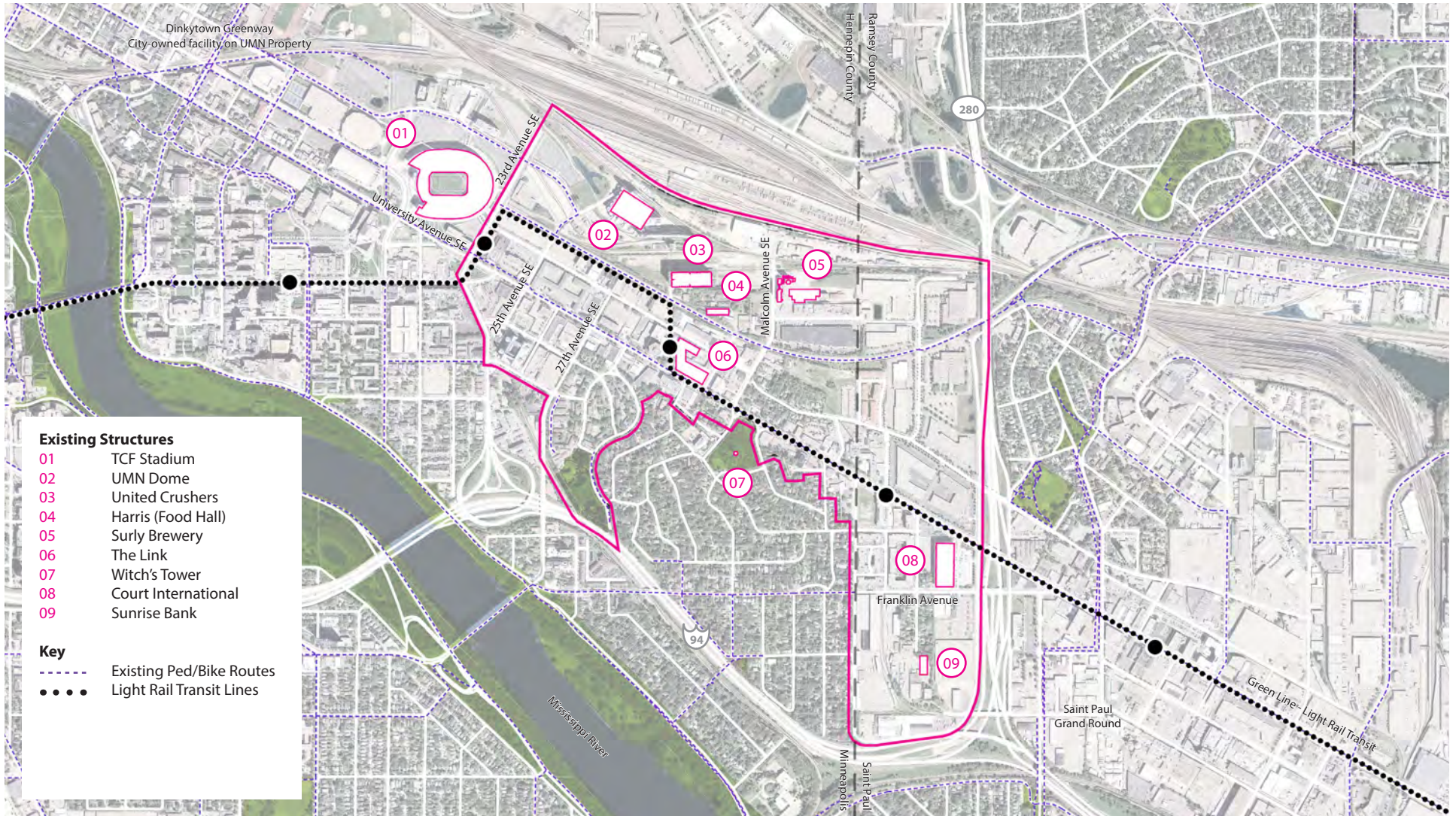
The existing street network provides the starting point for determining potential improvements related to access and connectivity within the district, to surrounding neighborhoods and with city/regional systems and destinations.



Proposed Street Network – Vehicular

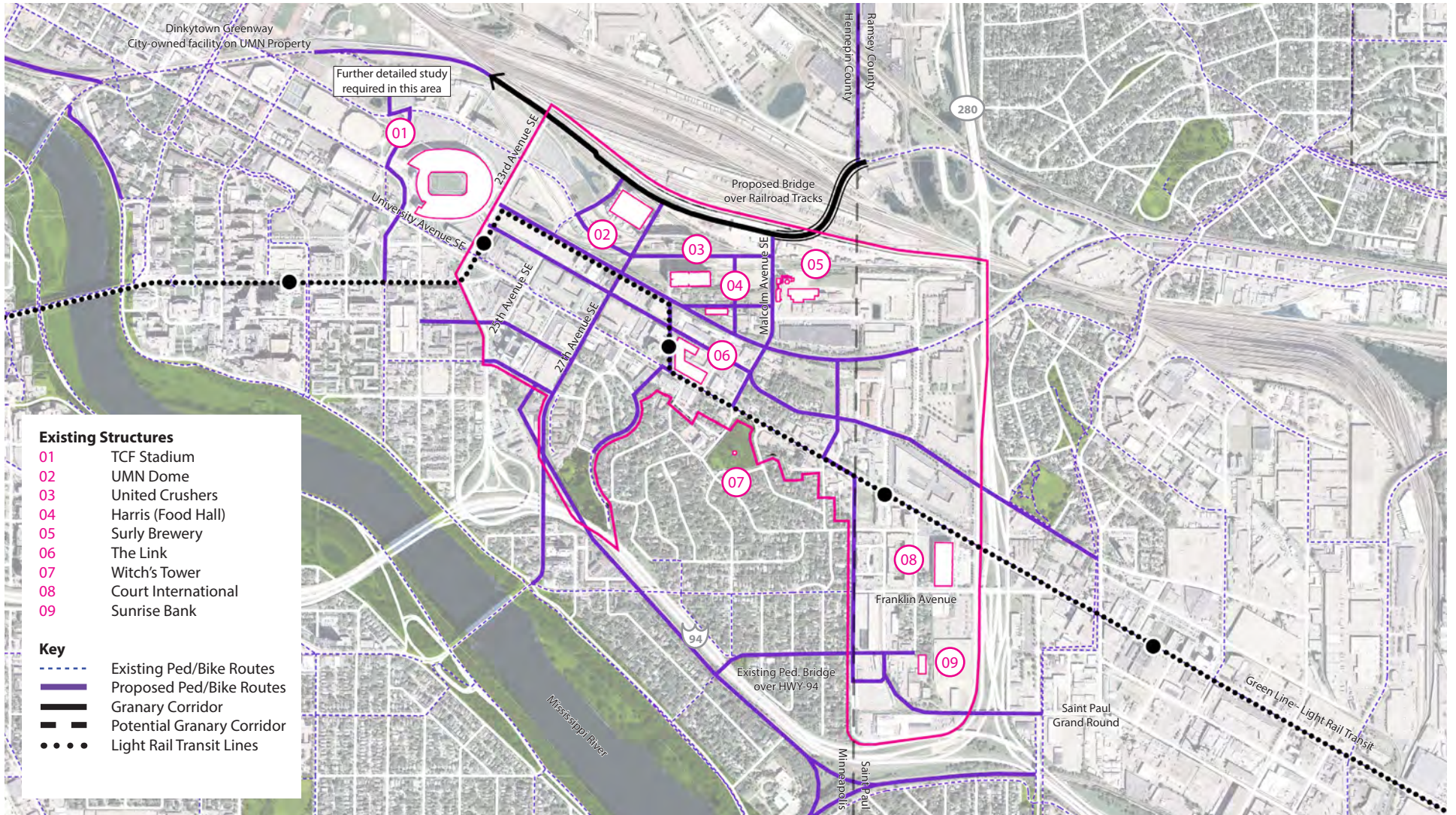
Extension of the District street pattern shown here includes a variety of potential street improvement projects ranging from major connections of regional significance, such as the Granary Corridor, to smaller internal connecting streets that define block size and unlock land value. Further study and detailed analysis will be needed to address issues and clarify design direction going forward.

Physical Plan



Existing Pedestrian and Bikeway Routes

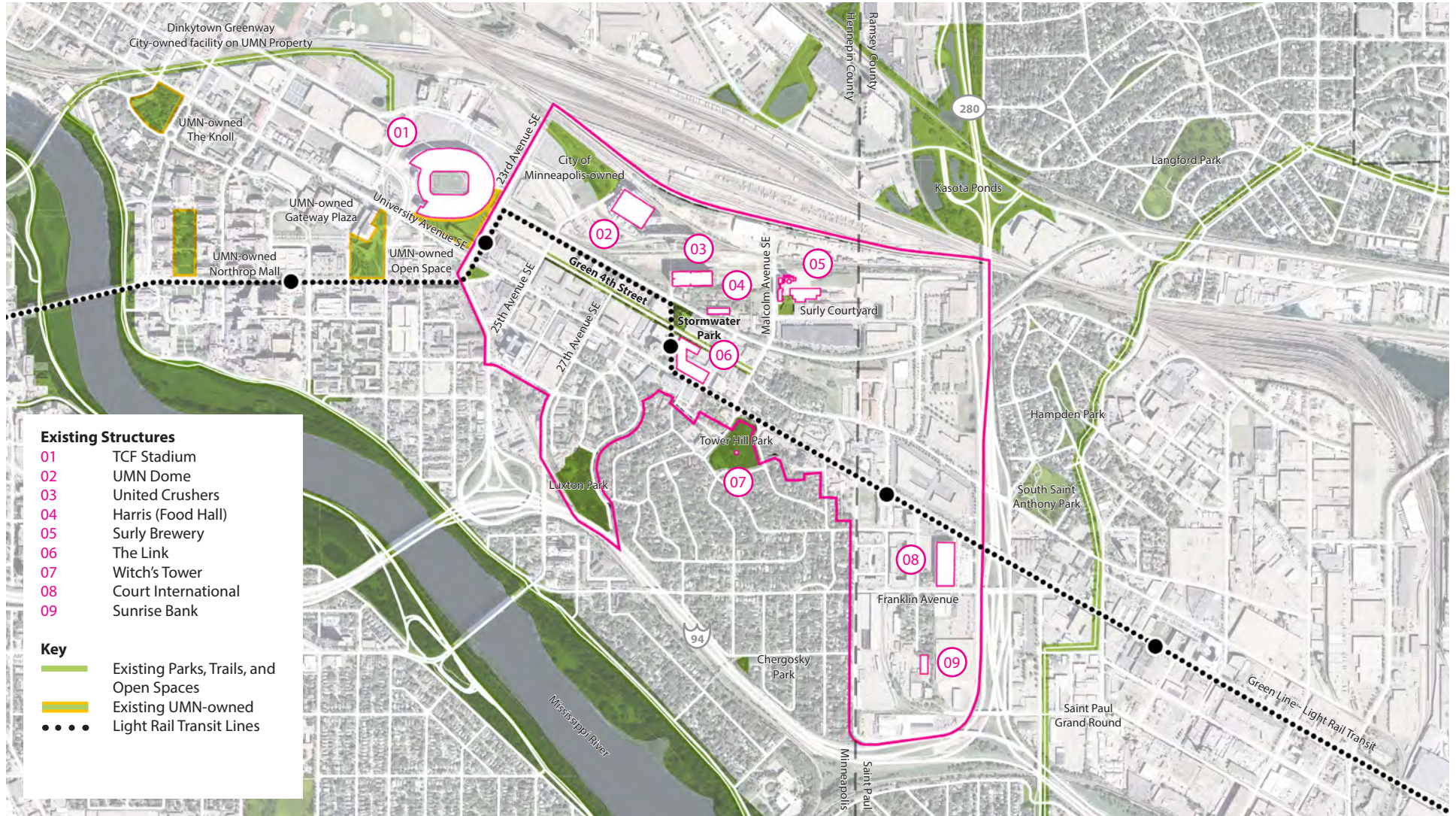
The existing pedestrian and bikeway routes shown on this map confirms our widely recognized bike-friendly reputation, but also highlights the need for additional bicycle and pedestrian amenities/facilities to keep pace with ongoing growth and redevelopment.



Proposed Pedestrian and Bikeway Routes

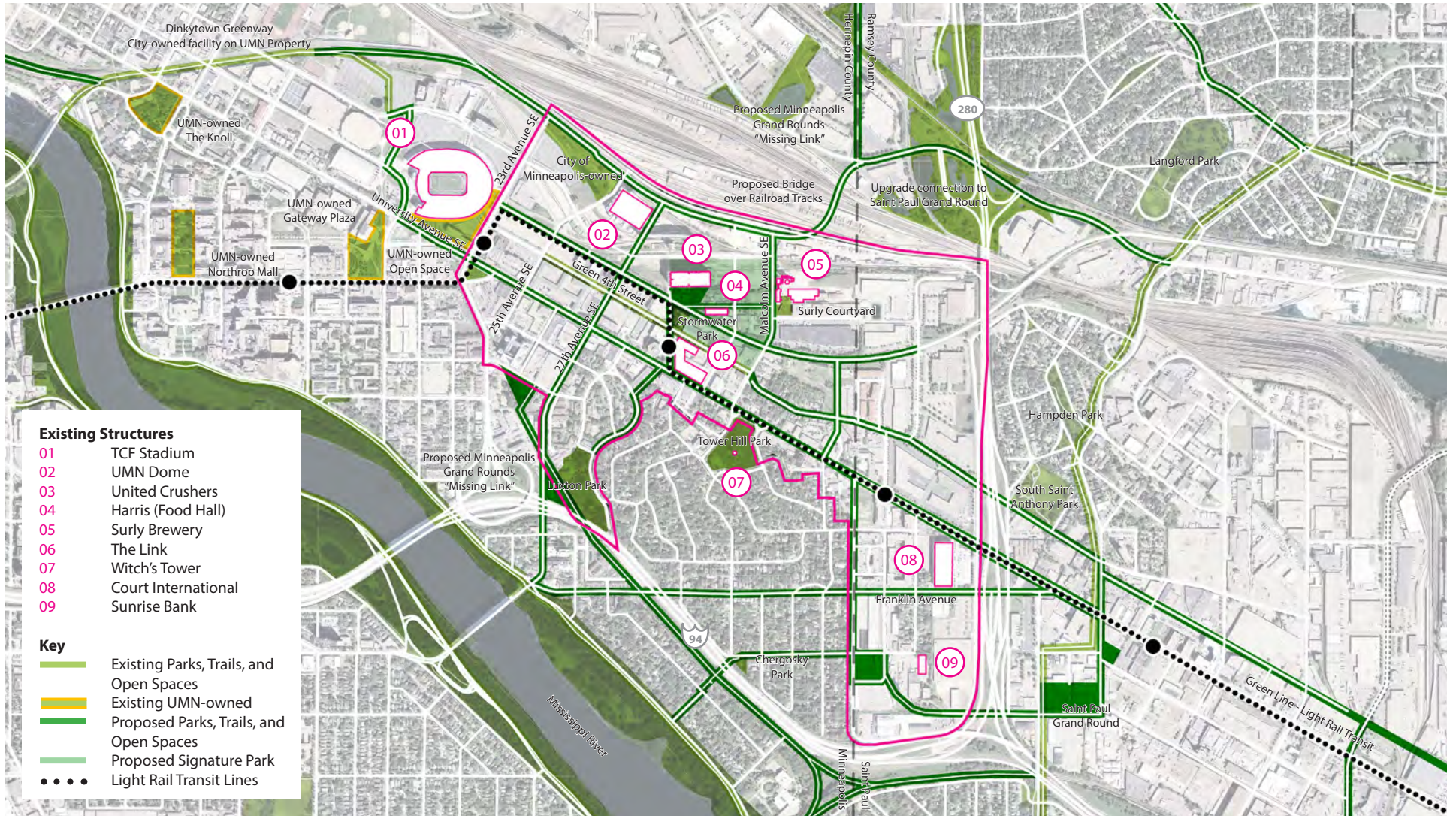
Both on-street and off-street bicycle/pedestrian routes are shown here, providing opportunities to extend existing systems while providing new connections within and around the District.

Physical Plan



Existing Parks, Trails, and Open Spaces

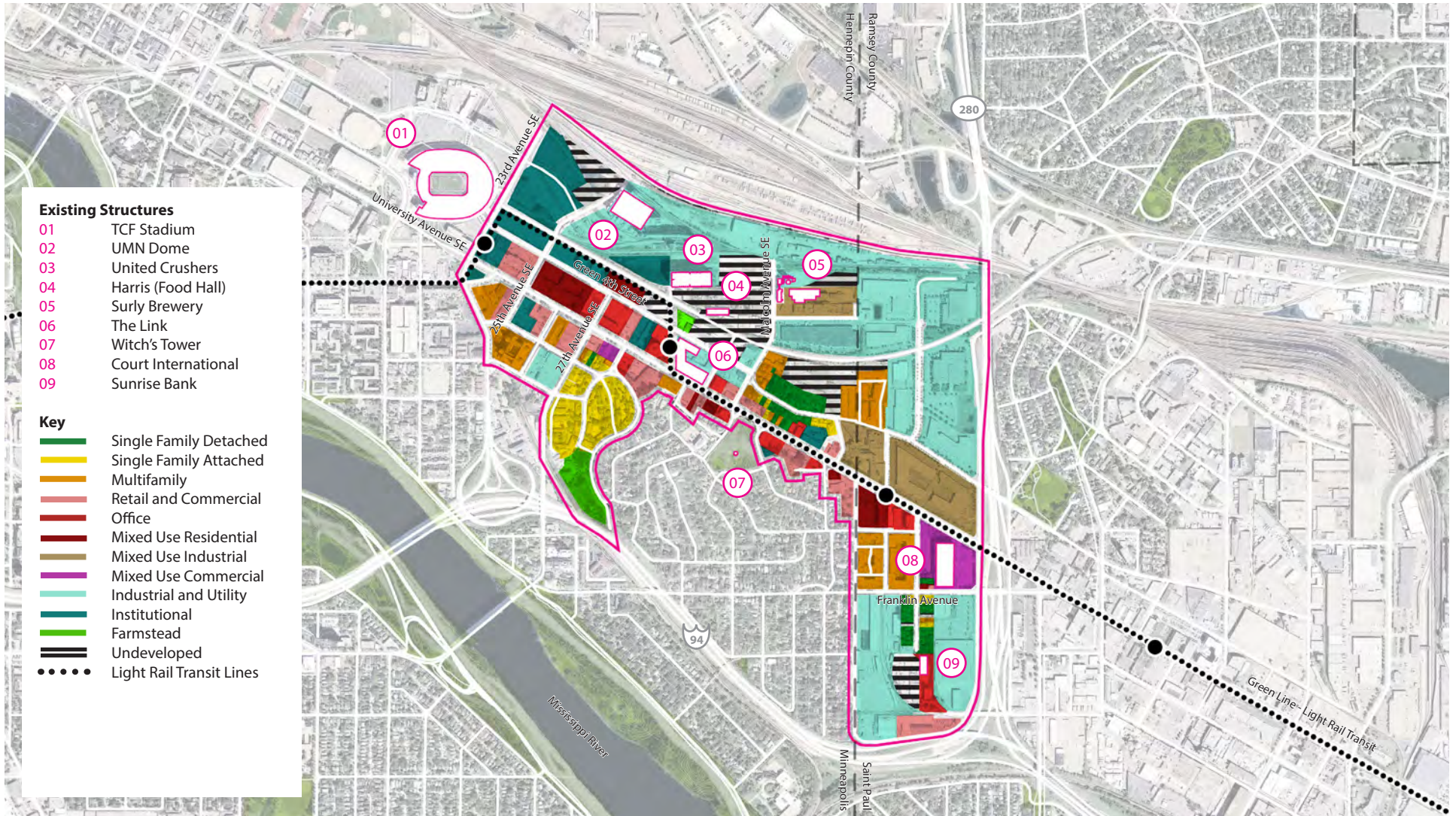
Our internationally renowned parks system places a high priority on providing a wide range of amenities and programs, with easy access for everyone. Current studies through the Minneapolis Park and Recreation Board are exploring opportunities for additional facilities within this service area. At the same time Saint Paul Parks is interested in potential improvements/extension of the Saint Paul Grand Round.



Proposed Parks, Trails and Open Spaces

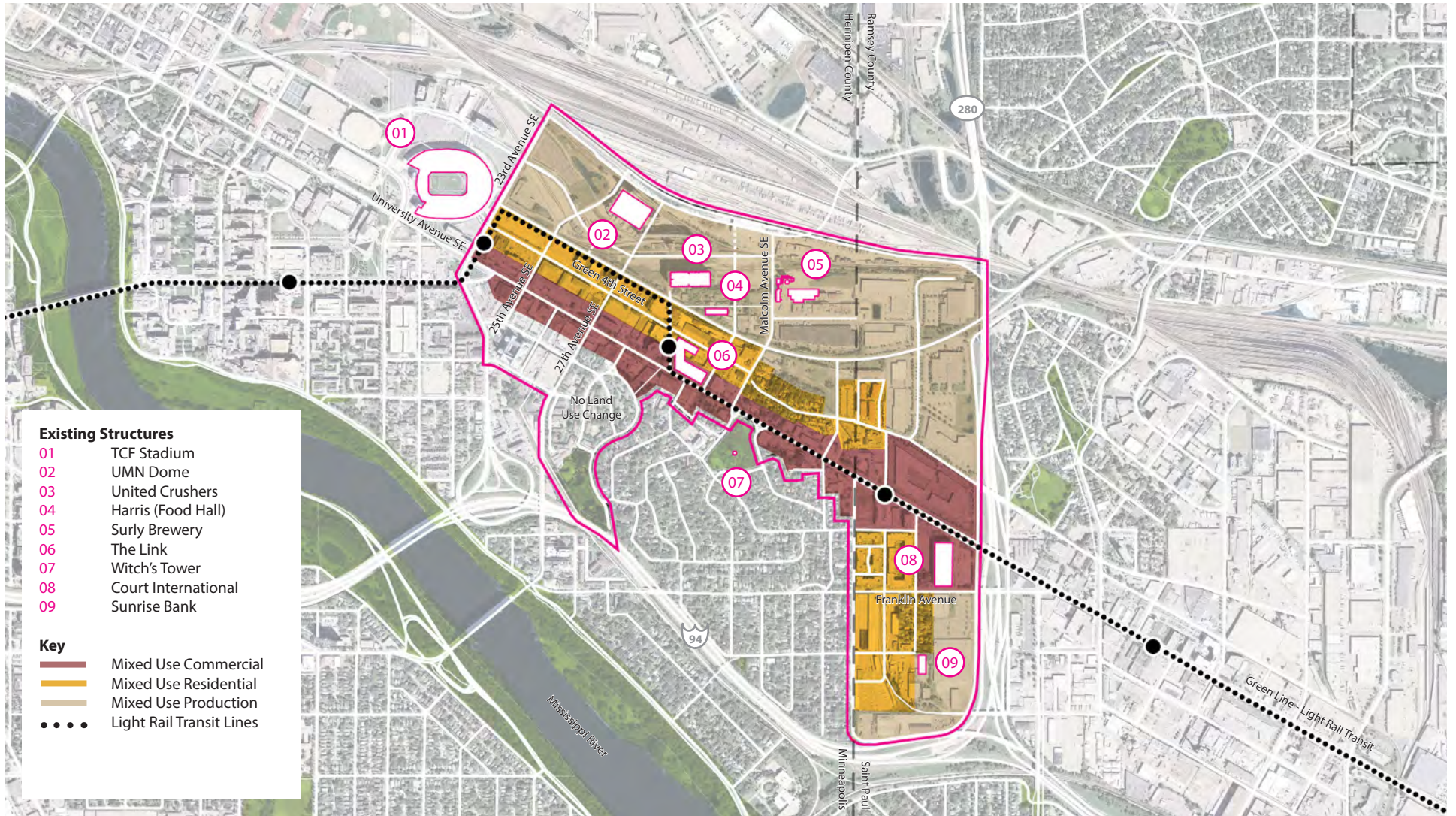
Anticipating more detailed study results (currently underway), a number of proposed additions to parks and other public amenities within and around this District include two signature parks, support for regional trail connections related to the Minneapolis Grand Rounds, the Saint Paul Grand Round and the Granary Corridor.

