Brooklyn Park

2040

COMPREHENSIVE PLAN

PREPARED BY WSB

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CHAPTER 1: INTRODUCTION

1.1 Purpose

The City of Brooklyn Park's Comprehensive Plan addresses community-wide issues and desires. The Plan looks at the entire community with an emphasis on special planning areas. Brooklyn Park is unique in that we have many of the same challenges as the central cities and first ring suburbs paired with issues of new growth communities. The Plan utilizes the information gleaned from the efforts of the City's 2017 strategic planning process called Brooklyn Park 2025(BP 2025) as the basis for the planning process. The City has identified a need to address redevelopment and reinvestment in the older parts of the community, sustainability of new development, and the need to create a "community of the whole".

1.2 Process

Throughout 2016 the city engaged community members in a collective visioning effort, resulting in the Brooklyn Park 2025 community plan. Nearly 1000 people participated in this iterative process. Thirty-one percent of the input came from events where city staff convened community members at community café events. The majority of the input was gathered through city staff meeting community members out where they already gather, including community/civic group meetings, mini-interviews with youth at Zanewood Rec Center, a senior forum, outreach tables at community events, and through online forums and whiteboards posted throughout the city. In addition, 125 staff members gave their input. On July 28th, 2016, a special community engagement gathering provided community members an opportunity to reflect on the conclusions from the community input period. The Brooklyn Park 2025 Steering committee was made up of residents, council members and city staff. This committee synthesized the community's aspirations and ideas into 6 community goals with detailed descriptions. In the fall of 2016 community members again had an opportunity to give feedback on the draft plan both online and in-person. The final plan was adopted by the City Council in February 2017.

The City held a public hearing on the 2040 Comprehensive Plan at the Planning Commission meeting on March 14 and continued to April 11, 2018 with a recommendation to the City Council provided. A community open house was held on October 30, 2017. The City Council discussed the plan at a joint commission meeting on June 5, 2017. the City Council reviewed the final draft approved the plan for routing on May 29, 2018 with the comment period closing on October 26, 2018. The Plan was approved for submission to the Metropolitan Council for their final review on December 10, 2018.

1.3 How to Use the Plan

The Plan is meant to be a living document, grounded in real challenges and opportunities. It is

meant to be used often. The City will use the input of the public, whether through formal or informal means, to make sure that the vision, goals, and policies remain relevant over time.

Based on the priorities voiced during public input; demographic, physical, social, and economic changes affecting the City; and the requirements of the Metropolitan Council, the Plan is divided into the following chapters:

2 – Background/Community Profile
3 – Land Use
4 – Housing
5 –Transportation
6 – Economic Development
7 – Regional Parks and Trails
8 – Sanitary Sewer
9 – Water Supply
10 – Surface Water
11 – Mississippi River Critical Corridor Area (MRCCA)
12 - Resilience
13 – Implementation

Appointed and elected officials use the City's Comprehensive Plan as a guide when making decisions. Traditionally, decision-makers reference the Comprehensive Plan when deciding what uses should be allowed on a parcel of land; allocating resources for infrastructure investments; preserving and improving parks, open spaces, and trail connections; and enhancing the quality of life for all residents. Overall, the Plan is meant to provide specific guidance for local officials to accomplish the vision established in 2010; Brooklyn Park, a thriving community inspiring pride where opportunities exist for all.

1.4 Goals and Objectives

While the subsequent chapters include goals specific to the issue covered, the overarching goals of the plan are taken from BP 2025 and woven into the plan as a whole:

Brooklyn Park 2025 Community Goals

Working together to make Brooklyn Park a thriving community inspiring pride where opportunities exist for all.

We asked and you answered! Our community wants to accomplish these goals by the year 2025:

United Community

A united and welcoming community, strengthened by our diversity.

- We have connected neighbors who understand and celebrate our unique cultures.
- Brooklyn Park is unified with a strong positive identity and image.
- Our community's activities, events and services are inclusive, multi-cultural, and accessible.
- We have places and spaces for diverse communities to gather.
- Residents of every age contribute to our community.

Beautiful Places

Beautiful spaces and quality infrastructure make Brooklyn Park a unique destination.

- Modern transportation options (drive, ride, walk, bike) connect people to education, jobs, and recreation.
- Quality recreation and park amenities inspire activity for all ages and interests.
- Our rich diversity is showcased through our vibrant music, art, food, entertainment, and cultural scene.
- Attractive key corridors, corners, and city centers create destinations that meet community needs.
- Neighborhoods are well-maintained with quality housing for all ages and incomes integrated throughout the community.

Thriving Economy

A balanced economic environment that empowers businesses and people to thrive.

- People of all ages and backgrounds enjoy financial stability.
- Residents and visitors support an abundance of retail stores, restaurants, and entertainment venues.
- Our business environment inspires private investment and job growth.
- Business and organizations of all types, sizes and specialties start, stay and grow here.
- We are a leader in environmental sustainability, benefiting our economy and community.

Healthy and Safe People

People of all ages have what they need to feel healthy and safe.

- Neighborhoods are empowered and supported by strengthened positive relationships with police.
- Youth are engaged in positive and quality experiences.
- Aging adults have services and amenities to thrive and age in place.
- Everyone has access to quality healthy food options.
- People have access to quality medical and emergency care.

Increased Equity

Partnerships that increase racial and economic equity empower residents and neighborhoods to prosper.

- Each resident has access to the training and support needed to get and keep a living wage job.
- Each student graduates high school with a pathway to college or career.
- Aging neighborhoods and commercial centers are revitalized through continuous investment.
- The community provides necessary supports and services for community members to overcome life challenges such as hunger, mental illness, and homelessness.

Effective, Engaging Government

Effective and engaging government recognized as a leader.

- The City provides quality services at a reasonable cost.
- Elected officials, commissions, and City staff reflect the diversity of the community and are culturally competent.
- City information is clear, accessible, and delivered in ways that meet the community's needs.
- City laws are understandable, equitably enforced, and relevant to the community.
- The City is well-managed and recognized as a great place to work.

Brooklyn Park
Unique. United. Undiscovered.

Goals adopted by City Council February 27, 2017

CHAPTER 2: BACKGROUND

2.1 Background and History

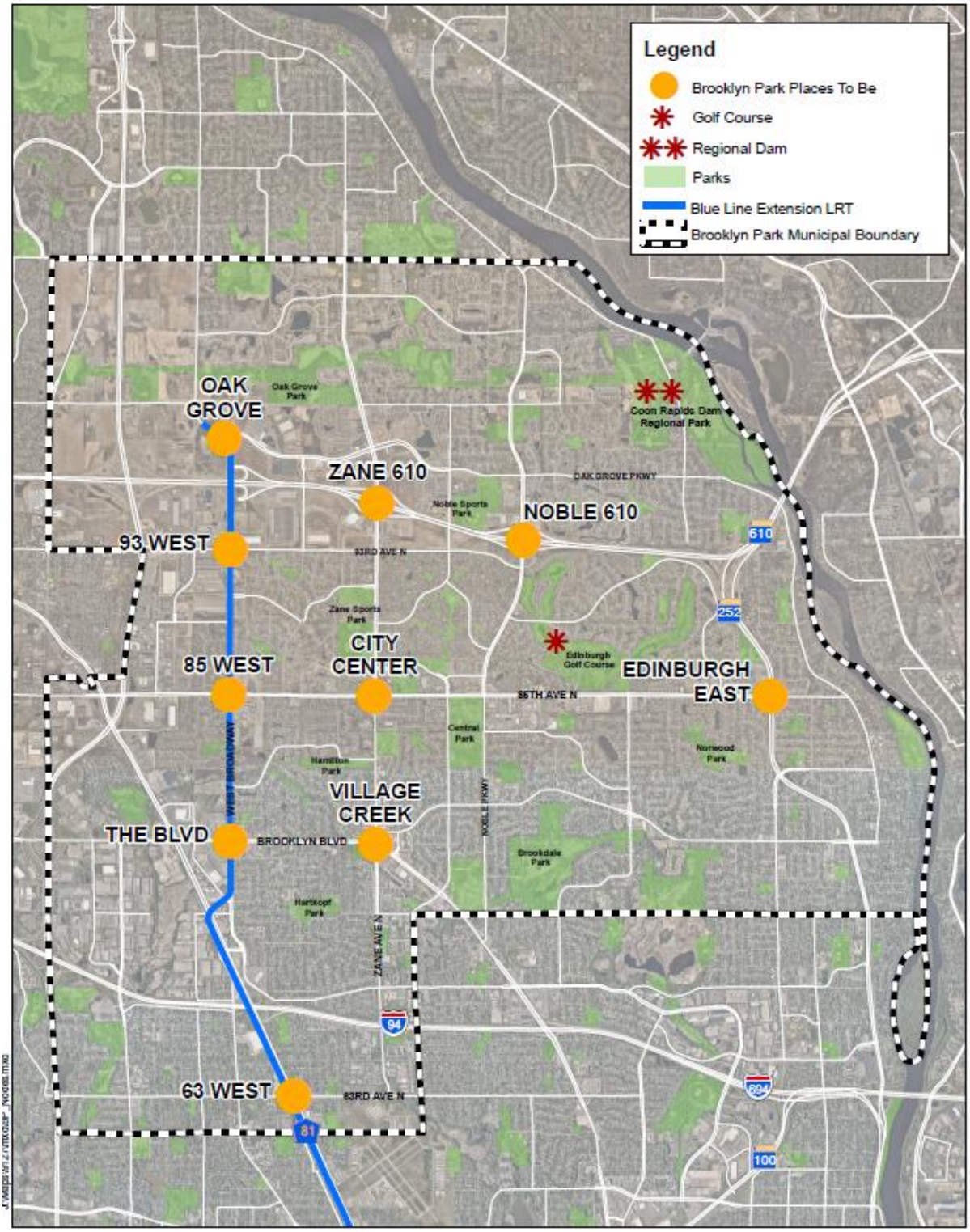
The City of Brooklyn Park is a Minneapolis suburb in northeast Hennepin County and is bordered by the cities of Champlin, Maple Grove, Osseo, New Hope, Crystal, and Brooklyn Center. The Mississippi River forms a natural boundary along the City's entire eastern edge and creates the border with Anoka County and the cities of Fridley and Coon Rapids. Brooklyn Park's proximity to Minneapolis and Saint Paul has contributed significantly to residential growth and development.

The 2010 census-counted population of 75,781 represented a 12.5% increase over the 2000 census count of 67,388. The estimated population for 2016 is 80,450. Brooklyn Park is the fourth largest city in the Minneapolis / St. Paul metropolitan area and the sixth largest city in the State of Minnesota. The City incorporates an area of approximately 27 square miles.

History: What is now the City of Brooklyn Park was once part of the Fort Snelling military reservation in the early nineteenth century. In 1852, the Territorial Legislature of Minnesota established Hennepin County. That same year, six years prior to Minnesota becoming a State, Esra Hanscom established his homestead near where Shingle Creek now crosses Noble Avenue. In 1853 and 1854, settlers from Michigan staked claims in the area and named it Brooklyn Township after their home territory of Brooklyn, Michigan. On May 11, 1858, the first town meeting was held at the Hanscom home and Township officers were elected.

Growth and Development: The City of Brooklyn Park is a growing community. The City's location, just 20 minutes from downtown Minneapolis and Saint Paul, contributes to the consistent construction of new commercial, retail, multi-family and single-family residential units in the City each year. The final construction of Trunk Highway 610 (T.H.610), the expansion of U.S. Highway 169 (HWY 169), and the anticipated METRO Blue Line LRT extension is contributing to commercial and residential growth in the City. The 610 Corridor links Interstate 94 in Maple Grove with Interstate 35W in Mounds View. T.H. 610 plays a significant role in Brooklyn Park's development today and will continue into the future. Increased access, housing construction, and employment opportunities all benefit from T.H. 610. Brooklyn Park is in an enviable position to take advantage of the growth generated by T.H.610. The City has over 200 acres of prime land available for development adjacent to the T.H. 610 corridor.

Places to be



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Unique. United. Undiscovered.

Hot Spots in Brooklyn Park

City of Brooklyn Park

wsb

Development Nodes: While current development is concentrated in the north part of the community the city has had a history of intentional development that created nodes or places to be throughout the community. People often ask if there is a "downtown" in Brooklyn Park. Like most suburban communities there is no downtown, the historic suburban model was to provide housing to support the core cities with local service centers to provide basic needs. However, that model has changed over time. Now expectations are that communities provide locations for shopping, dining, and entertainment options closer to home.

As outlined in the Places to Be Map below, there are many areas in the city that provide different levels of service options and opportunity for entertainment.

The places to be provide opportunity for dining, shopping, entertainment, and recreation. The current exception to this statement is the Oak Grove node. Oak Grove is a Greenfield area that is envisioned to become a place to be! The area includes the most northerly station of the METRO Blue Line LRT extension and is being planned for high density, high intensity mixed use development. It promises to be Brooklyn Park's future downtown.

2.2 Planning Area Designation

The City of Brooklyn Park is designated as "suburban" in the ThriveMSP2040 Regional Development Framework which is the Metropolitan Council guide to development in the 7-county metropolitan area. This designation recognizes Brooklyn Park's role to provide housing and jobs for the anticipated growth in the region.

The Metropolitan Council defines "suburban" communities as those which have experienced continued growth and expansion during the 1980s and early 1990s, and typically have automobile-oriented development patterns at significantly lower densities than in previous eras. Suburban communities are expected to plan for forecasted population and household growth at average densities of at least **5 units per acre** for new development and redevelopment. In addition, Suburban communities are expected to target opportunities for more intensive development near regional transit investments at densities and in a manner articulated in the 2040 Transportation Policy Plan.

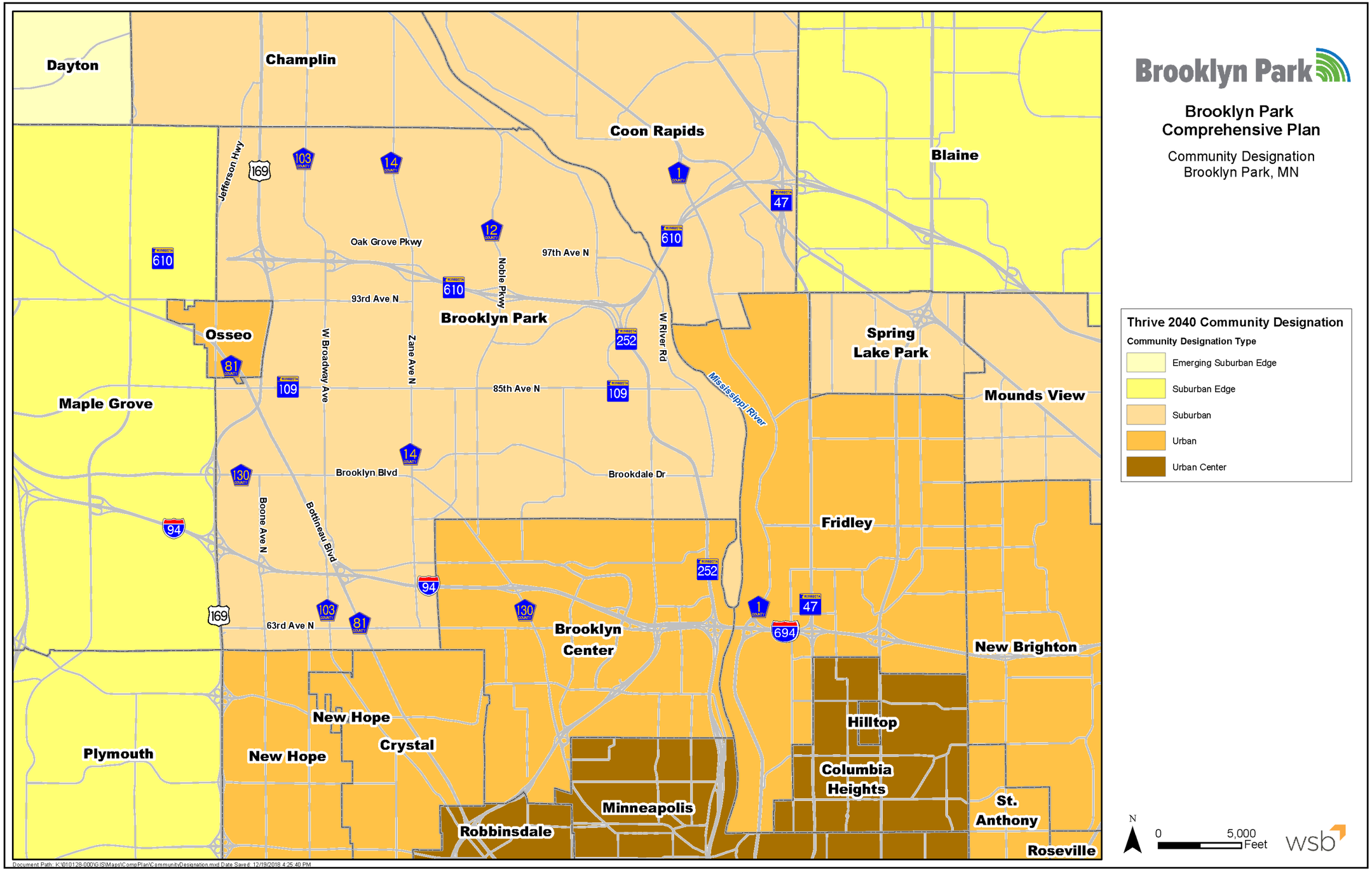
Regional Context: Community Designation

In ThriveMSP2040, the Metropolitan Council groups jurisdictions within the metro with similar characteristics based on urban or rural character for the application of the regional policies. As described in MAP 2-1, Brooklyn Park's "suburban" designation translates to specific expectations in terms of development density and incorporation of transit services as an auto-dependent suburban community positioned to experience growth.

Long range comprehensive planning involves planning for people and jobs that are not yet here. The Council develops population, housing and employment forecasts as a component of a community System Statement to help communities set realistic goals and policies to plan for the future needs and trajectories of the community over the decades to come. The Council's forecasts have been incorporated into this plan update to plan pragmatically for all city systems and services in the future.

Brooklyn Park's 2040 Comprehensive Plan update will incorporate regional policy and metro-wide goals while also integrating important local goals, objectives and preferred outcomes. Both regional Thrive MSP2040 outcomes as well as the local goals and priorities identified in Chapter 2 will form the foundational lens of this comprehensive plan, guiding decision-making and informing the content of each subsection. The chapters that follow will build on this community profile and an understanding of whom and what is here now to create a vision for whom and what this community will be by the year 2040.

MAP 2-1: ThriveMSP 2040 Community Designation



2.3 Community Context

This section of the Comprehensive Plan provides a picture of the community as it exists today. Looking at the current demographic, social, physical, and economic characteristics is an important step in planning for the future. Achieving the desired community vision starts with an understanding of the existing conditions and emerging trends. This section can also be used to help inform daily decision making and policy by staff and public officials by providing a clear understanding of the community.

2.4 Development History of Brooklyn Park

Similar to other communities, Brooklyn Park's soil allowed for easy agriculture which helped to grow the community's population. Potato farming in particular was a focus of the area. Growth was slow until the 1940s, when housing developments began to appear in the southern part of town. Brooklyn Park's population grew from 1,694 in 1950 to 20,640 in 1970. As the Twin Cities of Minneapolis and St. Paul began to densify, the wide-open spaces of the suburbs began to seem more appealing to some residents, who subsequently moved into the area. The construction of interstates and state highways increased Brooklyn Park's accessibility to the cities and its attractiveness grew. Brooklyn Park's population is now over 80,000 people with growth projected to continue increasing. Brooklyn Park has also attracted many corporate residents and Edinburgh Golf Course, a championship golf course.

2.5 The Land

Existing Land Use

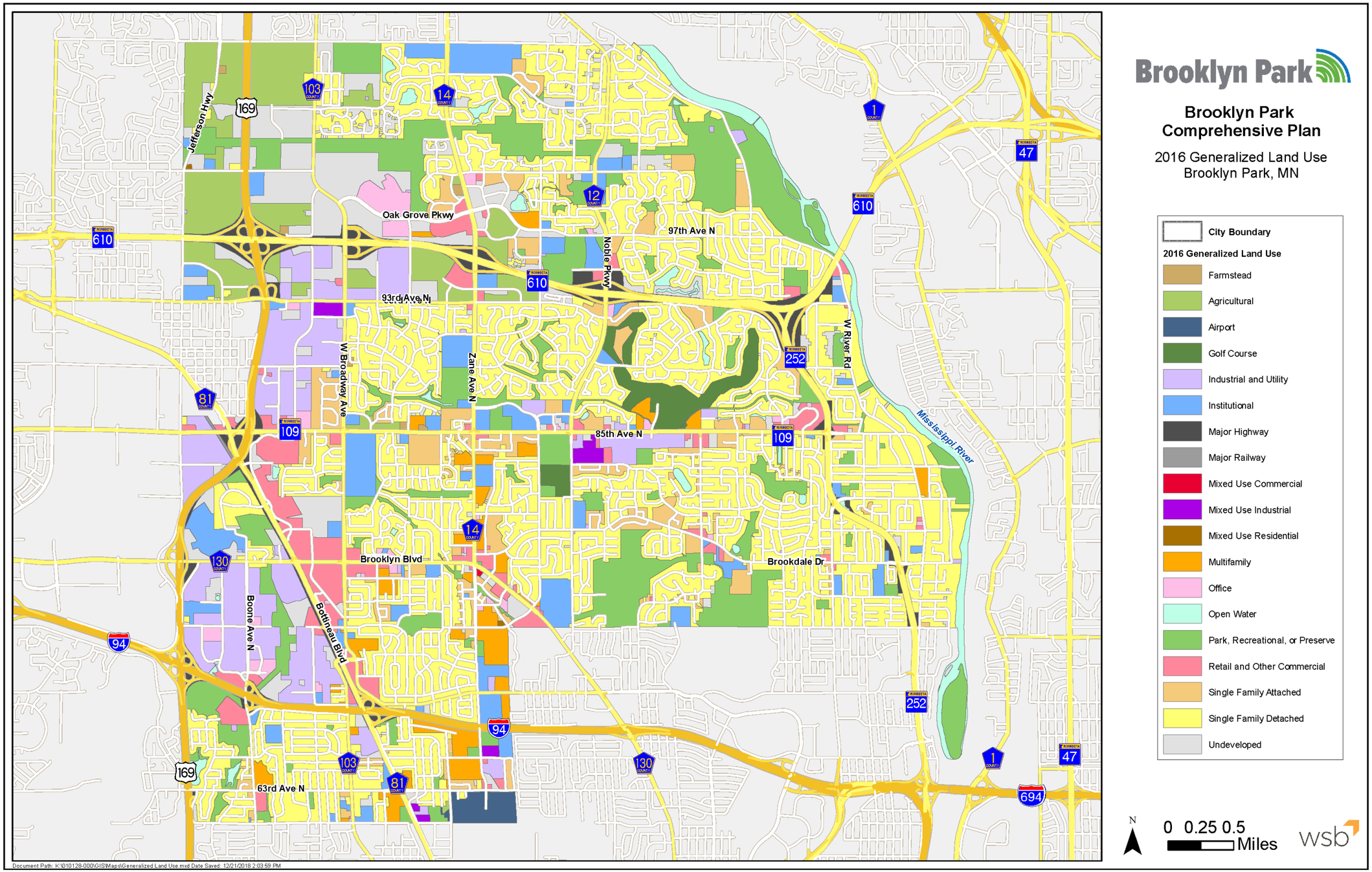
Existing land use can be thought of as what exists on the ground at the present time, regardless of what has been planned or what zoning regulations exist. The most accurate depiction of what land uses currently exist in Brooklyn Park comes from the City's own geographic data to provide current land use types by acreage. MAP 2-2 shows the existing land use in the Brooklyn Park.

Existing land use types, total acreage and percent of total acreage are shown in table 2-1 below. As a suburban community, a large amount of development has already taken place within Brooklyn Park. Limited areas remain undeveloped and redevelopment opportunities are important for the community.

Existing Land Use in Brooklyn Park by total acreage and percent of total		
Land Use Type	**Total Acres**	**Percent (%)**
Single Family Attached	865	5.1%
Single Family Detached	7186	42.3%
Multifamily	382	2.2%
Retail and Other Commercial	645	3.8%
Office	182	1.1%
Industrial and Utility	1081	6.4%
Railway	5	0.0%
Institutional Total	897	5.3%
Park, Recreational or Preserve	2005	11.8%
Golf Course	216	1.3%
Mixed Use Residential	3	0.0%
Mixed Use Industrial	62	0.4%
Mixed Use Commercial and Other	3	0.0%
Major Roadways	939	5.5%
Airport	80	0.5%
Agriculture	835	4.9%
Undeveloped Land	1251	7.4%
Open Water	321	1.9%
Farmstead	20	0.1%
Total	16,978	100.0%

TABLE 2-1. Source: Metropolitan Council 2016 Generalized Land Use

MAP 2-2: Generalized Land Use Map



Existing Residential Land Use

Residential land uses make up approximately 50 percent of Brooklyn Park's total land area. Of the residential land, single family detached homes are the predominant residential type at 85 percent of the total area devoted to residential uses.

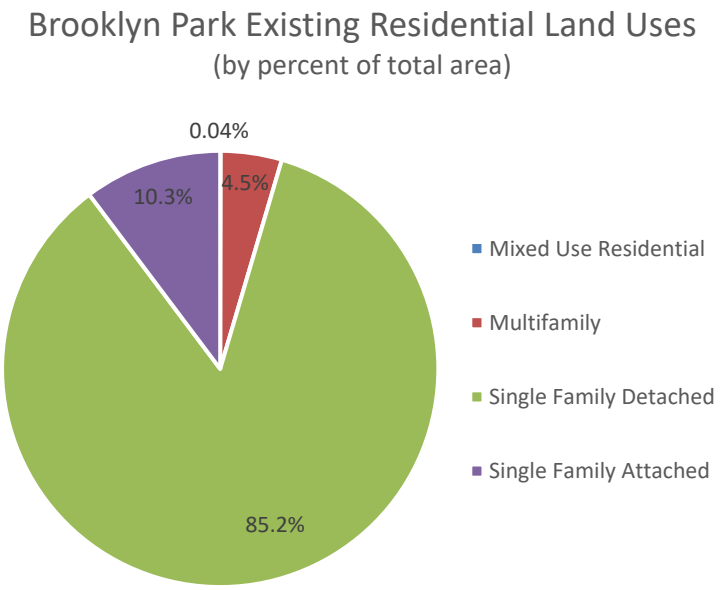


FIGURE 2-1. Source: Metropolitan Council 2016 Generalized Land Use

Existing Commercial and Industrial Land Use

Brooklyn Park has many commercial and industrial districts, and together they make up 11 percent of the land area in the community. Most of Brooklyn Park's industrial land is in the western portions of the city with a small area along 85th Avenue. Major commercial uses are concentrated at Brooklyn Boulevard and West Broadway, Highway 252 and 85th Avenue, and along T.H. 610 at Zane and Noble Avenues.

Existing Public Land Uses

Five percent of Brooklyn Park's land area is made up of institutional land uses. These include schools, churches, civic buildings, and city-owned land. An additional 11.8 percent of Brooklyn Park is devoted to outdoor recreation or sport areas and open spaces that include parks.

2.6 The People Who Live Here

Population

In 2010, Brooklyn Park's population was estimated at 75,776 people. The chart below shows Census population data for Brooklyn Park, indicating that Brooklyn Park has historically had a larger population in comparison to most of its surrounding communities (FIGURE 2-2). While some neighboring communities' populations have remained constant over the years, Brooklyn Park's population has steadily grown, and exceeds the population of each of its surrounding communities.

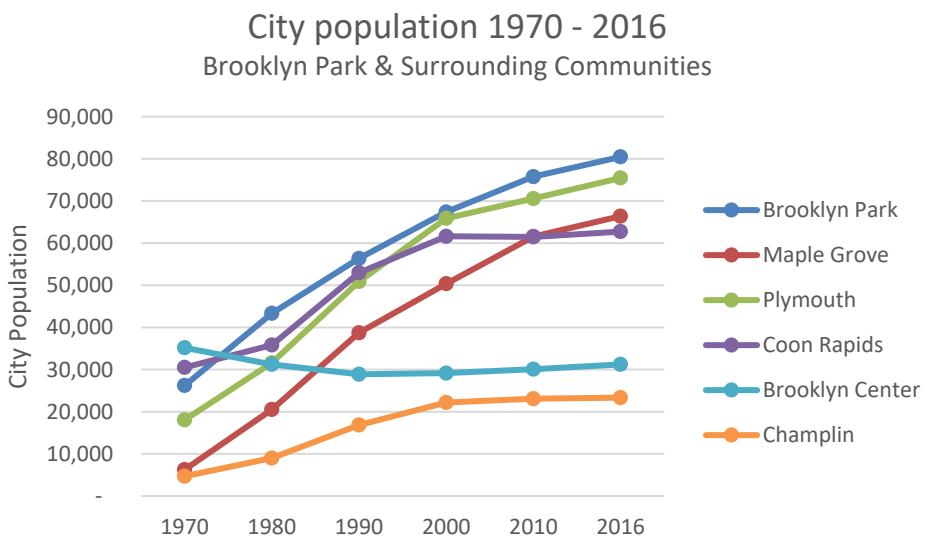


FIGURE 2-2. Source: U.S. Census 2010

Age demographics

Like many other communities around the country, Brooklyn Park is experiencing an aging population. The percent of the population within the 50-59, 60-74, and 75 and over age groups has all increased from 2000 to 2010. Providing adequate housing and services for residents of all ages has been and will continue to be a priority for the City of Brooklyn Park. As older residents age out of their homes, Brooklyn Park will see an increase in younger residents and families. FIGURE 2-3 below shows an increase in the percentage of residents in the 20 to 29 age group from 2000 to 2010. The median age in the City of Brooklyn Park in 2015 was approximately 32.

Age of Population

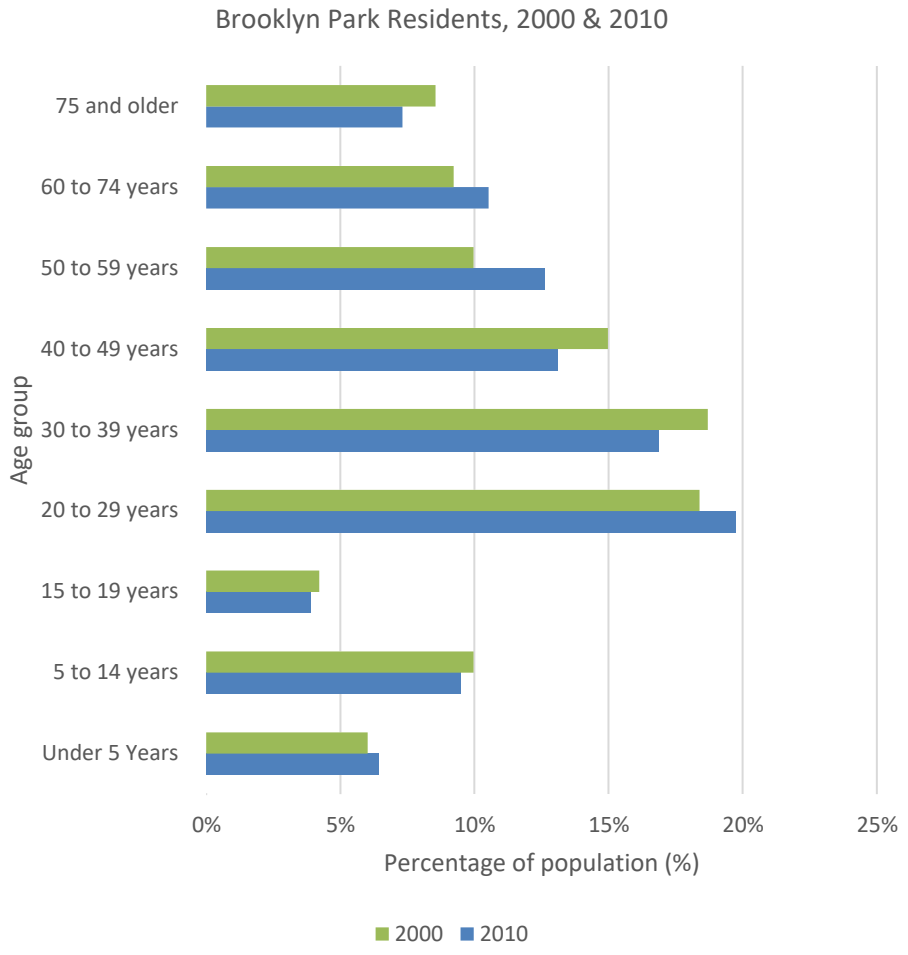


FIGURE 2-3. Source: 2010 US Census

Household Income

The median and average household income in Brooklyn Park is generally lower than other nearby communities as shown in FIGURE 2-4 below. The median is however close to the average when compared to Hennepin County. Brooklyn Park's average income is lower than its neighboring communities, except Brooklyn Center and Coon Rapids. The average income is also lower than Hennepin County's, indicating that Brooklyn Park residents hold a greater financial burden compared to other communities within Hennepin County.

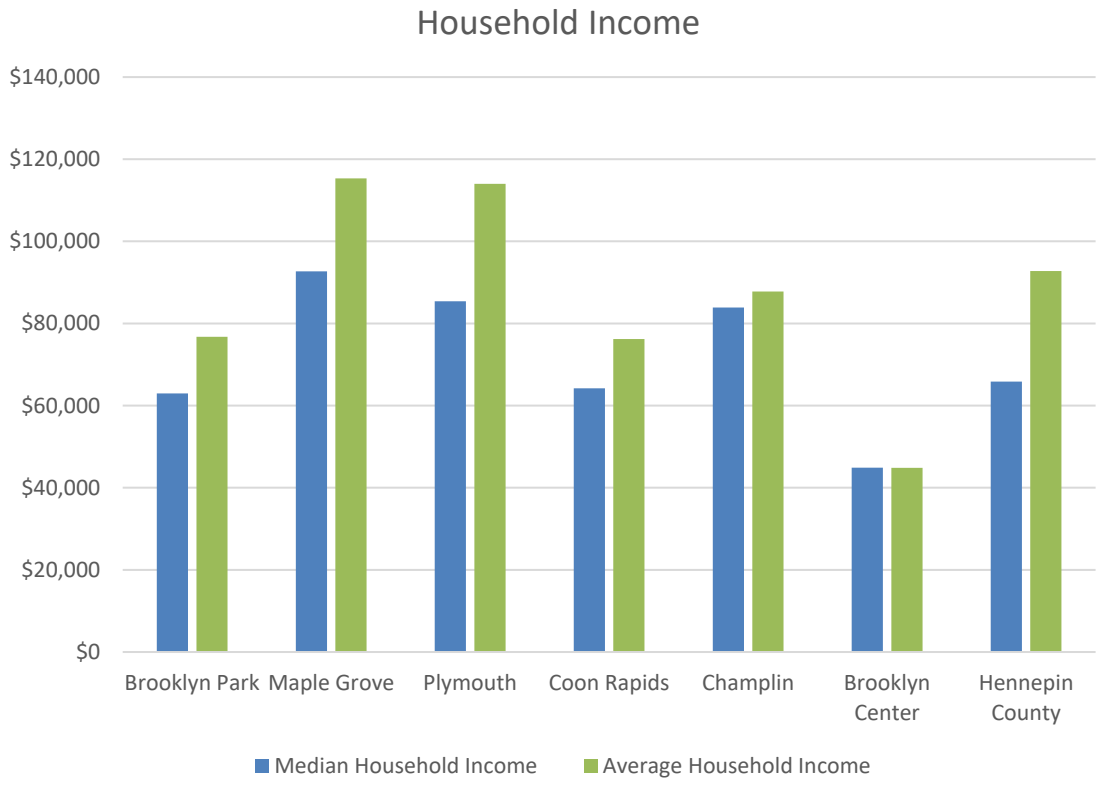


FIGURE 2-4. Source: 2015 ACS 5-Year Estimates

Brooklyn Park households have a wide range of annual incomes. Approximately 50 percent of households make between $50,000 and $150,000. About 36 percent of households make less than $50,000 while 9 percent of households make more than $150,000 (see FIGURE 2-5). The area median income (AMI) for the Twin Cities for a family of four in 2016 was about $82,000.

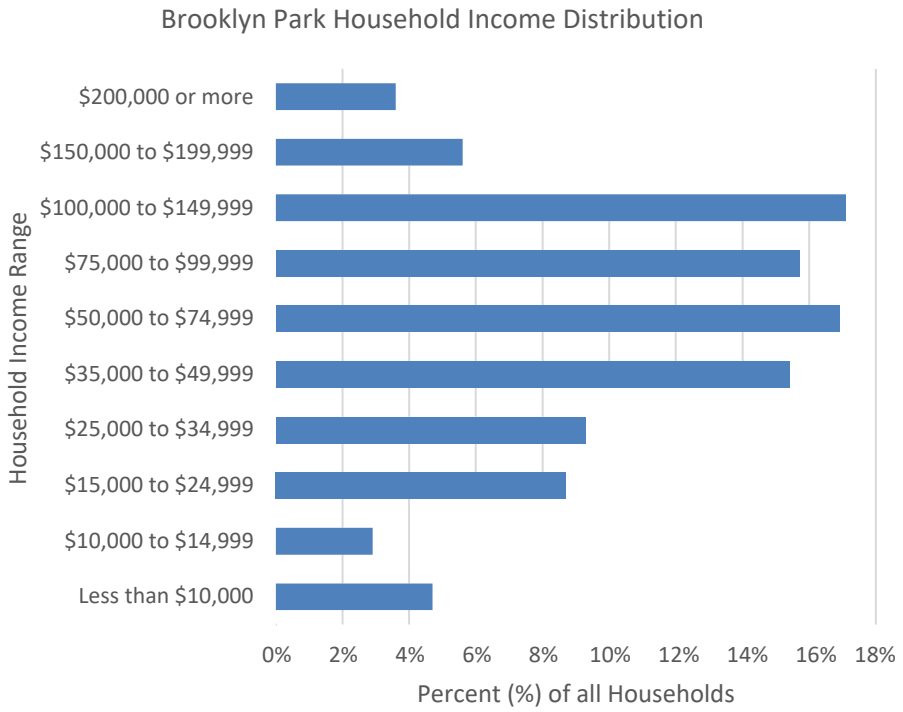


FIGURE 2-5. Source: 2015 ACS 5-Year Estimates

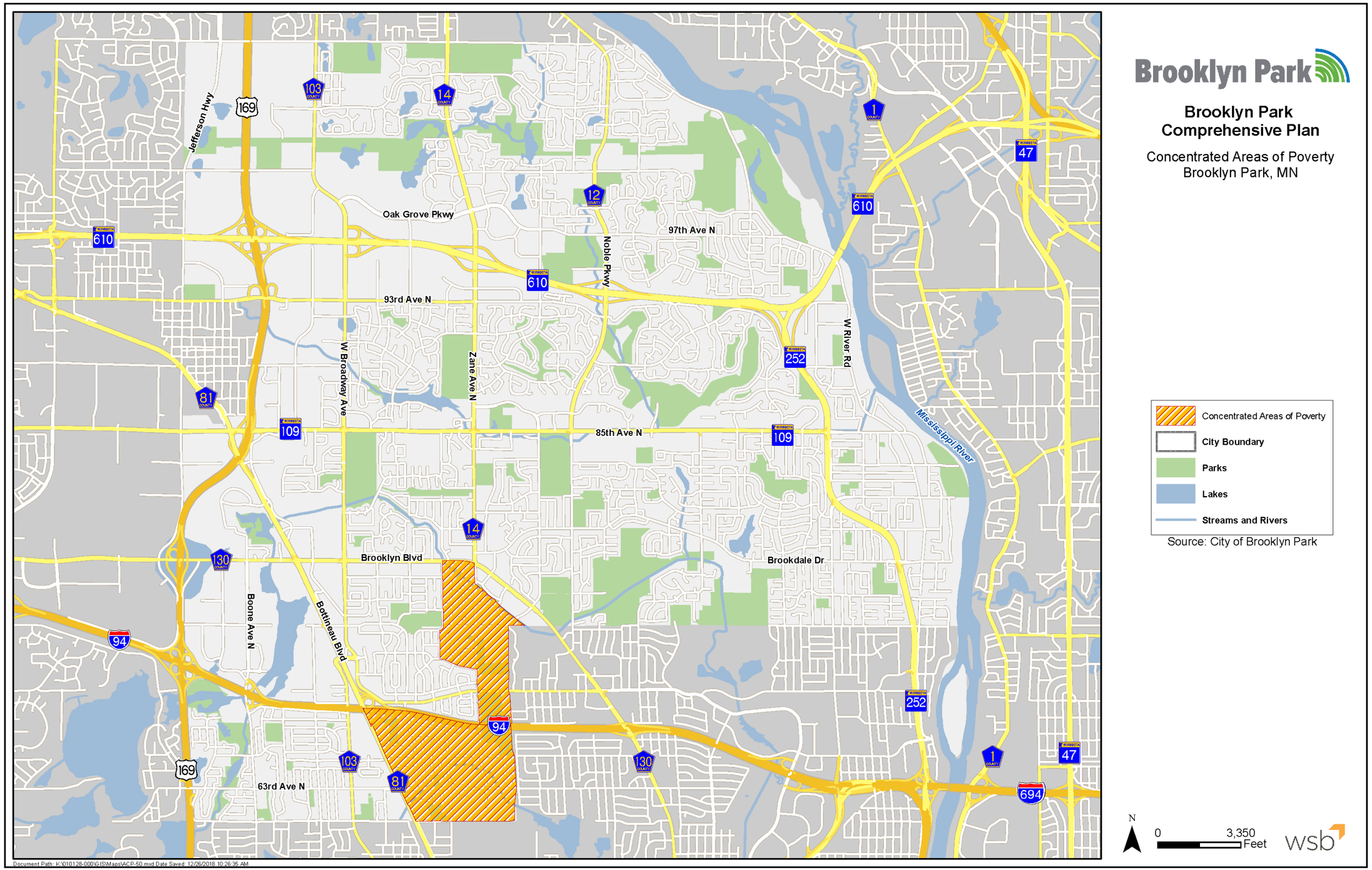
Poverty Rate

The 2015 poverty guidelines indicate that for a family of four the poverty line was $24,257. The percentage of Brooklyn Park residents living below the poverty level is 11.1 percent, which is above average compared to other surrounding communities, but is below the Hennepin County average. The percentage of Brooklyn Park residents living below the poverty level has decreased slightly from a rate of 11.4% in 2010.

Community	Below poverty (%)
Brooklyn Park	11.1%
Maple Grove	5.1%
Plymouth	5.8%
Coon Rapids	9.0%
Champlin	3.4%
Brooklyn Center	19.2%
Hennepin County	12.5%

TABLE 2-2. Source: 2015 ACS 5-Year Estimates

MAP 2-3 Areas of Concentrated Poverty. Source: Metropolitan Council



Education

Brooklyn Park's population is becoming more educated. In 2010, the percentage of Brooklyn Park residents with a bachelor's degree or higher was 29.5 percent. In 2015, that number has decreased slightly to 28.6 percent (TABLE 2-3). Establishing a highly-educated workforce is just one key component to attracting new employers to Brooklyn Park.

Educational Attainment of Population 25 Years & Older	Brooklyn Park	Hennepin County
Total:	**48,897**	**821,362**
Less than high school graduate	9.8%	7.4%
High school graduate (includes equivalency)	25.2%	17.8%
Some college, no degree	25.7%	19.5%
Associate's degree	10.5%	8.3%
Bachelor's degree	21.3%	30.3%
Graduate or professional degree	7.4%	16.7%

Table 2-3. Source: 2015 ACS 5-Year Estimates

Race

Brooklyn Park is seeing a small increase in racial diversity among its residents. From 2010 to 2015, the rate of non-white individuals in Brooklyn Park increased from 48.9 percent to 51.8 percent. It is anticipated that the number of non-white individuals in Brooklyn Park will continue to grow as a percentage of the overall population. Black or African American is the second largest racial ethnicity in Brooklyn Park after White at 26.4 percent.

Racial Demographics	
	Percent
White alone	48.1%
Black or African American alone	26.4%
Hispanic or Latino	6.5%
American-Indian and Alaska Native alone	0.3%
Asian alone	15.2%
Native Hawaiian/Pac. Isl alone	0.07%
Some other race alone	0.4%
Two or more races	2.9%

Table 2-4. Source: 2015 ACS 5-Year Estimates

The proportion of the population who speak a language other than English at home in Brooklyn Park is slightly growing. In the year 2000, 84.6 percent of residents spoke English at home. Today that rate has shrunk to 70.7 percent. Since 2000 Brooklyn Park has seen variation in each of the demographic areas that represent cultures and ethnicities from around the world.

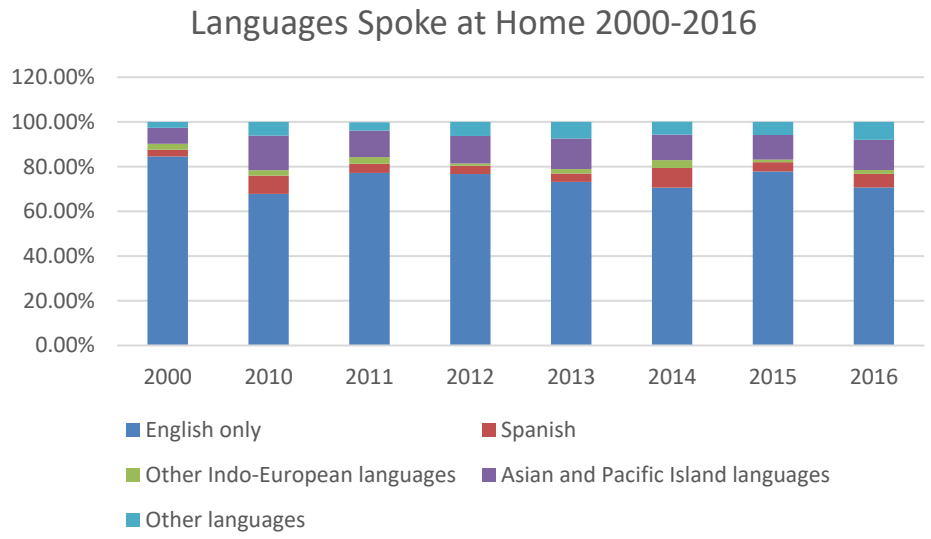


Figure 2-6: Source: ACS 2011-2015 Estimates

The Housing Landscape

In 2016 there were 27,539 housing units within the City of Brooklyn Park, made up of a variety of different single and multifamily units. Housing is a major land use in Brooklyn Park, making up just under 50 percent of the area of the city.

Housing Unit Types

Single-family detached is by far the most dominant type of housing unit within the Brooklyn Park and requires the most land per household. Brooklyn Park still has approximately 7.4 percent of its land area undeveloped so it is likely that future residential development will be an equal mix of housing styles to accommodate the evolving demographics of the community.

Brooklyn Park housing units by housing type		
	Units	**Percent**
Single-Family Detached	17,058	60.2%
Townhomes (single-family attached)	3,975	14.0%
Duplex and triplex and quad	812	2.9%
Multifamily (5 units or more)	6,493	22.9%
	28,338	**100%**

Table 2-5. Source: 2015 ACS 5-Year Estimates

Maintaining a quality housing stock is essential to a healthy Brooklyn Park. As a suburban

community, Brooklyn Park is seeing its housing stock age as some of its neighborhoods were built in the 1950's and 1960's. The City has responded by developing a robust rental maintenance and property maintenance program. Approximately 14 percent of Brooklyn Park's housing units were built after 2000.

Age of Housing Units

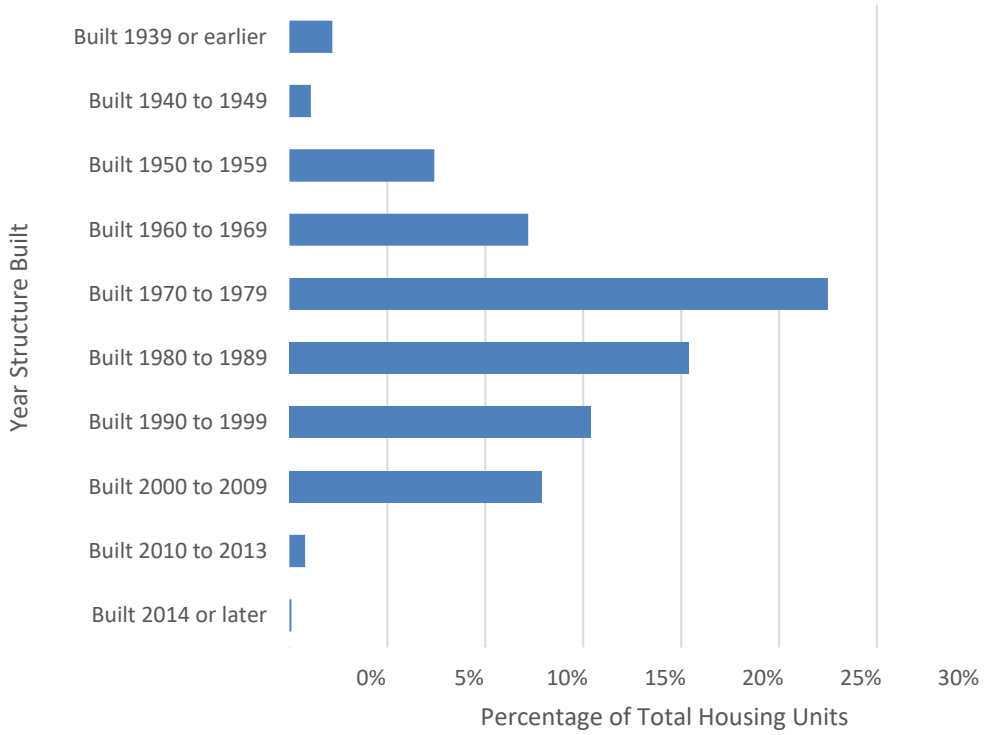


Figure 2-7. Source: 2015 ACS 5-Year Estimates

An estimated 29 percent of Brooklyn Park's housing units are occupied by renters, while most housing is owner-occupied.

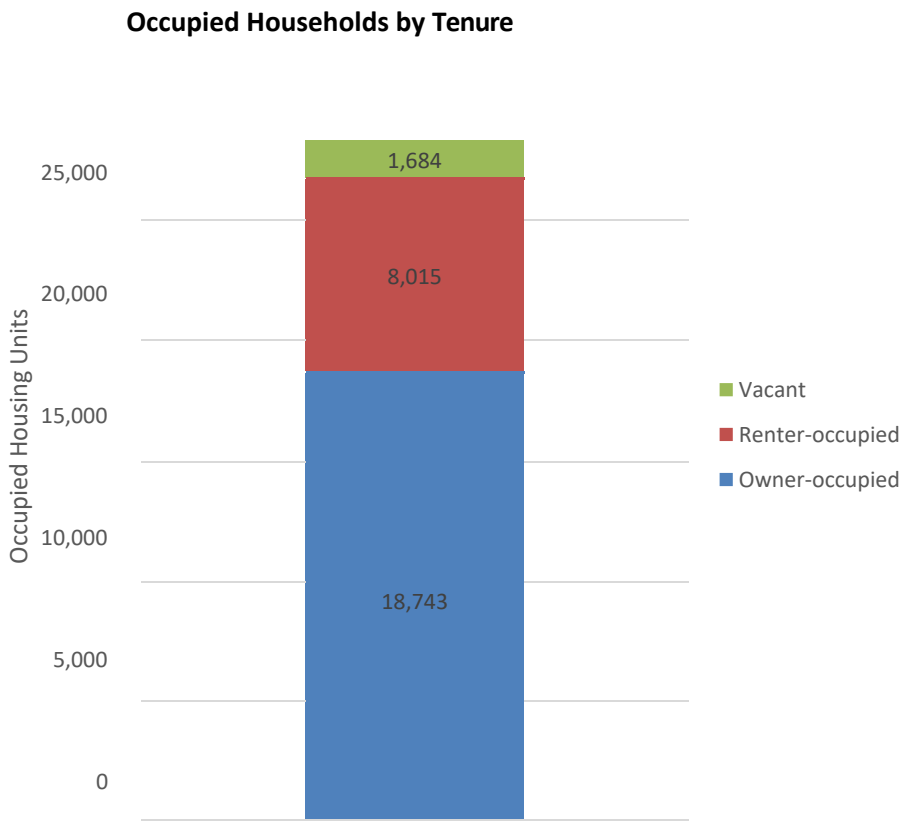


Figure 2-8. Data Source: ACS 2015 Estimates

The Economy

The Metropolitan Council estimates there were nearly 29,000 jobs in Brooklyn Park in 2016. Average annual wages were $53,561, which is greater than the Hennepin County average annual wage by approximately $3,600.
This may be because the health care, professional, and manufacturing industries which are dominant in Brooklyn Park's job landscape tend to generate higher-wage positions. The Metropolitan Council's employment forecast predicts that Brooklyn Park will gain around 11,200 jobs from 2016 to 2040. The City has aspirations of growing to 50,000 jobs as outlined in the Economic Development chapter.

Industry	Employment Total
Accommodation and Food Services	1,521
Administrative and Waste Services	1,211
All Other Industries	2,506
Arts, Entertainment, and Recreation	241
Educational Services	2,638
Finance and Insurance	424
Health Care and Social Assistance	3,681
Information	93
Management of Companies and Enterprises	426
Manufacturing	6,229
Other Services, Ex. Public Admin	707
Professional and Technical Services	2,580
Public Administration	830
Real Estate and Rental and Leasing	288
Retail Trade	3,890
Wholesale Trade	1595
Total	28,860

Table 2-6. Source: Quarterly Census of Employment and Wages, MN DEED.

2.7 Past and Future Growth Forecasts

The Metropolitan Council has developed growth forecasts for Brooklyn Park by decade, addressing the projected population, number of households, and number of jobs. The total population of the City of Brooklyn Park is expected to increase by 22,000 people by the year 2040, a large increase for a city of its size. The population increase will be accompanied by growth in new households. The City can expect a growth of around 8,000 households and 16,000 new jobs over the next 20 years. As a suburban community, Brooklyn Park will accommodate growth and economic development largely through new development opportunities as well as redevelopment opportunities that allow for new or denser configurations of housing within the community.

Brooklyn Park forecast, 2010-2040
Source: 2010 U.S. Census & Metropolitan Council Forecasts

Forecast Year	Population	Households	Employment
2010	75,781	26,229	24,084
2016	80,450	27,539	28,860
2020	83,000	28,720	32,100
2030	90,000	31,400	36,100
2040	97,900	34,300	40,200
2010-2040 change	**+22,119**	**+8,071**	**+16,116**

Table 2-7. Source: Metropolitan Council Forecast

The City does not believe the projections for the year 2020 are achievable and has proposed a forecast amendment to the Metropolitan Council. This amendment includes a population of 83,000 in 2020 and an increase of 1,850 in each of the decades of 2030 and 2040. More on this proposed amendment can be found in Chapter 3, Section 3.5.

CHAPTER 3: LAND USE

3.1 Purpose

The Land Use Plan establishes the direction for guiding development and redevelopment in the City. The plan provides the framework for land use decisions through 2040. The Land Use Plan is meant to clearly communicate the City's desired vision of land uses for development and redevelopment to ensure a sustainable future as a healthy vibrant City. The Land Use Plan is not intended to be a static document. It shall be reviewed and revised when necessary to incorporate changing conditions and community goals. Implementation of the Land Use Plan will be carried out through the official controls included in the City's Subdivision and Zoning Ordinances.

3.2 Influencing Factors

A variety of factors influence land uses in the City including the following, which are discussed in this section: the natural environment, transportation network, surrounding communities and development staging for undeveloped property in the City. This section provides a broad overview of issues that affect land use in the City. Sections 3.3 and 3.4 of this chapter provide a more detailed analysis of land uses.

3.2.1 Existing Natural Environment

Over 90 percent of Brooklyn Park is developed, however, natural features still influence land uses in the City. The following section provides an inventory of water, topography and woodlands in the City.

Water: Channels, Creeks, Lakes, Ponds, Rivers.

Map 3-1 shows the water features in Brooklyn Park as mapped according to surveys and aerial photography of the City.

Channels and Creeks. Three creeks run through Brooklyn Park: Bass Creek in the southwest corner, Eagle Creek also in the southwest corner, and Shingle Creek in the south. Mattson Brook is the name for only the eastern portion of the creek which flows through the center of Brooklyn Park. Mattson is more of a channel or drainage way than a traditional creek.

Lakes. The City contains three lakes: Lake Magda in the southwest corner, Lake Success in central Brooklyn Park and Oxbow Lake in the north. Of these lakes, only Lake Magda is natural. Changes have occurred in Brooklyn Park's water table and groundwater in the past decade. More information regarding the water table can be found in Chapter 6: Utilities.

Storm Water Management Basins. Infiltration basins or ponds are scattered throughout Brooklyn Park and are based on Engineering Department Global Positioning System (GPS) surveys and aerial photography of the City. The MN Department of Natural Resources (DNR) provides some wetland information (Reference archive map 1982). Wetlands are not completely accurate in Map 3-4 because of changing conditions. Unpredictable natural factors affect the shape of wetlands such as annual rainfall and the water table. There are also several classification systems for wetlands maintained by

varying entities such as: Army Corp of Engineers, MN Pollution Control Agency, MN Department of Natural Resources and Watershed Districts. The City continues to monitor ponds and wetlands through the Engineering Department, Watershed District and DNR review.

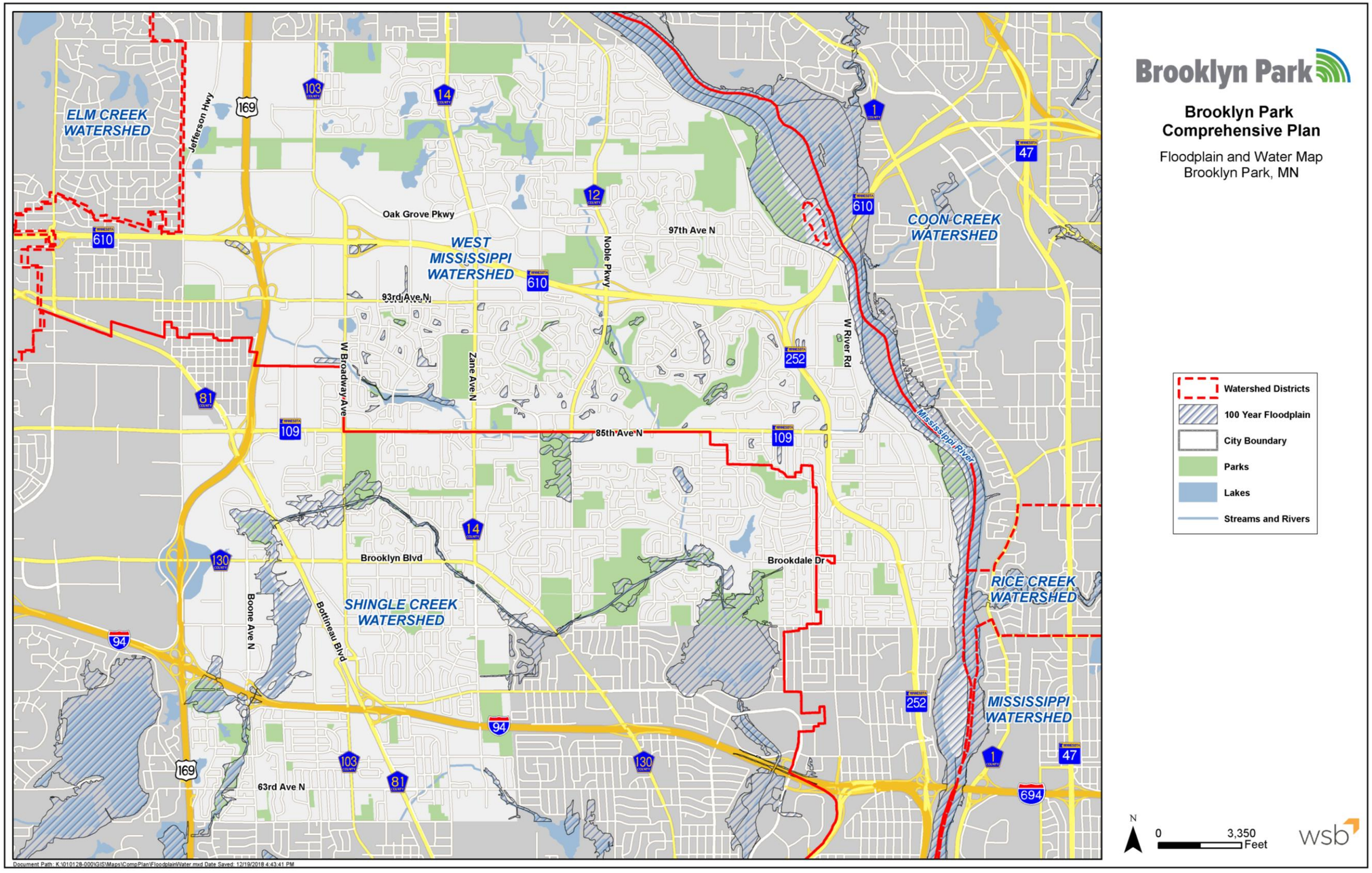
River. The Mississippi River is Brooklyn Park's eastern border and acts as the City's primary water feature. Small islands exist on the River, among them Durnam, Banfill and Dunn. The above natural resources are major amenities for the citizens of Brooklyn Park and this plan calls for the preservation of water features as amenities.

Watersheds

There are two watersheds in Brooklyn Park: Shingle Creek watershed in the south and West Mississippi watershed in the north. Development proposals affecting the watersheds are reviewed by the corresponding Commissions. The Shingle Creek watershed is managed by the Shingle Creek Watershed Management Commission which is governed by a nine-member board comprised of representatives from each member city who are appointed for terms of three years. The nine member cities are Brooklyn Center, Brooklyn Park, Crystal, Maple Grove, Minneapolis, New Hope, Osseo, Plymouth and Robbinsdale.

The West Mississippi watershed is managed by the West Mississippi Watershed Management Commission that is governed by a five-member board comprised of representatives from each member city who are appointed for terms of three years: The five member cities are Brooklyn Center, Brooklyn Park, Champlin, Maple Grove and Osseo. The following map illustrates the watershed districts and water features in Brooklyn Park.

MAP 3-1 FLOODPLAIN AND WATERSHEDS



Topography

The Topography information in Map 3-2 was mostly collected from the Minnesota Department of Natural Resources Data online. The data reveals that the vast majority of Brooklyn Park is level except some areas of steep slopes (greater than 12%) along the Mississippi River, W. River Rd. and Highway 610.

Woodlands

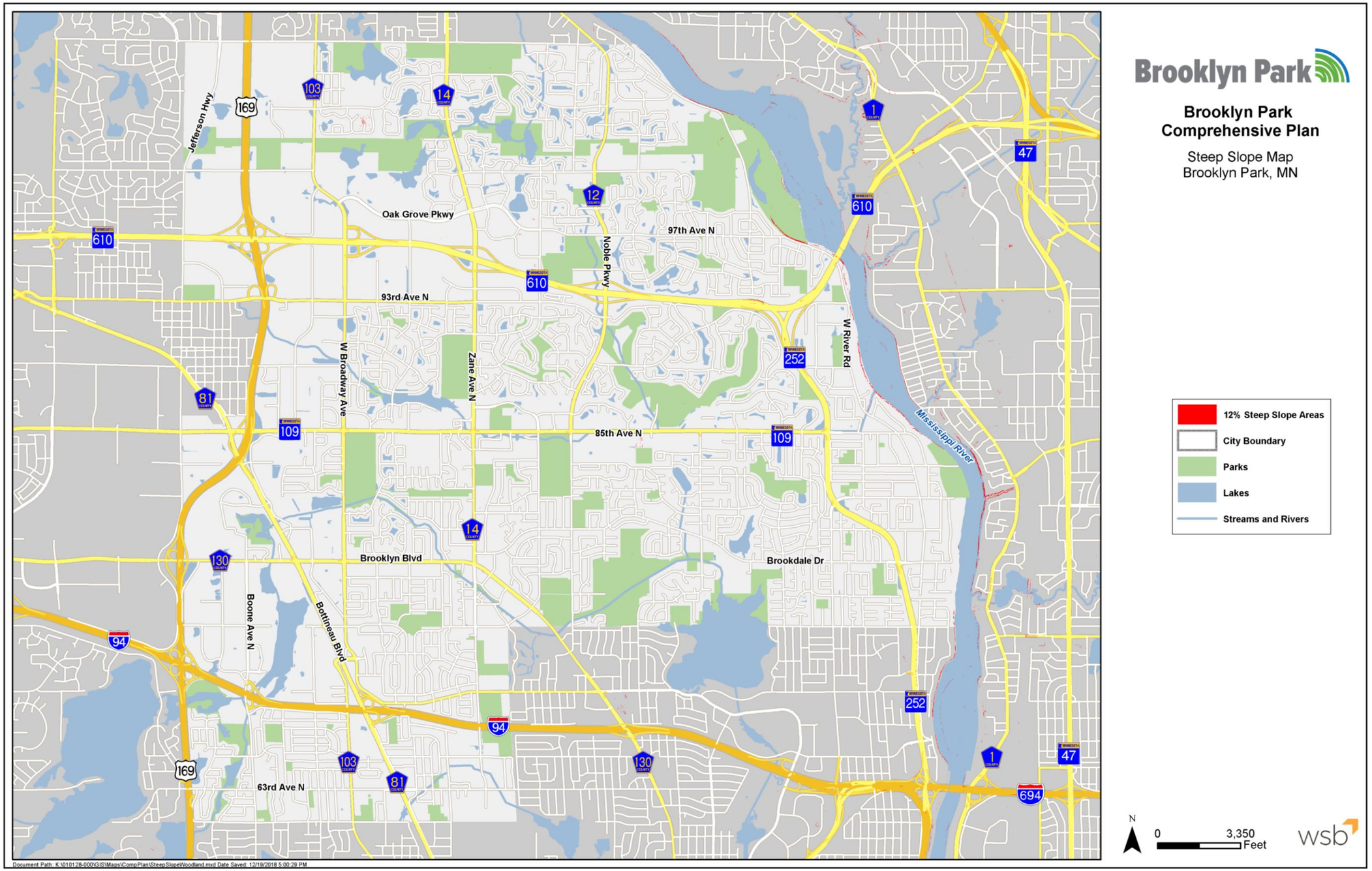
Trees are relatively scarce in Brooklyn Park. The major stands occur in two locations: 1) Along the creeks, wetlands and river and 2) in the City and County Parks. Species in the stands include aspen, poplar, maple, elm, basswood and some oaks. In May of 2001 Bonestroo, Rosene, Anderlik and Associates finished a detailed Natural Resources Inventory of the woodlands and wetlands in the northern growth area.

The inventory identified two areas of woodlands rated as "good" in quality. The first area is the property east of Winnetka at the 103rd / 104th Avenue alignment) The second area is the Schreiber property north of Oak Grove Parkway (97th) and west of Douglas Drive. In developing the Schreiber property, special consideration was given to preserving the woodlands on the property. A portion of the woods was preserved through development and is now owned by the City.

In 2002 a third woodland was identified by The Izaak Walton League of America. The woodland is about 5-6 acres of oak savanna along Jefferson Highway (pictured below). The Walton League estimates the age of some of the oaks to be around 200 years old. The oaks are located on the Smith property at 10609 Jefferson Hwy. In order to ensure the woods on the Smith property is saved this plan identifies the site for conservation.

PHOTO 3.2.1: OAK SAVANNA ALONG JEFFERSON HIGHWAY (SPRING 2007).

MAP 3-2



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3.2.2 Transportation Network

Several metropolitan highways provide Brooklyn Park with access to the Twin Cities metropolitan area and to Greater Minnesota. These roadways include Interstate 94/694 in the southwestern portion of the City; Trunk Highway 169 near and along the western edge of the City; Trunk Highway 252 across the eastern portion of the City, and Trunk Highway 610, located in the northern portion of the City. Currently the City is preparing for development of the METRO Blue Line Extension Light Rail Transit (LRT) also known as the Bottineau LRT which will run through Brooklyn Park primarily along West Broadway. The Bottineu LRT is expected to be operational in 2022. Several County State Aid Highways are located across the City, providing connections with the adjacent communities. As increased development occurs, transportation improvements to the existing system will be needed to provide continuity, system capacity, and sufficient land access to developing areas. A more detailed analysis of the City's transportation network can be found in Chapter 5: Transportation.

3.2.3 Surrounding Communities

The City of Brooklyn Park covers approximately 27 square miles and is one of 45 cities in Hennepin County. The Mississippi River separates Hennepin from Anoka County. Brooklyn Park shares land borders with the following six cities: Champlin, Maple Grove, Osseo, New Hope, Crystal, and Brooklyn Center. Plymouth borders the southwest corner of Brooklyn Park, and Coon Rapids and Fridley share a border along the Mississippi River.

3.3 Existing Land Use

Existing land use information from the city's GIS system and the Metropolitan Council is shown in table 3-1 and Map 3-3. Brooklyn Park's largest land use category is its single-family detached neighborhoods which encompass over 42 percent of the land area of the city. A more detailed discussion of the various use categories follows.

TABLE 3-1: EXISTING LAND USE.

Existing Land Use in Brooklyn Park by total acreage and percent of total		
Land Use Type	**Acres**	**Percent**
Single Family Attached	865	5.1%
Single Family Detached	7186	42.3%
Multifamily	382	2.2%
Retail and Other Commercial	645	3.8%
Office	182	1.1%
Industrial and Utility	1081	6.4%
Railway	5	0.0%
Institutional Total	897	5.3%
Park, Recreational or Preserve	2005	11.8%
Golf Course	216	1.3%
Mixed Use Residential	3	0.0%
Mixed Use Industrial	62	0.4%
Mixed Use Commercial and Other	3	0.0%
Major Highways	939	5.5%
Airport	80	0.5%
Agriculture	835	4.9%
Undeveloped Land	1251	7.4%
Open Water	321	1.9%
Farmstead	20	0.1%
Total	16,978	100%

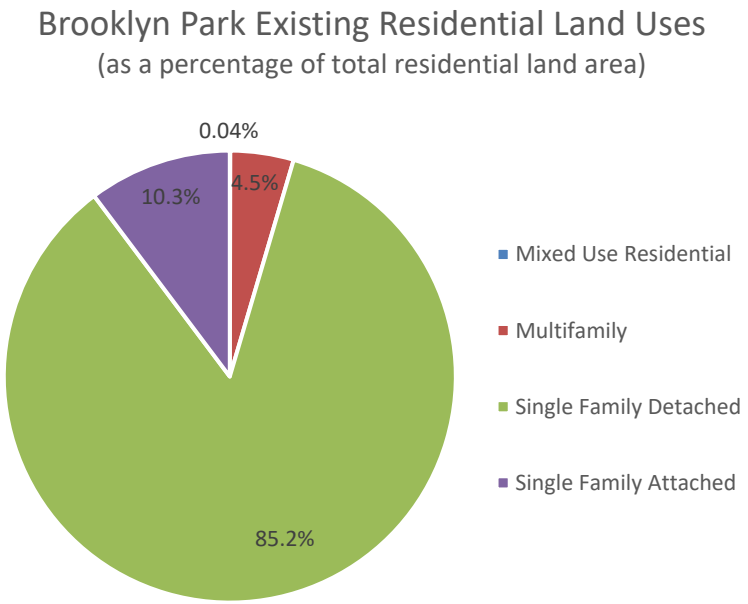
Source: Metropolitan Council 2016 Generalized Land Use

Existing Residential Land Use

The primary land use type in Brooklyn Park is residential of a variety of types. Nearly 50 percent of the city's land is devoted to the combined residential uses of single family detached, single family attached housing, and multifamily housing. Drilling down further into the residential category, figure 3.3-1 shows that single family residential housing units dominate the housing landscape in Brooklyn Park. Multi-Family residential

uses, which account for only 2.2% of the City's land area, tend to be located in the southern part of the city along Zane Ave. N. and Bottineau Blvd.

FIGURE 3.3-1: EXISTING RESIDENTIAL USES (2016 METROPOLITAN COUNCIL GENERALIZED LAND USE)



Existing Retail and Other Commercial Uses

Retail and other commercial areas encompass approximately four percent of Brooklyn Park's land area, with the largest commercial concentration along Bottineau Blvd between I-94 and 85th Ave. N. Other commercial nodes are located at key highway interchanges as well as smaller neighborhood-scale crossroads along 85th Ave. N., Brooklyn Blvd., and Brookdale Dr.

Existing Employment (Industrial and Office) Uses

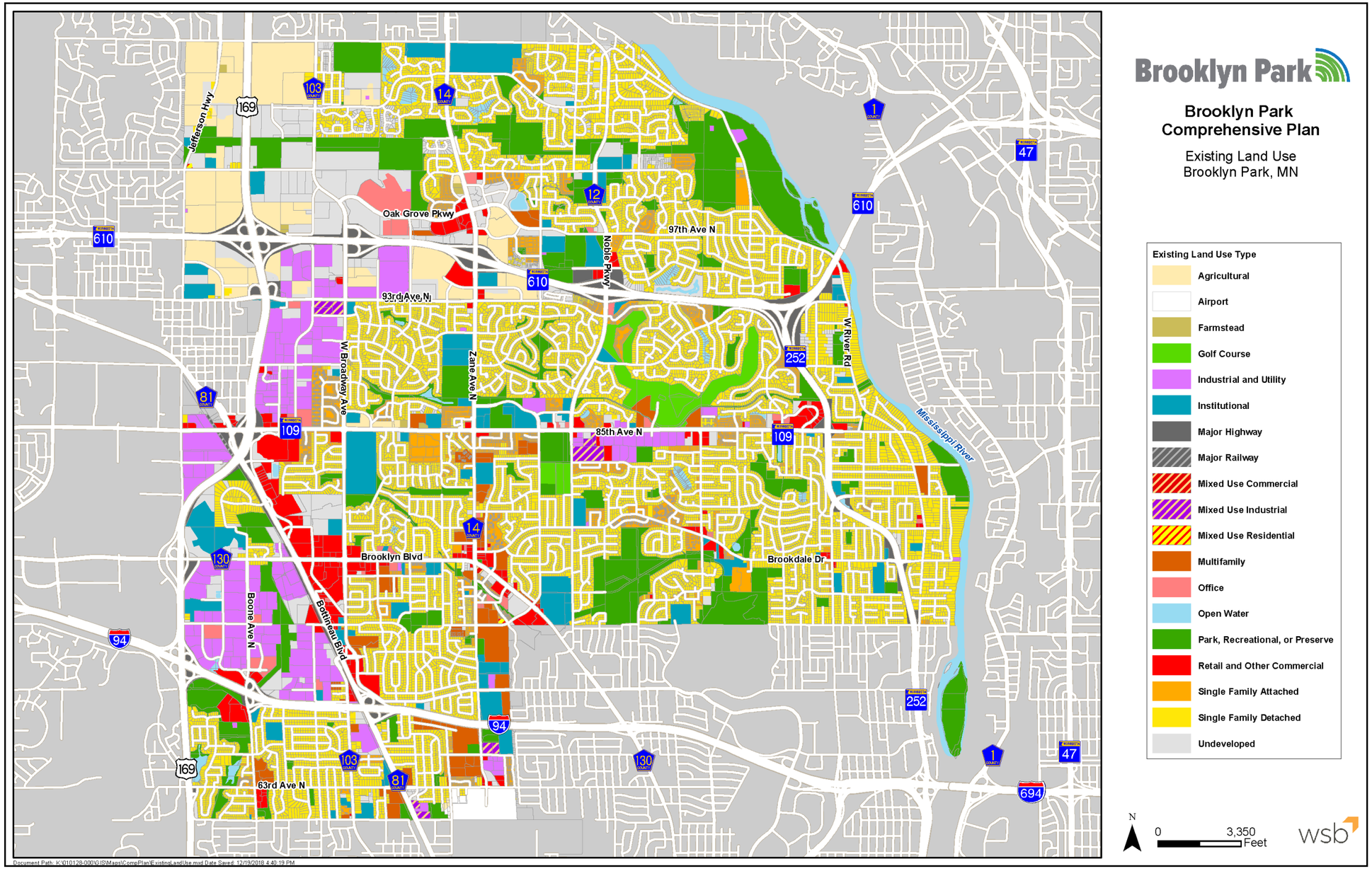
Industrial and Office uses make up approximately 7.5 percent of Brooklyn Park, with industrial areas predominantly west of W Broadway Avenue and southwest of Bottineau Boulevard. Office complexes tend to be located in the same areas.