Physical Plan



Existing Land Use

Understanding the desired mix of uses (and land use classifications) indicated on various City Planning maps, it is interesting to note similar overall objectives related to jobs creation, housing variety and need for commercial/retail opportunities within and around the District.



Generalized Proposed Land Use

Mixed-use is the key phrase, and has been a major objective and specific recommendation contained in recent studies, reports and maps of the District; the primary objective seeks to create a rich and balanced mixed-use district including housing, retail, education, recreation, entertainment, civic functions, business and research. In the context of the Towerside Innovation District, mixed-use is intended to allow multiple compatible uses on individual sites or within individual structures. The indicated zones show what is intended as the primary use in that geography.

Physical Plan

PLANNING RECOMMENDATIONS

This is a summary of recommendations developed in collaboration with the neighborhoods, the University of Minnesota, the two cities, other governmental entities, and other stakeholders.

1. **INNOVATION DISTRICT REGULATORY FRAMEWORK**

Towerside envisions itself as a place of collaboration, district-scale planning and strategic investment that yield successes well beyond what by themselves single project developments could achieve. This fundamentally requires rethinking urban infrastructure management, resource allocation, problem solving and a flexible, results-focused regulatory environment. The district's success hinges on effectively sharing systems and resources and mixing uses that support and respond to the changing needs of a global economy. Implementing systems and tackling challenges on a district-wide basis requires a more tailored and flexible city planning, zoning and regulatory approach. A different type of mixed-use development model is needed to respond to the evolution and change in the economy. There is also a need to update the district guidelines and establish a project review process in collaboration with Towerside and the neighborhoods.

2. **INTEGRATED GREEN INFRASTRUCTURE PLAN**

The Innovation District incorporates environmental principles and objectives. The district plans for a mix of spaces, places and activities supported by a district-wide network of innovative services and systems including stormwater management, energy, and a connected green public realm. Significant work has been done to create a water management district on private property within Towerside. Further work is needed to identify an overall water management plan for the district. This includes determining the feasibility and location

of an Integrated Utility Hub that involves energy, water and waste treatment. There is also a unique opportunity to do district water management under the new park on the Weyerhaeuser property.

3. **CAPITAL IMPROVEMENT PROJECT PRIORITIES**

A. **Granary Corridor**

The Granary Corridor is essential to improving vehicular, pedestrian, and bicycle access and movement within the Towerside MSP Innovation District and to adjacent areas and the rest of the Metropolitan Area. The Granary Corridor transportation networks (vehicular, pedestrian, and bicycle) are important north/south and east/west linkages. To unlock the potential economic value and to increase the ecological/environmental contribution to the large development area included in Towerside, an integrated, comprehensive approach is essential.

B. **Granary Crossing**

A bridge over the railroad yards is a keystone component to providing improved east/west and north/south transportation movement and connections. The bridge is envisioned to connect at Kasota Avenue to the north and the proposed Granary Road to the south. The bridge will provide improved vehicular access to MN 280 (thereby connecting to the regional interstate freeway system) to the east. It will also provide vehicular, pedestrian and bicycle access to areas in northeast Minneapolis and St. Paul via Energy Park Drive. Tying Towerside to the adjoining Energy Park and West Midway areas of Saint Paul, creates a much stronger metropolitan hub for business and industrial development. The bridge will also provide needed pathways

for areas from the north to Towerside, the University of Minnesota Minneapolis campus, the traditional Prospect Park residential neighborhood and the University Avenue commercial corridor. It will also serve as a parkway to complete the Missing Link of the Minneapolis Grand Rounds with attractive, safe pedestrian and bicycle spaces.

C. **Completion of the missing link of the Grand Rounds**

This link will bring the Minneapolis Grand Rounds and the Saint Paul Grand Round together into one system serving both cities. The long-sought completion of the Minneapolis Grand Rounds can be accomplished with the new railroad crossing and connections through Prospect Park to East River Parkway. The proposed routing is from the railroad bridge to Granary Road to the 27th Ave SE corridor to East River Parkway. Right-of-way, easements and space may require separate routing for vehicular, pedestrian and bicycle movements. Completion of the missing link should also include bike paths and attractive pedestrian space along Energy Park Drive to create a park-like link between the Minneapolis Grand Rounds and the Saint Paul Grand Round at Raymond Avenue.

D. **Extension of Granary Corridor Westward**

There is a need for vehicular, pedestrian and bicycle connections from Towerside to the west. The pedestrian and bicycle pathways will connect along the Dinkytown Greenway to the Mississippi River and Stone Arch Bridge. Vehicular movements can be accomplished using new connections to existing streets.

E. Completion of the street and block patterns

The city street network needs to be completed in the Towerside district north of University Ave SE and south of the railroad yards between the St. Paul border and 25th Ave SE. Streets must include sidewalks and bicycle lanes needed to connect to city/county bicycle networks. Connection to the three Green Line LRT stations is an essential component to region-wide access for workers, residents, patrons and businesses. The Westgate Public Realm Plan includes completion of the street and block pattern in the “eastern core” of Towerside.

F. Relocation of the University Transitway

The University Transitway is an impediment to development and street connections and it poses significant safety concerns in the Towerside Innovation District. The University is open to relocation of the Transitway if certain conditions are met:

- Land assembly, design and construction and all associated costs shall be by others, not by the University.
- There shall be no impacts to ongoing Transitway operations pending potential relocation.
- Proposed alignments must include dedicated right-of-way for the Transitway, with limited access similar to or better than existing conditions, and no shared facilities.

Reliable service between campuses must be maintained. The proposed route is conceptual and needs to be refined with planning and engineering studies.

G. Signature Public Spaces

From the earliest settlements to our largest cities, we recognize the importance of public places. The village green, town square and a rich variety of urban parks and plazas have all contributed to our understanding of city form and human scale. These unique places express a unique history, define district identity and invite civic interaction.

The opportunity to create several signature public spaces in the heart of the Towerside Innovation District goes well beyond a conventional definition of placemaking. Contemporary thinking, and extensive research, confirms that a high quality public realm can be transformative and has the potential to become a major influence that stabilizes land value, integrates with district infrastructure design, and provides local/regional destination attractions as a key element of modern city-building.

One example of a Signature Public Space is being developed at Green 4th and 29th Avenue SE near the Prospect Park Station. A second example is Weyerhauser Park in Saint Paul south of the Westgate Station. These parks need to be linked to a continuous series of places and spaces whose signature design of built and landscape features define the character and personality of Towerside making it a place of memory and a must see international destination.

1



2



1 Tanner Springs Park, Portland, Oregon
2 Hammarby Sjostad, Stockholm, Sweden



Construction of a major housing and mixed use project at Towerside—The Link.

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 Glossary

Based on feedback from stakeholders at meetings and the workshop, several recommendations were identified for implementation. These include well-informed suggestions for implementation tools but Towerside is open to any effective approach. The implementation of these recommendations is presented in this section. The recommendations fall into three categories:

Innovation District Regulatory Framework

- MOU Process for Development Proposals
- Design Guidelines for Project Review
- Zoning Overlay Framework
- Financial Tools, Policies and Resources

Integrated Green Infrastructure Plan

- Definition of Green Infrastructure
- Relevancy to Towerside
- Cultural and Ecological Context
- District Water Budget
- District and Regional Scale
- Site and Development Scale
- Green Infrastructure Components
- Restorative Development and the Integrated Utility Hub
- Long Term District System Expansion
- Benefits Summary

Capital Improvement Project Priorities

- Granary Corridor
- Granary Crossing (bridge over rail yards)
- Completion of Missing Link of the Minneapolis Grand Rounds
- Granary Corridor Extension Westward
- Completion of Street and Block Patterns
- Relocation of the University Transitway
- Signature Public Spaces

Implementation

1. INNOVATION DISTRICT REGULATORY FRAMEWORK

As stated in the planning recommendations, creating an innovation district requires a new approach. Implementing systems and tackling challenges on a district-wide basis requires a more tailored and flexible city planning, zoning and regulatory approach. A different type of mixed-use development model is needed to respond to the evolution and change in the economy.

The Prospect Park Planning Framework for 2040 has identified several tools and processes to assist in the implementation of district projects. These include:

1. MOU Process for Development Proposals
2. Design Guidelines for Project Review
3. Zoning Overlay Framework
4. Financial Tools, Policies and Resources

Each of these is briefly described below and the complete text from the Prospect Park Planning Framework for 2040 appears in Appendix E.

MOU Process for Development Proposals

This delineates the current collaborative process between developers and Prospect Park Association (PPA), sponsored by its Land Use and Planning Committee. The Memorandum of Understanding (MOU) Process intends to enhance the contributions of development projects in the neighborhood and maximize their potential for success. The purpose of the MOU is to detail commitments the developer makes to secure PPA support for those projects seeking City Planning Commission and City Council approvals. The process is described in Appendix E.

Design Guidelines for Project Review

This evaluation tool helps neighbors, planners and developers discuss how to build a better Prospect Park. It is a qualitative description of proposed projects or developments. It is used as the basis for discussion between proposers and the neighborhood. These discussions are then formalized in the Memorandum of Understanding. The design guidelines are based on those developed by the University District Alliance.

Towerside has developed a separate set of Design Guidelines. The Prospect Park and Towerside Guidelines must be coordinated and harmonized so a developer only needs to meet one set. Ideally, Saint Anthony Park would use similar guidelines for project review.

Zoning Overlay Framework

The purpose of the Towerside Overlay Zone is to guide new development projects to create a mixed-use, employment intensive urban laboratory supporting innovation, research and new technology. The Overlay Zone from the Prospect Park document is shown on the adjacent map.

After the minimum floor area of maker space or other non-residential use is provided on a site, housing units are permitted within the building or on the site adjacent to the maker space or other nonresidential use building.

Principal uses, conditional uses, building bulk and height, parking standards, building design and exterior and materials standards are shown in Appendix E.

Financial Tools, Policies and Resources

The city should develop financial tools, policies and resources to support the redevelopment within Towerside including consideration of a defined area

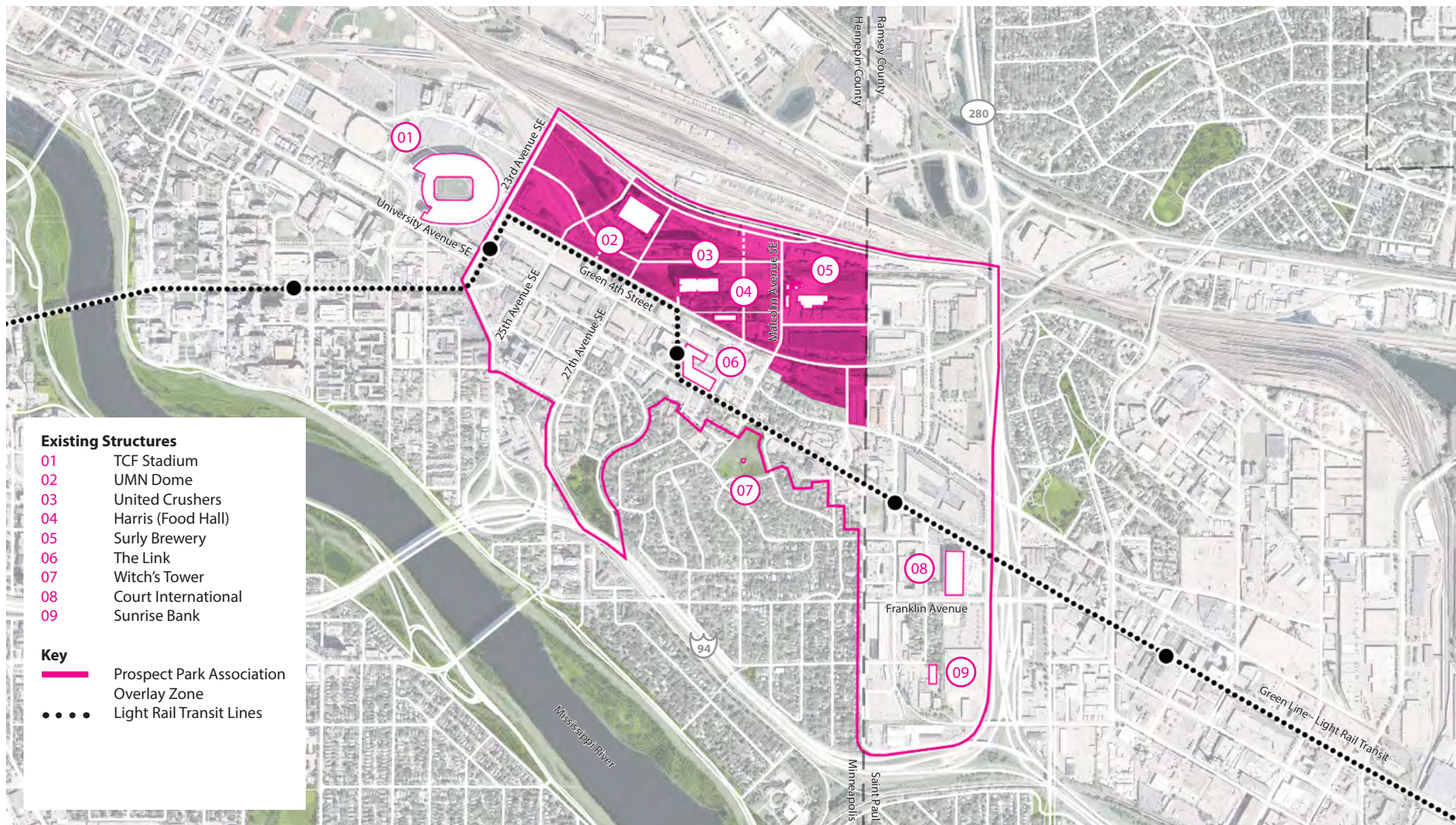
tax increment district for pooling resources to support a number of goals (listed in Appendix E).

Next Steps

- The MOU Process for Development Proposals described here needs to be adopted for the Towerside district as a whole.
- The Prospect Park and Towerside Guidelines must be coordinated and harmonized with the development guidelines for Saint Anthony Park.
- The Cities of Minneapolis and Saint Paul need to adopt the Towerside Overlay Zone for the Towerside district as a whole or portions to be defined.
- Financial tools, policies and resources described here must be developed with the cities.

Potential Partners

- Cities of Minneapolis and Saint Paul
- Hennepin and Ramsey Counties
- Watershed Management Organizations
- Metropolitan Council
- Park Boards of Minneapolis and Saint Paul
- University of Minnesota
- Property owners
- Towerside Innovation District
- Prospect Park Association
- Saint Anthony Park Community Council
- Creative Enterprise Zone



Proposed Towside Overlay Zone

The purpose of the Towside Overlay Zone is to ensure new development projects create a mixed-use, employment intensive urban laboratory supporting innovation, research and new technology.

Implementation

2. INTEGRATED GREEN INFRASTRUCTURE PLAN

Purpose of this Section

Integrating green infrastructure elements within future site development, public realm and district system/public works projects is central to achieving a variety of innovation objectives for the District. Precedent research and planning recommendations in this section provide the basis for district stormwater system expansion and habitat restoration throughout Towerside Innovation District, and hopefully will also serve as a model for others to follow.

Definition of Green Infrastructure

Green infrastructure is an approach to water management (and other district systems) that protects, restores, or mimics the natural water cycle. Green infrastructure incorporates both the natural environment and engineered systems to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

Green infrastructure solutions can be applied at different scales. At the site level, green infrastructure practices include rain gardens, permeable pavements, green roofs, infiltration areas, tree planters, and rainwater harvesting systems. At the largest scale, the preservation and restoration of natural landscapes (such as forests, floodplains and wetlands) are critical components of green infrastructure.

Much has been written on this subject, with varying perspectives on basic definitions, objectives, approaches and expected outcomes related to district design and project implementation. While there is some variation between these definitions, there is broad agreement that green infrastructure uses landscape features and natural processes to manage and treat stormwater in a manner that provides social, economic and environmental benefits. The following

is a working definition that promotes Towerside objectives:

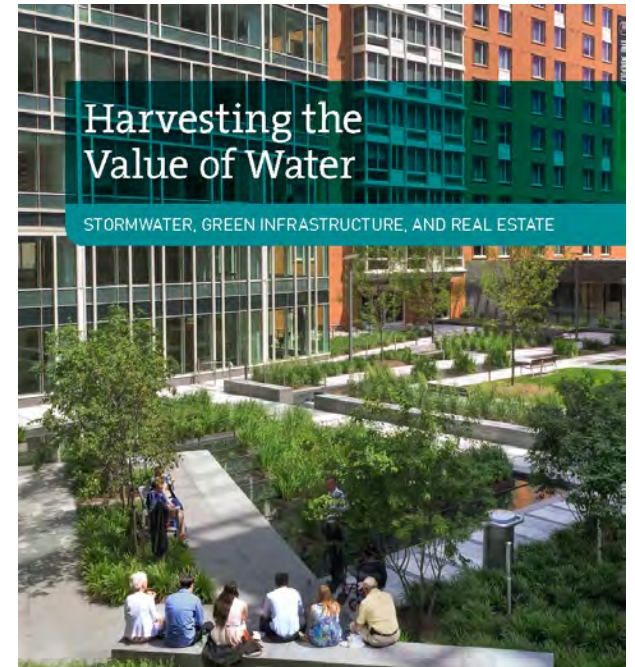
Green infrastructure is the interconnected network of natural and man-made features that support native species, maintain ecological processes, improve air and water resources, and contribute to health and quality of life.

Relevancy to Towerside

As a key component (and stated value) described in the *Towerside District Vision and Development Guidelines* document, the District will encourage and implement a variety of infrastructure improvements that target environmental objectives and best practice outcomes. District plans for a mix of public places, facilities and amenities must be supported by a district-wide network of innovative systems based on green infrastructure principles and approaches. At a minimum, further system planning and design must include stormwater management, energy production, heating and cooling, waste handling and a public realm that supports both man-made (such as urban agriculture) and natural landscapes (such as habitat restoration).

Significant work has already been done to create initial components of a District water management system (Phase I Stormwater Park for example), with further study and detailed design work currently underway to define an overall water management plan for the entire district. This includes determining the feasibility for an Integrated Utility Hub (see pages 56-57) within Towerside that provides both the physical location and facility requirements, but will also demonstrate efficiencies for providing energy, food, and water and waste treatment at a district scale.

1



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- 1 Extensive research and resource information
- 2 Network of natural and man-made features

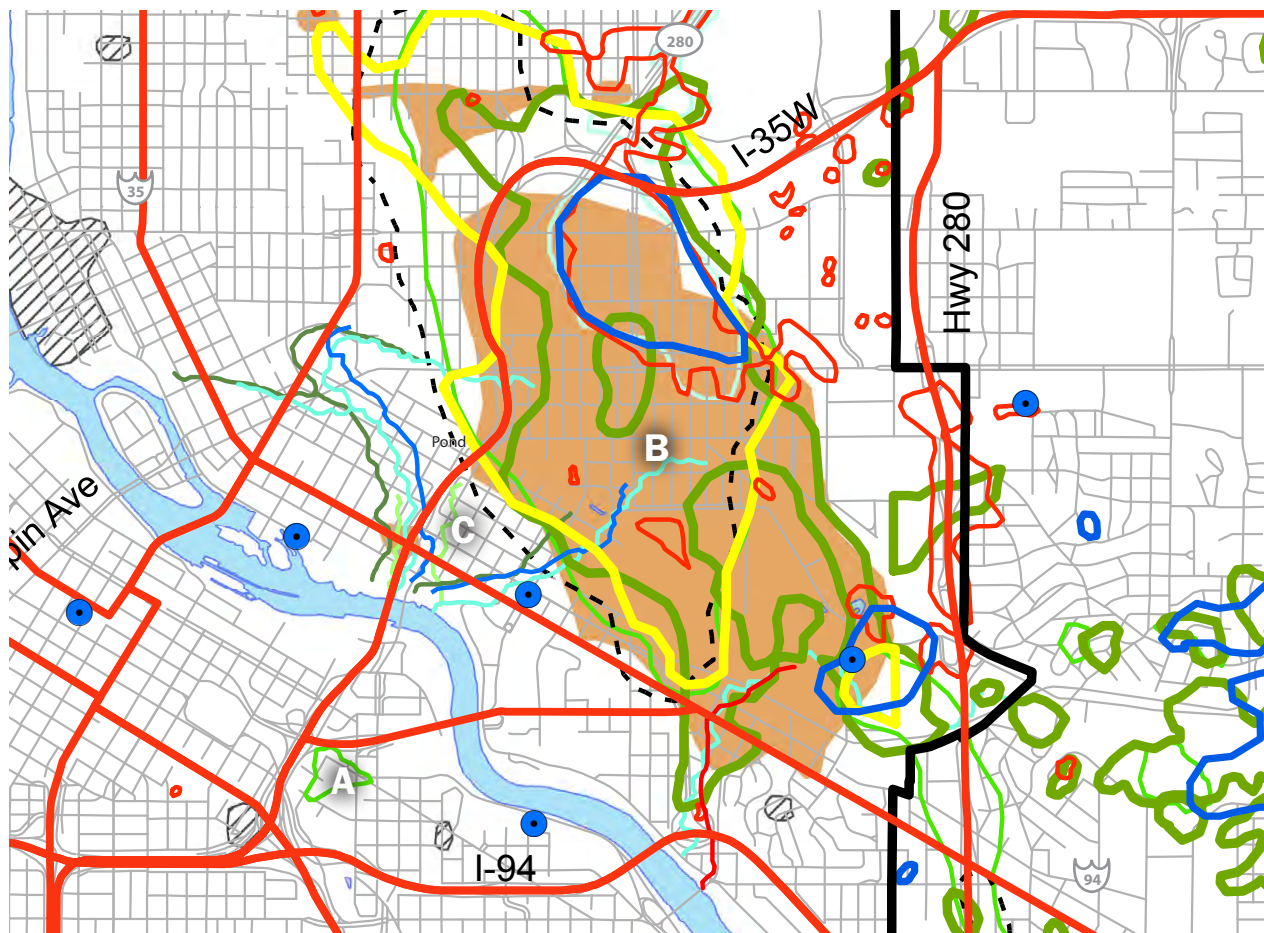
Cultural and Ecological Context It Matters Where We Are!

Earliest records of the area (including maps like the one on this page) reveal a variety of surface water elements surrounded by landscapes typically described as upland forest, oak savanna and prairie. Bridal Veil Creek was the dominant feature, generally flowing from the northeast to the southwest, culminating at Bridal Veil Falls, its confluence with the Mississippi River.

Much of this landscape has disappeared through a progression of interventions beginning with the coming of the railroads, followed closely by industrial/commercial enterprise and finally extension of street patterns to further promote economic development for a growing city. Often described as the Bridal Veil Creek 'Pipeshed', an extensive system of underground pipes now conveys rainwater to the river, with only a few ponds and wetlands remaining to remind us of the past.

From a natural resources perspective, green infrastructure is not a new concept. Pre-settlement landscapes including rivers, streams, lakes, ponds, wetlands and other natural elements efficiently slowed, cleaned, infiltrated and otherwise utilized rainwater as part of complex, interconnected ecosystems.

Ongoing efforts to restore, recreate or reimagine these historic landscapes will focus on functional and aesthetic design objectives at both a regional and site scale, emphasizing thoughtful integration within individual development projects and other district initiatives. For many years, the potential to reestablish the former Bridal Veil Creek alignment (through daylighting and other strategies) has been discussed and evaluated. Broad consensus suggests that so much has changed (including pipes buried



deep in the ground) that these options are no longer viable. Instead, opportunities to create surface water features, and other natural landscapes, should reflect/interpret the past as part of project design/programming, and underscore the overall imperative for green infrastructure approaches which support the recommendations described in this Framework.

Historically Mapped Water Features, Springs, Wet soils, and Depressional Areas

This diagram "represents an aggregation of historic maps . . . providing a picture of the areas mapped as water features prior to 1900". Understanding district history, and how much of this landscape has disappeared over time, will help determine what might be restored, recreated or reimaged as part of district green infrastructure approaches.