Parks, Open Space and Natural Features

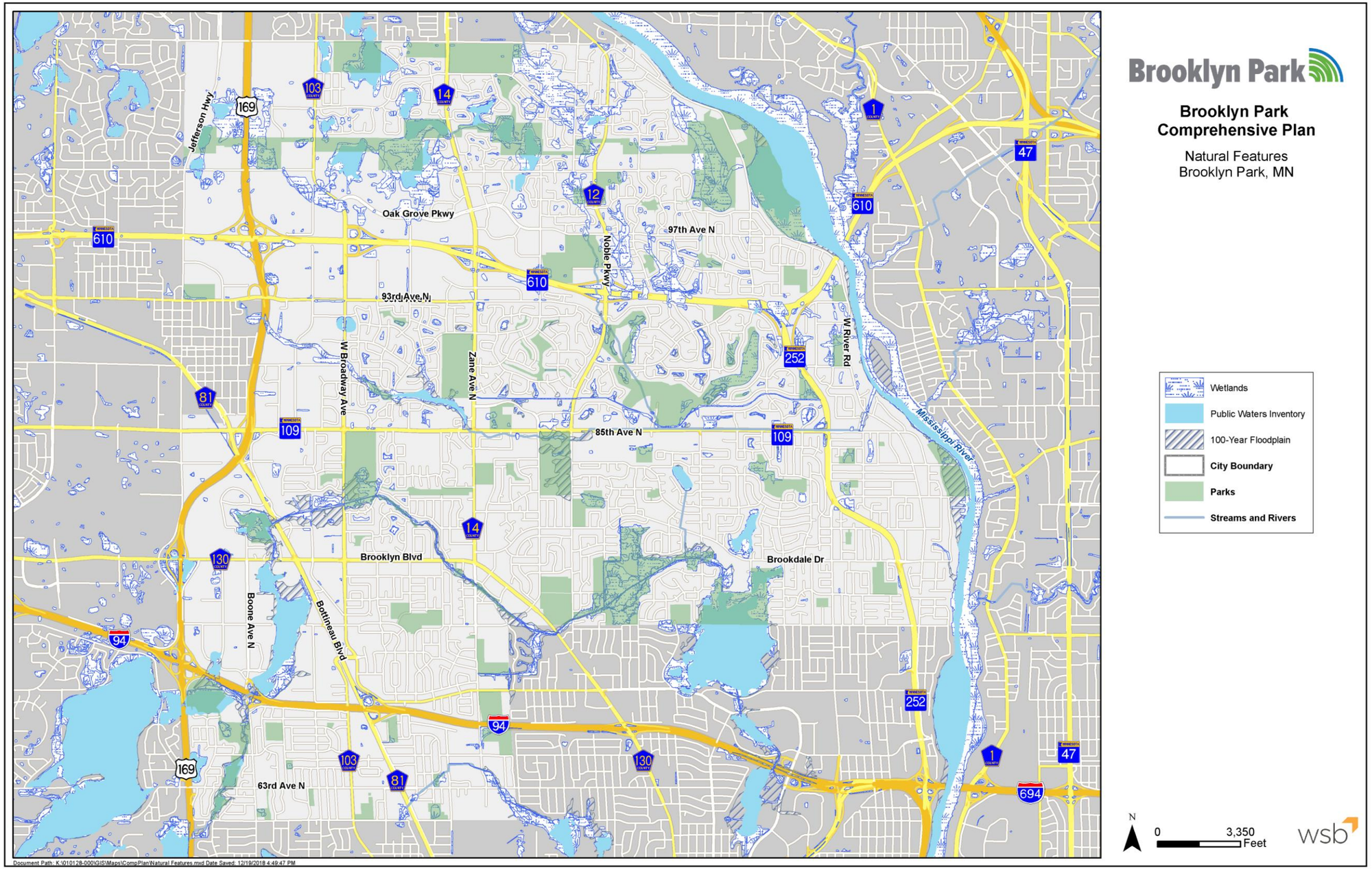
Parks and Open Spaces play a large role in defining the sense of community in Brooklyn Park. Over 13 percent of its land area is devoted to parks, recreational or open space. Some of the largest include Coon Rapids Dam Regional Park, Oak Grove Park, and Edinburgh Golf Course.

Map 3-4 shows Brooklyn Park's natural features, including floodplains (from FEMA) and wetlands (from the National Wetland Inventory). These natural features are an important part of the character of Brooklyn Park and are largely preserved in parks and public land areas. However, you can see that there are areas north of 610 that show wetlands. The areas have all been impacted by a change in the water table and wetland inventories completed for developments indicate that some of the wetland areas no longer exist.

Map 3-3 Existing Land Use



MAP 3-4: NATURAL FEATURES



3.4 Regional Context: Community Designation

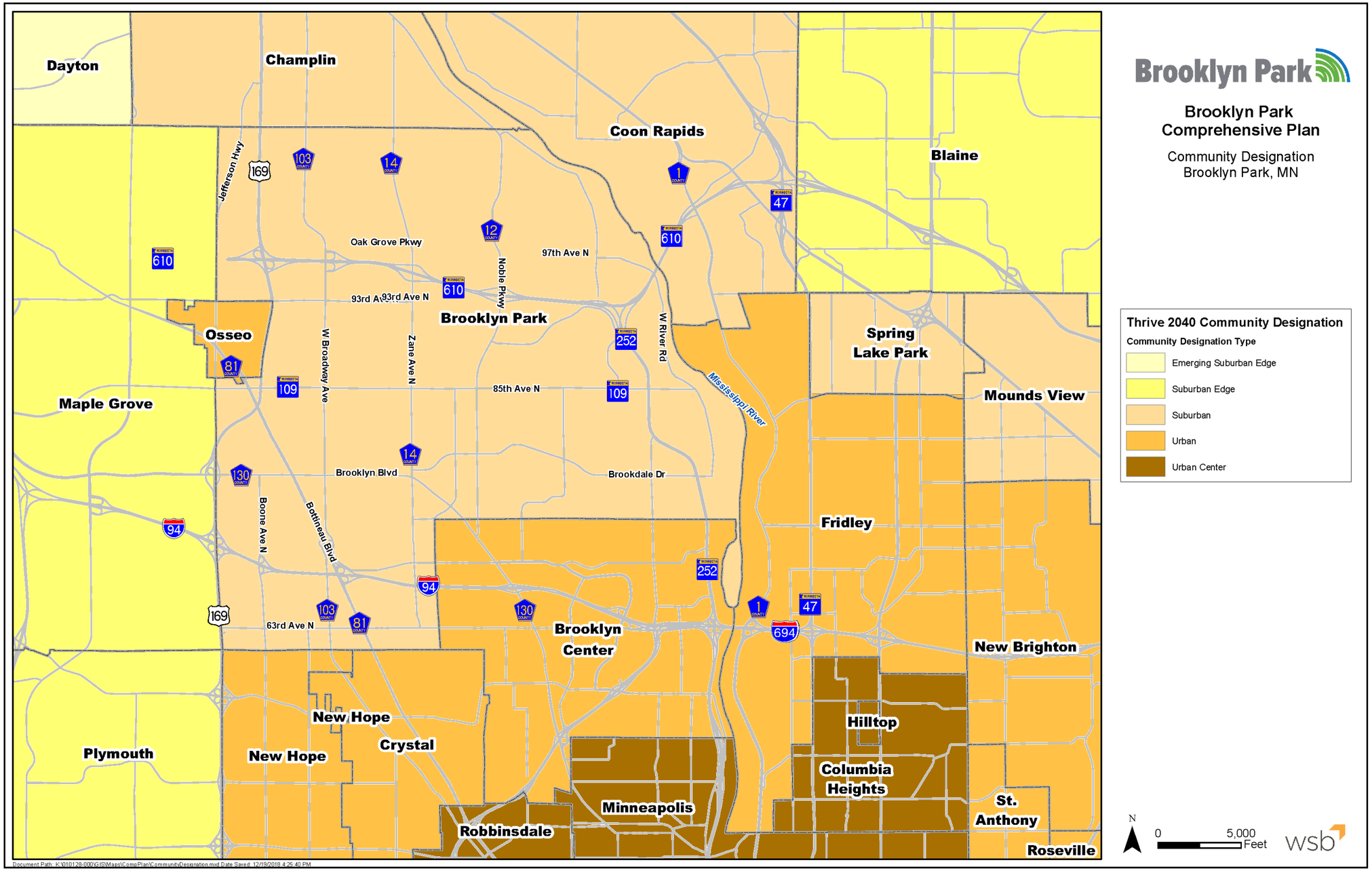
In Thrive MSP 2040 ("Thrive"), the Metropolitan Council groups jurisdictions within the region, based on each community's existing development patterns, common challenges, and shared opportunities, for the application of the regional policies outlined in Thrive. As shown in Map 3-5, Brooklyn Park's "Suburban" designation translates to specific expectations in terms of development density and incorporation of transit services befitting its transitional location between the urban areas and less dense, more auto-dependent suburban-edge communities.

Comprehensive planning often involves planning for people and jobs that are not yet here. The Council develops population, housing, and employment forecasts as a component of a city's System Statement to help set realistic goals and policies to plan for the future needs and trajectories of the community over the decades to come. The Council's forecasts have been incorporated into this plan update.

Community Designation: The Metropolitan Council identifies Brooklyn Park as a Suburban community. Suburban communities experienced rapid development during the post-World War II era, and exhibit the transition toward the development stage dominated by the influence of the automobile.

Suburban communities experienced continued growth and expansion during the 1980s and early 1990s, and typically have automobile-oriented development patterns at significantly lower densities than in previous eras. Suburban communities are expected to plan for forecasted population and household growth at average densities of at least *5 units per acre* for new development and redevelopment. In addition, Suburban communities are expected to target opportunities for more intensive development near regional transit investments at densities and in a manner articulated in the *2040 Transportation Policy*

MAP 3-5: COMMUNITY DESIGNATION



3.5 Expected Growth and Change

Future land use planning begins with incorporating forecasts of community growth and anticipating the needs that will arise as a result of this growth and change. The Metropolitan Council has developed growth forecasts for Brooklyn Park by decade, addressing the projected population, number of households, and number of jobs. Meeting expected growth projections requires intentional land use planning.

Forecast Year	Population	Persons per Household	Households	Employment
2010 (US Census Figures)	75,781	2.89	26,229	24,084
2016 (estimate)	**80,450**	**2.92**	**27,539**	**--**
2020	83,000	2.89	28,720	32,100
2030	90,000	2.85	31,400	36,100
2040	97,900	2.85	34,300	40,200
Overall Change from 2016	**17,450**	**-0.07**	**6,761**	**16,116**

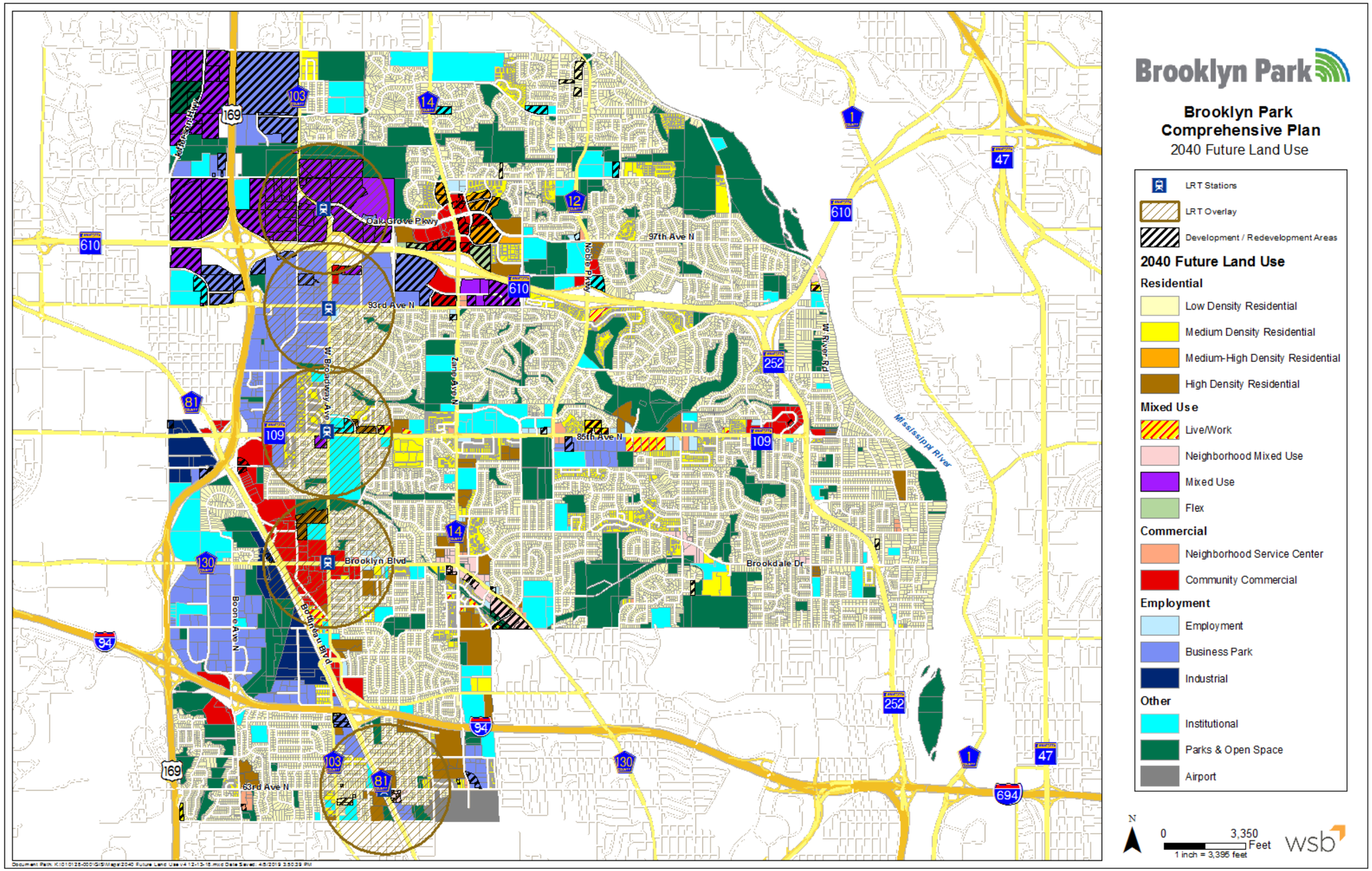
Source: Metropolitan Council

The original forecasts (from 2016) have been updated based on agreed upon revisions between City staff and the Metropolitan Council. Specifically, the 2020 numbers were revised to reflect trends in growth between 2010 and 2017. These forecasts show that the population is projected to increase in Brooklyn Park during the planning horizon by approximately 22 percent, while the number of households is expected to increase by almost 25 percent. This percent is consistent with the trend in decreasing household size; in Brooklyn Park the decrease is modest, with average household sizes going from 2.92 in 2016 to 2.85 in 2040.

3.5.1 Future Land Use Plan 2040

Map 3-6 illustrates the proposed future land use plan for the City to 2040, including areas that the City feels are likely to develop or redevelop before 2040. Following Map 3-6 are detailed descriptions of the existing and proposed land use definitions. The City uses the Future Land Use Plan to develop recommendations in areas of land use, supportive infrastructure, and development review. The Plan is specific enough to guide many day-to-day development decisions and provides the policies, standards, and principles that serve as the basis for updating the Zoning Ordinance and other development controls that the City enforces. The following goals and strategies were considered in the proposed alterations to the map.

MAP 3-6: FUTURE LAND USE PLAN



Goals

Make the land use map a usable, reliable tool to plan and guide the future of development and redevelopment in the City

Make the map easy to read and understand

Ensure that the land use designations and definitions in the Comprehensive Plan are consistent with the visual map

Communicate clear and accurate planning of land uses to provide the development community with an understandable guide for future development.

Strategies

The following strategies are consistent with the Policy Objectives of the Comprehensive Plan. The strategies are meant to provide reasons and explanations for the proposed changes made to the Land Use map and district descriptions.

Sustainability: Focus pedestrian oriented commercial development in nodes rather than across long stretches of roadway to encourage close proximity and synergy between businesses. Proposed nodes conserve energy and resources and encourage vibrant commercial centers that will be sustainable into the future.

Neighborhoods: Connect neighborhoods to open space and amenities. Identify the different aesthetics and intensity of commercial development and properly locate appropriate commercial uses next to residential neighborhoods and/or address proper buffers between residential uses and high intensity commercial uses.

Commercial: Allow and encourage more mixed-use development, including both horizontal (a mix of uses in different buildings on the same site) and vertical (a mix of uses within the same building). Also de-emphasize the specific uses and building standards, leaving those for the zoning districts that will implement this future land use plan. The districts will emphasize the scale and intensity of the uses and the design as it relates to the surrounding area.

Employment and Services: Support healthy competitive commercial uses by focusing commercial growth at key intersections, identifying differences in commercial uses and choosing appropriate locations for differing commercial uses. Rewrite employment districts to de-emphasize specific uses and re-focus on the scale and intensity of development to bring more jobs to the community.

Open Space: Clearly identify community amenities such as open spaces, parks, water, historic landmarks and schools. Address conservation of natural resources such as water.

Transportation: Identify differences in commercial uses to better plan for special needs regarding transportation access and circulation. Encourage neighborhood commercial uses designed within close proximity to one another to allow the opportunity for Transit Oriented Development (TOD) that includes access by multiple forms of transportation including pedestrian, bus, and train.

Modifications

The following are descriptions of major modifications made between the 2030 and 2040 future land use plans:

Modification 1. Elimination of the Signature Mixed-Use District. This district has been combined with the Mixed-Use district. Uses in that area are now planned for Mixed Use, Business Park , or Medium-High Density Residential.

Modification 2. Change to the Neighborhood Commercial designation to Neighborhood Mixed Use to better reflect the intent of the district which allows for compact, pedestrian-oriented mixed- use areas of limited size. Include language on the scale and intensity of mixed use development in this district.

Modification 3. Density Changes to Residential Districts: Several changes were made to the density ranges for the four residential future land use districts. These were made to better reflect the pattern of development over the past decade and the types of residential development that the City projects will be in demand over the planning horizon. Minimum densities were added to each residential district and the maximum density were raised in the high density district from 25 units to 50 units per acre.

Modification 4. Introduction of a 30% minimum overall residential requirement in the Mixed-Use District. This minimum means that residential land uses will account for at least 30% of the overall Mixed Use District area, rather than 30% of any particular development site. The residential density range set for this district reflects the medium and high-density residential districts (12-50 units per acre).

Modification 5. Changes to the future land use map to reflect LRT Station Area Plans. These station areas include Oak Grove, 93rd Avenue, and 85th Avenue, Brooklyn Boulevard. and 63rd Avenue. The Station Area Plan was adopted in July, 2016 and specific overlay zoning in these areas is currently being developed. Minimum density for development within ½ mile of station areas is 20 units per acre.

Modification 6. Elimination of the "Commercial" district, which was added after the 2030 Plan was adopted and included all uses from any commercial district in the original 2030 Plan. The areas formerly in the Commercial district were reprogrammed as Community Commercial to reflect their existing use.

Modification 7. Renaming of the Office/Medium Density Residential district to Live Work. This change was made to more clearly indicate the intent of the district and add detail about the intended scale of new development and impact on surrounding neighborhoods. Specifics in the zoning ordinance will be provided on the intended design and scale of development in this district.

The complete description of future land use categories is included in Table 3-2. The following definitions are meant to clarify the intent of the land use designations and provide a general vision of uses allowed in each designation. Added to each district is a summary indicating what type of scale and intensity is intended for the uses and structures there. Scale will be further described in the City's Zoning Ordinance through bulk standards (height, setbacks, FAR, lot coverage); large scale uses have zoning parameters that allow more height, larger FAR, more lot coverage and in some cases reduced setbacks. Use intensity will be further defined in the zoning ordinance and relates to the types of uses permitted in a district. More "intense" uses include uses that generate more traffic, noise, impacts on public services and environmental impacts. In the case of residential uses intensity is often associated with density. Actual allowable uses and densities are

conveyed through the City's Zoning Ordinance. Transportation considerations include things like what sorts of connections are needed between buildings, uses, and major transportation routes. Multi-modal connections are often mentioned, which refers to pedestrian, bike, transit, and vehicular "modes" of transportation.

Note: there is no residential requirement in the Flex, Live/Work and Neighborhood Mixed Use districts. The City expects that district-wide there will be a mixture of residential and non-residential uses in these districts, but on a site-by-site basis there is no percentage requirement for residential or non-residential.

TABLE 3-2 FUTURE LAND USE DISTRICT DESCRIPTIONS

	Full Name	Summary	2040 Description
L	Low-Density Residential	Density: 1.5-3 units/acre Uses: Single Family Residential Scale/intensity: small scale, low intensity	The low-density residential district accommodates single-family detached homes generally with a density between 1.5 and three units per acre.
M	Medium-Density Residential	Density: 3-12 units/acre Uses: Single-family homes, condominiums, townhomes, duplexes, row houses and small apartment buildings Scale/intensity: medium scale and intensity	Medium-density residential land uses include smaller lot single family homes, single-family attached housing types such as triplex, quadruplex, row houses, townhouses, small-scale apartment buildings. Development densities are expected in the range of 3 to 12 units per acre.
MH	Medium-High Density Residential	Density: 12-25 units/acre Uses: Apartments, lofts, stacked townhomes Scale/intensity: medium to large scale and medium to high intensity	This district is meant to be a "bridge" between the medium and high density residential districts, and includes an overlap of density ranges with each of those. Intended uses include very small lot detached and attached single-family housing such as those types described in the medium density district. Slightly larger apartment buildings may also be located here. Development densities are expected to be between 12 and 25 units per acre.
H	High Density Residential	Density: 12-50 units/acre Uses: Apartments, lofts, stacked townhomes Scale/intensity: medium to large scale and medium to high intensity	The high-density residential district accommodates the highest density residential development in the city and includes multi-family owner and renter-occupied housing. Housing types may include (but are not limited to) townhomes, apartments, lofts, flats, and stacked townhouses. This district has densities that would also accommodate innovative housing arrangements such as tiny houses, co-housing, and others. Development densities are expected to be between 12 and 50 units per acre.
LW	Live/Work	Density: 3-12 units/acre Uses: Medium-density residential, office, limited business Residential Requirement: None Scale/intensity: small-medium scale, low-medium intensity	The Live/Work district accommodates a range of compatible small-scale, low intensity residential and employment uses. Housing is desired but optional for new development and should be in the density range of 3-12 units per acre. Uses may be mixed horizontally (on the same site, but not in the same building) or vertically (in the same building). Non-residential uses should include offices and limited businesses that have low impact with the residential uses. Buildings shall be scaled appropriately to the surrounding neighborhood, reflecting a low-to-mid-rise profile.

	Full Name	Summary	2040 Description
NMU	Neighborhood Mixed Use	Density: 9-50 units/acre Uses: Medium-high-density residential, retail, office, service businesses Residential Requirement: None Scale/intensity: medium scale and intensity	The Neighborhood Mixed Use District is intended to provide for compact, pedestrian-oriented mixed-use areas of limited size designed for use in existing or potential pedestrian and transit nodes. Buildings shall be scaled appropriately depending on the type of street frontage (arterial, collector, neighborhood, etc). Higher profile buildings will be located along arterial or collector streets, with the scale, density and intensity of development scaling down as it approaches surrounding neighborhoods. The mix of uses should include residential at densities between 9 and 50 units per acre as well as retail, office and personal service establishments that are oriented to residents of the immediate neighborhood areas that anticipate high pedestrian traffic. Development in these areas shall follow a traditional neighborhood design where buildings are within a close proximity to the street and pedestrian connections are abundant. Both horizontal and vertical mixed use are encouraged in this district.
MU	Mixed Use	Density: 12-50 units/acre Uses: Medium-high-density residential, retail, service, office, restaurants Residential Requirement: 30% minimum Scale/intensity: medium to large scale and medium to high intensity	The Mixed Use District is largely concentrated around the 169 and 610 corridors and consists of large sites where a mixture of office, commercial, retail and residential uses are appropriate. In these areas, the City encourages both horizontal and vertical mixed use, with residential densities between twelve and 50 units per acre. Housing must be an integral component of the overall development and will encompass at least 30% of the land mass of the district. The mix of uses may be in a common site, development area, or building. Individual developments may consist of a mix of two or more complementary uses that are compatible and connected to the surrounding area. To ensure that the desired mix of uses and connections are achieved, a more detailed small-area plan, master plan, and/or area-specific design principles is required to guide individual developments within the overall mixed-use area.

	Full Name	Summary	2040 Description
F	Flex	Density: 7-25 units/acre Uses: Office, limited business, commercial, medium-high-density residential Residential Requirement: None Scale/intensity: medium scale and intensity	The Flex District is meant to provide the maximum amount of flexibility for future development. Zoning and development approval will depend on both the development of the surrounding area and market forces at the time a new development is proposed. The City recognizes that these sites could develop with a wide range of appropriate uses from medium-high-density residential to limited business.
NSC	Neighborhood Service Center	Uses: Small commercial, retail, office and service Scale/intensity: small to medium scale and low to medium intensity	Neighborhood Service Centers are small-scale commercial areas that are oriented to the surrounding residential areas. The businesses will be designed so that they are easy to reach by all modes of transportation, including nearby residents who may be walking or biking. Buildings shall be scaled appropriately to the surrounding neighborhood, reflecting a low-to-mid-rise profile.
CC	Community Commercial	Uses: Large format commercial, retail, and service Scale/intensity: medium to large scale and medium to high intensity	Community Commercial areas are located on larger transportation thoroughfares and are of higher intensity/larger scale than other commercial areas in the city. Community Commercial districts are appropriate for large-format retail businesses and automobile-intensive uses that benefit from close proximity to highways. Design within the Community Commercial district should include appropriate sound and visual buffers between commercial and residential land uses.
E	Employment	Uses: Small-scale office, business, research and some associated service and retail Scale/intensity: small to medium scale and intensity	Employment districts include a variety of smaller-scale office uses such as business, professional, administrative, medical, scientific, technical, research, and development services. Limited commercial may also be located in this district as it complements the employment uses.
BP	Business Park	Uses: Office, business, research and development, limited light industrial, limited retail, research and development, warehousing and distribution as part of a master plan. Scale/intensity: medium to large scale and medium to high intensity	Business Parks are largely single-use areas that have a consistent architectural style with a mix of employment-oriented use types. These uses may include office, mixed light industrial, limited retail, research and development, and uses of similar impact. With an increased focus on job creation, warehousing and distribution centers will be permitted if approved by the City as a part of a master plan. The scale of development in these areas is commensurate with their proximity to highways and major transportation corridors. Appropriate connections to transit should be included in Business Park developments.

	Full Name	Summary	2040 Description
I	Industrial	Uses: Manufacturing, light industrial, processing, warehousing, distribution Scale/intensity: medium to large scale and medium to high intensity	Uses within the Industrial districts may include manufacturing, assembly, processing, warehousing, distribution, related office uses. Industrial areas are appropriately located to minimize negative impacts on residential areas.
IN	Institutional	Uses: Civic, utilities, schools, places of worship, and public transportation facilities Scale/intensity: medium to large scale and medium to high intensity	Institutional land uses include civic, school, library, church, cemetery, and correctional facilities on a larger scale than those normally incorporated into the low-density residential area.
A	Airport	Uses: Airport	
P	Parks and Open Space	Uses: Parks, preservation areas, open space, golf courses Scale/intensity: small scale and low intensity	Parks and open space districts include public recreation areas (both active and passive), parks and privately owned preservation and natural areas.
LRT	LRT Overlay	Density: minimum 20 dwelling units/acre	The LRT Overlay district is located along the LRT corridor, and affects the mapped Development/Redevelopment Areas within a half-mile of LRT stations. Underlying primary zoning districts will govern land uses in these locations, except that any residential development occurring in the overlay must be at a minimum of 20 dwelling units per acre. Residential development should be well-connected to and accessible by those traveling by LRT line transit.

3.5.2 *Future Land Use Planned Areas*

The future land use plan presented in Map 3-6 includes the future land use districts and areas likely to develop or redevelop as discussed in previous sections of this chapter.

TABLE 3-3 FUTURE LAND USE PLANNED AREAS BY LAND USE CATEGORY[1]

2040 Land Use Category	Total Acres	Percent of Total Land Area (%)
Airport	78	1%
Employment Center	1,293	10%
Community Commercial	439	3%
Flex	21	0%
High Density Residential	397	3%
Industrial	192	1%
Institutional	997	8%
Low Density Residential	5,626	43%
Medium Density Residential	862	7%
Medium-High Density Residential	49	0%
Mixed Use	697	5%
Neighborhood Mixed Use	88	1%
Neighborhood Service Center	34	0%
Employment	68	1%
Live/Work	69	1%
Parks and Open Space	2,239	17%
Total	13,148	100%

3.5.3 *Meeting Growth Expectations*

As stated earlier, Brooklyn Park's "development-redevelopment areas," are identified as opportunity areas for development or redevelopment within the 2040 planning horizon. Those areas are shown outlined and cross-hatched on Map 3-6 and are critical to understanding how the City meets its growth expectations for the coming decades.

Overall, the growth expectations for Brooklyn Park through the year 2040 can be met through the identified development/redevelopment areas in Map 3-6. Table 3-4 shows the residential acreage associated with the parcels included in the development/redevelopment areas, as well as the land use density ranges associated with each of these residential categories. Applying the expected density ranges

[1] The difference between the future land use total (13,148) and the existing land use total from the 2016 Metropolitan Council data (16,978) is a total of the acreage in Major Highway (939), Railway (5), and Local Roads/ROW (2,886). These areas are not included on the 2040 Future Land Use Map as planned land use categories.

to the land use areas, this table demonstrates the two ways in which the likely redevelopment areas will meet Brooklyn Park's forecasted and expected 2040 growth:

- **Overall Average Density:** Applying the *minimum* end of the density range to each residential land use category, the overall density is the total number of expected minimum units divided by the total number of acres in the likely development/redevelopment areas. Brooklyn Park's overall average density is 11.03 units per acre, which achieves the expected average for a Suburban community.

- **Overall Forecasted Growth:** Applying the *midpoint* of the density range to each residential land use category, the total number of expected units from this calculation is 7,977, which exceeds the 6,761 units forecasted growth from 2016 to 2040.

Note that a "30 percent" residential assumption is applied to the Mixed Use district as that is the amount of residential development *required* in that district, reducing both the guided land area and the potential residential units by 70-percent in that category.

The Flex and Live/Work Districts show a 10% yield for residential units because, while there is no minimum requirement for residential development on a site-by-site basis, the City expects that district-wide the percentage of residential will be approximately 10% in those districts. To summarize, the City's *expectation* is that the mixed use districts with no required minimum residential will develop as follows:

Flex: 10% residential, 90% non-residential
Live/Work: 10% residential, 90% non-residential
Neighborhood Mixed Use: 10% residential, 90% non-residential

	Guided Land Use Type	Dev. Acres	Density Range			Yield %	Minimum Units (overall density and average)	Midpoint Units (meet forecast)
			Min	Mid	Max			
Guided in 2040 Plan	Low Density	21	1.5	2.25	3	100%	31	47
	Medium Density	3	3	7.5	12	100%	8	22
	Medium-High Density Residential	43	12	18.5	25	100%	516	801
	High Density	27	12	31	50	100%	324	833
	Live/Work	17	3	7.5	12	10%	5	13
	Flex Use	21	7	16	25	10%	14	33
	Neighborhood Mixed Use	31	9	29.5	50	10%	27	89
	Mixed Use	660	12	31	50	30%	2376	6139
	Guided Total	**299**					**3,301**	**7,977**

Community Designation Density	
Overall Average	11.03

TABLE 3-4: RESIDENTIAL GROWTH POTENTIAL BASED ON FUTURE LAND USE DESIGNATIONS AND REDEVELOPMENT AREAS.

Looking once again at the likely development/redevelopment areas identified in the 2040 guide plan, Table 3-5, summarizes the commercial and employment development acreage in the city and translates this acreage into employment (jobs) potential. In total, development of the identified commercial, employment and mixed use areas could accommodate 18,071 new jobs in Brooklyn Park by the year 2040[2]. This amount exceeds the Met Council forecasted growth of 16,116 jobs between 2010 and 2040. Job creation is addressed in greater detail in the Economic Development chapter of this Plan.

Note that table 3-5 (in contrast to table 3-4) includes an expected percentage of non-residential development in the Live/Work, Flex and Neighborhood Mixed Use districts. As stated before, there is no *required* percentage in these district; however, the City *expects* to see these districts develop at approximately these percentages. Again, the percentages are district-wide and not on a site-by-site basis.

Future Land Use	Acres	Yield	F.A.R.	New Building Sq. Footage	Building Area Per Employee	Employee Yield
Live/Work	17.5	90%	20%	137,137	400	343
Flex	20.8	90%	20%	162,892	400	407
Mixed Use	660.3	70%	15%	3,019,922	400	7,550
Neighborhood Mixed Use	31.2	90%	20%	244,729	400	612
Neighborhood Service Center	1.0	100%	20%	8,759	400	22
Community Commercial	72.3	100%	20%	629,730	400	1,574
Employment	4.9	100%	20%	42,888	400	107
Business Park	339.5	100%	20%	2,957,731	400	7,394
Industrial	3.5	100%	20%	30,530	500	61
Total	1,151			7,234,317		18,071

TABLE 3-5: POTENTIAL EMPLOYEE YIELD IN NON-RESIDENTIAL FUTURE LAND USE CATEGORIES

3.6 Development Staging

Brooklyn Park has managed to avoid much semi-rural sprawl that might otherwise have occurred through its program of growth management and development staging. This section provides a general depiction of the historic development stages in the City and the plan for future growth.

3.6.1 Historic Development Staging

The following history of development staging in figure 3.2.4 shows the gradual development of the City since the 1940's. The Village of Brooklyn Park was established in 1954. Early settlement in Brooklyn Park dates back to the early 1800's. For example, the townsite of Harrisburg was platted in 1856, which included the area on the map, along the river labeled as developed between 1940 and 1960. Only one

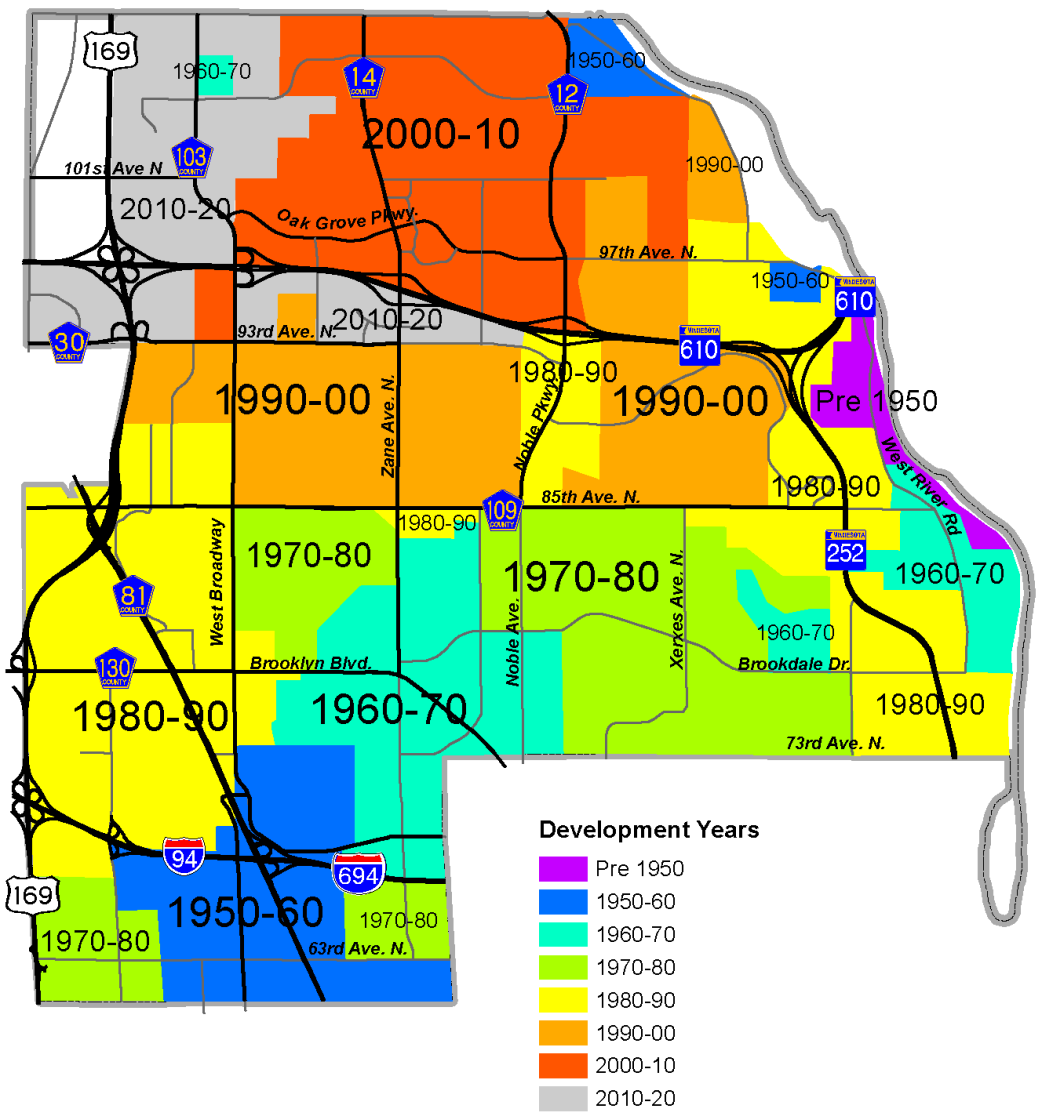
[2] Space per employee assumptions based on average space requirements for employee by development type, Economic and Planning Systems Inc., 2016. FAR assumptions based on a sampling of FARs in Brooklyn Park and around the region.

building from the original Harrisburg is still standing at 8900 West River Road. The house was reportedly used to house log boom workers between 1850-1880 (Brooklyn Park Historical Study).

Figure 3.2.4

Historical Development Staging

March 2018



3.6.2 Current Development Staging

Approximately 6% of the City or 793 gross acres of land is available for development in the remaining northwest growth area and various in-fill development areas throughout the City. There are also some strategic redevelopment sites that the City has identified, which add to the total acres available for development or redevelopment. Brooklyn Park is entirely within the Metropolitan Urban Service Area (MUSA) which identifies the area, in the seven counties, in which the Metropolitan Council ensures that regional services and facilities, such as sewers and major highways, are provided or planned. "A planning concept developed in the 1970s, the MUSA was designed to achieve orderly, economic and contiguous growth by directing development, primarily, to areas where roads and sewers already exist. The objective was to get the most use out of existing infrastructure and create efficiencies that save taxpayer dollars" (Metropolitan Council MUSA Fact Sheet).

MUSA is important because most cities' staging plans are based on the extension of the MUSA boundary. However, Brooklyn Park is completely within the MUSA boundary, the current development staging plan in Map 3-7 is meant to A) Allow flexibility in future development when proposed development meets the City goals and policy statements in the Comprehensive Plan and B) Provide information to citizens and the development community regarding the general infrastructure required for development to occur in the 2 development stages (Green and Red). The Green stage is encouraged to be developed prior to expansion into the other stage; however, the City will entertain development proposals in keeping with the City's vision and goals and with consideration of available and planned infrastructure described below.

The Green stage represents property that has sanitary sewer and water available either at the property edge or within a feasible distance (Center of street or abutting property). The Green property also has access to reasonably adequate public roadways. It is likely that the areas shown in green will develop between 2021 and 2030.

Development between 2019-2020 is quite unpredictable given the uncertainties in the development review process. There are two sites, however, that the City can predict with some confidence will develop in the next year and a half. Those two are shown in Yellow on the staging map.

The Red stage generally represents property that does not have sanitary sewer and water available within a feasible distance and the surrounding public roadway system may be sub-standard depending on the uses proposed. These areas may be considered for development with a development proposal where all costs for utility extension are borne by the developer. The areas in red will likely be developed in the 2031-2040 timeframe.

Table 3-6 shows the distribution of residential development over the planning horizon. The table demonstrates that the City has enough land programmed at appropriate density to support enough affordable housing units to exceed the allocation from the Metropolitan Council (2,213 units can be accommodated at a density of at least 12 units per acre where Brooklyn Park's revised allocation, based on November 2018 forecast revision, is 710 units).

MAP 3-7

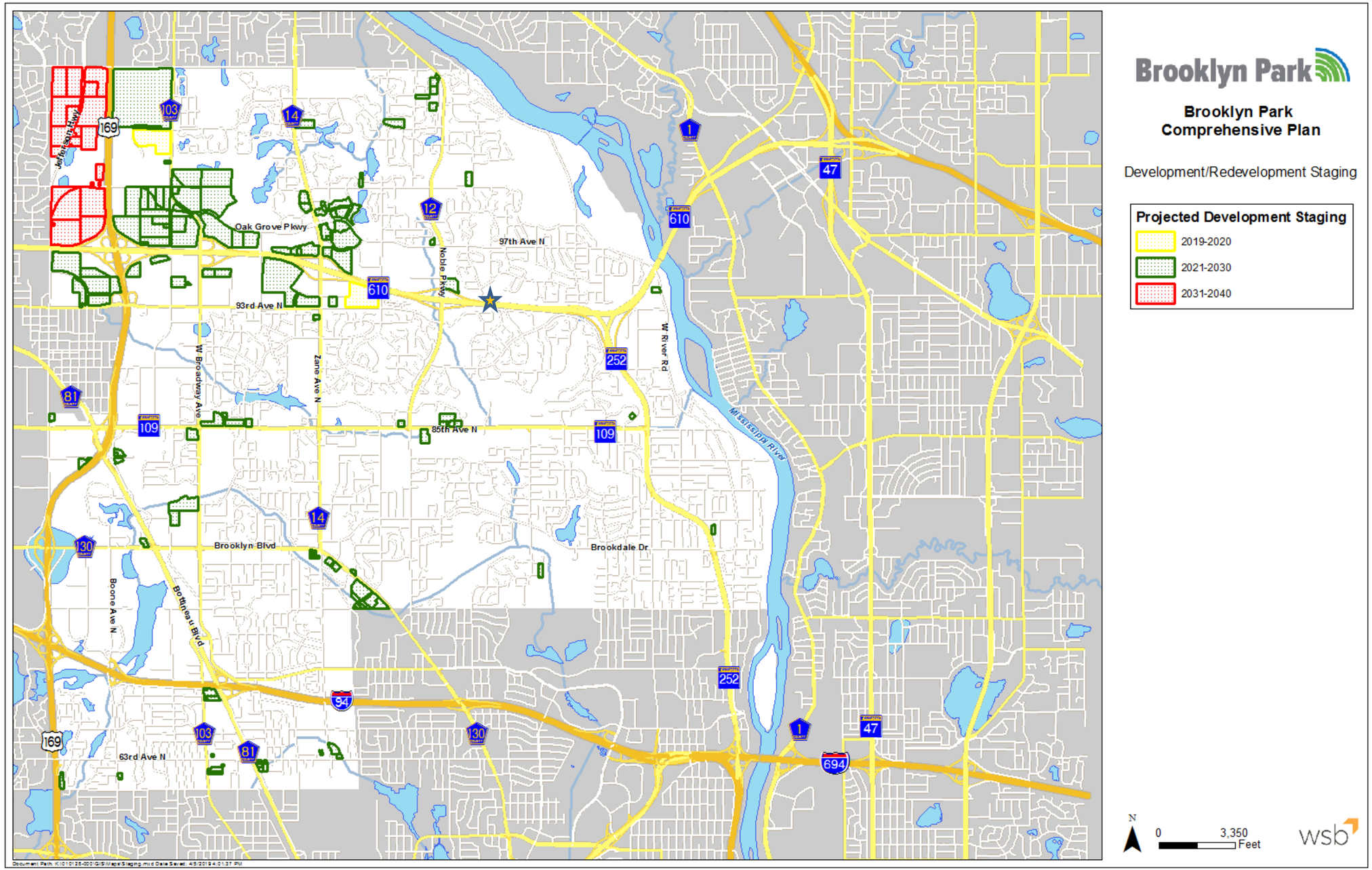

Brooklyn Park
Brooklyn Park
Comprehensive Plan
Development/Redevelopment Staging
Projected Development Staging
2019-2020
2021-2030
2031-2040
Oak Grove Pkwy
97th Ave N
93rd Ave N
85th Ave N
Brooklyn Blvd
Brookdale Dr
63rd Ave N
Noble Pkwy
Zane Ave N
Broadway Ave
Boone Ave N
Bottineau Blvd
W River Rd
Mississippi River
Jefferson Hwy
169
103
14
12
610
1
47
252
81
109
130
94
694
N
0
3,350
Feet
wsb

TABLE 3-6 DEVELOPMENT STAGING

	Guided Land Use Type	Dev. Acres	Now - 2020	2021-2030	2031-2040	Density Range Min	Density Range Mid	Density Range Max	Yield %	Minimum Units now-2020	Minimum Units 2021-2030	Minimum Units 2031-2040	Midpoint Units now-2020	Midpoint Units 2021-2030	Midpoint Units 2031-2040
Guided in 2040 Plan	Low Density	21	0	21	0	1.5	2.25	3	100%	0	31	0	0	47	0
	Medium Density	3	0	3	0	3	7.5	12	100%	0	8	0	0	22	0
	Medium-High Density Residential	43	0	43	0	12	18.5	25	100%	0	516	0	0	801	0
	High Density	27	0	27	0	12	31	50	100%	0	324	0	0	833	0
	Live/Work	17	0	17	0	3	7.5	12	10%	0	5	0	0	13	0
	Flex Use	21	0	21	0	7	16	25	10%	0	14	0	0	33	0
	Neighborhood Mixed Use	31	0	15	16	9	29.5	50	10%	0	14	13	0	44	45
	Mixed Use	660	35	378	248	12	31	50	30%	125	1359	892	321	3512	2306
	Guided Total	**299**	**35**	**525**	**248**					**125**	**2,271**	**905**	**321**	**5,305**	**2,351**
	SUM TOTAL (2040 Guided)	**299**									**3,301**			**7,977**	

Density Table	
Overall Community Density	11.03
Expected Housing Unit Growth	7,977
Units Considered Affordable (≥12 du/ac in Pre-2030)	2,213

3.7 Procedures to Amend Land Use Designation

If an alternative use is proposed that compromises a land use definition above, then a Comprehensive Plan Amendment shall be considered for the property. The Procedures for application and public hearing of Comprehensive Plan Amendments are described in Section 152.031 of the City Zoning Ordinance. Issues to consider regarding a Comprehensive Plan Amendment include but are not limited to: Land Use Goals and Policy Statements in the Comprehensive Plan, City policy changes, transportation conditions, changes in the marketplace, environmental concerns and changes in the surrounding neighborhood. Economic considerations may not constitute a change in Land Use if reasonable use of the property exists within the current land use designation.

3.8 Two or More Land Uses on One Parcel

In the case that one land parcel includes two or more land use designations, a blending of the land uses may be permitted with a master development plan. The lines distinguishing the different land uses are not meant to be literal, but rather a general guide of mixed land uses. Issues to consider when reviewing a blending of the land uses may include, but are not limited to, the following: The surrounding land use designations, existing uses, transportation network and natural environment.

3.9 Station Area Planning

Brooklyn Park will be home to five of the 11 light rail stops on the METRO Blue Line Extension Light Rail Transit (LRT), often called the Bottineau LRT. The Bottineau LRT corridor extends approximately five miles north/ south through Brooklyn Park along the County Road 81 and West Broadway Avenue corridors. The vision for the station areas is to reinforce and strengthen the unique characteristics of each of the neighborhoods surrounding the five stations. The Station Area Plans identify infrastructure improvements, redevelopment options, and opportunity sites within a ½-mile of each stop. The Brooklyn Park Station Area planning process was a joint effort of Hennepin County and the City of Brooklyn Park. The process began in spring 2015 and concluded with the publication of the plans in summer 2016.

The complete Brooklyn Park Station Area Plan document can be found in Appendix H.

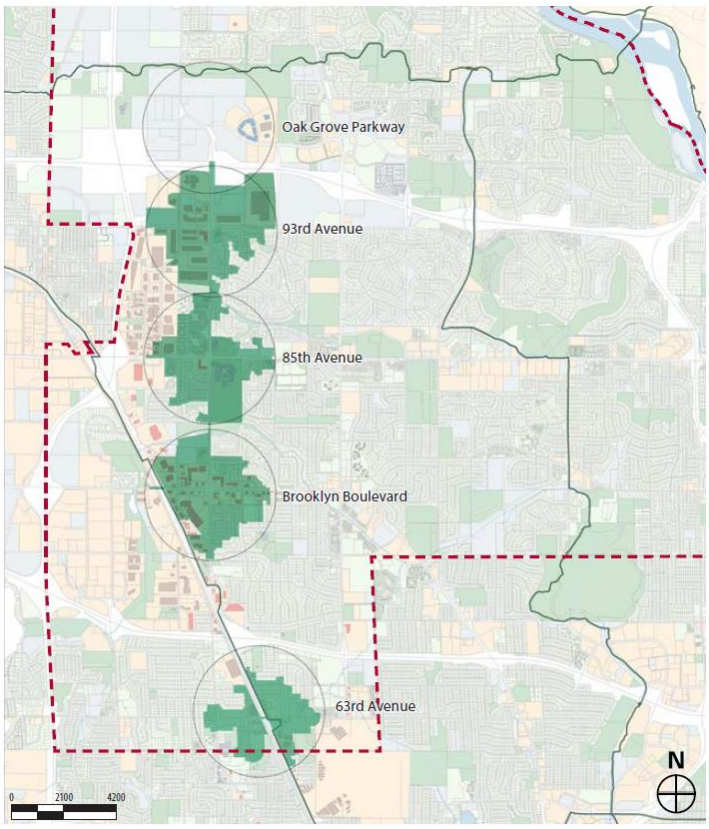


Fig. 3 10-MINUTE WALKSHED

MAP 3-8 STATION AREAS AND 10-MINUTE WALK RADII (BROOKLYN PARK STATION AREA PLAN)

3.9.1 63rd Avenue Station

The focus of the 63rd Avenue station area plan is the intersection of County Road 81 and 63rd Ave. The area around the station is mainly defined by low-density residential neighborhoods encircling a node of higher intensity uses at this intersection. In addition to Transit Oriented Development Overlay Zoning, primary highlights for the station area plan include:

- a local ethnic market place or pop-up market space
- long-term redevelopment sites
- pedestrian enhancements at the intersection

MAP 3-9 63RD AVE. STATION AREA PLAN

TOD OVERLAY

STATION

SINGLE-FAMILY RESIDENTIAL BUILDING

MULTI-FAMILY RESIDENTIAL BUILDING

COMMERCIAL BUILDING

INSTITUTIONAL BUILDING

PUBLIC PARKS AND OPEN SPACE

RESIDENTIAL LAND

COMMERCIAL AND INDUSTRIAL LAND

1 Local Ethnic Marketplace or Pop-Up Market Space

2 Long-Term Redevelopment Sites

3 Transit Oriented Development Overlay

4 Pedestrian Enhancements at Intersection (being studied)

3.9.2 Brooklyn Boulevard Station Area Plan

The Brooklyn Boulevard station, in contrast to the 63rd Avenue station, is located in a bustling commercial environment. Shopping centers and businesses of varying sizes and intensities predominate. Low density residential uses are located to the northeast and southeast. It is anticipated that the light rail line will strengthen the overall commercial environment while also supporting new uses over time, including more housing. Highlights of this station area plan include:

- Pedestrian connections
- Transit Oriented Development Overlay
- Short-term redevelopment sites

3.9.3 85th Avenue Station Area Plan

North Hennepin Community College (NHCC) occupies the eastern half of the 85th Avenue Station area and the Hennepin County Branch Library is here as well. It is anticipated that the LRT will be a catalyst for redevelopment associated with the NHCC's projected growth. Highlights of this station area plan include:

- Hennepin County Brooklyn Park Branch Library
- North Hennepin Community College Master Facilities Plan (2015)
- Civic Plaza
- Long-Term Redevelopment Sites

3.9.4 93rd Avenue Station Area Plan

This area encompasses a large business park within Brooklyn Park. The LRT stop brings the need for enhanced pedestrian and bike connections. Primary initiatives in the station area plan include:

- Improved pedestrian connections
- Incentivize transit oriented development

MAP 3-10 BROOKLYN BOULEVARD STATION AREA PLAN

APPROXIMATE STATION LOCATION

STATION

MIXED-USE BUILDING

HIGH-DENSITY RESIDENTIAL

PUBLIC PARKS AND OPEN SPACE

COMMERCIAL AND INDUSTRIAL LAND

TOD OVERLAY

1 Pedestrian Connections

2 Transit Oriented Development Overlay

3 Short-Term Redevelopment Sites

MAP 3-11 85TH AVE. STATION AREA PLAN

Fig. 42 ILLUSTRATIVE PLAN FOR 85TH AVENUE STATION AREA

1. Hennepin County Brooklyn Park Branch Library
2. North Hennepin Community College Master Facilities Plan
3. Civic Plaza
4. Long-Term Redevelopment Sites

STATION
MULTI-FAMILY RESIDENTIAL BUILDING
COMMERCIAL BUILDING
INSTITUTIONAL BUILDING
INSTITUTIONAL LAND
PUBLIC PARKS AND OPEN SPACE
RESIDENTIAL LAND
COMMERCIAL AND INDUSTRIAL LAND

MAP 3-12 93RD AVE. STATION AREA PLAN

Fig. 44 ILLUSTRATIVE PLAN FOR 93RD AVENUE STATION AREA

- STATION
- MULTI-FAMILY RESIDENTIAL BUILDING
- COMMERCIAL BUILDING
- INSTITUTIONAL BUILDING
- INSTITUTIONAL LAND
- PUBLIC PARKS AND OPEN SPACE
- RESIDENTIAL LAND
- COMMERCIAL AND INDUSTRIAL LAND

3.9.5 Oak Grove Station Area Plan

Finally, the Oak Grove station is the northernmost on the Bottineau LRT line. Target Corporation owns the bulk of the land surrounding this station and has constructed the first phase of its Northern Campus just to the east of West Broadway Ave. The LRT represents a direct link between this facility and Target's Downtown Minneapolis Headquarters.

Other key land uses in this area include the Rush Creek Regional Trail to the north (and City-owned open-space abutting the trail), a planned operations and maintenance facility for the LRT, and a large church. The site also has easy highway access to both 610 and 169. A park-and-ride facility is also planned for this area.

This site represents the largest development opportunity site along the Bottineau LRT and in the region as a whole. Highlights of this station area plan include:

- Parking ramp and TOD liner
- Street network
- Grand boulevard
- Future development

OAK GROVE STATION: GRAND BOULEVARD ADDRESS ON WEST BROADWAY AVENUE

MAP 3-13 OAK GROVE STATION AREA PLAN

Fig. 46 ILLUSTRATIVE PLAN FOR OAK GROVE STATION AREA

- STATION
- SINGLE-FAMILY RESIDENTIAL
- COMMERCIAL TOD LINER BUILDING
- OFFICE BUILDING
- FUTURE MIXED-USE MAIN STREET
- FUTURE OFFICE CAMPUS/MIXED-USE
- PARK AND RIDE
- NORTHERN CAMPUS EXPANSION
- CITY
- PUBLIC LAND AND OPEN SPACE
- COMMERCIAL AND INDUSTRIAL LAND
- OPERATIONS AND MAINTENANCE FACILITY (OMF)
- TO BE DETERMINED

1. Parking Ramp and TOD liner
2. Street Network
3. Grand Boulevard
4. Future Development

3.10 Building to 2030

The City conducted a special area study in 2013 called Building to 2030. The work was completed by a task force, is still relevant today and complements the 2040 Comprehensive Plan. Following is the Executive Summary from the report and the policies that are in place to help guide development in the Highway 610 corridor and surrounding areas. The entire report is available in the planning department.

Building to 2030 Executive Summary

On June 10, 2013, the City Council authorized the formation of the Signature Development Task Force to help define the community's desired outcomes regarding future development in Brooklyn Park. The role of the Task Force was to develop citizen driven policy recommendations for the City Council and Economic Development Authority (EDA) that can be used to guide future development in Brooklyn Park. The Task Force's policy recommendations cover a wide range of desired development outcomes including job creation, tax base enhancement, long-term financial viability, quality design, housing, transportation, green space, recreation opportunities, community gathering destinations, and opportunities for retail. The Task Force's recommendations will inform the City Council and EDA's future economic development and infrastructure investments, use of financial incentives, changes to land use regulation, and bring to light innovative approaches to land use in northwestern Brooklyn Park.

The Task Force began the visioning process by first agreeing on themes that captured the community's wants and needs for future development. The themes were based on the feedback from the May 1, 2013 work session held with City Council, Planning Commission, Citizen Long-range Improvement Committee, and Recreation and Parks Advisory Committee regarding the future of development in northwestern Brooklyn Park:

- Attention to Nature
- Jobs! Jobs! Jobs!
- Many Housing Options
- Integrated Ways to Get Around
- Flexible Framework for Intentional Growth
- Distinct and Inviting Community Places
- Design Matters!
- Food and Fun

The vision themes drove the work plan and for the Task Force which was aided by staff from the Brooklyn Park Community Development Department. From August 1 to December 12, ten meetings were held addressing the vision themes through education and discourse using Staff's expertise, presentations by outside experts, panel discussions, a design tour, and interactive exercises.

Forming a clear vision was only the first step toward consensus building amongst the Task Force. Though exposed to the same information throughout the process, the Task Force members had individual reactions and opinions on the various topics. To capture ideas and reactions at each meeting, staff facilitation discussion of group insights, essentially: "what are your takeaways from the meeting?", "what did you learn?" and "what do we need to remember moving forward?" The goal was to collect these reactions, as

"meeting takeaways" and present them back to the group at the following meeting more formally as "insights". By giving the group time to reflect on and discuss insights, the Task Force was able to produce recommendations that stayed true to the vision and group supported insights.

Drawing from their personal knowledge of the community, experience on various boards and committees, and the information presented to them by staff and outside experts, the Signature Development Task Force successfully formed policy recommendations for the City Council's consideration.

The insights, recommendation, and implementation ideas are presented in detail starting on page 19 of the report. The following represent the final policy recommendations presented by the Signature Development Task Force to City Council and the EDA:

Attention to Nature and Recreation

- Plan for passive and active green spaces around activity areas and residential neighborhoods.
- Create a more desirable and amenity rich environment with quality landscape design and maintenance because integrated green spaces are a valuable asset to the community.

Jobs! Jobs! Jobs!

- Consider providing assistance only to developments that promise a return on the City's investment: high use, high employment, high skill and/or high tech.
- Streamline and simplify the approval process for businesses and development that meet our vision; be fast, flexible, and friendly..
- Continue emphasis on attracting precision manufacturing, biomedical, corporate, and other high-tech industries along the Highway 610 corridor.
- Expect job-rich development, whether or not projects include public funds, so that the community can reach a goal of 50,000 jobs by 2030.

Many Housing Options

- Support high quality, sustainable multi-family developments by planning for locations near jobs and activity centers.
- Support multi-family developments with sustainable characteristics with preference for complexes that provide unit variety, amenities, underground/structured/attached parking, proven management capacity, and involved ownership.
- Attract high quality multi-family developments to serve new jobs and changing demands for housing types.

Integrated Ways to Get Around

- Use strategic transportation investments and well-planned transportation improvements to improve access to and from Brooklyn Park.

- Be open to opportunities for transit use, transit efficiency, and walkability for residents and visitors.
- Leverage regional transportation investments.
- Ensure that parking for transit hubs are planned to mitigate negative impacts to surrounding neighborhoods.

Flexible Framework for Intentional Growth

- Have a unified vision to reduce uncertainty for developers and keep the community on its desired path.
- Be deliberate in realizing development that meets our vision: balance the desire for immediate development with the long range vision.
- Support development that uses land effectively and is consistent with the vision.
- Streamline and simplify the approval process for businesses and development that meet our vision; be fast, flexible, and friendly.
- Partner with Target to coordinate planning and development on surrounding undeveloped land.

Distinct and Inviting Community Places

- Partner with Target to develop a destination spot that puts Brooklyn Park on the map.
- Encourage developments to incorporate distinct indoor and outdoor public spaces. Consider recreation, gathering areas, design, art, and iconic elements to create special places in Brooklyn Park.

Design Matters!

- Rely on design principles to create a distinct identity and promote a stable financial future for Brooklyn Park.
- Promote exceptional design and signature buildings along the TH 610 corridor.
- Encourage efficient use of land through structured parking.

Food and Fun

- Plan for a mix of retail, entertainment, and housing that creates a thriving neighborhood for residents and a destination for visitors.
- Encourage public spaces with indoor and outdoor recreation, parks, gathering areas, and restaurants.
- Encourage balanced development that creates a market for desired restaurants, retail and other amenities.

The report will take the reader through this citizen driven planning process with special attention to the Task Force's visioning and experience leading to the policy recommendations. To further explore the process and material presented, please refer to the appendices for agendas, meeting notes, presentations, and other informational material.

Chapter 4: Housing in Brooklyn Park

4.1 Introduction

This chapter examines the data around existing housing and demographics in the City and serves as the primary housing directive of the Comprehensive Plan. As housing accounts for the City's largest portion of land -- and a significant source of property tax revenue – every effort should be made to preserve and improve Brooklyn Park's residential housing stock.

4.1.1 Local Perspective

Brooklyn Park is expected to reach a population of 97,900 by 2040, with nearly 35,000 households. The anticipated increase of nearly 20,000 new residents over the next two decades will create the demand for a healthy and diverse range of housing options. This range of housing stock will be important to both existing residents and newcomers to the city.

Targeted housing preservation programs are crucial to the maintenance of existing housing in Brooklyn Park. The Brooklyn Park Economic Development Authority (EDA) will continue to promote available resources and programs for the purpose of neighborhood and apartment investment. The EDA's five housing preservation programs have allowed homeowners to invest over $2.8 million into their homes and neighborhoods over the past seven years in addition to $10 million invested through the foreclosure recovery program. Between 2015-2017, the EDA provided over $3 million in assistance for the rehabilitation of multi-family communities in Brooklyn Park.

Public investment opportunities offer the city the ability to guide redevelopment and development toward the long-term best interest of the city. The EDA will continue to initiate key investment opportunities in accordance with existing directives, plans and strategies. The EDA will also continue to encourage and assist in rehabilitation and redevelopment that addresses the deferred maintenance of residential properties in the community.

4.1.2 Regional Perspective

The Minneapolis-St. Paul metropolitan area is expected to grow an additional 273,000 households by 2040. Brooklyn Park, classified as a suburban community by the Metropolitan Council, will be expected to accommodate 6,761 households of this future regional growth over the coming years. The city welcomes and is fully committed to developing innovative new housing strategies and opportunities to address and collaboratively meet the needs of the region.

The METRO Blue Line Extension Light Rail Transit (LRT) also known as the Bottineau LRT, is a planned LRT extension of the existing METRO Blue Line that will extend from downtown Minneapolis through Golden Valley, Robbinsdale, Crystal, and into Brooklyn Park. To leverage this transit investment, it is important to plan for a full range of housing opportunities in the community. The Hennepin County Bottineau LRT Community Works program conducted a Housing Inventory study along the planned route and a Housing Gap Analysis is currently underway. The Housing Gap Analysis will assess potential deficits within the current Brooklyn Parkhousing market and will suggest possible solutions. These reports will complement and

support the planning work of the city.

In this plan, Brooklyn Park guided land to support future additional affordable housing needs as forecasted by the Metropolitan Council. a combination of local needs and pre-determined housing allocations established by the Metropolitan Council. The goal of this Housing Plan is to develop an adequate supply of quality and affordable housing options and preserve the existing housing stock for the Brooklyn Park community and the region as a whole.

4.2 Where We Have Been

Brooklyn Park was officially incorporated as a city in 1969, although initial land claims were first made in the area beginning in 1852. Late nineteenth- and early twentieth-century farmsteads can still be found throughout the community today. Much of the city remained agricultural in use up until the 1940s, when the large influx of suburban growth that followed the WWII-era resulted in the establishment of Brooklyn Park's first residential neighborhoods. The 2001 "*Historic Resources Study*" produced by the EDA gives a more detailed analysis of historic sites and locations in Brooklyn Park.

1950's Crescent Ridge Subdivision

1970's Cherokee Subdivision

1960's Cherokee Subdivision

1980's Colorado Subdivision

1990's Fairway Estates Subdivision

2000's Woodland Trails Subdivision

2010's Oxbow Creek

In 1954, as Brooklyn Park officially become incorporated as a Village, a development border was set at 85th Avenue to control the extension and the cost of city services, and to serve as the first formal effort to preserve remaining agricultural lands. In the early years immediately following incorporation as a Village, the southwest corner of the City experienced the most development activity. Most of the early housing units in the community (pre-1960) were of traditional framing and construction. The primary housing type constructed in Brooklyn Park through the 1960s was the single-family home. A one-story model, typically a compact or gable-roofed rambler with a large picture window and a detached double garage was most common.

The city experienced a building boom in the 1970s when a variety of housing stock was constructed ranging from townhomes and single-family homes to small and large apartment buildings. Builders cited a demand for smaller living units because of small family sizes and a trend for individual living. Most new housing during the last 30 years has been single family homes and townhomes. In 2017, the first new apartment development opened since 1992.

4.3 Where We Are Today

Brooklyn Park has progressively built upon its existing housing supply. In 2017, the city had over 28,000 housing units and was home to over 80,000 residents. The largest component of the city's

housing stock is single-family homes, accounting for about 76 percent of the entire housing stock. Table 4.1, below, shows housing units by housing type in Brooklyn Park. The existing housing stock is 76 percent single-family dwellings and 24 percent multi-family dwellings.

Housing Units by Housing Type	Units	Percent
Single-Family Detached	17,058	60%
Townhomes (single-family attached)	4,506	16%
Manufactured home	29	0.10%
Duplex and triplex and quad	612	2%
Multifamily (5 units or more	6,237	22%
Total	28,442	100%

Table 4.1. *Source: American Community Survey table B25024, U.S. Census Bureau (2015).*

Figure 4.1 below shows an inventory of the city's structures based on the year built. Over half of the existing city housing supply was built between 1970 and 1989 (14,210 units) and approximately one-third of the housing stock was constructed in the decade between 1970 and 1979.

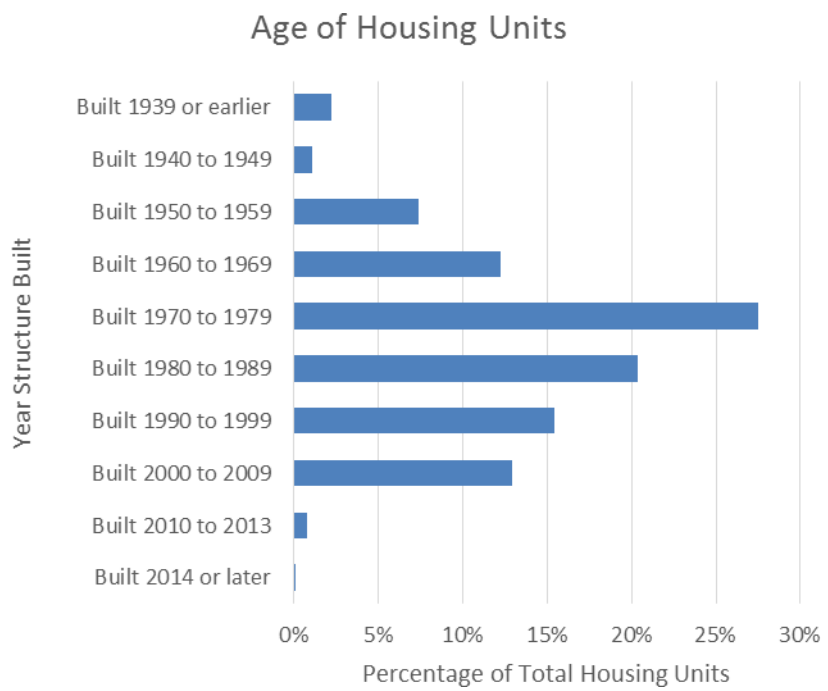


Figure 4-1 *Total Residential Permits Issued (According to Metropolitan Council Data) 2004:558, 2005: 758. Source: American Community Survey, U.S. Census Bureau (2005).*

4.3.1 Housing Tenure

The owner-occupancy rate in Brooklyn Park continues to grow and in 2010 over 70 percent of Brooklyn Park's housing units were owner-occupied and almost 30 percent were rental. Owner-occupied units are predominately single-family homes and townhomes while rental units are mostly apartments. However, in 2017 approximately 2,000 single family homes had city-issued rental licenses.

Housing Units and Tenure (1970-2010)					
Type of Unit	**1970**	**1980**	**1990**	**2000**	**2010**
Single Family	4,560	9,245	14,822	18,103	18,248
Multi-Family	3,278	6,542	6,361	6,731	8,510
% Single Family	**58%**	**58%**	**70%**	**73%**	**68%**
Owner-Occupied	4,342	9,041	13,749	17,894	18,936
Renter-Occupied	2,996	6,227	6,637	6,538	7,293
Owner-Occupancy Rate	**55%**	**57%**	**65%**	**72%**	**71%**
Total Units	**7,846**	**15,803**	**21,265**	**24,846**	**26,758**

Table 4.2 *Source: 2010 data from American Community Survey. Previous years from United States Census*

4.3.2 Housing Value and Sales

Brooklyn Park continues to be an affordable community with a consistent increase in property values between 1970 and 2005, in-line with the region's growth in values. However, from 2005 to 2010, values slowed, and from 2010 to 2015, median housing values fell at a much sharper rate than the region. This trend mirrors housing downturns experienced throughout the nation during the Great Recession. Home values in Brooklyn Park have increased, but unlike many areas of the region, they have not yet reached pre-recession levels.

Median Housing Value (1970-2015)				
Year	**Brooklyn Park**	**% Change**	**MSP Area**	**% Change**
1970	$23,400	-----	$21,500	-----
1980	$66,800	185.47%	$62,300	189.77%
1990	$88,100	31.89%	$88,300	41.73%
2000	$131,000	48.69%	$141,200	59.91%
2005	$223,200	70.38%	$235,900	67.07%
2010	$225,600	1.08%	$239,100	1.36%
2015	$179,200	-20.57%	$213,900	-10.54%

Table 4.3 *Sources: 2010-2015 data is from ACS dataset provided by Metropolitan Council. Previous years from US Census Bureau.*

There was a steady increase in the average sales price from 1990 to 2005, followed by a period of decline during the Great Recession. From 2012 to 2017, value increased each year. Figure 4.4 below shows the average home sales price for Brooklyn Park since 1990.

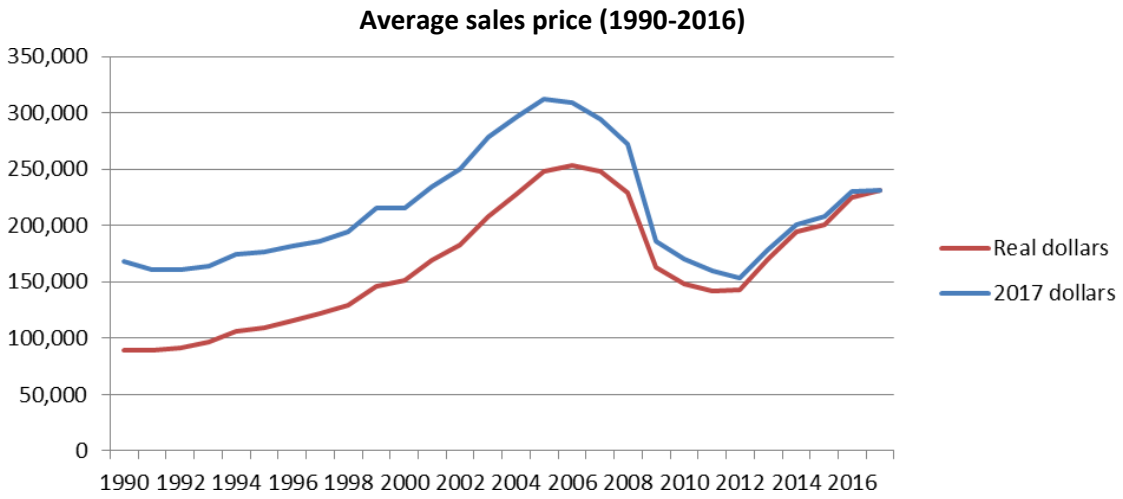


Figure 4.4 *Source: 1990-2016 data from the Minneapolis Association of Realtors.*

4.3.3 Foreclosures

Brooklyn Park was one of the communities in the region hardest hit by the Great Recession and housing crisis. Between 2007 and 2011, the city experienced 3,722 foreclosures, representing approximately 17 percent of the city's single-family homes.

In response, the City started a foreclosure recovery program aimed at stabilizing neighborhoods. The initiative had two main components. The first was a partnership with for-profit and non-profit developers to acquire, rehabilitate and resell vacant and foreclosed homes to new owner-occupants. The second was a homebuyer assistance program offering down payment funds directly to individuals that purchased foreclosed homes. Since 2009, the EDA has spent approximately $11 million from federal, state, and local funding sources in the recovery of over 257 homes.

In the first nine months of 2017 there were 68 new foreclosures in Brooklyn Park. If current trends continue, Brooklyn Park is on pace for 91 foreclosures by year-end, which represents a 91 percent decline since 2008.

4.3.4 Apartment Communities

At 24 percent of all housing units, the city's 6,400 multi-family apartment units are a significant contributor to the stability and desirability of Brooklyn Park as a place to live. Over 75 percent of all the apartment units are on properties with more than 100 units.

Apartment development occurred almost exclusively in the 1960s and 1970s; of the 6,200 units in larger multi-family buildings in the city, approximately 5,400 – 85 percent -- were built in the 1960s and 1970s. Built in 1965, Autumn Ridge was the first large-scale apartment building, with 366 units at the intersection of 63rd Avenue and Boone Avenue. In 1969, Huntington Place was built, with 834 units, exclusively 1-bedroom. Huntington Place remains one of the largest apartment communities in the Twin Cities.

Figure 4.6 *The 610 West Construction began in 2016. Source: Doran Construction*

Since 1990, apartment development has continued at a more modest pace: Fairways at Edinburgh was built in the 1990s, followed by two senior housing buildings in the 2000s. In 2015, 610 West began construction, marking the first large-scale non-senior apartment project in decades.

Strong maintenance actions and responsible management are factors that determine whether the city's apartments provide desirable housing options. The City helps to ensure these properties are well-maintained through its rental licensing and inspection programs. The City also assists with financing for capital improvements for rehabilitation of multi-family developments which is an increasing focus for the City as multi-family housing ages.

Figure 4.7 *Brooks Landing - Constructed 1978*

Figure 4.8 *Huntington Place – Constructed 1969.*

Apartment communities with more than 100 units						
Property	**Year Built**	**1-Bdrm**	**2-Bdrm**	**3-Bdrm**	**Studio**	**Total Units**
610 West	2016	140	120	8	11	279
Autumn Ridge	1965	188	172	4	2	366
Brooks Landing	1978	99	11	0	0	110
Eden Park	1967	67	176	81	0	324
The Fairways at Edinburgh *(Previously: Edinburgh Green)*	1992	56	114	26	2	198
The Groves	1966	60	60	0	0	120
Huntington Place	1969	834	0	0	0	834
Kensington Place	1968	50	113	8	-	171
Moonraker	1968	145	60	0	0	205
Park Haven	1971	61	96	20	0	177
Pebble Creek Estates	1972	143	47	0	0	190
Point of America	1967	220	50	0	0	270
The Regent	1969	97	79	10	0	186
Ridgebrook	1969	57	87	0	0	144
Riverview	1969	150	104	0	0	254
Tradition (Senior)	2005	84	66	0	0	150
Villa Del Coronado	1969	96	96	0	0	192
The Waterford (Senior)	2000	108	0	0	36	144
Willows I (Park)	1966	110	202	0	0	312
Willow II (Brook)	1979	172	224	16	0	412
Windsor Gates	1969	129	70	0	0	199

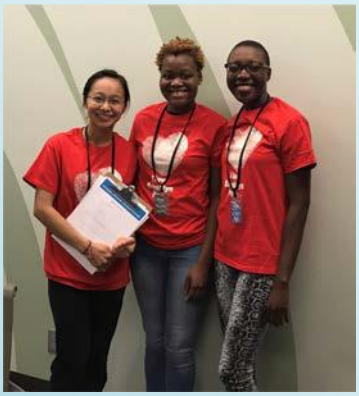
Table 4.4. *Source: City of Brooklyn Park*

Figure 4.9 Park Haven Apartments Rehabilitation Grand Opening - 2017

What we heard…
In August 2017 the City worked with community stakeholder groups to survey tenants at five large apartment communities in the city. In total, survey-takers knocked on 1,289 doors, and got 159 residents to complete surveys – a response rate of approximately 12 percent. 16 surveys were completed in a language other than English. Autumn Ridge, Huntington Place, Fairways at Edinburgh, Park Haven, and Riverview apartments were surveyed. The City also conducted the survey as part of a Liberian focus group.

Key Survey Findings

- Many residents surveyed are long-term residents of the City. Nearly half reported living in Brooklyn Park for over five years.
- African and African-American residents comprised about 2/3 of all respondents.
- The reasons for living in a given complex vary significantly, but having relaxed rental criteria was a major factor at some of the more affordable buildings.
- Suggested improvements to the complex also varied by building, with apartment maintenance and security concerns dominating responses at several apartment communities.
- Overall, residents surveyed indicated their housing was affordable or somewhat affordability.
- Many surveyed were unemployed, retired, or disabled. Of those working, the largest group worked in the medical field.



4.3.5 Senior Housing

Brooklyn Park currently has nearly 800 age-restricted senior rental housing units in ten developments which provide housing options for the senior community, including over 250 units affordable to seniors. The range of services offered at these developments varies. For example, St. Therese, Tradition, and Waterford provide assisted living options and Creekside Gables, Brooks Landing, and Brook Gardens offers some home health services.
Real Life Co-op and Summercrest Condos provide age-restricted ownership options for seniors. Although not age-restricted, Brooklyn Park has hundreds of one-level townhomes which provide additional senior-friendly living options in the community.

Senior Rental Apartments						
Senior Rental Apartments	**Yr Built**	**1-Bdrm**	**2-Bdrm**	**3-Bdrm**	**Studio**	**Total Units**
Brook Gardens	1978	0	36	24	0	60
Brooks Landing	1978	99	11	0	0	110
Creekside Gables	1969	65	24	0	1	90
St. Therese at Oxbow Lake	2005	19	60	3	0	82
St. Therese Asst. Living	2005	51	9	0	0	60
Tradition	2005	84	66	0	0	150
The Waterford (Estates)	1972	36	108	0	0	144
The Waterford II (Manor)	2000	0	24	0	0	24
The Waterford Asst. Living	2000	72	0	0	0	72

Table 4.5 *Source: City of Brooklyn Park*

4.4 Where We Are Going

The total number of households in Brooklyn Park has increased steadily over the course of the past 25 years, with the sharpest rise occurring between 1980 and 1990. Households are calculated independently from housing units and defined as all people occupying an individual housing unit.

Brooklyn Park has experienced steady and significant increases in the number of households in the past decades. These figures have historically coincided with significant rises in new housing units. By 2040, the city is expected to grow to 34,300 households, a 22 percent increase from 2015.

Total Households (1980-2040)			
Year	**Households**	**Change**	**% Change**
1980	15,268	-----	-----
1990	20,386	5,118	34%
2000	24,432	4,046	20%
2005	25,893	1,461	6%
2015	26,758	865	3%
2020 projected	30,000	3,242	12%
2030 projected	32,200	2,200	7%
2040 projected	34,300	2,100	7%

Table 4.6 *Total Households in Brooklyn Park. Source: American Community Survey, U.S. Census Bureau (2015)*

Table 4.7 below shows the average household size from 1970 to 2015, reflecting a significant decrease from 1970 to 1980. In the decades following 1980, average household size has remained relatively consistent. However, recent trends in Brooklyn Park have seen a steady increase in household size. This increase in household size may be attributed to a growing number of multi-generational families moving to the community.

Average Household Size (1970-2015)		
Year	**Size**	**% Change**
1970	3.8	-----
1980	2.8	-26.3%
1990	2.76	-1.4%
2000	2.75	-0.4%
2005	2.75	0.0%
2010	2.88	4.7%
2015	2.93	1.7%

Table 4.7. *Source: Metropolitan Council Community Profile*

Table 4.8 below shows changes in household composition in the city from 2000 to 2015. The information illustrates that the city has experienced an increase in "empty-nester" two-person households with no kids, as well as single-parent households.

Household Composition (2005-2015)						
Household Type	**2000**	**%**	**2015**	**%**	**Change (units)**	**Change (%)**
One-Person Households	7111	29%	7236	27%	125	2%
Two-Person Households with no kids	7430	30%	8470	32%	1040	14%
Family Household with married couple*	6339	26%	6543	24%	204	3%
Single adult with one or more children	3681	15%	4436	17%	755	21%
Total Householder**	**24,707**	100%	**26,758**	100%	2051	8%

Table 4.8. *Source: American Community Survey table B11005, U.S. Census Bureau (2015)*
** Due to US Census data collection practices, same-sex married couples are not accounted for in this total for 2015.*
*** This estimate is different from the sum of the sections shown because additional smaller categories are not included in the table.*

4.4.1 Household Income and Tenure

There has been a significant rise in median household income since 1979, but in comparison with the 13-county metro area average, the incremental increases in Brooklyn Park are slightly below average. Between 2000 and 2005, incomes slightly decreased, while they had increased again by 2015.

There is a large disparity in median incomes among homeowners and renters in Brooklyn Park. The median income of a homeowner household is more than double that of a rental household. This disparity mirrors national trends; however, Brooklyn Park differs from the region in that renter's incomes increased overall between 2010 and 2015.

Publicly-Subsidized Housing Units			
All units	**Senior Units**	**Disability Units**	**All Other**
1,077	0	0	1,077

Table 4.9. *Source: Metropolitan Council Existing Housing Assessment*

Median Household Income (1979-2015)				
Year	**Brooklyn Park**	**% Change**	**MSP Area**	**% Change**
1980 (1979)	$22,160	-----	$20,654	-----
1990 (1989)	$40,018	80.59%	$36,565	77.04%
2000 (1999)	$56,572	41.37%	$54,304	48.51%
2005* (2001-05)	$55,460	-1.97%	$59,691	9.92%
2015* (2011-15)	$62,974	13.55%	$68,778	15.22%

Table 4.10. *Source: American Community Survey, U.S. Census Bureau (2015)**

Median Income by Tenure			
Year	**Owners**	**Renters**	**Total**
2005	$ 88,292	$ 30,201	$ 67,307
2010	$ 82,938	$ 28,812	$ 61,398
2015	$ 84,976	$ 35,743	$ 62,974
% change	-4%	18%	-6%

Table 4.11 *Source: American Community Survey, U.S. Census Bureau (2015)**

**all data adjusted to 2015 dollars using US Inflation Calculator, based on consumer price index*

4.4 Affordable Housing

Affordable housing is a critical need for every employer and community. Current salaries for positions such as schoolteachers, nurses and service workers remain low or stagnant and a significant portion of the workforce cannot afford to pay full market prices for housing. As part of the regional strategy, the Metropolitan Council allocates each City with an affordable housing need number, representing the forecasted need that the City must plan for through its land use guidance.

Brooklyn Park continues to be an affordable place to live. According to Metropolitan Council data,

approximately 80 percent of the existing housing stock is affordable. Housing is considered affordable when it consumes no more than 30 percent of a household's income. For a family of four, 80 percent of the Area Median Income (AMI) was $65,700 in 2016 according to the Department of Housing and Urban Development (HUD) guidelines.

Existing Affordable Housing (2017)		
Affordability	**Number of Units**	**Percent Affordable**
At or below 30% AMI	1,776	6%
From 31% to 50% AMI	7,042	25%
From 51% to 80% AMI	14,043	49%
Total Affordable Units	22,861	80%

Table 4.12 *Source: Metropolitan Council and HUD data*

Publicly-Subsidized Housing Units			
All units	**Senior Units**	**Disability Units**	**All Other**
1,077	0	0	1,077

Table 4.13 *Source: Metropolitan Council*

According to the Metropolitan Council, the region needs an additional 37,900 affordable housing units to accommodate the projected growth in households between 2020-2030. Brooklyn Park's share of the region's affordable housing need is 710 additional units.

Affordable Housing Need Allocation	
Affordability Target	**Number of Units Needed**
At or below 30% AMI	365
From 31% to 50% AMI	93
From 51% to 80% AMI	252
Total Units Needed	710

Table 4.14 *Source: Metropolitan Council*

4.4.1 Homeownership and Affordability

Each year the Metropolitan Council develops homeownership affordability limits. In 2015, the Metropolitan Council determined a purchase price of $238,500 would be affordable to a four-person household earning 80 percent AMI. In 2015, the average sales price in Brooklyn Park was $201,279, well below the Metropolitan Council's affordable home price.

Homeownership rates vary across the different demographic groups who call Brooklyn Park home. While 86 percent of White residents are homeowners, only 35 percent of Black residents own their home in Brooklyn Park. These data underscore an important reality for housing policy in the City: a policy that affects renters primarily affects Black and Hispanic residents, while a policy that affects homeowners will have a greater effect on White and Asian residents.

Homeownership by racial group (2015)			
Racial group	Ownership	Rental	Total
All (combined)	70%	30%	100%
White, non-Hispanic	86%	14%	100%
Black	35%	65%	100%
Asian	79%	21%	100%
Hispanic or Latino	40%	60%	100%

Table 4.14 *Source: American Community Survey table B25003, U.S. Census Bureau (2015).*

4.4.2 Rental Housing and Affordability

The median rental rates for apartments in the community fall within the Metropolitan Council's targets for affordability for households earning between 50 percent and 80 percent AMI. Table 4.15 shows the 30-year progression in median contract rent rates for Brooklyn Park. Metro area increases over the same period are generally consistent over the same timeframe. However, rent has remained lower and grown at a lower rate in Brooklyn Park than the region since 2005. These data are compiled primarily from the American Community Survey.

Median Contract Rent (1970-2015)				
Year	Brooklyn Park	% Change	MSP Area	% Change
1970	$151	-----	$121	-----
1980	$261	73%	$236	95%
1990	$475	82%	$479	103%
2000	$663	40%	$599	25%
2005	$701	6%	$713	19%
2010	$743	6%	$773	8%
2015	$790	6%	$850	10%

Table 4.15 *Source: 2005-2015 data from American Community Survey. Previous years from United States Census. U.S. Census Bureau.*

In addition to the ACS data shown above, Brooklyn Park also surveys apartment managers annually about their current rental rates. The most recent survey (2017) indicates median rents in the range of $804 for a studio to $1,028 for a 2-bedroom apartment. Although collection practices are different for these two different sources, the City's own records indicate significant increases in rent since the survey began in 2011. These data are consistent with low vacancy and high demand for rental units in Brooklyn Park.

2017 Brooklyn Park Rent Rates		
Type of Unit	Median Rent (2017)	% Change from 2016
Studio	$ 804	6%
1 Bedroom	$ 850	3%
2 Bedroom	$ 1,028	5%
3 Bedroom	$ 1,300	6%

Table 4.16 *Source: 2017 City of Brooklyn Park data*

4.4.3 Cost-Burdened Households

Though most of Brooklyn Park's existing housing stock is considered affordable, many Brooklyn

Park residents are cost-burdened. Housing is considered affordable when a household spends 30 percent or less of its gross income on housing costs. Households spending more than 30 percent are considered cost-burdened and households that spend more than 50 percent of their income on housing are severely cost-burdened. Households whose housing costs exceed this threshold are likely to struggle to pay for other basic needs, forcing difficult tradeoffs.

According to Metropolitan Council data, most Brooklyn Park households experiencing housing cost burden earn less than 50 percent AMI ($42,900 for a family of four). By tenure, over a quarter of Brooklyn Park homeowners are cost burdened and over half of renter households are cost burdened. Approximately a quarter of renters are severely cost-burdened and spend more than 50 percent of their income on housing. Figure 4.4 shows housing cost burden for households in 2015.

Housing Cost Burden by Income	
Income Level	**Number of Households**
Below 30% AMI	2,981
31-50% AMI	2,930
51-80% AMI	1,627

Table 4.17 *Source: Metropolitan Council data*

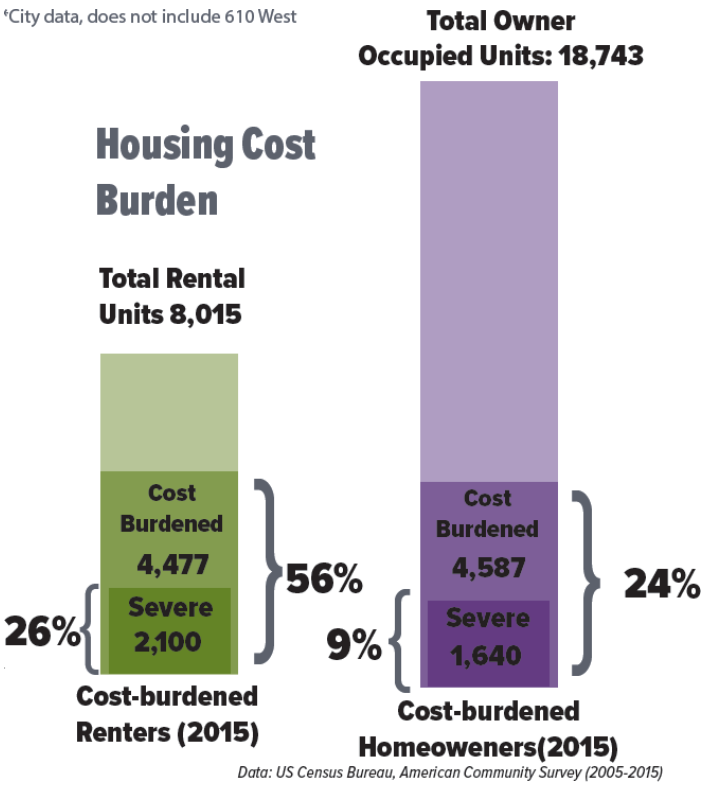


Figure 4.10 Housing Cost Burden by Tenure. Source: City of Brooklyn Park (2016).

4.4.4 Summary of Existing Housing Needs:

Based on the data and analysis above, the following housing needs are identified as priorities for the community. The implementation section includes discussion of the tools and strategies identified to address these needs:

- Rental units for large families and single-parent households at all affordability levels;
- Senior housing at all affordability levels;
- Home improvement and maintenance assistance for low-income homeowners at or below 80 percent AMI;
- Programs to address the homeownership disparity gap and support rental households becoming homeowners;
- Rental housing affordable between 30-50 percent AMI households to reduce housing cost-burden for renters;
- Preservation of naturally-occurring affordable housing within all bands of affordability, especially near future transit stations.

4.4.5 Future Housing Need

Brooklyn Park had 27,539 households in 2017 and is projected to grow to 34,300 households by 2040, a growth of approximately 6,761 households over the next 20 years. As a community with developable land, the city's future housing growth will come from both redevelopment and development activities. Through land use, economic development and LRT station area planning, the City identifies potential and planned redevelopment sites. Just over 500 acres of land is guided for mixed-use development and the City expects approximately 30 percent of that acreage to develop as medium-high density housing. In general, future housing growth is planned for the following development areas:

- Oak Grove Station Area
- 610 Junction (SW corner of 169/610)
- Zane & Oak Grove Area – EDA owned sites
- NW corner of 169/610

Potential redevelopment sites and areas include:

- Brooklyn Boulevard Station Area
- Candlewood Avenue/West Broadway Avenue site
- 85th Avenue Station Area
- 63rd Avenue Station Area
- Village Creek redevelopment area

The City is focusing on guiding land use to support multi-family housing since strong and diverse homeownership options already exist. To support anticipated growth and to provide for a range of housing options, including affordable units, most of these future housing developments will be in the form of medium density, medium high density, high-density, or mixed-use housing types. The Future Land Use Map shown in Chapter 3 Land Use reflects minimum densities for medium-high density at 12-25 units an acre and high-density at 12-50 units an acre, both of which are adequate densities to support affordable housing. The area planned for medium-high and high-density, neighborhood mixed-use and mixed-use development is sufficient to meet Brooklyn

Park's total allocation of affordable housing need of 710 units. Areas of the city near the planned LRT are guided at higher density or mixed-use with a housing density of 12-50 units per acre. Table 4.18 shows the acreages in each land use category planned by decade. There are 2,213 potential units of affordable housing planned for the 2021-2030 time period.

	Guided Land Use Type	Dev. Acres	Now - 2020	2021-2030	2031-2040	Density Range Min	Density Range Mid	Density Range Max	Yield %	Minimum Units now-2020	Minimum Units 2021-2030	Minimum Units 2031-2040	Midpoint Units now-2020	Midpoint Units 2021-2030	Midpoint Units 2031-2040
Guided in 2040 Plan	Low Density	21	0	21	0	1.5	2.25	3	100%	0	31	0	0	47	0
	Medium Density	3	0	3	0	3	7.5	12	100%	0	8	0	0	22	0
	Medium-High Density Residential	43	0	43	0	12	18.5	25	100%	0	516	0	0	801	0
	High Density	27	0	27	0	12	31	50	100%	0	324	0	0	833	0
	Live/Work	17	0	17	0	3	7.5	12	10%	0	5	0	0	13	0
	Flex Use	21	0	21	0	7	16	25	10%	0	14	0	0	33	0
	Neighborhood Mixed Use	31	0	15	16	9	29.5	50	10%	0	14	13	0	44	45
	Mixed Use	660	35	378	248	12	31	50	30%	125	1359	892	321	3512	2306
	Guided Total	299	35	525	248					125	2,271	905	321	5,305	2,351
	SUM TOTAL (2040 Guided)	299									3,301			7,977	

Table 4.18 *Source: City of Brooklyn Park*

Met Council Affordable Housing Allocation	
Type	**Minimum Units (overall density and average) 2021-2030**
Medium High Density Residential	516
High Density Residential	324
Neighborhood Mixed Use	14
Mixed Use	1,359
Total Affordable housing units BP guided (>=8 du/ac)	**2,213**
Affordable units required	710
At or below 30% AMI	409
31-50% AMI	104
51-80% AMI	282

Table 4.19 *Source: Metropolitan Council and City of Brooklyn Park.*

4.4.6 Future Housing Needs Implementation

Identified Need	Available Tools	Circumstances and Sequences of Use
Allocation of affordable housing need below 30% AMI: 300 units	Land Use	Guide future land use to densities that support the development of affordable housing.
	Super RFP	The City would strongly consider supporting or sponsoring an application to the Super RFP programs for housing at this affordability in the highest density locations on our future land use map.
	Tax Increment Financing (TIF)	The City would consider TIF for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on our future land use map.
	TIF Housing Set-Aside Funds	The City would consider using TIF Housing Set-Aside Funds for affordable housing in accordance with special state legislation.
	Local Economic Development Authority (EDA) Resources	The City will coordinate with the EDA and would consider using EDA funds to support housing affordable at less than 30% AMI on a case by case basis.
	Tax Abatement	The City would consider tax abatement for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on our future land use map.
	Hennepin County Funds	The City would strongly consider sponsoring an application to Hennepin County's HOME and AHIF funding programs to support development of housing at less than 30% AMI.
	LCDA Funds	The City would strongly consider sponsoring a LCDA application to support for new housing affordable at less than 30% AMI.
	Housing Bonds	The City would consider issuing Housing Bonds to support this type of housing in the community.
	Local CDBG Resources	The City would consider using allocated CDBG funds for this type of housing specifically, but opportunities and projects seeking this funding would be considered on a case by case basis.
	Site Assembly	The City would consider using awarded funds, from the programs described above, to assemble a site in the locations identified on our future land use map for this type of use.

Identified Need	Available Tools	Circumstances and Sequences of Use
Allocation of affordable housing need 31-50% AMI: 76 units	Land Use	Guide future land use to densities that support the development of affordable housing.
	Super RFP	The City would strongly consider supporting or sponsoring an application to the Super RFP programs for housing at this affordability in the highest density locations on our future land use map.
	TIF	The City would consider TIF for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on our future land use map.
	TIF Housing Set-Aside Funds	The City would consider using TIF Housing Set-Aside Funds for affordable housing in accordance with special state legislation.
	Local EDA Resources	The City will coordinate with the EDA and would consider using EDA funds to support housing affordable at 31-50% AMI on a case by case basis.
	Tax Abatement	The City would consider tax abatement for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on our future land use map.
	Hennepin County Funds	The City would strongly consider sponsoring an application to Hennepin County's HOME and AHIF funding programs to support development of housing at 31-50% AMI.
	LCDA Funds	The City would strongly consider sponsoring a LCDA application to support for new housing affordable at less than 30% AMI.
	Housing Bonds	The City would consider issuing Housing Bonds to support this type of housing in the community.
	Local CDBG Resources	The City does not plan on using allocated CDBG funds for this type of housing specifically, but opportunities and projects seeking this funding would be considered on a case by case basis.
	Site Assembly	The City would consider using awarded funds, from the programs described above, to assemble a site in the locations identified on our future land use map for this type of use.

Identified Need	Available Tools	Circumstances and Sequences of Use
Allocation of affordable housing need 51-80% AMI: 207 units	Land Use	Guide future land use to densities that support the development of affordable housing.
	Super RFP	The City would strongly consider supporting or sponsoring an application to the Super RFP programs for housing at this affordability in the highest density locations on our future land use map.
	TIF	The City would consider TIF for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on our future land use map.
	TIF Housing Set-Aside Funds	The City would consider using TIF Housing Set-Aside Funds for affordable housing in accordance with special state legislation.
	Local EDA Resources	The City will coordinate with the EDA and would consider using EDA funds to support housing affordable at 51-80% AMI on a case by case basis.
	Tax Abatement	The City would consider tax abatement for proposals of this housing type in the locations guided at the appropriate densities and land use categories as shown on our future land use map.
	Hennepin County Funds	The City would strongly consider sponsoring an application to Hennepin County's HOME and AHIF funding programs to support development of housing at this income range.
	LCDA Funds	The City would strongly consider sponsoring a LCDA application to support for new housing affordable at 50-80% AMI.
	Housing Bonds	The City would consider issuing Housing Bonds to support this type of housing in the community.
	Local CDBG Resources	The City may consider using allocated CDBG funds for this type of housing specifically, but opportunities and projects seeking this funding would be considered on a case by case basis.
	Site Assembly	The City would consider using awarded funds, from the programs described above, to assemble a site in the locations identified on our future land use map for this type of use.

4.5 Programs, Local Efforts, and Revenue Sources

The Brooklyn Park Economic Development Authority (EDA) is the primary administrator of all housing programs on behalf of the city. Brooklyn Park will continue to strengthen existing partnerships, as well as develop future programs, that serve the common goal of housing preservation, improvement and diversification in the housing supply of the city. The programs and resources identified herein are meant to serve as a general overview of the primary resources and tools available to the city.

4.5.1 Housing Programs, Local Efforts, and Revenue Sources

- Housing Rehabilitation, Maintenance, and Assistance Programs
  - Rehabilitation
    - Scattered Site Acquisition and Rehab Program – Developed in 2009 in response to the foreclosure crisis, this program uses federal, state, and local resources to acquire, rehabilitate, and re-sell single family homes. Through the program's life, the City spent $11 million rehabilitating over 200 homes in neighborhoods. With funding nearly spent, this program is winding down in 2018 but the City will continue to do rehabilitation projects as the need arises.
  - Apartment Livability Assistance – Offers loan funding, up to $500,000, to owners of apartments to support creating safe and livable neighborhoods. Loans are funded with Tax Increment and have affordability requirements.
    - Town Home Loan Program/Home Improvement Area Program – Provides low interest loans to townhome associations for improvements to common interest areas that may include parking lots, roofing, siding, and windows.
  - Home Improvement and Maintenance Programs
    - Community Development Block Grant (CDBG) Home Rehabilitation Deferred Loan program and Emergency Assistance Deferred Loan Program – Offers deferred loans up to $15,000 and emergency assistance for home repairs and capital improvements. 23 homeowners accessed this program in 2017 and 35 households are on the waiting list. This program is restricted to households earning 80 percent AMI or less.
    - Brooklyn Park Home Improvement Loan Program – Administered by Center for the Energy and Environment (CEE), this program offers low-interest repayable loans for home improvements including window replacement, bathroom and kitchen remodeling, flooring, plumbing, and HVAC. Twelve homeowners accessed this program in 2017 and eight homeowners are in the process of receiving loans. This program does have income restrictions at 115 percent of the area median income.
  - Assistance
    - Homebuyer Education – Provide CDBG funds to support Community Action Partnership of Hennepin County (CAPHC) Homebuyer Education program and Home Stretch workshops.
    - Housing Information Resources – Provide in print and online resource information to residents.
  - Transitional and Homeless Housing Services

        - The EDA owns a four-plex apartment building and operates a transitional housing program for four families experiencing homelessness. The families participate in job training or educational programming in preparation for independent living. The EDA contracts with Simpson Housing Services to operate the on-site transitional housing program and Premier Housing Management oversees day to day operations.
        - Brooklyn Avenues for Youth – In 2015, the EDA used TIF Housing Set-Aside Funds to construct a homeless youth shelter to serve the northwest suburbs and address the community's housing challenges. This partnership project with Avenues for Youth provides 12 beds and one emergency bed for youth experiencing homelessness. In 2017, the program supported 112 youth with 33 youth living at Brooklyn Avenues an average of 136 days and 99 youth using the emergency bed for a total of 210 nights.
- Neighborhood Preservation Initiatives
    - Home Energy Enhanced Squad – Administered by CEE, this program promotes and provides for energy conservation solutions and upgrades in residential homes. The EDA matches the resident expenses up to $50 per visit. In 2017, CEE conducted 94 Home Energy Squad visits.
    - Code Enforcement and Public Health – In 1976, the city adopted an environmental health program to respond to resident concerns ranging from minor nuisances to major health and safety hazards at residential properties. Some environmental health issues the City may handle include chemical and biological hazards, air quality, odors, water quality, lighting, noise, mold, and many others. In addition to health and life safety issues, general property maintenance items are addressed during property investigations. Community education and outreach are crucial elements of the program's success.
    - Rental Licensing Program – The City's Rental and Business Licensing Division administers the rental housing program as well as other business licenses issued by the city. Single-family rental homes are licensed and inspected every 2 years. In addition to single-family rental homes, the program is responsible for inspecting the thirty-five apartment communities in the city. The rental license program provides the city with the authority to monitor all rental properties and ensure they are properly maintained for the safety of its occupants.
    - Neighborhood Action Program (NAP) - Since the 2006, the NAP has evolved from a program focused on reducing crime and improving the livability of our most distressed single-family neighborhoods, to a collaborative team of city departments working together to resolve issues as they arise city-wide. This new approach allows early engagement and aligns the appropriate city staff with the residents to address their concerns before they become large-scale neighborhood issues. In addition, the NAP program reviews necessary code updates to address rental property behaviors, crime free housing training for landlords of rental properties, and email notification for landlords regarding crimes committed on their rental properties.
    - Apartment Action Plan – The City updated its Apartment Action Plan, a document which establishes collaborative actions the City will take around communication

and engagement with tenants and property owners and managers, proactive apartment sustainability strategies such as rental licensing programs and multi-family housing design guidelines and monitoring of apartment communities.

- International Property Maintenance Code – Initially adopted in 1983, the modified and amended International Property Maintenance Code was adopted in 2001. The Code serves two primary functions – to address concerns with property disinvestment and to ensure property safeguards to protect the stability of neighborhoods.

4.5.2 Local Redevelopment Efforts:

Brooklyn Park has an active Economic Development Authority (EDA) and recent local redevelopment projects include:

Housing Set-Aside funded projects (special Tax Increment Financing legislation):

- Autumn Ridge Apartments – In 2016, the EDA provided a $1,200,000 loan to support the significant rehab of 366 affordable units. 330 of the units are restricted to households at 60 percent AMI.
- Brooks Landing and Brook Garden Apartments – In 2016, the EDA provided $400,000 as a direct contribution to support the rehabilitation of 160 units affordable to households at 30-60 percent AMI.
- Brooklyn Avenues Homeless Youth Shelter – In 2015, the EDA provided $1,058,691 to fund construction of a 12-bed homeless youth transitional housing shelter. The EDA owns the facility and partners with Avenues for Homeless Youth for programming, support services, and administration.

Housing revenue bonds projects:

- Brooks Landing and Brook Gardens Apartments – In 2017, the City sponsored $15,000,000 of housing revenue bonds to support significant rehabilitation of 170 affordable units. This project is waiting for tax credit funding from Minnesota Housing.
- Park Haven Apartments – The City sponsored $16,000,000 of housing revenue bonds to support significant rehabilitation of 176 units affordable to households earning50-80 percent AMI in 2016. The grand re-opening for this project occurred in November 2017.

CDBG funded projects:

- EDA-owned Four-plex Facility – In 2017, the City provided $207,000 in CDBG funds for significant rehabilitation of 4 units of transitional housing for families experiencing long term homelessness (restricted to 30 percent AMI) in 2018. The EDA partners with Simpson Housing to provide professional supportive services for the families and Premier Management to provide property management services.

4.5.3 Resident Outreach & Local Resources

Brooklyn Park strives to offer housing resources to its residents and continues to seek innovative ways to reach city residents and professional stakeholders.

Real Estate Forum
Since 1992 the City of Brooklyn Park has hosted the first Real Estate Forum with over 150 residential real estate brokers and agents. The annual event is an opportunity for city staff to present timely information from a variety of departments assuring attendees are informed and updated with accurate details on city activities, developments and growth initiatives. Area school administrators present school district news and activities. Information presented at the event is included in a resource packet used by the agents as selling points in marketing Brooklyn Park to potential homebuyers.

Property Managers Coalition (PMC)
Created in 1990, this voluntary grass roots organization meets quarterly to bring together property managers, city staff, and other interested parties in an effort to network resources. The PMC was the first in the metropolitan area and includes representation from the large apartment communities in the city (over 5,500 units). The PMC has established their ground work for success by citing specific goals and standards for property management in Brooklyn Park. This program is coordinated by the Police Department.

New Connect
New Connect is a program where resident volunteers welcome new homeowners to Brooklyn Park. The volunteers are Community Connectors – they greet new neighbors with a reusable tote bag filled with community and city information, free gifts, and coupons from local businesses. Since 2012 volunteers have delivered over 6,000 bags to new homeowners.

Fair Housing
It is the commitment of the City to ensure that fair and equal housing opportunities are granted to all persons in all housing opportunities and development activities funded by the City regardless of race, color, religion, gender, sexual orientation, marital status, status with regard to public assistances, familial status, national origin, or disability. This will be done through external policies that provide meaningful access to all residents and fair housing information and referral services; and internal practices and procedures that affirmatively further fair housing.

The City reviewed the Regional Analysis of Impediments to Fair Housing and is taking steps to address recommendations identified within the report and will be coordinating with Hennepin County recommendations.

4.5.4 Revenue Sources:

- Revenue Sources
    - Community Development Block Grant (CDBG) funds – Brooklyn Park receives CDBG funds on an annual basis and utilizes the federal funds to carry out a wide-range of community development activities directed toward neighborhood revitalization, economic development and improved community facilities.
    - Tax Increment Financing (TIF) Housing Set-Aside funds – Section 20 of Minnesota Laws 1994, Chapter 584, Article 9 provided the EDA with the authority to establish an Economic Development TIF District (#15 and #17), in which 15 percent of the

annual revenue generated would be deposited into a Housing Development Account. The funds generated from this district can be utilized for housing projects that include acquisition, demolition, and rehabilitation. In 2005 and 2006 the legislature expended the life of the district TIF #15 and #17 through 2011. During the extension period 100 percent of the TIF generated must be deposited into the Housing Development Account for housing projects.

- EDA General Funds – The Brooklyn Park EDA utilizes the Housing and Redevelopment Authority (HRA) levy and the EDA levy to fund its operations and financially support other ongoing programs in the housing, economic development, redevelopment, and neighborhood preservation. The HRA levy funds the operating expenses of the EDA.
- Revenue Bonds – Brooklyn Park participates in the issuance of tax exempt Housing Revenue Bonds. Property owners and developers use this financing tool along with tax credits to build or rehabilitate affordable housing within the community.

4.6 Brooklyn Park 2040 Housing Goals and Implementation Strategies

Brooklyn Park has taken a proactive approach in developing preservation programs and maintaining the existing housing stock. The city and its housing administrator, the EDA, has developed policies to ensure quality and affordable housing is integrated throughout the community.

As Brooklyn Park's demographic and economic makeup continue to change and create demand for new housing types, available land and redevelopment opportunities will allow the city to grow and meet current and future resident needs. During the implementation phase of the Plan, the City will continue to examine programs to protect existing housing affordability, protect rental tenants, and ensure that the most cost-burdened residents have access to affordable housing options.

The following housing goals and implementation strategies are based on the summary of existing housing needs identified earlier:

- Rental units for large families and single-parent households at all affordability levels;
- Senior housing at all affordability levels;
- Maintenance assistance for low-income homeowners at or below 80 percent AMI;
- Programs to address the homeownership disparity gap and support rental households becoming homeowners;
- Rental housing affordable between 30-50 percent AMI households to reduce housing cost-burden for renters;
- Preservation of naturally-occurring affordable housing within all bands of affordability, especially near future transit stations.

Goal 1: Housing Preservation

Focus on housing investment and preservation to promote well-maintained neighborhoods and high-quality housing.

Implementation Strategies:

- Encourage revitalization and rehabilitation of existing rental housing to support preservation and to maintain affordability by promoting the City's Apartment Livability Loan program.
- Consider expanding the home improvement programs to maintain existing housing and to incent neighborhood investment.
- Promote active code enforcement and inspection programs. Continue implementation of the Property Maintenance Code through the Code Enforcement division and the Rental Licensing Ordinance.

Goal 2: Affordable and Supportive Housing

Promote a range of housing choices and opportunities accessible throughout the community.

Implementation Strategies:

- Implement the approved Mixed-Income Housing Policy to encourage the production of new affordable housing units, distributed throughout the community.
- Use affordable housing funds and other financial resources to partner with apartment communities on reinvestment projects.
- Explore multi-generational housing programs, policies, and models to support modern families.
- Increase senior housing options in the community, with a focus on affordability.
- Promote senior-friendly amenities and design in rehabilitation and new residential developments.
- Explore adopting tenant protection ordinances that would require landlord notice of non-renewal leases, significant rent increases, or changes in screening criteria.
- Research and consider the feasibility of tenant-based subsidies to specifically target households below 30% AMI.

Goal 3: Housing Services

Deliver housing services in an effective and accessible way to meet changing community needs.

Implementation Strategies:

- Consider a renter-to-homeownership program to close the racial disparity gaps in homeownership within the community.
- Commit to creating a Fair Housing training procedure, in coordination with Hennepin County, across departments on fair housing laws, violation identification and other fair housing issues.
- Strengthen existing partnerships with housing and service providers to leverage resources and promote coordination.
- Regularly evaluate existing housing programs to ensure programs are effectively deployed in the community.
- Continue to provide staff resources to assist tenants and homeowners in finding housing resources.

Goal 4: LRT Corridor

Support high density and walkable housing along the corridor to leverage the transit investment.

Implementation Strategies:

- Encourage redevelopment and development near transit corridors to meet City housing production goals.
- Promote higher density housing near transit corridors, business parks, and commercial areas.
- Explore ordinances and policies that support mixed-income residential developments with

a goal of 20 percent units being affordable to 50% Area Median Income to preserve long-term affordability near public transit.

- Explore strategies and policies that prevent displacement of existing residents living near planned transit corridors.
- Encourage housing with walkability, transit connections, and a mix of amenities.

Goal 5: Housing Production

Identify appropriate locations and opportunities for housing in the community.

- Consider establishing target numbers of units for each housing type to ensure housing options are available to residents, with housing types disbursed throughout the city.

4.6.2 Housing Implementation Plan

The implementation plan establishes tools Brooklyn Park may use to address identified strategies needed to meet the goals for our general and existing housing needs.

Housing Goal #1: Housing Preservation		
Identified Strategy	**Available Tools**	**Circumstances and Use**
Encourage revitalization and rehabilitation of existing rental housing	Apartment Livability Loan Program/TIF Housing Set-Aside Funds	The City would consider using these funds for the rehabilitation of existing affordable rental housing.
	Super RFP	The City would strongly consider supporting or sponsoring an application to the Super RFP programs for rehabilitation of existing rental housing.
	Partnerships	The City will consider working with partners such as Minnesota Housing to explore the preservation of low-income housing tax credit properties that could expire before 2040.
Consider Expanding the Home Improvement program to maintain existing housing, especially for low-income homeowners	Local CDBG Funds	The City will continue to reserve a portion of its CDBG allocation to continue to fund home improvement programs.
	Federal Home Loan Bank	The City will continue to apply to the Federal Home Loan Bank grant program as a source of funding for home improvement programs.
Promote Active Code Enforcement and Inspection Programs	Local City funds	The City is committed to continuing to fund active code enforcement and rental inspection programs.
	Local CDBG Funds	The City will consider reserving a portion of its CDBG allocation for funding a portion of staffing in the Code Enforcement and Public Health division.
Promote access to affordable housing	Housing Improvement Areas	The City would consider creating a Housing Improvement Area to support townhome or condominium associations that lack the reserves to finance maintenance.

Housing Goal #2: Affordable and Supportive Housing		
Identified Strategy	**Available Tools**	**Circumstances and Use**
Implement Mixed-Income Housing Policy	Local EDA Resources	The City will consider using local funds such as TIF Housing Set-Aside, general EDA funds, or new TIF districts to support implementation of mixed-income housing in the community.
	Local Ordinances	The City will be updating its zoning code in accordance with the Mixed-Income Housing Policy.
Use financial resources to partner with apartment properties	Local EDA Resources	The City will continue to meet one-on-one with property managers and owners of the 35 large apartment communities to identify opportunities for partnership on reinvestment projects.
	4d Tax Credit Program	The City will consider working with private property owners to retain the affordability of naturally occurring housing through the 4d tax program.
Explore multi-generational housing to support large family and single-parent households	Partnerships	The City will explore partnering with the University of Minnesota to commission a study on multi-generational housing and how it best fits into the Brooklyn Park community.
Increase senior housing at all affordability levels	Super RFP	The City would strongly consider supporting or sponsoring an application to the Super RFP programs for senior affordable housing.
	Local EDA Resources	The City will consider using local funds such as TIF Housing Set-Aside, general EDA funds, or new TIF districts to support development of senior housing in the community.
	LCDA Funds	The City would strongly consider sponsoring an application to Livable Communities Programs for senior housing.
	Housing Bonds	The City would consider using Housing Bonds to support senior housing bonds for senior affordable development.
Promote senior-friendly design in developments	Partnerships	The City will encourage developers rehabilitating or constructing residential development to incorporate recommendations of the Brooklyn Park Task Force for Aging recommendations into design.
Explore City level policy changes to promote affordability	Partnerships	City staff will continue to work with community organizations and other cities to explore adopting tenant protection ordinances.

	Local City Resources	The City will implement a local Fair Housing Policy to ensure that all housing efforts deployed by the City address Fair Housing needs.
Explore partnerships to create more ownership opportunities	West Hennepin Affordable Housing Land Trust	The City will explore supporting a partnership with the West Hennepin Affordable Housing Land Trust to preserve and create affordable homeownership opportunities.

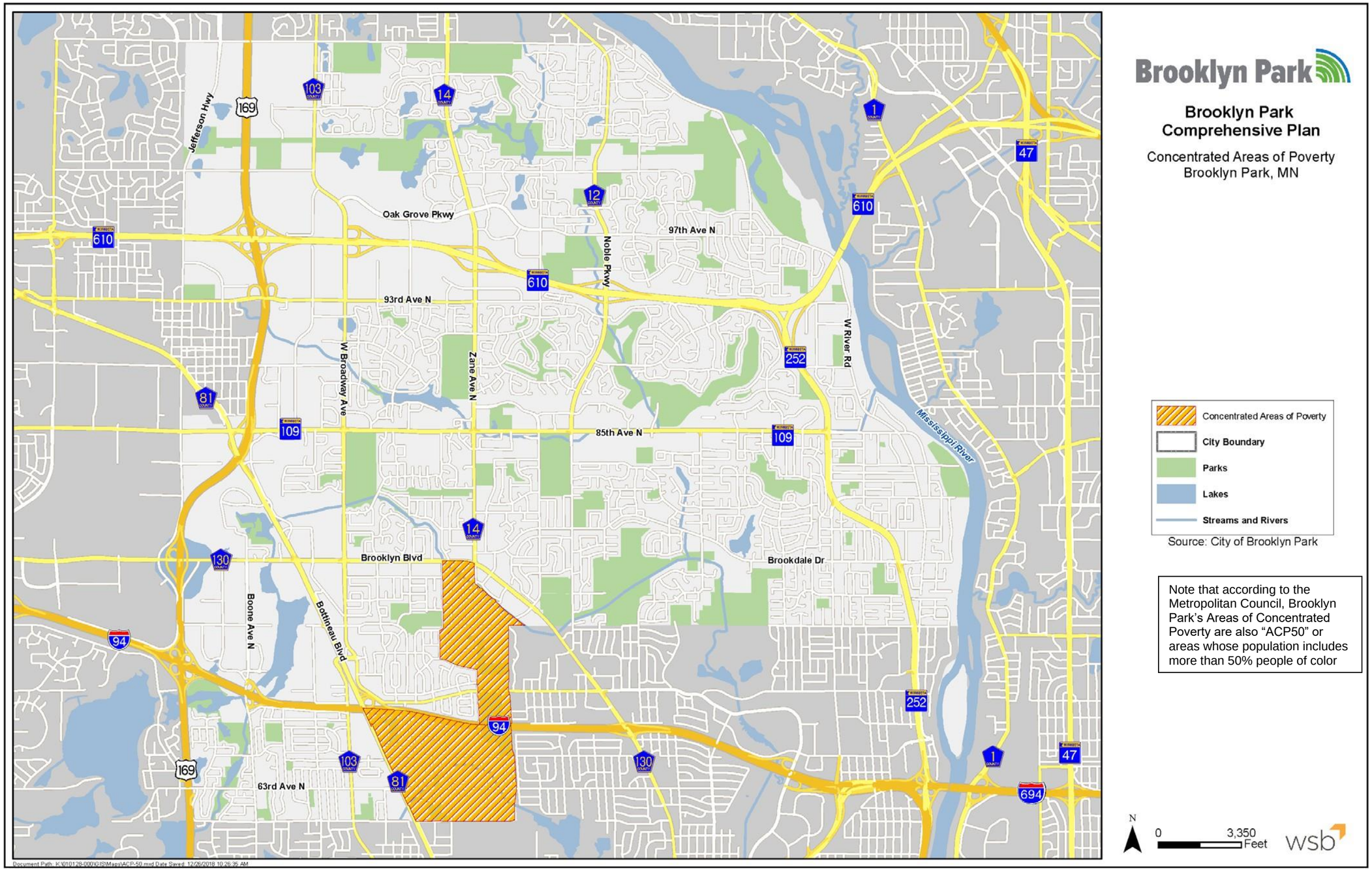
Housing Goal #3: Housing Services		
Identified Strategy	**Available Tools**	**Circumstances and Use**
Renter-to-homeownership programs	Partnerships	Staff will keep track and monitor the PRG/Minneapolis Public Housing renter to homeownership program to determine if it is a replicable program for Brooklyn Park.
Commit to developing a Fair Housing training procedure	Local EDA Resources	The City will likely use local EDA resources and funds to develop a Fair Housing training procedure for city departments.
	Partnerships	City staff will work with regional partners, including Hennepin County and Met Council to develop a Fair Housing training procedure.
Partnerships and Coordination	Partnerships	The City is committed to strengthening existing partnerships through expanded coordination.
Evaluate Housing Programs	Internal staff	City staff will evaluate housing programs regularly and provide summaries of outcomes to the EDA and Council.
Staff Resources	Local City Resources	The City will continue to fund dedicated housing staff as a resource to residents.

Housing Goal #4: LRT Corridor		
Identified Strategy	**Available Tools**	**Circumstances and Use**
Encourage redevelopment and development near transit corridors	Local EDA Resources	The City will consider using local funds such as TIF Housing Set-Aside, general EDA funds, or new TIF districts to support redevelopment and development near transit corridors.
	Super RFP	The City would strongly consider supporting/sponsoring an application to the Super RFP programs for housing redevelopment and development near transit corridors.

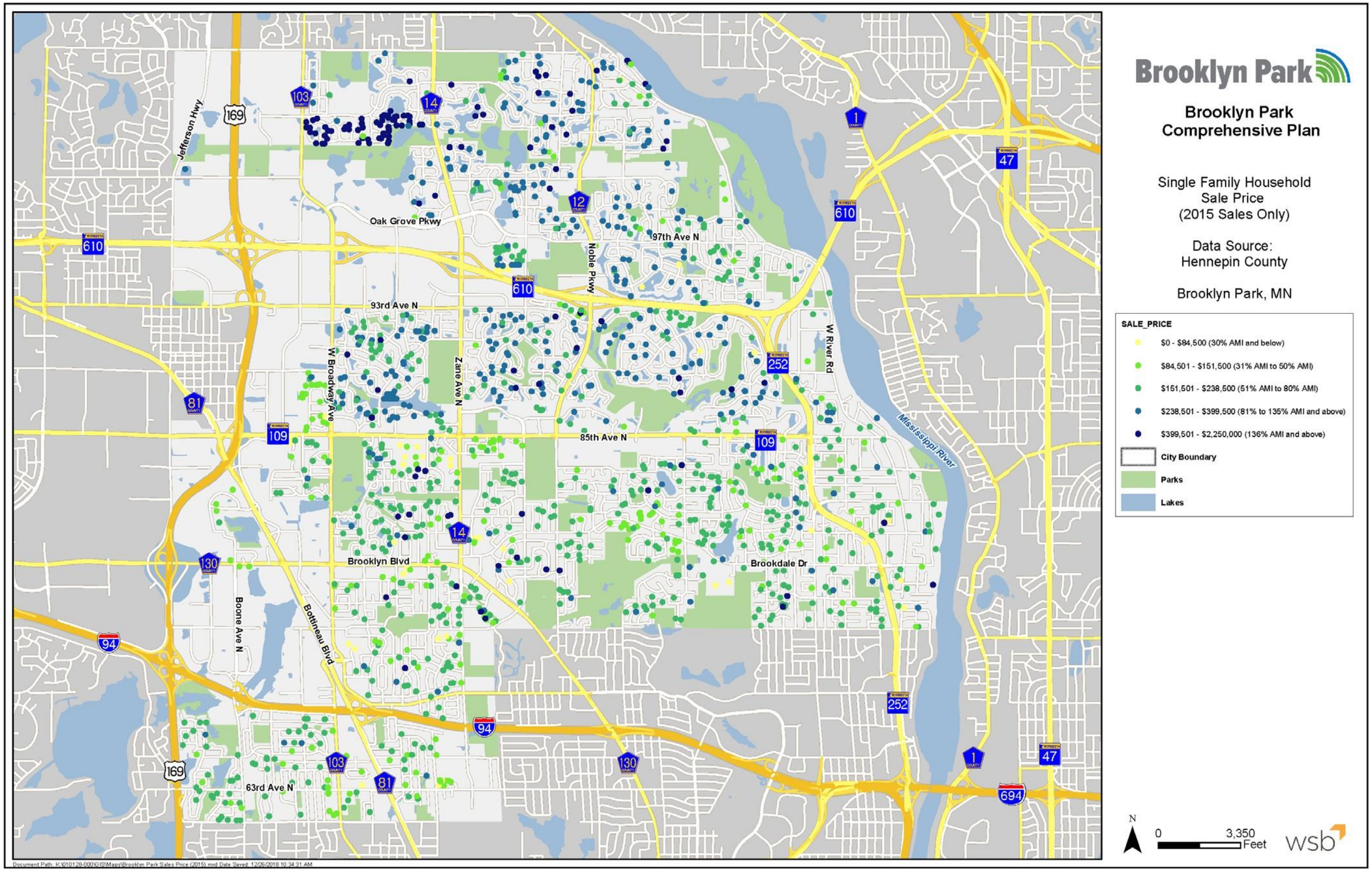
	Local Funds: LCDA	The City would strongly consider sponsoring an application to Livable Communities Programs for senior housing.
	Local Funds: Hennepin County TOD	The City would strongly consider sponsoring an application to the Hennepin County TOD program for redevelopment and development funding near the transit corridor.
	Housing Bonds	The City would consider using Housing Bonds to redevelopment or development along the transit corridor.
	Local Funds: CDBG	The City would consider using CDBG funding for redevelopment or development near the transit corridor on a case by case basis.
Promote Higher Density Housing	Partnership	The City is partnering with Hennepin County to use FTA grant resources to develop TOD zoning and overlay tools for the transit station areas. It is anticipated that these new tools will be adopted in June 2018.
Explore mixed-income residential developments	Partnership	The City is partnering with Hennepin County to use FTA grant resources to develop TOD zoning and overlay tools for the transit station areas, including inclusionary/affordable housing mechanisms. It is anticipated that these new tools will be adopted in June 2018. The City will implement zoning aspects of the Mixed-Income Housing Policy.
Explore anti-displacement strategies and policies	Partnership	The City is partnering with Hennepin County to use FTA grant resources to explore strategies and policies to prevent displacement of residents living near the transit corridor. This work will be underway in 2018-19.

Housing Goal #5: Housing Production		
Identified Strategy	**Available Tools**	**Circumstances and Use**
Establishing target numbers of units for each housing type	Local EDA Resources	A housing gap analysis along the LRT corridor is underway. The City will consider engaging a consultant to conduct a city-wide housing gap analysis.

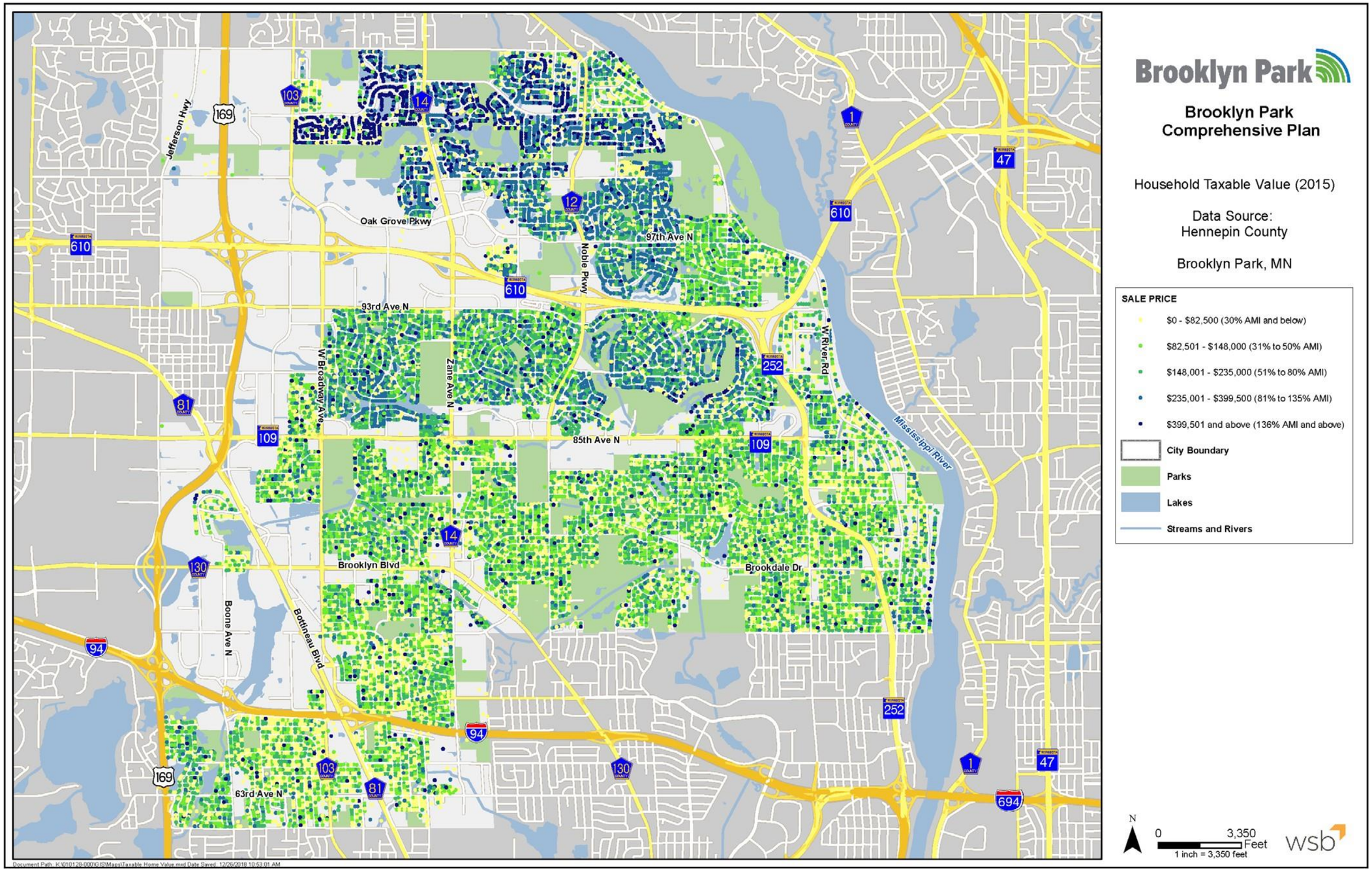
Map 4-1 Areas of Concentrated Poverty with Greater than 50% People of Color



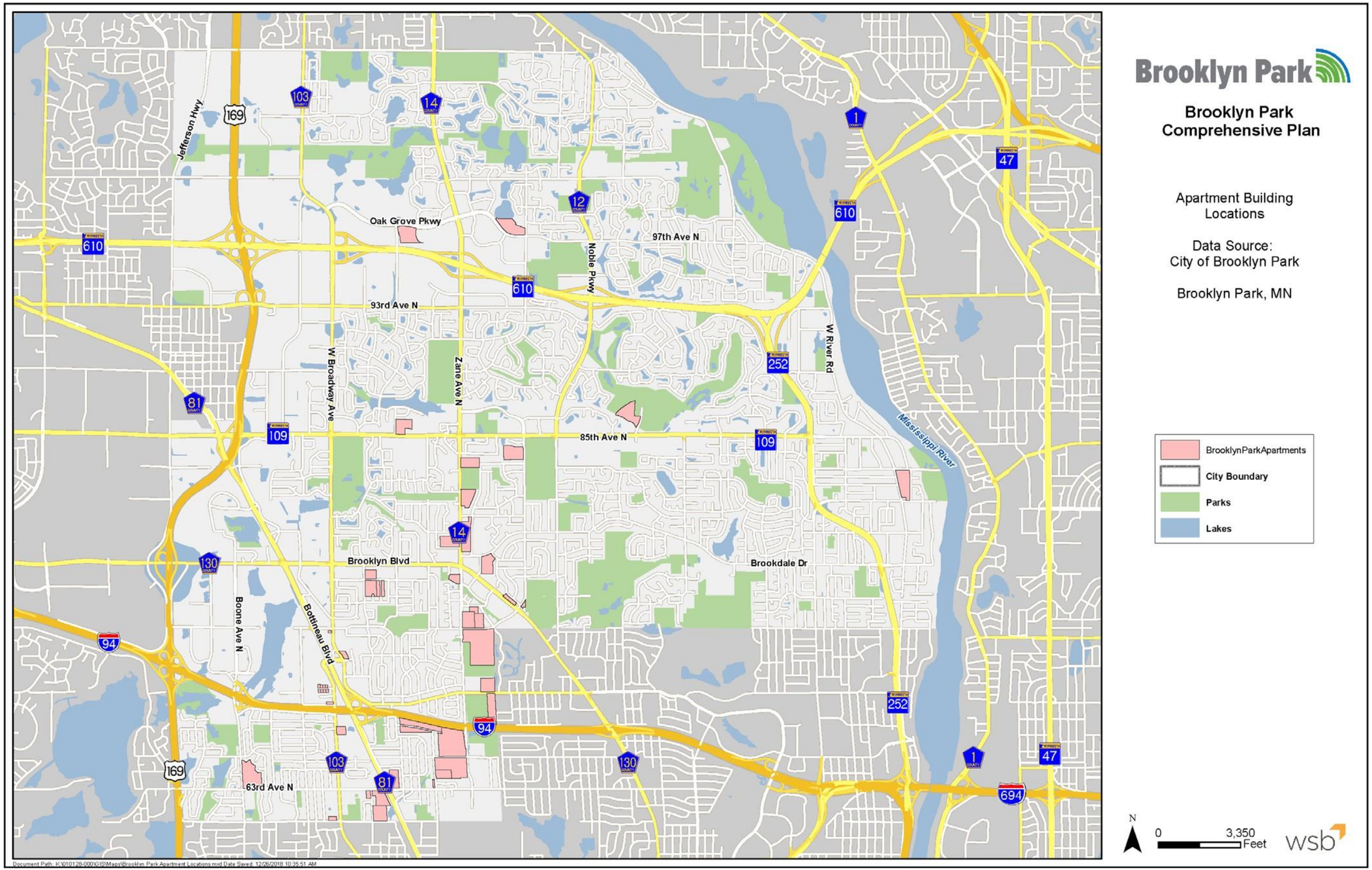
Map 4-2 Single Family Household Sale Price (2015 Sales Only)



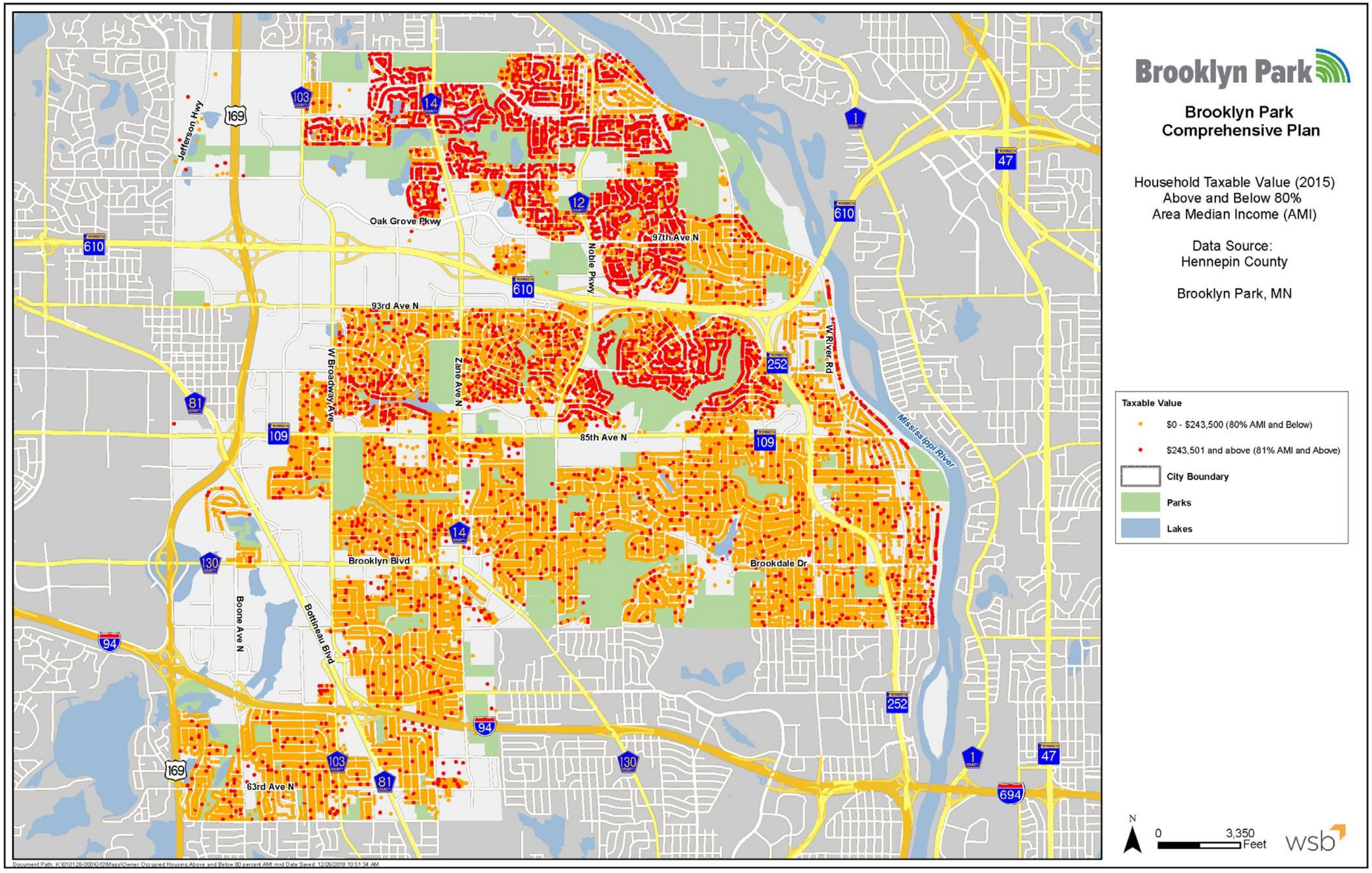
Map 4-3 Household Taxable Value (2015)



Map 4-4 Apartment Building Locations



Map 4-5 Owner Occupied Housing Above and Below 80% AMI ($243,500.00



CHAPTER 5: TRANSPORTATION

5.1 Introduction & Transportation Plan Objectives

The purpose of the City of Brooklyn Park Transportation Plan is to identify existing and future transportation needs, describe the transportation system that is needed to sustain development and define the implementation process for the required improvements. The Plan will allow the City to appropriately guide land use development patterns, to take necessary steps to acquire or preserve the rights-of-way needed for future transportation facilities and develop a staging and funding plan for the construction of these transportation facilities.

The transportation system in the City of Brooklyn Park is based on previous Transportation Plans. This updated plan will ensure that the transportation system will continue to meet the City's future needs. The objectives of the Transportation Plan are:

- *To provide for a multi-modal integrated transportation system that will serve the needs of City's residents, employers, workers, and visitors.*
- *To support the City's development and redevelopment plans.*
- *Compliment the metropolitan transportation system that lies within the City's boundaries.*

5.2 Regional Context

The City of Brooklyn Park covers approximately 27 square miles and is located in Hennepin County, northwest of downtown Minneapolis (Figure 5.2). The City is completely within the Metropolitan Urban Service Area (MUSA) that defines the area where the Metropolitan Council encourages urban development, however, the City has followed a managed growth plan over the past several decades.

As a result of a long-standing growth management policy, the agricultural community that once defined Brooklyn Park has evolved into a residential community. The southern and eastern parts of the City are mature and suburban in character. The majority of Northwestern Brooklyn Park, generally north of TH 610 and west of Winnetka Avenue, remains rural in character. Urban and suburban style development is expected to fill in this area within the next twenty years. In addition, the City has extensive industrial and commercial districts.

5.3 Roadways

5.3.1 Existing System

The existing street and highway system of the City of Brooklyn Park is presented in Figure 5.3.1A. Several metropolitan highways provide Brooklyn Park with access to the Twin Cities metropolitan area and to Greater Minnesota. These roadways include Interstate 94/694 in the southern portion of the City; Trunk Highway 169 along the western edge of the City; Trunk Highway 252 across the eastern portion of the City, and Trunk Highway 610, located in the northern portion of the City. Several County State Aid Highways within the City provide both east-west and north-south connections with the adjacent communities and link to trunk highways. The City currently has 84 traffic or pedestrian signals as depicted in Figure 5.3.1B. Figure 5.3.1C illustrate the current number of lanes on principal and arterial roadways within the City.

As increased development occurs, transportation improvements to the existing system will be needed to provide continuity, system capacity, and sufficient access to developing areas. Figure 5.3.1D shows the number of traffic lanes planned by 2040 to prepare for these developments. The recent completion of TH 610 to I-94 and the reconstruction of TH 169 north of County Road 81 provide the northwestern portion of the City and the Twin Cities region with a significant increase in roadway capacity and substantially alter existing travel patterns within the corridor and the City. Note that TH 610 is ultimately planned to include another interchange at I-94 in Maple Grove to provide for traffic oriented to and from the south (east) on I-94 and also a connection to CSAH 30 to the west of I-94. These connections will likely result in even more traffic volume on TH 610 through Brooklyn Park. Figure 5.3.1E illustrates existing traffic volumes on Principal and A-Minor Arterials within the city.