(For detailed map key and explanation please refer to: Historic Waters of the Mississippi Watershed Management Organization; MWMO Watershed Bulletin: 2011-4)

Implementation

District Water Budget The Math and Science Behind Stormwater Management

Progressive communities nationally and internationally are embracing the concept of district systems (including stormwater management) to create more efficient, livable and economically successful urban environments. The realization that water is an increasingly precious commodity has spawned innovative approaches to enable better management of rainwater (and snowmelt).

Toward that end, the Mississippi Watershed Management Organization led a process to determine feasibility, design and implementation of a District Stormwater System. From the outset, it was crucial that Feasibility Study results clearly demonstrated the difference between traditional site-by-site solutions and above-standard, innovative district system approaches. This difference was measured in a variety of ways:

1. Sustainable/restorative outcomes (future expansion, industrial uses, converting waste for energy, clean water and food production)
2. Efficient use of available land
3. Economic intelligence (cost sharing, life-cycle return on investment, tax base)
4. Environmental responsibility (restore, repair, heal)
5. Research and innovation opportunities (test ideas, life-long learning)
6. Aesthetic appeal and district character (arts, culture, site/building guidelines)
7. Healthy living as the baseline for everything (public places, good food, clean water)

Results of the feasibility study showed an abundant supply of stormwater (District Water Budget) available for reuse that had been untapped to date. Results also indicated that a Phase One Demonstration Project

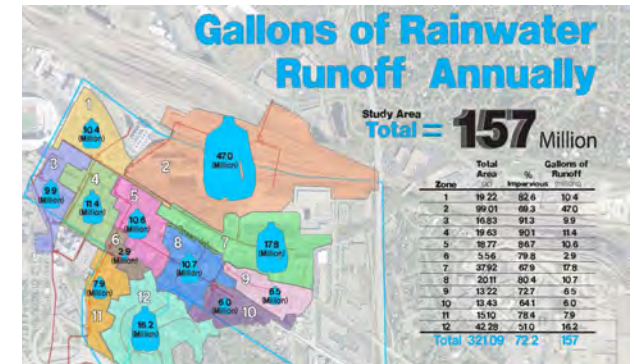
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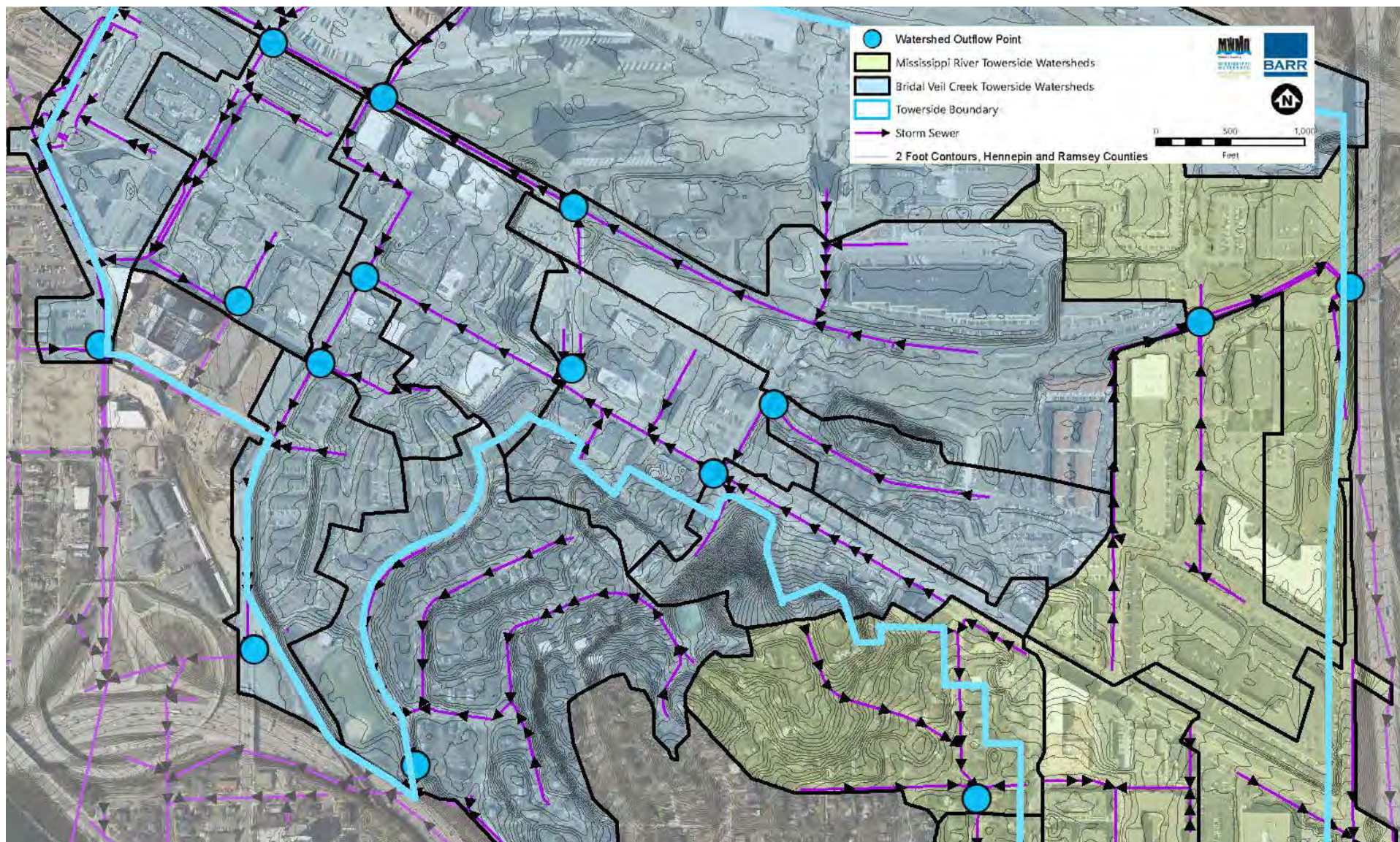
along the Green 4th corridor could be designed to meet property owner and MWMO's objectives at a lower cost than a traditional system and within the current City of Minneapolis regulatory framework. The process also detailed metrics that could be applied across the entire District, encouraging system replication for future development.

Overall, state-of-the-art district water management strategies make economic sense, support District / City sustainability goals, and enhance, a vibrant, connected public realm.

2



- 1 Cross-section / illustration of potential green-street stormwater components. (Source: Strategic Stormwater Solutions for Transit-Oriented Development; City of Saint Paul; 2013)
- 2 The first step was to define the amount of water (and snowmelt) available – the District Water Budget. (Source: District Water Budget developed by Barr Engineering for MWMO, 2015)



Data collection, analysis and detailed modeling provided baseline understanding of drainage patterns, existing storm sewer system, sub-watershed boundaries, outflow points and potential locations for water capture and storage for reuse. This information underpins the District Water Budget approach and helped inform initial district stormwater system design and Phase One Project (Stormwater Park) implementation.

Implementation

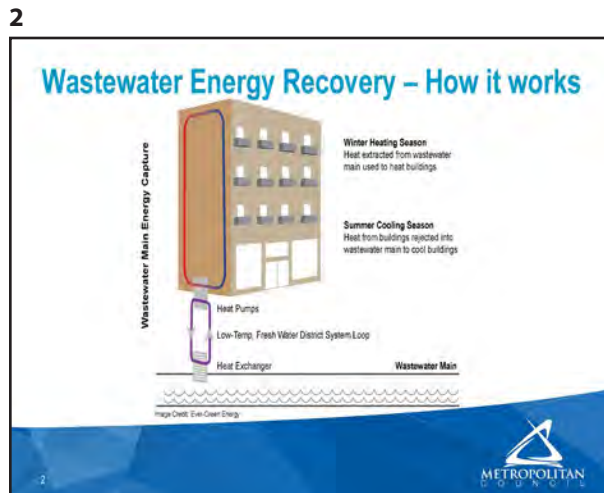
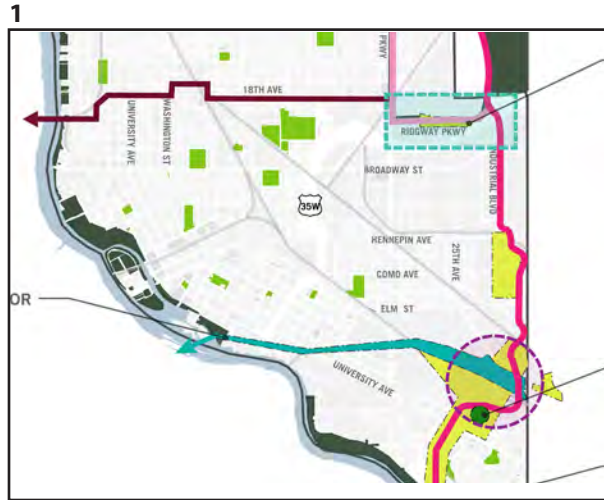
District and Regional Scale: Transformative Projects and Other District Opportunities

At a district and regional scale, there are multiple projects moving forward within and around Towerside. These transformative projects, in varying stages of initial study, feasibility analysis, or detailed design will have major impacts on future development patterns, overall District character, and the ability to meet broader goals related to health, equity, sustainability, innovation and economic competitiveness.

Many of these projects fall into the 'Infrastructure/Capital Improvements' category of district priorities. It is important to note that these initiatives must also be supported by clearly defined City policy, development guidelines, neighborhood input, and other criteria that will pave the way for successful implementation. The list of near-term (3 – 5 year) projects includes:

- Granary Corridor and Granary Crossing
- Minneapolis Grand Rounds and Saint Paul Grand Round connections
- Signature Park (Heart of the District), the Park at Myrtle Avenue, and other District public realm improvements
- University of Minnesota Transitway (existing and potential new alignment)
- Future phases of District green infrastructure
- Current and ongoing development projects

Several other important District-related initiatives, coordinated through separate agency or process, are now underway. The MWMO and the Yorth Group's Restorative Development initiative will integrate green infrastructure and partially closed loop systems of energy, water and food production. The opportunity to fully integrate green infrastructure approaches as part of initial planning and detailed design, carried through to implementation is crucial in order to realize expectations at both a project scale and to promote the District reputation as a place for innovation.



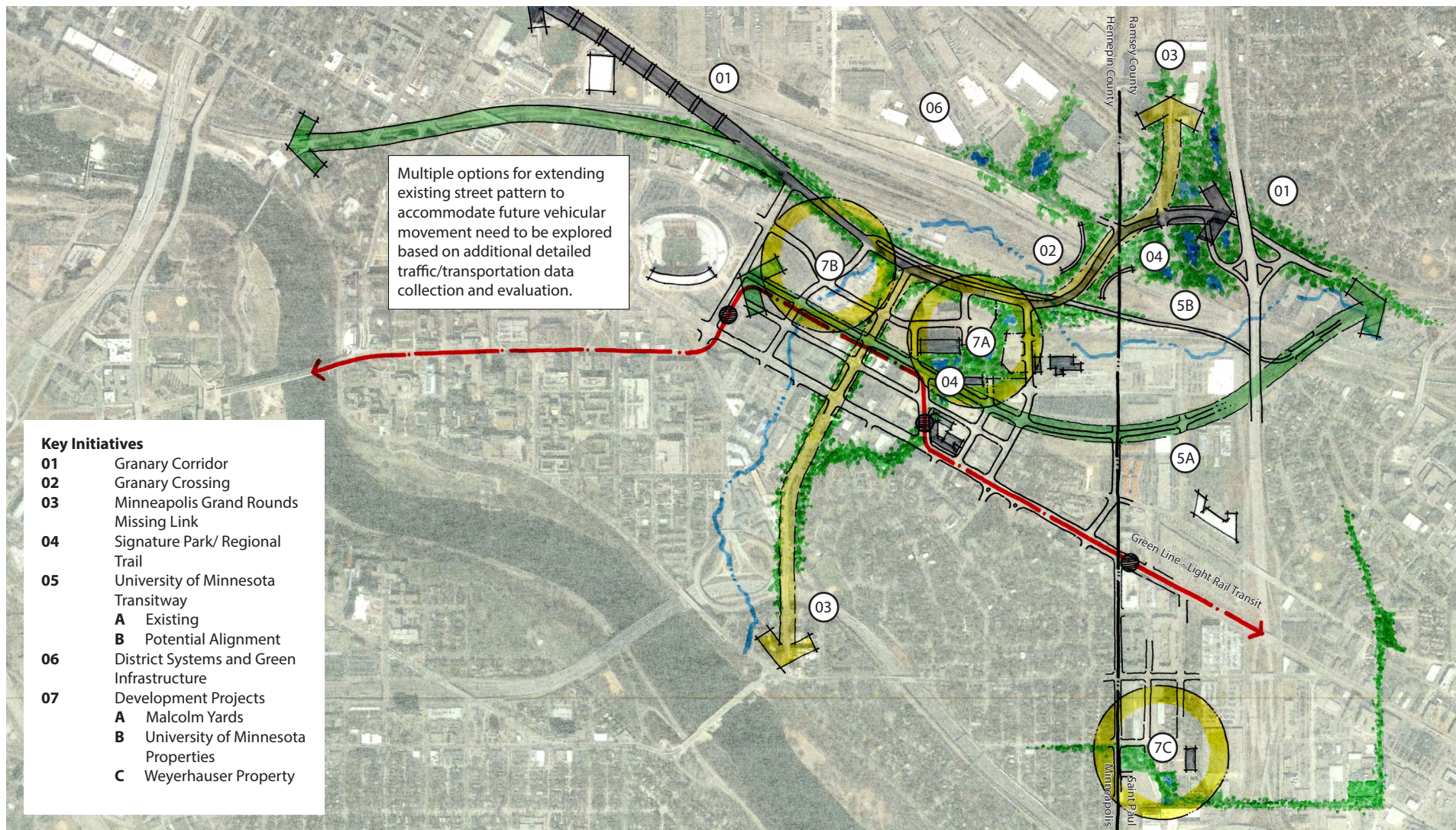
1 The MPRB Service Area Master Plan (currently underway) will evaluate each park asset within the Northeast Southeast Service Area, including proposed parks and trails with the District.

2 Ever-Green Energy is proceeding with design and development of a district heating and cooling system using recovered energy from the wastewater system as its primary source.



3 Green 4th Street has become a demonstration of the Towerside's district-thinking approach; 'above standard' improvements are part of the final design concept.

4 The Prospect Park Community Gardens integrates urban agriculture as a major District component, creating a unique public destination for people of diverse economic and cultural backgrounds.



Transformative Projects

The overall objective is to strategically integrate Green Infrastructure elements as part of numerous current and future projects within and around the District. Expected outcomes include extension of district-wide system coverage, enhancements to system performance and resource management, environmental quality benchmarks (such as clean air, water etc.), habitat creation/restoration, cost efficiencies/savings and other health/quality of life benefits.

Implementation

Site and Development Scale: Building on Existing Demonstration Projects

The purpose of this section is to illustrate and describe the various green infrastructure components and approaches that could be incorporated as part of future site, building and systems design throughout the district. Initial Phase I demonstration projects, such as Green Fourth and Stormwater Park, provided the first modest steps toward overall systems design and implementation, but also serve to encourage thoughtful integration of similar elements at every scale and for every project type.

It is also important to note that no individual project or system can be thought of in isolation, but instead should be connected in various ways to create an integrated whole. The resulting green framework would ensure continuity in both the physical and functional requirements to support project implementation. This approach also provides multiple benefits based on proximity to inviting, multi-purpose public places (such as parks and trails) with expanded programming, activities and special events that include natural areas, community gardens, health/wellness classes, active recreation and passive enjoyment.

Increasing developer interest in the District, led by several current redevelopment projects, offer real-time case study examples, promote a variety of conceptual design options, and have already included green infrastructure approaches in proposed planning and design. Projects are shown here.

1



2



1 Malcolm Yards – The Mississippi Watershed Management Organization and the Wall Development Company completed a feasibility study to assess costs and benefits for implementing green infrastructure approaches. (Source: Wall/MWMO Feasibility Study)

2 Weyerhaeuser Development plans include proposed one-block square park at the center of the site connecting with the Saint Paul Grand Round trail system. (Source: Westgate Public Realm Plan)

3

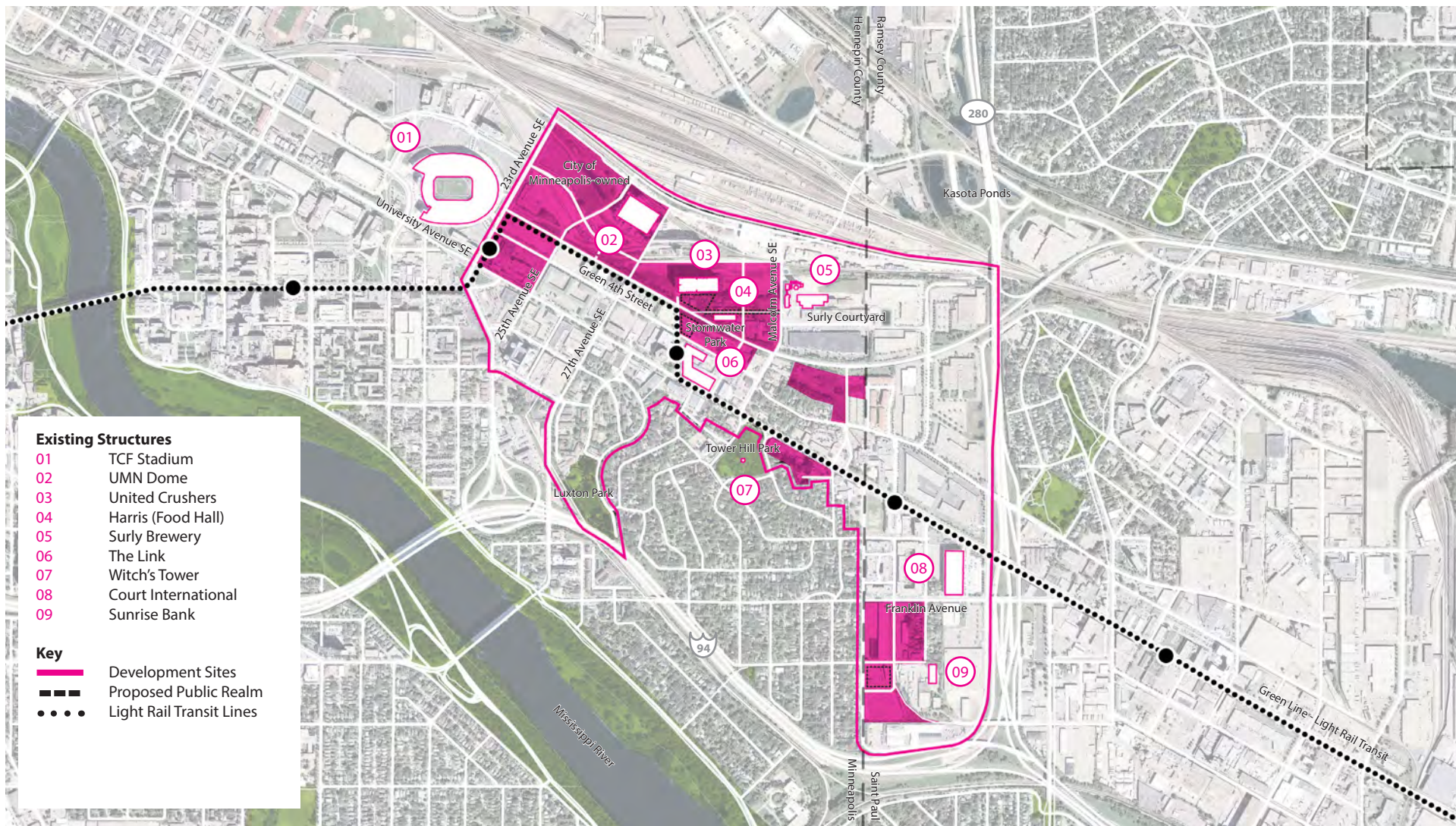


4



3 Surly Brewery significantly transformed an abandoned brownfield site into an urban destination with outdoor spaces emphasizing native plantings and visible stormwater management elements. (Source: HGA)

4 The University of Minnesota East Gateway District Master Plan proposes a mix of research and academic facilities, office and retail uses within the 54-acre District. (Source: University of Minnesota)



Demonstration Projects and Development Opportunities

First steps toward creating a district-wide green infrastructure plan began with a basic understanding of Bridal Veil Creek Watershed drainage patterns, estimated water budget and other data. This set the stage for detailed design and construction of Phase I stormwater management system components including Green Fourth and the recently completed Stormwater Park. The following pages illustrate a variety of green infrastructure components and approaches for future district systems, redevelopment projects, and public places.

Implementation

Green Infrastructure Components Examples and Desired Outcomes

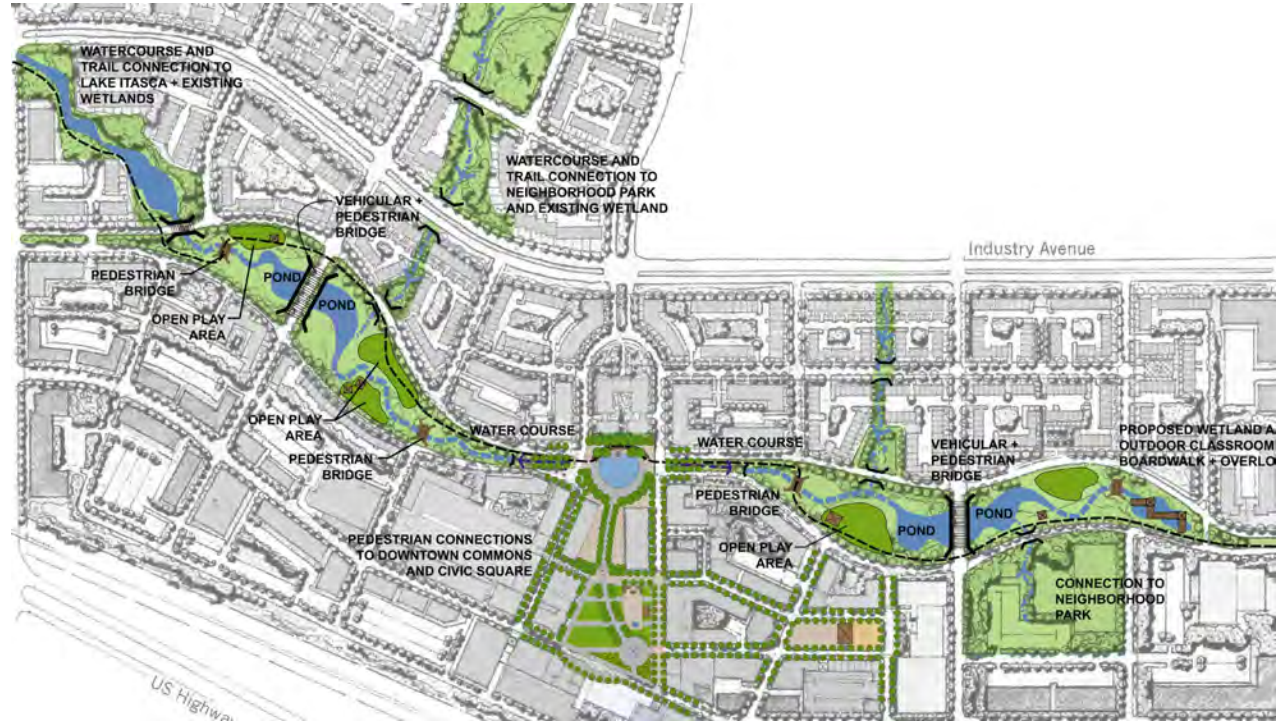
From a technical standpoint, Green Infrastructure approaches promote district stormwater systems that minimize surface and groundwater pollution, reduce negative impacts on the hydrologic cycle, and maintain acceptable levels of natural erosion and sedimentation in rivers, lakes and streams. Ultimately, system design and construction will need to meet specific and detailed criteria for both function (performance) and aesthetics (appearance). But outcomes must also support other district values and initiatives such as:

- Public realm improvements that are both beautiful and productive.
- Healthy living (clean air, water, good food) with improved access and connection to nature.
- Restorative goals that reduce energy use and carbon emissions, reduce water and wastewater leaving the site, reduce and recycle solid waste, and restore and enhance natural ecological systems.
- District systems that showcase research and innovation by developing, demonstrating, and proving (through monitoring) new technologies.