Figure 5.2:

Regional Context

March 2018

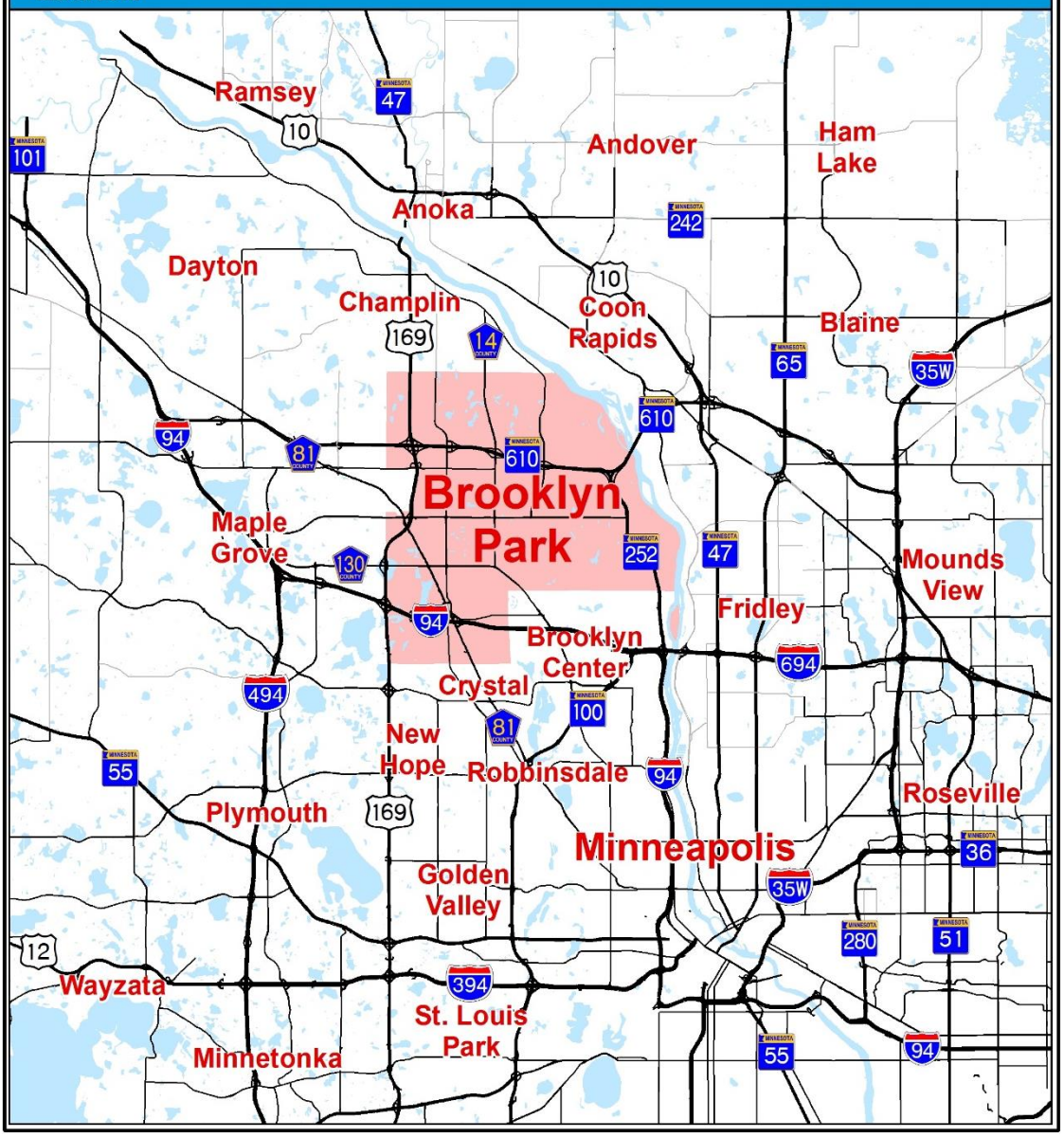


Figure 5.3.1

Existing Roadway Network

March 2018

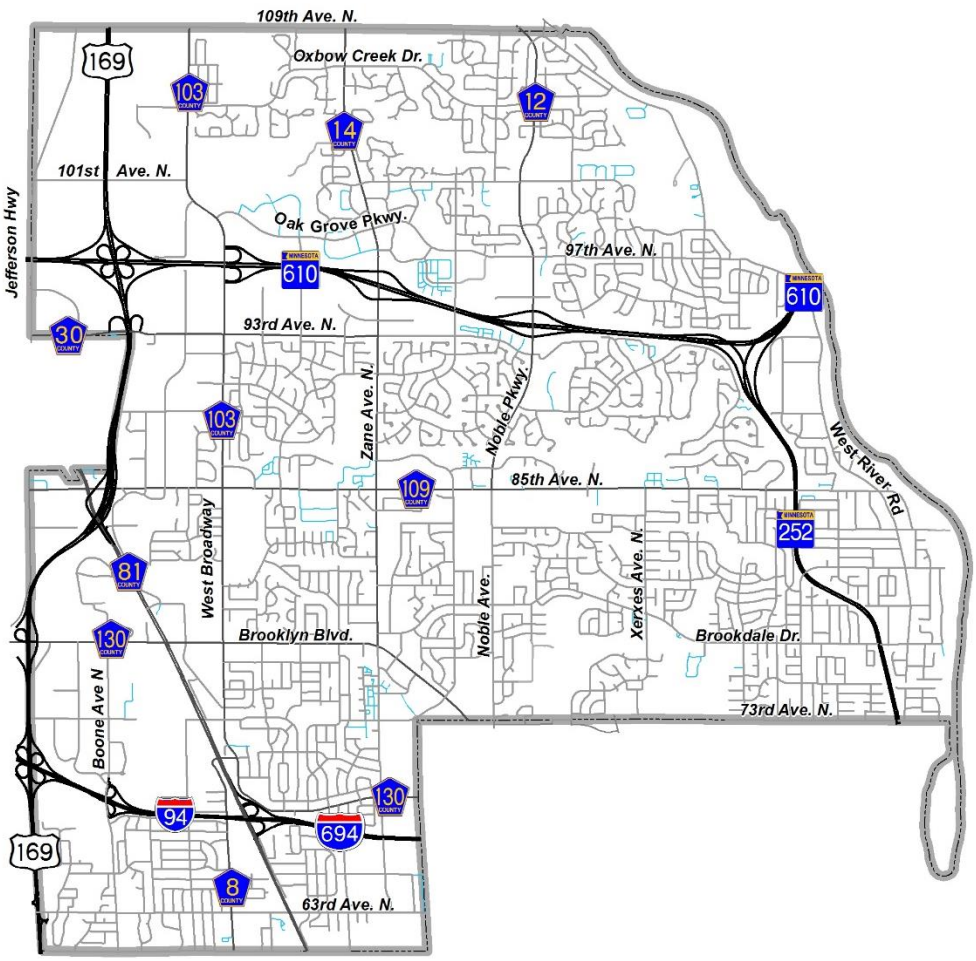
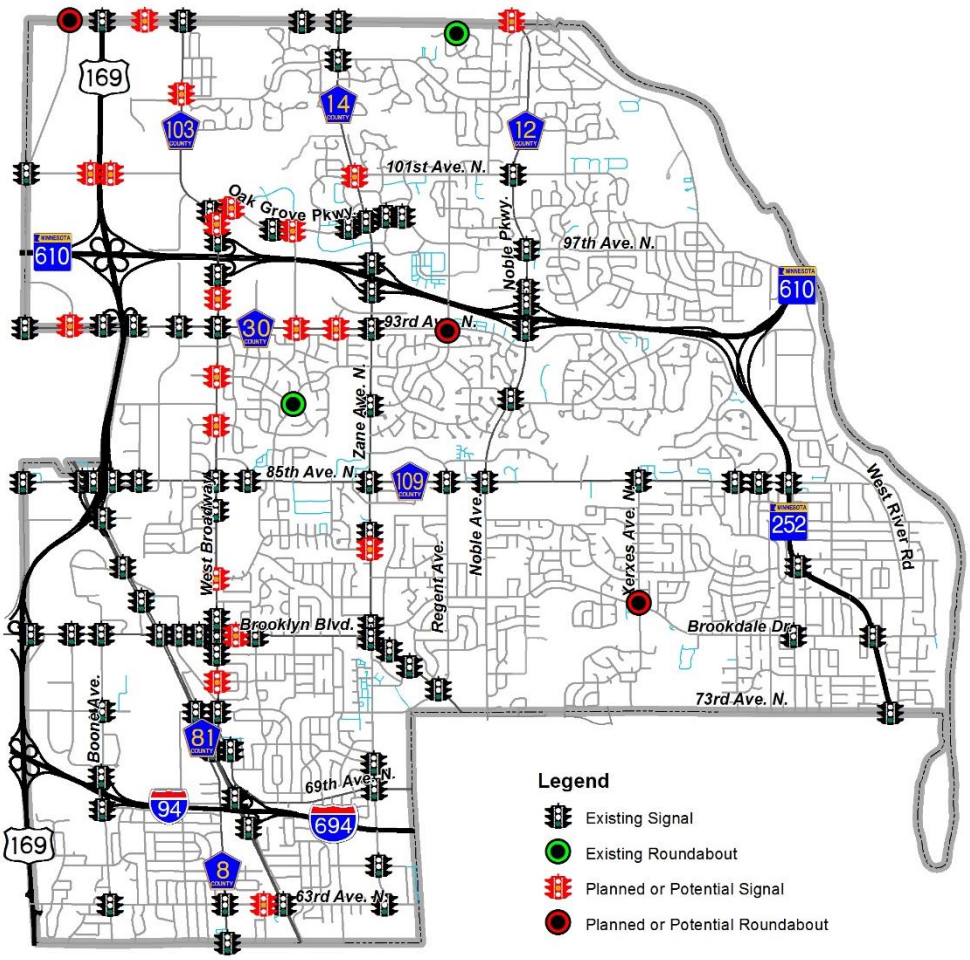
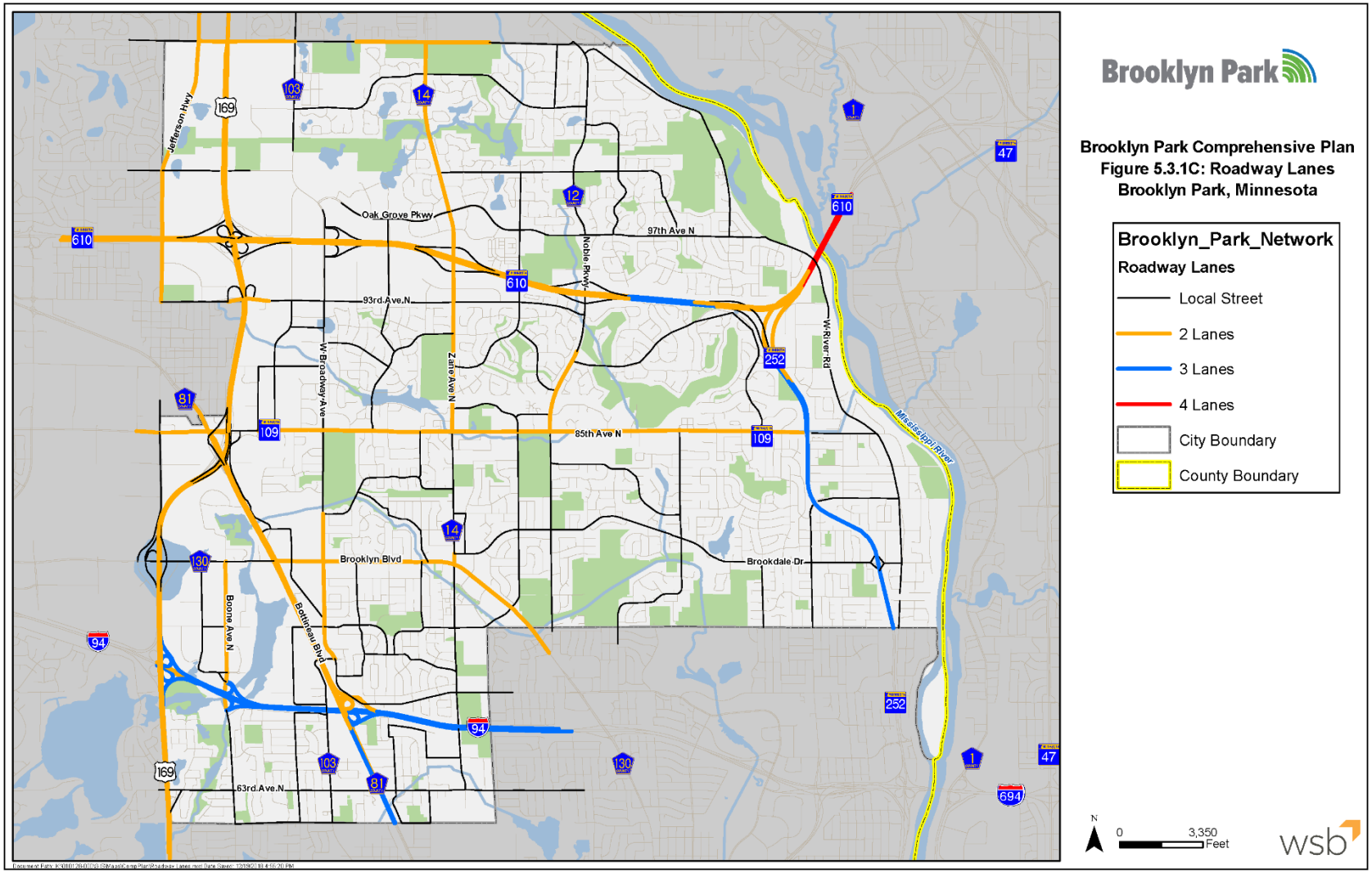


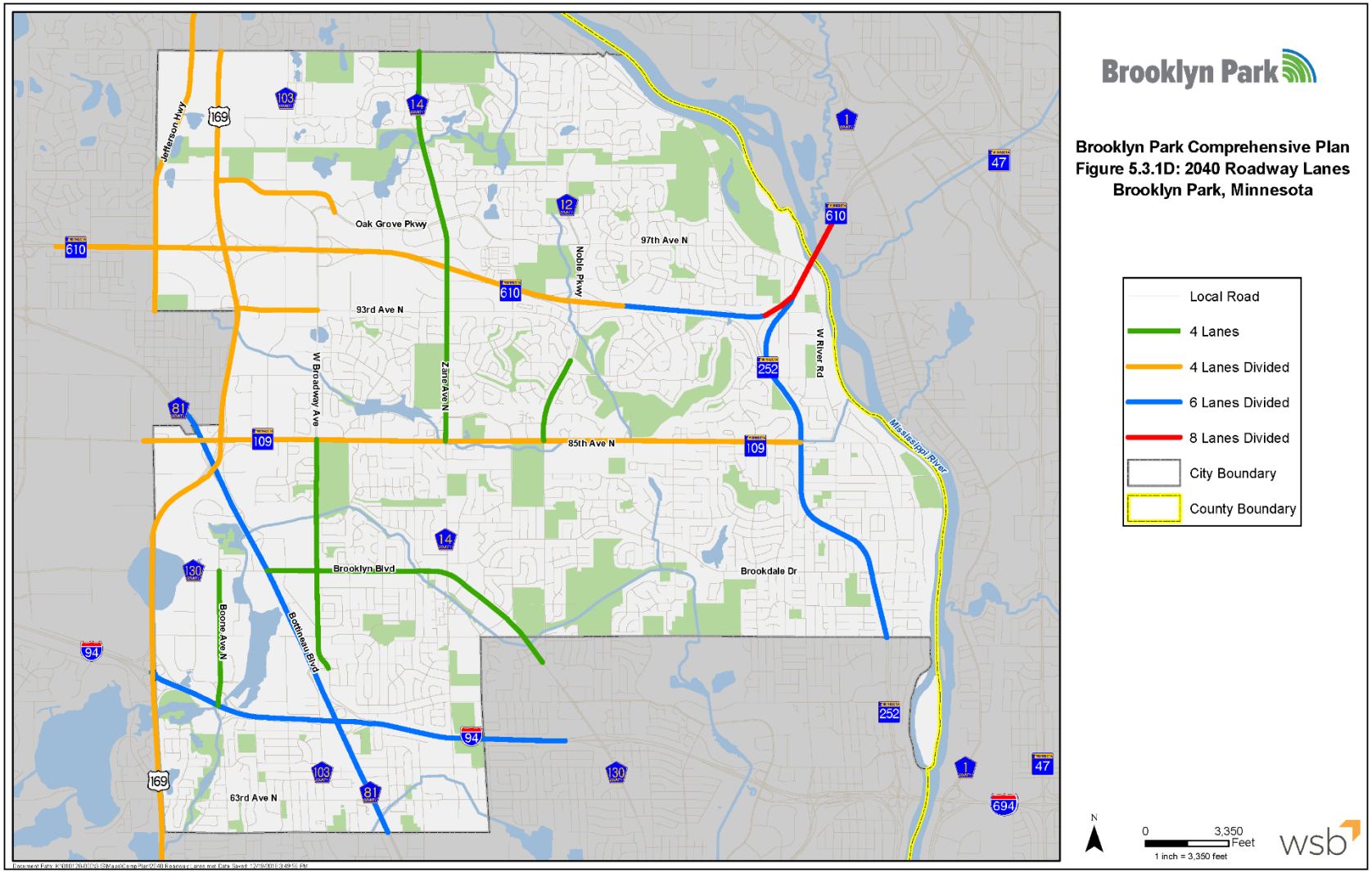
Figure 5.3.1B:

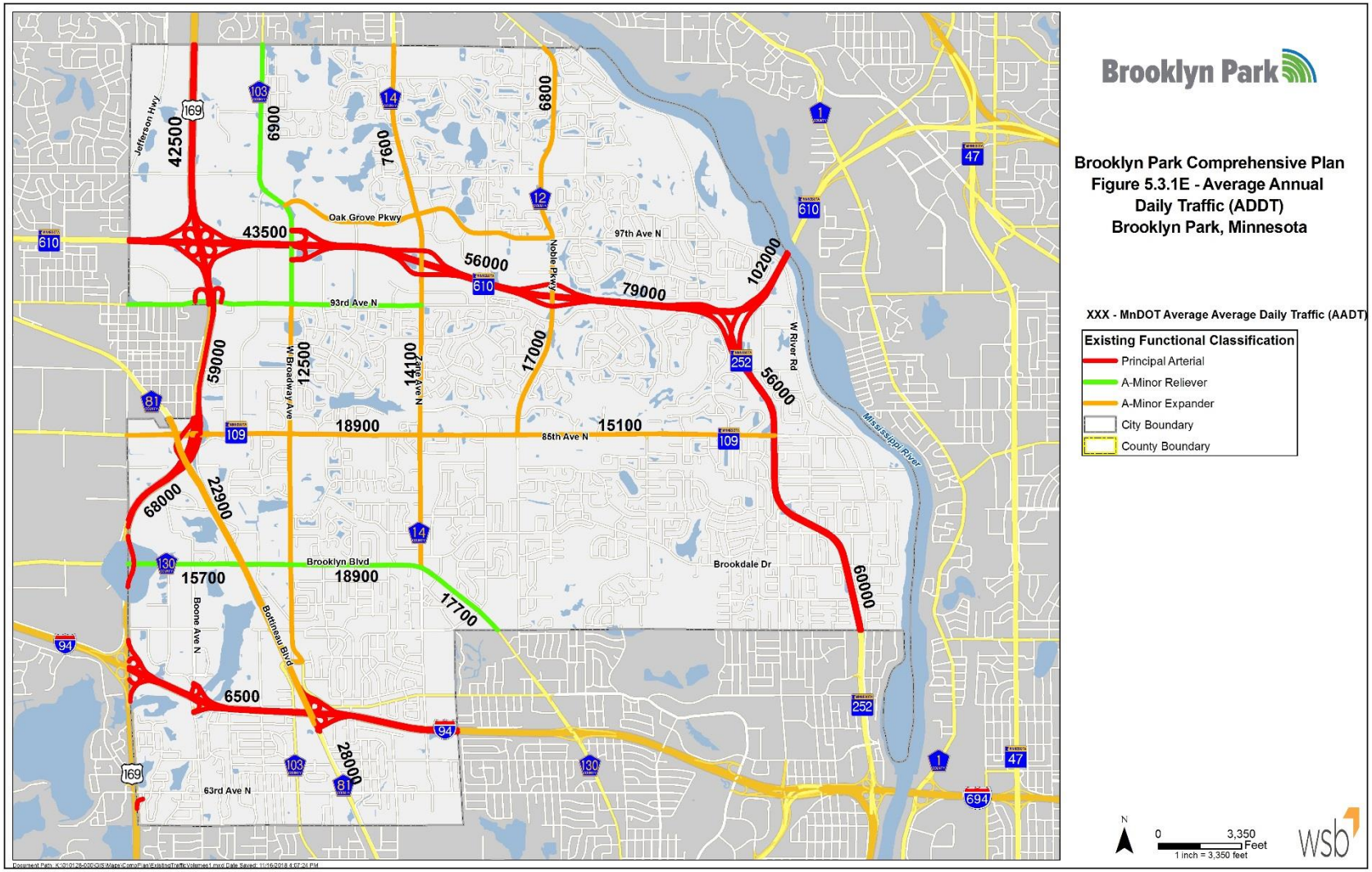
Traffic Signals & Roundabouts

March 2018




Brooklyn Park
Brooklyn Park Comprehensive Plan
Figure 5.3.1C: Roadway Lanes
Brooklyn Park, Minnesota
Brooklyn_Park_Network
Roadway Lanes
Local Street
2 Lanes
3 Lanes
4 Lanes
City Boundary
County Boundary
Jefferson Hwy
Oak Grove Pkwy
97th Ave N
Noble Pkwy
93rd Ave N
W Broadway Ave
Zane Ave N
W River Rd
85th Ave N
Mississippi River
Brooklyn Blvd
Brookdale Dr
Boone Ave N
Bottineau Blvd
63rd Ave N
N
0
3,350
Feet
wsb


Brooklyn Park
Brooklyn Park Comprehensive Plan
Figure 5.3.1D: 2040 Roadway Lanes
Brooklyn Park, Minnesota
Local Road
4 Lanes
4 Lanes Divided
6 Lanes Divided
8 Lanes Divided
City Boundary
County Boundary
Jefferson Hwy
Oak Grove Pkwy
97th Ave N
Noble Pkwy
93rd Ave N
W Broadway Ave
Zane Ave N
W River Rd
85th Ave N
Mississippi River
Brooklyn Blvd
Brookdale Dr
Boone Ave N
Bottineau Blvd
63rd Ave N
N
0
3,350
Feet
1 inch = 3,350 feet
wsb


Brooklyn Park
Brooklyn Park Comprehensive Plan
Figure 5.3.1E - Average Annual
Daily Traffic (ADDT)
Brooklyn Park, Minnesota
XXX - MnDOT Average Average Daily Traffic (AADT)
Existing Functional Classification
Principal Arterial
A-Minor Reliever
A-Minor Expander
City Boundary
County Boundary
Jefferson Hwy
42500
6900
7600
6800
Oak Grove Pkwy
43500
56000
97th Ave N
Noble Pkwy
79000
102000
93rd Ave N
59000
12500
W Broadway Ave
14100
Zane Ave N
17000
W River Rd
56000
18900
85th Ave N
15100
Mississippi River
68000
22900
Brooklyn Blvd
15700
18900
17700
Brookdale Dr
60000
Boone Ave N
Bottineau Blvd
6500
28000
63rd Ave N
N
0
3,350
Feet
1 inch = 3,350 feet
wsb

5.3.2 Functional Classification System

The designated function of a roadway is defined by the role it plays (mobility and access) in servicing the flow of trips through the overall network. The Metropolitan Council has established detailed criteria for all of the different functional classifications.

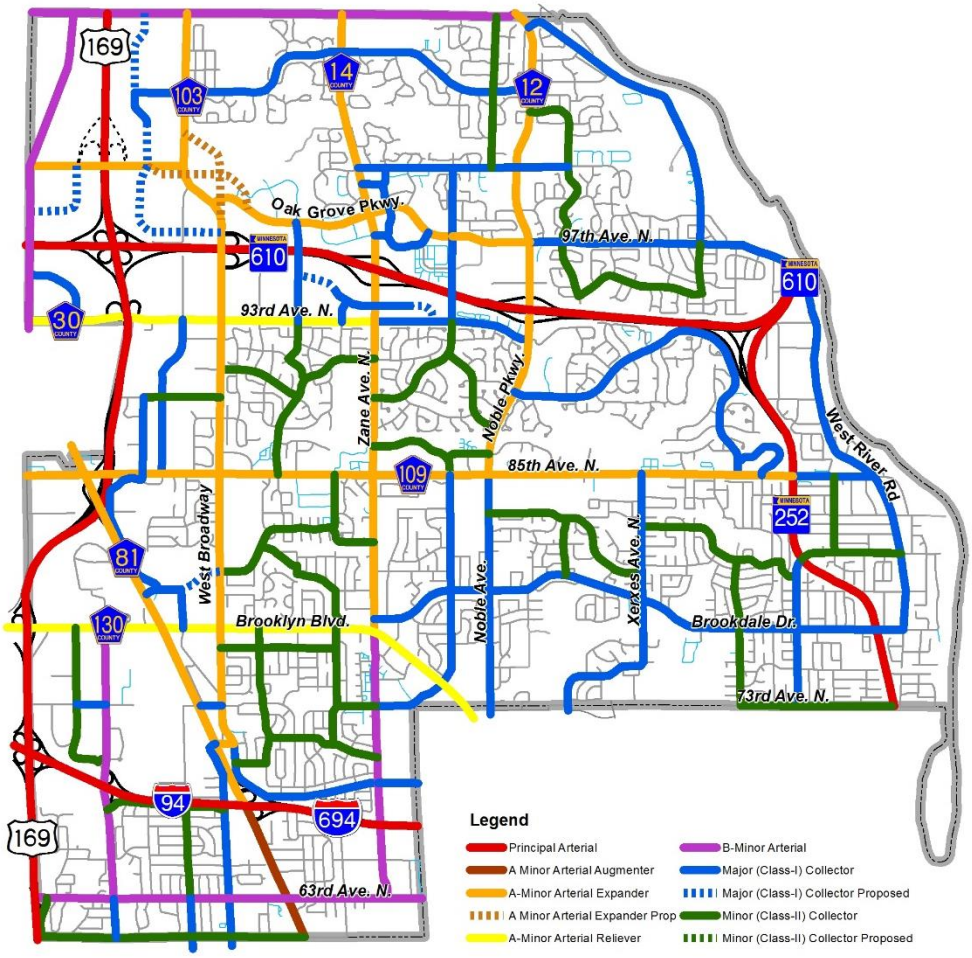
The intent of a functional classification system is to create a hierarchy of roads that collects and distributes traffic from individual properties in neighborhoods to the metropolitan highway system. In doing so, the functional classification system should also account for physical constraints to continuity, such as rivers. Arterial roadways should serve significant trip generators such as large employment and commercial centers. Collector routes should serve residential uses and areas of relatively low demand. This is the relationship between the land use plan and transportation plan.

The existing functional classification system is based upon the 2017 Metropolitan Council Functional Classification map and supplemented with additional collector routes based on Brooklyn Pak's current Transportation Plan (see Figure 5.3.2). The proposed roadway system should be consistent with the anticipated full urbanization of Brooklyn Park by 2040.

Figure 5.3.2

Roadway Classification

March 2018



5.3.3 Principal Arterials

Principal arterials are the highest roadway classification and are considered part of the metropolitan highway system. Their purpose is to connect the region with other areas in the state and other states and the central business districts of Minneapolis and Saint Paul with each other and with other regional business concentrations in the metropolitan area. Principal arterials strictly emphasize mobility over land access and are usually spaced at 3-6 miles apart (N/S and E/W) in developed areas such as most of Brooklyn Park.

Principal arterials are generally constructed as limited-access freeways in the developed area, but may also be constructed as multi-lane divided highways (or expressways). The Metropolitan Council's functional classification plan includes Interstate 94 and Trunk Highways 169, 252, and 610 as principal arterial roadways.

The following briefly describes existing principal arterial routes in Brooklyn Park:

Interstate 94. *I-94* connects the Twin Cities metropolitan area with multiple other major cities and states to the east and west. Within the state, I-94 connects to St. Cloud and areas further north and west, such as Alexandria and the Fargo-Moorhead area. The nearest parallel facilities are TH 55, approximately six miles to the south, and TH 610 approximately 3.5 miles to the north. I-94 is a freeway with limited access provided at interchange locations.

Trunk Highway 169. TH 169 is an important regional highway serving a variety of state-wide transportation needs, ranging from the movement of agricultural goods in southern Minnesota to access to tourist and recreational amenities in northern Minnesota. TH 169 also has significant continuity and services several other states to the south of Minnesota. Within the Twin Cities metropolitan area, TH 169 is one of the significant north-south routes, crossing the Mississippi River to the north at Anoka/Champlin and the Minnesota River to the South (Bloomington/Shakopee). TH 169 is a freeway through most of Brooklyn Park transitioning to an expressway to the north of TH 610.

Trunk Highway 252. This roadway provides a high speed/high volume north-south connection between I-94 and TH 610. It serves as the second north-south principal arterial in Brooklyn Park and it's proximity and connection to TH 610 and the Mississippi River crossing results in it serving substantial traffic to and from Anoka County and beyond. Trunk Highway 252 is a divided expressway with six signalized, at-grade intersection approximately every half-mile.

Trunk Highway 610. This four-lane freeway was completed in 2016 between TH 252 and I-94 (to and from the west) in Maple Grove. It connects to TH 10 and I-35W to the east and provides another northern bypass route of the Twin Cities Area in addition to I-694. TH 610 is ultimately planned to include another interchange at I-94 in Maple Grove to provide for traffic oriented to and from the south (east) on I-94 and also a connection to CSAH 30 to the west of I-94.

5.3.4 Minor Arterials

Minor arterials emphasize mobility over land access and connect cities with adjacent communities and the metropolitan highway system. Major business concentrations and other important traffic generators are often located along

minor arterials. In the metropolitan area, minor arterials are divided into two classes: A-Minor and B-Minor arterials. Minor arterials are typically spaced one mile apart in developed areas.

A-Minor Arterials. The Metropolitan Council has identified A-Minor arterials that are of regional importance because they relieve, expand, augment or connect the principal arterial system. The vast majority of A-Minor arterials within the city are Hennepin County facilities. Sub-classifications of these roads have been categorized as follows in Table 5.3.1A:

Table 5.3.1A Table of A-Minor Arterial Types

Type	Relievers	Expanders	Augmenters	Connectors
Definition	Relievers provide direct relief for metropolitan highway traffic.	Expanders connect developing areas outside the Interstate 494/694 ring.	Support Principal Arterials within the 494/694 beltway.	Connects town centers.
Roadway Examples	Brooklyn Boulevard 93rd Avenue.	Bottineau Boulevard (north of I-94) 85th Avenue	Bottineau Boulevard (south of I-94)	None in Brooklyn Park

B-Minor Arterials. The Metropolitan Council defines or considers all minor arterials other than A-Minor arterials as B-Minor arterials. These roadways typically serve a city-wide function by providing mobility for medium-length to long trips. Existing B-Minor arterials in Brooklyn Park include Jefferson Highway, 109th Avenue, Boone Avenue, 63rd Avenue and Zane Avenue (south of Brooklyn Boulevard). These roadways typically provide more land access than A- Minor arterials and are usually city owned and maintained.

5.3.5 Major (Class-I) Collectors

Major collector roadways serve shorter trips (1-4 miles) and provide access from neighborhoods to the arterial system. They supplement the arterial system and mobility and land access are of equal importance. They are typically lower-volume, lower speed than arterial facilities. Collectors are typically spaced approximately ½ mile apart (N/S and E/W) in developed suburban areas like Brooklyn Park.

5.3.6 Minor (Class-II) Collectors

Minor collectors are shorter in length and lower in volume than Major collectors. They also serve lower-volume areas such as residential neighborhoods and provide greater access to adjacent land uses than Major collectors.

5.3.7 Local Roadways

Local roadways provide access to private property from the minor arterial and collector system. The City policy is that local roadways in developing areas and some collector roadways are constructed by the developers through the platting process.

Local streets (either residential, commercial, or industrial) should be interconnected to the fullest extent possible. Cul-de-sacs should be used only to access small areas that could not otherwise be served without environmental impact or loss of parcels. The design function of local roadways is to provide access.

5.3.8 Private Roadways

The City has several private roadways in both residential and business settings. Private roadways are typically created so that certain zoning setbacks are not required, a higher quality of design or amenity is implemented, or for privacy reasons. The City policy is that all private roadways must be built to public roadway construction standards to ensure durability and reliability. Maintenance of private roadways is the responsibility of the owner of the roadway, typically a residential neighborhood association or business.

5.3.9 Recent Roadway Improvements (Since 2008 Plan)

Several roadway improvements were made since the 2008 Transportation Plan was prepared. Following are descriptions of the most notable construction or reconstruction projects since 2008:

Trunk Highway 610. Trunk Highway 610 opened for traffic as a four lane freeway between TH 169 and I-94. The segment between TH 169 and CSAH 81 was completed in 2011. The segment between CSAH 81 and I-94 was completed in 2016. The System Interchange at TH 169 and TH 610 was upgraded to a full cloverleaf design.

TH 169 / CSAH 81 / CSAH 109 Triangle Area. The Triangle Area interchange project was completed in 2011. This project upgraded TH 169 to a four lane freeway through 85th Avenue, created a tight diamond type interchange at the TH 169 / 85th Avenue junction with direct connections between SB TH 169 and SB CSAH 81 and NB CSAH 81 and NB TH 169, eliminated two of the highest crash cost intersections within the state and the most hazardous at grade rail crossing in the state.

TH 169 / 93rd Avenue Interchange. This project removed the at grade signal at 93rd Avenue and constructed a half interchange at the TH 169 / 93rd Avenue junction with access provided to and from the south. The project was completed in 2013.

Bottineau Boulevard (CSAH 81). The CSAH 81 project reconstructed Bottineau Boulevard to a six lane urban roadway with exclusive turn lanes between 62nd Avenue and 71st Avenue (CSAH 8) in Brooklyn Park. This project included modifications to the I-94 WB off ramp and extending the Crystal Lake Regional Trail along the east side of CSAH 81. The extension to 71st Avenue was completed in 2017.

109th Avenue. The segment between Idaho Avenue and Winnetka Avenue (CSAH 103) opened for traffic as an urban 3 lane roadway in 2010.

Oxbow Creek Drive. The Major collector was extended from Winnetka Avenue to new Xylon Avenue in 2016.

Decatur Drive. A new 3 lane urban Major Collector type roadway was constructed between Jefferson Highway and 93rd Avenue (CSAH 30) in 2015.

Tessman Parkway. The fourth leg to the Century Farms roundabout was constructed in 2014 as a two lane urban roadway. The roadway extends to 85th Avenue opposite Idaho Avenue. This is a Minor Collector type roadway.

94th Avenue. The 94th Avenue improvements included segments to the east and west of Zane Avenue. The segment to the east between Zane Avenue and 500 feet east was constructed in 2014 as a 3 lane urban roadway. The segment to the west between Zane Avenue and new Colorado Avenue was constructed as a 3 lane urban roadway in 2015. This construction included extending Colorado Avenue from 93rd Avenue (CSAH 30) to new 94th Avenue.

5.3.10 Traffic Analysis Zones

The following section examines subsections of the City. These traffic analysis zones (TAZ) are shown in Figure 5.3.13. The traffic forecasts documented in this

transportation plan use existing and projected population, household and employment data for each TAZ.

Each TAZ has population, employment, and household data that is used by the model to generate trips that are assigned to various links on the roadway network. **Figure 5.3.13** displays Metropolitan Council TAZs within Brooklyn Park.

Table 5.3.10A provides a summary of existing and forecasted demographic growth by TAZ for Brooklyn Park through the year 2040. The Brooklyn Park population is forecasted to reach 97,900 by the year 2040, with households and employment increasing by approximately to 34,300 and 40,200 respectively. Allocated demographic growth and associated land use was located throughout the community. Most of the forecasted growth for high density residential, commercial, and multi-optional development is expected to occur in the central portion of the city. For more information about the demographic allocation and associated land use forecast, please refer to the Brooklyn Park Land Use Plan in Chapter 3 of the Brooklyn Park Comprehensive Plan.

Figure 5.3.13

Traffic Analysis Zones

March 2018

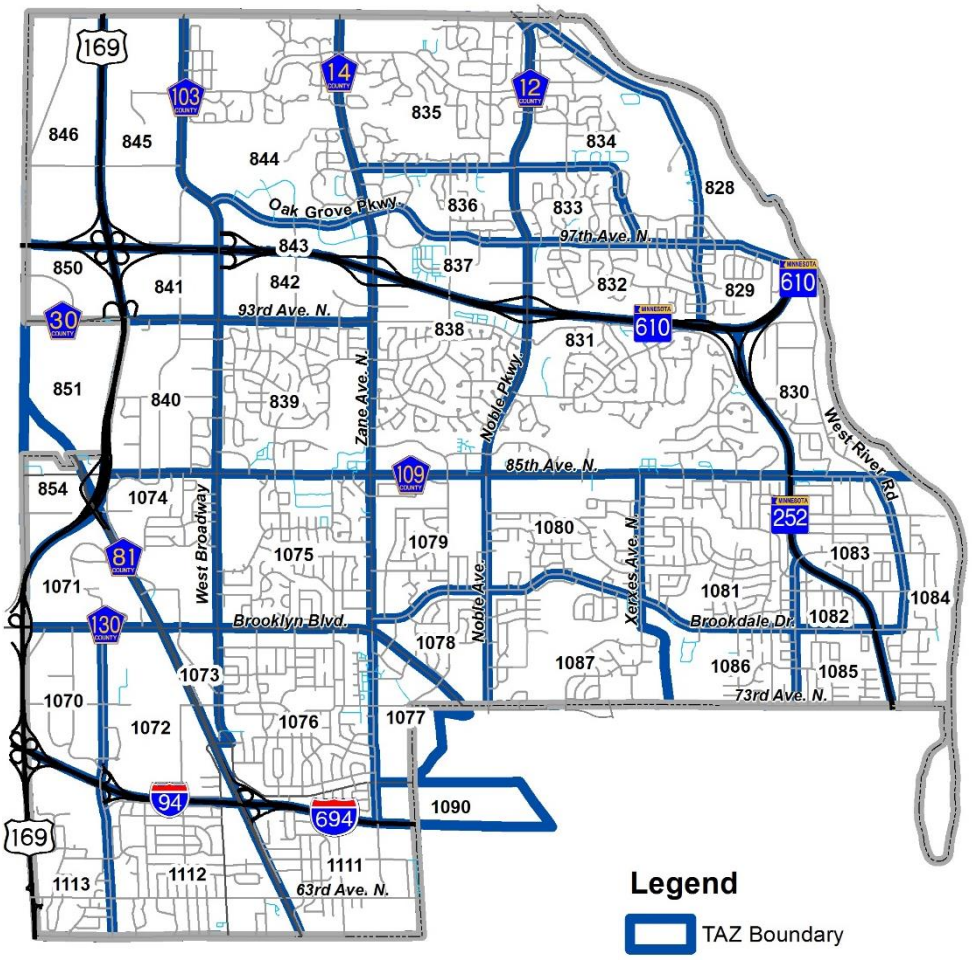


Table 5.3.10A: City of Brooklyn Park Land Use Allocation of Forecasts by TAZ

	2010 Census			2020 Forecasts			2030 Forecasts			2040 Forecasts		
CURRENT TAZ	**POP2010**	**HH2010**	**EMP2010**	**POP2020**	**HH2020**	**EMP2020**	**POP2030**	**HH2030**	**EMP2030**	**POP2040**	**HH2040**	**EMP2040**
828	298	102	0	298	105	0	318	102	0	318	100	0
829	895	278	13	880	284	21	866	283	20	873	280	20
830	1138	391	265	1254	406	207	1381	443	198	1459	460	190
831	4923	1906	1055	5248	1975	1195	5201	1942	1192	5191	1916	1201
832	2302	642	116	2328	667	120	2449	793	131	2560	810	140
833	1607	443	13	1628	491	13	1740	553	16	1815	570	20
834	2303	789	14	2384	819	48	2706	897	53	2974	910	60
835	3057	886	238	3117	1000	193	3218	1012	206	3335	1030	220
836	1419	546	218	1624	614	467	2112	740	500	2609	830	530
837	230	113	84	496	156	126	756	240	156	1135	360	200
838	3246	977	841	3124	1006	1019	3887	1160	1016	4271	1230	1021
839	3634	1094	140	3842	1112	209	4112	1330	218	4342	1390	230
840	843	433	3300	920	440	3396	1017	458	3382	1040	460	3402
841	4	2	265	18	7	895	27	10	1094	26	10	1231
842	0	0	58	48	18	185	204	81	371	456	180	640
843	0	0	321	124	48	647	519	206	938	1162	460	1261
844	881	314	922	2053	750	3827	3578	1400	4923	4102	1620	5963
845	7	3	59	691	292	1607	2054	781	2913	3285	1260	4172
846	18	9	5	213	9	778	213	9	1247	1009	460	1701
850	14	4	0	315	4	339	315	4	620	1304	510	890
851	0	0	88	0	0	93	0	0	96	0	0	100
854	0	0	634	0	0	858	0	0	840	0	0	830
1070	7	3	3063	3	1	3913	1	1	3899	0	0	3922
1071	263	105	513	315	118	535	331	124	535	352	130	540
1072	139	57	2314	193	64	2009	176	61	2089	165	60	2201
1073	7	4	962	67	16	781	130	30	782	223	90	790
1074	1254	405	1258	1296	456	1215	1502	505	1212	1631	560	1221
1075	5007	1758	1842	5281	1812	1876	5268	1835	1870	5198	1811	1881
1076	6103	2091	652	6134	2135	707	6065	2210	783	6141	2281	870

	2010 Census			2020 Forecasts			2030 Forecasts			2040 Forecasts		
CURRENT TAZ	**POP2010**	**HH2010**	**EMP2010**	**POP2020**	**HH2020**	**EMP2020**	**POP2030**	**HH2030**	**EMP2030**	**POP2040**	**HH2040**	**EMP2040**
1077	2825	1347	374	3583	1415	496	3987	1621	506	4236	1720	520
1078	1776	603	1375	1839	618	975	1787	620	999	1781	610	932
1079	4090	1545	126	4208	1683	122	4262	1602	119	4230	1580	120
1080	3097	875	943	3002	990	961	3155	1032	956	3353	1110	961
1081	4796	1480	133	4936	1582	161	4926	1519	160	4952	1500	160
1082	655	195	67	660	205	71	648	202	70	655	200	70
1083	1822	585	45	1888	600	56	1872	606	38	1890	600	40
1084	1563	624	139	1898	640	67	1939	641	85	1978	630	110
1085	1096	332	140	1137	347	84	1177	375	86	1225	400	90
1086	1679	606	65	1953	644	85	2057	697	87	2292	760	90
1087	2554	890	145	2679	912	190	2615	921	147	2619	910	110
1090	361	187	108	510	208	68	515	216	64	517	220	60
1111	5039	1687	861	5189	1840	810	5149	1908	807	5179	1981	810
1112	3443	1438	286	4184	1735	490	4343	1734	488	4577	1811	490
1113	1386	480	25	1440	496	185	1422	496	188	1440	490	190
2040 Land Use Plan Totals	**75,781**	**26,229**	**24,085**	**83,000**	**28,720**	**32,100**	**90,000**	**31,400**	**36,100**	**97,900**	**34,300**	**40,200**
Met Council Growth Allocation	**7581**	**26229**	**24085**	**83,000**	**28,720**	**32,100**	**90,000**	**31,400**	**36,100**	**97,900**	**34,300**	**40,200**

5.3.11 Forecasts

Appendix A, May 16, 2018 Memorandum from SRF Consulting Group, Inc., describes additional traffic modeling process, socio-economic assumptions, roadway network assumptions, resulting 2040 forecasts, existing roadway deficiencies, expected 2040 roadway deficiencies and recommended roadway improvements. The City should continue to monitor traffic levels on their roads over time.

5.3.12 Recommended (Programmed) Roadway Improvements (by 2022)

The following roadway construction projects in Brooklyn Park have been programmed or funded, at least partially, through the City's Capital Improvement Plan (CIP), the Hennepin County Capital Improvement Plan, and/or MNDOT's State Transportation Improvement Program (STIP).

TH 169/101st Avenue Interchange. This project is in the City's CIP and the STIP for a 2020/2021 construction. It will include a full land access interchange (folded diamond to the north) with auxiliary lanes along TH 169 between TH 610 and the proposed interchange. The project will also improve 101st Avenue to a four-lane divided facility (west of the west ramp terminal to Xylon Avenue) and a three lane urban facility from west of the west ramp terminal to Jefferson Highway. There would be multi-purpose trails along both sides of 101st Avenue and the south side of the interchange bridge.

West Broadway (CSAH 130/103) from 71st Ave. to north of Oak Grove Parkway. This project is included in both the Hennepin County and City CIP's and is part of the upgrade to allow for the Blue Line Extension Light Rail Transit (BLRT) project to run up the median of West Broadway between 75th and 94th Avenues. This project is currently slated to start construction in 2019. The project would reconstruct West Broadway to a four-lane divided urban facility with exclusive left turning lanes and trails along both sides. The segment of West Broadway (CSAH 103) between TH 610 and the Rush Creek Regional Trail would be realigned to the east. The segment of West Broadway between 71st and 74th Avenues will be reconstructed to an urban 3 lane facility.

93rd Avenue (CSAH 30) Reconstruction. The segment of 93rd Avenue between Xylon Avenue and Louisiana Avenue will be upgraded to a four-lane divided urban roadway with exclusive left and right turn lanes and trails along both sides in the 2019-2021 timeframe coincident to the BLRT Project. This project is in both the City and County CIP's.

Brooklyn Boulevard from Shingle Creek to east of CSAH 103. This segment of Brooklyn Boulevard (CSAH 152/CSAH 130) will be reconstructed to a urban four lane divided facility with turn lanes and trails along both sides in the 2019-2021 timeframe coincident to the BLRT Project. This project is in both the City and County CIP's.

Bottineau Boulevard (CSAH 81) between 71st and 83rd Avenues. This segment of CSAH 81 will be reconstructed to an urban 6 lane roadway with exclusive turning lanes in 2019/2020. The project will also extend the Crystal Lake Regional Trail along the east side of CSAH 81 to 85th Avenue. This project is in the City and County CIP's.

73rd Avenue (CSAH 81 to CSAH 130). This segment will be reconstructed to an urban 3 lane roadway in the 2019-2021 time period coincident to the BLRT Project. This project is in the City's CIP.

Oak Grove Parkway / 101st Avenue. Oak Grove Parkway will be realigned to match into 101st Avenue to the west of West Broadway (CSAH 103) and will be constructed as a four-lane divided urban roadway with turn lanes and trails on both sides. This is slated to occur in the 2019-2021 time period coincident to the BLRT Project. The project is in the City's CIP.

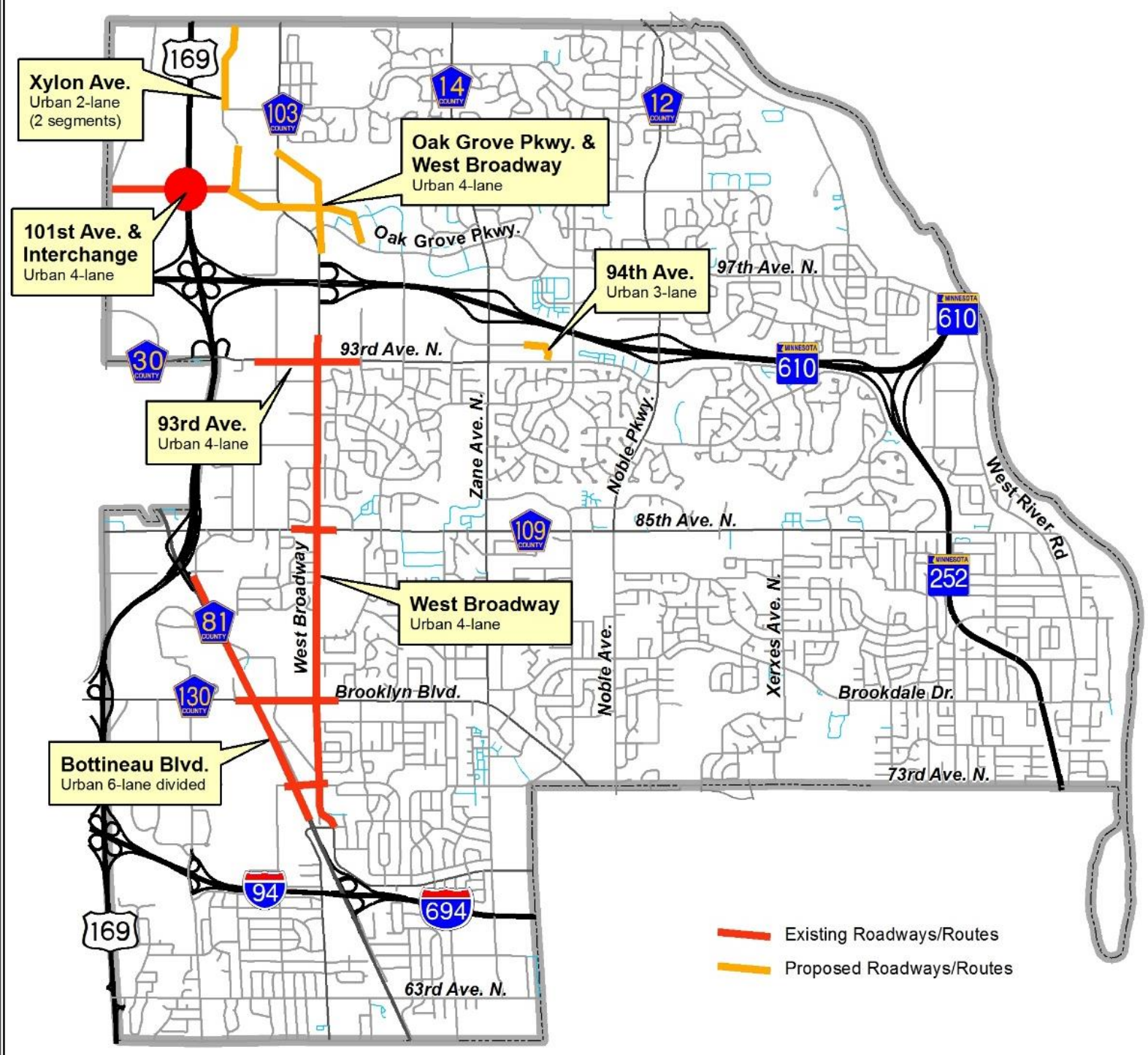
Xylon Avenue. The existing segment of Xylon Avenue from Oxbow Creek Drive to the Rush Creek Regional Trail will be extended to both the north to 109th Avenue within the next five years and to the south to 101st Avenue in the 2019-2021 timeframe coincident to the BLRT Project. The roadway will be a two lane Major Collector type facility with trails on both sides and would include a grade separation of the Rush Creek Regional Trail. These projects are in the City's CIP.

94th Avenue Connection to 93rd Avenue. The existing segment of 94th Avenue to the east of Zane Avenue (CSAH 14) will be extended to the east and then south to connect to 93rd Avenue. This project is slated to occur in the 2018/2019 timeframe and will be constructed as an urban 3 lane Major Collector facility by the pending development.

Figure 5.3.13

Recommended (Programmed) Roadway Improvements (by 2022)

March 2018



Sources: MNDOT STIP,
Hennepin County CIP,
City of Brooklyn Park CIP

5.3.13 Recommended (Planned) Roadway Improvements (by 2040)

HIGHER PRIORITY

TH 252 Conversion to Freeway. The city is currently working with the City of Brooklyn Center, MnDOT, Hennepin County, FHWA and the Metropolitan Council on a study to determine the preferred option for converting TH 252 from TH 610 to I-94 to a 6-lane freeway. This project may include managed (MnPASS) lanes and be extended along I-94 to Dowling Avenue. The City of Brooklyn Center has received funding and is planning to upgrade 66th Avenue to a full interchange and remove the signal at 70th Avenue in the 2021/2022 timeframe. This would leave four remaining signalized intersections. The safety and congestion issues along TH 252 are amongst the worst in the state. The preferred option for the remainder of TH 252, may include interchanges at 85th Avenue and Brookdale Drive and closures at 73rd Avenue and Humboldt Avenue/81st Avenue. If and when these locations are upgraded, the city would expect to upgrade 85th Avenue (restripe to 3 lane) to the east to West River Road and Brookdale Drive (restripe to 3 lane) to the west to Humboldt Avenue. In addition, pedestrian improvements consistent with the City's Pedestrian and Bicycle Plan will be required to provide good connections following reconstruction of the roadway." In 2018, this project was selected as a Corridors of Commerce Project and is budgeted at $163 million.

93rd Avenue (CSAH 30) Reconstruction from Louisiana Ave to Zane Ave. This segment is planned to be upgraded to a four-lane divided facility with turn lanes and trails along both sides by both the City and County. It is not currently in either CIP but is expected to be included in both soon. There are several undeveloped sites along this segment of CSAH 30 and to the east and west of this segment that are anticipated to develop soon. This segment serves as a reliever route to TH 610, which is currently experiencing noticeable congestion during the peak periods. The total cost of this upgrade is expected to be in the $10-15 million range.

93rd Avenue Reconstruction from Zane Ave. to Regent Ave. This segment of 93rd Avenue is owned by the city and is just now experiencing adjacent development. The programmed extension of 94th Avenue down to 93rd Avenue in this segment and the pending turn restrictions at Zane Ave/94th Avenue when coupled with this development are expected to warrant the reconstruction of this segment to a 3-lane urban Major Collector roadway with trails along both sides. The timing of this construction may be coordinated with the segment of county owned 93rd Avenue to the immediate west. The total cost of this upgrade is expected to be approximately $2 million.

109th Avenue from Jefferson Hwy. to Winnetka Ave. 109th Avenue to the east of Winnetka Avenue was reconstructed to a 3-lane roadway in 2010 by the cities of

Brooklyn Park and Champlin. The segment between Jefferson Highway and Winnetka is currently being studied by the cities and the preferred option is a four-lane divided roadway with trails along both sides. This would include upgrading the geometry at the TH 169 intersection to add capacity. The total cost of this upgrade is expected to be in the $8-12 million range.

Winnetka Avenue (CSAH 103) from Regional Trail to 109th Ave. This segment of CSAH 103 is expected to be upgraded to a 3-lane urban roadway with trails along both sides by the city and county as development occurs in this area and after the completion of CSAH 103 to the immediate south. This project may include a grade separation of the Rush Creek Regional Trail. The total cost of this segment upgrade, including the grade separation, is roughly $4-7 million.

Candlewood Drive Extension. The area bounded by Brooklyn Boulevard / 85th Avenue/West Broadway Avenue and CSAH 81 does not have any collector roadways to help serve short and medium length trips to/from CSAH 81 and the businesses along this segment of CSAH 81 (Walmart, Menards, etc). As noted in the functional classification section of this study, collector type roadways should be provided approximately every ½ mile. The lack of collector roadways in this area results in more traffic demand and congestion and ultimately more cost to improve 85th Avenue, Brooklyn Boulevard, CSAH 81 and Lakeland Avenue. All of the Transportation Plans since 1993 have recommended the construction of this segment. The segment would be constructed as a 2 lane urban roadway connecting the West Broadway / Candlewood Drive intersection with the 79th Avenue / Jolly Lane intersection. The demand for this connection was proven when the Revive Church (7801 West Broadway) constructed their back driveway connecting to Jolly Lane. The public found this private route through the Church's parking lot and driveways onto West Broadway and Jolly Lane. The resulting use was so high that the church had to construct a gate to eliminate public use. The timing of the roadway construction will be development driven and paid for by the development through which the segment will bisect.

93rd Avenue (CSAH 30) from Decatur Dr. to Jefferson Hwy. This segment is currently planned to be reconstructed to a 3-lane roadway with trails along both sides. The segment serves three cities, Brooklyn Park to the north, Osseo to the south and Maple Grove to the northwest of Jefferson Highway. This project is included in the city and county CIP's as a provisional project. The project is expected to occur as the development of the Gateway site to the north continues over the next 5-10 years. The total cost of this improvement is expected to be approximately $2 million.

Xylon Avenue / 97th Avenue Extension to TH 610/West Broadway Int. This segment is currently planned as a 3-lane urban major collector type facility with

trails on both sides. It would connect the Oak Grove Parkway / Xylon Avenue intersection with the West Broadway / TH 610 Westbound Ramps intersection. This connection has been analyzed and approved by MnDOT and all other public agencies as part of the BLRT Project. The timing of the connection would be development driven and paid for by the adjacent development.

LOWER PRIORITY

West Broadway Avenue (CSAH 8) Reconstruction. The segment of CSAH 8 from the southern city boundary (62nd Avenue) to roughly 69th Avenue is expected to be upgraded to a 3-lane urban roadway with trails on both sides after the county transfers jurisdiction to the city. The total cost of this improvement is expected to be in the $4-7 million range.

68th / 69th Avenue (CSAH 130) Reconstruction. The segment of CSAH 130 from 71st Avenue (CSAH 8) to the south and east to the eastern city boundary with the City of Brooklyn Center is planned to be upgraded to a 2 or 3 lane urban roadway with trails on both sides after the county transfers jurisdiction to the city. The total cost of this improvement is expected to be in the $4-7 million range.

Noble Avenue Restripe to 3 Lane. The segment of Noble Avenue from 85th Avenue to the 73rd Avenue alignment (just south of Noble Court) is planned to be restriped to a 3-lane facility to increase traffic capacity and potentially reduce left turning crashes. The city should work with the City of Brooklyn Center to extend this improvement to Brooklyn Boulevard. The total cost of this improvement is expected to be approximately $100,000.

Xerxes Avenue / 74th Avenue / France Avenue Restripe to 3 Lane. The segment of Xerxes Avenue between 85th Avenue and Brookdale Drive is planned to be restriped to a 3-lane roadway for capacity reasons. The segment south along 74th Avenue and ending on France Avenue near 73rd Avenue should also be considered to help reduce left turning crashes. The total cost of this improvement is expected to be in the $100,000 – $150,000 range.

94th Avenue Extension to Hampshire Avenue. The segment of 94th Avenue between Colorado Avenue and Hampshire Avenue is expected to be constructed to a 2-lane urban collector facility with trails on both sides coincident to the development of this area and would be funded by the development.

Decatur Drive / 98th Avenue. The segment of Decatur Drive and 98th Avenue between Jefferson Highway and 101st Avenue is expected to be constructed to a 3-lane urban collector facility with trails on both sides coincident to the development of this area and would be funded by the development. The

intersection with 101st Avenue may align with the southbound ramps of the TH 169 / 101st Avenue interchange.

REQUIRES ADDITIONAL MULTI-AGENCY STUDY

TH 169 / CSAH 130 (Brooklyn Boulevard) Interchange and CSAH 130 Reconstruction. The City of Maple Grove is very interested in upgrading this interchange to help serve the Arbor Lakes Development Area to the immediate west. This would be a multi-agency endeavor and include MnDOT, Hennepin County and both cities. This would further require following the Metropolitan Council's Highway Interchange Request Criteria and Review Procedure outlined in the 2040 TPP. The schedule of this improvement is dependent upon acquiring significant funding from the state and/or federal governments. The expected total cost for the interchange is in the $30-40 million range. A secondary part of this project would be the reconstruction of CSAH 130 between Shingle Creek and TH 169 in Brooklyn Park to a four-lane divided roadway with trails along both sides. This would be a city / county project. The expected total cost for the CSAH 130 roadway portion is approximately $10-15 million.

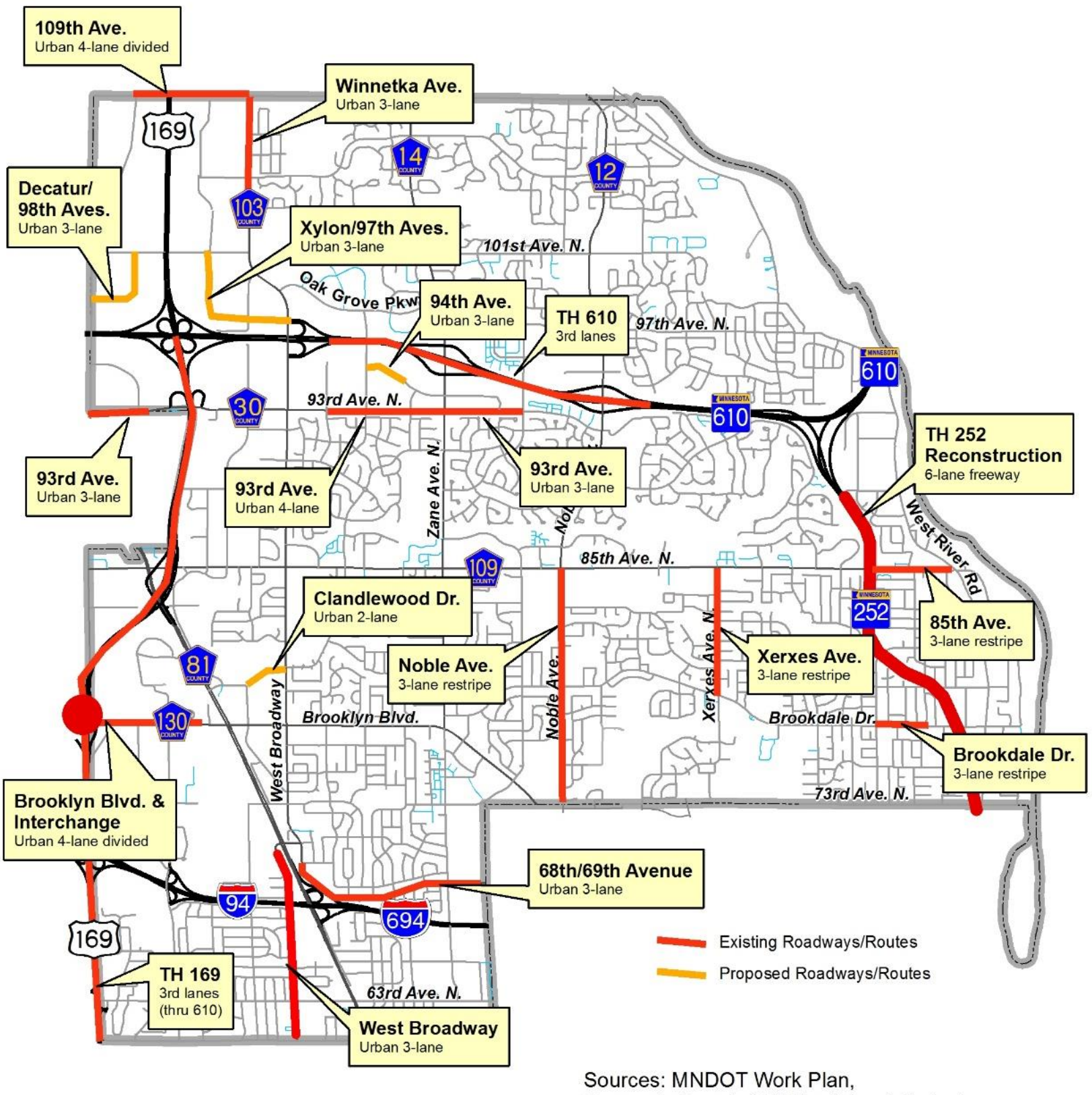
TH 169 3rd Lanes (62nd Ave. to TH 610). The need for additional lanes along TH 169 through the western portion of the metro area is recognized as a need but the funding for this upgrade is cost prohibitive. Added lanes are currently not in the TPP's Current Revenue Scenario or the Increased Revenue Scenario. Currently, this project does not have any funding. The city should work with MnDOT and the other communities along the corridor to study the options for improving the short and long-range traffic demands and ultimately finding funding for adding additional capacity to TH 169 between 62nd Avenue and TH 610. This is likely to include providing for the additional lane as interchanges along the corridor are reconstructed and continued implementation of management options.

TH 610 3rd Lanes (Noble Pkwy to West Broadway). The existing traffic demands along this segment have grown significantly since TH 610 was extended to I-94. These demands are expected to continue to grow as this corridor develops in Brooklyn Park and as additional connections are provided for the TH 610 / I-94 / CSAH 610 area in Maple Grove. The forecast 2040 demands along this segment are well above the current 4 lane freeway capacity and warrant additional (3rd through) lanes eastbound and westbound on TH 610. The original construction of the interchanges allows for this to occur. The city should work with MnDOT and other municipalities along TH 610 within the next five years to conduct a corridor study to determine the appropriate short and long-term options to adequately service the forecast traffic demands. This should include potential implementation of intelligent transportation systems (CCTV cameras, changeable message signs, Highway Helper vehicles, etc.) along the TH 610 corridor within the city.

Figure 5.3.14

Recommended (Planned) Roadway Improvements (by 2040)

March 2018



Sources: MNDOT Work Plan,
Hennepin County CIP Provisional Projects,
City of Brooklyn Park CIP provisional projects.

5.3.14 Jurisdictional Transfers

West Broadway (CSAH 8). West Broadway from the southern City limits to Bottineau Boulevard is a two-lane rural section roadway surrounded by an established residential neighborhood south of I-94 and business uses north of I-94. Pedestrian facilities are limited to two blocks along the south end of the roadway. The county identified this roadway as a possible turn-back to the City due to the proximity to parallel County Road 81 (Bottineau Boulevard).

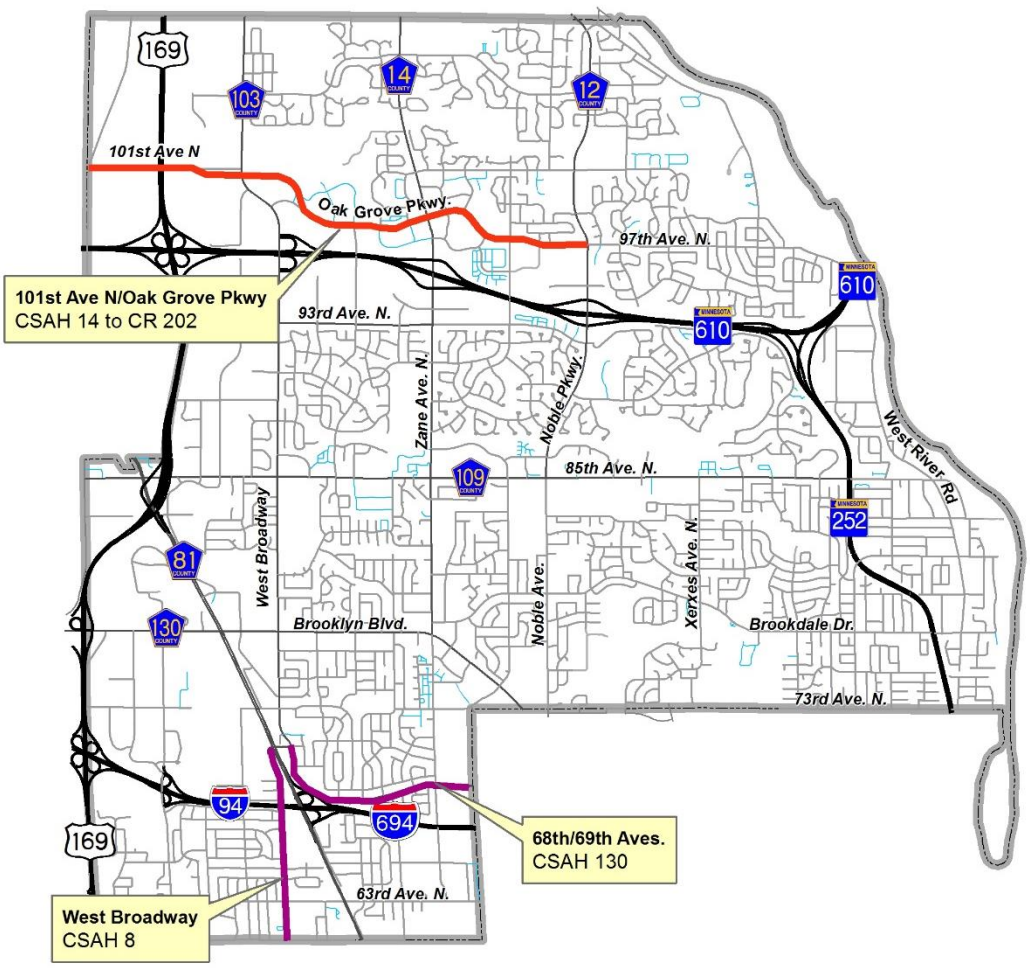
68th/69th/Lakeland Avenues (CSAH 130). This roadway is predominately a two-lane rural section roadway. A four-lane urban section roadway ties into West Broadway near the intersection with 71st Avenue. Traffic is expected to remain constant along this roadway over the next twenty years with about 6,500 vehicles per day. The county identified this roadway as a possible turn-back to the City due to its low volume of traffic.

101st Avenue / Oak Grove Parkway. This future roadway with interchange at TH 169 will service as a northern backage road for TH 610 similar to CSAH 30 to the south of TH 610. Its projected volumes and function would warrant a County Road designation between Jefferson Highway and Noble Parkway.

Figure 5.3.14

Recommended Roadway Jurisdictional Transfers

March 2018



5.3.15 Roadway Design

The proposed network for parkway roads is a central component of the City's effort to promote high quality development that has lasting value. The 2000 Northern Area Master Plan proposed that several arterial and collector roads be built or improved as "parkways" or "greenways" which means generous landscaping on the sides and possibly the median. This plan will continue to promote constructing/reconstructing roadways in this manner

It has been found that public investments in roadway landscaping, parks, and similar amenities leads to higher initial private investment and better growth in values over time. Public investments such as these are a more powerful inducement than larger minimum lot sizes in encouraging housing investments and upgrades. The cost to the City of these improvements will be returned through higher property taxes, better quality of life in the neighborhoods, and in an improved community image.

This plan encourages parkway treatments be applied to Major Collector and A- and B-Minor Arterial roadways. Shoebox LED lighting should be used as well as burying all overhead utilities to the fullest extent possible.

These higher levels of design require higher levels of maintenance and care. This increased level of service needs to be included in annual budgets.

Table 5.3.17 Roadway Design Guidelines for New Construction or Reconstructed Roadways

	Major Collectors	**B-Minor Arterials**	**A-Minor Arterials**
Sidewalks*	East/South Side. However, trail preferred on at least one side.	East/South Side. However, trails preferred on both sides.	None. Trails preferred.
Trails*	Both sides, if possible and R/W avail.	Both sides, if possible and R/W avail.	Both sides
On-Street Bike Lanes	If conditions meet State Aid guidelines and R/W avail.	If conditions meet State Aid guidelines and R/W avail.	None
Trees & Shrubs**	In Boulevards	In Boulevards & Medians, if feasible	In Boulevards and Medians, if feasible
Parking	Generally Allowed	None	None

** Reference Potential Sidewalk and Trail Network (Figure 5.5.6) for location specifics.*
***Landscaping placed in locations not detrimental to vehicle and pedestrian safety.*

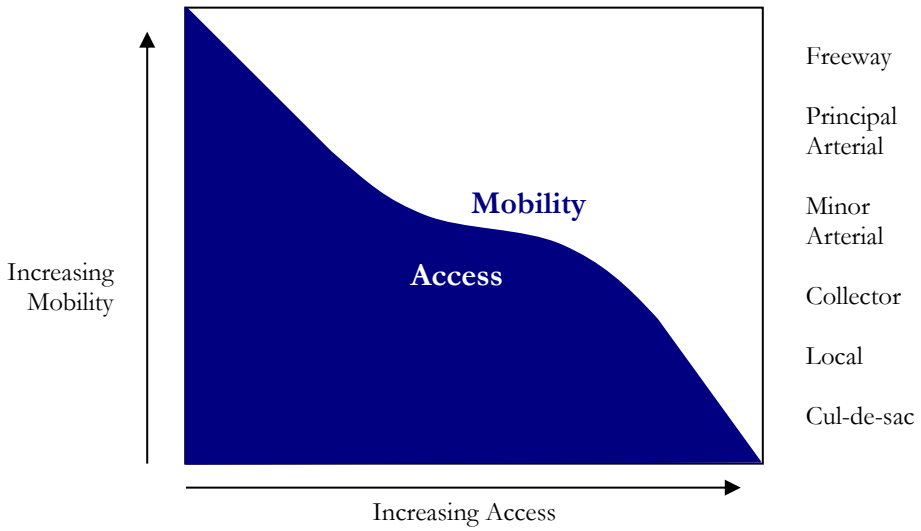
Gateways. Section 7.4.2 introduces gateways as a decorative element welcoming people to the community. These elements would be located either adjacent to a roadway or in a median island. The city should consider working with Hennepin County through their Roadside Enhancement Partnership Program (REPP) to provide gateway elements at selected locations along county roadways entering the community.

5.3.16 Access and Corridor Protection

Access guidelines are important because they define a starting point for balancing property access, safety, and mobility concerns. Routes that provide higher mobility functions (ie. arterials) have less access and those that have a high amount of access (locals) will have lower mobility (see Figure 5.3.16A below). A major purpose of relating

access control to roadway purpose is to protect continuous routes and important corridors to the extent possible and to prevent undue restriction of access to local and minor collector routes where access is appropriate. Adequate access control on routes designed to provide mobility prevents the need for expending additional public funds to acquire new rights-of-way and establish new corridors as existing corridors become congested or develop safety problems. On the other hand, excessive protection or acquisition of access along local or urban collector facilities adversely affects potential development and could result in inappropriate expenditures for access control.

Figure 5.3.16: Access versus Mobility



Transportation agencies regularly receive requests for additional access (new public streets, commercial or residential driveways) and these requests may be evaluated by different agencies, planning commissions, and engineering staff. Because of the number of individuals and agencies involved, it is easy to have inconsistent application of access controls and differing viewpoints on the need for access restrictions. This often results in confusion, frustration, and disagreements between agencies, developers, and property owners and can lead to inconsistent and undesirable access spacing and strained relationships, therefore, an essential element to developing a successful access plan is to have published guidelines. Standard access guidelines can be used to improve communication between agencies, landowners, and developers. This will also establish initial expectations for access spacing on higher-level routes and promote consistent access practices between agencies.

Key in controlling access is to understand how some control over access locations is lost early in the process. This begins during the formation of the individual parcels. The City's subdivision requirements are structured to allow for review of all proposed access points on the newly created parcels. Appeal of the regulations may be sought at the Planning Commission or City Council levels of review and are sometimes granted based on specific hardships.

Hennepin County and Mn/DOT must provide reasonable access to each parcel (cannot land-lock parcels or restrict unreasonably unless access rights have been purchased). Reasonable access has been shown by the courts to include a right-in/right-out access or a single-point access. Mn/DOT can also encourage access changes through comments to local governmental units on plats. In addition, they may control the location of the access on the parcel through its driveway access permitting process. Cities and counties may control access though zoning and land subdivision regulations and other review procedures and processes. Methods for controlling access include access points per land parcel and distance between access points, however, counties, like Mn/DOT, are required to provide reasonable access to each parcel unless an alternative, indirect access is available. Alternative access locations normally require advanced planning.

Access to the arterial and major collector streets is of primary concern since these facilities typically carry the highest volumes and have the highest traffic speeds. Long-term impacts of poor access management on these facilities include erosion of roadway capacity and increased safety problems.

It is estimated that under average conditions, the capacity of a four-lane arterial or major collector street with a 45-mile-per-hour speed limit will be reduced by over one percent for every two percent of the traffic that turns between the right lane and driveways at unsignalized driveway locations. For example, if a street carries 1,200 vehicles per hour in a direction and 120 turn into driveways and 120 turn out of driveways per mile (twenty percent turns), then the capacity in that direction will be reduced by ten percent. Currently, over thirty percent of the traffic along arterial or major collector routes with strip commercial development may turn to and from driveways. As the level of design of the driveway is increased (allowing turns to be made at higher speeds), the capacity loss is reduced, thus it is undesirable to limit driveways to a minimum number with design for higher speeds.

Access Policies

In addition to the impact access points have on roadway capacity, they also introduce conflicting traffic movements which affect roadway safety. Providing access control in some form—whether it is through grade-separated crossings, frontage roads, or right-in/right-out entrances and exits—reduces the number of conflicts and increases safety. A number of studies have demonstrated a relation between the number of full access points and the number of accidents, including the Federal Highway Administration (FHWA) Access Research Report Number FHWA-RD-91-044. Generally, as the frequency of access points increase, so does the crash rate. In addition, a study of accidents in suburban areas has indicated that over eleven percent of all accidents on major streets in municipalities involved driveway maneuvers; hence, it is in the public's best interest to have the following policies:

1. Alignment of new accesses with other existing access points;

2. Adequate spacing of access points to separate and reduce conflicts;
3. Indirect access, rather than direct access, on high-speed, high-volume arterial routes; and
4. Adequate right or left turn lanes.

Access Standards

The first step in encouraging better access management is to have a set of consistent access standards that all agencies and private developers can use. Consistent standards have been developed for urban arterial and collector roads (see Table 5.3.16A). The implementation of the guidelines can be achieved through a number of different methods, such as land use regulations, subdivision regulations, access permit processes, and access/transportation advisory committees. These processes should be developed so that they can deal with situations that either are outside the guidelines or are hardship cases.

In existing corridors where significant development has occurred, the number of existing access points is likely to exceed the access guidelines. Unless these areas are undergoing significant redevelopment, their access must be addressed or approached differently. It is recommended that these corridors minimize any new access locations while consolidating and/or reducing existing access as redevelopment occurs.

It is important to consider the following points when reviewing the guidelines and addressing access issues:

- The guidelines apply primarily to routes with an arterial and major collector functional classification; however, the guidelines may also be used on other collector streets;
- The guidelines will not cover every access situation;
- Volumes in Table 5.3.16A refer to 2040 forecast volumes;
- Guidelines should be used as long-term goals, not absolute rules;
- Maintaining some flexibility is important in promoting access consolidation;
- Approach to implementation is an important as the guidelines themselves; and
- Existing physical barriers or constraints need to be considered when considering spacing requirements.

In addition to the proposed access spacing guidelines outlined in Table 5.3.16A and with the significant number of new routes proposed in northern Brooklyn Park, the following eight additional access planning principles should be considered when reviewing proposed improvements. These planning principles encourage agencies to look at the overall transportation system and the potential future improvements that could affect the area and individual development or access that is being proposed. Table 5.3.16B

presents urban driveway access spacing guidelines that also abide by the following principles:

1. Encourage shared driveways and internal circulation plans. If indirect access cannot be achieved during plat reviews, promote internal site circulation using shared access points.

2. Restrict turning movements to reduce conflicts. If access locations cannot be eliminated, consider turning movement restrictions (left-in only, right-in/right-out only) though channelization, such as installation of a raised median or signing. Eliminating a single turning movement can significantly reduce vehicle conflicts and potential accidents.

3. Develop parallel street systems for carrying local traffic. Ensure that important arterial routes have a good parallel street system to provide the local access function and to carry shorter local trips.

4. Develop proper setbacks for future frontage or backage roads. If frontage roads cannot be justified (benefits do not outweigh costs), ensure that proper building and parking lot setbacks are established so that future frontage or backage roads can be installed with minimal impacts.

5. Develop proper secondary street spacing. When reviewing plats and proposals for new development, ensure that they provide proper intersection spacing for future traffic signals. As a guideline, signalized intersection should be limited to through streets with spacing between one-quarter mile and two-thirds mile, depending upon the type of street. Collector streets should provide some continuity and connectivity with other street systems (see Table 5.3.16A).

6. Encourage proper lot layout to minimize access points. Promote direct residential access points onto local routes, not arterial or major collectors. Direct residential access off arterial or collector routes can result in complaints when traffic volumes increase.

7. Encourage connectivity between development. Individual developments should align streets to provide access to existing developments or reserve right-of-way to provide for future connections to adjacent developments. This promotes neighborhood connectivity, good emergency services, and more efficient travel for mail, garbage, and bus service, as well as street maintenance.

8. Consider official map process for important corridors. Important arterial corridors of future interchange areas that are located in development-

prone areas can be protected through an official mapping process. The City should revise its zoning ordinances and subdivision regulations to provide for dedication of officially mapped corridors at the time of platting.

Table 5.3.16A: Urban Public Street Spacing Guidelines (Speeds Less Than 45 mph)

Type of Public Access Requested	Type of Roadway and Average Daily Traffic Affected by Access[1][9]					
	Controlled Access Arterial Freeway	Multi-Lane Divided Arterial or collector Over 10,000	Multi-Lane Undivided Arterial or Collector 8,000-25,000	Two-Lane Arterial or Collector 3,000-10,000	Two-Lane Arterial Less than 3,000	Two-Lane Collector or Local Roads Less than 3,000
Local: Low-Volume, Non-Continuous Streets[2][3]	No Direct Access	¼-mile spacing with no median opening[4]	¼-mile spacing[6][7] with turn lanes	1/8-mile spacing[7] with turn lanes	1/8-mile spacing[7]	1/16-mile spacing
Local: Medium-Volume, Non-continuous Streets[2][3]	No Direct Access	½-mile spacing with signals and turn lanes[5]	¼-mile spacing[6] with signals and turn lanes	¼-mile spacing[7] with turn lanes	1/8-mile spacing with turn lanes	1/8-mile spacing with turn lanes
Collector: Low- and Medium-Volume Through Streets[2]	No Direct Access	½-mile spacing with signals and turn lanes[5]	¼-mile spacing with signals and turn lanes	¼-mile spacing with signals and turn lanes	¼-mile spacing with turn lanes	1/8-mile spacing with turn lanes
Collector and Arterial: High-Volume Through Streets[2]	1-mile spacing (interchange)	½-mile spacing with signals and turn lanes	½-mile spacing with signals and turn lanes	½-mile spacing with signals and turn lanes	¼-mile spacing with signals and turn lanes	¼-mile spacing with signals and turn lanes
Arterial: High-Volume Streets and Expressways[2]	1- to 2- mile spacing (interchange)	1-mile spacing with signals and turn lanes	1-mile spacing with signals and turn lanes	1-mile spacing with signals and turn lanes	1-mile spacing with signals and turn lanes	½-mile spacing with signals and turn lanes

Notes:

1 The urban access guidelines are applicable to Mn/Dot, County, and City roads. Shaded areas are guidelines that may be modifies (see below).

2 All volumes represent 20-year forecasts. "Low-Volume" denotes fewer than 3,000 vehicles per day. "Medium-Volume" denotes between 3,000 and 8,000 vehicles per day. "high-Volume" denotes more than 8,000 vehicles per day.

3 Non-continuous streets refer to cul-de-sac or short local streets (less than half-mile) which do not necessary cross the roadway in question.

4 Additional Access may be permitted in the form of right-in/right-out if the corridor extends through a mature area or if the facility is under the jurisdiction of the County or City. These areas should be evaluated on an individual basis.

5 For four-lane County or City roads, the guidelines may be relaxed to ¼-mile spacing.

6 When retrofitting an existing corridor, direct access may be permitted after considering turning conflicts, speed, accident history, and capacity issues.

7 Continuous left-turn lanes or a raised median with left-turn lanes may be considered if retrofitting an existing corridor and access guidelines cannot be achieved.

8 Property access off of an arterial street should be minimized

9 All access locations should have adequate stopping sight distance, drainage, spacing from adjacent access and alignment.