Examples shown in this section are intended to serve as baseline benchmarks for ongoing project design and implementation within the District. Clear definition of expected outcomes also suggests several major themes, or focus areas, organized into the following categories:

1. Manage stormwater as a resource (clean, convey, store, reuse)
2. Create an inviting, connected public realm (streets, parks, trails)
3. Restore significant areas of habitat and natural open space (recall historic landscapes)

1



Relationship to Broader Goals

Development of state-of-the-art sustainable water management strategies makes economic sense by reducing infrastructure capital and maintenance costs. It also supports District and City sustainability goals (rainwater is filtered and reused, returned to the aquifer, or cleansed before reaching stormwater outlets to the Mississippi River) and enhances a vibrant public realm (supporting the urban tree canopy and creating interesting surface features as part of park and street improvements throughout the District). The realization that water is an increasingly precious commodity has spawned innovative approaches to enable better management of rainwater (and snowmelt). The Towerside Innovation District should serve as a demonstration of these important goals.

2



- 1 Ramsey Town Center connected public realm
- 2 Provide access and interpretation of natural / open space areas

Green Infrastructure Components

The following component descriptions in each of the three categories include a basic definition and representative photograph of a built project. These descriptions and project examples are intended to clarify expectations, and also supplement the values and recommendations described in the *Towerside District Vision and Development Guidelines*. In short, promoting green infrastructure approaches supports the Towerside Innovation District development vision for innovative and integrated system design, and should be applied to all new development, public realm and infrastructure projects going forward.

1 – Manage stormwater as a resource (clean, convey, store, reuse)

Water abundance and scarcity are topics of increasing importance in cities across America. With growing concern about flooding, weather induced overflows from sewer systems, and extreme storms, communities are seeking strategies to better manage stormwater runoff, improve local water quality, and decrease pressure on overloaded sewer systems. At the same time, water is increasingly recognized as a community resource, one that can be (utilized) to make cities more sustainable and livable. (Source: Harvesting the Value of Water; ULI; 2017)

Standard/traditional approaches have typically included rain gardens, porous pavements, green roofs and other green technologies. The hope for Towerside is to push beyond what has become standard, and explore a variety of innovative elements unique to this district, best suited to our northern climate, while offering opportunities to research, test and define quantitative and qualitative measurements of real benefit.

1



2



1 Clean (Biofiltration) – soil and plant based water quality best management practice that temporarily stores stormwater runoff and treats it as it flows through a filtering medium.

2 Convey – system constructed to convey treated stormwater from the biofiltration system to the Storage System; may include underground pipes, surface swales, rills, and channels used for transferring stormwater from one location to another.

3



4



3 Store – storage system may include below and/or above ground structures that permanently or temporarily hold treated stormwater at the downstream end of the conveyance system.

4 Reuse – distribute water from the storage system for beneficial use, such as irrigation, commercial/ industrial, flushing toilets, pools, fountains, and other reuse options.

Implementation

2 – Create an inviting, connected public realm (parks, streets, trails)

Typically the public realm includes parks, streets, trails and other amenities, often integrating both public and private property. The public realm is what gives cities, districts and neighborhoods their unique sense of place.

From the earliest settlements to our largest cities, we recognize the importance of public places. The village green, town square and a rich variety of urban parks and plazas have all contributed to our understanding of city form and human scale. Together with design of local streets and access to regional trails, these key components combine to create both a physical framework and recognizable identity that invites economic development and civic interaction.

For Towerside, the public realm offers a variety of opportunities to integrate green infrastructure components that provide multiple functions and measurable benefits. In addition, stormwater features should enhance overall aesthetic character and integrate public art.

Below are examples of green infrastructure elements integrated within public places, including opportunities within private properties available for public use.

1. *Parks and Plazas.* Contemporary design of destination (signature) parks and plazas frequently includes a variety of water elements, both functional and aesthetic.
 - Surface water features include reflecting pools and fountains, natural ponds and streams, biofiltration/rain gardens, native plantings and urban agriculture.
 - Interactive features include splash pads/spray decks, wading pools, and larger water bodies for boating.

- Underground (stormwater system) components include infiltration, conveyance, storage and reuse options.
2. *Streetscape.* Many public rights-of-way and private streets now integrate shared stormwater systems and encourage other greening approaches.
 - Surface stormwater elements include catchment areas to provide biofiltration, natural swales for conveyance, and a variety of opportunities for storage and reuse.
 - Green technologies and approaches include plants that restore and/or enhance the urban forest, attract pollinators, create natural areas (habitat) and help reduce long-term maintenance.
 - Urban agriculture opportunities include: location and public access to productive landscapes such as fruit trees and berries.
 3. *Trail Corridors.* Connected corridors provide multiple benefits beyond recreational use including enhanced habitat/natural areas, land to meet stormwater quality and quantity criteria, along with similar elements listed under 'Streetscape'.
 4. *Through-Block Connections and Parking Areas (private for public use).* While the primary (trunk) utility components typically run within street rights-of-way, an expanded stormwater system would also include easements through private property.
 - Surface stormwater elements include conveyance features that capture roof water, courtyard/patio run-off, direct flow across lawn areas and other landscapes.
 - Parking area elements include continuous tree trenches, biofiltration areas and enhanced tree canopy to reduce heat island effect.

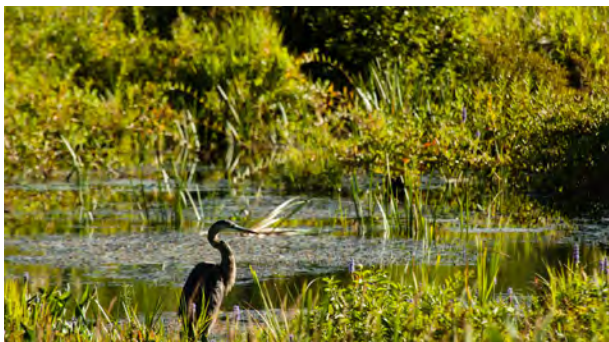


1 Biofiltration, surface storage and reuse (irrigation) as part of public park design.

2 Biofiltration and surface conveyance as part of streetscape design.

3 Biofiltration and surface conveyance as part of regional trail corridor.

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- 1 Natural surface water features – wetland habitat.
- 2 Habitat restoration – volunteer tree planting.
- 3 Access to open space – universal accessibility.

3 – Restore significant areas of habitat and natural open space (recall historic landscapes)

Research shows that there are important positive correlations between human health, intelligence and nature. Studies reveal that children are healthier, happier, and perhaps even smarter and more creative when they have a connection to nature. Adults who work in spaces incorporating nature are more productive, healthy and creative; and hospital patients with a view of nature from their windows tend to heal faster.

The definition of nature needs to be broadened in order to rethink its role in our cities. Conservation is no longer enough – but design of cities, districts and neighborhoods should also create, restore or reimagine important relationships between natural habitats, natural systems and overall quality of life issues.

Expanding fields of study, using terms like biophilia, biomimicry and salutogenics conclude that people are hard-wired with an innate affinity for nature, suggesting that creating opportunities to reconnect with nature is crucial for both children and adults.

Once again, green infrastructure has a significant role to play. In sort of a back to the future kind of response, there is much to learn from the past natural history of this District, while at the same time applying a wealth of new information, approaches and technologies.

Examples of green infrastructure elements integrated within habitat and open space:

1. *Ponds, Streams, Wetlands and other Surface Features.* Even within urban settings, natural water features can play a major role in defining overall

district character, as well as functional capacity to capture, clean and reuse stormwater.

- The contrast between traditional urban park aesthetics and natural landscapes creates visual interest, interpretive/educational value and countless opportunities to bring nature into the city.
- Biomimicry and similar approaches demonstrate multiple benefits resulting from a deeper understanding of natural, connected systems as the starting point for district infrastructure design and implementation.

2. *Unprogrammed Open Space.* Leftover/remnant areas (both large and small) that can provide an important function, distinctly different from parks, trails and the natural water features described above.

- Demonstration areas representing landscape typologies (such as prairie and oak savanna) not only provide additional, and varied habitat, but also help create connected wildlife corridors, restore impacted drainage patterns and offer unique recreational opportunities.

3. *Habitat Restoration.* It is essential to emphasize an overall district-wide approach that can be integrated with all other public realm features, infrastructure systems and other District projects and initiatives.

- The objective to create a district-wide fabric of connected natural landscapes that meet biological/ecological criteria as authentic and sustainable habitat.

Implementation

Restorative Development and the Integrated Utility Hub

Understanding the potential value and various elements of green infrastructure is only part of the story. To fully realize district objectives and desired outcomes, it is the additional benefits of Restorative Development that will drive system design and assure long-term success. The combination of these two approaches will define and enhance overall system performance, turn waste into revenue, and provide a unique, innovative framework for future development. As a key catalyst project and demonstration of restorative principles, the Integrated Utility Hub is much more than a one-off stand-alone experiment, but instead will showcase measureable benefits and opportunities for replication throughout the region.

Design of the IUH is based on tested technologies, supported by data, with a proven track record of successfully built systems around the world. The IUH would be fully integrated into district stormwater design (and other district infrastructure), creating a closed-loop water system that provides benefits such as carbon emissions sequestration, improved water quality, support for aquatic life, greater variety of vegetation, and additional flood control storage capacity. In addition, a majority of the areas associated with district stormwater, including the IUH, would be accessible as part of the district public parks, trails and open space plan.

The IUH, would purify collected stormwater to potable levels and feed a high quality recycled water supply. Treated water will be the primary water source for public realm features including fountains, pools, or wetlands, and support building systems such as toilet flushing, serve industrial needs, and provide district-wide irrigation. The IUH will collect and treat sewage from sanitary sewers, capturing heat and nutrients while reducing buildup and sewer overflows

elsewhere in the metropolitan sanitary sewer system. When blended with additional organic waste feedstocks, the IUH will become a net energy producer with potential to serve the entire district.

Nutrient rich fertilizer, another IUH byproduct, will be used to remediate damaged soils, support habitat, green roofs, and onsite food production, including community gardens and hydroponic and aquaponics facilities. Together, these energy, fertilizer, and food outputs represent a revenue-generating enterprise that in-turn will pay for ongoing stormwater treatment, water system upgrades, and maintenance/operations costs – serving as a replicable model for water and resource management strategies. (Source: Towerside Phase II/Malcolm Yards District Stormwater Feasibility Study. Barr and Jacobson 2018.)

Inputs

- 300,000 gallons of wastewater (including stormwater) per day
- 120 tons of separated organic waste per day

Outputs

- 250,000 gallons of recycled water per day that feeds into district public realm storage features (retention ponds/canals/elevators) as well as it supplies district irrigation, and building use.
- 5.1MW of baseload renewable electricity, and additional heat for possible heating and cooling system (the IUH connects with solar, wind, and other energy sources as well as 'smart city' infrastructure to enable a fully restorative micro-grid).
- 150,000 pounds of seafood per year for on-site grocery store/foodshelf with 20% diverted to foodshelf at \$1/meal.
- 1 million heads of lettuce per year for on-site grocery store/foodshelf with 20% diverted to foodshelf at \$1/meal.

- 10 tons of nutrient-rich fertilizer per day to support district soil enhancement, food production, and habitat creation.

Restorative Benefits

Jobs and Economy

- 30 full time green jobs
- 50 construction jobs
- \$10 million new economy/year from local products + jobs
- \$130 million in 10 year new direct local economic ripple effect

Water

- 90 million gal/year recycled supply
- 110 million gal/year avoided discharge
- 25 million gal/year conserved

Food

- 9,000-35,000 people fed/year (seafood/lettuce)

Energy and Carbon

- 5000 homes powered or 8000 electric cars
- 50k tons/year CO2 offset

Land Use and Habitat

- 75 acres of soil + habitat restored with fertilizer/year
- 30 acres farmland conserved
- ½ acre footprint for IUH

Equity – Affordable Housing

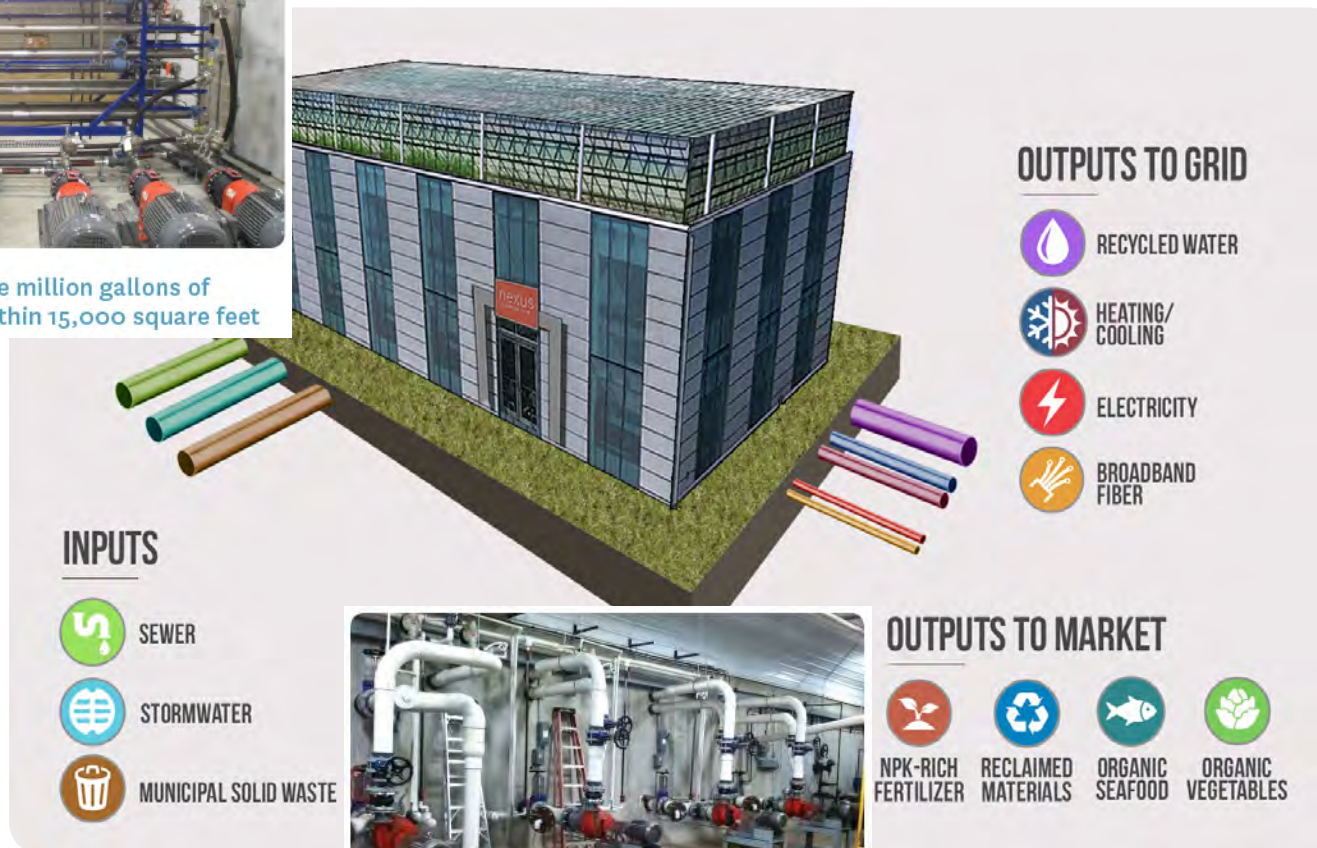
- Reduced grocery bills (\$1 per meal fresh fish and vegetables)
- Free electricity
- Reduced rent due to lowered interest loans to developers
- Market-based incentives to developers = less public expense

Externalities

- \$1 million/year avoided health cost due to equivalent water and fossil fuel offsets (asthma, strokes, etc.)



The IUH can treat five million gallons of wastewater a day within 15,000 square feet



The technology at work in the biodigestion pilot plant

The IUH can convert over 92% of organic biomass into methane-rich biogas



Restorative Development and the Integrated Utility Hub

The Restorative Public Utility (and business model) promotes the Integrated Utility Hub as the next-generation utility solution to help realize restorative social, economic and environmental development benefits; to provide immediate, day-one waste-to-revenue streams that cover ongoing operations, maintenance and replacement costs; and to generate profits in perpetuity that can be reinvested in other district improvements.

Implementation

**Conventional Organics Processing:
A Linear Model**

In the conventional model, private companies pick up organics and haul them to a privately owned and centralized facility that turns that waste into electricity and fertilizer. But, it also...

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This linear model is designed for the greatest return on electricity sales.



Illustrating the difference between conventional approaches and the Integrated Utility Hub Restorative Model

Its impact on related social, environmental, and economic systems is not priced by the market, thus it provides little measurable return to the public or added public benefits.

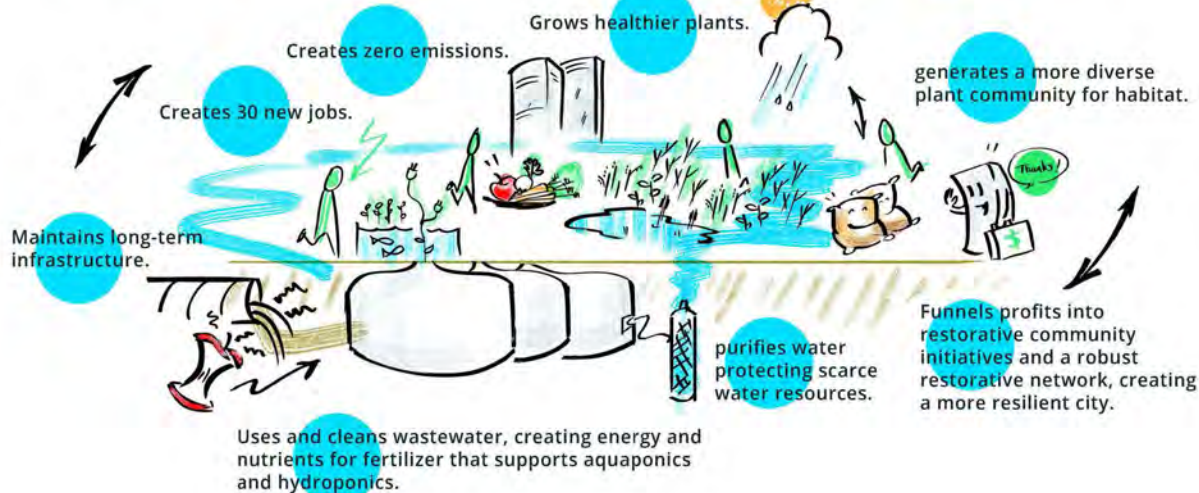
Integrated Utility Hub (IUH): A Restorative Model

3

In this model, organics arrive via a pneumatic tube or hydrogen powered trucks to a smaller district facility.

They are processed in a mostly closed loop, creating electricity, premium fertilizer, local food, and clean water. This model...

Uses treated stormwater to rebuild aquatic ecosystems.



This is a more resilient, healthy and equitable city. We want our partners to lead and collaborate with us on a paradigm shift, where all projects and programs are evaluated for a net positive systems benefit in the local community and larger region.

It is a model where, a funding system for replicating and replacing these restorative systems is built into it

4



Implementation

Long Term District System Expansion

Towerside sits at the intersection of a big vision, including potential transformative projects, increasing private development interest, demonstrated public/non-profit commitment and an emerging framework to guide implementation. The net result of this shared enthusiasm to showcase restorative green infrastructure as a catalytic driver of district success over the long term is illustrated in the diagram on the facing page.

By all accounts, this desired outcome will not happen overnight. Instead it will evolve over a much longer time frame, built on incremental improvements and phased infrastructure (system) construction. Because the future is so dependent on decisions and actions today, the near-term building blocks and sequence of next steps to follow are critical in order to meet the values and outcomes defined in District vision, guidelines and framework documents.

The three diagrams on this page showcase the fact that this process has already started. Although with modest beginnings centered around Green Fourth and Stormwater Park (both key elements in the Phase One District Stormwater System Design), there is growing momentum and defined measurable benefit to continue this approach in the next phase of project development and throughout the District.

With potential transformative projects, such as Granary Corridor and Bridal Veil Regional Trail (among others) poised to set the green framework at a district scale, the stage is set to fill in the rest of the missing pieces including:

- Connected public realm (parks, trails and open space)
- Connected infrastructure (district systems)
- Innovative development (private sector investment) . . . and much else!

1 Towerside Green Infrastructure began with initial system components:

Green 4th – envisioned to be the first significant public green space integrating district stormwater components and other proposed district systems;
Stormwater Park – first phase of the proposed destination public space (Signature Park), integrating district stormwater system components as a key design feature, demonstrating the benefits of stormwater management and water reuse options within the district.

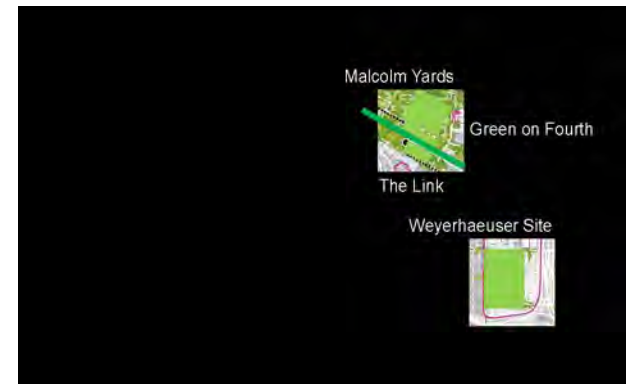
2 From this starting point, projects under construction or on the drawing board include The Link, Green on Fourth, the Weyerhaeuser Site, Malcolm Yards and other development projects. Each of these projects represent another opportunity to integrate district green infrastructure approaches and elements into final design and construction (at a site/building scale).

3 In the near term (3-5 years), transformative initiatives that could integrate green infrastructure elements include Granary Corridor, Granary Crossing, Bridal Veil Regional Trail, University of Minnesota Transitway (new and old alignment) and other potential infrastructure improvements. Similar to the above current projects, each of these projects represent another opportunity to integrate district green infrastructure approaches and elements into final design and construction (at a district/regional scale).

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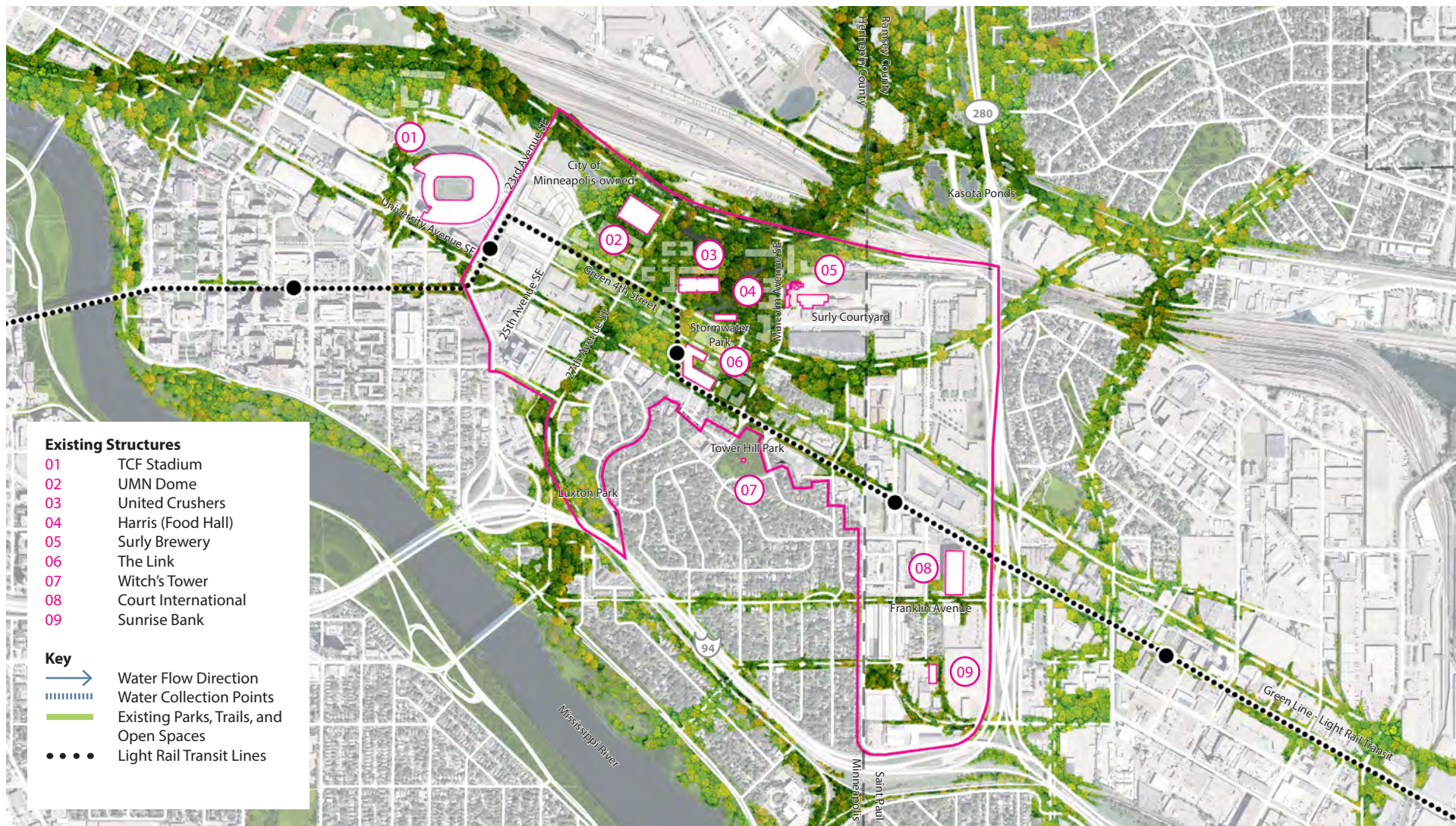


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Long Term District System Expansion

Putting it all together – what the future could look like.

Implementation

Benefits Summary

The ability to deliver multiple environmental, economic and social benefits has made green infrastructure an increasingly popular strategy in recent years. In addition to reducing polluted stormwater runoff, green infrastructure practices can also positively impact energy consumption, air quality, carbon reduction and sequestration, property prices, recreation and other elements of community health and vitality that have monetary or other social value.

For the purposes of the green infrastructure section in this Framework document, description of benefits is categorized under the traditional triple bottom line headings: 1) social/cultural, 2) economic, and 3) environmental.

1 – Social / Cultural Benefits

Improved Quality of Life and Aesthetics

Many studies have noted the positive impacts on quality of life in urban areas from improved aesthetics, increased recreational space, and a connection to the natural environment. *Managing Urban and High-Use Recreation Settings* found that office workers who can see nature from their desks report greater job satisfaction and lower rates of sickness than those who cannot see nature from their work areas (Kaplan 1992).

Improved Green Space

A connection to the natural environment has also been shown to increase job satisfaction and lower crime rates in urban areas. Improved aesthetics have been shown to decrease stress and, when combined with transportation improvements that increase walking and biking, significant health benefits are realized. New, or improved green space, with aesthetic enhancements and native vegetation benefits recreation, improves shading, and provides stormwater and pollution management— all of which strengthen neighborhoods and health.

2 – Economic Benefits

Reduced Infrastructure Costs

Green infrastructure can offset the need to build and maintain conventional grey infrastructure (defined as drains, pipes, pumps, ditches). Implementation of district green infrastructure to capture rainfall from impervious areas will reduce stress on existing drainage infrastructure and reduce the need for additional storm sewer capacity. In addition, green infrastructure strategies, such as bioretention and rain gardens, filter out pollution, such as phosphorus and suspended solids.

Increased Property Values

Green infrastructure strategies have the potential to increase property values due to the aesthetic enhancements they provide.

Green Job Opportunities

Green infrastructure will spur job development for construction, maintenance, and ongoing operations of new facilities.



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- 1 Social/Cultural Benefits
- 2 Economic Benefits
- 3 Environmental Benefits

3 – Environmental Benefits

Captured Stormwater Volumes (Quantity)

Green infrastructure strategies to capture stormwater will improve drainage during wet-weather events, reduce stormwater volume, and increase the level of service of the region’s stormwater infrastructure. This will help mitigate the impacts of climate change by contributing to a more resilient infrastructure.

Reduced Pollutant Loadings (Quality)

Green infrastructure will reduce pollutant loadings to area waterways, helping municipalities meet water quality regulations.

Increased Groundwater Recharge

Green infrastructure strategies help stormwater soak into the earth, recharging groundwater supplies. Maintaining groundwater supplies is not only important for areas that use groundwater for drinking water and irrigation, it also provides critical base flow for rivers and helps maintain water levels in lakes and wetlands.

Carbon and Energy Reduction and Improved Air Quality

Green roofs, bioretention/rain gardens, and trees provide carbon reduction benefits by sequestering CO2 and improve air quality by directly removing air pollution. Green Infrastructure also provides energy savings, thereby reducing electricity usage and power plant emissions.

(Source: Green Infrastructure Benefits and Costs; Milwaukee Metropolitan Sewerage District Green Infrastructure 2035 Vision Plan)

MEASURABLE BENEFITS SUMMARY

Social Benefits:

- recreational opportunities
- reductions in crime
- increased beautification
- improved health and wellbeing
- enhanced social cohesion

Economic Benefits:

- system cost savings
- job creation
- redevelopment
- output market value
- increased property values

Environmental Benefits:

- improved water quality
- improved air quality
- reduced greenhouse gas emissions
- natural system preservation
- habitat restoration

The combination of restorative development and green infrastructure approaches is the logical next step in the evolution of infrastructure system design and implementation at a variety of scales and applications. Cities can no longer afford to expand or maintain existing systems . . . restorative development and green infrastructure will provide (at least in part) the means to achieve defined social, economic and environmental benchmarks. Toward that end, initiatives such as the Integrated Utility Hub are crucial catalyst projects that will lead the way to meet the restorative outcomes defined in the Towerside Vision, Guidelines and Framework documents.

Implementation

3. CAPITAL IMPROVEMENT PROJECT PRIORITIES

As stated in the planning recommendations, there are several key capital improvement projects required for the successful completion of the innovation district vision.

- A. Granary Corridor
- B. Granary Crossing (bridge over rail yards)
- C. Missing Link of the Minneapolis Grand Rounds
- D. Extension of Granary Corridor Westward
 - *Pedestrian and Bicycle Connection East to West*
 - *Vehicular Access West to 15th Avenue SE - Granary Parkway Western Gateway*
- E. Completion of Street and Block Patterns
- F. Relocation of the University Transitway
- G. Signature Public Spaces
- H. A Restorative Public Utility (see pages 58 and 59)

These capital improvement projects also appear in the *Prospect Park Planning Framework for 2040* (Appendix E). Additional capital improvement projects will be forthcoming from Saint Anthony Park Community Council.

Each of these projects has its particular set of issues and stakeholders. However, they all are connected and their implementation must be coordinated. The potential partners and participants in any of these projects will include members from the following list.

Potential Partners/Participants

- Cities of Minneapolis and Saint Paul
- Hennepin and Ramsey Counties
- Watershed Management Organizations
- Metropolitan Council
- Park Boards of Minneapolis and Saint Paul
- University of Minnesota
- Property Owners
- Towerside Innovation District
- Prospect Park Association
- Saint Anthony Park Community Council
- Creative Enterprise Zone
- University District Alliance
- Minnesota Department of Transportation
- Burlington Northern Santa Fe Railroad
- Union Pacific Railroad
- Foundations

Next Steps

Generally, each of these projects will follow a typical capital improvement process that consists of the following steps.:

1. Establish working group with key stakeholders for each project. Involve the neighborhoods completely in the process.
2. Meet with key partners for each project such as the cities, counties, Met Council, MnDOT and the railroads.
3. Confirm the goals and alignments for each project.
4. Conduct detailed feasibility study (design, ROW acquisition, environmental impacts, traffic impacts, costs, and schedule).
5. Identify funding sources.
6. Review and establish agreements.
7. Proceed with construction.

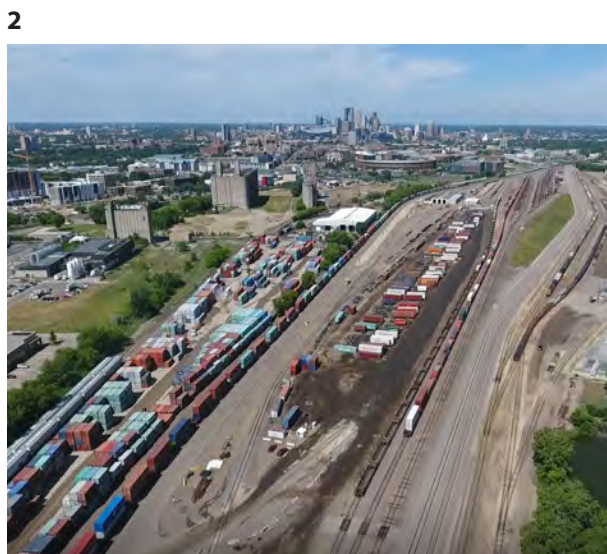
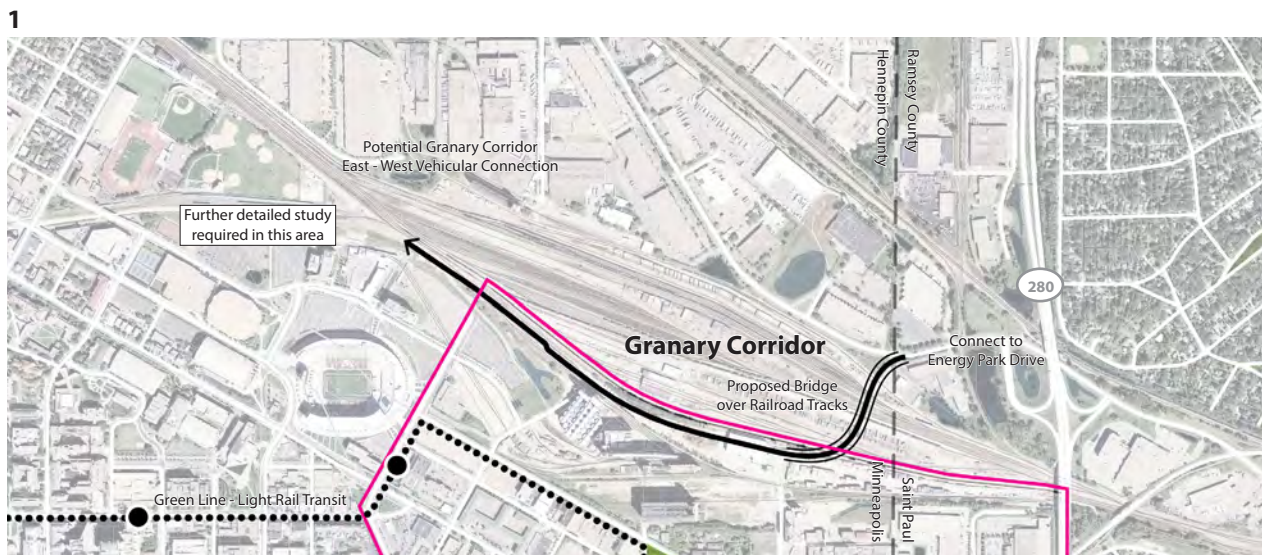
A. Granary Corridor

The foundational element of the Granary Corridor Planning and Implementation Strategies is the identification of its contiguous east to west alignment and geography. This is the critical first step in undertaking the development of Granary Corridor. Because the University District has become an area of intense and fast-paced development, and if the concept envisioned and described here is to be realized, it is essential that the parties who believe in the value of a multi-faceted, multi-use corridor agree on its route to begin the complicated process of securing rights to the properties involved.

Previous studies and recommendations regarding Granary have stalled in large-measure because of (1) its single purpose as an east-west service roadway was not shared by the necessary constituents and (2) it was a roadway that had no beginning on the east and termination on the west acceptable to the neighborhoods. Once this recommended route is agreed upon the process of negotiating with public, private and institutional property owners can begin.

Securing easements, air rights, purchase agreements or leases will be time-consuming and resource demanding but having certainty and agreement by the parties on the plan will inform capital budgets, motivate community and political action, drive development and unlock value. Action now to endorse the described concept and route is critical to pursuing the opportunity that is at risk of being nibbled away by market driven parcel-by-parcel uncoordinated development.

Source: *Granary Corridor Planning and Implementation Strategies, University District*



1 Location Map of Granary Corridor
 2 Existing Granary Corridor area
 3 Example of streetscape for Granary Corridor

Implementation

B. Granary Crossing

For more than a century, the railroads have passed through the University District geography transporting agricultural products, manufactured goods and passengers to and from the city and the region. At one time, grain was shipped from this area, which had the world's greatest concentration of elevators in the world. The cargo, of course, has changed over time and will continue to change, but it should be assumed that the mainline of the railroads will continue to have a vital role in serving the cities and the region and will be present in this area for the foreseeable future.

Crossing of the railroads has been a major factor in stalling completion of the city-circling Grand Rounds Parkway and to solutions for connecting Highway 280 to Granary Road. The parkway segment connecting the St. Anthony Parkway in Northeast Minneapolis through Southeast to the River Road Parkway has long been referred to as the missing link. And although all Grand Rounds plans have indicated a crossing of the railroads in this area, none has detailed exactly how that would be accomplished.

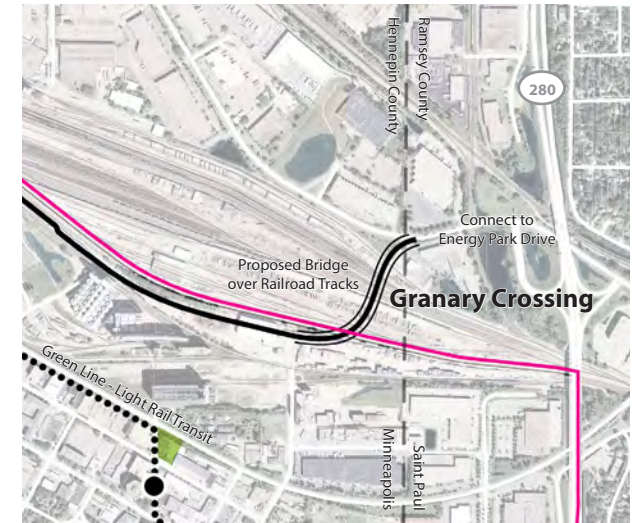
The Saint Anthony Park neighborhood in Saint Paul has long been averse to any Granary connection east of 280 that would have a negative impact on the residential areas of North and South Saint Anthony Park. However, a Granary connection west of 280 that would not infringe on the Kasota Ponds and would extend the parkway characteristics of the granary Corridor onto Energy Park Drive would help mitigate any adverse effects on the residential areas and open up opportunities for positive development of the industrial areas in Saint Anthony Park. This can be achieved by a bridge connection from Kasota Avenue in Minneapolis crossing the railroads and landing just east of Malcolm Avenue SE in Prospect Park and continuing west along the southern edge of the railroads.

These two separate programs occur in the same area and the opportunity and timing is right to address both the connector and bridging functions with a single structure. This proposal envisions a hybrid bridge like structure that combines the service road elements of Granary with the pedestrian/bike parkway feeling and atmosphere of Grand Rounds. This crossing has the opportunity to become a creative demonstration, a model of how a bridge can play multiple roles and functions. The structure will accommodate service vehicles, pedestrians, bikes and, by means of a design competition, invite ideas showing how structures can be informed by art, contribute to energy creation and distribution and be a model of how infrastructure can contribute to community cohesiveness, richness and well-being on multiple levels.

This crossing is a highly complex undertaking involving two counties, two cities, MnDOT and multiple property owners. It is the key physical element to connecting vital service functions and community amenities as well as opening up development opportunities to its east. It is recommended that exploratory engineering studies of this concept, including an extension of the corridor to connect the 280 interchange and the Saint Paul Grand Round at Raymond, begin at the earliest possible date.

Source: Granary Corridor Planning and Implementation Strategies, University District Alliance (UDA) 2017.

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1 Location Map of Granary Crossing
2 Anacostia Crossing, Maryland

C. Missing Link of the Minneapolis Grand Rounds

Since the late 1880's, the Minneapolis Park and Recreation Board (MPRB) has envisioned a park system that would link all sections of the city. The Missing Link of the Grand Rounds is the only segment of the over the 50 miles of parkway that exist today, that has not been completed. Approximately three miles of parkway are needed to connect and complete the parkway system. The Park Board is committed to "fulfilling the promise" that was once given by bringing the Missing Link to reality. Once the Missing Link segment is complete, the Grand Rounds will provide a contiguous system of parkway and trails that circumnavigate the City of Minneapolis.
 - Excerpt from *Grand Rounds Scenic Byway: Master Plan for the Missing Link (2009)*

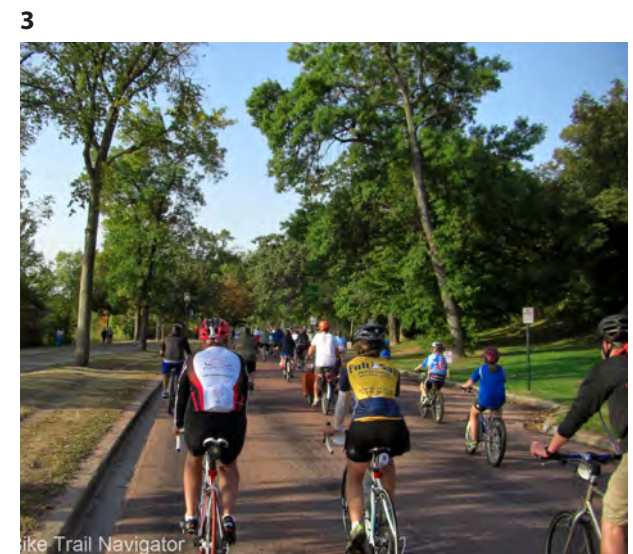
The Missing Link has once again been identified as a high priority, both in the UDA study and this document. Following the MPRB lead going forward, the Towerside Partnership and UDA support next steps to further define a preferred alignment, attract resources and participate in other activities that will lead to detailed design and project implementation. Hennepin County is an important partner since 27th Avenue SE is a county road.

While enhancing the connection to the Saint Paul Grand Round along Energy Park Drive is a separate capital improvement project, it is critical that it be coordinated with and constitute an integral part of the planned bridge connecting the Granary Corridor to the Highway 280 interchange and completion of the Missing Link.

Source: *Granary Corridor Planning and Implementation Strategies, University District Alliance (UDA) 2017.*



1 Location Map of Missing Link
2 Concept sketch of proposed Missing Link
3 Example of bicycle path



Implementation

D. Extension of Granary Corridor Westward

Pedestrian and Bicycle Connection East to West

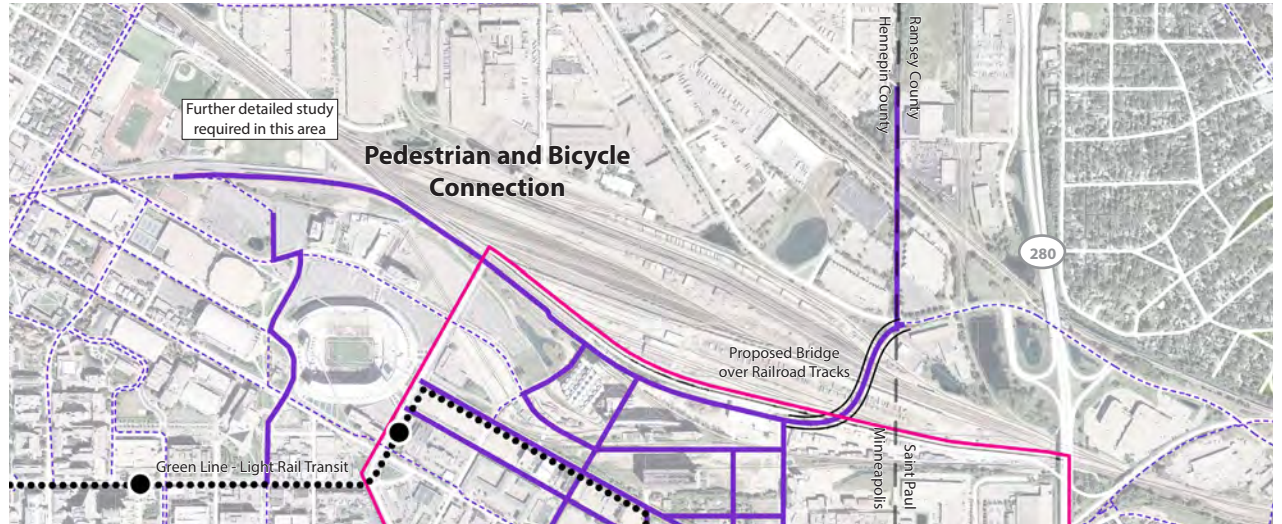
An important element of the overall plan is a continuous pedestrian and bicycle path from the Stone Arch Bridge to Saint Paul, generally going east-west along the southern edge of the historic, but underused, Great Northern Railroad right of way.

Vehicle lanes for Granary Corridor need not always be in the same right-of-way as pedestrian and bicycle trails. Thus access to the east for Granary Corridor parcels to be redeveloped need not be in the trench from 17th Ave SE to the Stone Arch Bridge. Outlets to 15th Avenue SE, with suitable intersections, may suffice. This leaves more land for public amenities or private development and keeps arterial traffic off of 2nd Street SE in the Marcy-Holmes neighborhood.

The UDA 2015 Granary Corridor Task Force Report states, "Although at this time traffic studies do not show a need for the extension of Granary Road from 17th Ave SE to 35W, periodically evaluate the long-term cost-benefit of this roadway. Development of railroad land, including bicycle and pedestrian trails, should not preclude such a multi-modal roadway." The split-mode idea does not eliminate this notion of eventually connecting to 35W, but it does suggest a different way to provide needed access.

Source: Granary Corridor Planning and Implementation Strategies, University District Alliance (UDA) 2017.