Table 5.3.16B: Urban Private Driveway Access Spacing Guidelines For New Developments, Redevelopment of Existing Areas, and Changes in Land Use

Street with proposed driveway	Nearest Intersecting Street[e][f][g]					Minimum Spacing Between Adjacent Driveways
	Local Street	Minor Collector	Major Collector[d]	Minor Arterial[c][d]		
				Low Density	High Density	
Local Street						
Private residential[b]	40 ft	40 ft	50 ft	50 ft	50 ft	40 ft
Individual Commercial/Multi-Family	50 ft	50 ft	90 ft	90 ft	90 ft	50 ft
Multiple Commercial	90 ft	90 ft	125 ft	125 ft	125 ft	100 ft
Minor Collector						
Private residential[b]	40 ft	40 ft	50 ft	50 ft	50 ft	40 ft
Individual Commercial/Multi-Family	50 ft	50 ft	90 ft	90 ft	90 ft	50 ft
Multiple Commercial	90 ft	90 ft	125 ft	125 ft	125 ft	100 ft
Major Collector[d][e]						
Private residential[b]	Not Permitted	Not Permitted	Not Permitted	Not Permitted	Not Permitted	Not Permitted
Individual Commercial/Multi-Family	90 ft	90 ft	220 ft	220 ft	220 ft	200 ft[h]
Multiple Commercial	125 ft	125 ft	220 ft	220 ft	220 ft	200 ft[h]
Minor Arterial (Low Density)[c][d]						
Private residential[b]	Not Permitted	Not Permitted	Not Permitted	Not Permitted	Not Permitted	Not Permitted
Individual Commercial/Multi-Family	Not Permitted	Not Permitted	Not Permitted	660 ft	660 ft	230 ft[i]
Multiple Commercial	Not Permitted	Not Permitted	Not Permitted	660 ft	660 ft	230 ft[i]
Minor Arterial (High Density)[c][d]						
Private residential[b]	Not Permitted	Not Permitted	Not Permitted	Not Permitted	Not Permitted	Not Permitted
Individual Commercial/Multi-Family	Not Permitted	Not Permitted	Not Permitted	Not Permitted	Not Permitted	230 ft[i]
Multiple Commercial	Not Permitted	Not Permitted	Not Permitted	Not Permitted	660 ft	230 ft[i]

General Comments:

1. Areas marked "Not Permitted" indicate that:
   a. Direct access to private residential uses should be prohibited on major collectors and arterials, and
   b. When direct access is requested for higher intensity land uses (individual commercial/multi-family residential, multiple commercial) and intersecting streets are of different functional classifications, access should be granted from the street with the lower functional classification.
2. The "Minimum Driveway Distance From Intersecting Street" guidelines refer to full access driveways. Driveways may be located within these minimum distances, but must be approved by the City Engineer and should be limited to right turns into and out of the property.
3. Access will not be permitted onto streets within right-turn lanes or taper areas.
4. The City Engineer reserves the right to review and adjust these guidelines on an individual basis. Departure from the guidelines may be approved by the City Engineer.

Notes:

a Maximum curb cut width is 24 feet unless specific site plan (Internal Design and Access Review) is approved by the City Engineer.

b Private Residential includes single-family, two-family, townhome, quadraminium, and manor home dwellings.

c Apply specific design criteria.

d Driveways onto arterials and major collectors should be prohibited if possible. If driveways cannot be prohibited, the number of driveways onto arterials and Major collectors should be minimized.

e If the nearest intersecting street is a signalized Minor collector, driveways may be located less than 125 feet from the corner, but access should be limited to right turns into and out of the property.

f If the nearest intersecting street is a signalized Major collector, driveways may be located less than 220 feet from the corner, but access should be limited to right turns into and out of the property.

g If the nearest intersecting street is a signalized minor arterial, driveways may be located less than 660 feet (low density) or 1,320 feet (high density) from the corner, but access should be limited to right turns into and out of the property.

h Assumes a speed of 40 mph.

i Assumes a speed of 45 mph.

5.3.17 Freight

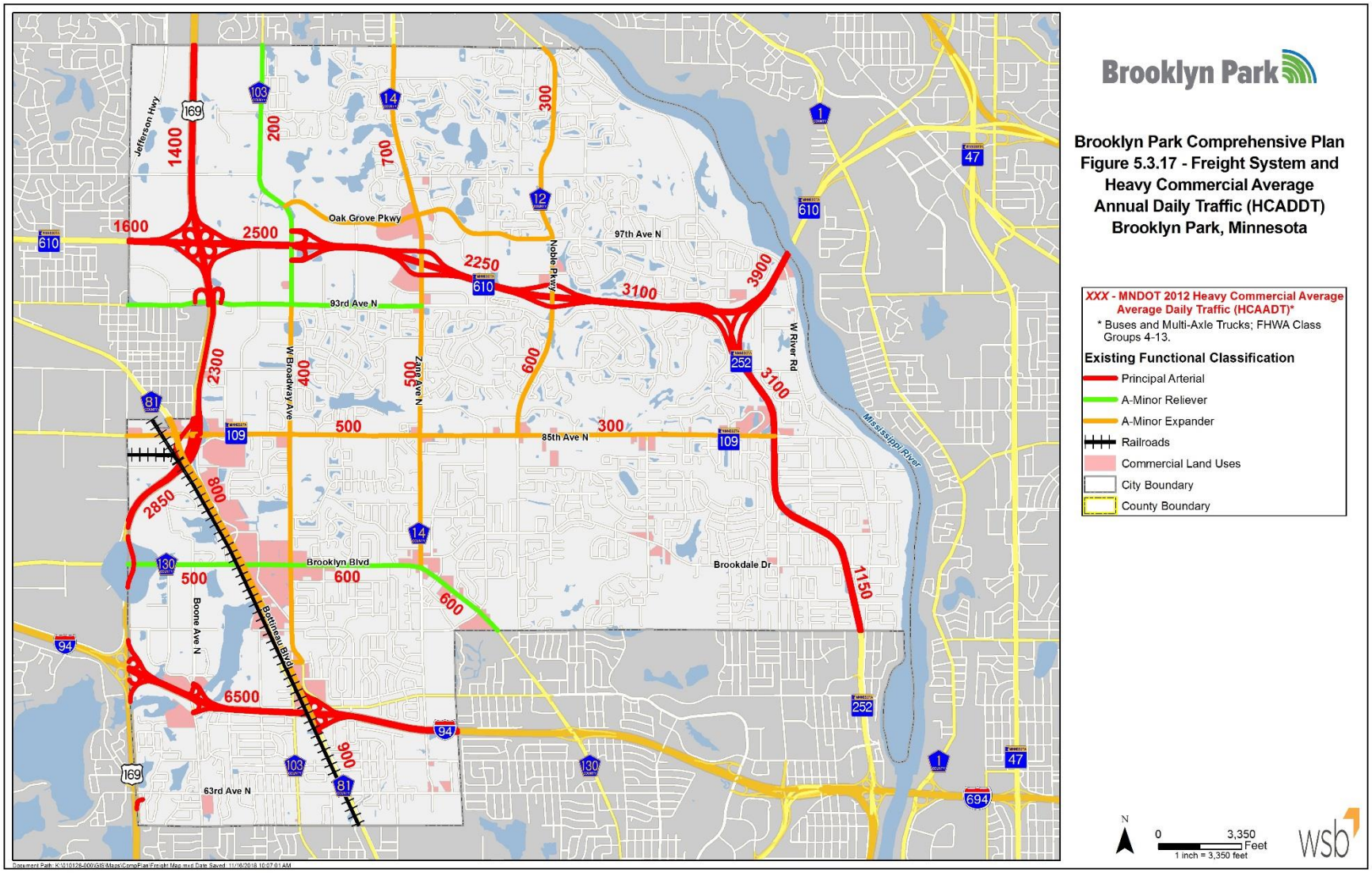
Freight transportation in Brooklyn Park is primarily served by TH 610, TH 169, TH 252 and I-94. The Burlington Northern Santa Fe Railway (BNSF) crosses through Brooklyn Park along County Road 81. BNSF is a major freight terminal and provides service to Minnesota and parts of Western Wisconsin. **Figure 5.3.17** shows the city's freight system network.

Within Brooklyn Park, BNSF has safe railroad crossings at the railroad and roadway intersections. Key crossing intersections are located along the BNSF railroad at W. Broadway Avenue, 73rd Ave N, and CSAH 130.

There are several commercial nodes located within Brooklyn Park. The greatest concentration of commercial activity is along TH 81 between I-94 and 85th Ave N. There are also several industrial areas located within the city, including west of W. Broadway Avenue and south of TH 81.

Figure 5.3.17 shows the Heavy Commercial Average Daily Traffic (HCADT) on arterial roadways within Brooklyn Park. I-94 carries the largest volume of truck trips in the city at 6,500 heavy commercial vehicles per day. TH 610 carries between 1,600 – 3,900 truck trips and parts of TH 252 carry over 3,000 truck trips per day.

The Metropolitan Council 2040 TPP acknowledges several freight challenges that impact the city and the region. Freight traffic and congestion are expected to increase and place pressure on the region's highway and rail systems. Additionally, there are concerns about compatibility between freight traffic and adjacent land use. While land uses adjacent to the city's primary freight routes are generally compatible, it will be important to ensure that future development is also compatible with freight operations.


Brooklyn Park
Brooklyn Park Comprehensive Plan
Figure 5.3.17 - Freight System and Heavy Commercial Average Annual Daily Traffic (HCADDT)
Brooklyn Park, Minnesota
XXX - MNDOT 2012 Heavy Commercial Average Average Daily Traffic (HCAADT)*
* Buses and Multi-Axle Trucks; FHWA Class Groups 4-13.
Existing Functional Classification
Principal Arterial
A-Minor Reliever
A-Minor Expander
Railroads
Commercial Land Uses
City Boundary
County Boundary
Jefferson Hwy
Oak Grove Pkwy
97th Ave N
93rd Ave N
Noble Pkwy
W Broadway Ave
Zane Ave N
85th Ave N
W River Rd
Mississippi River
Brooklyn Blvd
Brookdale Dr
Boone Ave N
Bottineau Blvd
63rd Ave N
1400
1600
2500
2250
3100
3900
2300
400
500
300
600
700
200
2850
800
1150
6500
900
N
0
3,350
Feet
1 inch = 3,350 feet
wsb

5.3.18 Complete Streets

Even though the city does not have a formally adopted Complete Streets Policy, the city is committed to develop and maintain a safe, efficient, balanced and environmentally sound transportation system and to support active living – integrated physical activity through activities such as walking, biking and taking transit. The city will enhance safety, mobility, accessibility and convenience for all transportation users including pedestrians, bicyclists, transit riders, motorists, commercial and emergency vehicles and for people of all ages and abilities by planning, designing, operating and maintaining a network of complete streets. The city will implement complete streets in such a way that the character of the project area, the values of the community, and the needs of all users are fully considered. Developing complete streets will be a priority on all corridors, and every transportation and development project will be treated as an opportunity to make improvements. The city will work with MnDOT, Hennepin County and adjacent communities to meet these goals.

Applicable design standards and best practices will be followed in conjunction with construction, reconstruction, development or other roadway character changes. The implementation processes for all roadway and transitway corridors will:

- Involve the community and stakeholders
- Consider the function of the roadway.
- Integrate innovative and non-traditional design options.
- Consider transitway corridor alignment and station areas.
- Assess the current and future needs of the corridor users.
- Include documentation of efforts to accommodate all modes and users
- Incorporate a review of systems plans to identify complete streets opportunities.

The city will implement complete streets unless one of more of the following conditions are documented:

- The cost of providing complete streets elements is excessive in relation to total project cost.
- The city council disapproves or there is a lack of community support.
- There are safety risks that cannot be overcome.
- The corridor has severe topographic, environmental, historic or natural resource constraints.

5.3.19 Safety

Even more important than the goal of reducing roadway congestion is the goal of improving roadway safety. As with congestion reduction, Intelligent Transportation Systems (ITS) can have a strong role in improving safety. The state of Minnesota has a

federally required Strategic Highway Safety Plan which addresses the four E's of transportation safety – education, enforcement, engineering and emergency response.

The state's safety plan focuses on primary safety areas with the greatest promise to reduce crashes and serious injuries including:

- Speeding
- Young drivers
- Occupant Protection
- Impaired driving (includes texting, cell phone use, eating, etc)
- Roadway departure
- Intersections

Strategies to address several of the primary safety areas listed above will require extensive educational efforts and traffic enforcement. The focus of the recommendations contained within this Transportation Plan relate to physical roadway improvements to address congestion, speeding, roadway departure and intersections. The City Engineering Division conducts a bi-annual review of the recent crashes along the city's roadways and intersections. The most current review indicates that crashes have decreased significantly over the past decade within the city including:

- A reduction in total crashes of 27%
- A reduction in injury crashes of 28%
- A reduction in fatal crashes of 40%

These decreases are consistent with those of the state and have occurred even though the vehicle miles of travel within the city and state have increased.

The City is committed to continuing to work with other agencies and the private sector to refine existing and develop new strategies to address speeding, young drivers, occupant protection (including enforcement of seat belt laws), impaired driving, roadway departure, intersection safety and providing/obtaining good data.

5.3.20 Transportation Demand Management (TDM)

Transportation demand management, traffic demand management or travel demand management (all TDM) is the application of strategies to reduce travel demand, specifically that of single occupancy private vehicles, or to redistribute this demand in space or time. Congestion in Brooklyn Park is primarily concentrated in the morning rush hours, school hours and/or the afternoon rush hours. During off peak hours, many of the same roadways function at an acceptable level. There are some large employers and schools within the city that lend themselves well to TDM strategies.

Because of these traffic patterns, some congestion could be alleviated by reducing demand during the peak hours. By increasing roadway capacity through relatively

inexpensive technological improvements, such as signal coordination and "Intelligent Transportation Systems (ITS)" or the changing of traffic habits, more expensive road widening could be delayed for avoided. TDM congestion management strategies and a continued push for the use of alternative transportation modes are targeted as preferred congestion reduction measures, if feasible, over the need for more road construction projects.

TDM includes a variety of programs and incentives, including the following:

- Carpooling and commuter matching
- Transit incentives
- Biking and walking incentives
- Managed lanes
- Guaranteed ride programs for anyone who gets to work by means other than driving alone.
- Information regarding park and ride lots
- Vanpooling / leasing
- Teleworking or working from home
- Local ordinances that encourage mixed use development and integration of land uses to reduce the amount of distance between residential, work and other activities to make active transportation and transit choice alternatives (transit oriented development (TOD))
- Parking prices strategies, if applicable
- Flexible work hours

The recommended TDM strategies include; 1) Investigate alternatives to roadway widening to alleviate congestion. Multi-modal transportation, ITS, and the various TDM strategies outlined above are the likely alternatives to accomplish this. 2) Continue to focus on changing land use development patterns to encourage mixed use and TOD development in appropriate areas throughout the city, particularly in strategic growth areas. 3) Encourage and provide (if feasible) incentives for employers to reduce peak hour demand by utilizing flexible or off peak schedules and telecommuting. 4) Possible development of a comprehensive TDM plan for the city. 5) Reduce the impacts of parking supply on travel demand by developing fee-based parking strategies and regulations or limiting parking supply in appropriate areas with good transit service. Some of these strategies may not be feasible until the 2040 timeframe.

5.3.21 Intelligent Transportation Systems (ITS)

Over the past two decades there have been substantial technological advances that have improved or otherwise made information easier to obtain to make travel decisions. This section describes the regional and local implementation of this technology.

At the regional level, MnDOT provides and maintains extensive ITS infrastructure along the freeway systems within the Twin Cities Metro Area. Technologies currently in use include:

- Regional Transportation Management Center (RTMC) which incorporates various ITS technologies to assist staff with traffic monitoring, incident response and information dissemination.
- Traffic surveillance via Closed Circuit Television (CCTV) Cameras provide roadway images to the RTMC and the public.
- Vehicle Detection Devices record traffic volumes and speeds and help RTMC staff locate congestion and incidents.
- Electronic Toll Collection allows travelers to pass quickly through special lanes avoiding backups and delays due to paying tolls.
- Ramp Meters control the flow of vehicles accessing the regional roadway system to improve capacity and reduce incidents.
- 511MN provides up to date traveler information via telephone, cellphone, the internet and other methods.
- Automatic Vehicle Location provides location of transit and maintenance vehicles aiding on time performance.
- Emergency Vehicle Signal Pre-Emption (EVP) changes the traffic signals when emergency vehicles approach improving the safety and response time of emergency vehicles.
- Changeable Message Signs (CMS) provides up to date information to the traveling public.
- Advanced Signal Systems improves the coordination and timing of traffic signals in a corridor which reduces delays and incidents.
- MnPASS provides managed lanes to improve person throughput within a corridor.
- Freeway Incident Response Safety Team (FIRST) minimizes congestion and prevents secondary incidents through the quick response and removal of crashes.

These ITS components are in-place along the principal arterials maintained by MnDOT within the City of Brooklyn Park although some items will be installed along TH 610 in the next few years. Hennepin County also operates a smaller scale Traffic Operations Center and maintains some of these components (detection, EVP and advanced signal systems) along the county roadways within the city.

Other newer technologies that have improved or have the capability to improve traveler information, safety and/or travel times include the following:

Mobile Applications (Apps)

In the age of smartphones, apps have become a commuters modern day compass. Mobile apps are transforming the way we travel and how we think about mobility. A wealth of travel information is now at the fingertips of commuters. We are only beginning to value the data generated from and the utility of these apps. The creation of real-time and historical data may shape the future landscape of our transportation networks and transform the way we currently travel. The apps are inclusive of all types of travel modes and, in some cases, have the ability to streamline those travel modes into one seamless journey.

Smarter Systems

The future of transportation management systems will improve vastly with advances in technology. Adaptive traffic signal control technology, otherwise known as smart signals, will both reduce harmful vehicle emissions and travel times. New technology allows signals to communicate with one another and adapt to traffic conditions in real time. Emerging technologies in Information and Communication (ICT), Global Positioning Systems (GPS), and ITS will continue to advance and affect the way we currently travel. Communicating real-time traffic information has become instantaneous with digital platforms provided by the internet. Most State DOT's, including MNDOT, use social media and mobile apps to communicate time-sensitive traffic and travel information to a broader audience than in decades past.

Connected Vehicles

Connected vehicle applications provide connectivity between vehicles, infrastructure and wireless devices and the "cloud" to prevent crashes, reduce congestions and emissions, and promote continuous real-time connectivity. Vehicle safety applications will provide data such as speed and location flowing from nearby vehicles. Vehicles will identify risks and provide drivers with warnings to avoid other vehicles preventing collisions. This technology is evolving rapidly and several items are already in use in Minnesota or installed in today's vehicles (Collision avoidance, Bluetooth technologies, snowplow driver assist, In vehicle work zone messaging, etc).

Autonomous Vehicles

Autonomous vehicles are fully automated or "self-driving" vehicles that operate without direct driver input to control the steering, acceleration and braking. These vehicles are designed so that the driver is not expected to constantly monitor the roadway while operating in self driving mode. This technology is also evolving rapidly and could result in significant benefits, including safer roads, improved mobility services, reduced congestion, improved fuel efficiency, reduced energy consumption, cleaner environment, better land use, positive societal impacts and better quality of life. The

primary barriers to implementation include; high vehicle costs, licensing, liability and litigation, security and privacy.

5.3.22 Roadway Recommendations

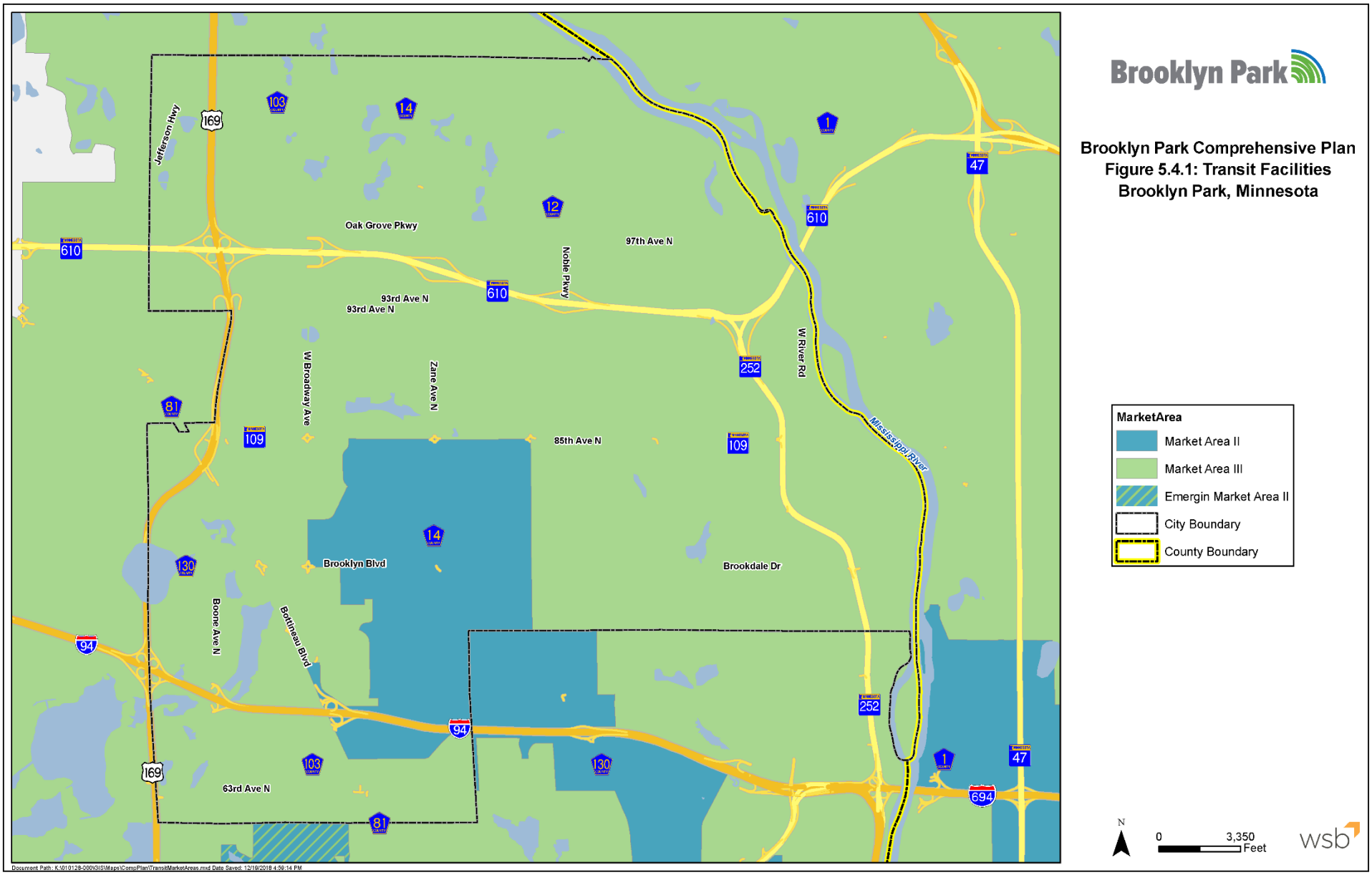
- Pursue available funding grants and identify alternative funding strategies , including private sector options, to reduce reliance on shrinking state and federal funding sources.
- Promote mixed use development and transportation demand management, especially in designated growth areas, to reduce the need for single occupancy vehicle trips and encourage transit oriented development.
- When developing and updating the city's Capital Improvement Plan, review the CIP for conformity with the Comprehensive Plan.
- Consider the impact on quality of life, aesthetics to adjacent land uses and all other travel modes when constructing new or reconstructing existing roadways.
- Improve coordination of public and private roadway and utility projects to minimize pavement cuts and traffic disruptions.
- Work with MnDOT, Hennepin County and other agencies to utilize Intelligent Transportation Systems (ITS) to maximize the efficiency and safety of all roadways within the city.
- Continue to identify and implement safety strategies to address speeding, young drivers, occupant protection, impaired driving, roadway departure, intersection safety and reliance on good data.
- Work with MnDOT and Hennepin County to initiate studies within the next five years of the three areas identified above in 5.3.13 as requiring additional multi-agency study.
- Work with Hennepin County to transfer jurisdiction of the roadways identified above in 5.3.14.
- Implement the roadway improvements described above in 5.3.13 as funding become available with emphasis on regional coordination to fund and implement the large-scale projects.

5.4 Transit

5.4.1 Existing Transit System

Brooklyn Park is divided into two transit market areas. The southern portion of the city is generally classified as Market Area II and the northern portion of the city is generally classified as Market Area III. These areas are described in **Table 5.4.1A** and shown in Figure 5.4.1

Table 5.4.1A Transit Market Area Description			
Market Areas	**Land Use Pattern**	**Service Option**	**Service Characteristics**
II	Moderate concentrations of jobs, housing and activities	Regular-route locals, all day expresses, small vehicle circulators, special needs paratransit (ADA, seniors), ridesharing	**Frequencies:** 15-30 minute or 30-60 minute depending on land use pattern **Span of Service:** 12-20 hours per day, 7 days per week **Access:** Locals spaced 0.5-1.0 mile apart with 6-8 bus stops per mile
III	Generally lower concentrations with intermittent pockets of moderate concentrations (pockets would receive highest service levels)	Peak-only express, small vehicle dial-a-ride, midday circulators, special needs paratransit (ADA, seniors), ridesharing	**Frequencies:** Peak-period-only expresses, 1-2 hour midday frequencies, dial-a-ride advance registration **Span of Service:** 10-14 hours per day, weekdays and limited weekends **Access:** Services tied to park-and-ride lots and hubs
Adapted from: Metropolitan Council 2030 Regional Transportation Plan, Table 4-1.			


Brooklyn Park
Brooklyn Park Comprehensive Plan
Figure 5.4.1: Transit Facilities
Brooklyn Park, Minnesota
MarketArea
Market Area II
Market Area III
Emergin Market Area II
City Boundary
County Boundary
Jefferson Hwy
Oak Grove Pkwy
97th Ave N
Noble Pkwy
93rd Ave N
93rd Ave N
W Broadway Ave
Zane Ave N
W River Rd
85th Ave N
Mississippi River
Brooklyn Blvd
Brookdale Dr
Boone Ave N
Bottineau Blvd
63rd Ave N
169
103
14
12
1
47
610
610
610
81
109
109
252
252
130
94
94
694
N
0
3,350
Feet
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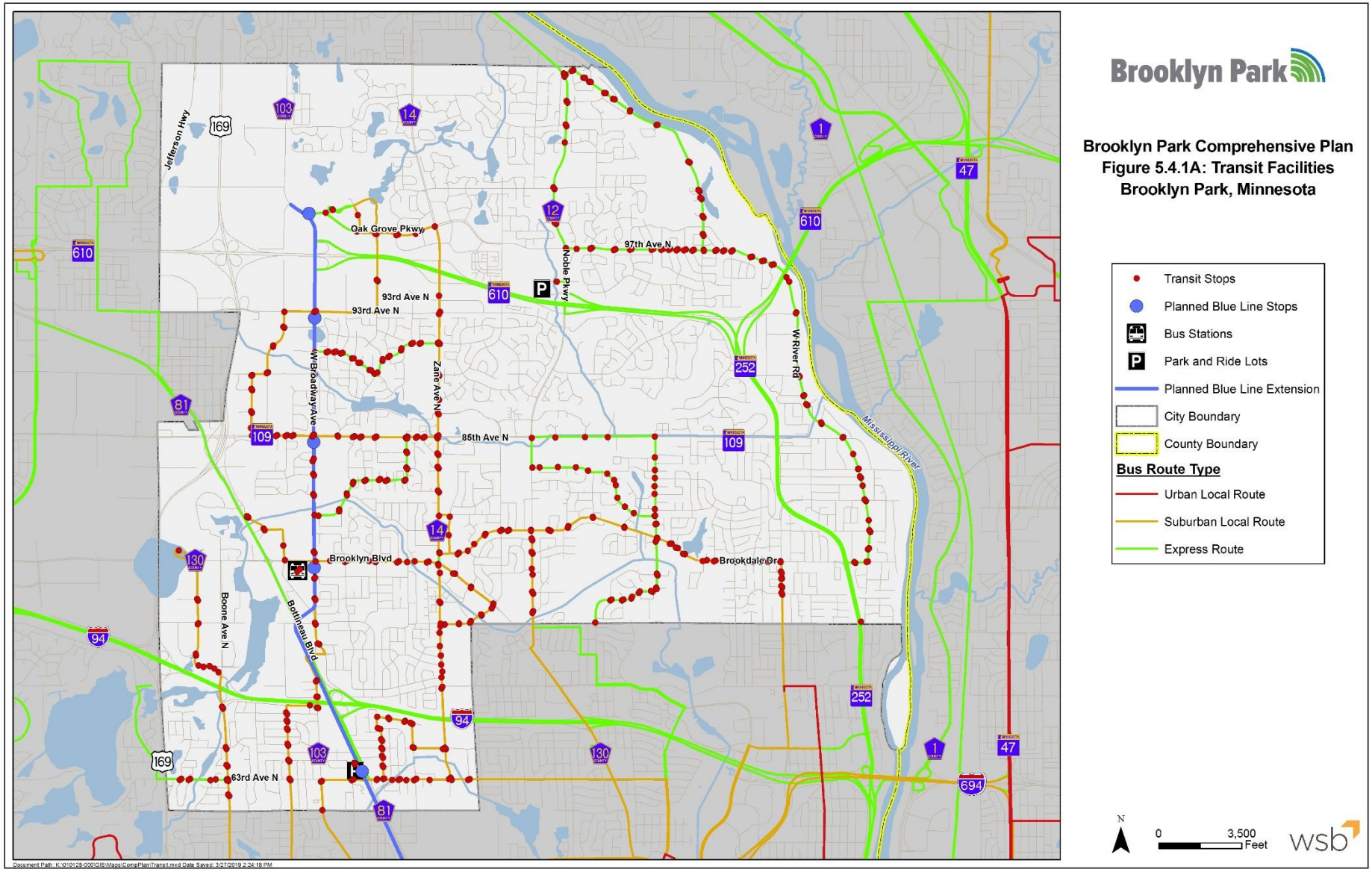

Brooklyn Park
Brooklyn Park Comprehensive Plan
Figure 5.4.1A: Transit Facilities
Brooklyn Park, Minnesota
Transit Stops
Planned Blue Line Stops
Bus Stations
Park and Ride Lots
Planned Blue Line Extension
City Boundary
County Boundary
Bus Route Type
Urban Local Route
Suburban Local Route
Express Route
Jefferson Hwy
Oak Grove Pkwy
97th Ave N
93rd Ave N
Noble Pkwy
W Broadway Ave
Zane Ave N
85th Ave N
W River Rd
Mississippi River
Brooklyn Blvd
Brookdale Dr
Boone Ave N
Bottineau Blvd
63rd Ave N
N
0
3,500
Feet
wsb

Local and Express Transit Service. Brooklyn Park is served by multiple local and express transit routes (see **Figure 5.4.1A**). Local fixed route bus service in Brooklyn Park is described below:

- Route 705: Weekday service to suburban communities from Brooklyn Park to St. Louis Park
- Route 716: Daily bus service from Brooklyn Park to St. Louis Park
- Route 721: Daily bus service from Minneapolis to Brooklyn Park
- Route 722: High frequency bus service between Brooklyn Park and Brooklyn Center
- Route 723: High frequency bus service between Brooklyn Park and Brooklyn Center
- Route 724: High frequency bus service from Minneapolis to Brooklyn Park Target Center
- Route 760: Express service from downtown Minneapolis to Brooklyn Park
- Route 761: Express service between downtown Minneapolis and Brooklyn Park
- Route 763: Express service from downtown Minneapolis to Brooklyn Park
- Route 764: Express service between downtown Minneapolis and Brooklyn Park
- Route 765: Express service from downtown Minneapolis to Brooklyn Park
- Route 766: Express service from downtown Minneapolis through Brooklyn Park to Anoka
- Route 767: Express service between downtown Minneapolis and Maple Grove through Brooklyn Park
- Route 768: Express service from downtown Minneapolis to Brooklyn Park

Figure 5.4.1A further outlines the planned METRO Blue Line Extension (LRT) alignment as well as the planned stations that will be located within Brooklyn Park. See section 5.4.2 for a more information on the METRO Blue Line Extension.

Park & Ride Facilities. Brooklyn Park is currently served by two park and ride facilities. The 63rd Avenue and Bottineau Boulevard Park and Ride opened in March 2007 and accommodates 565 vehicles. The Highway 610 & Noble Parkway Park and Ride opened in August 2014 providing approximately 1,000 spaces and can be expanded to accommodate an additional 500 spaces. Metro Transit also owns a shuttered 117-space lot at the northeast corner of TH 252 and 73rd Avenue.

Transit Centers. Brooklyn Park currently contains one transit center at Starlite Shopping Center. Several bus routes converge to create a timed transfer. The current location was expanded in 2009.

Transit Corridors. Interstate 94/694 and T.H. 252/610 both currently have bus shoulders to provide express bus service between the northwestern and northern suburbs, respectively, and downtown Minneapolis. Both of Brooklyn Park's park and ride facilities are located either adjacent to these routes or within a short distance (see Figure 5.4.1B).

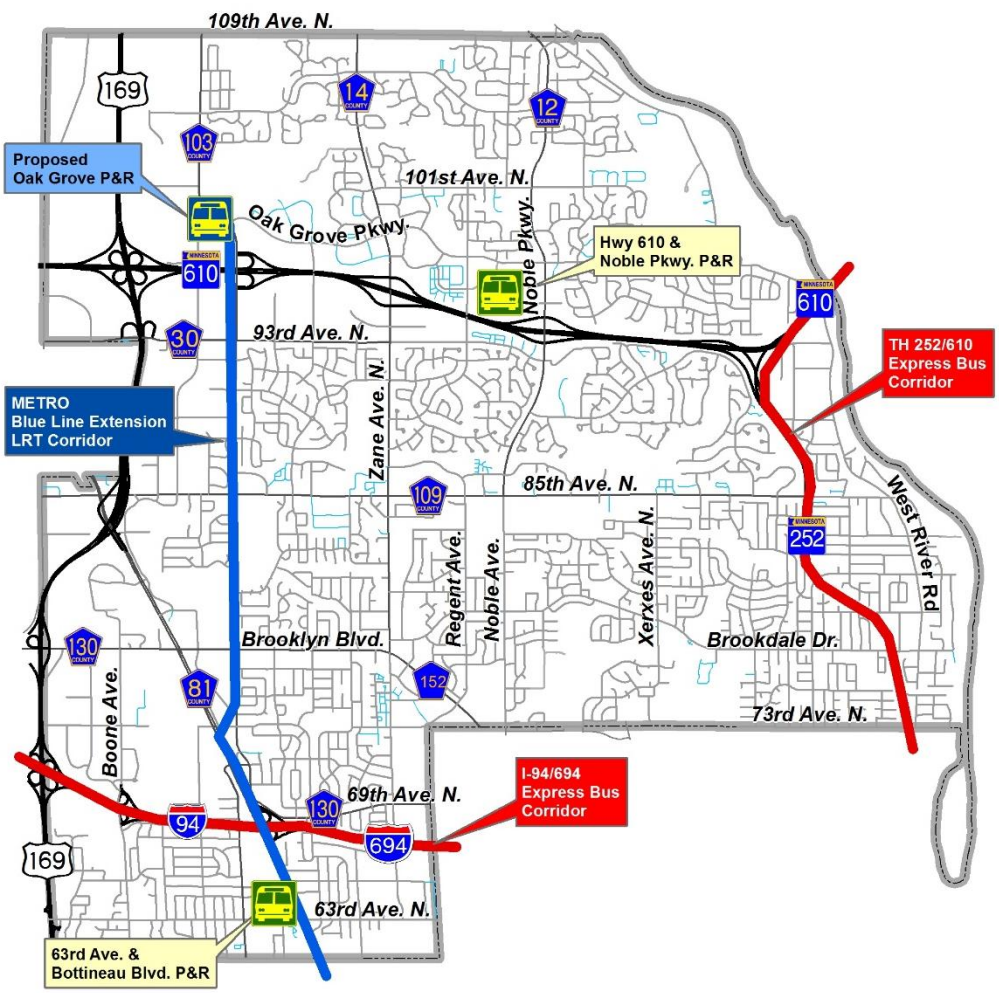
Metro Mobility. A special transportation service is available for people with disabilities. Metro Mobility, an ADA-compliant service, is the door-through-door public transportation system for people with disabilities in the Minneapolis/St. Paul area and certain adjoining suburbs, including Brooklyn Park. Customers who are certified can call transportation providers to schedule their trips.

Dial-a-ride Service. Dial-a-ride service is provided by Transit Link. Transit Link provides curb-to-curb service to the public where regular transit service is not available. Dial-a-ride services can be combined with fixed route services. Transit Link serves the seven-county metro region.

Figure 5.4.1B:

Transit Facilities & Transit Corridors

March 2018



5.4.2 Planned Changes

METRO Blue Line Extension. The METRO Blue Line Extension (LRT) will operate northwest from downtown Minneapolis through north Minneapolis, Golden Valley, Robbinsdale, Crystal and Brooklyn Park, drawing riders northwest of Brooklyn Park. The proposed alignment is primarily at-grade and will have 11 new stations in addition to Target Field Station, and about 13 miles of double track. The line will interline with the METRO Blue Line and connect Minneapolis and the region's northwestern communities with existing LRT on the METRO Green Line, future LRT on the METRO Green Line Extension, bus rapid transit on the METRO

Red Line, the Northstar commuter rail line and local and express bus routes. The project is under development with construction anticipated in 2019. Passenger service is expected to begin in 2022.

5.4.3 Future Transit Needs

Target Area Development. As the Target area northeast of Highways 169 and 610 develops, it is anticipated that transit needs will increase. The City will work with Metro Transit and property owners in the area to determine transit needs, including transit centers, as development occurs.

Link Transit and Land Use. The City will encourage business developments along transit routes to include site provisions that accommodate transit and transit users. Examples are internal or external bus stops or shelters, sidewalks, or walkways from transit stops to the principle use.

The City will also encourage commercial and higher density residential developments along existing or future transit routes.

5.4.4 Transit Plans and Goals

Policy 1: The City will work with Metro Transit to provide convenient, reliable, and efficient mass transit.

Policy 2: The City will promote transit-oriented development opportunities where appropriate.

Policy 3: When locating affordable housing and senior housing sites, transit availability will be considered.

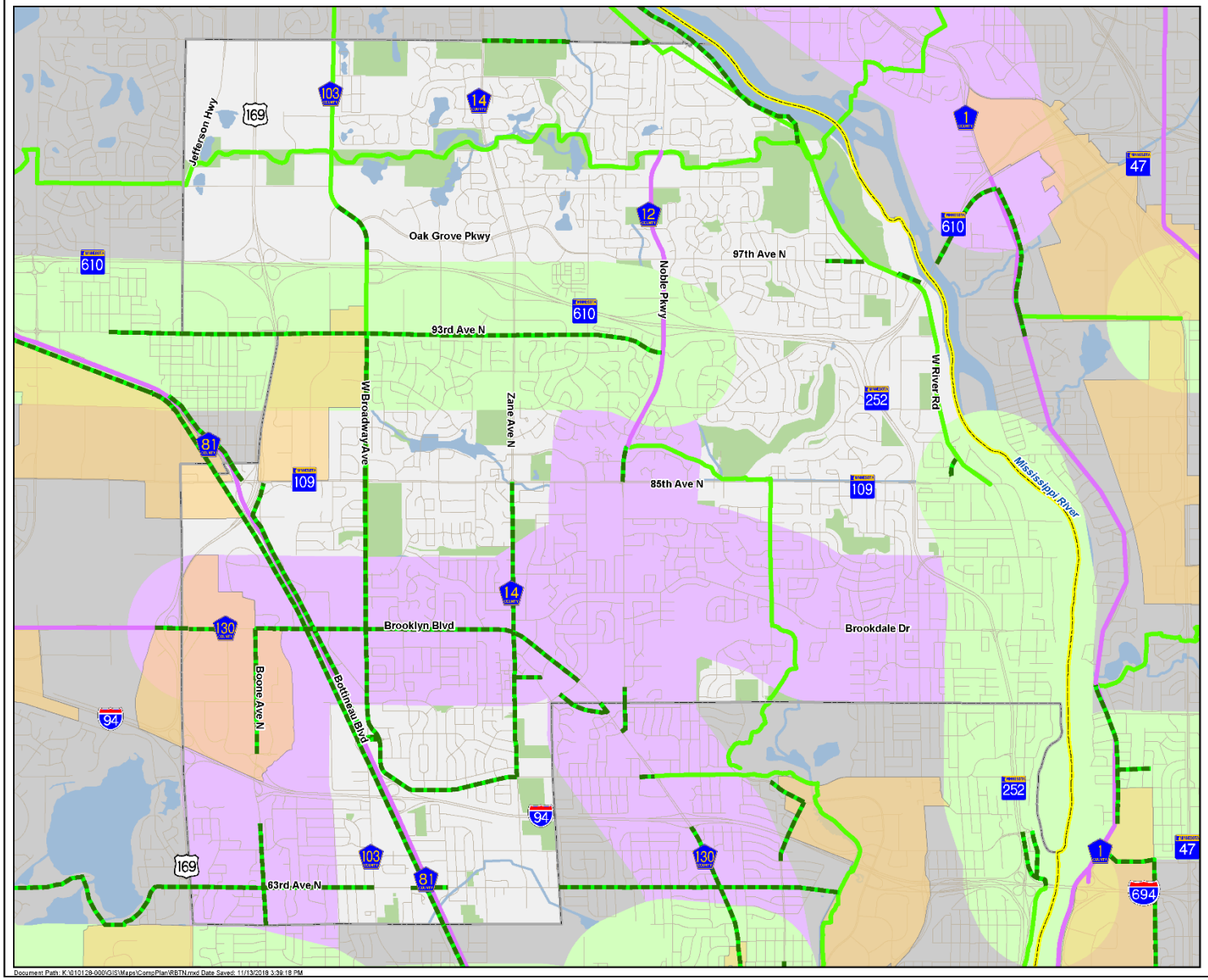
5.5 Bikeways and Walkways

The City of Brooklyn Park recognizes that travel by foot and bicycles are essential components of the transportation system. These systems are also widely used for recreation in Brooklyn Park. Modifications to the transportation network should always include a review of the impacts to bikeways and walkways and will require proper connections be made as part of the construction. The Recreation and Parks Systems Plan addresses recreational trails and the City's Pedestrian and Bicycle Plan (2015) addresses general travel. Please refer to the two studies for more details of these systems.

5.5.1 Planned Regional Non-Motorized Transportation Network

The Metropolitan Council 2040 TPP encourages the use of bicycles as a transportation mode and establishes the Regional Bicycle Transportation Network (RBTN) as an integrated network of on-street bikeways and off-road trails that complement each other and provide connections across the region. The RBTN identifies Tier 1 and Tier 2 alignments where existing regional or other trails exist or where a specific alignment has been identified. The RBTN also identifies Tier 1 and Tier 2 corridors where specific alignments have not yet been defined.

In 2017, revisions to the RBTN were proposed as part of the 2040 TPP Update in order to better align the network with county and city plans. The updated existing and proposed regional network is shown in **Figure 5.5.1A**. Several identified RBTN corridors line up with planned Hennepin County bikeways and trails. Figure 5.5.1A shows that multiple RBTN corridors and existing alignments are located near job and activity centers.



Brooklyn Park

Brooklyn Park Comprehensive Plan
Figure 5.5.1A - Bicycle and Pedestrian Facilities
Brooklyn Park, Minnesota

Existing Bikeway Status
- Planned

RBTN Alignments
- Tier 1 Alignment
- Tier 2 Alignment

RBTN Corridors
- Tier 1 Corridor
- Tier 2 Corridor
- Job and Activity Centers
- City Boundary
- County Boundary

N

0 3,350 Feet

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5.6 Aviation Plan

This section explains aircraft operations and facilities in Brooklyn Park and addresses the land use and planning considerations created by the unique nature of air transportation. The facilities in Brooklyn Park include the Crystal Airport and the Gopher VORTAC (a regional instrument guidance signal transmitter). Other aviation opportunities not currently in Brooklyn Park, such as float planes and heliports, are also discussed.

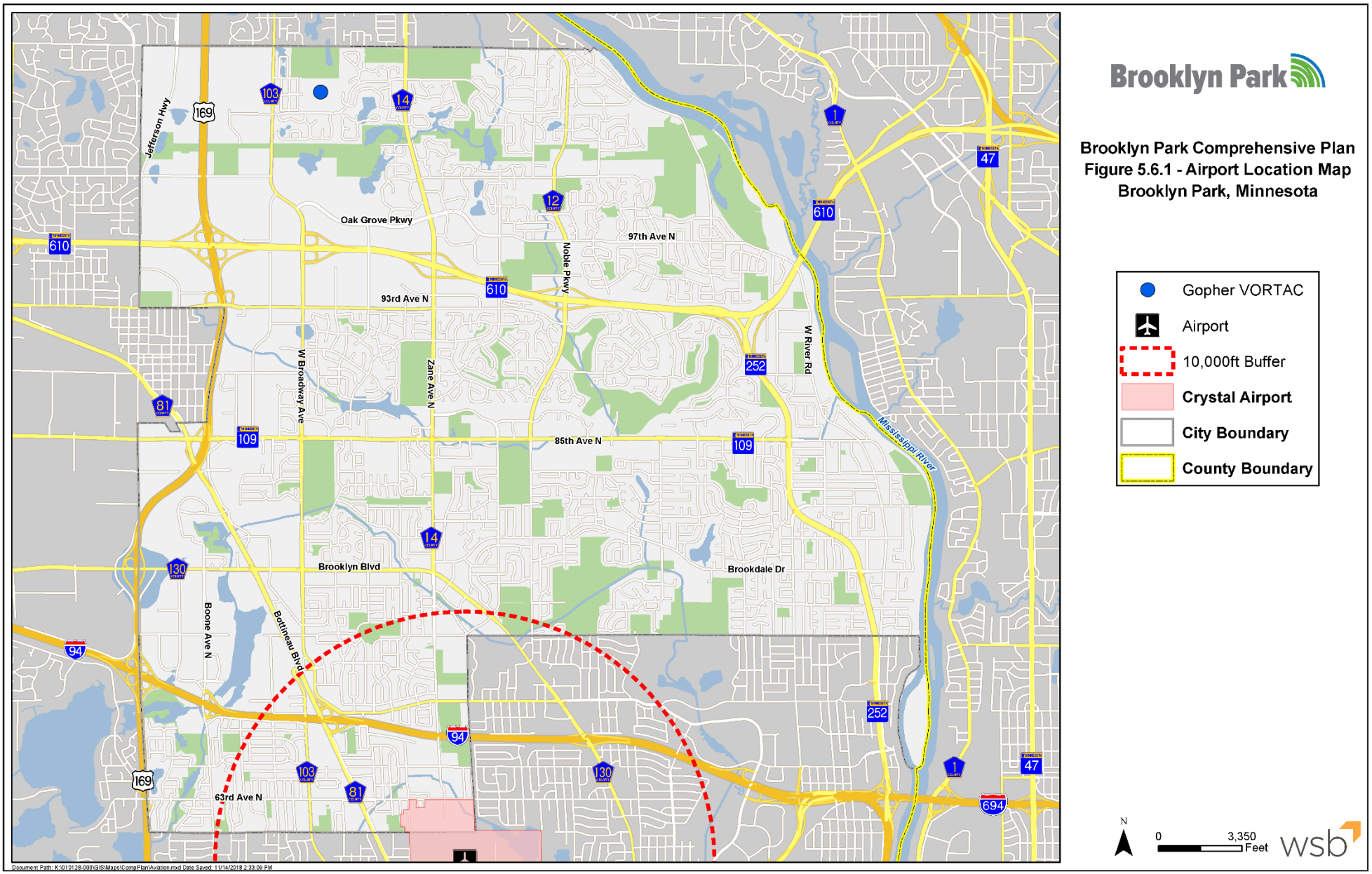
5.6.1 Crystal Airport

The Crystal Airport is located within the communities of Crystal, Brooklyn Center, and Brooklyn Park (see **Figure 5.6.1**). Approximately 79.9 acres of the airport's 433 acres are located within the corporate limits of Brooklyn Park. The airport is accessible primarily by County Road 81. County Road 81 is accessed by Bass Lake Road from the south, and 63rd Avenue from the north. Other major roadways accessible to the airport are Interstate 94/694, Highway 169, and Highway 100.

The Crystal Airport is one of the seven publicly owned airports in the Metropolitan Airports Commission (MAC) system. It is classified as a minor airport in terms of its functional and operational role within the system. MAC has operated it as a general aviation airport since 1948. Miscellaneous private hangars are located at the airport and most are in poor repair. Figure 5.6.2 shows the existing layout of the airport.

MAC adopted the 2035 Long Term Comprehensive Plan for Crystal Airport in 2017 which included the following objectives:

- Right-size the airfield to match existing and forecasted activity levels;
- Preserve and, if possible, improve operational capabilities for the current family of aircraft using the facility; and
- Enhance safety by simplifying the runway and taxiway layout.


Brooklyn Park
Brooklyn Park Comprehensive Plan
Figure 5.6.1 - Airport Location Map
Brooklyn Park, Minnesota
Gopher VORTAC
Airport
10,000ft Buffer
Crystal Airport
City Boundary
County Boundary
Jefferson Hwy
Oak Grove Pkwy
97th Ave N
93rd Ave N
Noble Pkwy
W Broadway Ave
Zane Ave N
85th Ave N
W River Rd
Mississippi River
Brooklyn Blvd
Brookdale Dr
Boone Ave N
Bottineau Blvd
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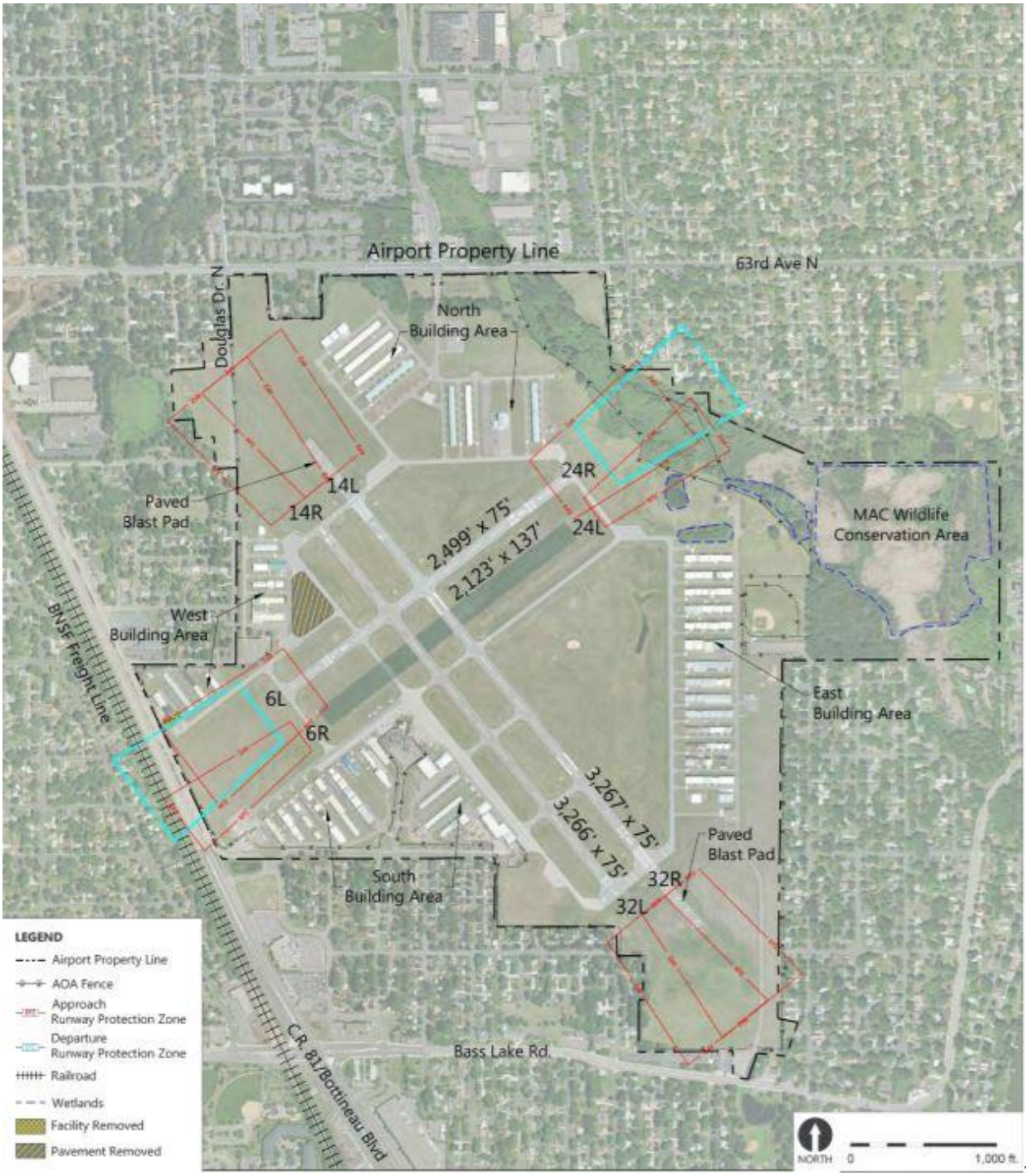


Figure 5.6.2 Source: Crystal Airport 2035 Long-Term Comprehensive Plan (LTCP)

Short Term Planning and Safety Considerations

As the airport continues to operate, certain land use planning considerations must occur.

Under federal and state regulations, special zones are established around public airports to assure safety of aircraft operations. Land uses in these zones must be consistent with FAA and Minnesota Department of Transportation-Aeronautics rules.

The imaginary airspace surfaces as described in Rule 8800.1200 are shown in figure 1 below. Any structure or tree of greater height than any of these imaginary airspace surfaces is considered an "obstruction to a public airport." The imaginary airspace surfaces for Crystal Airport as they affect Brooklyn Park are shown in figure 2. In addition, objects are considered "general obstruction to air navigation" if they exceed certain heights:

1. Objects extending more than 500 feet above ground level at the site of the object.

2. Objects more than 200 feet above the ground or more than 200 feet above the established airport elevation, whichever gives the higher elevation, within three nautical miles of the nearest runway of an airport, and increasing in height in the proportion of 100 feet for each additional nautical mile of distance form the airport.

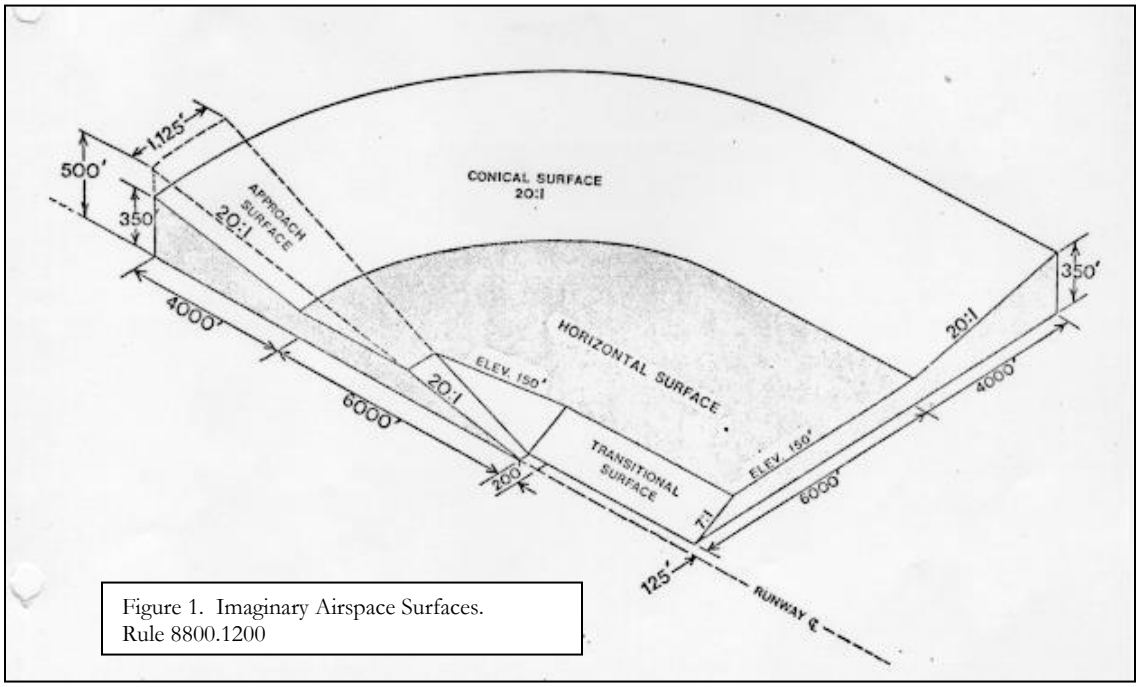


Figure 1. Imaginary Airspace Surfaces.
Rule 8800.1200

Brooklyn Park presently has no structures greater than 200 feet in height, except for a water tower. It is the policy of the City to review all application for development to determine if the proposed structure would be a "general obstruction to air navigation" or an "obstruction to a public airport." The City will ensure that proper notification to the Commissioner of Transportation is made if any structure over 200 feet is proposed outside of either zone.

The existing minimum clear glide angle is 67:1 on the approach from the nortwest. This slope produces a clearance of 46 feet at the intersection of 63rd Avenue and Douglas Drive and increasing to 52 feet at the intersection of 63nd and Edgewood Avenues, just outside of the airport (see figure 3 below). The City shall review all proposals for development within the area of the runway approach to allow for appropriate clearence.

Noise

Because aircraft are capable of creating noise, land use sensitive to noise should not locate in the vicinity of the Crystal Airport without special noise reduction building techniques. Examples of such noise sensitive uses may include hospitals, nursing homes, or certain precision manufacturing. The City will continue to work with the Metropolitan Airports Commission on airport noise related issues. Application of the Land Use

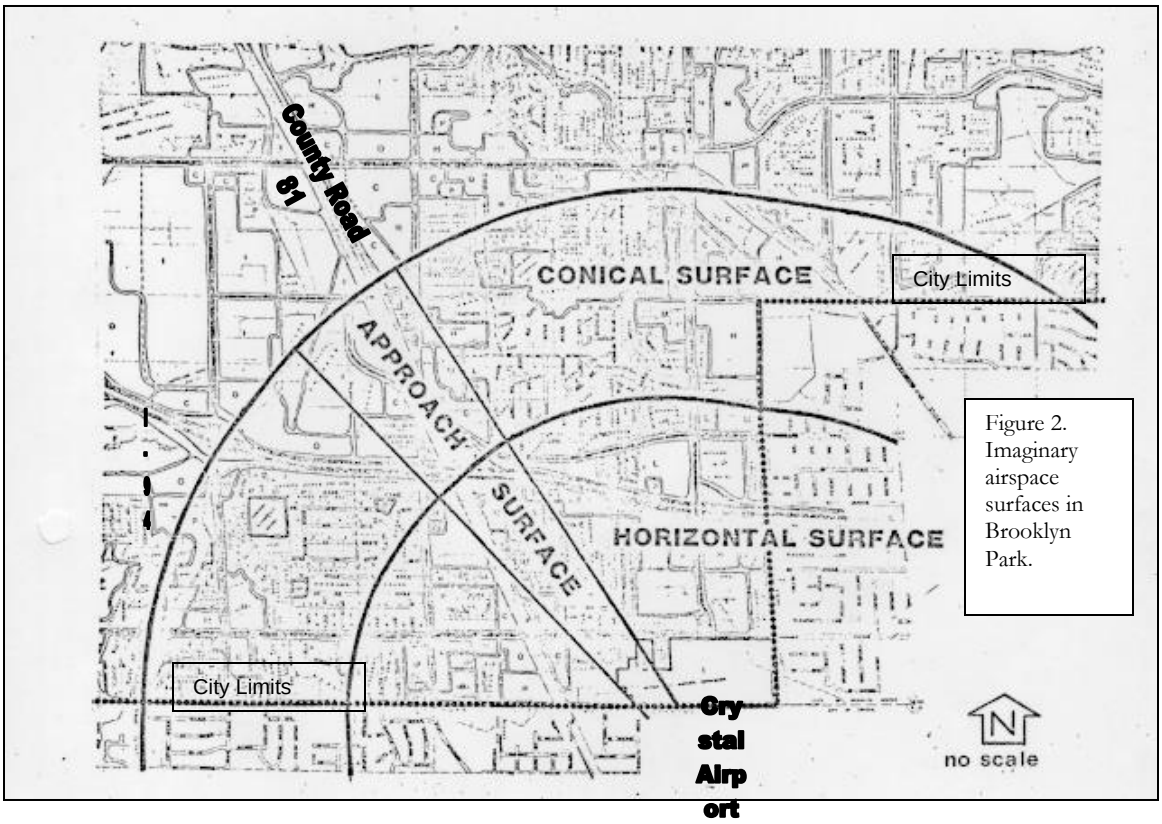


Figure 2. Imaginary airspace surfaces in Brooklyn Park.

Compatibility Guidelines for Aircraft Noise will be used for land use planning within the noise impact area depicted in the MAC's *2035 Final Preferred Alternative Noise Contour* figure below.

Figure ES-6: 2035 Final Preferred Alternative Noise Contour

Long-Term Planning and Safety Considerations

The Crystal Airport has experienced several consecutive years of declining use. Over the past several years, several air-based businesses have left the Crystal Airport. There are no commercial fixed-route passenger carriers. Nearly all of the airport's use is from private recreational flights.

The MAC has closed one of the primary parallel runways and the turf crosswinds runway. With the closing of these two runways, MAC expects to have land available for non-aeronautical uses. If MAC pursues non-aeronautical development, they have committed to meeting with the city and the Metropolitan Council staff to discuss the potential uses and how the cities feel the parcels could best be utilized. MAC will work with the city to determine if zoning changes are appropriate for any non-aeronautical uses proposed. The City will exert is zoning authority for non-aeronautical uses on MAC property.

5.6.2 Gopher VORTAC

The Federal Aviation Administration (FAA) operates an aircraft navigation facility in northern Brooklyn Park (see **Figure 5.6.1**). This Very High Frequency Omni-Directional Range Tactical Air Navigation (VORTAC) is located on a 13-acre parcel lying north of Oxbow Creek Drive and east of the Marvella neighborhood. The VOR is a ground-based electronic navigation aid transmitting very high frequency navigation signals, 360 degrees azimuth, oriented from magnetic north and is used as the basis for navigation in the National Airspace System. It serves as a navigational aid for cross-country air traffic and also for airplanes approaching the Metropolitan Airport Commission's airport system as well as airports in central Minnesota and western Wisconsin. To ensure the effectiveness of the facility, The FAA prefers to maintain a clear zone of at least 1000 feet from the VOR in which no structures may be located. This clear zone is subject to the position and height of the object or structure in relation for the VOR as well as the materials of the object or structure.

When the City of Brooklyn Park developed the Northern Area Master Plan in 1999, the FAA had indicated that the facility would be removed within several years as a new technology is implemented to provide air traffic navigation. Since that Comprehensive Plan Update, the City has worked with the FAA and the adjacent landowners on the status of the VOR. The FAA subsequently upgraded the facility to a Doppler system, which improves its reliability and decreases the impact of nearby obstructions. The FAA indicated that the ground-based VOR system would remain in place for several more years while a satellite-based system is refined. The ground-based system would then be retained for some time for military use. Currently, no decommissioning date has been set, although the FAA has indicated that they may not need it within the next 5 to 10 years, subject to congressional action.

The FAA owns development easements over the properties to the north and west of its property. During its review period, the developer of the adjacent "Oxbow Creek West" subdivision worked with the FAA to determine what areas must include height restrictions. Five of the proposed lots were determined to need restrictions to the type of house that could be constructed to avoid negative impacts to the VOR. The City maintains a list of these properties to ensure that any proposed additions to these homes will undergo FAA review.

5.6.3 Heliports

No heliports currently exist in the city, however Brooklyn Park's current Zoning Code allows heliports as conditional accessory uses in the Business Park zoning district. With increased corporate presences along the T.H. 610 corridor, heliports may be attractive features for large businesses or for a hospital desiring an air-ambulance component. The City will notify the Commissioner of Transportation should a heliport be proposed.

5.6.4 Float Planes/Sea Planes

The Mississippi River forms the east boundary of the City. Much of the river area could accommodate float planes. The Coon Rapids Dam area would not be suitable for airplane activity due to the currents. River Park provides public access to the river, although it is not designed specifically to accommodate aircraft.

5.6.5 Private Airports

No private airports exist in Brooklyn Park any more. The last private dirt runway was removed in 2004 with the development of the "Prairie Gardens" subdivision (near Brunswick Avenue and Oxbow Creek Drive). When this private runway was created, Brooklyn Park was a rural community. Now that the City is predominately urban and suburban, this type of use is not seen as compatible. Other than business heliports, the City will not encourage or allow private airports.

5.7 Goals, Policy Objectives, and Implementation Actions

Integrated System. The City will support an integrated transportation system consisting of roadways, transit, and off-street pedestrian ways.

Target Development Area. The City will work with Hennepin County, MNDOT, and Metro Transit with the Target project.

Transportation Choice. The system will be conducive to choices in the mode of transportation Brooklyn Park residents and visitors use. Users should not be forced to use only automobile transportation because no other mode is available.

Link Transportation to Land Use. The City will consider transportation in its land use decisions, including the relation between different neighboring land uses.

Promote Non-Automotive Transportation. The City will include pedestrian, bicycle, and transit use in public and private developments. Walkways and Transit in High Density Housing and Commercial Areas will be required.

Chapter 6: Economic Development in Brooklyn Park

6.1 Introduction

This chapter of the plan is intended to function in conjunction with other elements of the plan as a strategic guide for the primary economic development directives of the city.

This chapter seeks to: (1) assess the current landscape in land use/development; (2) analyze trends in human capital and business development; and (3) identify goals, objectives, and actions that will achieve a strong vision for the future of city economic development.

6.1.1 Local Perspective

Generally, the economic vitality of Brooklyn Park is in good shape, with a healthy mix of industries, a large existing workforce, and growing interest regionally and nationally in the competitive advantages present in Brooklyn Park's location, connectedness, and continued progress. With 1,100 acres of undeveloped green fields as well as redevelopment opportunity sites, Brooklyn Park continues to attract the interest of large corporations seeking to join a growing base of industry giants that have relocated to or opened additional facilities in Brooklyn Park.

The City of Brooklyn Park established an Economic Development Authority (EDA) in 1988 to determine the role the City plays in economic development and redevelopment. Led by a 7-member Board of Directors, the EDA sets big picture goals and priorities for staff, develops policies around development, serves as ambassadors to the City, and approves the amount of assistance projects receive from the City. The EDA has been an integral part of many key development and redevelopment sites in Brooklyn Park, including the establishment of Tax Increment Finance (TIF) districts, Edinburgh USA golf course, the Village Creek Redevelopment, Northland Business Park, and the creation of crucial housing programs. All of these programs work together to create a development-friendly city where opportunities exist for all.

Due to diligent land use planning, Brooklyn Park currently has a diverse industry mix, as seen in Table 6.1.1.1. Industry mix is important for the city's sustained economic health. Attaining a mix of industries limits the effect of an economic downturn on the workforce in any one industry and mitigates negative effects on associated industry spending (i.e. local restaurant patronage).

Table 6.1.1.1 Top Brooklyn Park Industries by Employment, 2016		
	Brooklyn Park	***State Comparison***
Manufacturing	17.5%	11.0%
Healthcare & Social Assistance	16.8%	16.0%
Retail Trade	12.5%	10.3%
Educational Services	9.4%	2.0%
Wholesale Trade	6.2%	4.5%
Construction	5.9%	4.6%
Professional, Scientific, & Tech Services	5.8%	5.2%
Accommodation & Food Services	5.0%	8.0%
Other Services	5.7%	4.0%

Source: Greater MSP; Minnesota Department of Employment and Economic Development (MN DEED).

6.1.2 Regional Perspective

Minnesota as a whole continues to show strong placement in national business climate rankings, as shown in Table 6.1.2.1. Workforce demographic shifts are beginning to affect employment figures as the baby boomer generation begins to retire, prompting state-wide discussions on workforce development needs.

Table 6.1.2.1 Minnesota Business Climate Rankings
1st in Job Creation Index (Gallup, 2016)
2nd Best State Overall (Politico, 2016)
2nd Best Run State in America (24/7 Wall St., 2016)
America's Third Best State for Business (CNBC, 2017)
3rd Best State Overall (U.S. News & World Report, 2017)
3rd in Fortune 500 companies per capita (Fortune, 2016)
5th in Economic Climate (Forbes, 2016)
6th Best Economy (CNBC, 2017)
7th in Largest Private Companies (Forbes, 2016)
7th in Technology and Science Business Strength (Milken Institute 2016 State Technology and Science Index)
10th in 5-year business survival rate (Bureau of Labor Analysis, 2011-2016)

Source: MN DEED

6.2 Economic Development Profile: Development and Redevelopment

The *Brooklyn Park 2025* community plan identified and supported continued City investment in real estate development and redevelopment. The 977 community members engaged in the creation of the plan supported reinvestment into the south side of Brooklyn Park and continued

development along the 610 corridor. The community expressed this support to reduce property tax burdens on residents and to increase job opportunities for the community.

In 2017, Brooklyn Park is home to more than 1,500 businesses, including 28 Fortune 500 or publicly traded companies and over 90 restaurants. Several new corporations opened their doors in Brooklyn Park in recent years, including Design Ready Controls, Tesla, Inc., Olympus Surgical Technologies, Würth Adams, Takeda Pharmaceutical, and Nilfisk, Inc. This surge in industry giants is turning Highway 610—completed to I-94 in 2017 and accelerating job growth as a critical new transportation connection—into an international business corridor. Table 6.2.0.1 further illustrates the largest employers in Brooklyn Park at present. Local restaurants and retailers experience a boost from this growth, and jobseekers are presented with new employment opportunities.

Table 6.2.0.1 Top Brooklyn Park Employers, 2017

Employer	***Employee Count***
Target—North Office Campus	3,700
Caterpillar Paving Products	700
North Hennepin Community College	610
Hy-Vee	500
Hennepin Technical College	450
City of Brooklyn Park	447[1]
Medtronic	420
Accellant	395
Olympus	385
GLS	375

Brooklyn Park's existing business community continues to thrive as well. Companies like Metro Mold and Star expanded their operations, the former by purchasing and building out its existing facility, while the latter moved into new construction near its previous facility. Existing and new business parks see stability in their tenant bases and business operations.

Development throughout the south and central areas of the city continue. In the Village Creek redevelopment area, the Regent and Welcome sites are seeing fresh interest from athletic organizations and housing developers after stalling for several years. Businesses along the proposed Light Rail Transit line prepare themselves for construction, slated to begin in 2019. Redevelopment projects, such as two along Bottineau Boulevard, increase opportunity for job creation, business development, and improved tax-base in developed areas. In 2015, First Industrial repositioned a vacant lumber yard into two manufacturing buildings with related office space, totaling approximately 240,000 square feet. The redevelopment created homes

[1] The total employee count for the City of Brooklyn Park rises to 632 when including seasonal employees.

for companies such as Goodwill Industries, which includes office, training, retail, and fulfillment operations, and Clearfield, Inc., which designs, manufactures, and distributes fiber optic management, protection, and delivery products for communications networks. In 2017, Ramsey Excavating and Industrial Equities redeveloped a shuttered masonry block production facility into Ramsey's headquarters and a new 120,000 square foot building available for a number of tenants. These redevelopment projects support a key community theme identified in the *Brooklyn Park 2025* initiative:

> *"Investing in the Southside to provide an opportunity for revitalization and closing the gap between the division of North and South of 85th Avenue."*

The City will also evaluate redevelopment opportunities in the 85th Avenue corridor. The EDA identified the 85th Avenue corridor for redevelopment in the late 1980s to transition industrial uses into office, housing, and other commercial users. The EDA has been active in supporting private development in the corridor since the mid-1990s and convened a task force to set development objectives for the corridor in the mid-2000s. Market conditions and the lack of alternative locations for the current uses in the city and region have stalled development in the corridor over the past five years. The City and the EDA will continue to monitor conditions favorable to future development of the corridor consistent with the development objectives.

6.2.1 Resident Survey: Neighborhood Needs

The 2018 Comprehensive Plan was guided in part by resident data collected during the *Brooklyn Park 2025* initiative. To include the perspectives of historically underrepresented segments of the community, staff engaged 169 residents from six apartment communities to participate in a survey on neighborhood needs. Residents were asked what type of retail, food, or other businesses were needed in their neighborhood. The results, tabulated in Table 6.2.1.1, indicate that the majority of this segment of Brooklyn Park residents felt their business needs were generally met in their neighborhoods.

Table 6.2.1.1 Neighborhood Needs Survey, 2017

Type of Business Needed	***Percent of respondents***
No additional businesses needed	53%
Grocery or shopping center	12%
Restaurants	9%
Need better access to existing businesses	7%
More variety, generally	5%
Ethnic stores	4%

The 2017 Brooklyn Park Residential Study included a similar question on the type of development residents would like to see. Respondents offered comparable opinions, as shown in Table 6.2.1.2. The Residential Study further asked residents about the type of developments they would strongly oppose (Table 6.2.1.3).

Table 6.2.1.2 2017 Brooklyn Park Residential Survey	
Type of Development Would Like to See	***Percent of respondents***
Nothing	42%
Job Producing	19%
Retail	14%
Restaurants	11%
Industrial	10%
Scattered	3%
Unsure	2%

Credit: The Morris Leatherman Company

Table 6.2.1.3 2017 Brooklyn Park Residential Survey	
Type of Development Would Strongly Oppose	***Percent of respondents***
Nothing	49%
Low Income	16%
Bars	13%
Adult Businesses	12%
Apartments	6%
Unsure	3%
Scattered	2%

Credit: The Morris Leatherman Company

Still, residents have consistently communicated with City Council, staff, and other residents via email, telephone calls, and social media regarding their desire for a more robust restaurant and retail scene. The *Brooklyn Park 2025* initiative saw parallel opinions summarized as a key theme:

> *"More retail stores and restaurants will open so residents spend money here on entertainment and revenue from visitors increases."*

6.2.2 Restaurant Market Analysis

In response to residents' concerns, the City of Brooklyn Park conducted a restaurant market analysis in 2017. The analysis identified current industry trends and opportunities for the city, finding that conventional sit-down restaurant chains currently struggle nationally to maintain a strong customer base and therefore open a limited number of new locations each year. In contrast, fast-casual or quick-casual restaurants show strong demand and expansion activity. The result is an industry-wide shift from a primarily sit-down restaurant focus to a quick service model. Additionally, demand remains strong for specialty/destination restaurants that offer unique experiences and food options.

Fast-casual restaurants entering the market strategically choose limited locations that allow them to cover a whole region. Brooklyn Park sits within the center of the three regional trade areas of Brooklyn Center, Maple Grove, and Blaine, impacting restaurant site-selection demand. Furthermore, it is unclear whether Brooklyn Park's daytime population and office/professional workforce presence has reached desirable levels to support the type of retail and restaurant development preferred by the community. However, the planned METRO Blue Line Light Rail Transit project, investment of anchor big box retailers, and anticipated housing development and redevelopment should all eventually create more interest in Brooklyn Park from the restaurant industry.

6.3 Economic Development Profile: Business Development

The EDA uses Tax Increment Financing (TIF) and pools TIF funds to cover extraordinary costs that would make potential developments too costly otherwise[2]. The EDA has also aligned resources for infrastructure development, such as the Oak Grove Parkway, interchanges at 93rd and 101st Avenues, and Louisiana Avenue. The EDA frequently works directly with land owners and brokers to support development activities that align with the community's vision. For example, the EDA served as an intermediary buyer of Minnesota Department of Transportation parcels at the interchange of highways 169 and 610 to stimulate development interest.

When businesses seek expansion options, the EDA makes every effort to retain the business, providing site search services and additional support as appropriate—such as in the 2016-2017 Commerce Neighborhood Storm Water Study that evaluated storm water retention capacity related to proposed infill development. Spurred on by long-time Brooklyn Park-based manufacturer, Diversified Plastics, Inc., the study aimed to provide it (and the many business in the neighborhood) with important information about on-site storm water management and impacts that expansion could have on the system. The study provided a critical resource to the Commerce neighborhood businesses both to assist with business planning and to prepare for changes in storm water management rules.

The City of Brooklyn Park takes many other steps to support its claim of being a business-friendly city. The Brooklyn Park Development Corporation (BPDC), established in the 1990s and governed by a board that includes City Council, banking, and business representatives, continues to offer a revolving loan fund to support local businesses. BPDC loans have been key instruments in securing the relocation of companies such as Design Ready Controls and have also helped launch smaller businesses such as Kim Anh's restaurant. The BPDC often participates in loans with the United States Small Business Administration, Central Minnesota Development Corporation, and Metropolitan Consortium of Community Developers (MCCD) to

[2] A related key theme that emerged in the *Brooklyn Park 2025* initiative states, "Businesses that receive tax breaks need to invest back into improvement of the community."

leverage the loan funds impact. Utilization of the loan fund varies based on changes in market cycles.