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1 Location Map of Granary Corridor Extension

2 Existing bicycle and pedestrian path

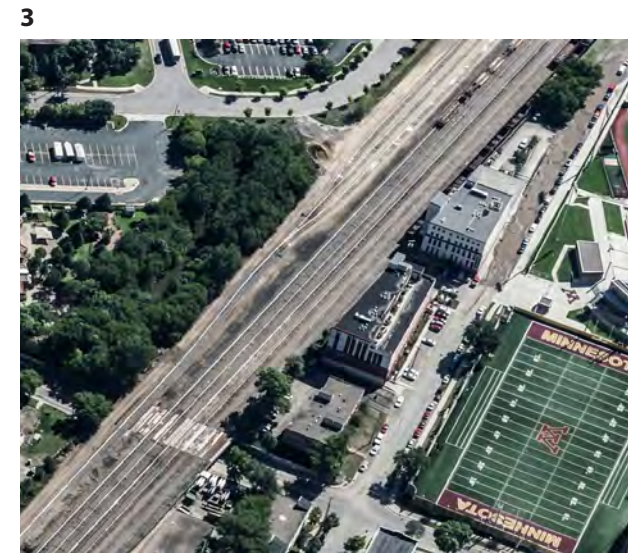
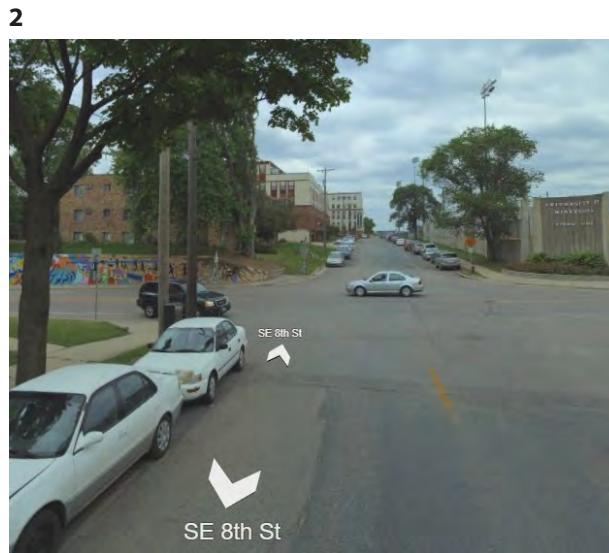
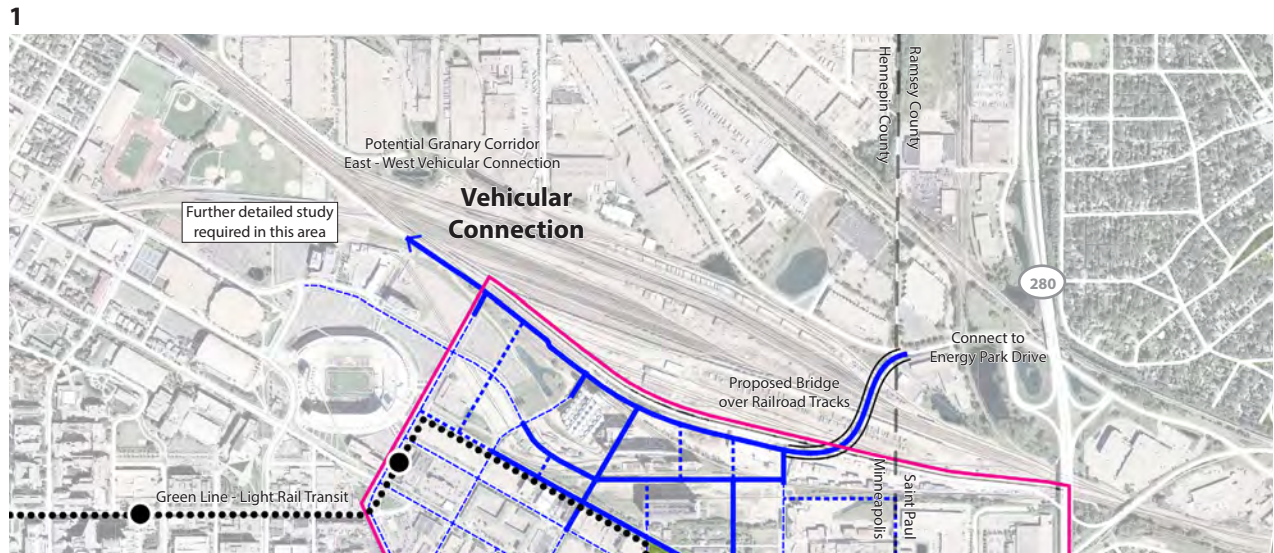
3 Existing bicycle and pedestrian path

Vehicular Access West to 15th Avenue SE - Granary Parkway Western Gateway

Potential improvements to the 15th Avenue and 8th Street Intersection have been defined as a high priority in numerous studies for quite some time. The primary objective for the study Granary Corridor Planning and Implementation Strategies is to identify and discuss options for a western vehicular access connection as part of the overall Granary Corridor Plan. Long-term investment needed to resolve a variety of traffic flow, pedestrian/bicycle safety and other concerns at this location should also be addressed.

Recognizing a variety of challenges, the preferred option is to provide a connection between 23rd Avenue traveling west to the existing 8th Street 'dead end' (cul-de-sac) east of 15th Avenue, generally running along the southern edge of the railroad main line/switch yard properties. This was one of the two breakthrough ideas from the UDA study, describing a mode-split option that promoted bicycle/pedestrian connections via the Dinkytown Greenway, while directing vehicular traffic east to Highway 280 via Granary Crossing and west via the 8th Street and 15th Avenue intersection. Acquiring adequate right-of-way, increased traffic on 8th Street, impacts on future U of M land use plans and other issues need to be resolved as part of future implementation steps.

Source: Granary Corridor Planning and Implementation Strategies, University District Alliance (UDA) 2017.



1 Location Map of Granary Corridor Extension
 2 Existing SE 8th Street
 3 Aerial view of existing rail corridor

Implementation

E. Completion of the Street and Block Patterns

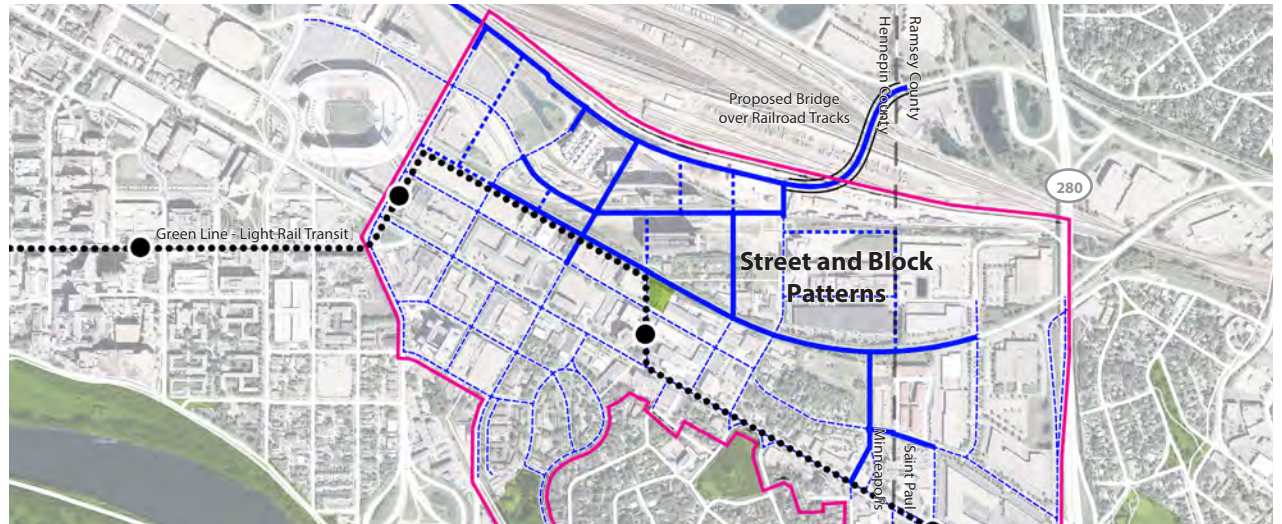
One of the most basic elements in the physical design of our cities and neighborhoods is a connected, accessible and legible pattern of streets and blocks. While street design and block size standards exist as part of City, County and State guidelines, there is still a wide range of options that meet these code requirements. This offers a degree of flexibility, and an opportunity to explore design options in order to create the unique identity and desired character within the Towerside district. Offering a variety of block sizes (or ability to combine small lots) that meet future land use/development requirements, and at the same time avoid creating 'superblocks' or dead-end streets, should be a primary objective.

As often happens, remnants of the industrial past, and now vacant or underutilized properties, have left behind large tracts of land served by only a few streets with limited pedestrian/bicycle amenities. Unlocking land value, as a stated outcome, can be accomplished by extending existing streets into underserved properties. Traffic and transportation planning studies will guide the thoughtful reconnection of the street grid where needed, while acknowledging concerns related to 'cut-through' traffic, maintaining neighborhood character, minimizing disruption and maximizing shared benefits.

On the Minneapolis side of the district, the street network needs to be completed in the Towerside district north of University Ave SE and south of the railroad yards between the Saint Paul border and 25th Ave SE. Crossing the University Transitway will be an issue until it is relocated. On the Saint Paul side of the district, street and block patterns also need completion according to the Westgate Public Realm Plan.

Source: *Granary Corridor Planning and Implementation Strategies, UDA 2017.*

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1 Location Map of proposed street and block patterns

2 Existing street grid in Towerside

3 Example of completed street

F. Relocation of the University of Minnesota Transitway

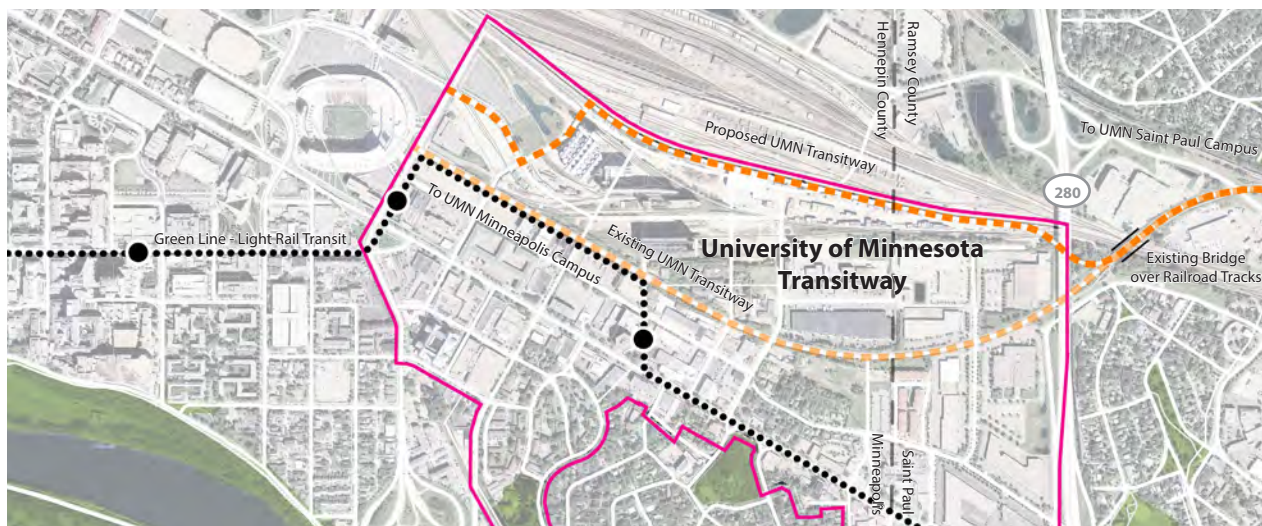
The University Transitway is a dedicated road that provides fast reliable service between the Minneapolis and Saint Paul campuses of the University of Minnesota. The current Transitway bisects Towerside and as development and activity grow in the Innovation District, conflicts with the Transitway will arise. It poses significant safety concerns at crossings, that both impede development and potentially could affect the smooth operation of the Transitway.

A relocated Transitway would be an asset for the community and the University. The University is open to relocation of the Transitway if certain conditions are met:

- Land assembly, design and construction and all associated costs shall be by others, not by the University.
- There shall be no impacts to ongoing Transitway operations pending potential relocation.
- Proposed alignments must include dedicated right-of-way for the Transitway, with limited access similar to or better than existing conditions, and no shared facilities.

Reliable service between campuses must be maintained. The adjacent map shows the existing and proposed routes. The proposed route is conceptual and needs to be refined with planning and engineering studies.

1



2



3



1 Location Map of UM Transitway

2 Existing UM Transitway

3 Example of dedicated Transitway

Implementation

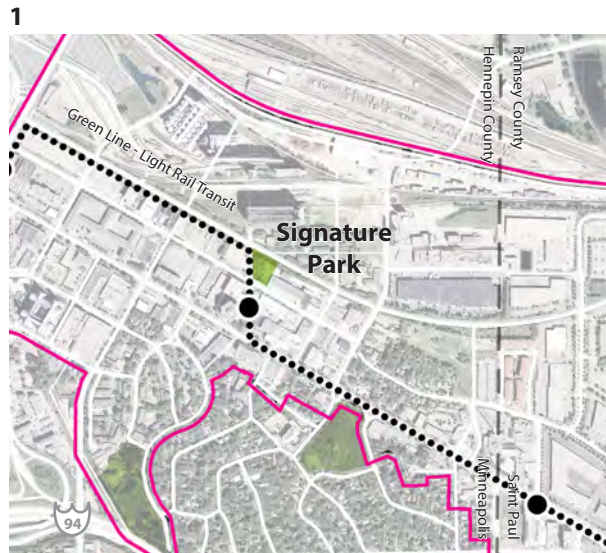
G. Signature Public Spaces

Currently there is little, or no, publicly held property within the District (outside of street rights-of-way), that could potentially be reserved for public park designation. To become a highly successful local and regional amenity, the Towerside Innovation District must evolve into a place that gives primacy to the pedestrian (and bicycle), while at the same time creating significant public spaces for interaction, special events and a variety of other activities that support broader District values.

This past decade has seen a dramatic increase in the development of more balanced places that offer safe, vital and engaging pedestrian environments and vastly improved bicycle systems. The overall Towerside Innovation District vision promotes these outcomes as foundational thinking for ongoing project development at both district and site development scale. Design and implementation of Signature Public Spaces would be a major step forward in creating a network of parks, trails and public places as part of the District public realm framework. One example is the development of a Signature Public Space at Green 4th and 29th Avenue SE. The second is Weyerhaeuser Park in Saint Paul.

Guideline criteria would include:

- Create an iconic “public space of scale” to accommodate a wide variety of activities
- Locate ‘public’ land uses around the core to increase vibrancy and activity
- Link assets within the District, emphasizing pedestrian use
- Capitalize on proximity to light rail and transitway
- Integrate public and private realms with complementary design approaches
- Develop and share district systems (energy, waste, parking, water) as feasible
- Emphasize and demonstrate innovative design solutions at every scale



1 Location Map of Signature Park near Prospect Park Station in Minneapolis
2 Signature Park Rendering at Prospect Park Station



3 Location Map of Signature Park within Weyerhaeuser development in Saint Paul
4 Weyerhaeuser Park Rendering - (Source: Westgate Public Realm Plan Report)



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APPENDIX A

Resolution of the City of Minneapolis Supporting the Redevelopment of the University Avenue Innovation District

Whereas, the City of Minneapolis has supported the development and completion of the Central Corridor Light Rail Transit project, known as the Green Line; and

Whereas, the City of Minneapolis is involved in an ongoing partnership with the City of St. Paul on the completion of the Green Line, and on planning for development along the corridor; and

Whereas, the Prospect Park light rail station area represents one of the biggest opportunities for growth along the Green Line In Minneapolis, Including growth In population, employment, and tax base; and

Whereas, the Southeast Minneapolis Industrial (SEMI) area adjacent to the Prospect Park station has been guided by the City for redevelopment as a job-intensive innovation district focusing on bioscience and related industries, capitalizing on its close proximity to the University of Minnesota; and

Whereas, this area also stands to benefit from MnDRIVE, an initiative to strengthen Minnesota's discovery, research, and Innovation economy; and

Whereas, the City Council adopted the Stadium Village University Avenue Station Area Plan In 2012, supporting the redevelopment of the immediate Prospect Park station area with high density mixed use, and the adjacent SEMI area with office and light industrial development; and

Whereas, the University of Minnesota has a strategic vision to work with its surrounding communities to leverage its capacity as a major research university to spur innovative projects and build stronger, safer and more vibrant communities around it's edges; and

Whereas, the City of Minneapolis is working in partnership with the City of St. Paul In this area to address shared cross-border issues and opportunities; and

Whereas, the Minneapolis Public Housing Authority's Glendale Townhomes area is a highly valued asset within the district that currently provides an innovative, effective model of stable, affordable housing within a safe, supportive community comprised primarily of refugee, immigrant and low-income families; and

Whereas, a number of community partners have formed the Prospect North Partnership, which is working together to support redevelopment in the context of a sustainable and innovative district; and

Whereas, the Prospect North Partnership has identified that designating an innovation district would assist in establishing an identity and standards for the redevelopment of the area, and CPED staff have agreed with this recommendation as a means to forwarding City goals for economic development;

Now, Therefore, Be It Resolved by The City Council of The City of Minneapolis:

That the area defined by the attached map be designated as the University Avenue Innovation District. An innovation district is an economic development tool that utilizes partnerships with higher education institutions, businesses, and government to fuel job growth and redevelopment in targeted locations, based on the premise that collaboration and productivity result from proximity, and therefore job creation and innovation can be fostered through the intentional clustering of businesses, institutions, Ideas and people. This designation can be used for the purposes of planning, fundraising, and marketing- and potentially for

innovative pilot projects and district systems. Be It Further Resolved that the City Council supports redevelopment of the University Avenue Innovation District area as a priority for the City of Minneapolis, by directing staff and resources to:

1. Direct CPED staff to continue to participate in the planning, organizing, strategizing for, and implementing the area's redevelopment.
2. Consider investments at city standard level in basic infrastructure through the capital improvement plan, with the understanding that this may leverage other sources of funding for more innovative elements of public realm and district systems.
3. Consider requests from Prospect North Partnership for technical analysis, to review or explore Issues in-depth, on a case by case basis in relation to staff workloads and financial commitments. Any staff resources or financial commitments that are more than incidental shall be brought to the City Council for consideration.
4. Consider funding for redevelopment opportunities including housing, business development, infrastructure, and greenspace, particularly those that provide or support affordable housing and/or job creation.
5. Communicate about the opportunities in this area to a broader audience, to attract input, support, and potentially investment.
6. Consider changes to city policies and practices to allow for experimentation and Innovation consistent with City goals and the expressed priorities of the district. Any specific regulatory or policy changes shall be brought to the City Council for consideration.
7. Work with the City of Saint Paul on shared Issues including, but not limited to, infrastructure connectivity, formation of a cohesive district identity and brand, and alignment of investments in economic development.

APPENDIX B

Resolution of the City of Saint Paul
Supporting the establishment of the University
Avenue Innovation District.

Whereas, the City of Saint Paul has supported the
development and completion of the METRO
Green Line Light Rail Transit line; and

Whereas, the City of Saint Paul is involved in an
ongoing partnership with the City of Minneapolis
on planning and development along the METRO
Green Line Light Rail Transit line; and

Whereas, the Westgate station area represents
significant opportunities for growth along the
METRO Green Line in Saint Paul, including growth
in population, employment, and tax base; and

Whereas, the City Council adopted the Westgate
Station Area Plan in 2008, supporting the
continued investment in the station areas with
high density mixed use, and the adjacent area
with office and light industrial development; and

Whereas, the West Midway industrial area
surrounding the Westgate, Raymond and Fairview
Green Line stations has been guided by the
City for reinvestment and redevelopment as a
population and employment base for the City; and

Whereas, the City Council adopted the West Midway
Industrial Area Plan in 2014, supporting strategic
investments in public infrastructure along with
business retention and attraction;

Whereas, the City recognizes the ongoing efforts of
the Creative Enterprise Zone to attract and retain
entrepreneurs and creative industries in the West
Midway area;

Whereas, the City of Saint Paul is working in
partnership with the City of Minneapolis in this
area to address shared cross-border issues and
opportunities; and

Whereas, a number of community partners have
formed the Prospect North Partnership to support

redevelopment in the context of a sustainable and
innovative district; and

Whereas, the Prospect North Partnership has identified
that designating an innovation district (“University
Avenue Innovation District”) would assist in
establishing an identity and standards for the
redevelopment of the area, and Saint Paul
Planning and Economic Development staff have
agreed with this recommendation as a means to
forwarding City goals for economic development;
and

Whereas, the University Avenue Innovation District’s
boundary as identified by the Prospect North
Partnership generally includes the area north of
University Avenue to the rail yards between the
University of Minnesota (west) and Highway 280
(east), and includes the Westgate area of Saint Paul
from the city border at Emerald Street (west) to
Highway 280 (east) and from the rail yards (north)
to I-94 (south); and

Whereas, the Saint Paul Department of Planning and
Economic Development expects this partnership
to yield economic development benefits for the
broader West Midway area of Saint Paul;

Now therefore, be it resolved, that the Saint Paul City
Council supports the establishment of the University
Avenue Innovation District area by:

1. Signing on to a legally non-binding Memorandum
of Understanding with other partners in the
Prospect North Partnership.
2. Encouraging ongoing PED and other appropriate
City staff participation in the Prospect North
Partnership with planning, organizing, strategizing
for and implementing the area’s redevelopment.
3. Considering funding requests for redevelopment
opportunities including housing, business
development, infrastructure, and greenspace,
particularly those that provide or support

4. affordable housing and/or job creation.
4. Communicating about the opportunities in this
area to a broader audience, to attract input,
support, and potentially investment.
5. Working with the City of Minneapolis on shared
issues including, but not limited to, infrastructure
connectivity, formation of a cohesive district
identity and brand, and alignment of investments
in economic development.

Appendices

APPENDIX C

Relation to Prospect Park Planning Framework for 2040

Community Values

The Towerside vision aligns well with the Community Values from the Prospect Park Planning Framework for 2040:

- Diversity and equity.
- Healthy living
- Arts and culture
- Life-long learning
- Sustainability and resilience
- Innovation, experimentation, economic development
- Housing opportunities for all
- Access to open space and restoration of natural environments
- Walkability and bikeability
- Preservation of historic sites and places

The Towerside guidelines also aligns well with the Innovation District Outcomes in the Prospect Park Planning Framework for 2040:

Innovation District Outcomes

Towerside Prospect Park provides a physically compact location that benefits from a district approach to redevelopment. The following outcomes provide a fuller definition what an innovation district should achieve.

- **Mixed use buildings and projects:** job and maker spaces on the lower levels with additional office space and/or housing above;¹
- **Joint, eco-friendly stormwater management:** reuse of captured stormwater within the district to

¹ Maker space activities include workshops, laboratories, kitchens, and spaces where physical and virtual products are produced, fabricated, created, and/or distributed.

facilitate sustainability and resilience. This allows for joint use for treating stormwater while adding to green space;

- **Shared energy source** for district heating and cooling;
- **Shared parking** for businesses, housing and mixed-use developments;
- **District-wide interconnected green spaces:** includes connecting all parks, plazas, stormwater treatment ponds, community gardens with a greenway network for pedestrian and bicycle movement;
- **Green Streets** focused on pedestrian, bicycle travel and accommodating motorized vehicles;
- **Arts and culture integration** includes organizations and places for activities supporting arts and culture, life-long learning and healthy living;
- **Innovative policies and programs** to provide education, career development and employment, businesses and housing to a diverse group of people;
- **Collaborative research and business** environment to connect researchers and companies with start-ups and new businesses;²
- **Regional system integration** to maximize use of the Green Line LRT and bus accessibility, regional parks and trails, and other regional resources;
- **Mixed-use housing** as a component of projects that provide opportunities for range of incomes and tenures.

The Towerside planning recommendations align well with the Big Picture Priorities from the *Prospect Park Planning Framework for 2040*:

Big Picture Priorities

- Preserve and respect the historic core and residential neighborhoods. Preserve significant

² This includes business incubators, minority and women-owned businesses, research and development laboratories.

community structures and places.

- Encourage the transport mode shift from private vehicles to public transit and active transportation (walking and biking) where possible.
- Improve pedestrian infrastructure throughout the community.
- Complete the Minneapolis Grand Rounds and the Granary Corridor to enhance community access to city and regional parks and trails as well as to adjoining neighborhoods.
- Provide an alternative truck traffic route to Highway 280 and the regional highway system relieving University Avenue SE.
- Support redevelopment and improve infrastructure in Prospect North.
- Redevelop the Towerside Prospect Park innovation district as a mixed use, flexible, sustainable job and research focused “new style” industrial-commercial area for the 21st Century with district systems and green infrastructure.
- The planning framework supports mixed-use redevelopment with the focus on residential development (housing units for a variety of incomes and household types) south of the current University Transitway and mixed-use with a focus on jobs and economic activity north of the current University Transitway.
- Build out the street, pedestrian and bicycle grid in Towerside Prospect Park.
- Relocate the University Transitway to the north along the existing railroad yard.
- Enhance the University Avenue commercial corridor.
- Support the development of a variety of housing types, costs and tenures in the neighborhood.
- Improve connections to city and regional bike lane networks.
- Promote and implement sound policies and practices throughout the neighborhood to protect and enhance the environment.

The Towerside planning recommendations also align well with the Planning Issues, Opportunities and Recommendations from the *Prospect Park Planning Framework for 2040*:

Planning Issues, Opportunities and Recommendations

- The Granary Corridor is essential to improving vehicular, pedestrian, and bicycle access and movement within Towerside Prospect Park and to adjacent areas and to the rest of the Metropolitan Area. The Granary Corridor transportation networks are important north/south and east/west linkages. An integrated, comprehensive approach is essential to unlock the potential economic value and to increase the ecological/environmental contribution to the large development area included in the entire Towerside innovation district.
- Granary Crossing, a proposed bridge over the railroad yards, is key to providing improved east/west and north/south transportation movement and connections. The bridge will provide vehicular access to MN 280 to the east, thereby connecting to the regional interstate freeway system. It will also provide vehicular, pedestrian and bicycle access to Como and areas in northeast Minneapolis and St. Paul via Kasota Avenue SE/Energy Park Drive. Additionally, it provides a needed pathway for areas from the north to Towerside, the University of Minnesota Minneapolis campus, the traditional Prospect Park residential neighborhood, and the University Avenue commercial corridor. Importantly, the bridge will also serve as a parkway to complete the Missing Link of the Minneapolis Grand Rounds with attractive, safe pedestrian and bicycle spaces.
- Completion of the Minneapolis Grand Rounds is envisioned to be accomplished with the new railroad crossing and connections through

Prospect Park to East River Parkway. The proposed routing goes from the railroad bridge along Granary Road to 27th Avenue SE corridor to East River Parkway. Right-of-way, easements and space may require separate routing for vehicular, pedestrian and bicycle movements.