The City of Brooklyn Park continues to partner with MCCD to offer technical assistance to local businesses through MCCD's Open to Business program. The City's annual contribution of $10,000 provides unlimited consulting for prospective entrepreneurs in need of guidance to take their business from idea to operation. Existing businesses are also able to take advantage of Open to Business's services as they expand or face operational challenges. Several local and regional organizations, including Neighborhood Development Center, Metropolitan Economic Development Association, African Career, Education and Resource, Inc. (ACER), and WomenVenture, provide additional technical assistance services.

6.3.1 Business Forward Initiative

Driven by a desire to enhance the business climate of Brooklyn Park, elected officials and City staff launched the Business Forward initiative in the fall of 2011. The goal of the Business Forward effort was to produce tangible outcomes that would lead to an improved business climate in the community as well as enhanced communication and collaboration between the business community and stakeholders. Over the course of three months, discussions between City staff and almost 150 business representatives led to the emergence of several key themes. These themes became the focus of the Business Forward Task Force, comprised of 11 business owners and managers. Appointed in early 2012, the Business Forward Task Force developed recommendations over three months that generated many concrete improvements still in place today.

First, the City established the Business Forward Advisory Board (BFAB), which adopted the overarching goal and recommendations of the Business Forward Task Force to govern its work (Table 6.3.1.1). BFAB's charter document additionally specifies its responsibilities:

- Provide direction and feedback as related to the Business Forward Task Force Recommendations.
- Provide insight and guidance on future business related development, code changes, regulations, and enhancements to the business climate.
- Develop communication networks across the Brooklyn Park business community and be a champion for improvement.

Table 6.3.1.1 Business Forward Advisory Board Goals
1. Incorporate the voice of business going forward
2. Enhance the image and marketing of Brooklyn Park
3. Value business as a customer
4. Make it easier for businesses to find information and resources
5. Improve business regulation
6. Attract and grow businesses

Originally composed of 12 local businesses of varying sizes and industry types, BFAB expanded to 15 seats in 2017 and continues to meet monthly from September through June to provide feedback on policy, code issues, and any other matters affecting the business community. BFAB presents to the Economic Development Authority (EDA) annually to review progress on its goals. BFAB also holds one annual open meeting to encourage input and participation from the broader business community.

The impact of the Business Forward work is visible in several other initiatives. Since 2013, the City has developed marketing campaigns to highlight its image regionally, boosting branding implementation efforts that began in 2012. Marketing campaigns include print advertisements, promotional videos, brochures, banners, and merchandise that position Brooklyn Park as an excellent option for businesses seeking a new home, reinforce the benefits Brooklyn Park businesses already enjoy, and challenge outdated or inaccurate notions about the city. Campaigns run on two year cycles, allowing for robust concept development.

In addition to the many City staff that meet Brooklyn Park business needs daily, the City has a dedicated staff person in the Business Development Coordinator (BDC) to provide concierge-level support with services such as procedural navigation and site selection assistance. The BDC also provides direct project-related support and business engagement, such as one-on-one meetings for light rail transit construction mitigation or engagement with businesses that could be affected by proposed city code changes. For businesses seeking State of Minnesota financing via the Minnesota Investment Fund or the Job Creation Fund, the BDC facilitates the process, with the City of Brooklyn Park serving as a conduit for contractual procedures and funds distribution. For the broader business community, the BDC creates and maintains information and resource lists available at City Hall and on the City's website and, perhaps most importantly, develops relationships throughout the business community to provide ongoing support.

Finally, staff continues to sustain multiple platforms to make businesses feel valued:

- The annual Business Forward Forum connects over 100 businesses with each other while providing marketing, development, and policy updates.
- When a new large or mid-size business opens, the City staffs a table at the business to welcome it and its employees to Brooklyn Park with packets of information.
- A semiannual newsletter is sent to 1,200 businesses, keeping businesses in the loop with what is happening in Brooklyn Park.
- A restaurant map is printed annually to promote the local restaurant community.

6.3.2 Additional Business Development Resources

Partnerships with other agencies and organizations bring additional resources to Brooklyn Park businesses. Partnerships include two local Chambers of Commerce: North Hennepin Area Chamber of Commerce and Twin West Chamber of Commerce. Each Chamber of Commerce

serves the business community with recurring programming, lobbying, networking, and advocacy. The Liberian Business Association provides similar culturally-specific support and connectedness. The State of Minnesota started offering workshops for small business owners and prospective entrepreneurs in 2017. Greater MSP provides global promotion of the region by staffing booths at tradeshows, publishing site selector magazines, and facilitating new business or relocation efforts. Minneapolis Northwest Tourism supports the hospitality industry and provides marketing and branding to the cities of Brooklyn Park, Maple Grove, and Brooklyn Center.

6.4 Economic Development Profile: Human Capital Development

Minnesota is experiencing a labor shortage, expected to continue over the next ten years. According to the Minnesota State Department of Employment and Economic Development (DEED), Minnesota businesses will add 205,000 jobs to the economy over the next decade and the labor force is projected to increase by only 68,400 workers. Today, the State's online job board has 80,000 position openings and the State's unemployment rate is around 3.7 percent.

Expected Baby Boomer retirements will also have an impact. According to DEED, one in every five jobs in Minnesota is now held by workers who are within 10 years of—or already at — retirement age. Moreover, these pending retirements will impact industry sectors differently. For example, 30% of the transportation and warehousing sector is within this retirement-ready group, along with 28% of the educational services sector, and 24% of manufacturing.

While demand for high-skilled living wage jobs will remain strong, and overall unemployment rates are low, there are opportunities in Brooklyn Park. Median household income data from the American Community Survey show large ranges in income and educational attainment across neighborhoods in Brooklyn Park. Median annual household incomes range from $30,000 in some southern neighborhoods to around $110,000 in some parts of northern Brooklyn Park. Educational attainment levels for adults over the age of 25 generally correlate with median incomes. While the overall unemployment rate hovers below 4%, communities of color experience higher rates. For example, according to DEED, Black or African American Minnesotans have an unemployment rate of over 11%.

Connecting those in the community with available jobs presents one opportunity to begin to address the current labor shortage. Barriers exist, however, in connecting those in our community that are unemployed or underemployed and these available jobs. High-demand living-wage jobs require some level of post-secondary education. Lack of educational attainment and social networks represent prominent barriers to those in the community that are unemployed or underemployed.

6.4.1 Workforce Development

The City of Brooklyn Park is proactively exploring solutions to support the local workforce. The juxtaposition of pockets of high unemployment with a growing demand for labor by local

manufacturers requires partnerships to evaluate underlying factors and create career pipelines. The City continues to build those partnerships with Brooklyn Park-based institutions and organizations including Hennepin Technical College, North Hennepin Community College, Hennepin-Carver Workforce Board, and the Hennepin North Workforce Center. Brooklyn Park also participated in the Hennepin County Workforce Leadership Council, which assembled leaders from the public and private sectors and philanthropic community to compare strategies and collaborate on creating industry-specific career pipelines. The City also continues to support workforce development efforts by the North Hennepin Area Chamber of Commerce and Twin West Chamber of Commerce, and has expressed potential support for emerging, culturally-specific organizations focusing on workforce development, such as Wanlainjo and New Horizon Resource.

Finally, since 2014 the City has partnered with the City of Brooklyn Center and the Brooklyn Bridge Alliance for Youth on the BrookLynk program. BrookLynk's mission is to "coordinate partnerships that prepare employers to engage the next generation of workers and to connect young people in the cities of Brooklyn Center and Brooklyn Park facing barriers to employment with the skills, experience, and professional social networks needed to develop their pathway to college and career." Since December 2017, BrookLynk is housed in the Economic Development and Housing Division of Brooklyn Park's Community Development Department in partnership with the City of Brooklyn Center and with support from the Brooklyn Bridge Alliance for Youth and program funding partners.

6.4.2 Resident Survey: Employment Data

Creating employment opportunities and stabilizing families was a theme expressed in community engagement related to the creation of the *Brooklyn Park 2025* community plan and the subsequent 2017 outreach to apartment communities (as described in section 6.2.1). The themes collected after engaging 977 community members during the creation of the community plan set an expectation that in 2025 Brooklyn Park will have:

- Increased employment opportunities for a diverse local workforce and for youth, and
- Increased long-term financial stability for families.

The survey administered to 169 residents during outreach to apartment communities included a variety of questions regarding employment. The data provided key points about the employment dynamics of this narrow demographic of the community:

- Almost half of respondents work in Brooklyn Park and the cities immediately surrounding it.
- Of all respondents, 33% work in health, human services, or manufacturing industries, which together form the largest employer base, as discussed in section 6.1.1. Additionally, 21% work in office, retail, or restaurants, and 19% reported currently being unemployed.

- Among those who reported currently being employed, 46% found their job on their own online or by visiting their employer and 38% were referred by a family member or friend.
- When asked about existing employment support resources, 21% of respondents reported having used the services offered by the local DEED Workforce Center and 19% connected with North Hennepin Community College or Hennepin Technical College.

These key points could shed light on future opportunities to support Brooklyn Park's workforce, such as by hosting job boards to promote local employment opportunities that match skillsets and job seeking preferences. Moreover, with such a large portion of residents living and working in or near Brooklyn Park, a need exists for east-west transportation for better connection to jobs.

6.4.3 Employment Density Analysis

While the stated jobs goal for Brooklyn Park is 40,200, the Brooklyn Park EDA set a stretch goal of 50,000 jobs by 2040. With just over 25,000 jobs in place in 2017, this stretch goal would mean an increase of nearly 25,000 new jobs. To better understand the conditions needed to reach its job goals, the City conducted an employment density analysis in 2017. The analysis found an existing employment density of about 2.4 employees per thousand square feet of commercial/industrial building space. To reach job goals at these current density and land use patterns requires 1,329 acres of land and 13,800,907 square feet of building space.

Approximately 1,100 acres of green field land remain for development. That amount is 200 acres short of the 1,300 acres that would be needed in order to meet the jobs goal if all the land was set aside for commercial/industrial uses at the current average density of 2.4 employees per thousand square feet of land. To meet the 2040 forecast of 40,200 jobs and to reach the stretch goal of 50,000 jobs, the City would need to (1) attract employers that support a higher number of employees per square foot of building space; (2) reduce the amount of land consumed by various business developments; and/or (3) allocate more land for commercial/industrial development.

The employment density analysis illustrates current density by employment type in Brooklyn Park and proposes ideal average employment densities to reach 50,000 jobs (Table 6.4.3.1). Employment density varies based on employment type. Office and Industrial uses will account for 53% of projected job growth. To meet the stretch goal, office users will need to exceed current conditions to meet national trends of 5 jobs-per-thousand-square-feet. Industrial users will need to continue at current job densities of 2 jobs-per-thousand-square-feet, which is above the average of 1.6 jobs-per-thousand-square-feet. Institutional and Commercial fall below national averages and will need to increase as these uses account for about 22% of the projected job growth. Medical accounts for 25% of job growth and will need to maintain current densities. Overall, the City will need to protect existing commercial areas and opportunity areas such as the Oak Grove Station Area for high density job-creating uses.

Table 6.4.3.1 Brooklyn Park Average Employment Density by Employment Type			
Employment Type	***Brooklyn Park Average Employees/ 1000 sq ft of building, 2017***	***National Average Employees/ 1000 sq ft of building, 2017***	***Brooklyn Park's Ideal employees/ 1000 sq ft of building to reach 50,000 jobs***
Industrial	2.0	1.6	2.0
Office	2.8	5.0	5.0
Institutional	1.6	6.4	5.0
Commercial	1.7	4.5	4.0
Medical	4.0	4.5	4.0

Increasing the average employment density as illustrated in Table 6.4.3.1 lowers the amount of land needed to reach 50,000 jobs, balancing employment growth with the need to add housing opportunities on limited land available.

6.5 Community Wealth Building[3]

In 2015, Nexus Community Partners adopted a place-based, systems approach to community economic development to address historical barriers to equitable economic inclusivity. The Community Wealth Building (CWB) framework is grounded in three values:

- Equity as a central lens to take advantage of opportunity structures and eliminate racial and economic disparities.
- Mutuality at the center of partnerships and shared efforts.
- Stewardship, where residents function in roles of economic governance and responsibility as both consumers and producers in the economy.

These values guide the five pillars of community wealth building:

1. Local ownership—increasing the circulation of resources within community and building more resilient economies, thereby fostering individual and family wealth, helping stabilize economies, and strengthening ties between people and place.
2. Anchor institutions—key partners that have a sense of mutual exchange and interdependence with community and can be instrumental in shaping a neighborhood's long-term economic viability.
3. Community assets—developing productive assets that support multiple wealth building strategies and systems. Creating multi-lane strategies that reinforce one another and contribute to the economic fabric of the community.

[3] This section is heavily based on "Community Wealth Building Values and Principles" as shared by Nexus Community Partners.

4. Policy, systems, and leadership—policy making tables should reflect the communities they are designed to impact. Formal leadership development pipelines are fundamental to achieving sustainable change.
5. Culturally based economic models—economic strategies must be tailored for the specific communities they are designed to benefit. Culture is a resource for creating and expanding wealth building options, and cultural practices hold solutions to economic inequities.

As one of Minnesota's most diverse communities, Brooklyn Park is in prime position to implement portions of Nexus' Community Wealth Building strategies. The City of Brooklyn Park as an institution could commit to local procurement wherever possible to reinvest resources garnered from the community back into the community. Similarly, the City can share information with other anchor institutions, public and private, to encourage local purchasing to bolster the local economy through magnified purchasing power and volume. These anchor institutions could include educational systems (North Hennepin Community College, Hennepin Technical College, the Osseo, Anoka-Hennepin, and Robbinsdale School Districts) and private institutions with significant buying power, such as Brooklyn Park's large base of manufacturing companies.

There are also implementation opportunities in local business ownership. The ongoing generational wave of retirements provides an opening for conversations around succession planning. From small family-owned businesses to large corporations, opportunities exist for conversion to cooperative ownership or transition to local ownership. Finally, the City could support a growth in general local business ownership by researching barriers to entrepreneurship and providing resources that could facilitate local acquisition of existing businesses or guide prospective entrepreneurs in starting a business.

6.6 Goals, Policy Objectives, and Policy Implementation

As Brooklyn Park continues to grow, its demographics will continue to shift and its economic development needs will become more pronounced. Emerging strategies for community wealth building tailored to Brooklyn Park's conditions can provide another perspective for protecting equitable growth. As part of the Plan's implementation, the City will continue to pursue equitable development. The City recognizes racial disparities in employment and economic development, and intends to continue evaluating ways to increase racial equity while implementing this Plan. Taking a proactive approach to align future staff work with anticipated needs will ensure Brooklyn Park's economic vitality continues to be healthy and fosters prosperity for residents and businesses.

6.6.1 Promote robust local restaurant, retail, bioscience, precision manufacturing, and services markets.

6.6.1.1 Continue to support economic activities that increase the overall tax base of the community.

6.6.1.2 Explore strategies for attracting additional restaurants to grow the variety of dining options for residents, businesses, and the workforce.
6.6.1.3 Identify opportunities to enhance resident access to existing businesses.
6.6.1.4 Continue to review the Business Forward Advisory Board recommendations to sustain a strong, business-friendly environment in Brooklyn Park.
6.6.1.5 Continue to support business attraction, retention, and expansion in the growing cluster of medical device and technologies, biosciences, precision manufacturing, research and development facilities, professional offices, and headquartered companies in Brooklyn Park.
6.6.1.6 Explore strategies for reducing barriers to opening a business in Brooklyn Park.
6.6.1.7 Continue to support community-owned amenities, such as Edinburgh USA golf course and clubhouse, and prepare publicly-owned land, such as the Village Creek redevelopment area, for redevelopment.

6.6.2 Explore opportunities for new business development, especially within historically underserved communities.

6.6.2.1 Consider creating a new forum for entrepreneur development to share resources with potential new business owners and stimulate the locally-owned business community.
6.6.2.2 Explore small business incubation models, including whether the foundation for an incubator already exists in Brooklyn Park.
6.6.2.3 Continue to include the Brooklyn Park business community in policy creation and decision making via the Business Forward Advisory Board.
6.6.2.4 Continue small business support programs, such as Open to Business, and one or more City Staff positions to support businesses.
6.6.2.5 Explore strategies to engage emerging entrepreneurs.
6.6.2.6 Evolve the work of the Brooklyn Park Development Corporation to maximize its potential as a tool for business development.
6.6.2.7 Consider using the Equitable Development Principles and Scorecard as a tool to engage the community and evaluate impacts during the development process.
6.6.2.8 Evaluate the impact of policies and strategies on people of color through data analysis and community engagement. Adapt policies based on that evaluation.

6.6.3 Support human capital development efforts that reinforce workforce, job quality, and density goals in Brooklyn Park.

6.6.3.1 Aim to attract employers that can support higher density employment to meet 2040 jobs goals.
6.6.3.2 Develop job creation, career pipeline, and livable wage policies in Brooklyn Park.
6.6.3.3 Continue to cultivate workforce development partnerships with employers, schools, chambers of commerce, and other governmental and nonprofit organizations.
6.6.3.4 Explore options to connect the local workforce to local employers.
6.6.3.5 Remain involved with local programming to continue supporting partnerships without duplicating established, functioning initiatives.

6.6.4 Identify opportunities to implement community wealth building strategies.

6.6.4.1 Consider introducing City practices that promote local procurement in purchasing wherever possible.

6.6.4.2 Encourage local procurement in purchasing by other Brooklyn Park public and private anchors, including post-secondary institutions and Brooklyn Park's largest employers.

6.6.4.3 Explore platforms for promoting information on local ownership transfer and cooperative ownership models with businesses exploring ownership succession planning.

6.6.4.4 Evolve programs and practices to create more openness and opportunity to access available business resources.

CHAPTER 7: PARKS AND TRAILS

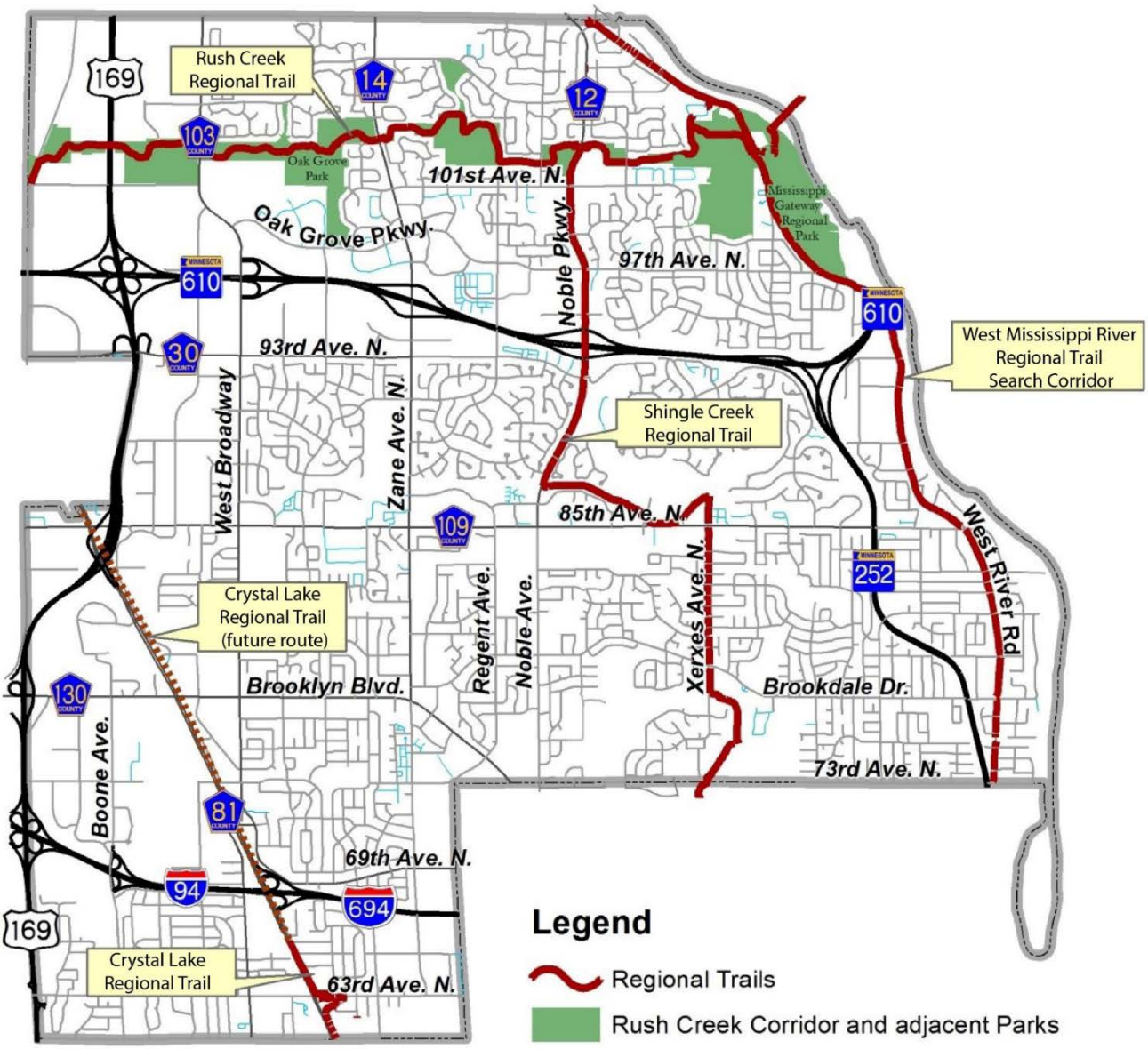
7.1 Introduction

The Regional Park and trail system provides a good framework to connect and support local park and trail systems. This chapter will identify the regional system and provide a summary of the City's ten-year Park System Plan. The Park System Plan that will be included as an appendix to the 2040 Comprehensive Plan and addresses our extensive park system.

7.2 Regional, State & National Park Facilities

Regional and State park facilities provide community residents with several unique recreational opportunities and an expansive network of regional facilities that expand through well-linked communities. There are currently no State Park facilities in Brooklyn Park. Our community is home to Mississippi Gateway Regional Park and also includes the Mississippi National River and Recreation Area (MNRRA) and four regional trail corridors.

Existing and Future Regional Park and Trail Facilities



Mississippi Gateway Regional Park: Formerly known as the Coon Rapids Dam Regional Park it encompasses a total of 267 acres and offers both Brooklyn Park residents and regional visitors a unique opportunity to observe the "Mighty Mississippi" up close. The City of Brooklyn Park owns and operates the Mississippi Gateway Regional Park (96.5 acres) located directly across West River Road from each other and are connected via the Rush Creek Regional Trail. The Three Rivers Park District and the City of Brooklyn Park formed a partnership to develop a join master plan that incorporates both parks with the goal for the two parks to seamlessly function as one: namely Mississippi Gateway Regional Park. Three Rivers and the City of Brooklyn Park will continue to collaborate on funding, development and operations for the park, with the intent to have all areas of the park function seamlessly for the public.
The parks vision statement is: "A gateway for everyone to connect with the Mississippi River and its dynamic environment". Mississippi Gateway Regional Park provides amenities and opportunities at the regional, state and national levels due to its location within the Mississippi National River Recreation Area.

Mississippi National River and Recreation Area's (MNRRA) – Brooklyn Park's eastern border encompasses the Mississippi River, which has been designated as a national river and recreation area, since 1988. This 72 mile area flows through 25 communities, ranging from the urban centers of Minneapolis and St. Paul, to more rural areas. The National Park Service (NPS) has works in partnership with MNRRA's bordering communities to develop an Alternative Transportation Plan (ATP) represents a series of connections to the Mississippi River with the aim to provide visitors with multi-modal access to destinations, river access points, bike commuting and recreational opportunities, and transit options within the park's designated corridor. The plan serves as a catalyst for the region's sustainable cultural, economic, and environmental future. The ultimate objective is to create a well-defined and seamless network of multi-modal opportunities in this urban river corridor that is recognized by all visitors as the means to navigate the corridor in its entirety.

The ATP and its partner will identify how to connect non-motorized transportation with transit opportunities along the Park's 72-mile long corridor with existing and proposed transit facilities on both sides of the Mississippi River in the Twin Cities metro area.

The City of Brooklyn Park owns and operates River Park, a 42 acre park on the MNRRA and is currently undergoing a park master plan. The Plan's anticipated outcomes will identify infrastructure improvements, their priority, potential funding requests, and will help achieve a number of goals set by the Park's Comprehensive Management Plan. The Plan's goal is to get people to, on, and along the Mississippi River. Objectives include increasing visitation without increasing congestion, improving circulation, protecting park resources, and providing a safer and sustainable visitor and commuter experience.

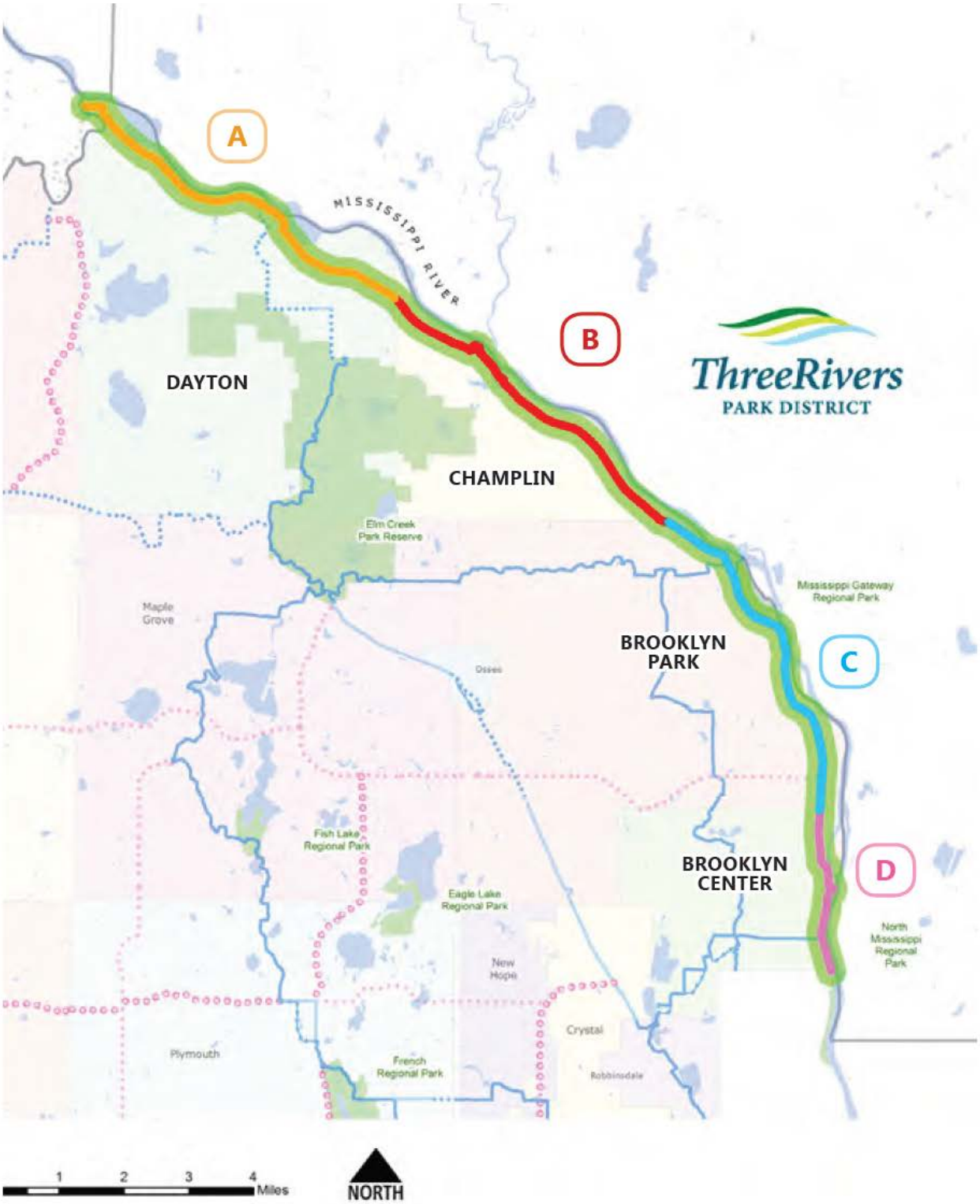
Crystal Lake Regional Trail Corridor Extension: This regional trail corridor extension is planned in conjunction with the CSAH 81 (Bottineau Boulevard) reconstruction project. The Crystal Lake Trail Corridor Extension project is expected to provide a continuous pedestrian pathway/bikeway along CSAH 81 that will extend from the south city border with Crystal, north to Osseo. Potions of the trail have been completed through the City of Brooklyn Park with the balance to be completed in 2019-20.

Rush Creek Regional Trail: The Rush Creek Regional Trail Corridor, owned and operated by Three Rivers Park District, extends through the entire northern section of the City beginning at the Coon Rapids Dam, and extending west to the Elm Creek Reserve in Maple Grove. The regional trail corridor provides an approximate 6.9-mile scenic backdrop of the community that includes scenic views of several natural amenities indicative of the rural character of Brooklyn Park; including ponds, wetlands, mature oak trees and preserved farmland.

Shingle Creek Regional Trail: The Shingle Creek Regional Trail Corridor extends north to south through the City to provide residents a connection to the Elm Creek Regional Trail from the Palmer Lake Environmental Area.

West Mississippi River Regional Trial Search Corridor*:* The trail route celebrates the Mississippi River's significance within Hennepin County. The trail will travel approximately 20 miles adjacent to or near the river through northeastern Hennepin County, and will connect the communities of Dayton, Champlin, Brooklyn Park and Brooklyn Center – with the confluence of the Crow/Mississippi Rivers and the Minneapolis Grand Rounds acting as bookends. The Brooklyn Park segment identified as C below, runs along West River Road with planned connections to the river at River Park.

West Mississippi River Regional Trail Search Corridor segments
Provided by Three Rivers Park District



Implementation
The City will continue to work with Three Rivers Park district on the planning and implementation of the improvements at Mississippi Gateway Regional Park and the regional trail system. This partnership serves our local residents as well as the region in a very positive way.

In addition, following is the executive summary from the Parks and Recreation System Plan approved by the City Council in January of 2018. This document provides an overview of the existing system, current planning efforts, engagement around the plan, what we heard, gaps, improvements needed and funding. The entire plan is included as an appendix to the Comprehensive Plan.

7.3 Local Introduction

Parks and recreation systems are known to provide a critical role in transforming cities into vibrant, healthy communities. Parks provide opportunities to improve physical and mental health, a place to meet up with family and friends, or reconnect with nature. Beyond delivering high-quality recreation opportunities, park and recreation systems play a critical role in protecting and celebrating the environment through the conservation of public lands, investing in green infrastructure, and advocating for proactive management of land and water resources.

7.4 City Recreation and Park System Plan

Why Do We Need a Recreation and Park System Plan?
Much has changed since the 1997 Ten-Year Park Improvement Plan was implemented. Brooklyn Park is now the sixth largest city in the state of Minnesota, with a population of 81,460 (2016). The City is expected to exceed a population of 95,000 by the year 2030. Brooklyn Park is one of the most diverse cities in Minnesota, with over 50 percent of our population being persons of color, 20 percent born outside of the US, and 25 percent of our residents speaking a language other than English at home.
As Brooklyn Park is getting close to being fully developed; now is the time to evaluate if open land needs to be identified for future parks and recreation facilities. To stay relevant to our changing community, it is important to assess the current needs and interests of the community. The Recreation and Parks System Plan process is built on the priorities identified in the 2012 Parks and Recreation Master Plan and the *Brooklyn Park 2025* Community Plan.
The 2012 Park Master Plan provided a good overview and direction for the recreation and parks system. However, the plan did not identify where within the parks system the City should reinvest or what specific types of facilities should be developed. To move forward on any of these efforts, the City needed to initiate more input from the community and stakeholders on what specific facilities, amenities, and locations should be considered for accommodating new or updated facilities.

What Does the System Plan Include?
This 10-Year System Plan has engaged our community, particularly our multi-cultural community to address equity issues within the system. This System Plan also continues to build on the information and recommendations of the 2012 Recreation and Parks Master Plan and incorporates ***Brooklyn Park 2025*** goals, along with the following initiatives:

» Reaffirms community priorities and identifies current gaps in the system;
» Identifies opportunities for development or redevelopment within all 60 parks in the system to ensure equitable distribution and access to facilities and services throughout the community;
» Validates priority trail system enhancements and gaps as identified within the currently proposed Brooklyn Park Pedestrian and Bicycle Master Plan, along with other emerging connectivity needs;
» Identifies specific locations within the community that would best accommodate improved or expanded amenities and special use facilities;
» Identifies specific natural areas within the system to be proactively managed; and
» Evaluate if additional park property is need to ensure preservation of natural spaces or equitable distribution of park space throughout the community.

7.5 Existing Parks System

Brooklyn Park has a well-established parks and trails system comprised of 53 miles of trails, 60 parks with more than 2,000 acres of land containing more than 400 amenities including park shelters, playgrounds, athletic fields and environmental areas. It also includes the following special use facilities:

» Brookland Golf Park
» Edinburgh USA Golf Course
» Community Activity Center
» Zanewood Recreation Center
» Eidem Homestead Historical Farm

Other notable and unique features within the park system include:

» The first and only dedicated competitive wheelchair softball field in the five-state

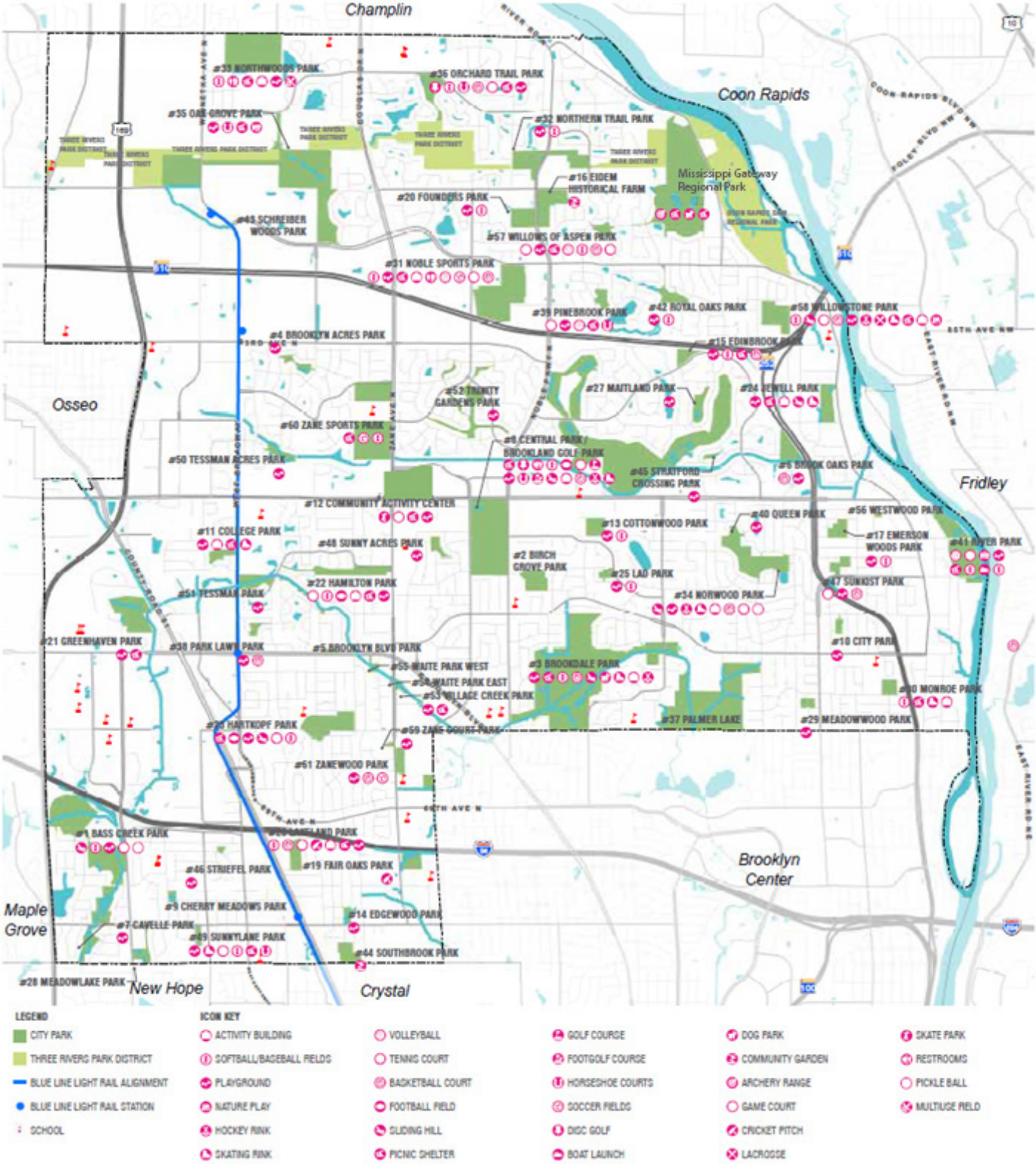
area that includes an adjacent all-inclusive playground
» Skate park facility
» Off leash dog parks
» Community gardens
» Disc golf
» Fishing pond

Prior planning and community foresight resulted in a park system that ensures all residents have convenient access to parks, 95 percent of neighborhoods are within half mile radius (approx. 10-minute walk) of a park. Together the parks, trail system, specialized facilities, regional amenities, and proximity to the Mississippi River add to the unique character and richness of our parks system that exists today. Our parks system is adequate and meets the needs of many user groups, but it could be even better. There are still gaps within the system, park amenities and facilities in decline, and equity issues to be addressed. This will require the City to reinvest in parks and trail systems to improve the quality of existing infrastructure, address changing needs and trends, and reaffirm a sense of pride in the community about the benefits parks and trails provide for improving the quality of life for all residents.

How Do We Compare?

After comparing Brooklyn Park to six other representative sized communities, many of the benchmarking categories for comparing number of parks, total parkland acreage, and total miles of trails were all in the median range with other communities. The only category where the City did not compare favorably with other communities was accommodations for splash pad or interactive water fountain facilities which were present in five of the six inventoried communities.

Existing Parks System Map



7.6 Current Planning Efforts

As part of the 2012 Recreation and Parks Master Plan, one of the priorities identified by the community showed a strong interest in developing more unique types of recreation facilities and programming. Over the past two years, City staff has been collaborating with stakeholders and the community to add or enhance new types of recreational programming, facilities, and trail systems. Planning efforts initiated include:

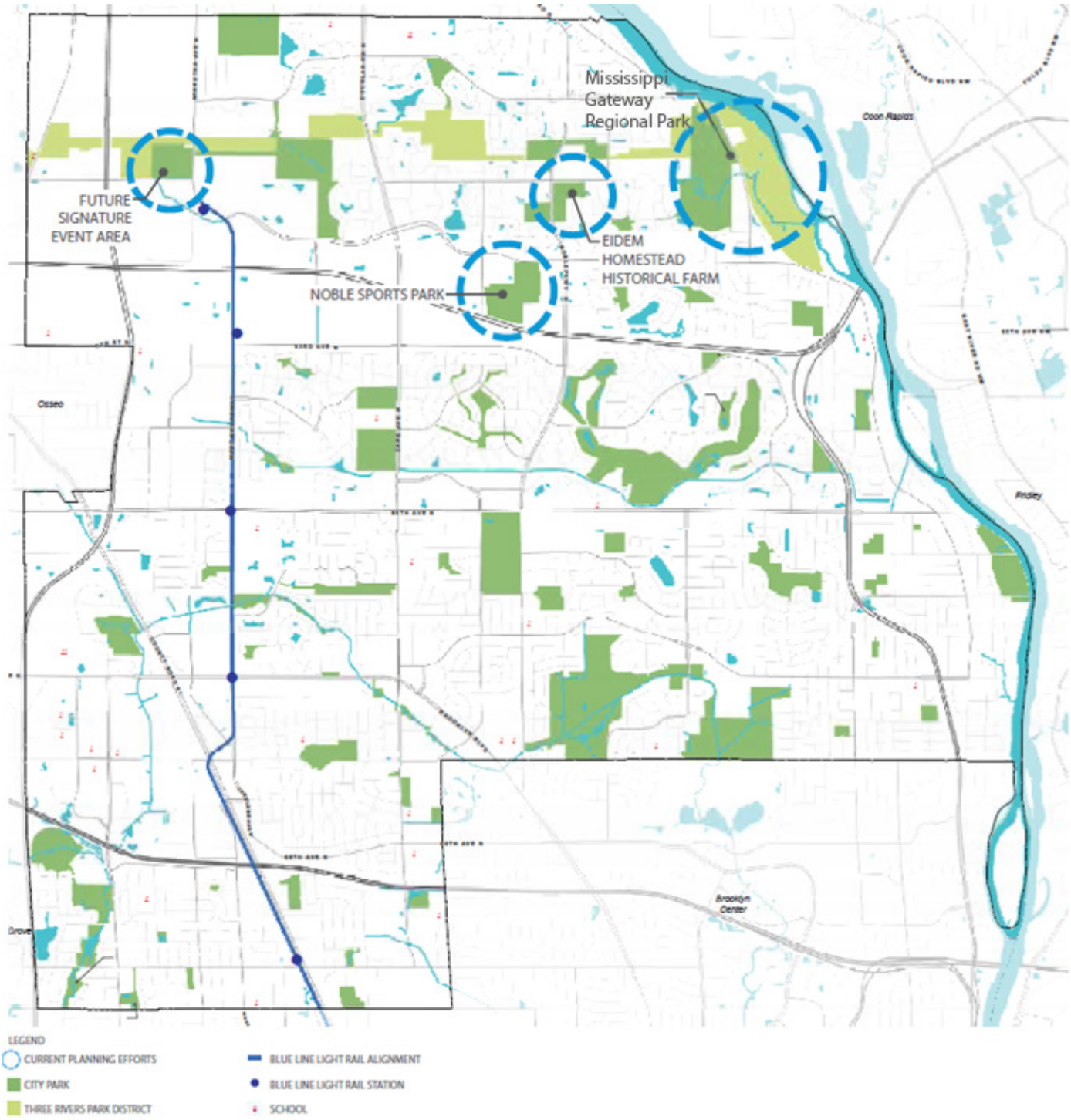
» Signature Event Area (SEA) Park Concept Plan
» Joint Master Plan for the Mississippi Gateway Regional Park
» Hometown Ball Field Concept at Noble Sports Park
» Eidem Homestead Historical Farm Master Plan
» Pedestrian and Bicycle Trail Master Plan
» Performing Arts Center Concept Plan
» River Park Master Plan

We are in an exciting period of growth and opportunity for Brooklyn Park with many new infrastructure improvements and redevelopment projects currently in the planning process. It is important that this System Plan can respond to future planned initiatives and respond to the changing needs of our community.

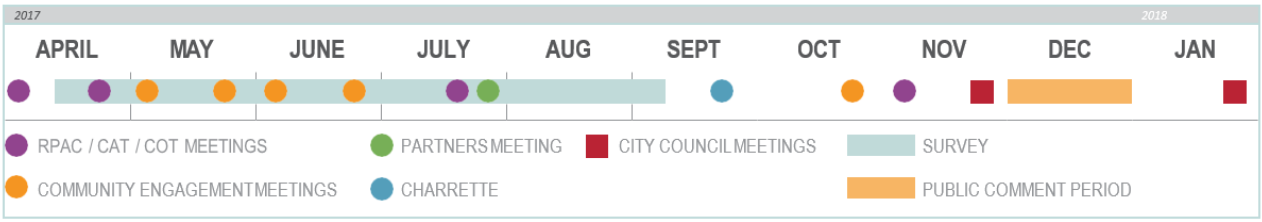
Relating to the Broader Cite Landscape

Partnerships with other agencies are being formed and being leveraged into shared use facilities and joint use projects. It is important that our future System Plan is structured to respond to these changes happening within our community. Some of the major drivers to change that will need to be integrated within the Systems Plan include the Blue Line Light Rail Transit line and associated station areas to be implemented along Bottineau Boulevard and West Broadway Avenue.

Current Planned Parks



Project Meeting Schedule



Engaging the Community

The overarching community engagement goal was to develop a framework that allowed community members, community organizations, and partners to engage in the planning process. This process also enhanced the community's understanding of the existing recreation and parks system and having a voice to guide its future over the next 10 years. Community members and partners were engaged through the plan at three levels of the International Association for Public Participation's Spectrum of Public Participation: to inform, consult, and involve. Electronic media was utilized to inform the community about the process. A 26-member Community Advisory Team (CAT), a 40-member Community Outreach Team (COT), and Youth Facilitators were actively involved in the process and helped facilitate meetings and solicit input from the community.

The community engagement process generated a total of 3701 surveys, of which 1,869 were completed online. The other 1,832 (approximately half) were conducted in person. A significant effort was made to protectively convene and reach out to the community where they were already gathering for an event. This allowed for a larger percentage of the community to be informed and engaged in the planning process and participate in survey outreach. Here are examples of how we reached out to engage more community members:

» **Conducted pop-up meetings** at over 20 community events including Tater Daze, Summer Splash, Farmers Market, Dragon Star Grocery Store, the Library, etc.;

» **Contracted with community-based organization ACER** (African Career, Education and Resource, Inc.) to reach renters and immigrant residents who are traditionally under-engaged. They did this through pop-up events at 4 apartment communities, tabling at 2 events including Liberian Independence Day soccer tournament, and a family event at Central Park;

» **Attended Rec on the Go events** at apartment communities;

» **Surveyed residents** at places like St. Alphonsus Church, Liberian Independence Day event, and apartment communities

during National Night Out;

» **Conducted surveys** at two senior luncheons;

»**Student peers and fellow community members surveyed** by North Hennepin Community College students;

» **Conducted door to door surveys** and passed out flyers in the Lakeland Park neighborhood; and

» **Attended five Community-At-Large Meetings** in different neighborhoods with 140 residents attending

What Did We Hear?

The overall cross-section of the community that replied to the survey represented the City's demographic fairly well with over 52 percent of respondents being age 19-49 and 43 percent being people of color.

In general, the responses heard at the Community-At-Large meetings echoed or complimented the overall survey results. Survey questions and comments were asked and recorded within the following focus areas:

» **Barriers to Use:** Survey respondents noted there being a general lack of knowledge and information available about the existing recreation and parks system. Safety and security concerns were the leading causes for the community not feeling comfortable using the parks and trail systems.
» **New Desired Indoor Recreation Facilities:** High desire indoor facilities identified by survey respondents included adding an aquatics facility, a gym/fieldhouse building for year-round use, and a performing arts/studio arts facility.
» **New Desired Outdoor Recreation Facilities:** High desire outdoor facilities identified by survey respondents included adding an aquatics facility, splash pad water play features, and natural play areas.
» **Desired Improvements for Existing Park Facilities:** High desire improvements identified by survey respondents for improving existing park facilities included adding shade provisions, picnic areas, lighting, updated and expanded playgrounds, athletic fields, and court facilities.
» **Trails:** High desire trail improvements or additions identified by survey respondents included enhancing trail access and connections to parks by filling in existing trail gaps and sidewalks, expanding internal walking loops within parks, increasing access to the Mississippi River and along Shingle/Bass Creeks through the creation/addition of urban greenway trail systems, and adding trail identification and wayfinding signage.

Word Cloud Survey: What Discourages You from Using the Park System?

Word Cloud Survey: What Improvements You Would Like to See in the Park System?

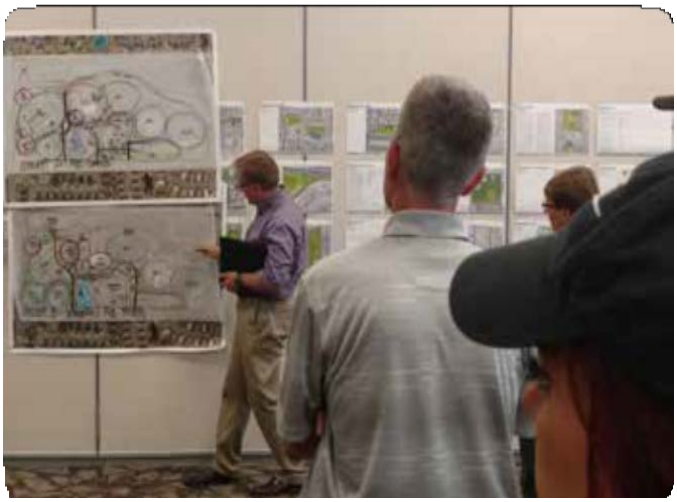
Word Cloud Survey: What Do You Wish was in the Park System?

The Five Emerging Themes

Based on the review and analysis of all public comment and feedback, reoccurring themes evolved which began to represent new programming and park features important to the community. The following five themes and corresponding facilities and amenities emerged as priority initiatives to be considered as part of this System Plan:

1. **Build or expanded special use facilities**
   » Indoor Aquatics (water park, splash pad)

» Senior Center
» Teen Center
» Field House
» Adult Recreation Facilities
» Performance Venue, Amplified Music
» Large Gathering Spaces
» Visual/Performing Arts
» Indoor Gym

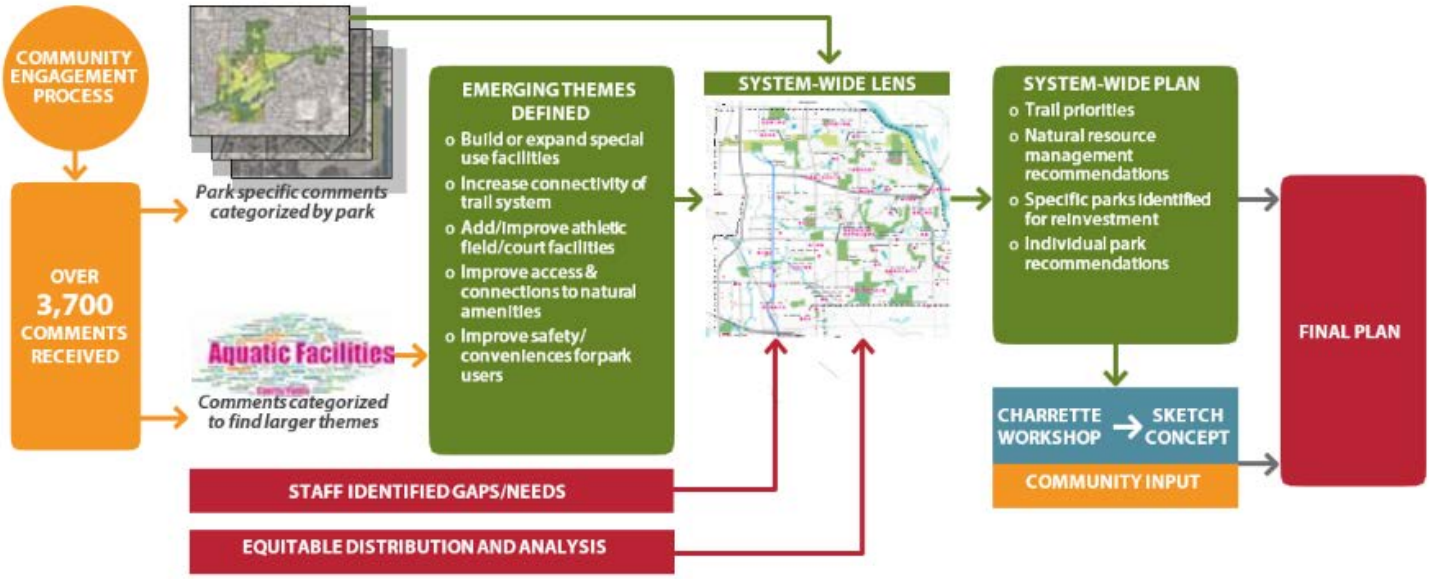


2. **Increase Connectivity of Trail System**
   » Connections to key destinations (LRT, River)
   » Increase Walking Loops
   » Connections to Schools and Parks
   » Grade Separated Crossings on Busy Streets
   » Connect Trail Gaps and Sidewalks
   » Add Signage/Wayfinding

3. **Add/Improve Athletic Field/Court Facilities**
   » Pickleball
   » Field Lighting
   » Cricket Pitch
   » Synthetic Turf Surfacing
   » Bathroom Facilities
   » Additional Soccer/Lacrosse Fields
   » Indoor Sports Courts
4. **Improve Access and Connections to Natural Amenities**
   » Mississippi River
   » Shingle Creek
   » Bass Creek
   » Natural Areas
   » Fishing Pond
   » Open Space
   » Prairie
   » Forest
   » Wetlands
5. **Improve Safety/Conveniences for Park Users**
   » Better Signage/Wayfinding
   » Park Patrol/Cameras
   » Lighting Improvements
   » Access to Restroom Facilities and Drinking Water
   » Kitchen Sink Access in Picnic Shelters

» Better Maintenance of Parks
» Shade Shelters and Benches
» Improved Trail Conditions

The Planning Process



Moving Forward in the Planning Process

After hearing from the community and identifying emerging themes, a planning process was undertaken to determine where in the system to best address these emerging themes and identifying more specific gaps and needs to be studied within the current park system. The following needs were evolved to be addressed within the current system and included:

» Adding an aquatics facility
» Expanding or adding park activity buildings
» Increasing the number of nature play areas and community gardens
» Adding or replacing sport courts (pickleball, tennis, and basketball courts)
» Addressing emerging sports within the System (cricket, lacrosse, and takraw)
» Expanding the Zanewood Recreation Center
» Expanding the Community Activity Center (CAC)
» Adding facilities to accommodate the visual and performing arts (studio and dance)
» Adding an indoor field house with gymnasium and synthetic turf for year-round sports programming

Determining Equitable Distribution and Access

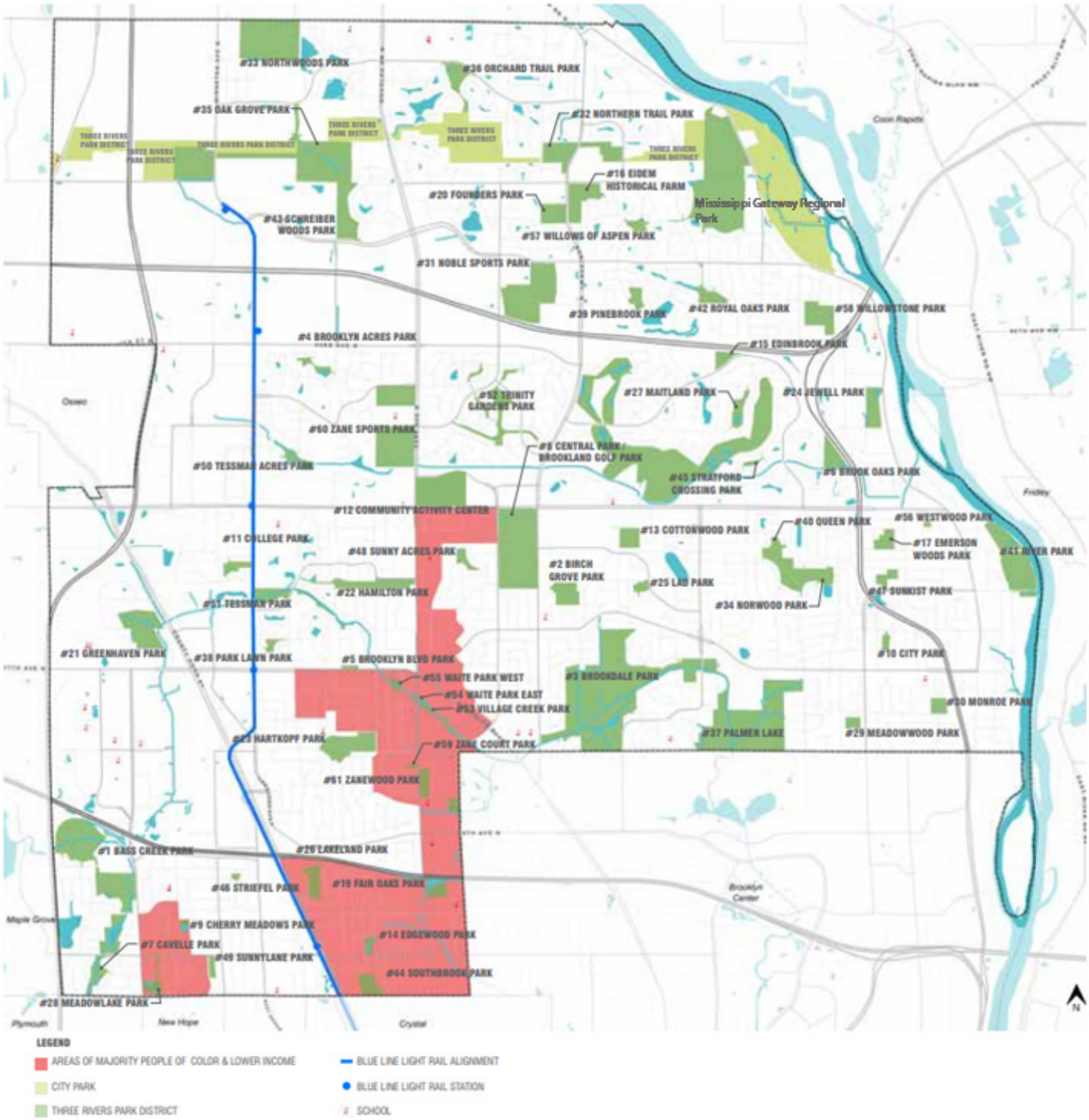
The number of people of color in Brooklyn Park has increased rapidly over the last 20 years, from

10 percent in 1990 to more than 50 percent today. To better understand how this change in demographics impacts how existing park and recreation facilities should be improved to better meet the needs of all residents, a city-wide equity analysis was completed to determine whether any areas of the City are currently underserved by park facilities and amenities. Using equity evaluation criteria developed by the Trust For Public Land, outcomes of this study found the following key findings:

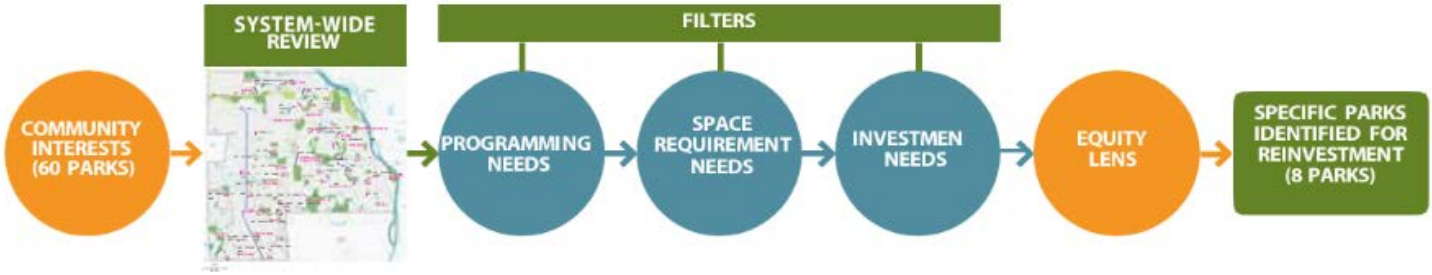
» On average, People of Color (POC) and Lower Income (LI) households are better served by recreation centers than the average non-POC and higher income households.
» On average, census block groups defined as People of Color and Lower Income (POCLI) have playground level of service that is 90 percent that of non-Lower Income block groups.
» On average, census block groups defined as POCLI have basketball court level of service that is 68 percent that of non-Lower Income block groups.
» Income seems to be a more powerful determinant of inequity in park amenity distribution than race/ ethnicity.

Based on the mapping results shown in the Equity Analysis Map on page xvii, geographic areas highlighted in red are the census block groups which are mostly underserved by park facilities. **When evaluating the implementation of new amenities or reinvestment within the overall park system, these areas should be considered high priority investment areas to achieve more balanced city-wide equity and access to park facilities and amenities.**

Census Block Equity Analysis Map



How Did We Identify Specific Parks for Reinvestment?



Determining Priority Parks for Reinvestment

After completing a comprehensive review of the entire existing park system and recognizing all 60 parks have needs for investment, evaluation criteria were established and applied to determine what parks should be prioritized to support more significant reinvestment. Criteria used to evaluate park properties included:

» The parks capacity to support additional or new programming based on existing building and parking facilities already present at the park

» The parks total land acreage and its capacity to support new site, building, and parking facilities.

» The overall condition of the parks existing facilities and its need for updates and investment

» The geographic location of the park and its capacity to improve equity and access to underserved parts of the City.

Park Improvement Recommendations

Based on outcomes of applying the park evaluation criteria, seven parks were selected which offered the best opportunities for addressing gaps and needs in the system. Each park was studied in greater detail to explore reinvestment and redevelopment opportunities through the development of park concept plans. The following parks were evaluated as part of a design charrette workshop process for generating ideas, concept plans, and cost estimates for implementation working with the community and stakeholder groups:

» Lakeland Park

» Hamilton Park

» Hartkopf Park

» Community Activity Center (CAC)

» Central Park/Brookdale Golf Course

» Norwood Park

» River Park

» SEA Park

Multiple concepts were created for the CAC and SEA Park to evaluate alternative scenarios for accommodating different types of aquatics facilities at each park.

As a part of Park System Plan, all 60 park properties are listed and summarized in alphabetical order and include an existing amenity map, a summary of current use, facility conditions, and site improvement recommendations.

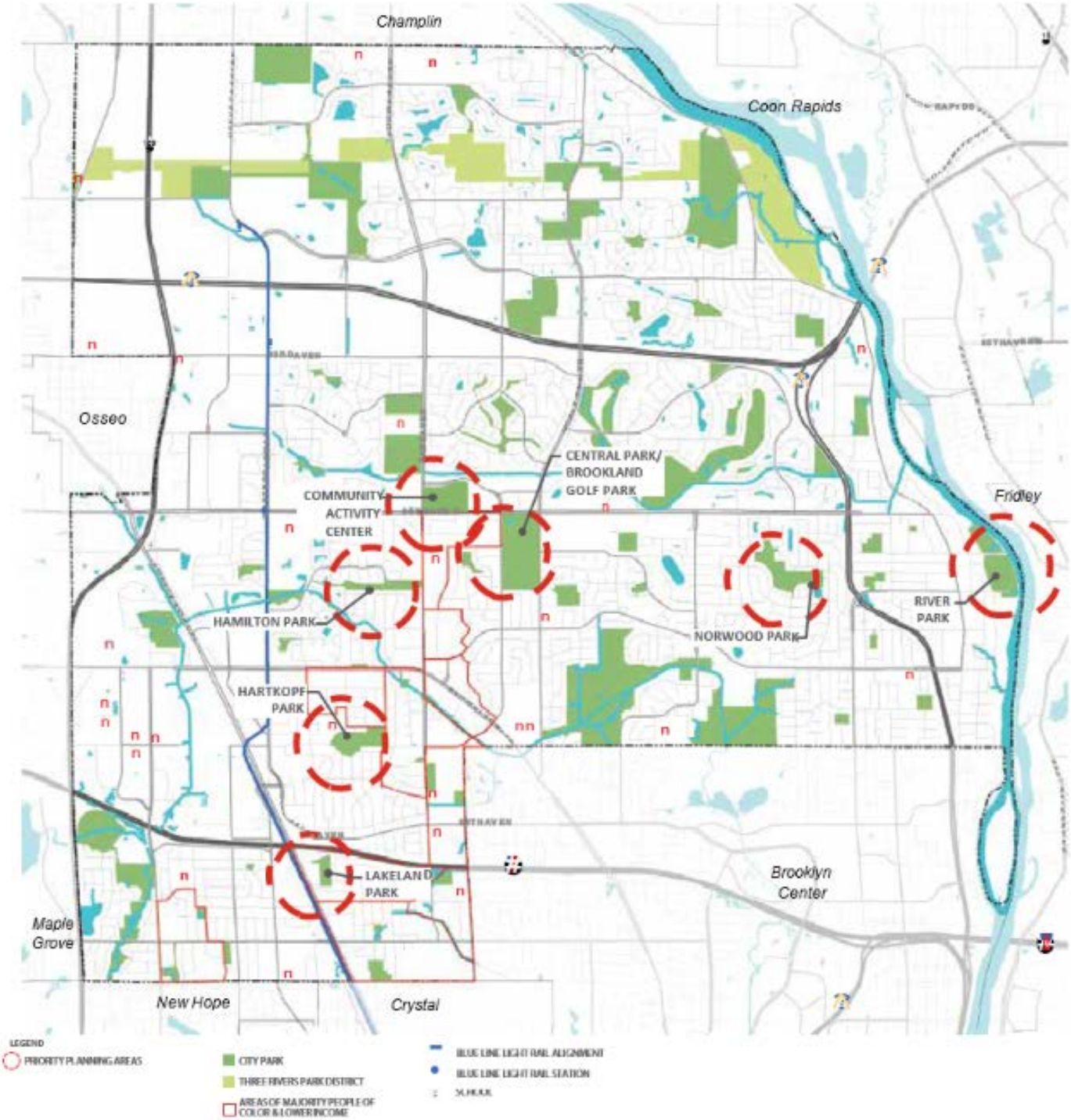
Trails System Recommendations

Key gaps and priorities for increasing the connectivity of the local trail system in the City have been identified as part of this systems plan. These new priorities were vetted through the community process and focused on removing gaps for establishing better connections to parks, residential neighborhoods, safe routes to schools, light rail and bus stop transit stations, and regional trail corridors. Recommendations for establishing grade separated trail crossings with high traffic volume roadways are also included as part of proposed trail system improvements.

Natural Resource Recommendations

To help identify specific natural resource areas to be proactively managed within the City, vegetation and water resource areas were mapped and evaluated from a regional perspective to gain a better understanding of their ecological context and connectivity as natural resource corridors. Three conceptual habitat corridors were identified: along the Mississippi River, along the Rush Creek Regional Trail, and along the Shingle Creek corridor. Additional park land “patches” were also identified to provide wildlife habitat connections to the Mississippi River.

Park Focus Areas Map



Moving Forward with a Plan for Reinvestment

With many recommendations and initiatives identified to be implemented as part of the systems plan, developing funding strategies which can guide short and long-term investment for updating and improving park properties, recreation facilities, and trail systems is an important component of this plan. Operations and maintenance funding considerations also need to be to be addressed to ensure new proposed facilities and programming can be sustained within the City's overall operating budget.

How is the Park System Currently Being Funded?

The City's park system is currently being funded through three main sources of funding which include the following:

» **General Fund (Levy)** – The City general fund (tax levy) supports the annual on-going recreation programs and services of the Recreation and Parks Department, including support for the operations and maintenance of the park system.

» **Heritage Fund** (Capital Asset Replacement Fund)

- The heritage fund is an asset replacement fund for all parks and city owned facilities;
- As part of the City's Capital Improvement Plan (CIP), staff is responsible to develop a 5-year asset replacement plan for each facility/park. Staff conducts an annual inspection of existing parks, city owned buildings, special use facilities and
- trails. Priorities are based on life-cycles replacement schedules and facility condition reports. The heritage fund is supported through tax levy with an average investment of approximately $1.6 million annually.

» Open Space Land Acquisition and Development (OSLAD) Fund

- The OSLAD Fund is designated for the acquisition of park property and development of park and trails.
- OSLAD funding is provided through two primary sources, park dedication fees and cell tower lease revenues.

» **Park Dedication Fees** - Park Dedication Fees are generated in conjunction with community development. The city requires a minimum cash park dedication for commercial or industrial plats or waivers of 5% of fair market land value. However, where the City Council deems it in the public interest (i.e. comprehensive plan or flood plain ordinance), it may require a minimum land dedication of five percent of the commercial or industrial land to be subdivided in lieu of a cash dedication. The lands must be indicated on the city's comprehensive plan or amendments, or must be designated on specific area plans for flood plain preservation, parks, trails, public open space or any combination thereof.

- Park dedication fees shall be used only for 1) acquisition of land for parks and playgrounds; 2) development of existing park and playground sites or

facilities; 3) redevelopment or rehabilitation of existing park and playground sites or facilities; or 4) debt retirement in connection with land previously acquired for parks and playgrounds.

» **Cell Tower Lease Fees** - Currently the City has cell towers located at ten (10) different sites throughout the community, including Bass Creek Park, Boone Water Tower, Central Fire Station, Edinbrook Park Tower, Noble Sports Park, Noble Water Tower, Palmer Lake Park, River Water Tower, Sunny Lane Park and Willowstone Park. The contract agreements for each of these tower locations is different as to the length of the agreement, lease cost, annual fee increase and renewal language. Currently, revenue generated from cell towers within park property is credited to the Open Space Land Acquisition and Development (OSLAD) fund (approximately $185,000/year) Potential Park Land Acquisition & Sales.

Acquisition and Sale of Property

The City has identified that parcels adjacent to existing parks may be considered for acquisition for future expansion of park and open space facilities or to be preserved as part of natural resource areas. Acquisitions will only be pursued through willing seller negotiations when opportunities are identified with private land owners.

Consideration may also be given to selling park property if adjacent land uses are no longer compatible with park programming or it offers little or no recreational benefit to the City.

Developing a 10-Year Capital Reinvestment Plan

Within this plan includes high level cost estimates prepared to address all long-term investments identified and discussed during the community engagement process. These are to be implemented in the system over the next ten years. Priorities for investment will be determined by many variables including the pursuit of partnership opportunities, available funding sources, and outcomes of additional public comment and feedback.

Preliminary estimates include only capital investment costs and will require further refinement to determine more accurate costs for design, construction, and needed contingencies. Proposed projects requiring additional yearly operations and maintenance costs will also require identifying funding sources to support any required increases in staffing to support new capital investments.

Optional Models for Implementation

The included proposed 10-Year Capital Reinvestment Plan provides a "roadmap" to future investment in the System, but there are currently limited resources available for implementation of the Plan.

Current resources within the OSLAD fund will only support a portion of the projects the community has identified as priority improvements to meet the changing needs and vision for a quality parks and recreation system. The City, in partnership with the community, will need to identify other resources to fund the projects identified as priorities for the park system.

Park Priority*	Cost
Natural Resource Management Plan implementation	$500,000
Trails, wayfinding signs and lights	$2,400,000
Park reinvestment	$13,100,000
Community Activity Center improvements and senior facilities and activities	$4,000,000
Field and court improvements	$2,600,000
Recreation/Teen center	$2,000,000
Eidem Farm (Phase I)	$1,400,000
Total	$26,000,000

*Details regarding each priority are on the city's website: www.brooklynpark.org/parkbond

What's next?

This System Plan provides recommendations for improvements, where within the system priority amenities could be accommodated, and costs associated for their implementation. However, it will be up to the community to determine the level of investment it is willing to support to make the park system relevant for all community members now and into the future.

Completing a Feasibility Study

The completion of a Feasibility Study conducted by the Trust for Public Land presents several viable local public options for funding park and recreation improvements in the City. The study also provides an analysis of which options and funding levels are feasible, economically prudent, and likely to be publicly acceptable.

Looking Towards Implementation

To assist in fully understanding the level of support for the community identified priorities, consideration for further public involvement should be considered for advancing the recommendations within this plan. Several options to consider include:

» Public Opinion Surveys – Issue surveys developed by expert polling firms to

gauge public support for reinvestment and implementation priorities
» Building Public Awareness – Educate the community about referendums, investment choices, and tax impacts without advocating for support and approval
» Community Advocacy – It is up to the community to determine its level of involvement and advocating for support and implementation of plan initiatives.
» Other outside organizations including the Trust for Public Land could assist with raising public awareness and advocate about the important role parks and recreation facilities play in creating a high-quality living environment for residents and communities.

Certification

Sanitary Sewer Comprehensive Plan

For

City of Brooklyn Park, MN

October 2019

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

DRAFT

By: _____

Timothy J. Olson, P.E.

License No. 49129

Date: _____

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EXECUTUVE SUMMARY

The Metropolitan Land Planning Act (amended 1995) requires local governments to prepare comprehensive plans and submit them to the Metropolitan Council (MCES) to determine their consistency with metropolitan system plans. The local Comprehensive Plan includes a local sanitary sewer plan covering the collection and disposal of wastewater generated by the community and the current and future service needs required from MCES. The City of Brooklyn Park maintains a sanitary sewer comprehensive plan that describes the City's sewer system, summarizes its contribution to the Metropolitan Council's interceptor system, affirms its commitment to reducing inflow and infiltration (I/I) and defines its maintenance protocol.

The Metropolitan Council's 2040 Water Resources Management Policy Plan (WRMPP) includes the metropolitan wastewater system plan with which local comprehensive plans must conform. The City of Brooklyn Park maintains a separate comprehensive sanitary sewer system plan to ensure conformance with the WRMPP. The Brooklyn Park plan updates previous sewer planning efforts and describes in detail the expansion of the City's sanitary sewer system to serve current and future urban development.

The City discharges into five Metropolitan Council interceptors. The interceptors drain towards the southeast corner of the City where they converge prior to crossing the Mississippi River via a large lift station L-32 across the Mississippi River to another interceptor. Measurement of sanitary sewer flow is done by the Metropolitan Council using several meters located along the borders of the city. IN 2017, the City discharged 2,161.27 million gallons of sewage into the Metropolitan Council interceptor system.

The City of Brooklyn Park Operations and Maintenance Department is responsible for all maintenance activities associated with the City's sanitary sewer system. Preventive maintenance is conducted by the department on a regular basis, including rehabilitation and replacement of structures and pipe as needed; I/I inspections and sewer televising; and repair and replacement of lift stations.

The City has developed an Operations and Maintenance Sanitary Sewer Collection System Strategy Map that identifies a programmatic approach to sewer and lift station replacement and rehabilitation and televising schedule for existing system elements. This strategy for inspection, rehabilitation and maintenance directly aligns with the Capital Improvement Plan and roadway rehabilitation and construction strategies.

The Metropolitan Council established I/I Goals for the City of Brooklyn Park dating back to the year 2011. The I/I Goal is the maximum allowable peak hourly discharge limit at each flow meter ("metershed") to the Metropolitan Council regional interceptor lines. The City of Brooklyn Park has completed numerous I/I inspection and abatement projects to the satisfaction of the Metropolitan Council. Brooklyn Park was issued an I/I Program Work Plan in 2016 for an exceedance correlated to significant rainfall. Work plan credits of $507,973.83 and $1,020,480 and the work plan assignment was deemed complete on June 26, 2017.

I. BACKGROUND

Brooklyn Park is located in Hennepin County in the northcentral metropolitan area, north and west of Minneapolis and St. Paul. Major roadway connections include Interstate 94 on the south, Trunk Highway (TH) 169 on the west, Highway 252 on the east and Highway 610 in the northcentral. Figure SS-01 shows the location of Brooklyn Park in the metropolitan area.

The Metropolitan Land Planning Act (amended 1995) requires local governments to prepare comprehensive plans and submit them to the Metropolitan Council (MCES) to determine their consistency with metropolitan system plans. The local Comprehensive Plan includes a local sanitary sewer plan covering the collection and disposal of wastewater generated by the community and the current and future service needs required from MCES.

In March, 2005 the Metropolitan Council adopted a revised Water Resources Management Policy Plan (WRMPP). The 2040 WRMPP includes the metropolitan wastewater system plan with which local comprehensive plans must conform. The City of Brooklyn Park maintains a separate comprehensive sanitary sewer system plan to ensure conformance with the WRMPP. The Brooklyn Park plan updates previous sewer planning efforts and describes in detail the expansion of the City's sanitary sewer system to serve current and future urban development.

The Sanitary Sewer System Plan has been prepared in accordance with the 2040 WRMPP and the 2015 Brooklyn Park System Statement. This plan contains a description of the existing wastewater collection system and a detailed analysis of the local system to determine future estimated sanitary sewer flows. The sanitary flows also help the MCES compare the current capacity of the regional collection system and plan for increases in flow due to future development and redevelopment. Additionally, ordinances and policies regarding infiltration and inflow and illegal connections to the sanitary sewer system are discussed.

II. PREVIOUS PLANS

A City Sanitary Sewer System Plan was prepared and adopted in the early 1980's. At that time, the City of Brooklyn Park was fully developed south of 85th Avenue and undeveloped north of 85th Avenue. The plan included a recommended sanitary sewer system for the undeveloped portion of the City.

In February 1993, the Metropolitan Waste Control Commission completed the Elm Creek Interceptor Facility Plan. This plan investigated several options to best serve the Elm Creek Watershed, including the northern portion of Brooklyn Park, through the year 2050. As a result of this plan, the Elm Creek Interceptor was constructed along the 101st Avenue alignment.

In 1999, the City prepared and adopted a Sanitary Sewer System Plan and finalized updates to the 2030 Comprehensive Plan in 2011. The Sanitary Sewer section of the Comprehensive Plan outlines the following.

- Current sanitary sewer system.
- Lift station requirements.
- Existing system flow rates.
- High flow generators.
- Intercommunity flows.
- System maintenance.

- Proposed MCES facilities.
- Inflow and Infiltration management.

III. EXISTING SANITARY SEWER SYSTEM

A. Metropolitan Council System

Figure SS-02 shows the City of Brooklyn Park's sanitary sewer system as well as the major sanitary sewer service districts, or sewersheds. The City has five Metropolitan Council interceptors that collect wastewater for the City. The interceptors drain towards the southeast corner of the City where they converge prior to crossing the Mississippi River via a large lift station L-32 across the Mississippi River to another Interceptor. Measurement of sanitary sewer flow within Brooklyn Park is done by the Metropolitan Council using several meters located along the borders of the city. The Metropolitan Council sewer mains (Interceptors) that serve Brooklyn Park and are shown on Figure SS-03 and summarized in Table 1.

1. Brooklyn Park Interceptor (BPI, 4-BP-54 & 8252-481)

   A gravity main that starts immediately west of the Mississippi River at Brookdale Drive and Mississippi Lane and extends west to County Road 81. The diameter of this interceptor ranges from 48 inches to 54 inches. This interceptor serves the portion of Brooklyn Park that is south of 85th Xylon Avenue. The capacity of the interceptor ranges from 16.2 MGD at the west portion to 27.9 MGD at its east end.

2. Maple Grove South Interceptor (MGS, 7015-C)

   The Maple Grove South Interceptor extends south and then west to Maple Grove from the west terminus of the Brooklyn Park Interceptor. The diameter of this gravity interceptor is 42 inches. The area within Brooklyn Park served by this interceptor is generally west of Co. Rd. #81 and south of Brooklyn Boulevard. The interceptor has a capacity of 9.4 MGD.

3. Maple Grove North Interceptor (MGN, 7015-A&B)

   The Maple Grove North Interceptor extends north from the west terminus of the Brooklyn Park Interceptor to 85th Grove. The diameter of this interceptor is 36 inches. The area within Brooklyn Park served by this interceptor is generally west of County Road 81 and north of Brooklyn Boulevard. This interceptor has a capacity of 9.2 MGD and also serves the City of Osseo.

4. Champlin-Anoka-Brooklyn Park Interceptor (CAB, 4-BP-54 & 8252-481)

   The CAB Interceptor gravity line extends north and west from the east terminus of the Brooklyn Park Interceptor. The diameter of this interceptor ranges from 54 inches to 66 inches. The area within Brooklyn Park served by this interceptor is generally the central and eastern portion of the City north of 85th Avenue. Its capacity ranges from 9.3 MGD in Champlin to 43.6 MGD at its south terminus.

5. Elm Creek Interceptor (ECI, 9004)

   This pipe extends west to Maple Grove from the CAB Interceptor at 101st Avenue and Noble Avenue in the north central park of Brooklyn Park. The diameter of this interceptor ranges from 42 inches to 54 inches. The area within Brooklyn Park served by this interceptor is generally the area north of T.H. 610 that is not served by the CAB Interceptor.

The Brooklyn Park Interceptor and the CAB Interceptor join immediately west of the Mississippi River at Metropolitan Council meter station M221. Sanitary sewer flow is pumped across the Mississippi River via two 42-inch ductile iron forcemains with a capacity of 73.2 MGD.

Table 1: Summary of Met Council Interceptors.

Interceptor	City ID	Met Council ID	Sizes (inches)	Capacity (MGD)
Maple Grove South	MGS	7015-C	34, 36, 62	9.4
Maple Grove North	MGN	7015-A&B	36, 48	9.2
Brooklyn Park Interceptor	BPI	4-BP-540	48, 54	27.9
Champlin, Anoka, Brooklyn Park Interceptor	CAB	4-BP-541	60	43.6
		8252-481	54, 66	
Elm Creek Interceptor	ECI	9004	42, 54, 60	73.2

B. Current Municipal System

The sanitary sewer system for Brooklyn Park has been extended to serve the majority of the city and includes interceptor, trunk and lateral mains to provide sanitary sewer service to the properties in this area. A portion of the City's system has been extended from the Elm Creek Interceptor to serve the area north of TH 610 and west of West Broadway/Winnetka Avenue. However, sewer has not been extended to serve the area west of US TH 169 (sewershed W1, Figure SS-02). This system is connected to both the CAB and Elm Creek interceptors. There are 23,721 connections to the city's sanitary sewer system and approximately 44 septic systems still in use within the City serving approximately 132 residents. The total sewered population is, therefore, approximately 79,568 (based on 2016 census estimates, US Census Bureau). The majority of the septic systems are located in the North and West parts of the city. Since this area is planned to be developed over the next 20 years, the number of septic systems within the City continues to be reduced. Hennepin County regulates all ISTS in operation in the city.

Table 2 is a summary of the current municipal connections based on building type. According to 2040 land use scenarios, it is anticipated that an additional 5,669 connections will be made. Refer to the Land Use section of the Comprehensive Plan for more information. Assuming the same average daily flow per connection, it is anticipated that the flow

1. Lift Stations

The existing sanitary sewer system relies upon gravity flow to the greatest extent possible. The interceptors and trunk mains have been installed at sufficient depths to serve the City with gravity flow. The City currently operates seven lift stations. Table 3 describes the City's lift stations. Figure SS-03 is a map showing the locations of each lift station.

Table 2: Current Sanitary Sewer Connections by Building Type.

Sanitary Sewer Connections				Average Daily Flow/Connection (GPD)	Current Annual Flow (MG)	Estimated 2040 Annual Flow (MG)	% of Total Flow
Land Use	**Current No. Connections**	**2040 Additional Connections**	**2040 Total Connections**				
Single Family	23,720	1,000	24,720	177	1,532	1,597	42.9%
Town Homes	3,890	4,000	7,890	123	175	354	9.5%
Duplex	932	30	962	164	56	58	1.5%
Multi-Family	178	550	728	4,500	292	1,196	32.1%
Residential Subtotal	**28,720**	**5,580**	**34,300**	**4,964**	**2,055**	**3,205**	**86.1%**
Commercial	647	83	730	1,608	380	428	11.5%
Institutional	25	6	31	2,178	20	25	0.7%
Industrial	120	0	120	1,495	65	65	1.8%
Non-Residential Subtotal	**792**	**89**	**881**		**465**	**519**	**13.9%**
TOTAL	**29,512**	**5,669**	**35,181**		**2,520**	**3,723**	**100.0%**

Table 3: Lift Station Summary.

Location	Original	Power						Last	
	Construction	**Phase**	**Volt**	**Amp**	**HP**	**KW**	**Wire**	**Updated**	**Comments**
L.S. #1 - Mississippi	1985	1	230	10.5	2.4	2.3	3	2015	VFDs
L.S. #2 - 92nd Ave.	1987	3	480	8.5	4	4	3	2009	
L.S. #3 - Russell Ave.	1986	1	230/3	11	7.5	5.6	4	2008	Phase Converters
L.S. #4 - Sunset	1988	3	240	13	5	2.9	4	2010	
L.S. #5 - Osseo	1996	3	460	4.9	3	2.3	4	2010	
L.S. #6 - Royal Point	1998	3	460	7.1	5	3.4	4	2016	

2. Existing Sanitary Sewer Flow Rates

Figure SS-04 shows the current land use in Brooklyn Park. Table 4 displays the municipal wastewater flows charged to the City of Brooklyn Park by the MCES. In 2018, the City of Brooklyn Park was charged for 2,167.27 MG for 2017 usage.

Table 4: Summary of Annual Municipal Wastewater Charged to Brooklyn Park (Actual Flow).

Year	Flow (MG)
2018	2,161.27
2017	1,983.00
2016	2,022.20
2015	1,866.40
2014	1,830.80
2013	1,873.90
2012	1,817.20
2011	1,813.00
2010	1,983.50
2009	2,158.42
2008	2,081.22

3. High Flow Generators

High flow generators are those properties that produce more than 50,000 gallons per day of effluent or produce flows greater than 5 percent of the total flow produced by the City. The City of Brooklyn does not have any high flow generators.

4. Intercommunity Flows

Several areas within the City of Brooklyn Park receive sanitary sewer service from an adjoining community and one area receives from Brooklyn Park. Refer to Figure SS-10, and the following descriptions.

- The City of New Hope serves 22 properties along the City's southern boundary. Currently, the City's do not have an agreement in place for sanitary sewer service. However, all changes to the system and service are being managed between the City's. Parcels receiving service are billed by the City Brooklyn Park and invoiced back the City of New Hope. If the City's choose to complete a formal agreement, the agreement will be shared with Met Council.
- The City of Brooklyn Center provides sanitary sewer service to Fair Oaks Elementary,
- Northview Junior High, and the Pebble Creek Apartments near I-94 and Zane Avenue.
- The City of Brooklyn Center also provides service to 73 parcels in the southeastern portion of Brooklyn Park.
- The City of Champlin provides sanitary sewer service to Champlin Park High School and several properties along 109th Avenue east of Champlin Park High School.
- The City of Maple Grove serves two religious buildings in the northwest part of Brooklyn Park.
- Several hundred townhomes in the Northwest part of Brooklyn Center is served by the City of Brooklyn Park sanitary sewer system.

C. Future Sanitary Sewer Flows and Connections

Table 5 illustrates the City's projected average annual wastewater flow and allowable peak hourly flow was extracted from the 2015 Brooklyn Park System Statement (pg W-2). Table 5 will change as the information becomes updated.

Table 5: Projected Average Annual Flows and Allowable Peak Daily Flow based on Met Council Population Projections.

Year	2010	2020	2030	2040
Sewered Population	75,781	83,000	90,000	97,900
Sewered Households	26,229	28,720	31,400	34,300
Sewered Employment	24,084	32,100	36,100	40,200
SSTS	64	44	22	0
Estimated Avg Annual Flow (MG)	1,983.5	2,520	3,121	3,723
Allowable Peak Daily Flow (MGD)	12.50	15.88	19.67	23.46

Figure SS-06 shows future household and commercial building connections planned for 2019 – 2030 and for 2030 and beyond. Future development and redevelopment are focused on the northwest area of the City and connections to Elm Creek Interceptor and Maple Grove North Interceptor. Table 6 below summarizes the additional household and commercial building connects anticipated. The table contains projected flow rates per major sewershed and interceptor.

Table 6: Anticipated Household and Commercial Building Connections per Interceptor for 2019 - 2030 and 2030 and Beyond.

Interceptor	City ID	Met Council ID	2019 - 2030		2030 and Beyond	
			Households	Commercial Bldgs	Households	Commercial Bldgs
Elm Creek Interceptor	MGN	7015-A&B	1,920	64	2,900	5
Maple Grove North Interceptor	ECI	9004	760	20	---	---

Refer to Appendix E for supplemental sanitary service flows per primary sub-sewershed based on the transportation area zones (TAZ). The City of Brooklyn Park supplements design flow calculations and population increases using the TAZ boundaries for planning purposes. Adjustments to the TAZ household numbers have been modified in previous and future years to match the actual expected populations identified by Met Council.

D. Sub-Surface Sewage Treatment Systems (SSTS)

Properties containing SSTS are found in Figure SS-03. The City currently has 44 STSS. According to Hennepin County Public Health Department, there are zero non-conforming SSTS as of the date of this plan. The City Code has formally adopted by reference Minnesota Pollution Control Agency (MPCA) Chapter 7080.0060 through 7080.0315 for individual sewage treatment systems. The City has provided additional standards in the City Code for the use of existing, nonconforming systems as long as the system serves and existing, single family dwelling and is owner occupied; the system may be required to be brought into conformity when the living space is increased or the property is sold; and/or no nuisance, surface discharge or groundwater contamination occur during operation. City Code Chapter

101: Private Sewer and Water Systems is provided in Appendix C, see Section 101.02 "Individual Sewage Treatment Standards Adopted". Table 5 describes the number of SSTS in the City and the projected rate of system removal to 2040. As systems parcels are redeveloped, the City remove or replace non-conforming systems and encourage connect to the City's trunk sewer system.

The City of Brooklyn Park does not have any Community Treatment Systems. Historically, development plans are reviewed by City staff and community treatment systems have been routinely and consistently denied and all development has been required to extend sewer service. The City only has a small portion remaining for new development and will continue to disallow community treatment systems. There are currently no ordinances in place. However, preliminary planning has been complete as part of this comprehensive plan to extend public sanitary sewer service to those development areas.

E. Maintenance

The City of Brooklyn Park Operations and Maintenance Department is responsible for all maintenance activities associated with the City's sanitary sewer system. There are no major outstanding maintenance issues with the sanitary sewer system at this time. Preventive maintenance is conducted by the department on a regular basis, including:

- Replacement of clay pipe house services within the right of way during street reconstruction projects.
- Rehabilitation and replacement of clay pipe mains.
- Sanitary sewer pipe repairs.
- Replacement of manhole casting and rings +/- 150 annually.
- Recondition lower portion of manholes +/-10 annually.
- Television reports 10 year cycle; 25 miles annually.
- Infiltration and inflow inspections.
- Root treatment +/- 4,000 feet annually.
- Repair of lift stations.

The City has developed an Operations and Maintenance Sanitary Sewer Collection System Strategy Map that identifies a programmatic approach to sewer and lift station replacement and rehabilitation and televising schedule for existing system elements. This strategy for inspection, rehabilitation and maintenance directly aligns with the Capital Improvement Plan and roadway rehabilitation and construction strategies. These maps can be found in Appendix B.

IV. PROPOSED METROPOLITAN COUNCIL FACILITIES

Brooklyn Park is situated in MCES District 2. The MCES 2017-2022 Capital Improvement Plan (CIP) includes three projects that impact Brooklyn Park. The projects include the following. Further, Table 7 is a summary of all projects expected to occur in Brooklyn Park between 2017 and 2022.

- *Brooklyn Park – Champlin Interceptor Renewal (Project 8093):* This project includes rehabilitation of approximately 54,500 feet of concrete gravity interceptor. Cured-in-place-pipe (CIPP) technology will be used to line the existing interceptor. The project also includes

rehabilitation of 155 maintenance structures. Given potential public health risks and impacts to the Mississippi River, the project is considered high priority. The project is expected to cost approximately $70M between 2017 and 2021.

- *Brooklyn Park L32 (New project, no number):* The project does not contain a description in the MCES 2017-2022 CIP. However, previous Sanitary Sewer Plan provided by Brooklyn Park mentioned a multi-million dollar relining of the Brooklyn Park Interceptor and rehabilitation of L32. The project is expected to cost approximately $34M between 2019 and 2022.
- *Brooklyn Park LS/FM Improvements (Project 8079):* This project will provide two new forcemain pipes from L32 in Brooklyn Park to existing pipes in Fridley by river crossing. Improvements to the lift station and rehabilitation of the existing forcemain pipes and downstream gravity sewers are also included. Land acquisition for the site of a future re-located lift station is also included. In 2012, a forcemain break resulted in a spill on the east bank of the Mississippi River in the City of Fridley. Two new forcemains have already been constructed and the two existing forcemains will be rehabilitated. The project is expected to cost approximately $5.7M between 2017-2018 and 2021-2022.
- *North Area Interceptor Rehabilitation (Project 8086):* The interceptor systems in Blaine, Brooklyn Park, Champlin, Circle Pines, Coon Rapids, Forest Lake, Fridley, Hugo, Lexington, Lino Lakes, Maple Grove, Mounds View, Spring Lake Park, and other north area communities need rehabilitation and/or replacement. The project will rehabilitate existing interceptor facilities, including gravity sewers, forcemains, lift stations and meter stations. Only a portion of the capital project will reside in Brooklyn Park. The project is expected to cost approximately $41M between 2017-2018.

Table 7: Summary of Planned MCES CIP Projects (2017-2022).

Project Number	Project Name	Project Expenses (Cost in ($1,000)						
		2017	2018	2019	2020	2021	2022	Total
8093	Brooklyn Park – Champlin Interceptor Renewal	1,000	15,000	30,000	20,000	4,000	0	70,000
NEW	Brooklyn Park L32	0	0	2,000	10,000	12,000	10,000	34,000
8079	Brooklyn Park LS/FM Improvements	2,000	700	0	0	1,000	2,000	5,700
8086	North Area Interceptor Rehabilitation	33,000	8,000	0	0	0	0	41,000

V. PREVENTING AND REDUCING EXCESSIVE INFILTRATION AND INFLOW (I/I)

Infiltration and inflow (I/I) is the amount of clear water entering the collection system. Infiltration is attributable to water entering through main lines or service connections through defective pipes, pipe joints, connections or manhole walls. Inflow is attributed to water entering the collection system via roof leaders, drains, sump pumps, manhole covers, or cross connections with the storm sewer system. Infiltration and inflow decrease pipe and treatment plant capacity that could otherwise be used for sanitary waste.

Figure SS-07 shows the remaining clay pipe and parcels with clay services in Brooklyn Park. According to the figure, 2,049 parcels (approximately 8.5% of total parcels) remain with clay sanitary sewer services. Utilizing the Capital Improvement Plan, Street Improvement Plans, Sanitary Sewer Operations and Maintenance Plans, and televised sewer information, Brooklyn Park will identify segments of clay pipe and services that require replacement as street and utility reconstruction projects are complete. Replacement of clay pipe and services will essentially follow the City's street improvement CIP.

Figure SS-08 identifies the housing stock in Brooklyn Park to target neighborhoods with the highest likelihood of failing service connections. The City has 4,350 structures built prior to 1970 (approximately 18%) and 18,123 built after 1970 (approximately 76%) according to Table 8 below. The City continuously identifies failing services during street reconstruction projects and replaces all services from the lateral or trunk sewer line to the right of way.

Table 8: Housing Stock - Pre and Post 1970 Construction.

Year Built	Number	% of Total
Unknown	1,457	6%
Pre-1970	4,350	18%
1970 or Later	18,123	76%
TOTAL	23,930	100%

The City of Brooklyn Park received a grant from the Metropolitan Council to initiate a sump pump inspection program. The program targeted approximately 1,800 customers in areas with high groundwater, clay or silty soil areas, or wet basements. The City completed the inspection program in summer 2000. The City also regularly televises the sewer system and makes repairs as necessary.

The Metropolitan Council established I/I Goals for the City of Brooklyn Park dating back to the year 2011. The I/I Goal is the maximum allowable peak hourly discharge limit at each flow meter ("metershed") to the Metropolitan Council regional interceptor lines. The allowable flows are based on Brooklyn Park's anticipated wastewater flows adjusted to expected population growth data and an adjustment factor for each metershed. Table 9 below is a summary of the I/I Goals and Exceedances since 2011.

Table 9: Summary of I/I Goals (Source: Metropolitan Council).

Year	I/I Goal (sum in MGD)	Excessive I/I	Work Plan Assignment
2011	14.30	--	--
2012	14.30	--	--
2013	14.24	--	--
2014	14.74	--	--
2015	14.65	--	--
2016	14.65	0.4	--
2017	15.49	--	$172,610
2018	15.5		

In October 2016 and 2017, Metropolitan Council issued adjustments to the average flow into meter M221. Peak hourly flow factors and resulting I/I goals were also issued. Table 10 below summarizes the proposed changes.

Table 10: Summary of Changes to Met Council I/I Requirements.

Letter Date	Metershed	Monitoring Period	Work Plan Assignments	Adjusted Average Flow (MGD)	Peak Hourly Flow Factor	I/I Goal (MGD)
10/27/2016	M221	2017	2018	5.74	2.7	15.49
10/31/2017	M221	2018	2019	5.74	2.7	15.51

Brooklyn Park was issued an I/I Program Work Plan in 2016 for an exceedance correlated to significant rainfall. Work plan credits of $507,973.83 and $1,020,480 and the work plan assignment was deemed complete on June 26, 2017.

The City has estimated the actual clear water flow contribution based on winter quarter usage billed to residents and businesses versus the total charged by Metropolitan Council. Table 11 below is the summary of estimated clearwater for 2017 and 2018.

Table 11: Estimate of Clear Water Flow Contribution, 2017 and 2018.

Year	Municipal Wastewater Charged (MG)	Winter Quarter Usage (MG)	Estimate of Clear Water I&I (MGY)	Estimate of Clear Water I&I (MGD)	% of Total Flow
2017	1,983.00	1,866.79	116.21	0.32	6%
2018	2,161.27	1,917.41	243.86	0.67	11%

A second estimate of clear water flow contribution was generated using approximately 4 years of record to compare the average winter quarter (dry weather) flows (assumed December to March) to the peak monthly flow in the previous year (wet weather flow). Table 12 summarizes the analysis, including the exceedances identified by Met Council in 2016 and 2017 and the correlating rain.

Table 12: Comparison of Peak Monthly and Average Dry Weather Flows at Metershed M221S.

Year	Dry Flow Monthly Average (MG)	Peak Flow Month (MG)	Rainfall Depth on Peak Month (in)	% Increase During Peak Month	Notes
2014/2015	171	177	1.27	3.5%	
2015/2016	165	178	6.92	7.9%	I&I Goals Assigned by Met Council
2016/2017	179	213	9.18	19.0%	I&I Goals Assigned by Met Council
2017/2018	175	190	6.06	8.6%	

The City intends to complete a trunk sanitary sewer capacity assessment that will include an analysis of known I/I issues, a quasi-calibration of the capacity assessment to account for I/I and prioritized remediation. The assessment will be provided to Met Council upon completion.

VI. LAND USE AND SANITARY SEWER DESIGN CRITERIA

The land use plan for the City of Brooklyn Park served as the basis for the development of the sanitary sewer flow projections. Using the 2040 land use projects in the land use comprehensive plan shown in Figure SS-05, the area of each use was determined for each sewer service area. Land uses in Brooklyn Park and the area of each category are listed in Table 13 and further described in the Land Use section of the 2040 Comprehensive Plan. The anticipated average wastewater flows from the various sewer service areas were determined by applying unit flow rates to each of the land use categories. The "system design" unit flow rates are also presented in Table 14. For all land uses, unit rates/acre were used to generate average flow projections.

Brooklyn Park's "system design" flow projections originate from the land use statistics based directly on the land use plan. Certain reductions in land use area are made to account for large open areas, wetlands, major highway systems, etc. and a net developable acreage for each land use category is created. The net acreage is multiplied by standard unit flow rates to obtain an average flow for each sewershed. Table 15 summarizes these average flows and totals for all the sewer service areas. The prediction in total annual flow is larger using this method than the anticipated flow projections set by the Metropolitan Council and the actual measured flows at the MCES flow meters. This is largely due to the fact that not all land uses will realize their peak daily flows at the exact same time. Instead, diurnal curves better represent the typical daily flow by defining how each land use will realize its daily peak. For instance, residential land uses will see peak flows in the morning and at night. Conversely, commercial land uses will have a more variable daily flow pattern with the peak sometime in the mid to late afternoon. Also, weekend flows are different than work-week flows. While Table 15 provides a summary of each sewershed and the anticipated peak flow if all land uses discharge at their peaks simultaneously, it should only be used for regional planning. When system capacity issues are discovered, the City will provide more detailed analyses utilizing flow meter collections and hydraulic modeling.

Table 13: Summary of Land Use and Design Sanitary Service Flows.

Land Use Category	Area (Acre)	Percent of Total Land Area (%)
Airport	78	1%
Employment Center	1,290	10%
Community Commercial	432	3%
Flex	20	0%
High Density Residential	386	3%
Industrial	192	1%
Institutional	977	7%
Low Density Residential	5,626	43%
Medium Density Residential	862	7%
Medium-High Density Residential	85	1%
Mixed Use	746	6%
Neighborhood Mixed Use	91	1%
Neighborhood Service Center	25	0%
Employment	63	0%
Live/Work	66	1%
Parks and Open Space	2,182	17%
Total	**13,123**	**100%**

Table 14: Design Unit Flow Rates.

Design Unit Flowrates	
Land Use	**GPD/Acre**
Farmsted	60
Low Density Residential	560
Low-Med Density Residential	1120
Medium Density Residential	1975
High Density Residential	3200
Industrial	3000
Commercial	6000
Office	2000
Public Institution	850
Public/Open Space	60

Table 15: Estimated Total Flow per Sewer Service Area Based on Land Use Factors (2040 Future Land Use).

Catchment Number	Area (ac)	MCES Interceptor	Total Flow (GPD)	Total Flow (MGD)
W1	228	ECI	459,832	0.46
W2	399	ECI	1,449,146	1.45
W3	412	ECI	744,400	0.74
W4	205	CAB	320,102	0.32
W5	1026	MGN	1,012,730	1.01
W6	398	BPI	1,165,999	1.17
W7	100	BPI	315,642	0.32
W8	519	MGS	497,923	0.50
W9	785	BPI	1,633,600	1.63
W10	261	MGS	247,452	0.25
W11	444	BPI	556,021	0.56
W12	465	BPI	1,630,279	1.63
W13	773	CAB	1,372,471	1.37
SUBTOTAL	***6,016***		***11,405,598***	***11.41***
C1	630	ECI	460,193	0.46
C2	383	CAB	378,181	0.38
C3	306	CAB	1,073,712	1.07
C4	591	BPI	618,202	0.62
C5	455	BPI	428,283	0.43
C6	555	BPI	672,996	0.67
C7	580	CAB	653,012	0.65
C8	253	CAB	125,483	0.13
SUBTOTAL	***3,752***		***4,410,062***	***4.41***
E1	268	CAB	168,546	0.17
E2	635	CAB	744,225	0.74
E3	250	CAB	185,472	0.19
E4	461	BPI	381,464	0.38
E5	374	CAB	162,312	0.16
E6	178	BPI	103,633	0.10
E7	303	CAB	235,559	0.24
E8	90	CAB	53,148	0.05
SUBTOTAL	***2,560***		***2,034,357***	***2.03***
TOTAL	***12,328***		***17,850,018***	***17.9***

VII. PROPOSED CITY OF BROOKLYN PARK IMPROVEMENTS

85th Ave N and Zane Ave N Problem Area

Brooklyn Park performs ongoing maintenance and has completed several I/I reduction projects. One area of concern identified by the City serves a portion of Sewershed C6 and discharges into Sewershed C7 as identified in Figure SS-02. The line discharges from the intersection of 85th Ave and Zane Ave to the southwest towards June Ave. The total area served is approximately 273 acres and consists of single family residential, multifamily residential, institutional, office spaces and park areas. Critical subsewersheds were developed as shown in Figure SS-09 to identify key inflow locations. Assumptions were made based on specific land uses and anticipated peak service flows were calculated. Table 16 shows the estimated peak flow values per subsewershed.

Specific diurnal curves were applied to residential and commercial areas to simulate the anticipated hourly peak flow factors. In other words, residential areas tend to see peak flows occurring during the morning and evening hours (before and after work). Meanwhile, commercial areas tend to experience peak flows during the lunch hour, consistently higher during the afternoon, then another peak in the early evening. This method for applying peaking factors tends to be more accurate than a single value peaking factor because it better simulates the natural flow attenuation in downstream trunk sewer lines.

The 12" reinforced concrete pipe downstream of subsewershed ID 15 has a gravity capacity of approximately 730 gallons per minute. The anticipated service flow is approximately 270 gallons per minute. This indicates that the pipe is likely experiencing capacity issues due to I/I. Therefore, it is recommended that the pipe be either rehabilitated in place using cast in place plastic (CIPP) methods, pipe bursting with new pipe, or completely replaced in kind.

Strategic Sanitary Sewer Improvements

The City tracks sewer improvements relative to future street improvements and continuously updates maps as improvements are prioritized and completed. The Operations and Maintenance Sanitary Sewer Collection System Strategy Map identifies a programmatic approach to sewer and lift station replacement and rehabilitation and televising schedule for existing system elements. This strategy for inspection, rehabilitation and maintenance directly aligns with the Capital Improvement Plan and roadway rehabilitation and construction strategies. These maps can be found in Appendix B. Further, the City's updated CIP can be found on their website.

Capacity Analysis of Trunk Sewer System

The City of Brooklyn Park does not currently have a system wide assessment of design flow capacity of 12" and larger sanitary sewer that connects to Metropolitan Council Interceptors. However, the City intends to analyze the system under current and 2040 land uses to better assess potential capacity needs. When the modeling is complete, the City will share the information with MCES. The City currently does not have or foresee any trunk sewer capacity issues with the 2040 land use changes. The result of the trunk sewer capacity analysis will be a stand alone report as a supplement to the Sanitary Sewer Comprehensive Plan.

Table 16: Summary of Subsewershed Peak Design Flows, Analysis Area Only.

Subsewershed ID	Peak Flow (GPM)
1	27.5
2	27.0
3	8.2
4	11.0
5	10.6
6	1.5
7	13.2
8	8.0
9	1.5
10	36.9
11	2.1
12	6.4
13	12.4
14	3.9
15	1.0

VIII. SUPPLEMENTAL INFORMATION

Appendix B includes supplemental sanitary sewer system information provided by the City of Brooklyn Park. This information includes the following items.

- Lift Station Manual Maps
- Sanitary Strategy Location Determination Map
- Comprehensive Utility/Streets Maintenance District Program – Sanitary Strategy Map
- 2017 Sanitary Sewer Map Book

Appendix C includes the City's sanitary sewer ordinances and Appendix D includes supplementary design information. Both items can also be found on the City's website.

Appendix E is a spreadsheet that further summarizes flow details by district. These flows are populated using the Transportation Area Zone information and are used by the City to track sanitary sewer flows based on number of residential connections and employment flows.

Appendix A: Figures

Figure SS-01: Regional Location Map

Figure SS-02: Sanitary Sewer System

Figure SS-03: MCES Interceptor and Flow Meter System

Figure SS-04: Existing Land Use

Figure SS-05: Future Land Use

Figure SS-06: Future Expected Population Growth and Sewer Connections

Figure SS-07: I&I Potential – Clay Pipe

Figure SS-08: I&I Potential – Housing Stock

Figure SS-09: Sanitary Sewer Analysis Area

Figure SS-10: Intercommunity Services

Brooklyn Park

2040 Comprehensive Plan

Brooklyn Park, MN

Regional Location Map

May 2019

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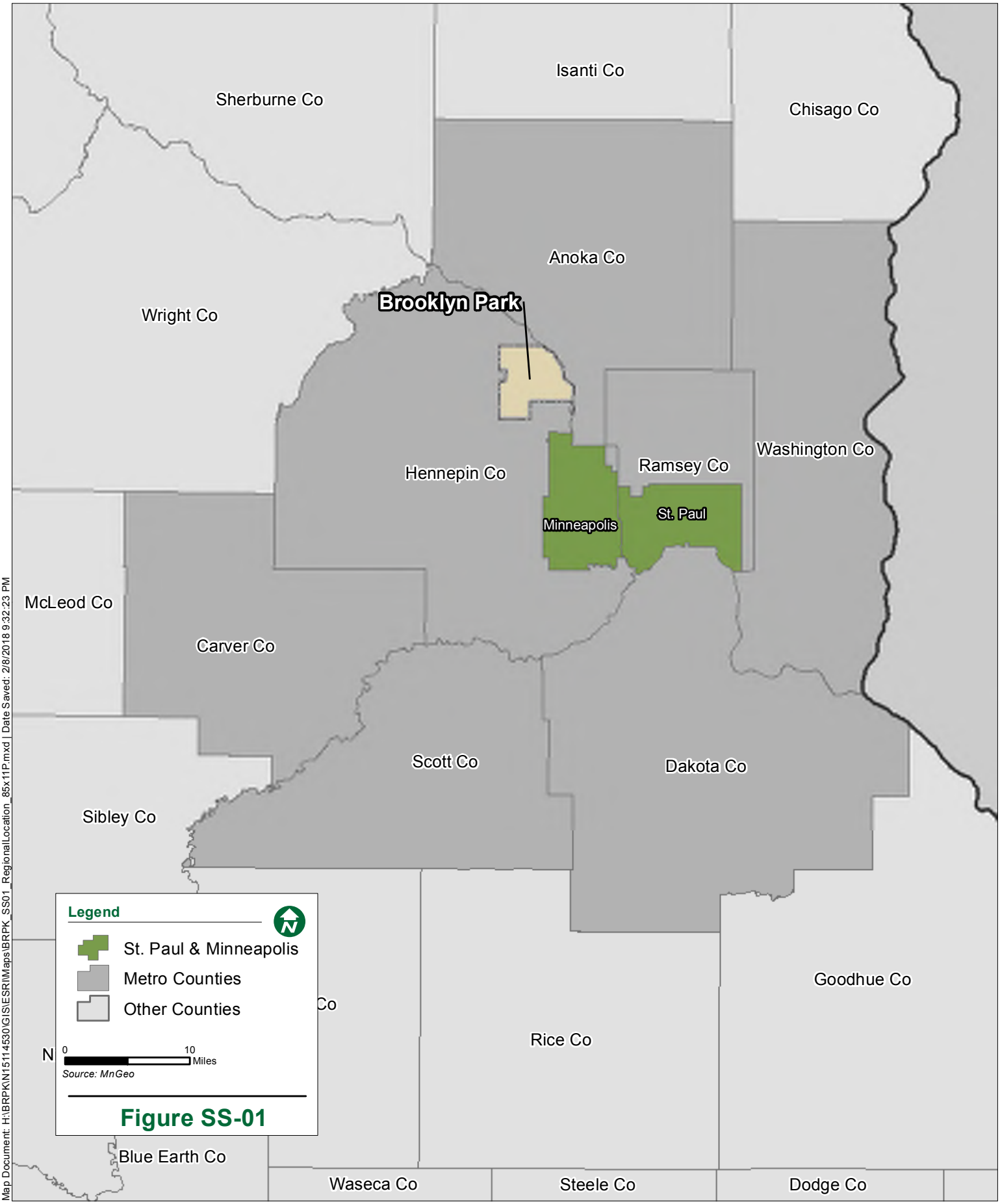

Figure SS-01

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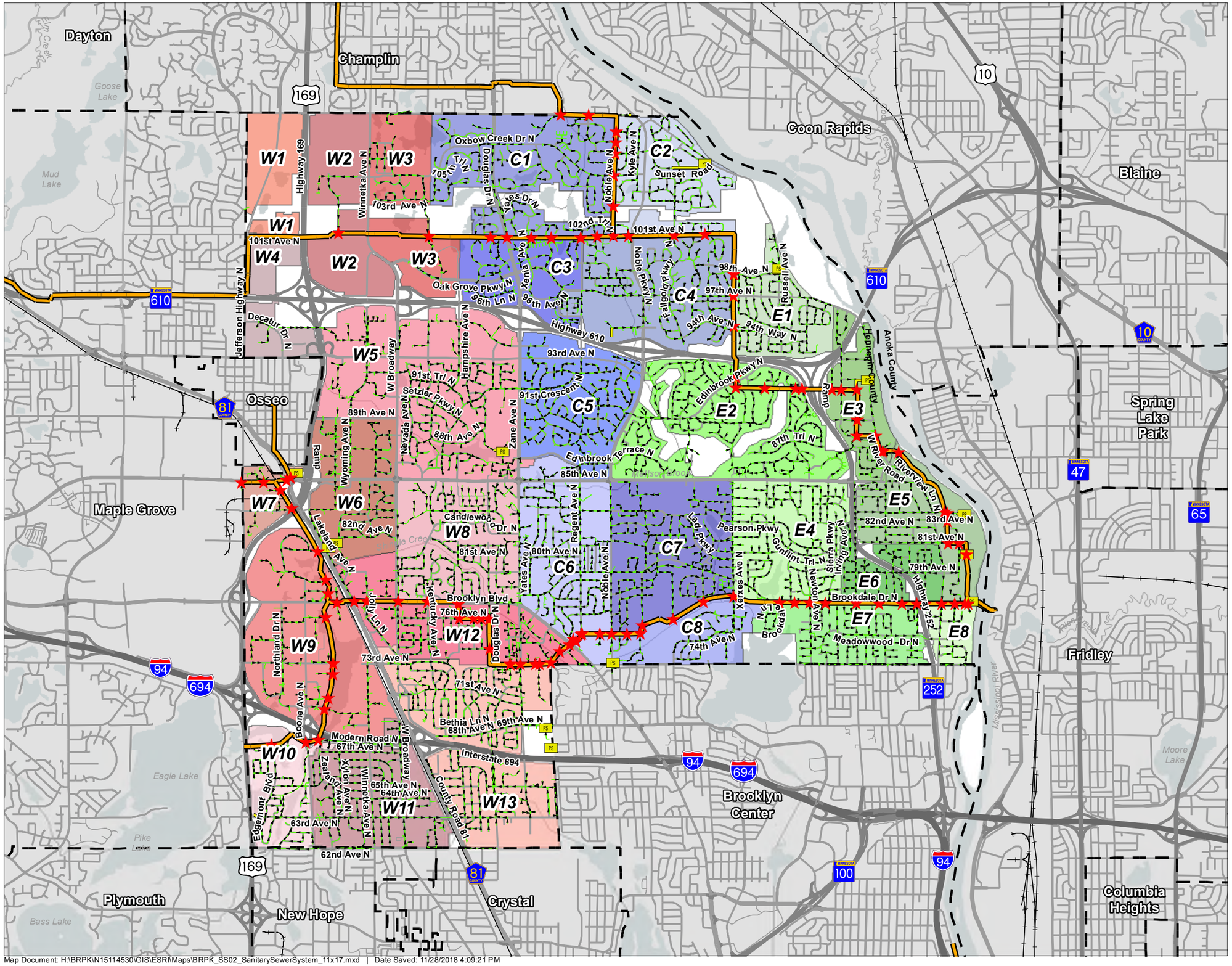

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Sanitary Sewer System
Figure SS-02

Legend

- Sewer Connections
- Sanitary Lift Station
- Forcemain
- MCES Interceptor
- Sanitary Pipe

Sanitary Service Areas

C1, C2, C3, C4, C5, C6, C7, C8, E1, E2, E3, E4, E5, E6, E7, E8, W1, W10, W11, W12, W13, W2, W3, W4, W5, W6, W7, W8, W9

Source: Met Council, Brooklyn Park

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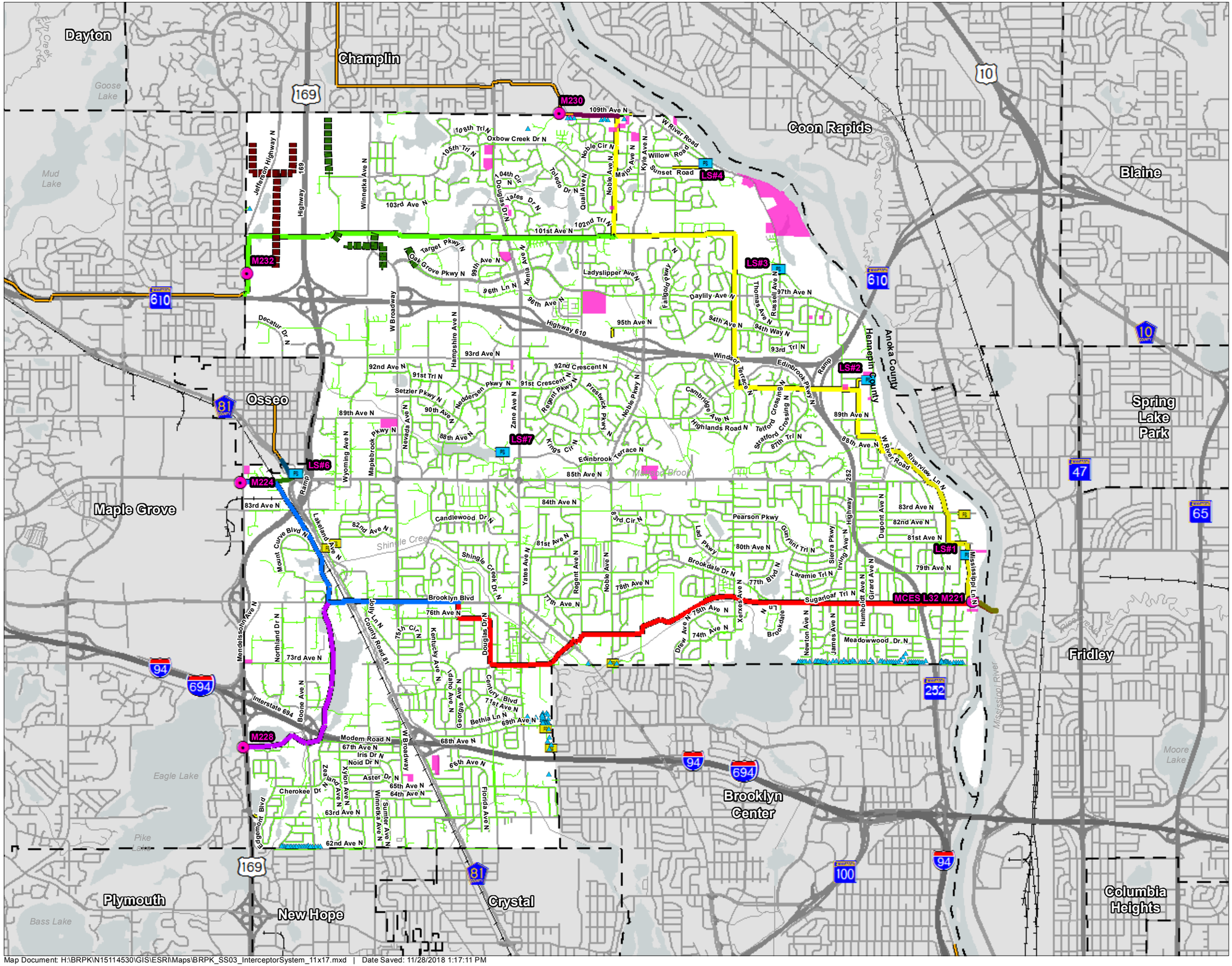

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Brooklyn Park

Brooklyn Park Comprehensive Plan

MCES Interceptor & Flow Meter System

Figure SS-03

Legend

- Parcels with SSTS
- Intercommunity Connections

Planned Sewer Pipe

- 2019-2029
- 2030 & Beyond

Major Interceptors

- 4-BP-540
- 7015-C
- 7015-A&B
- 9004
- 8252-481
- 4-BP-541

Minor Interceptors

- 8252-482
- 8079
- 4-OS-457
- 7015-D
- 69U1-70U2
- MCES Flow Meter
- City Lift Station
- Sanitary Lift Station
- Forcemain
- Sanitary Pipe
- MCES Interceptor

Source: Met Council, Brooklyn Park

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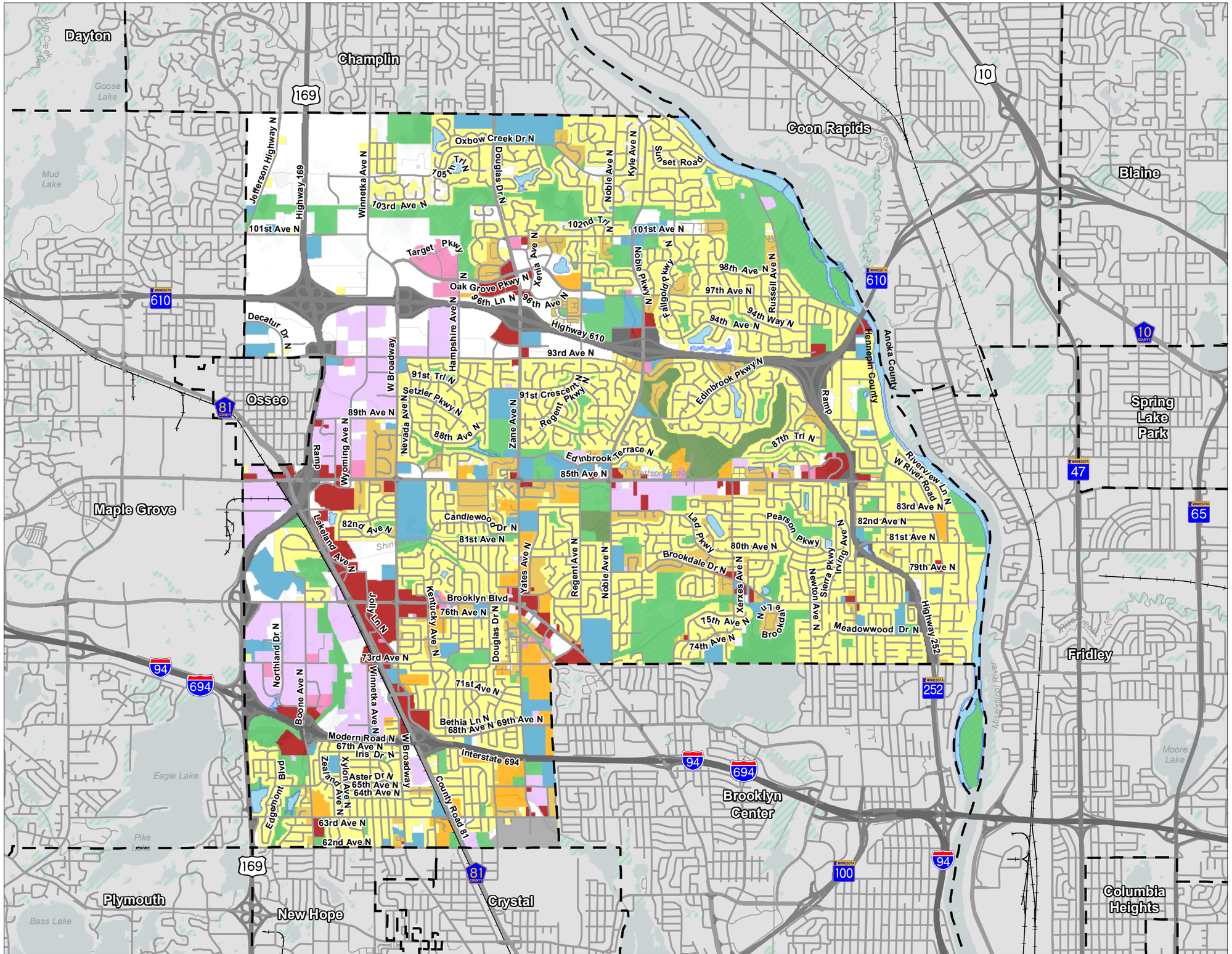

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Existing Land Use
Figure SS-04

Legend

Existing Land Use

- Single-Family Residential
- Single-Family Attached
- Multifamily
- Mixed Use Residential
- Commercial
- Office
- Industrial and Utility
- Institutional
- Park, Recreational, or Preserve
- Golf Course
- Airport
- Major Highway / Railway
- Open Water
- Agricultural

Source: Met Council, Brooklyn Park

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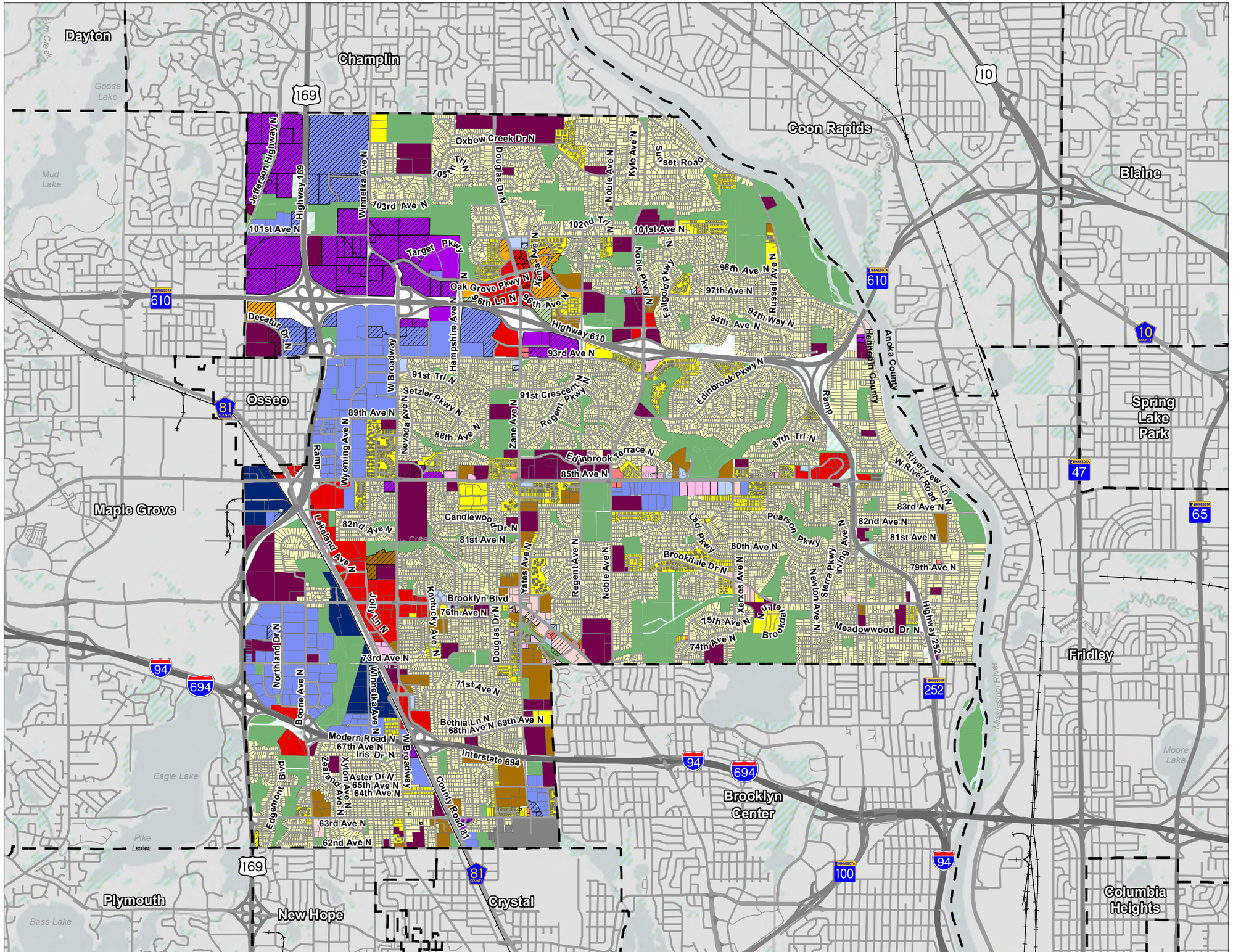

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Brooklyn Park

Brooklyn Park Comprehensive Plan

2040 Future Land Use
Figure SS-05

Legend

Devel/Redevel Areas

2040 Future Land Use

Residential

- Low Density Residential
- Medium Density Residential
- Medium-High Density Residential
- High Density Residential

Mixed Use

- Live/Work
- Neighborhood Mixed Use
- Mixed Use
- Flex

Commercial

- Neighborhood Service Center
- Community Commercial

Employment

- Employment
- Employment Center
- Industrial

Other

- Institutional
- Parks & Open Space
- Airport

Source: Met Council, Brooklyn Park

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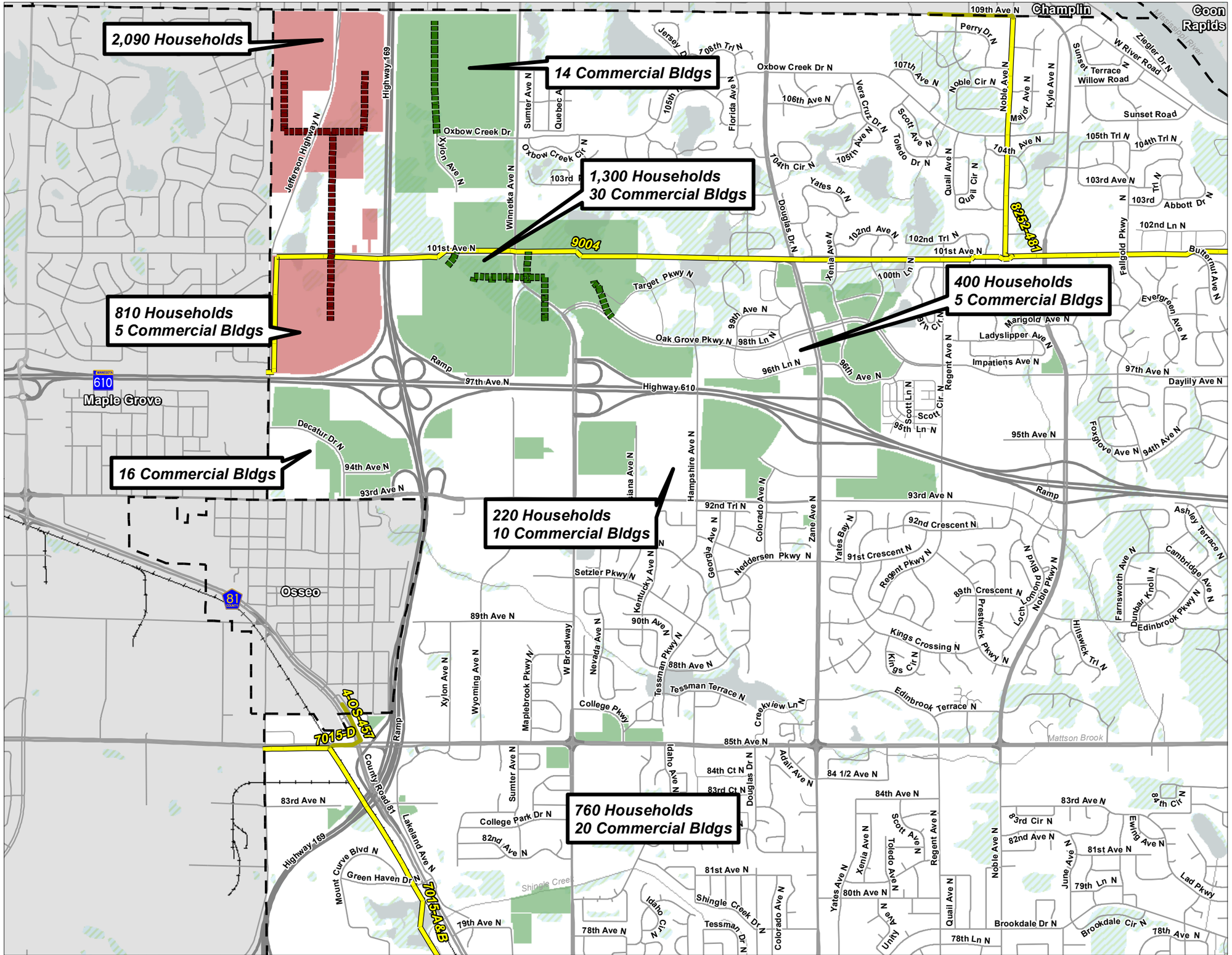

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Future Expected Population Growth and Sewer Connections - Households

Figure SS-06

Legend

Planned Sewer Pipe

- 2019-2029
- 2030 & Beyond

Major Interceptors

- Major Interceptor

Minor Interceptors

- Minor Interceptor

Redevelopment Areas

- 2019 - 2030
- 2030 & Beyond

Source: Met Council, Brooklyn Park

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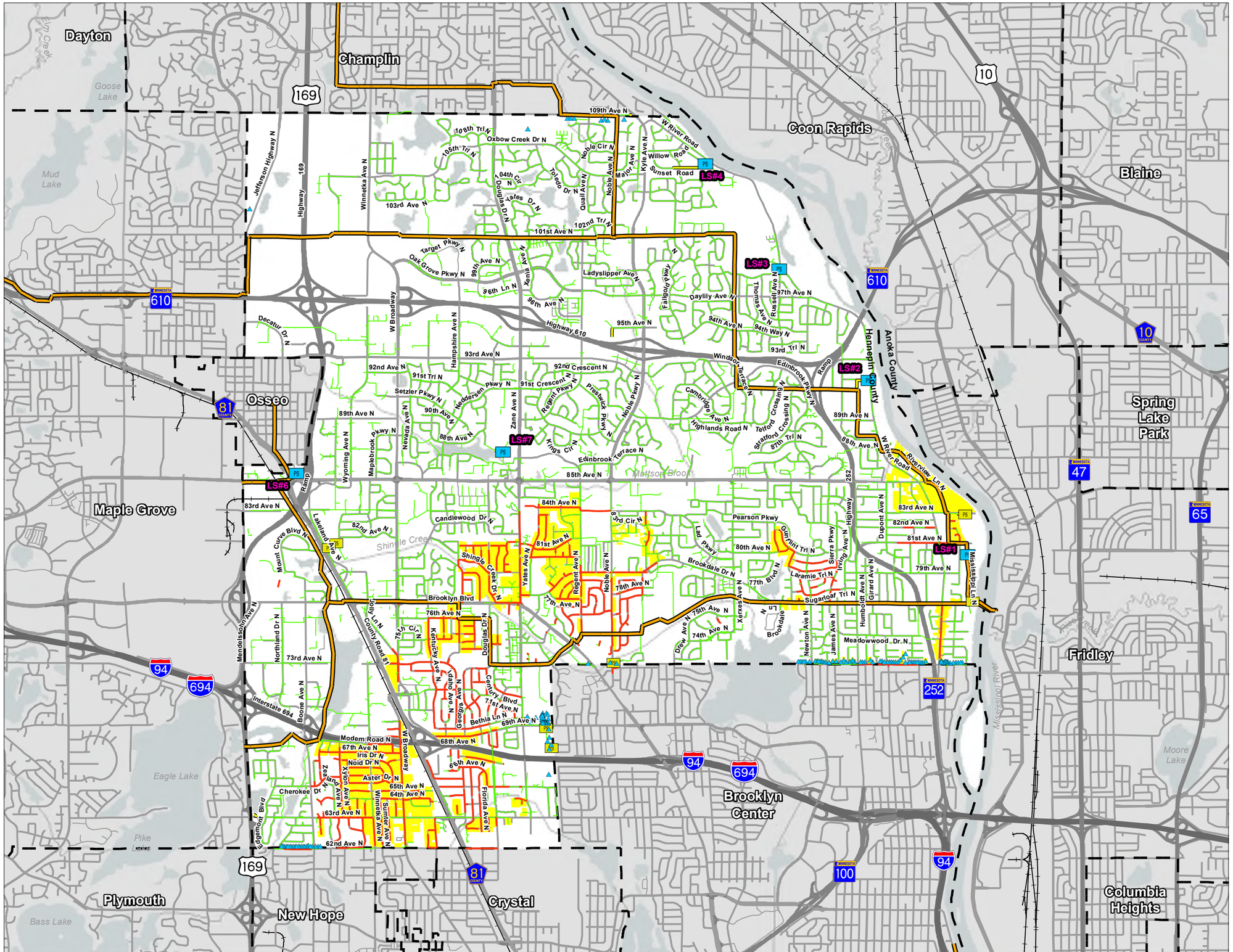

Brooklyn Park Comprehensive Plan

I&I Potential - Clay Pipe

Figure SS-07

Legend

- Intercommunity Connections
- City Lift Station
- Sanitary Lift Station
- MCES Interceptor
- Forcemain

Sanitary Pipe

- Sanitary Sewer Pipe
- Clay Sanitary Sewer Pipe
- Remaining Clay Services (Count 2049)

Source: Met Council, Brooklyn Park

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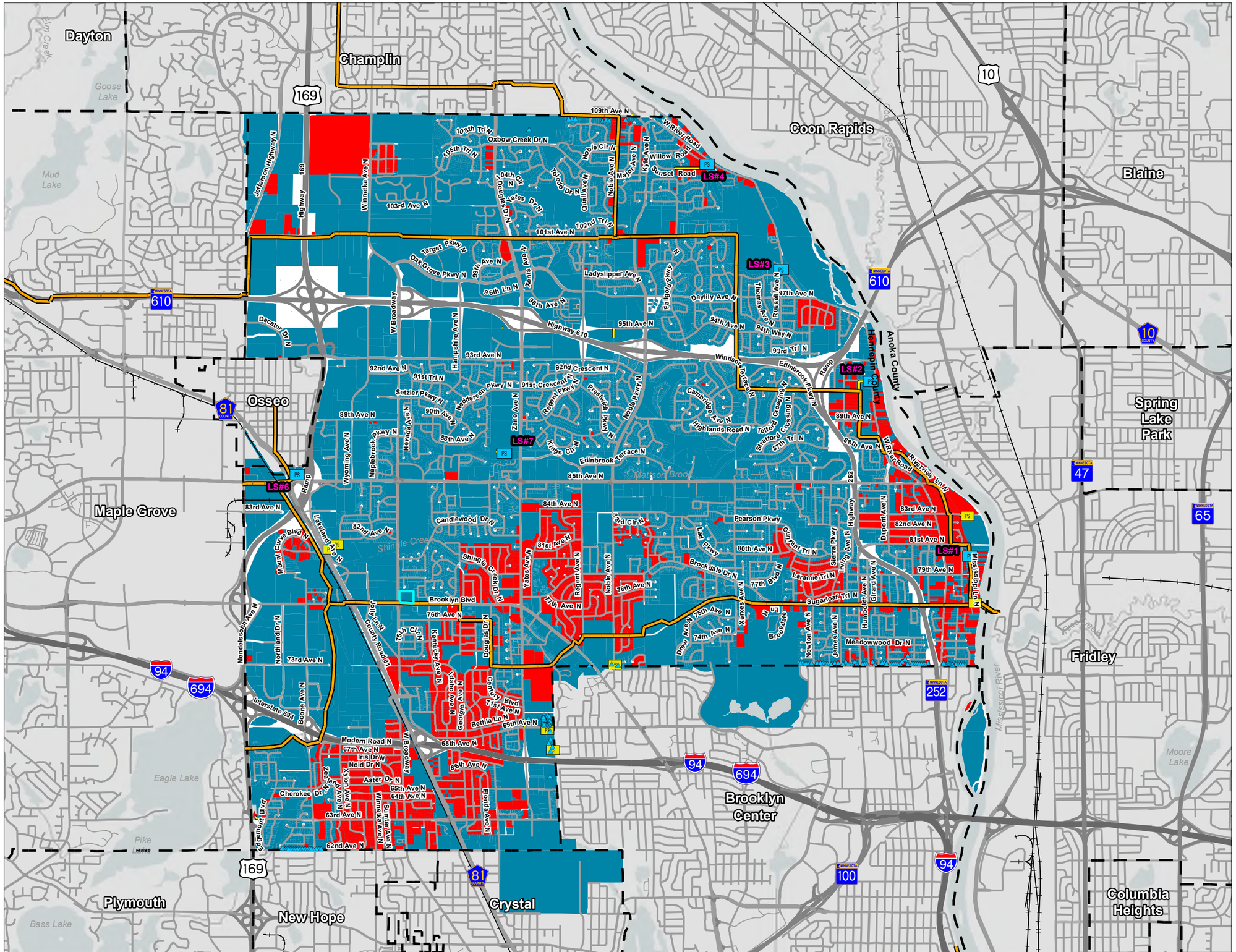
Map Document: H:\BRPK\N15114530\GIS\ESRI\Maps\BRPK_SS07_Clay Pipe_11x17.mxd | Date Saved: 5/20/2019 12:42:22 PM



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Brooklyn Park

Brooklyn Park Comprehensive Plan

I&I Potential - Housing Stock

Figure SS-08

Legend

- Intercommunity Connections
- City Lift Station
- Sanitary Lift Station
- MCES Interceptor
- Forcemain
- Pre-1970 Construction
- Post-1970 Construction

Source: Met Council, Brooklyn Park

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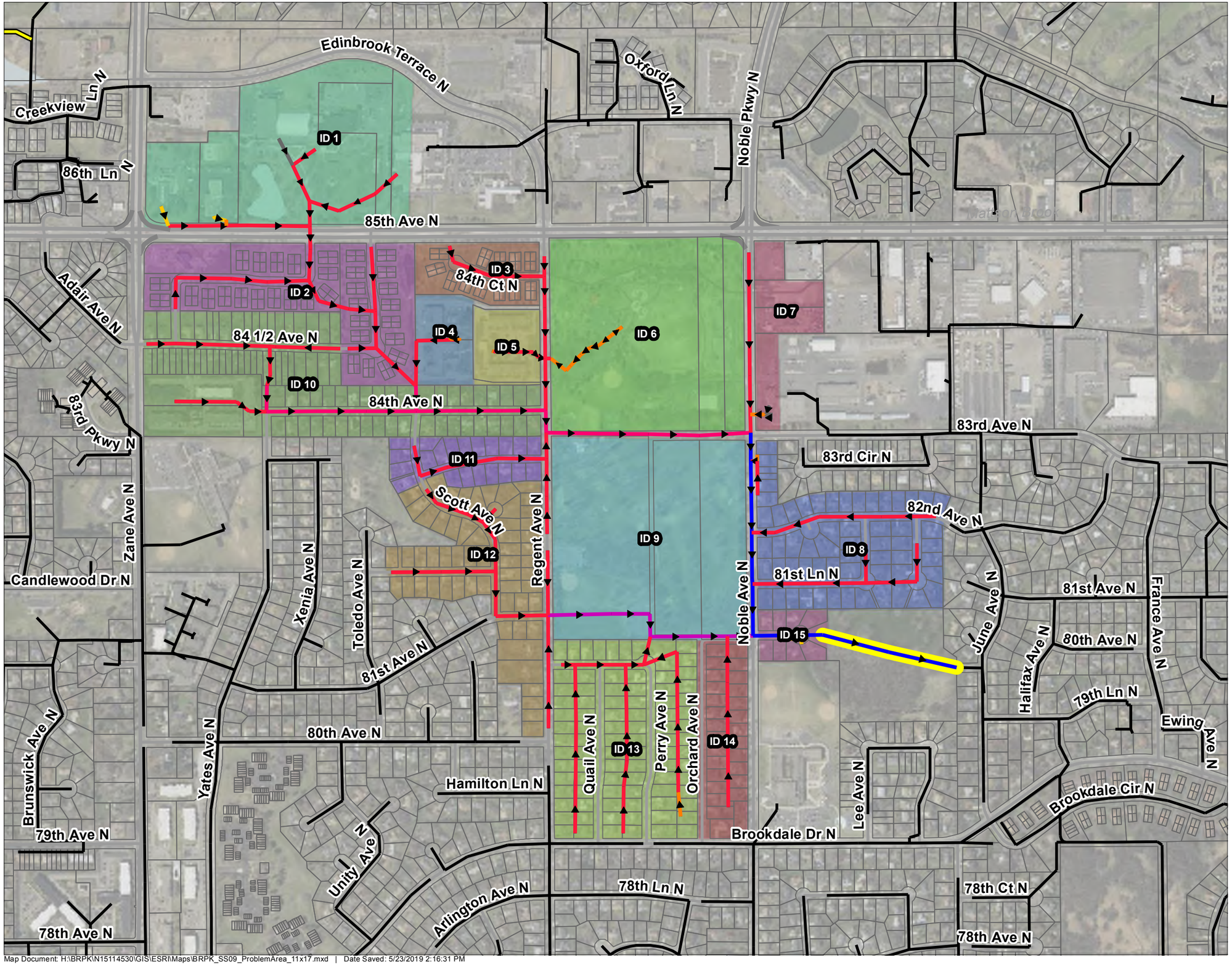

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Sanitary Sewer Analysis Area
Figure SS-09

Legend

Subsewershed Pipes

- Unknown
- 4"
- 6"
- 8"
- 9"
- 10"
- 12"
- Pipe to be Analyzed

Subsewershed Boundary

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Source: Met Council, Brooklyn Park

0 600 Feet
1:7,200

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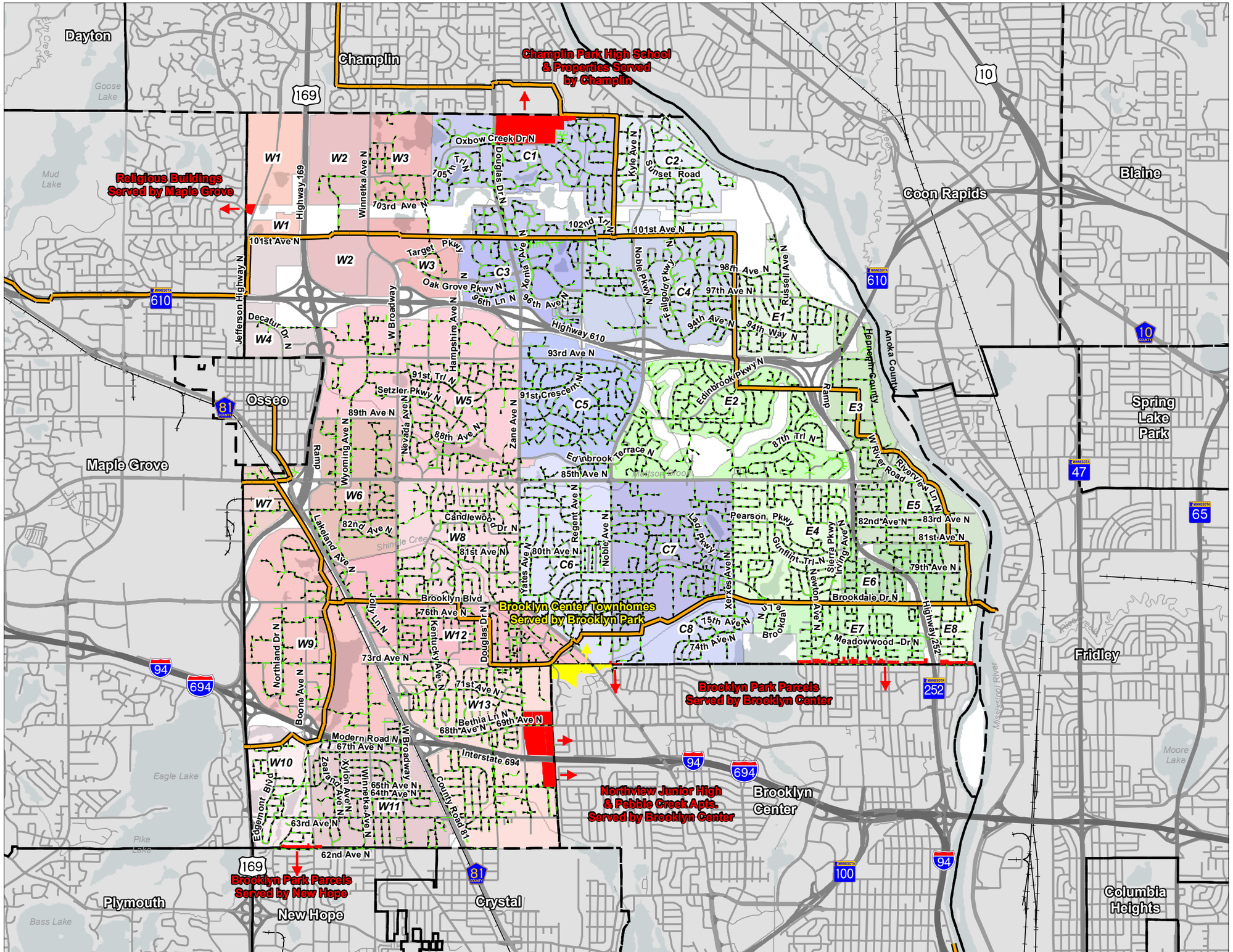

Brooklyn Park

Brooklyn Park Comprehensive Plan

Intercommunity Service
Figure SS-10

Legend

- Service by Brooklyn Park
- Service Provided to Brooklyn Park
- MCES Interceptor
- Sanitary Pipe

Source: Met Council, Brooklyn Park

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Map Document: H:\BRPK\N15114530\GIS\ESRI\Maps\BRPK_SS10_Intercommunity Service_11x17.mxd | Date Saved: 7/23/2019 7:05:58 AM

Appendix B: City Information

Lift Station Manual Maps

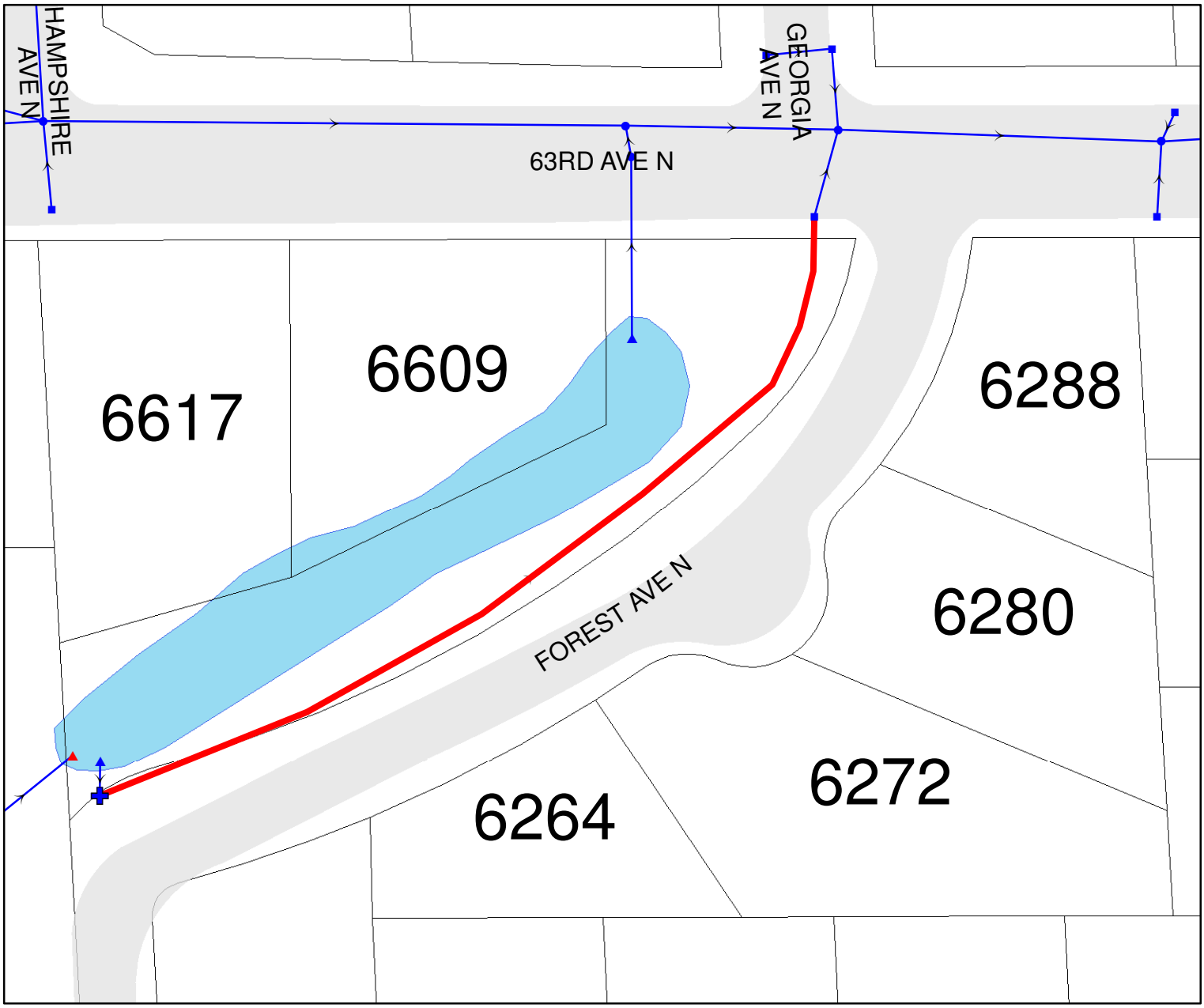
Sanitary Strategy Location Determination Map