- Vehicular, pedestrian and bicycle connections are needed from Prospect North and Towerside Prospect Park to the west. The pedestrian and bicycle pathways should connect along the Dinkytown Greenway to the Mississippi River and Stone Arch Bridge. Vehicular movements could be accomplished using new connections to existing streets.
- The city street network needs to be completed in the Towerside Prospect Park district north of University Avenue SE and south of the railroad yards between the St. Paul border and 25th Avenue SE. Streets will include sidewalks and bicycle lanes to connect to city/county bicycle networks. Connection to the three Green Line LRT stations is an essential component to region-wide access for workers, residents, patrons and businesses.
- The University of Minnesota Transitway is an essential link between the two Twin Cities campuses, but its current location is an impediment to development and street connections and poses significant safety concerns. The Transitway should be relocated north, close to the railyards to avoid unnecessary crossings. The existing right-of-way should be studied as to how best to serve the needs of the district.
- Streetscape improvements along University Avenue SE from Emerald Avenue SE to Oak Street SE, including lighting (continuation of the lighting project implemented along the Green Line LRT), safe crossings of University Avenue SE at Bedford, Malcolm, and 29th Avenues SE to the Green Line LRT stations, and 27th Avenue SE. Installation of

pedestrian and bicycle infrastructure and facilities are needed.

- Implementation of a district shared commercial parking plan with interim surface lots and permanent ramps is a priority in this plan as are modifications to the city zoning code for district commercial parking.
- Finally, the planning framework calls for development of green spaces and greenways including a new signature park at 29th Avenue SE, Green 4th, Granary Park and “United Crushers” grain elevators and the completion of the connected pedestrian/bikeway network shown in the plan.

Appendices

APPENDIX D

Relation to Saint Anthony Park Community Council 10-Year Plan

The Towerside vision and guidelines align well with the *Saint Anthony Park Ten-Year Plan (May 2018)*. All objectives are listed below. Certain strategies that are particularly relevant to Towerside are listed here as well.

Equity Objectives

- EQ1. Develop and support inclusive participation across all our neighborhood demographics.
- EQ2. Develop and implement response plans to address situations in which our neighbors experience inequities, particularly in relation to discrimination, hate crimes, or situations in which a neighbor's categories of identity have resulted in a lack of access to resources.
- EQ3. Facilitate neighborhood access to resources, such as the Statewide Health Improvement Partnership (SHIP), University of Minnesota Extension Service, or other local, state, or federal organizations.
- EQ4. Proactively address equity in housing, commerce, and industry.
- EQ5. Continually review and improve our communication and engagement methods in regard to both gathering and disseminating information, to and from the community, so that the participants in the conversation reflect the demographics of the neighborhood more consistently.
- EQ6. Develop and implement a multi-tiered plan to address food insecurity in the neighborhood.
- EQ7. Eliminate the "food desert" experienced by economically disadvantaged neighbors.
- EQ8. Maintain and seek ways to expand the St Anthony Park Community Garden for local food production.

Climate Change Objectives

- CC1. Reduce emissions of greenhouse gases through lower energy use.
- CC2. Increase the use of locally sourced, renewable energy.
- CC3. Mitigate and strengthen infrastructure resilience to severe weather.
- CC4. Increase resilience through preparedness and stronger social bonds and networks.

Economic and Business Development Objectives

- EBD1. Reuse and redevelop industrial areas to accommodate modern businesses.
 - EBD1.1. Collaborate with the City and the Creative Enterprise Zone to identify and support infrastructure needs for maker spaces.
 - EBD1.2. Identify opportunities for planned assemblage of underused industrial land to open up opportunities for more community influence on redevelopment, such as coordinating the assembly of neighboring lots for new purposes or division of lots or division of ownership of existing lots/buildings for more granular, small business incubation.
 - EBD1.3. Collaborate with the University of Minnesota to create additional business incubators for new businesses emerging from University research activities.
 - EBD1.4. Support use of art and creative enterprises as a catalyst for redevelopment.
- EBD2. Create district systems in redeveloped areas.
 - EBD2.1. Collaborate with the City and property owners to create shared parking districts at University Avenue businesses. (See also T6.3)

- EBD2.2. Support locating stormwater holding devices under new green spaces. Encourage new developments and public infrastructure to connect to these systems.
- EBD2.3. Support creation of local district energy systems. (See also CC2.4)
- EBD2.4. Work with Prospect Park and the Towerside Innovation District to create a common set of development guidelines where appropriate.
- EBD2.5. Create revived interest in shared "district green and recreational spaces" (public parks) rather than private individual green spaces at each private property.
- EBD2.6. Collaborate on plans to construct a land bridge over TH 280 between Territorial Road and Franklin Avenue to create new opportunities for commercial and open space use. (See also PR8).
- EBD3. Change zoning to allow greater flexibility and mixed use that may include industrial, commercial, and residential uses.
 - EBD3.1. Work with the City to create a new zoning overlay district in the CEZ, similar to the Towerside Prospect Park Overlay Zone in Minneapolis, to promote transitional industry/creative enterprise that allows work/live space while preserving jobs. Specifically, improve economic productivity of underused industrial areas through zoning that encourages variety and density of uses; so new residents not only leave space for employers but also so that more nearby residents contribute to formation of local attractions and businesses, and support the vitality of neighboring enterprises.

- EBD3.2. Encourage the use of zoning techniques (such as zoning overlays allowing residential/industrial mixed use and Planned Unit Development (PUD) zoning) to provide design flexibility in meeting community goals of building designs and zoning that promote flexible use to support changing needs of residents.
- EBD4. Make changes to the industrial area infrastructure to increase its attractiveness for redevelopment.
 - EBD4.1. Encourage the completion of the street grid as redevelopment occurs.
 - EBD4.2. Support improving connections between Transfer Road and Vandalia to encourage truck usage to and from I-94 via Vandalia.
 - EBD4.3. Consider extending Transfer Road/Prior to Energy Park Drive and possibly to the Saint Paul Campus of the University to make the large industrial area between Prior Avenue and Hampden/Raymond Avenues attractive to new businesses that relate to the University.
 - EBD4.4. Support improvement of the Energy Park Drive connection to TH 280 to provide better access to the adjoining industrial areas without infringing on the Kasota ponds.
- EBD5. Promote the Saint Anthony Park Village to strengthen the retail businesses, and to maintain and revitalize this critical retail and commercial area.
- EBD6. Develop a “village center” in the Raymond Station Area neighborhood node with walkable access to services for the existing community and future residents in new housing along the Green Line.

- EBD7. Create a collaborative process bringing together developers, SAPCC, and the City to enhance the contributions of commercial and residential development projects to the neighborhood and maximize their potential for success.
 - EBD7.1. Develop stronger local development guidelines and encourage public input into all new commercial and multi-family residential projects.
 - EBD7.2. Implement a collaborative Memorandum of Understanding (MOU) process to detail the commitments each developer makes to the neighborhood to secure community support for projects requiring City approvals.
 - EBD7.3. *Advocate for Saint Anthony Park businesses and encourage the City to implement systems change as it builds on existing efforts to make it easier to start new businesses and to streamline plan evaluation, permitting and inspections for new and expanding organizations. Draw on expertise at the University of Minnesota experts on process design.*
 - EBD7.4. *Work to increase understanding of appropriate building and zoning codes and pertinent licensing issues, and improve compliance between residents, businesses and the City.*
 - EBD7.5. Encourage development of financial tools, policies, and resources to support redevelopment in Saint Anthony Park, such as a defined area Tax Increment Financing (TIF) district for pooling resources to support affordable housing, affordable business spaces including maker spaces, infrastructure and district systems, and creation of living-wage jobs.

Housing Objectives

- H1. Maintain and enhance the Urban Neighborhood areas.
- H2. Increase the variety of housing types and affordable housing options in Neighborhood Nodes.
- H3. Increase the variety of housing types and affordable housing options in Mixed-Use areas.
 - H3.1. Support the community goal of intergenerational housing by requesting that new developments include at least 30 percent of units for families (2 and 3- bedroom units). Leverage community input opportunities to gain these types of family accommodations.
 - H3.2. Support the community goal of equitable housing by requesting that new developments with more than 12 units include at least 30 percent of units that are affordable for people/families making less than 60% of the average median income of Saint Paul. Leverage community input opportunities to gain these types of affordability accommodations.
 - H3.3. Support consideration of changes to zoning to provide inclusionary zoning requiring a portion of any new development over a certain size to include affordable units.
- H4. Guide new housing along the Green Line Mixed-Use area to assure it is in appropriate locations and provides a variety of housing types.
 - H4.1. Strongly encourage a variety of heights and interspersed public open space with varied architectural expressions and landscaping for new buildings to create an interesting streetscape.

Appendices

- H4.2. Use density bonuses for taller buildings to provide opportunities for open space or indoor community centers, and for affordable units as a part of new residential and mixed-use developments.
- H4.3. Promote mixed-use structures for new housing that include maker space and other commercial and industrial uses.
- H4.4. Work with the City on a new zoning category (or zoning overlay) for a transitional industrial/creative enterprise zone that allows mixed use including housing while preserving jobs.
- H4.5. As density increases, residents will have greater needs for public plazas and parks, green spaces, and indoor, all-season, public gathering spaces (community centers) close to their residences. Public spaces should be accessible to residents with a variety of incomes and ages, and should serve as critical support to the effectiveness of compact residential areas.
- H5. Create additional public park land, outdoor community spaces, and indoor, all-season gathering places to support residents as housing density increases.
- H6. Maintain permanent affordability of housing.
 - H6.1. Only support rezoning, variance, or public funding for new development of more than 12 units that permanently provide units that are affordable for households making less than 60% of the Ramsey County median income, and further the community goal of equitable housing.
- H7. Make changes to regulations that support residents working from home.
- H8. Reduce homelessness in Saint Anthony Park.

Historic Preservation Objectives

- HP1. Integrate preservation planning into the broader public policy, land use planning, and decision-making process.
- HP2. Identify, evaluate, and designate historic resources.
- HP3. Preserve and protect historic resources.
- HP4. Use preservation to further economic development and sustainability.
- HP5. Promote awareness of historic preservation and Saint Anthony Park's historic assets.

Transportation Objectives

- T1. In keeping with Vision Zero, make safety the highest priority on our streets, with the most vulnerable users (pedestrians and bicyclists) considered first.
- T2. Identify and work with city planners and traffic engineers to modify intersections dangerous to pedestrians and bicyclists.
- T3. Improve pedestrian connectivity and amenities.
- T4. Encourage bicycling through safer infrastructure and better amenities.
- T5. Work with City and county personnel to reduce the impact of truck traffic on residential streets, especially in South St. Anthony Park and Westgate.
- T6. Recognize that parking, whether on streets or private land, comes at a cost borne by us all. As vehicle technologies change, be ready to adapt to the need for less parking.
- T7. Advocate for improved and affordable transit in the neighborhood.
- T8. Explore other mobility systems that make it possible to live without a car or with fewer cars.
- T9. Support enforcement and awareness of traffic laws, transportation programs, and safety practices.

Parks and Recreation Objectives

- PR1. Preserve and enhance accessibility of existing parks and other green space.
- PR2. Seek ways to develop more public green space.
- PR3. Support current and promote non-traditional use of public green space.
- PR4. Enhance the urban forest while protecting sites for solar energy production.
- PR5. Develop sustainable approaches to multi-use boulevards and right-of-way spaces.
- PR6. Seek to include public green space in any land bridge designs.
- PR7. Create a "rewilding plan" to promote and manage native animal and plant populations.

Water, Soil and Air Objectives

- WSA1. Reduce loss of stormwater and melt water via runoff.
- WSA2. Enhance water conservation and reuse in the neighborhood.
- WSA3. Reduce input of contaminants to surface waters from Saint Anthony Park.
- WSA4. Identify and remediate sources of soil and air pollution.
- WSA5. Improve aesthetics by reducing other environmental problems.

APPENDIX E

Implementation Tools from
Prospect Park Planning Framework

1. MOU PROCESS FOR DEVELOPMENT PROPOSALS
(Source: Prospect Park Planning Framework)

This delineates the current collaborative process between developers and Prospect Park Association (PPA), sponsored by its Land Use and Planning Committee. The MOU process intends to enhance the contributions of development projects in the neighborhood and maximize their potential for success. The purpose of the MOU is to detail commitments the developer makes to secure PPA support for those projects seeking City Planning Commission and City Council approvals. The process is as follows:

1. Developer seeking city approvals for a proposal in Prospect Park prepares an initial project description.
2. Developer prepares a qualitative response to Design Guidelines for Project Review.
 - A. Mixed-use and urban density;
 - B. Connections;
 - C. Public realm;
 - D. Urban context;
 - E. Buildings, landscape and public safety design;
 - F. Sustainability;
 - G. Equity and diversity.
3. Points 1 and 2 are presented to PPA Land Use and Planning Committee for a discussion where an initial list of neighborhood issues/ concerns and developer needs/requirements for implementation are identified.
4. The Land Use and Planning Committee may create a task force to meet with the developer over a

specified period of time to gather information and considerations to address the identified issues and need/requirements. The task force or staff will prepare a draft project plan/MOU for Land Use and Planning committee consideration, revised as needed and submitted to the City for documentation. It can be further revised and presented to PPA with recommendation from the Land Use and Planning Committee.

5. Specific findings of the MOU may include the following:
 - A. Project support Design Guidelines for Project Review (see Appendix B, page 24). A qualitative narrative completed by the Developer becomes an attachment to the MOU document.
 - B. PPA support for any necessary rezoning requirements.
 - C. PPA support for specific design features and operational conditions of the Project Plan and approval of any conditional use permits, variances, encroachment permits, or other permits or approvals required to allow them.
 - D. PPA understandings regarding long-term operation/management of the completed project.
 - E. Developer agreement for projects located in the Towerside Innovation District (designated by the City) to meet other matters such as support for district systems (e.g. stormwater, energy, parking); sustainability; green space; street, pedestrian, and or bicycle infrastructure; participation as appropriate in Green 4th Street maintenance agreement.
 - F. Developer agreement to inform and consult with PPA’s Land Use and Planning Committee on any future changes to the design.
 - G. If substantial changes to Project plans

including exterior materials are proposed, they shall be reviewed with PPA’s Land Use and Planning Committee in a timely manner, to allow a minimum of 7 days for review and comment before changes are approved or implemented.

- H. Final project plans shall be reviewed and approved by Minneapolis CPED-Planning Division staff.
- I. The General Contractor for the Project will be licensed, insured, bonded and experienced with the type of work to be performed. Subcontractors will be qualified and will be licensed, insured, and/or bonded as required to obtain permits for the work to be performed. Contracts between the Developers and its contractors will include a provision that any permits required by the building code for work performed on the project site shall be obtained prior to commencement of such work.
6. MOU signed by Chair of the Land Use and Planning Committee or designee (on-behalf of PPA) and developer(s). Copies of MOU are sent to City and appropriate agencies. Copies of the MOU may be sent prior to PPA Board approval if necessary to meet city schedule, in conformance with our bylaws.

Appendices

2. DESIGN GUIDELINES FOR PROJECT REVIEW

(Source: Prospect Park Planning Framework)

This evaluation tool helps neighbors, planners and developers discuss how to build a better Prospect Park. It is a qualitative description of proposed projects or developments. It is used as the basis for discussion between proposers and the neighborhood. These discussions are then formalized in the Memorandum of Understanding. The design guidelines are based on those developed by the University District Alliance.

Presentation

- Developers should describe, and neighborhoods should judge, how the proposed project helps achieve neighborhood objectives. Developers/proposers should include, and the neighborhood should expect narratives, maps, site plans, elevations, and sketches that show how the proposed project fits into the neighborhood's setting and advances the neighborhood's plan.

1. Mixed-use and urban density to

accommodate all the people who want to work and live in the neighborhood.

- Provide a mix of uses for the diversity of people who live, work, learn, do business and visit in the district.
- Provide the density to support a walkable, transit-oriented urban place, with access to services and amenities.
- Contribute to the variety of unit types and rents to accommodate those who want to live in the neighborhood.

2. Connections to create a pedestrian friendly, transit-oriented community.

- Create a walkable, bikeable district, with connectivity within the neighborhood and to the rest of the city and region.

- Support a high-quality pedestrian network and public realm and a network of public transit.
- Reinforce neighborhood connectivity through the site plan, the architecture, and the landscape design.

3. Public realm enhanced and enlivened by the adjacent buildings.

- Enhance the safety and friendliness of the street through the street-level design of the building.
- Enliven the street with active spaces and entry ways.
- Incorporate landscaping, appropriate to local conditions, which contributes to a healthy urban ecology.

4. Urban context where each building and public space contributes, in a neighborly way, to a sense of place.

- Respect and reinforce the intrinsic character, scale, and architectural fabric of the individual sub-neighborhoods.
- Reinforce the diversity of the neighborhood with infill that is bold, imaginative and uniquely appropriate to its context.
- Contribute to a sense of place by enhancing good qualities of adjacent properties and the broader neighborhood.

5. Buildings, landscape and public safety design that respects adjacent conditions and strengthens neighborhood identity.

- Complement and enhance adjacent neighborhood landscaping and architecture, for example scale, materials, and rooflines.
- Contribute to the visual vitality, richness, and distinctiveness of the street and neighborhood.
- Use materials and methods that assure the building will be an enduring part of the public realm.
- Use of materials and designs that assure public safety, for example lighting, windows, doorway sight lines with clear day/night view of public spaces, and landscaping that promotes visibility.

6. Sustainability with durable, energy-efficient buildings designed for future reuse.

- Conserve energy and resources through orientation, massing, choice of materials and operating systems.
- Promote easy evolution, maintenance, and repair over time.
- Protect existing ecosystems and habitat.

7. Equity and diversity

- Promote employment of Disadvantaged Business Enterprise/Women-Owned Business certified businesses
- Promote affordable housing options

3. ZONING OVERLAY FRAMEWORK

(Source: Prospect Park Planning Framework)

The purpose of the Towerside Prospect Park Overlay Zone is to guide new development projects to create a mixed-use, employment intensive urban laboratory supporting innovation, research and new technology. The University Avenue Innovation District (hereafter referred to as “Towerside Prospect Park”) Overlay Zone is shown on the adjacent map.

Principal uses in the Towerside Prospect Park Overlay Zone

Towerside Prospect Park encourages maker spaces—low impact uses, which produce little or no noise, odor, vibration, glare or other objectionable influences and which have little or no adverse effect on surrounding activities. Maker space activities such as workshops, laboratories, kitchens and spaces where physical and virtual products are produced, fabricated, created or distributed are allowed. The sale of retail or wholesale products produced on site and similar or complementary products produced elsewhere is permitted.

The design and structural capability of the building must anticipate and accommodate production and fabrication activities by bay size and slab-to-slab height within the building.

After the minimum floor area of maker space or other non-residential use is provided housing units are permitted within the building or on the site adjacent to the maker space/other nonresidential use building.

Specifically, the following uses are also allowed:

1. Multi-family housing when the minimum FAR for maker space and other non-residential at the site;
2. Office uses;

3. Apparel and other finished products made from fabrics;
4. Computers and accessories, including circuit boards and software;
5. Electronic components and accessories;
6. Fabricated leather products such as shoes, belts and luggage, except no tanning of hides;
7. Furniture and fixtures, except no metal working;
8. Household appliances and components, except metal working;
9. Measuring, analyzing, and controlling instruments;
10. Medical and optical goods and technology;
11. Musical instruments;
12. Novelty items, pens, pencils, and buttons;
13. Office and commercial equipment, except no metal working;
14. Paper and paperboard products, except no pulp, paper or paperboard mills;
15. Pharmaceuticals, health and beauty products;
16. Precision machined products, including jewelry;
17. Printing and publishing, including distribution;
18. Signs, including electric and neon signs;
19. Sporting and athletic goods;
20. Telecommunications products’
21. Glass and glass products, ceramics, and china and earthenware such as dishes and kitchenware;
22. Textiles and fabrics.

Conditional Uses for the Towerside Prospect Park Overlay Zone

These uses and adjustments are also allowed as Conditional Uses:

- Commercial parking lots as regulated in Chapters 541 and 530 and parking ramps satisfying the parking required by uses in the Towerside Prospect Park Innovation District overlay zone
- Adjustments to the allowed maximum height of the building

- Adjustments to the allowed maximum or minimum FAR of the building
- Adjustments to the minimum or maximum building setback

Building Bulk and Height

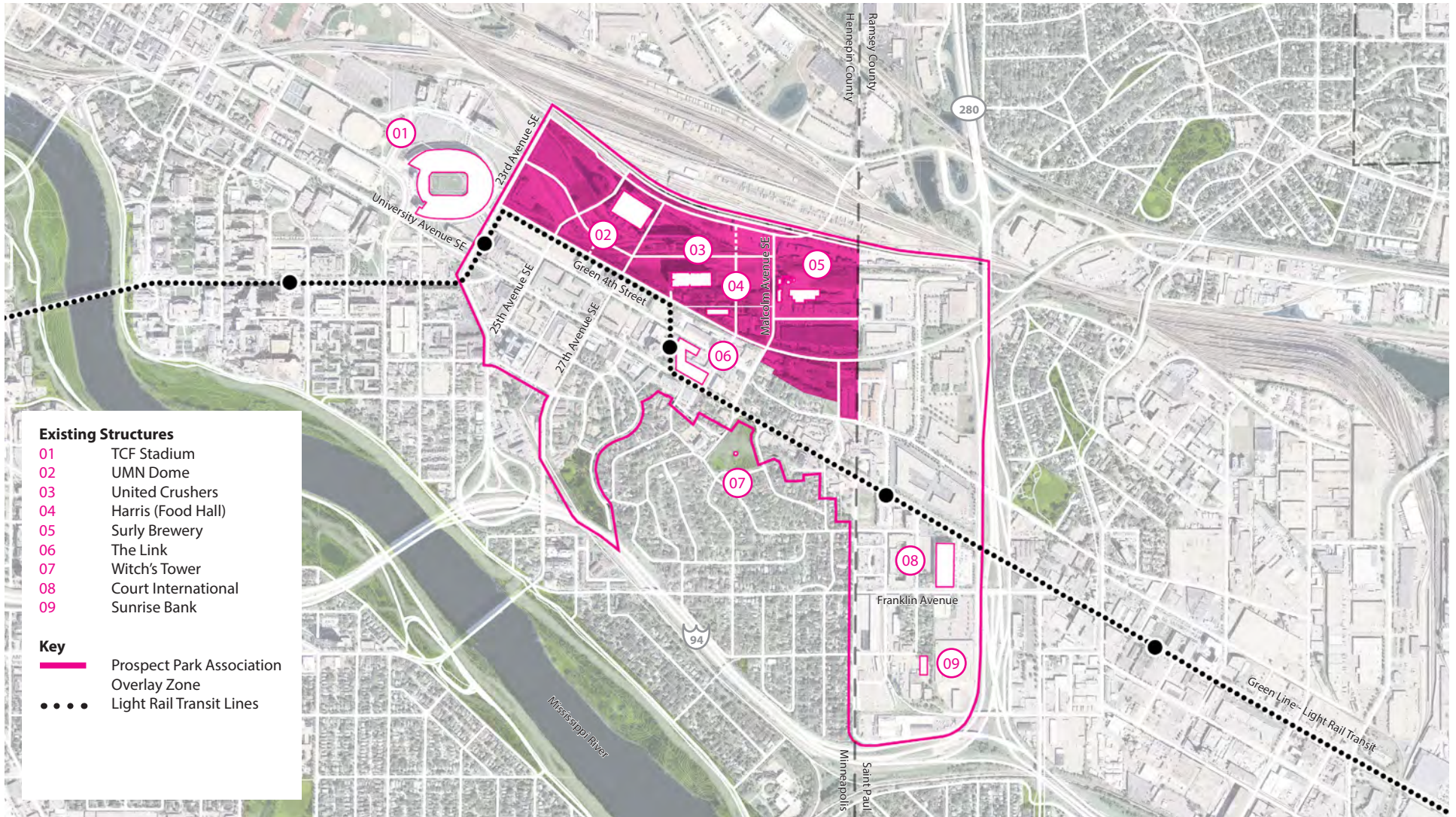
- The minimum FAR of maker space or other non-residential use shall be 1.0
- The maximum FAR shall be 2.5
- The maximum building height shall be 80 feet.

Parking Standards

- Required parking for maker space and other non-residential uses shall be one space per 500 square feet of floor area.
- Required parking for residential uses shall be one space per unit or that required by the UA University Area Overlay Parking District, whichever is less.
- Required parking may be satisfied by allocation to a commercial parking lot or ramp not in excess of the unallocated capacity of the facility and located within the Overlay District and within 1000 ft. of the site.

Building Design and Exterior Materials Standards

The provisions of Chapter 530 Building design and Chapter 536 Specific Development Standards as applicable and informed by the *Towerside District Vision and Development Guidelines* shall apply to all development in the Towerside Prospect Park.



Map of Proposed Towerside Overlay Zone

The purpose of the Towerside Overlay Zone is to guide new development projects to create a mixed-use, employment intensive urban laboratory supporting innovation, research and new technology.

4. FINANCIAL TOOLS, POLICIES AND RESOURCES

(Source: Prospect Park Planning Framework)

The city should develop financial tools, policies and resources to support the redevelopment within Towerside Prospect Park including consideration of a defined area tax increment district for pooling resources to:

- Support affordable housing, affordable business space including maker space, infrastructure, and district systems.
- Expand the Minneapolis economy to create more living-wage jobs, with an emphasis on providing job opportunities for the unemployed and underemployed.
- Support the development of mixed use buildings or projects with job and maker spaces on the lower levels or site adjacent and residential development with a portion of affordable work housing above or adjacent on site.
- Attract and expand new and existing services, developments and employers in order to position Minneapolis and the region to compete in the economy of the 21st century.
- Increase the city's property tax base and maintain its diversity. Clean contaminated land to provide sites for uses that achieve City redevelopment objectives.
- Eliminate blighting influences.
- Support district systems including:
 - joint, eco-friendly stormwater management with use of captured stormwater within the district and whose design integrates infrastructure to facilitate sustainability and resilience for the community while adding new public amenities like green space;
 - shared energy source for district heating and cooling;
 - shared parking for use by other district businesses and mixed-use developments;
 - district-wide interconnected green spaces (parks, plazas, stormwater treatment ponds, community gardens) and greenway networks for pedestrian and bicycle movement for easy district-wide accessibility;
 - multiple projects connected by green streets focused on pedestrian, bicycle travel and accommodating motorized vehicles.
- Support neighborhood retail services, commercial corridors and employment hubs.
- Support redevelopment efforts that enhance and preserve unique urban features and amenities, including historic structures.

Appendices

5. CAPITAL IMPROVEMENT PROGRAM

(Source: Prospect Park Planning Framework)

Priorities Next 3-5 Years

The planning framework supports the inclusion of the following capital investments in the appropriate agency capital improvement programs, including the City of Minneapolis, the Minneapolis Park and Recreation Board, the University of Minnesota, Hennepin County, and the Mississippi Watershed Management Organization.

Transportation

- University of Minnesota Transitway relocation and repurposing of existing Transitway.
- Construction of Granary Crossing over railroad yard as a part of the Missing Link Grand Rounds connection and vehicular connection to Kasota and Energy Park Drive.
- City street grid construction in Towerside Innovation District.
- Granary Road construction connecting Prospect Park Towerside east to Highway 280 and St. Anthony Park neighborhood in St. Paul and west to University of Minnesota and Marcy-Holmes neighborhood.

Parks, Open Space and Greenways

- Construction of the Grand Rounds Missing Link.
- Acquisition and development of signature park development at Green 4th and 29th Avenue SE (both sides of University Transitway).
- Luxton Park rehabilitation.
- Acquire the area of the former railroad spur along the east side of 27th Avenue SE and the bridge over I-94 to Franklin Avenue SE for bicycle and pedestrian travel.
- Tower Hill rehabilitation including pedestrian pathways around the park.

- Construction of the Prospect Park Bike Trail from Franklin to Essex Avenues SE.
- Implementation of the pedestrian and bikeway network throughout Prospect Park.
- Development of Granary Park.

District Systems

- District Stormwater system serving the Malcolm Yards developments and other redevelopment areas.
- Construction of shared commercial parking facilities (interim surface lots and permanent ramps) serving developments along University Avenue SE and Towerside Prospect Park.
- Construction of district energy system to serve developments along University Avenue and Towerside Prospect Park.

Priorities Longer Term

Transportation

- Reconstruction of the Huron Blvd/I-94 on/off ramps.
- Street reconnection in the Motley/Stadium Village sub-neighborhoods serving the University Medical Campus with two-way traffic lanes (Essex, Delaware and Fulton) with pedestrian-bicycle friendly design.
- Land bridge over I-94 between the Tower Hill/South of Franklin sub-neighborhoods and East River Parkway/ Bridal Veil Falls neighborhood.

Parks, Open Space and Greenways

- Acquisition and construction of the Midtown Greenway connection.
- Mississippi River Gorge park improvements.
- Reconstruction of the intersection at Bedford and University Avenues SE.
- Rehabilitation of Chergosky Park.
- Implementation of the pedestrian and bikeway network throughout Prospect Park.

APPENDIX F

Suggested Change to Minneapolis 2040 Comprehensive Plan

1. Create an “Innovation District” Comprehensive Plan Policy.

This will fulfill the City of Minneapolis’s Resolution 2015R-336 (Aug. 13, 2015), which resolves “that the City of Minneapolis will develop a definition of Innovation Districts to include in the City’s Comprehensive Plan update.”

Suggested Language :

Innovation Districts: Establish and support Innovation Districts to employ district-scale infrastructure and systems and to implement flexible policies and practices to allow for experimentation and innovation consistent with the City’s most ambitious goals.

This Policy Supports Goals:

- #2 More residents and jobs
- #3 Affordable and accessible housing
- #4 Living-wage jobs
- #5 Healthy, safe, and connected people
- #6 High-quality physical environment
- #9 Complete neighborhoods
- #10 Climate change resilience
- #11 Clean environment
- #12 Healthy, sustainable, and diverse economy

This Policy Relates to Topics:

- Land Use & Built Form
- Transportation
- Housing
- Economic Competitiveness
- Environmental Systems
- Public Health
- Technology and Innovation

Innovation Districts are an increasingly common tool in cities throughout the nation to spur and facilitate growth of quality jobs; to coordinate district approaches to stormwater, energy, parking, place making, green space, and waste management; and to increase the tax base. Innovation Districts deliberately bring businesses, residents, non-profits, academia, government, and major institutions together to organize development, manage district systems, and act as a living laboratory for future-oriented research to make progress on big challenges like inequality and climate change.

The Brookings Institution, Project for Public Spaces, and the U.S. Conference of Mayors, among others, all recognize the importance of innovation districts in 21st century cities. To make these districts thrive, they must be walkable, transit accessible, compact, and include a mix of residential, business, cultural, and retail uses—these attributes help facilitate a “water cooler” effect in which established institutions and businesses cluster around incubator spaces, maker spaces, and start-up hubs.

Innovation districts are opportunities to experiment with, visibly demonstrate, refine, and produce replicable models of best practices in planning and district systems. This innovation results from intersecting ideas, cultures, and income strata. Innovation should also reside in the infrastructure and systems of an Innovation District, which should be designed to tackle Minneapolis’s and the country’s greatest challenges, from inequality to climate change.

Action steps:

The City will seek to accomplish the following action steps in Innovation Districts to support and experiment with new policies, practices and systems and to support and require developments that are consistent with the City’s highest goals as expressed in this plan.

- a. Encourage and support district approaches to systems, including but not limited to energy, stormwater, parking, waste management, and public realm.
- b. Allow for experimentation and innovation consistent with City goals and expressed priorities of a given Innovation District.
- c. Support funding for redevelopment opportunities including housing, business development, infrastructure, and greenspace, with priority given to affordable housing and/or job creation initiatives and projects.
- d. Allow a mix of uses, including residential, with predetermined amounts of production and processing uses in both Production and Processing districts and, in a lesser amount, in Production Mixed Use districts (See Note below for further explanation).
- e. In exchange for redevelopment and district systems support—and in exchange for allowing residential uses in Production and Processing districts within Innovation Districts—require above-standard developments and systems in energy efficiency and production, stormwater, parking, waste management, and public realm.

Note on Action Step D:

It is critical to maintain and grow Production and Processing uses in the City of Minneapolis, particularly in transit, pedestrian, and bike-accessible areas. Yet the City of Minneapolis has not seen significant new Production and Processing over the last two decades despite existing zoning that prohibits a mix of uses in Production, Processing, and Distribution areas. Allowing non-production uses while requiring a designated amount of production uses would allow non-production uses to subsidize development of production spaces while simultaneously providing a guard against non-Production and Processing uses buying out and redeveloping existing and stable Production and Processing uses.

Appendices

From a code perspective, this could ultimately take the form of an FAR requirement—for example, a minimum of .9 FAR for production, processing, and/or distribution uses in the Production and Processing District and minimum of .2 FAR for production, processing, and/or distribution in Production Mixed Use Districts.

Implementation

One approach to implementing these land use changes is to establish an Overlay District Framework within Towerside. The overlay zone map as well as principal uses, conditional uses, building bulk and height, parking standards, building design and exterior and materials standards are shown in Appendix E. (Source: *Prospect Park Planning Framework*)

References and Examples of Industrial Mixed Use Projects and Areas:

Individual project examples:

- <https://fmlink.com/articles/nyc-mixed-use-project-industrial-commercial/>
- Strathcona Village - <http://www.strathconavillageworkspaces.com/>
- GMDC: <https://smartgrowthamerica.org/economic-opportunity-small-scale-manufacturing/> (not mixed use projects, but industrial adjacent to other uses)
- Common Wealth Kitchen – shared industrial kitchen underneath apartment building. <https://www.cwkitchenincubator.org/about>, see also Made In Place (11) <https://smartgrowthamerica.org/app/uploads/2017/11/made-in-place-small-scale-manufacturing-neighborhood-revitalization.pdf>
- Sail-making factory, office, and residential: <http://www.contemporist.com/its-rare-to-see-industrial-spaces-combined-with-residential-but-this-new-mixed-use-building-has-done-it/>

Studies:

- <http://stip.gatech.edu/wp-content/uploads/2012/10/STIP-Dan-Cotter.pdf>

Districts:

- Pier 70 in SF: <https://smartgrowthamerica.org/economic-opportunity-small-scale-manufacturing/> (major redevelopment that is saving and rehabbing 100,000 square feet of industrial space in the district)

APPENDIX G

List of Supporting Organizations

Aeon
City of Minneapolis
City of Saint Paul
Creative Enterprise Zone
Family Housing Fund
Hennepin County
Metropolitan Council
Minneapolis Park and Recreation Board
Mississippi Watershed Management Organization
Prospect Park 2020
Prospect Park Association
Ramsey County
Saint Anthony Park Community Council
Twin Cities Community Land Bank
UMN Foundation Real Estate Advisors
University Enterprise Laboratories
University of Minnesota



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- **District Systems and Green 4th Concepts.** Cunningham Group, MWMO, Cornerstone Group, and Prospect Park Association collaborative report, September 2014.
- **Granary Corridor Strategic Vision.** University Alliance Task Force Report, April 2015.
- **Granary Corridor Planning and Implementation Strategies.** University District Alliance, 2017.
- **Grand Rounds Scenic Byway Master Plan for the Missing Link.** Minneapolis Park and Recreation Board, March 2009.
- **Greening the Green Line:** Public and Private Strategies to Integrate Parks and Open Space in Green Line Development, August 2014.
- **Malcolm Yards Plans** Malcolm Yards refers to the property under the control of the Wall Companies. The map provided by the Malcolm Yards team includes a proposed street grid and development sites.
- **Minneapolis Code of Ordinances** Title 20 Zoning Code Includes Chapter 551: Overlay Districts.
- **The Minneapolis Plan for Sustainable Growth.** October 2009.
- **Prospect Park Planning Framework for 2040.** Prospect Park Association, 2017.
- **Prospect North District Framework and Guidelines for Development.** Metropolitan Design Center, November 2015.
- **Prospect Park Station: Central Corridor Light Rail Minneapolis Development Framework.** Prospect Park 20/20, March 2012.
- **Prospect Park, Minneapolis: A Historical Survey.** Marjorie Pearson, Hess/Roisse & Company, October 2001.
- **Resolution of the City of Minneapolis** 2015R-402, supporting the Redevelopment of the University Avenue Innovation District, October 9, 2015.
- **Resolution of the City of Saint Paul** supporting the Redevelopment of the University Avenue Innovation District, 2015.
- **Saint Anthony Park Ten-Year Plan.** Saint Anthony Park Community Council, December 2017 draft.
- **Southeast Minneapolis Industrial (SEMI) / Bridal Veil Refined Master Plan.** May 2001.
- **Stadium Village University Avenue Station Area Plan.** City of Minneapolis, August 2012.
- **Towerside District Stormwater System.** MWMO, June 2015.
- **Towerside District Vision and Development Guidelines.** Minnesota Design Center, February 2018.
- **Towerside Framework for Planning and Implementation Phase 1** (draft report). Minnesota Design Center, September 2017.
- **Towerside MSP Innovation District Parking Study.** Metro Transit and Prospect North Partnership, June 2016.

References

- **Towerside Phase 2 / Malcolm Yards District Stormwater Feasibility Study.** Barr Engineering and Bruce Jacobson, May 2018.
- **Urban Design Framework Phase III - Transforming the SEMI into a New Innovation District.** Metropolitan Design Center, 2013.
- **University Avenue District - Update on the Opportunity.** Prospect North Partnership, December 2015.
- **University Ave SE/29th Avenue SE Transit Corridor Development Objectives.** April 2005.
- **University Avenue SE /29th Avenue SE Transit Corridor Design Guidelines.** Short Elliott Hendrickson/Cornejo Consulting, April 2006.
- **University of Minnesota Area Transportation Study.** Kimley-Horn, January 2017.
- **University of Minnesota Twin Cities Campus Master Plan.** March 2009.
- **University of Minnesota Minneapolis Campus Development Framework.** February 2016.
- **Westgate Station Small Area Plan.** City of Saint Paul, 2008.
- **Westgate Public Realm Plan.** City of Saint Paul and Saint Paul Riverfront Corporation, 2017.

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Affordable Housing

Housing for which the occupant(s) is/are paying no more than 30 percent of their income for gross housing costs, including utilities. Those who pay more than 30 percent of one's income on housing are considered cost-burdened. Those who pay more than 50 percent are considered severely cost burdened. *(U. S. Dept. of Housing and Urban Development, 2015)*

AMI – Area Median Income

The amount that divides the area's income distribution into two equal groups, half having income above that amount, and half having income below that amount. Income categories include: Extremely low income = 30% area median income; Very-low income = 50% area median income; Low income = 60% area median income; and Moderate income = 80% area median-income.

Capital Improvement Program (CIP)

A CIP is a prioritized list of infrastructure improvements that guides long-term investment. Capital improvements include projects such as street construction, bridges, public buildings, traffic systems, bike and pedestrian routes, park improvements, sewers and water infrastructure. CIP projects are a part of the city's capital plan, which is reviewed and approved by City Council each year for funding. *(City of Minneapolis and Minneapolis Park & Recreation Board)*

Civic Engagement

Individual and collective actions designed to identify and address issues of public concern.

Collective Impact

A framework for facilitating and achieving change using a structured approach that brings cross-sector organizations together in a collaborative way to focus on a common agenda and produce long-lasting change. *(EcoDistricts)*

Complete Streets

Transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation. *(CONNECT, 2015)*

Community

Any group of people, who now or in the future, live or engage in activities within the Towerside Innovation District whose common interest or affiliation is affected by the actions or impacts of the District.

Community Asset

Something of social, economic, environmental, and/or organizational value that is supportive of district formation.

Comprehensive Plan

A geographic specific plan that includes all aspects necessary to guide future growth such as: land use, transportation, natural resources, parks and green space, housing, and economic development. Comprehensive plans are created for metropolitan regions, counties, and cities. A comprehensive plan may also include smaller neighborhood and site specific plans such as: small area plan, master plan, and development plan.

Economic Development

At their core, initiatives to promote sustainability and economic development are based on several parallel objectives - maximizing outputs while minimizing inputs, avoiding or reducing wasted resources, valuing quality, and investing with an eye toward long-term growth. For cities, a comprehensive approach to sustainability will naturally enhance economic development by not only eliminating waste and increasing efficiency, but by helping to create healthy,

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attractive, equitable, and safe places to live, work, and do business. Increased quality of life and sense of community, associated with many sustainability initiatives, have been shown to result in increased property values, business revenues, and attraction of private investment and a skilled workforce. *(National League of Cities)*

Economic Mobility

The ability of an individual or family to improve their income, and social status, in an individual lifetime or between generations.

Environmental Justice

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. *(Environmental Protection Agency, 2015)*

Equality

Aims to ensure that all individuals have what they need to reach their full potential; however, it does not consider the fact that everyone does not start from the same place and need the same things.

Equity

Equity is both an outcome and a process. The outcome is just and fair inclusion where all can participate and prosper. The process must engage and be shaped by historically harmed and marginalized communities. The determinants of Equity include the social, economic, geographic, political, and built environment conditions in which people live and work that lead to the creation of a fair and just society.

Equitable development

A process for creating healthy, vibrant communities of opportunity. Equitable outcomes result when

strategies are put in place to ensure that low-income communities and communities of color participate in and benefit from investments that shape their neighborhoods and regions. This includes public and private investments, programs, and policies in neighborhoods to meet the needs of marginalized people and reduce disparities, taking into account past history and current conditions, so that quality of life outcomes such as access to quality education, living wage employment, healthy environment, affordable housing and transportation, are equitably distributed for the people currently living and working here, as well as for new people moving in. *(PolicyLink, 2015)*

Equitable Transit-Oriented Development (eTOD)

eTOD combines the TOD approach with an equity lens, to ensure that the development serves those who most stand to benefit and to ensure that cost savings are optimized for the public and non-profit institutions that serve users of public transportation. It supports mixed-use developments that incorporate affordable housing in close proximity to high-quality public transit and bolsters ridership goals of transit agencies. TOD can increase property values by as much as 150 percent. Absent equity-related activities, such appreciation increases the likelihood that the benefits of TOD accrue largely to high-income communities and individuals, many of whom have access to a car. In missing eTOD opportunities, communities miss the chance to align public and private investments for optimal returns. *(Enterprise Community Partners)*

Green Infrastructure

Stormwater management approach that utilizes natural landscape features and hydrologic processes to treat stormwater by infiltrating, evapotranspiring, and/or reusing runoff. Green infrastructure also achieves other environmental goals such as carbon sequestration, reductions in urban heat island effect, improved air quality, improved wildlife habitat and

increased opportunities for outdoor recreation. - *Capitol Region Watershed District*

Inclusion

Involving people of all backgrounds, abilities, perspectives, and beliefs within a group, institution, or decision. This is more than achieving diversity; it is ensuring all individuals have a true sense of belonging.

Innovation District

A geographic area where leading-edge anchor institutions (such as Universities) and companies cluster and connect with start-ups, business incubators and accelerators. *(Katz and Wagner, The Rise of Innovation Districts).*

Livability

The sum of the factors that add up to a community's quality of life—including the built and natural environments; economic prosperity; social stability, equity, and capital; educational opportunity; and cultural, entertainment and recreation possibilities. *(Partners for Livable Communities, 2015)*

Living Wage

Affords the earner and her or his family the most basic costs of living without need for government support or poverty programs. A living wage is a complete consideration of the cost of living. Wages vary according to location, as costs of living vary. *(Living Wage Action Coalition, 2015)*

Maker Space

Maker space activities include workshops, laboratories, kitchens, and spaces where physical and virtual products are produced, fabricated, created, and/or distributed.

New Economy

The New Economy refers to the impacts of the The Fourth Industrial Revolution, a fundamental change in the way we live, work and relate to one another. It is a new chapter in human development, enabled by extraordinary technology advances commensurate with those of the first, second and third industrial revolutions. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres including emerging technology breakthroughs in a number of fields, including robotics, artificial intelligence, nanotechnology, quantum computing, biotechnology, The Internet of Things, 3D printing and autonomous vehicles. However, it is more than just technology-driven change; it is an opportunity to help everyone, including leaders, policy-makers and people from all income groups and nations, to harness converging technologies in order to create an inclusive, human-centered future. (*World Economic Forum*)

Overlay Zone

An additional zone designation placed on sites with special characteristics that need additional regulations to preserve the specific qualities of the site, such as environmentally sensitive areas or special design districts.

Placemaking

A multi-faceted approach to the planning, design and management of public spaces. Placemaking builds on a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness, and well-being. (*Project for Public Spaces, 2015*)

Public Spaces

Publicly accessible streets, plazas, parks, and comparable outdoor areas; public facilities such as schools, libraries, and indoor recreation complexes.

Resilience

The capacity of district stakeholders to survive, adapt, and thrive when confronting the stresses and shocks they experience. Stresses weaken a district on a chronic basis; examples are high unemployment or crime. Shocks are sudden, single-event disruptions that threaten a district, such as a flood or a disease epidemic.

Stakeholders

Organizations based in, or serving, a district, including but not limited to public agencies, private utilities, schools, community development corporations, major property owners and investors, civic groups, and faith-based organizations.

Resilience Dividend

The net social, economic, and physical benefits achieved when designing initiatives and projects in a forward looking, risk aware, inclusive, and integrated way.

Smart Growth

A strategy to help communities grow in ways that expand economic opportunity while protecting human health and the environment. (*Environmental Protection Agency, 2015*)

Sustainable Communities

Urban, suburban, and rural places that successfully integrate housing, land use, economic and workforce development, transportation, and infrastructure investments in a manner that empowers jurisdictions to consider the interdependent challenges of: 1) economic competitiveness and revitalization; 2) social equity, inclusion, and access to opportunity; 3) energy use and climate change; and 4) public health and environmental impact. (*U. S. Dept. of Housing and Urban Development, 2015*)

Social Cohesion

A community, neighborhood, or society that works toward—and ensures—the full inclusion, sense of belonging, opportunity, and well-being of all its members.

Social Justice

A vision of society in which the distribution of resources is equitable, and all members are physically and psychologically safe and secure.

Sustainability

Consisting of reliable and effective structures and procedures to survive over time (including leadership, capacity, and funding streams).

Tax Increment Financing (TIF)

Tax increment financing (TIF) is a method of financing the public costs associated with a private development project. Essentially, the property tax increases resulting from development are targeted to repay the public infrastructure investment required by a project. TIF funds can be dedicated for the development of affordable housing.

Transit Oriented Development (TOD)

Development of commercial space, housing, and job opportunities close to public transportation, thereby reducing dependence on automobiles. TODs are typically designed to include a mix of land uses within a quarter-mile walking distance of transit stops or core commercial areas. (*U. S. Dept. of Housing and Urban Development, 2015*)

Transit

Public transportation in the form of buses, bus rapid transit, streetcars, light rail trains, and commuter rail.

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Universal Design

The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. (*Center for Universal Design, 2015*)

Urban Resilience

The capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.

Walkability

A walkable community is one where it is easy and safe to walk to goods and services (i.e., grocery stores, post offices, health clinics, etc.). Walkable communities encourage pedestrian activity, expand transportation options, and have safe and inviting streets that serve people with different ranges of mobility. (*Laura Sandt, 2015*)

Watershed

A watershed is the area of land that drains to a particular lake, river or other water body. The Twin Cities Metropolitan Area Watershed is divided into 33 watersheds, and the MWMO manages one of these smaller watershed areas. The 39.9-square mile watershed drains into a section of the river that runs through downtown Minneapolis. (*MWMO*)

Zoning

The classification of land by types of uses permitted and prohibited in a given district, and by densities and intensities permitted and prohibited, including regulations regarding building location on lots. (*Partnership for Working Families, 2015*)