Comprehensive Utility/Streets Maintenance District Program – Sanitary Strategy Map

2017 Sanitary Sewer Map Book

Storm Sewer Pump Station

(6259 Forest Ave N)

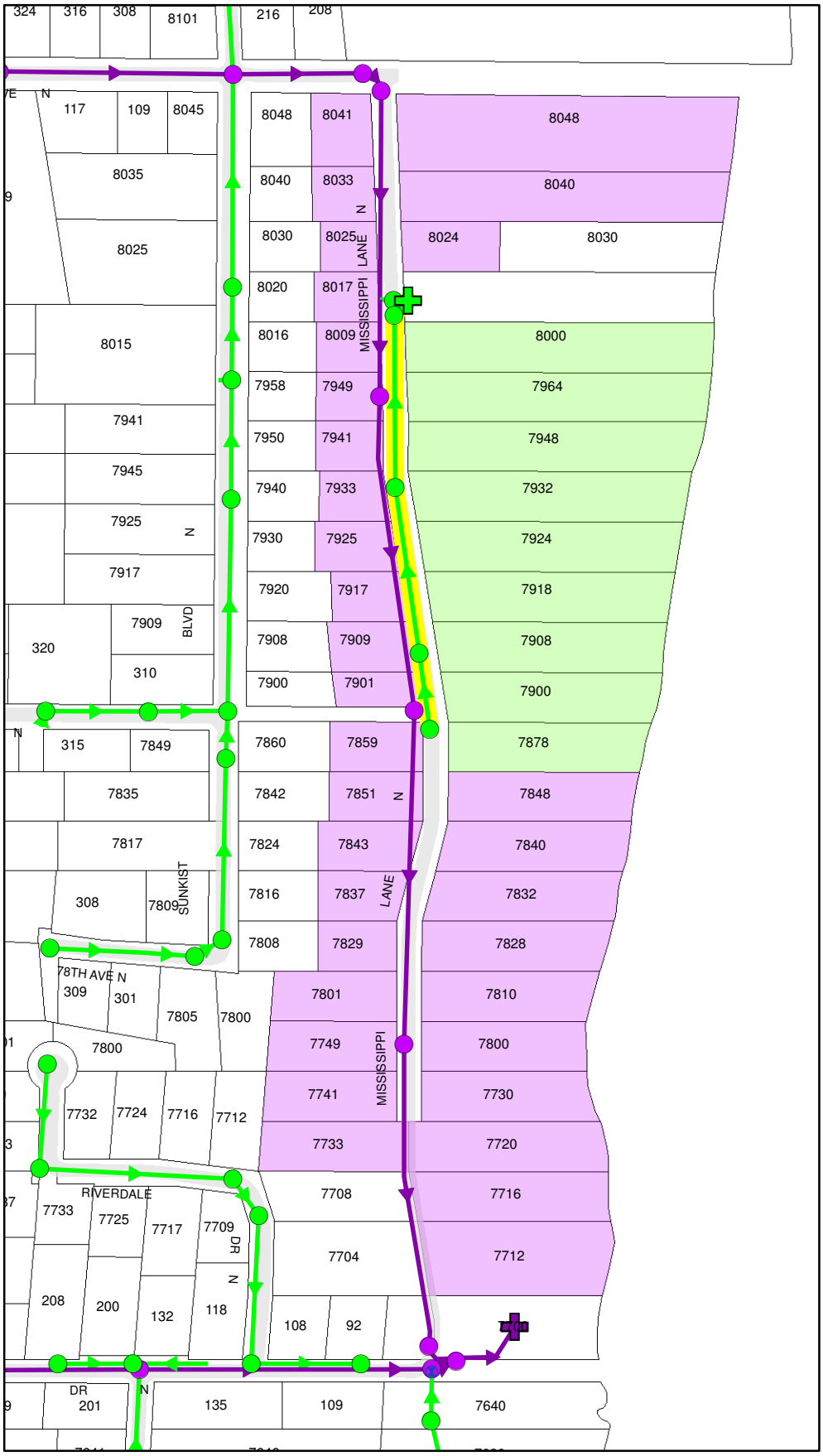


Legend

- Discharge Forcemain (295 ft)
- Storm Sewer
- Catch Basin
- Storm Manhole
- Flared End Section
- Streets
- Parcels
- Water Features

Lift Station No. 1

(8010 Mississippi Lane North)



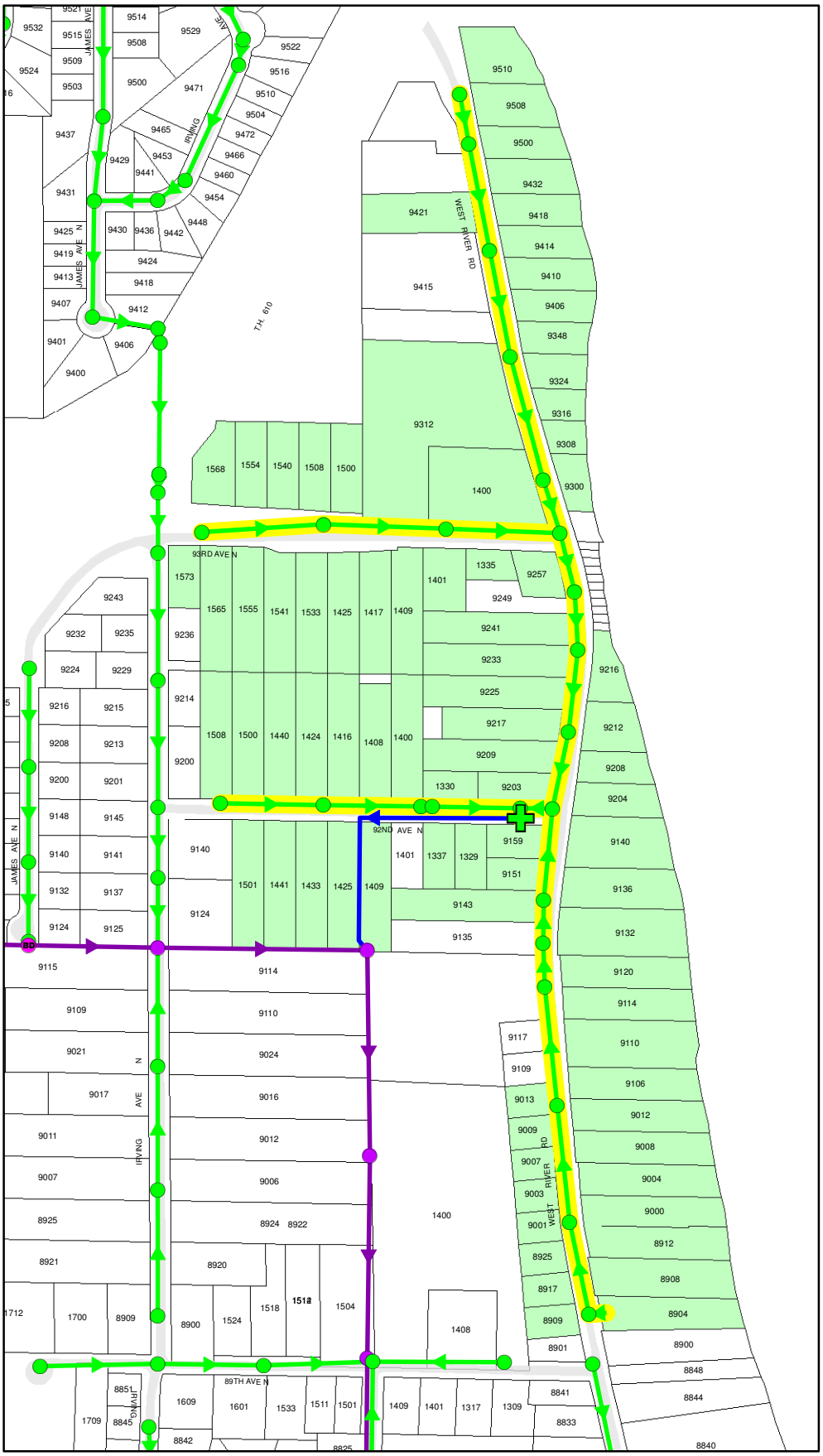
Date: 2/12/2013

Legend

- House hooked directly to the Interceptor on Mississippi Lane N
- Lift Station #1 Collection Zone
- Lift Station Parcels
- Brooklyn Park Discharge Force Main (20 ft)
- Brooklyn Park Sewer Line
- Interceptor Sewer Line
- Private Sewer Line
- Brooklyn Park Lift Station
- Interceptor Lift Station
- Interceptor Manhole
- Brooklyn Park Manhole
- Streets
- Parcels

Lift Station No. 2

(1301 92nd Ave North)



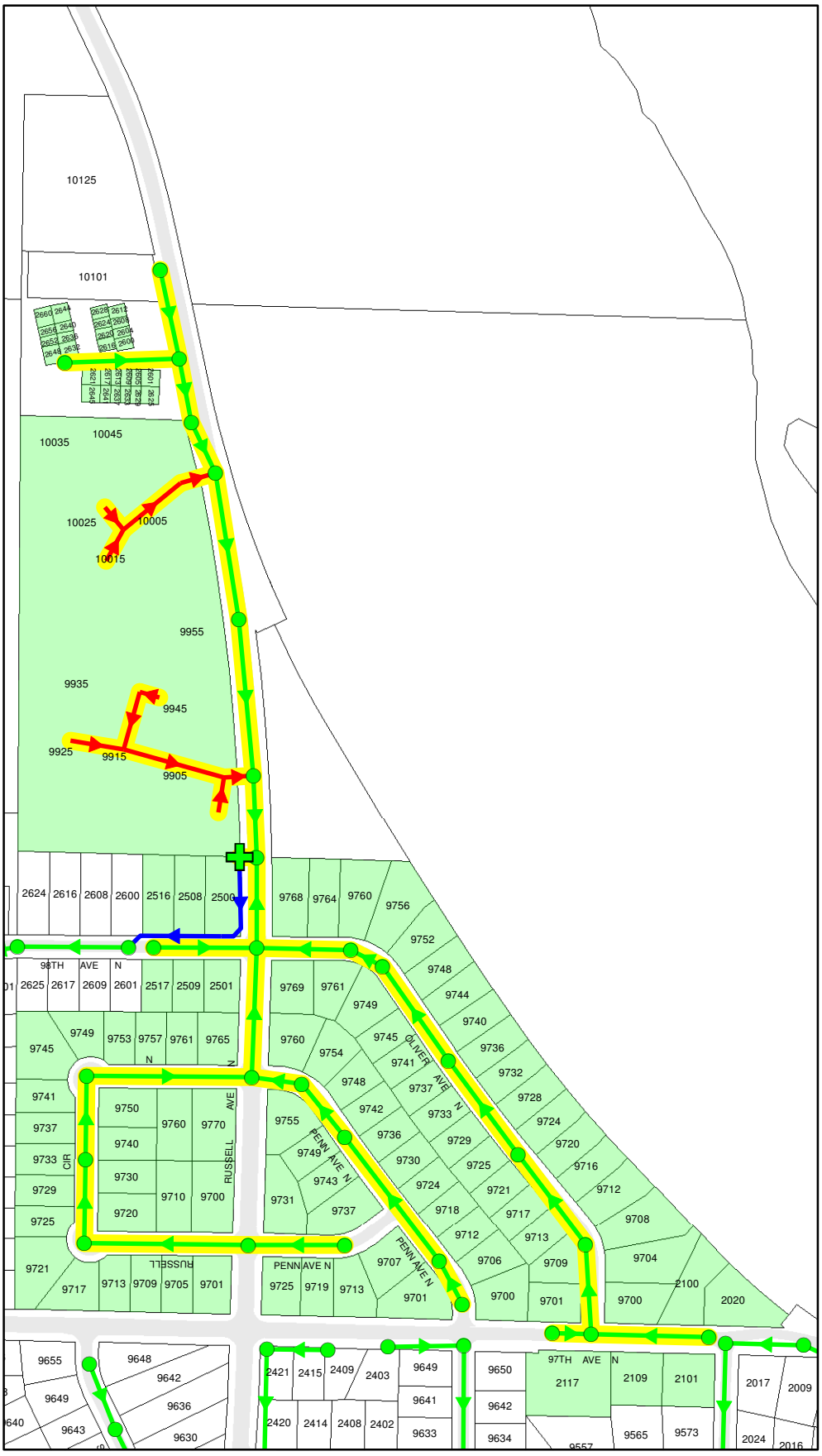
Date: 2/13/2013

Legend

- Lift Station Parcels
- Brooklyn Park Discharge Force Main (965 ft)
- Brooklyn Park Sewer Line
- Interceptor Sewer Line
- Brooklyn Park Lift Station
- Interceptor Lift Station
- Interceptor Manhole
- Brooklyn Park Manhole
- Streets
- Parcels

Lift Station No. 3

(9809 Russell Ave North)



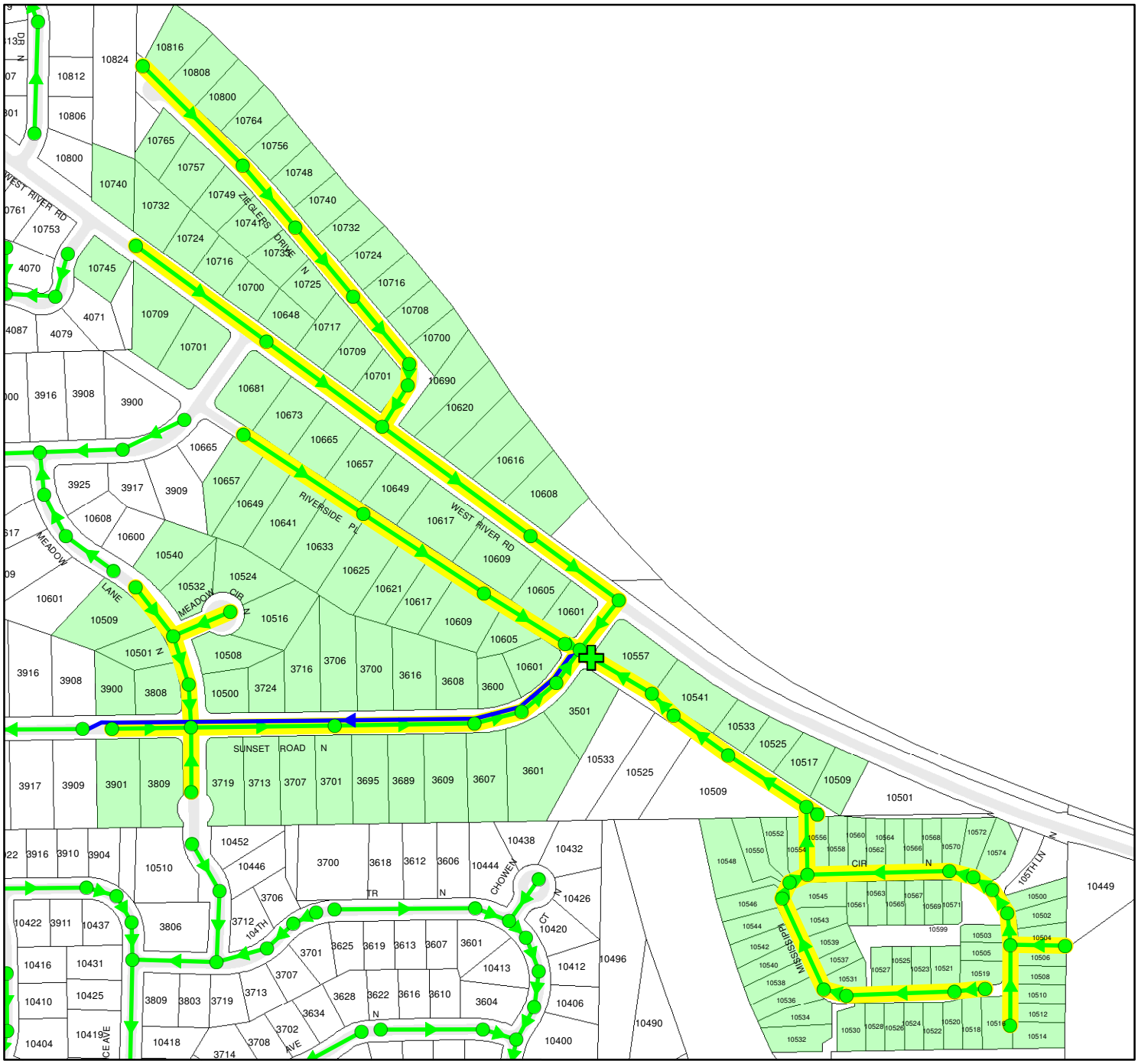
Date: 2/12/2013

Legend

- Lift Station #3 Collection Zone
- Lift Station Parcels
- Brooklyn Park Discharge Force Main (495 ft)
- Brooklyn Park Sewer Line
- Interceptor Sewer Line
- Private Sewer Line
- Brooklyn Park Lift Station
- Interceptor Lift Station
- Interceptor Manhole
- Brooklyn Park Manhole
- Streets
- Parcels

Lift Station No. 4

(3495 Sunset Road)



Legend

- Lift Station #4 Collection Zone
- Lift Station Parcels
- Brooklyn Park Discharge Force Main (1,480 ft)
- Brooklyn Park Sewer Line
- Interceptor Sewer Line
- Private Sewer Line
- Brooklyn Park Lift Station
- Interceptor Lift Station
- Interceptor Manhole
- Brooklyn Park Manhole
- Streets
- Parcels

N
W E
S

Date: 2/14/2013

Lift Station No. 6

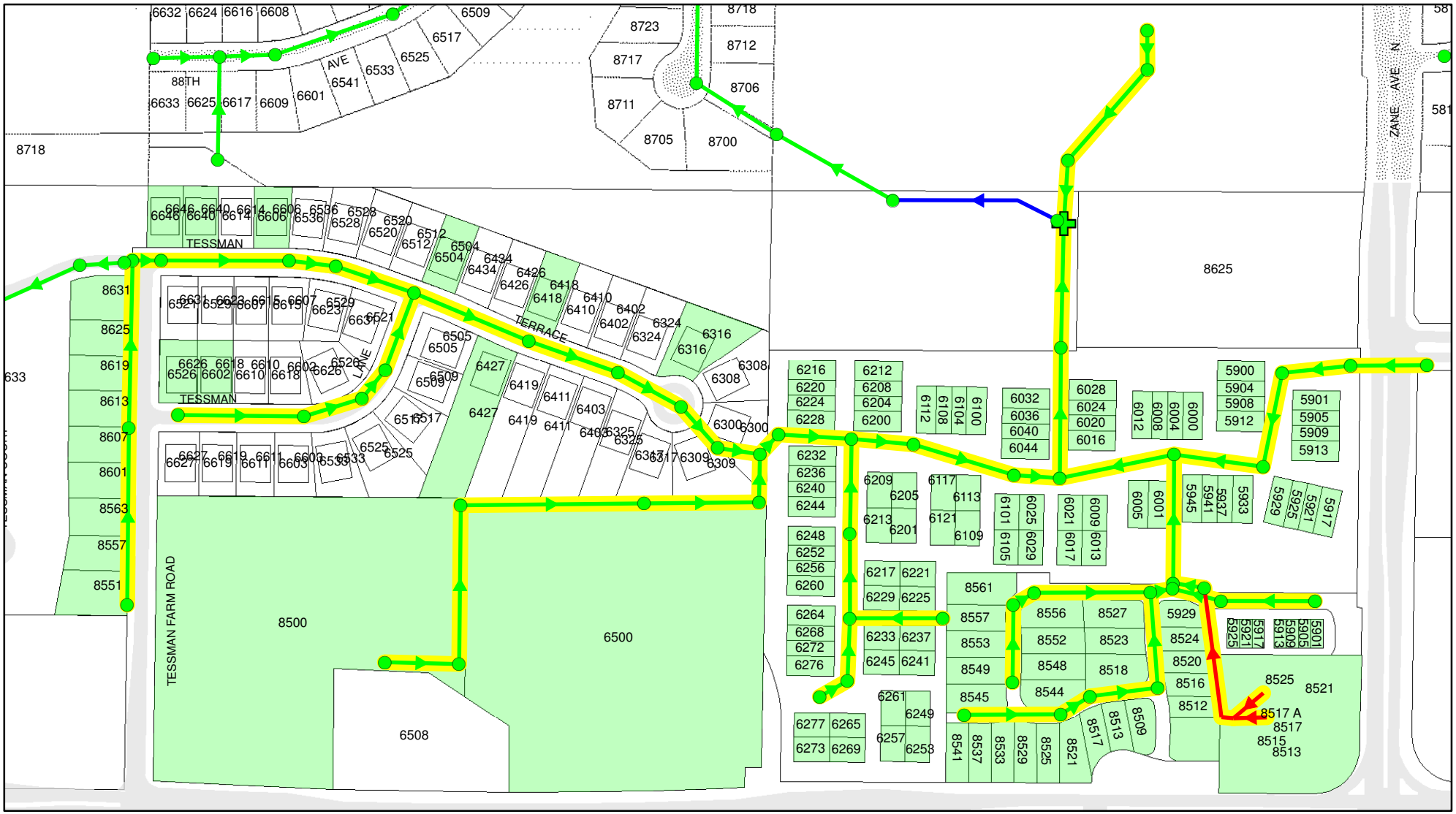
(8561 Aspen Lane)

Legend

- Lift Station #6 Collection Zone
- Lift Station Parcels
- Brooklyn Park Discharge Force Main (330 ft)
- Brooklyn Park Sewer Line
- Interceptor Sewer Line
- Private Sewer Line
- Brooklyn Park Lift Station
- Interceptor Lift Station
- Interceptor Manhole
- Brooklyn Park Manhole
- Streets
- Parcels

N
W E
S

Date: 2/13/2013



Lift Station No. 7

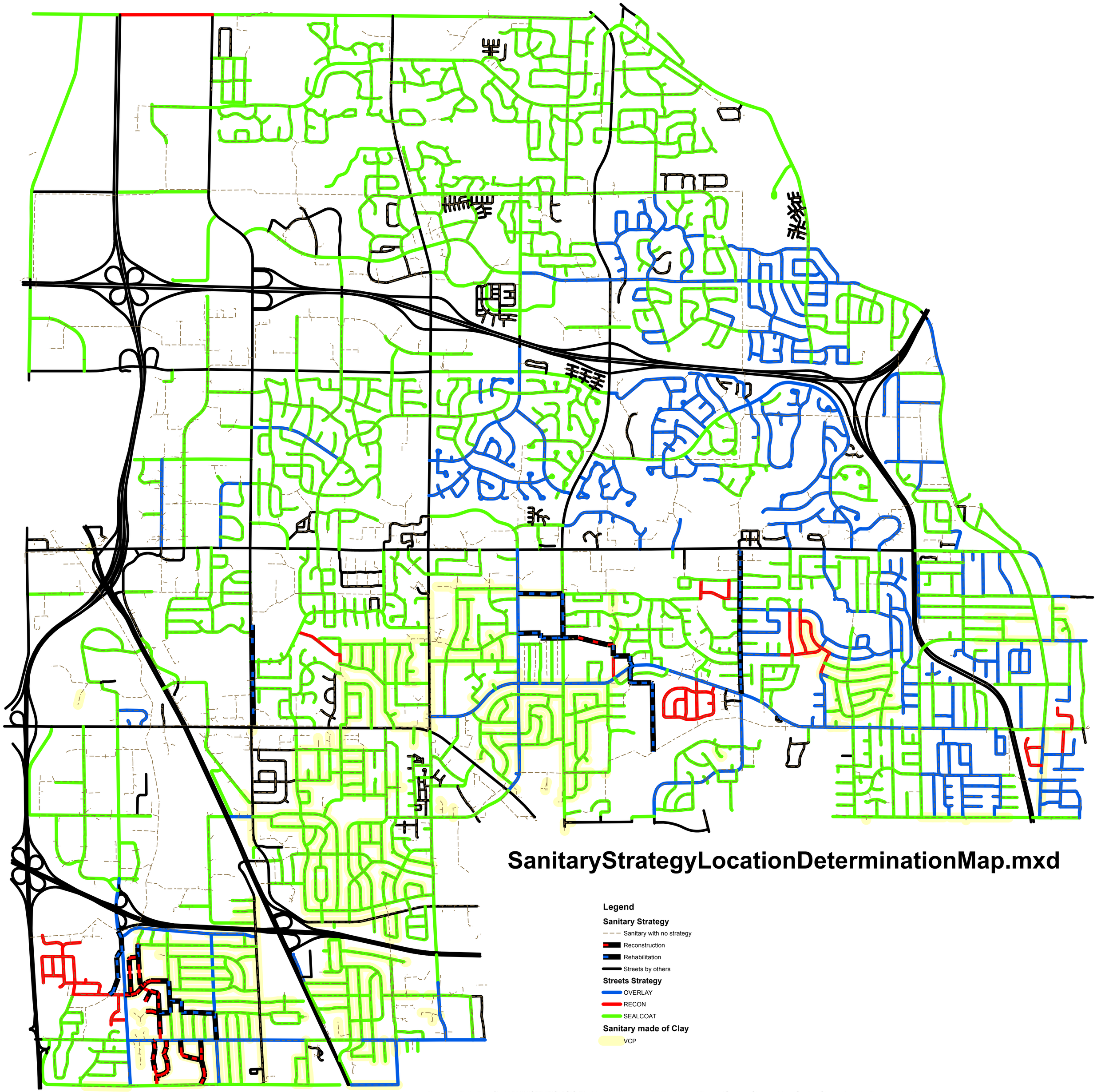
(8627 Zane Ave)

N
W E
S

Date: 2/13/2013

Legend

- Lift Station #7 Collection Zone
- Lift Station Parcels
- Brooklyn Park Discharge Force Main (335 ft)
- Brooklyn Park Sewer Line
- Interceptor Sewer Line
- Private Sewer Line
- Brooklyn Park Lift Station
- Interceptor Lift Station
- Interceptor Manhole
- Brooklyn Park Manhole
- Streets
- Parcels



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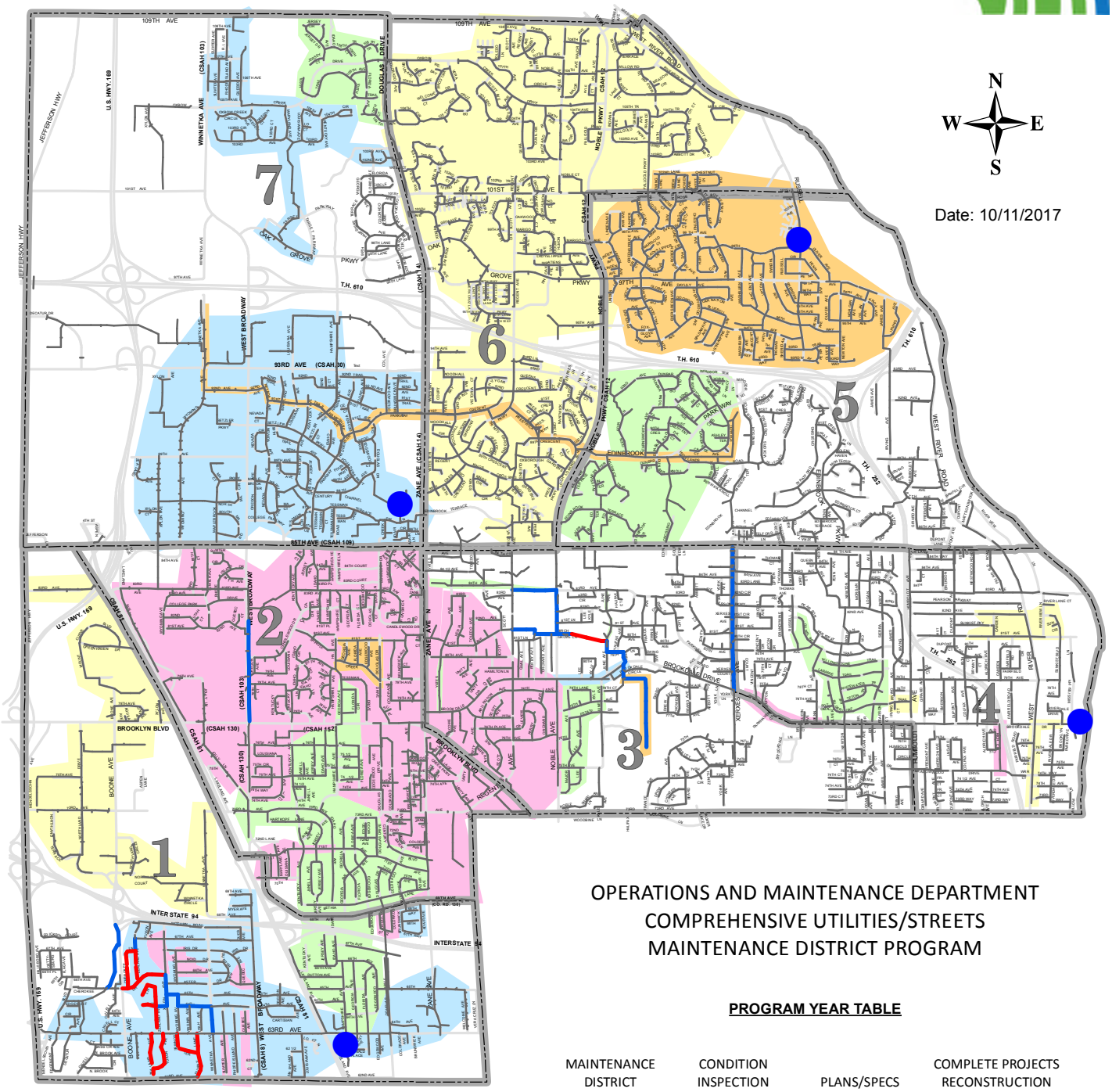
CITY OF BROOKLYN PARK
SANITARY SEWER COLLECTION SYSTEM
STRATEGY MAP



OPERATIONS AND MAINTENANCE DEPARTMENT
COMPREHENSIVE UTILITIES/STREETS
MAINTENANCE DISTRICT PROGRAM

Legend

- Reconstruction
- Rehabilitation
- Televise Area 2018
- Televise Area 2019
- Televise Area 2020
- Televise Area 2021
- Televise Area 2022
- Lift Station Reconstruction
- Lift Station Rehabilitation

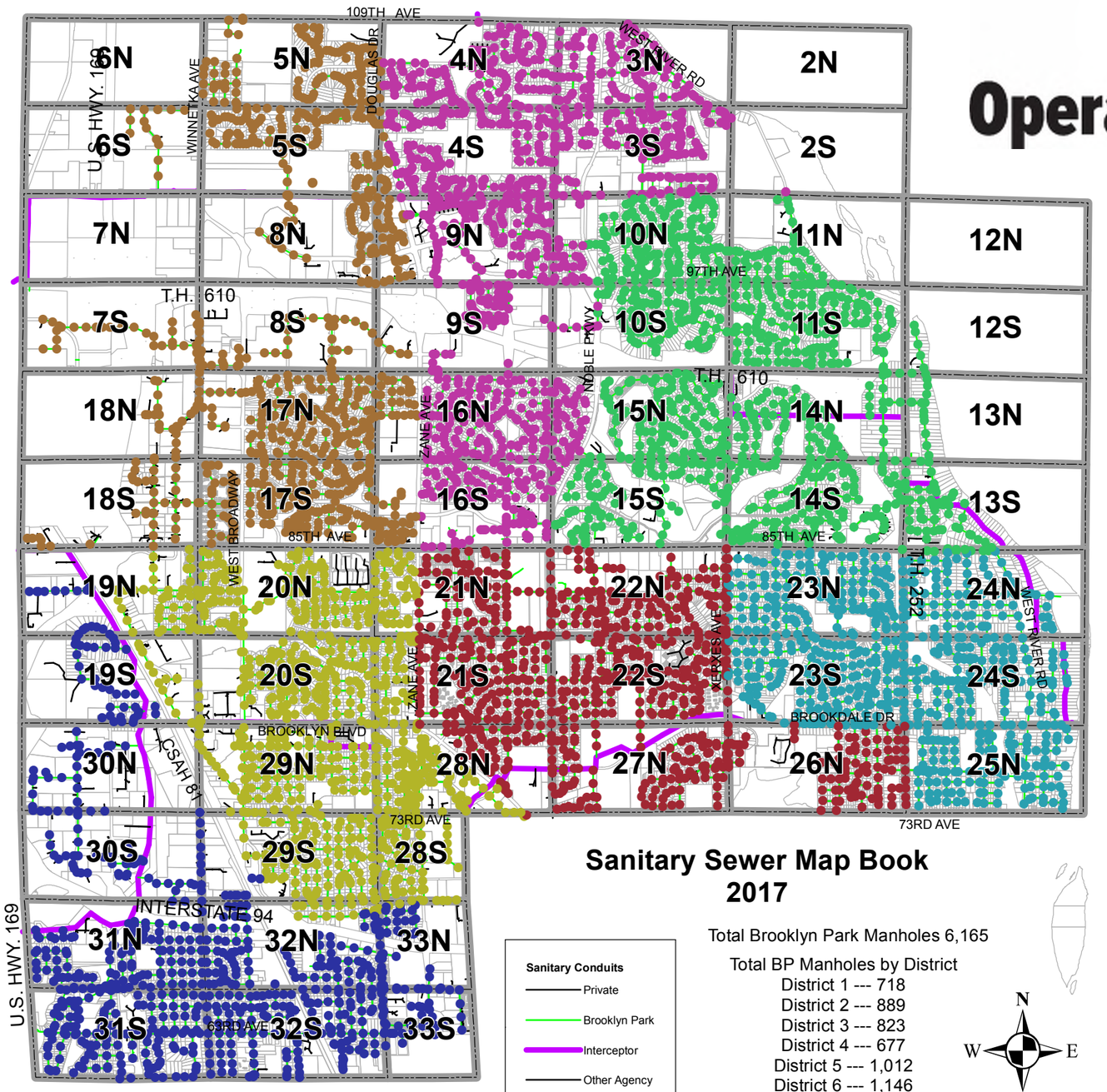
PROGRAM YEAR TABLE

MAINTENANCE DISTRICT NUMBER	CONDITION INSPECTION PLANNING BUDGET	PLANS/SPECS START PROJECTS	COMPLETE PROJECTS RECONSTRUCTION MAJOR MAINTENANCE
1			2018
1,2,3,4,5	2018	2018	2019 - 2020
6	2019	2019	2020 - 2021
1,7	2020	2020	2021 - 2022
2,3	2021	2021	2022 - 2023

NOTE: FOR THIS MAINTENANCE PLAN, DISTRICTS MATCH THE STREET MAINTENANCE DISTRICT PROGRAM FOR COORDINATION PURPOSES

Document Path: T:\omfiles\ADMINISTRATION\GIS Files\ArcMap Documents\Utilities\Annual Reports\Sanitary Strategy Maps\SanitaryStrategyMap2018-2022.mxd

Brooklyn Park
Operations & Maintenance



Sanitary Sewer Map Book
2017

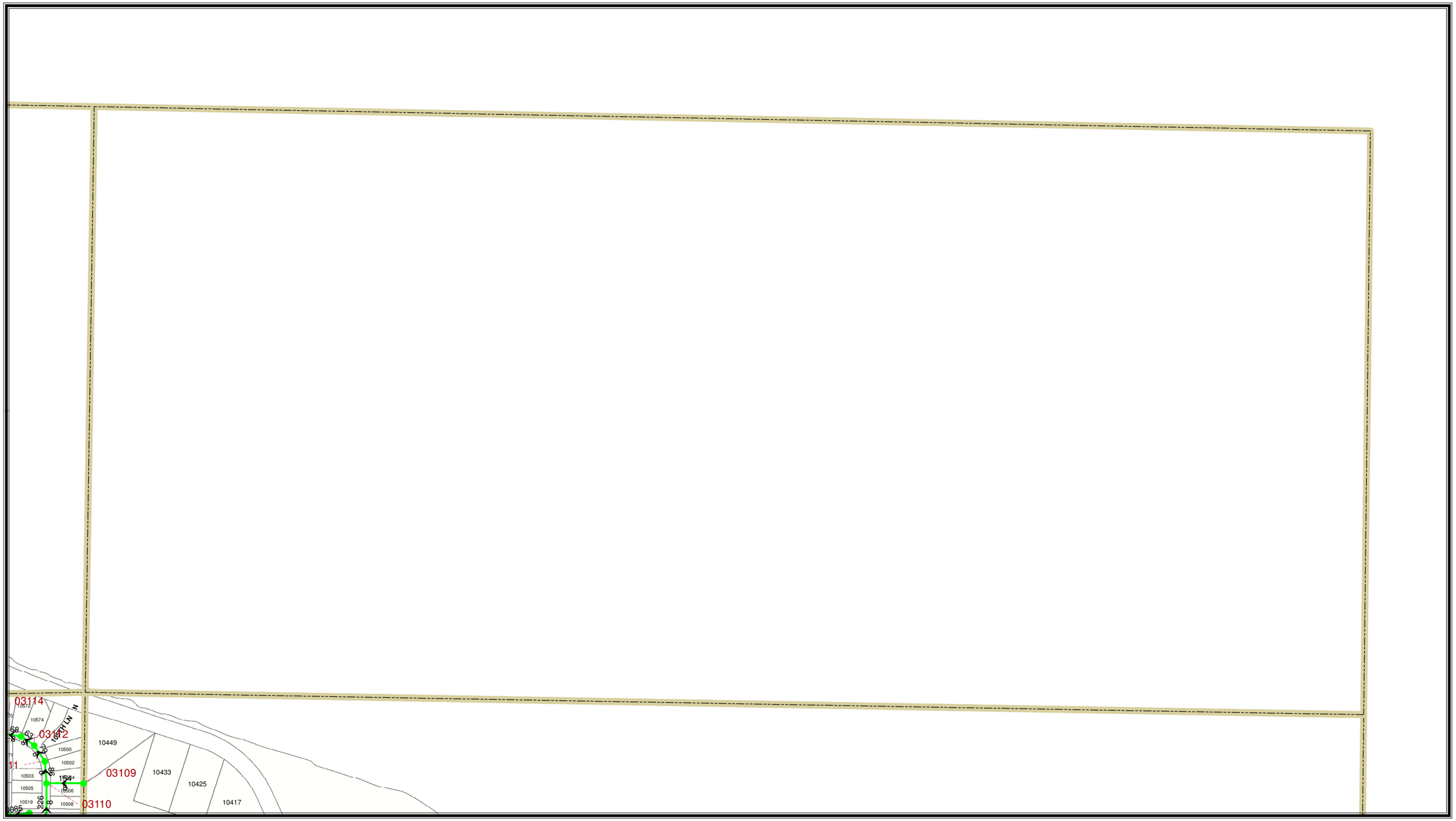
Sanitary Conduits
- Private
- Brooklyn Park
- Interceptor
- Other Agency

Total Brooklyn Park Manholes 6,165

Total BP Manholes by District
District 1 --- 718
District 2 --- 889
District 3 --- 823
District 4 --- 677
District 5 --- 1,012
District 6 --- 1,146
District 7 --- 900

N
W E
S

Date: 3/15/2017



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

99001 MH ID Number

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

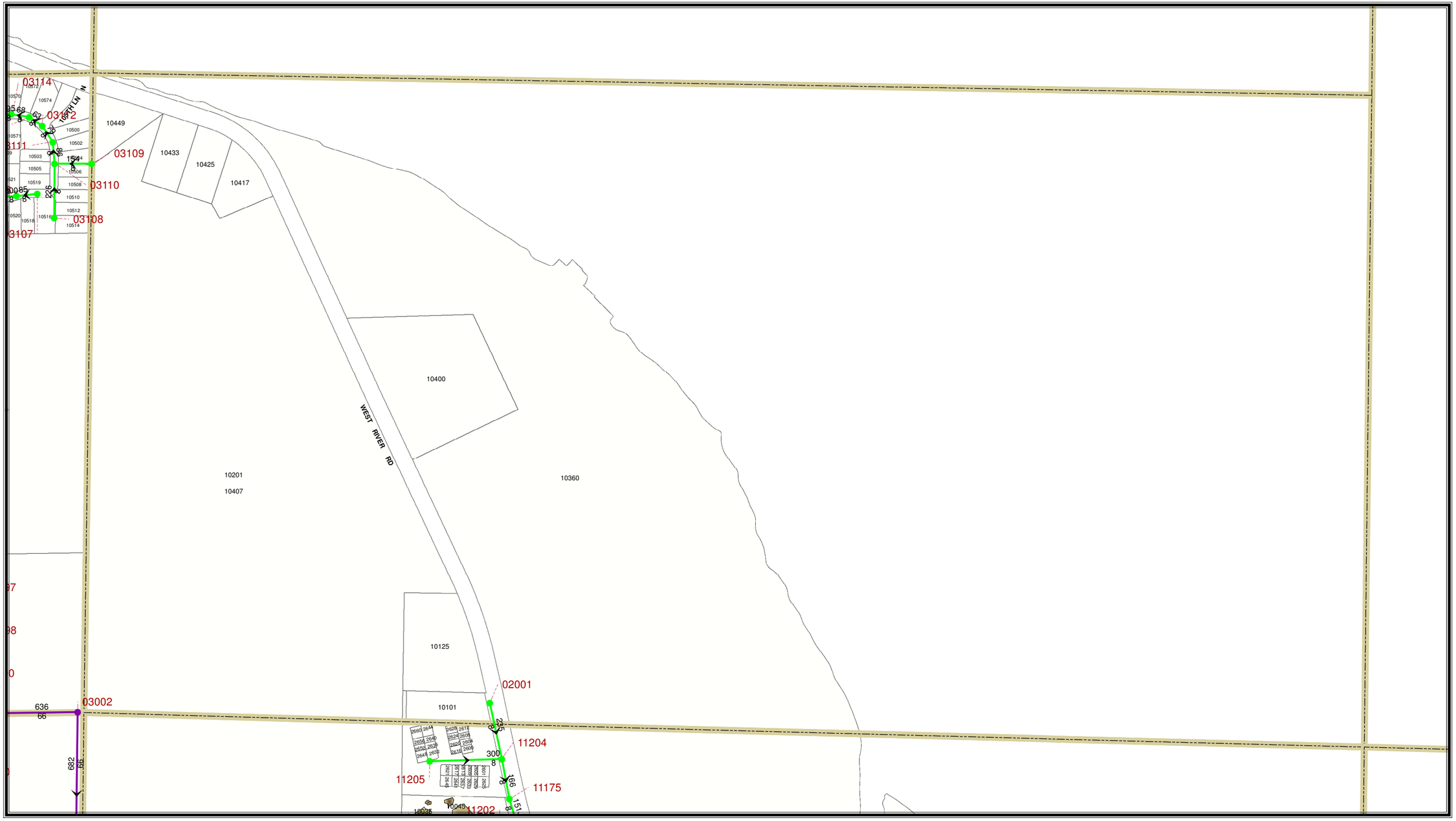
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

02N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
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- Manhole, Surrounding City
- Manhole, Other Agency
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Sanitary Lines

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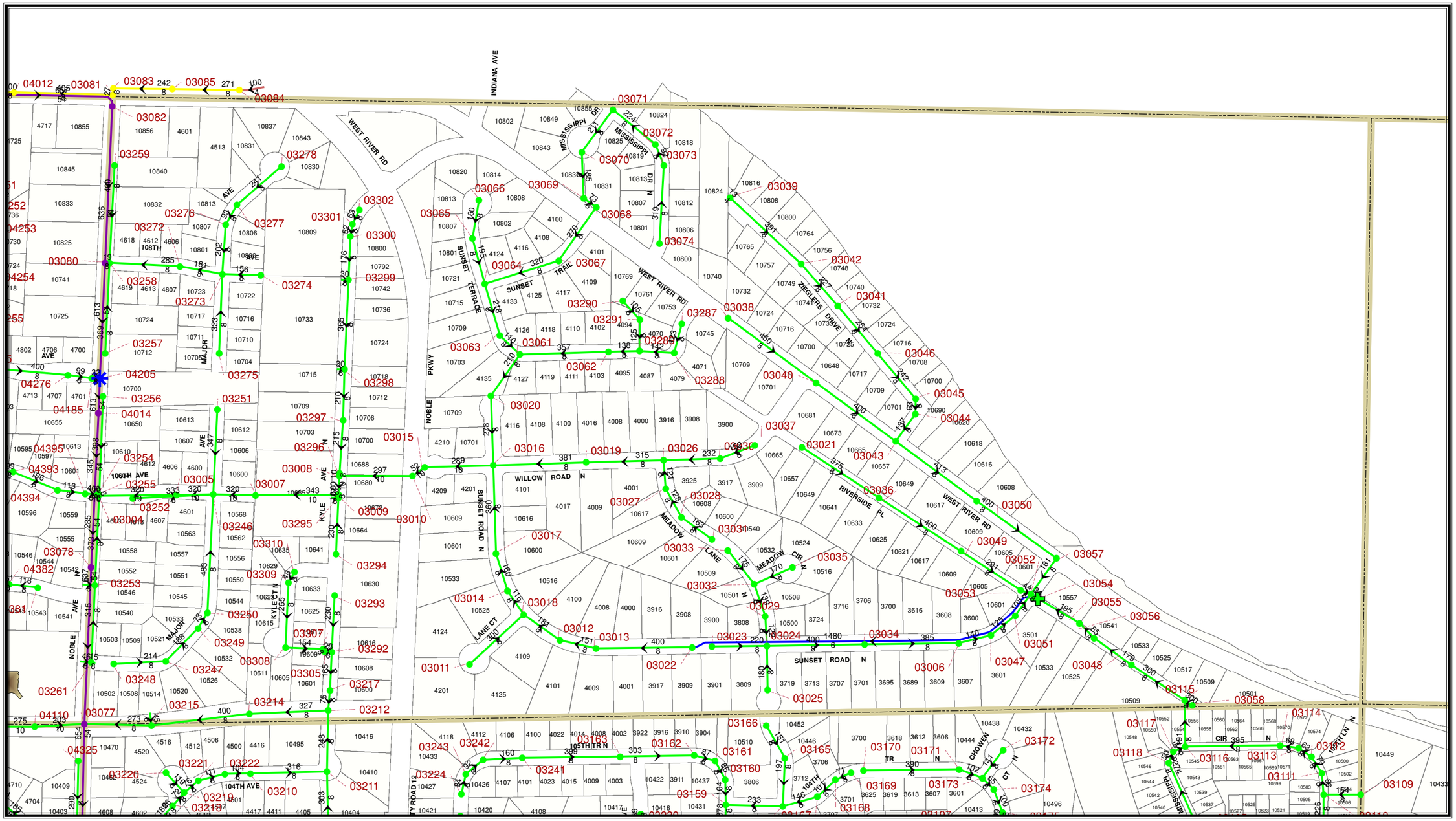
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

02S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
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- Manhole, Other Agency
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Sanitary Lines

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- Gravity, Surrounding City
- Gravity, Other Agency

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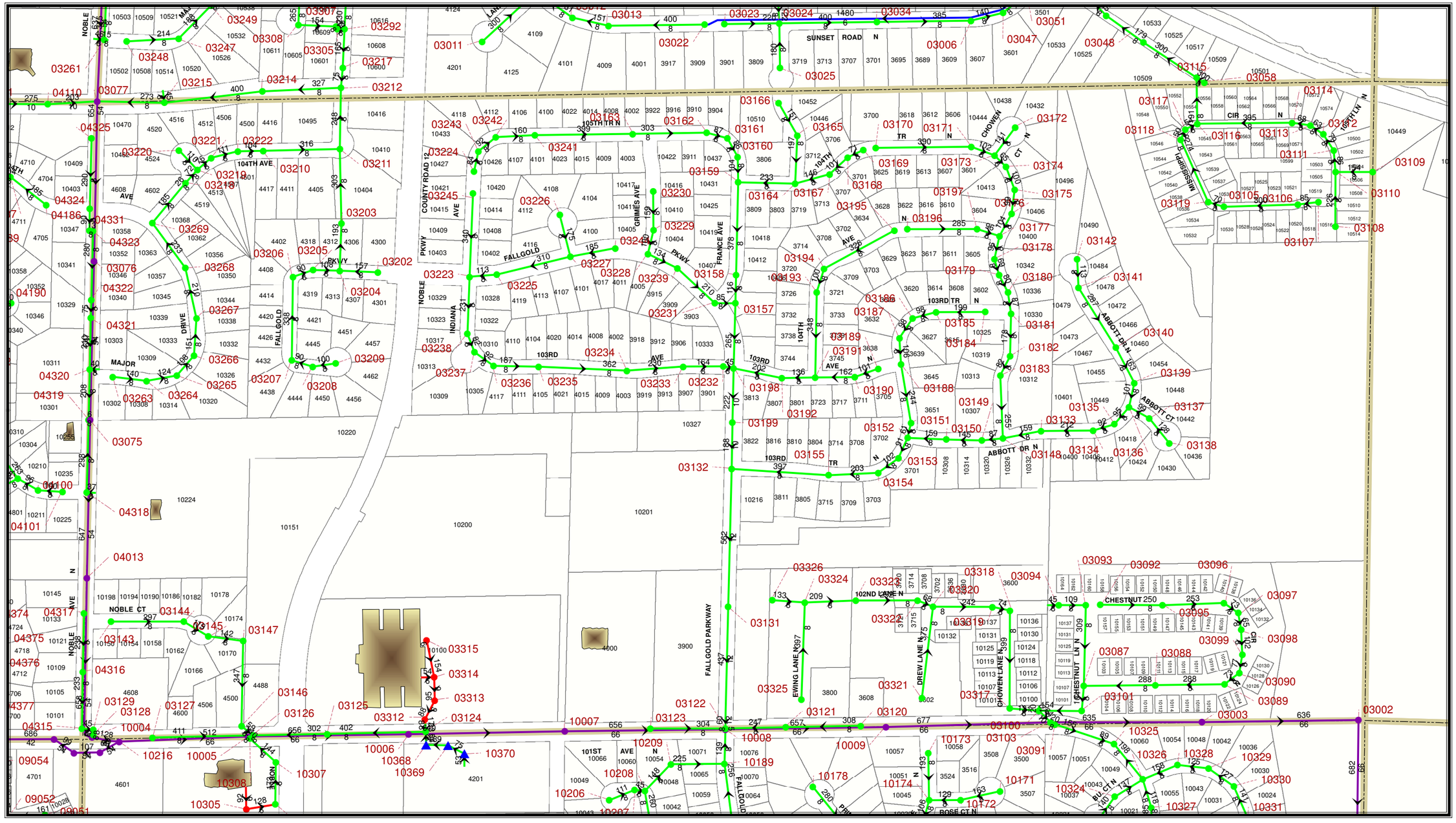
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

03N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

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- Gravity, Other Agency

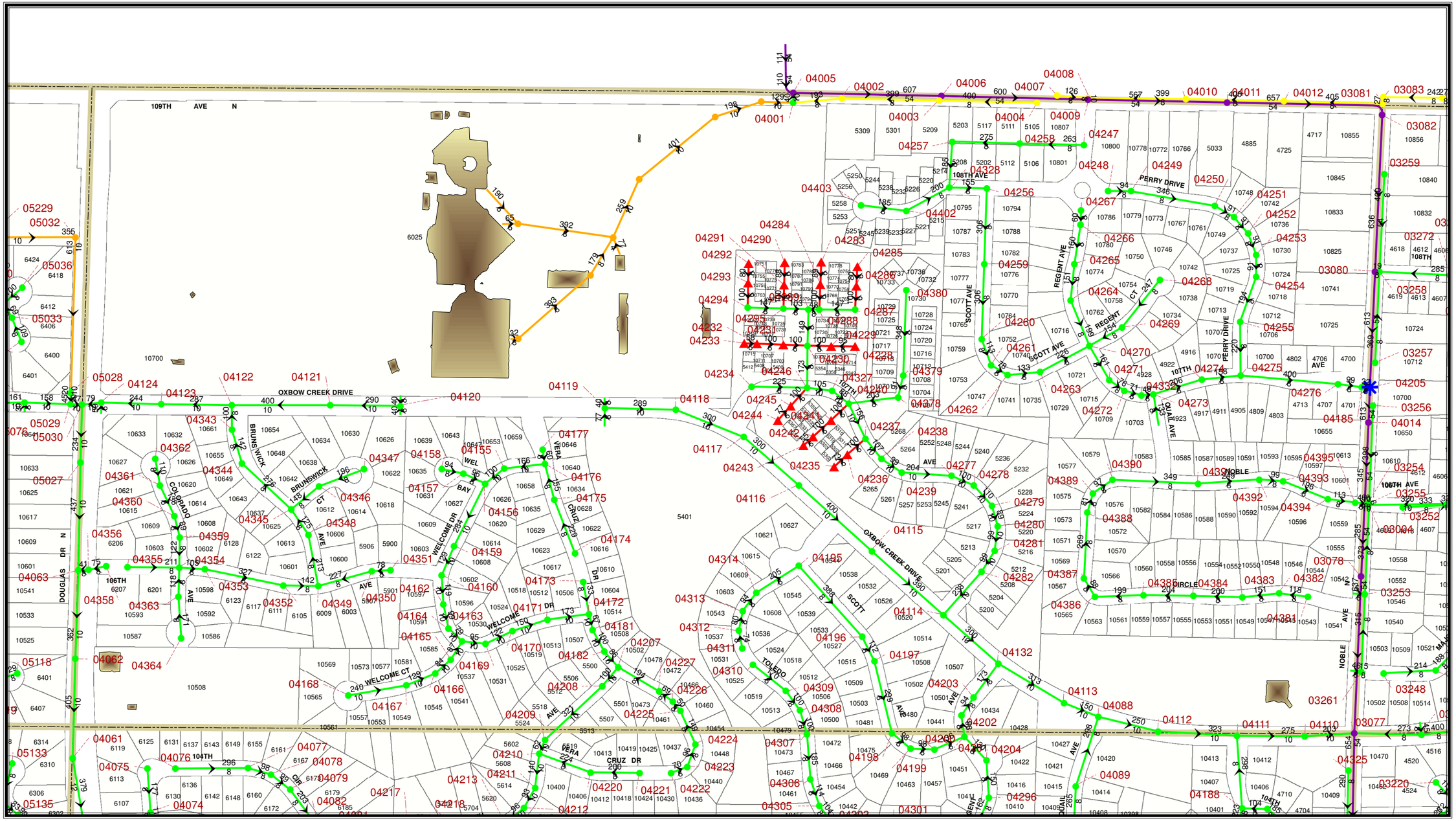
06N	05N	04N	03N	02N		
06S	05S	04S	03S	02S		
07N	08N	09N	10N	11N	12N	
07S	08S	09S	10S	11S	12S	
18N	17N	16N	15N	14N	13N	
18S	17S	16S	15S	14S	13S	
19N	20N	21N	22N	23N	24N	
19S	20S	21S	22S	23S	24S	
30N	29N	28N	27N	26N	25N	
30S	29S	28S				
31N	32N	33N				
31S	32S	33S				

1 inch = 400 feet

Date: 3/15/2017

N W E S

03S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

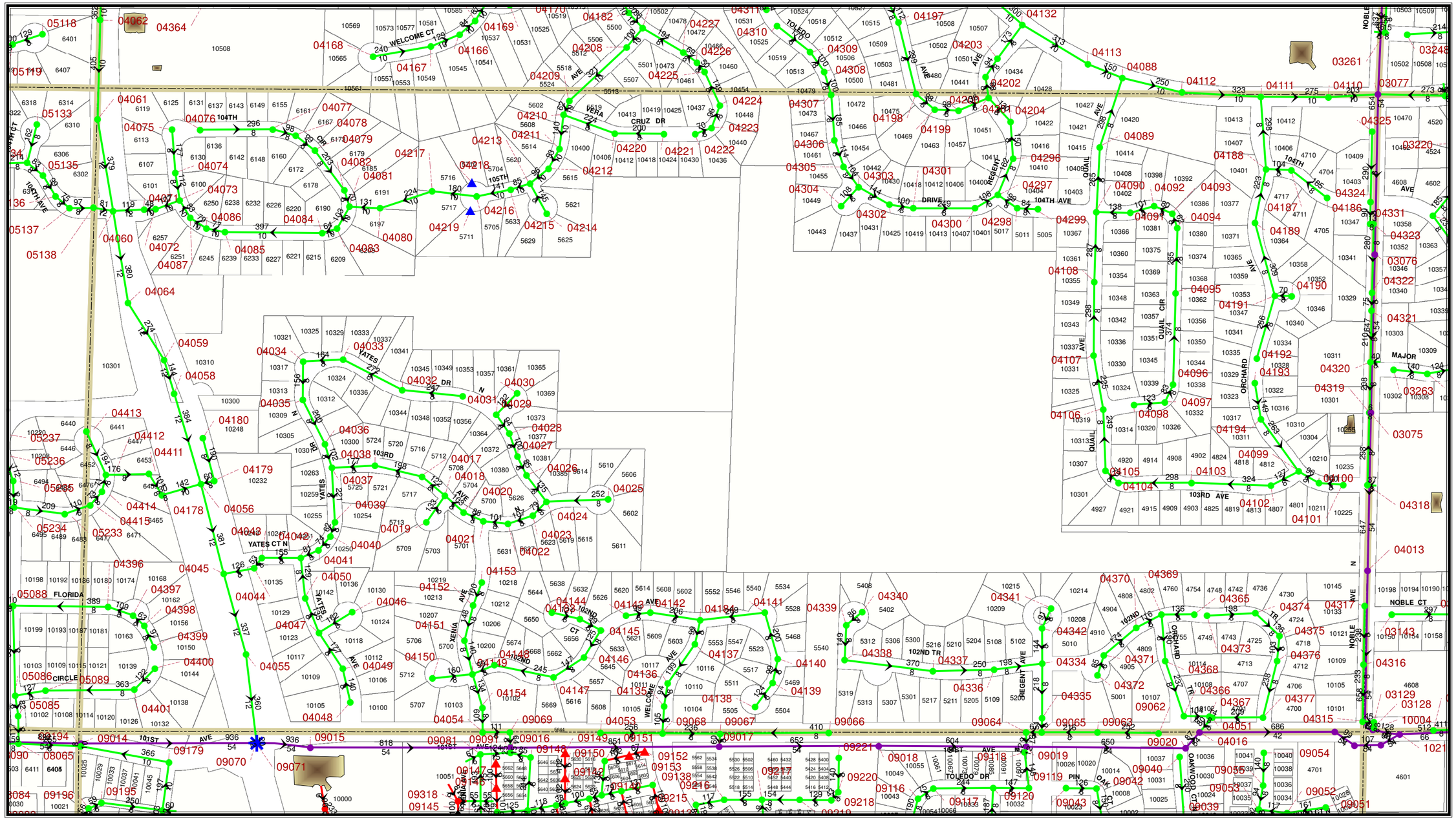
06N	05N	04N	03N	02N		
06S	05S	04S	03S	02S		
07N	08N	09N	10N	11N		12N
07S	08S	09S	10S	11S		12S
18N	17N	16N	15N	14N		13N
18S	17S	16S	15S	14S		13S
19N	20N	21N	22N	23N		24N
19S	20S	21S	22S	23S		24S
30N	29N	28N	27N	26N		25N
30S	29S	28S				
31N	32N	33N				
31S	32S	33S				

1 inch = 400 feet

Date: 3/15/2017

N W E S

04N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

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06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
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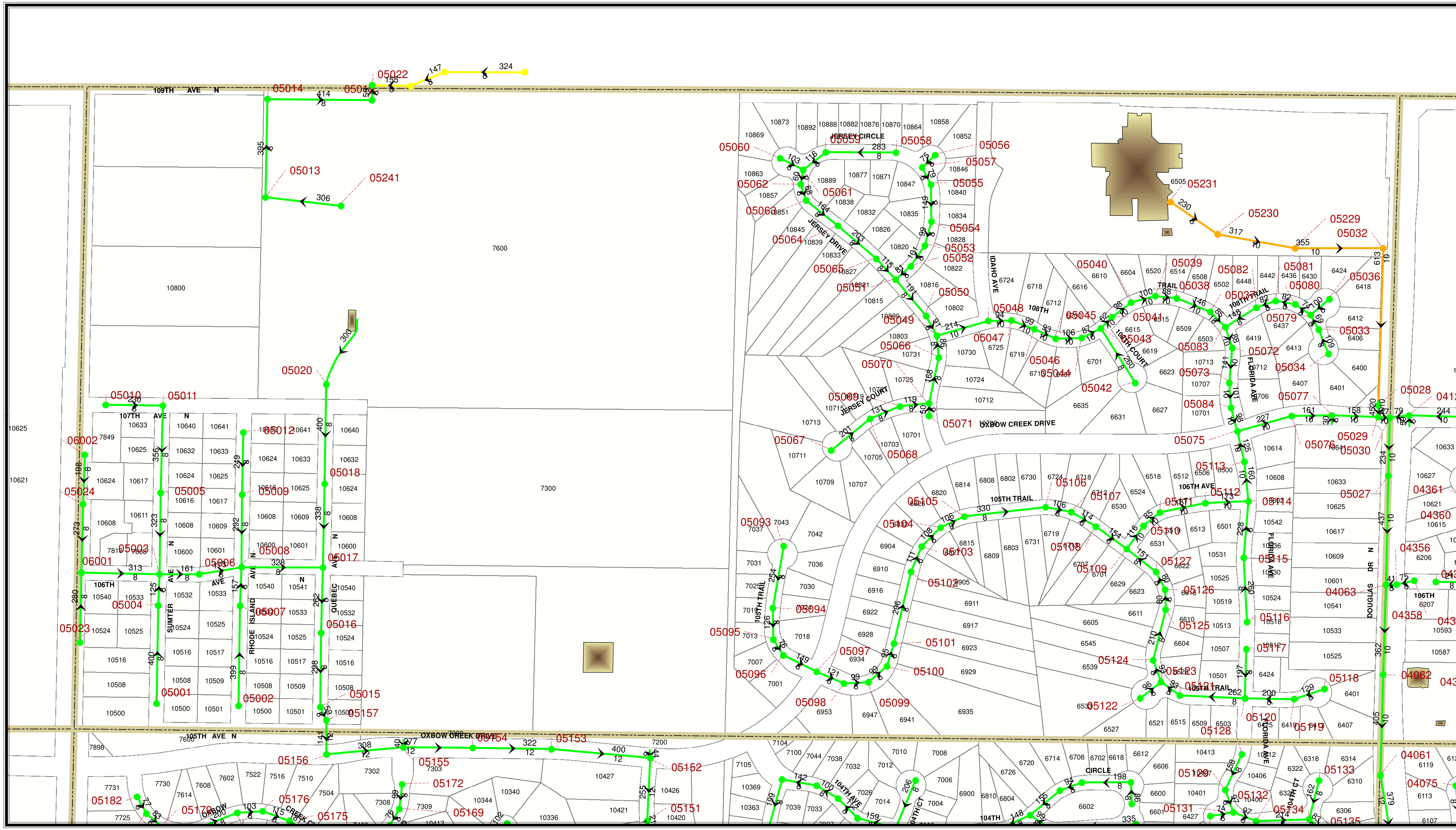
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N
W E
S

04S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

- CIPP
- 99001 MH ID Number
- Half Section Grid
- Parcel
- Pipe Length / Pipe Diameter
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

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06S	05S	04S	03S	02S	
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07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
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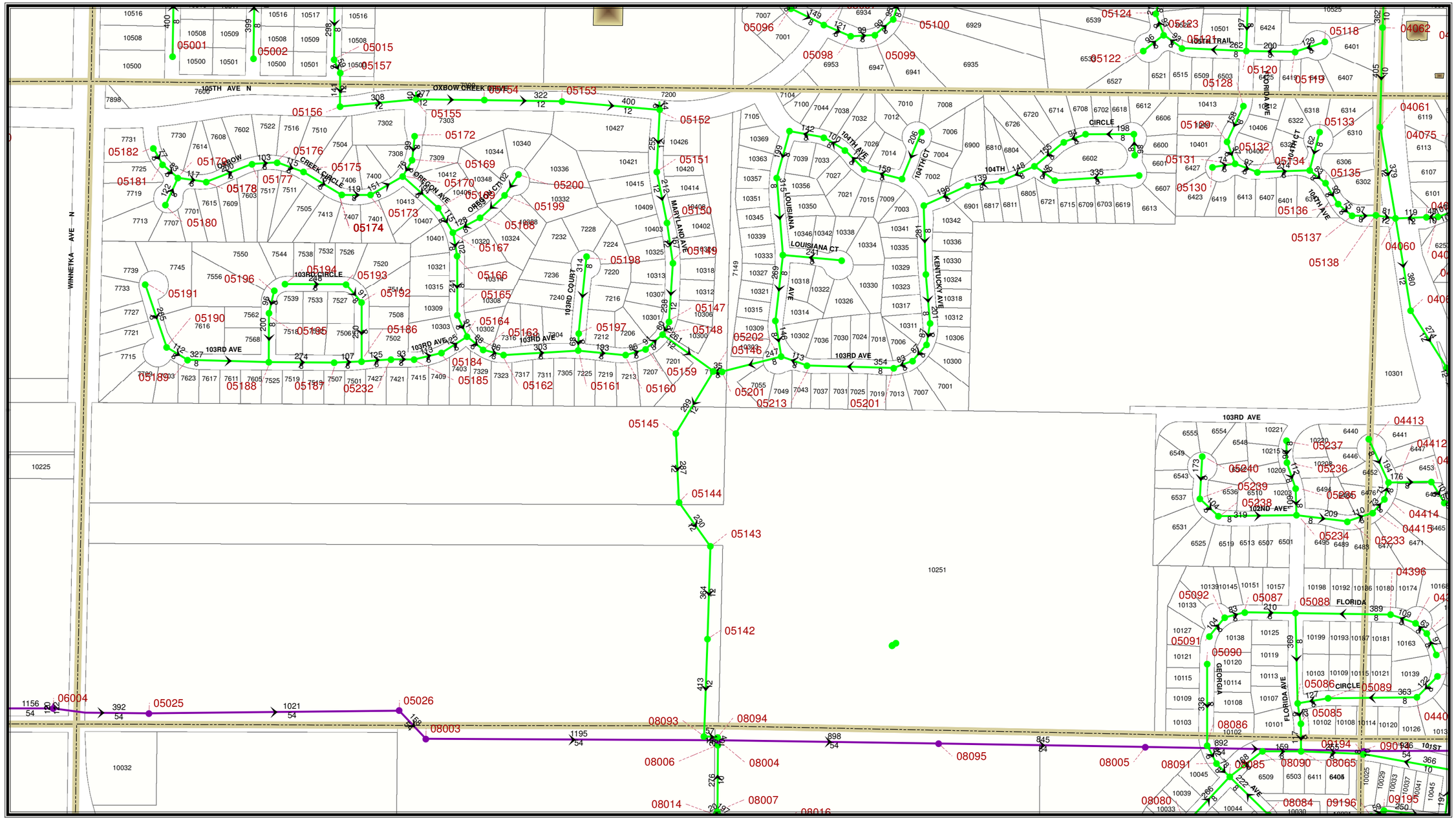
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

05N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
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18S	17S	16S	15S	14S	13S
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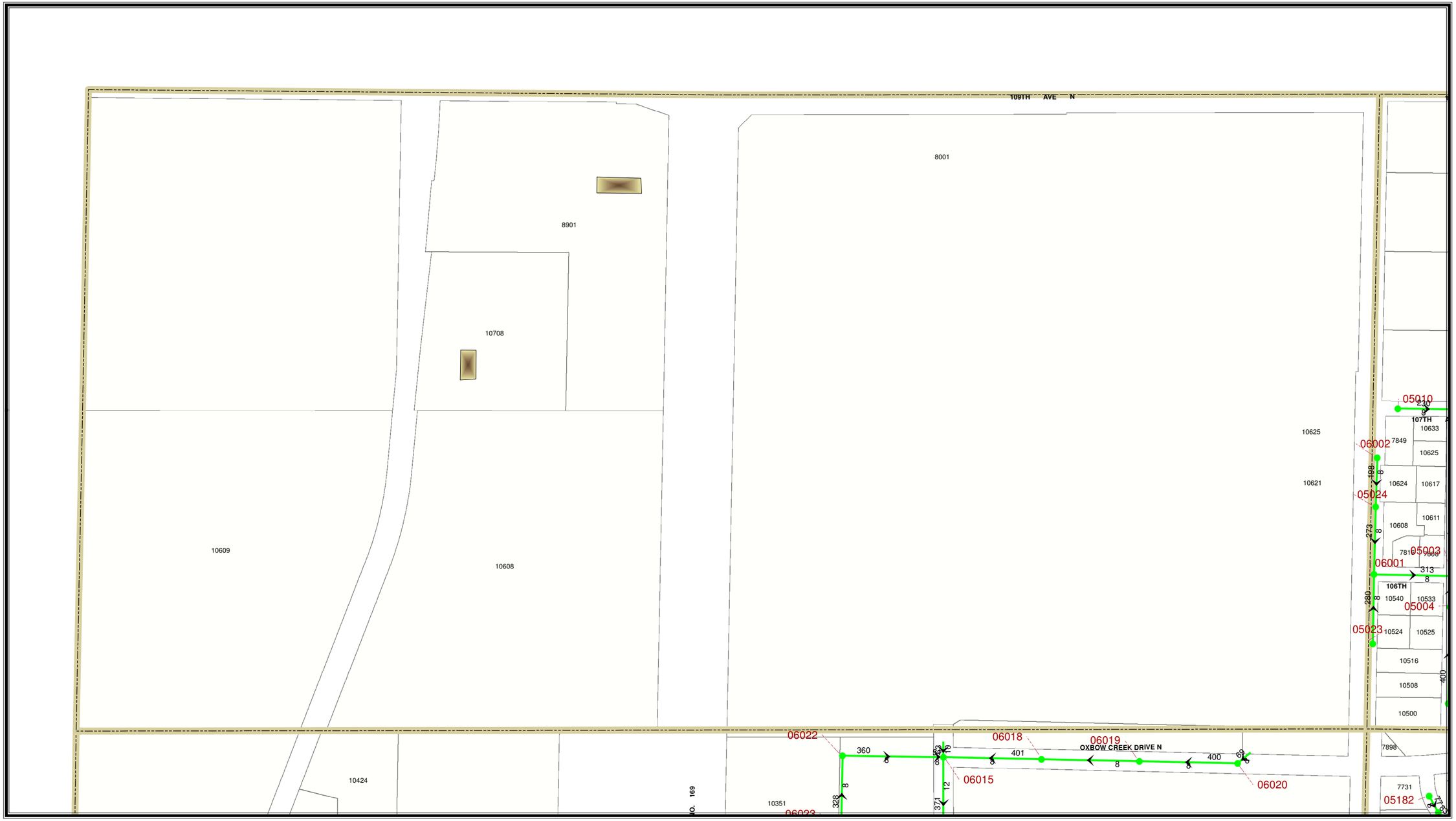
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N
W E
S

05S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
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Sanitary Lines

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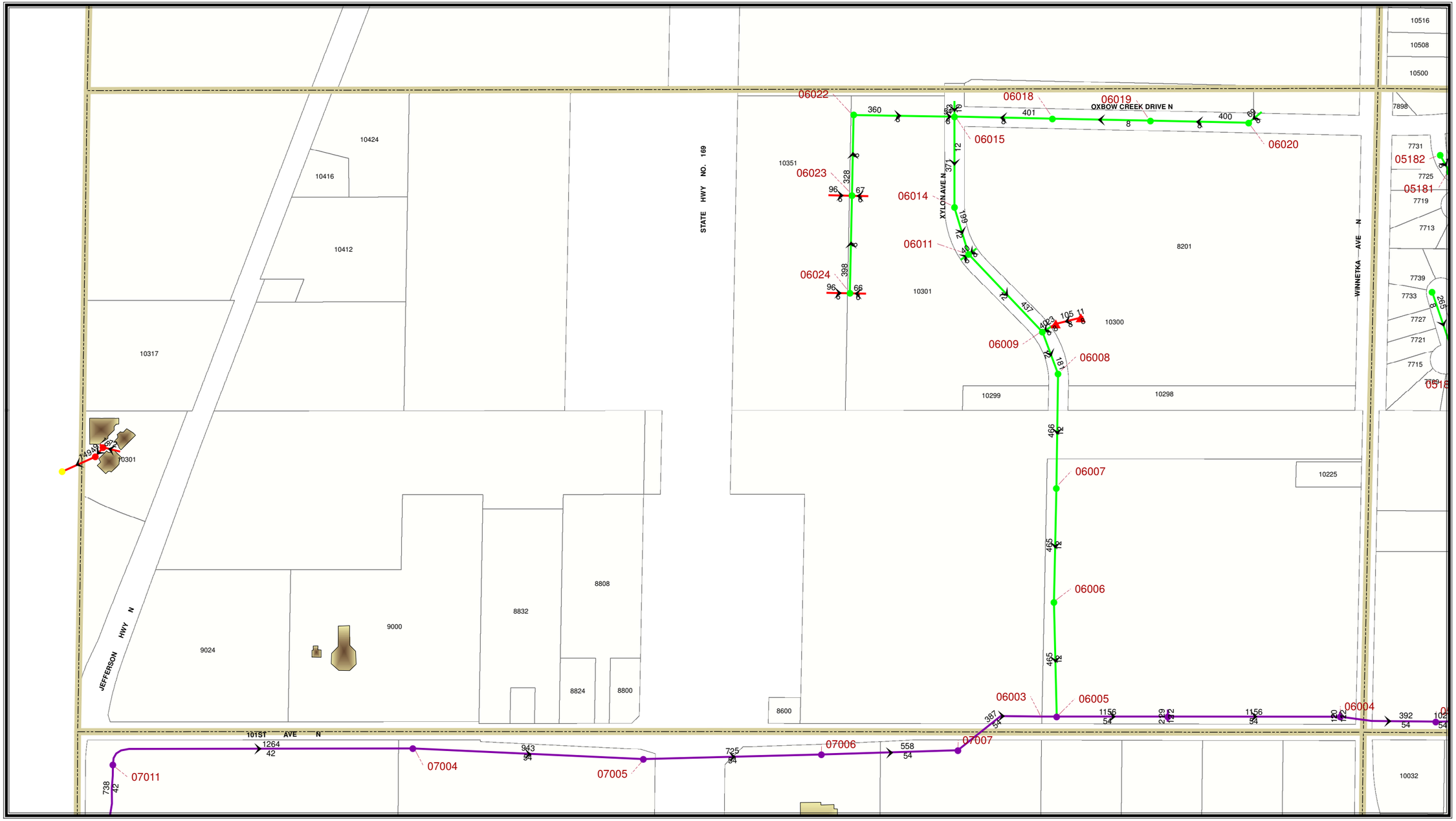
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

06N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
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Sanitary Lines

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- Force, Private
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18S	17S	16S	15S	14S	13S
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19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

06S

Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
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06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
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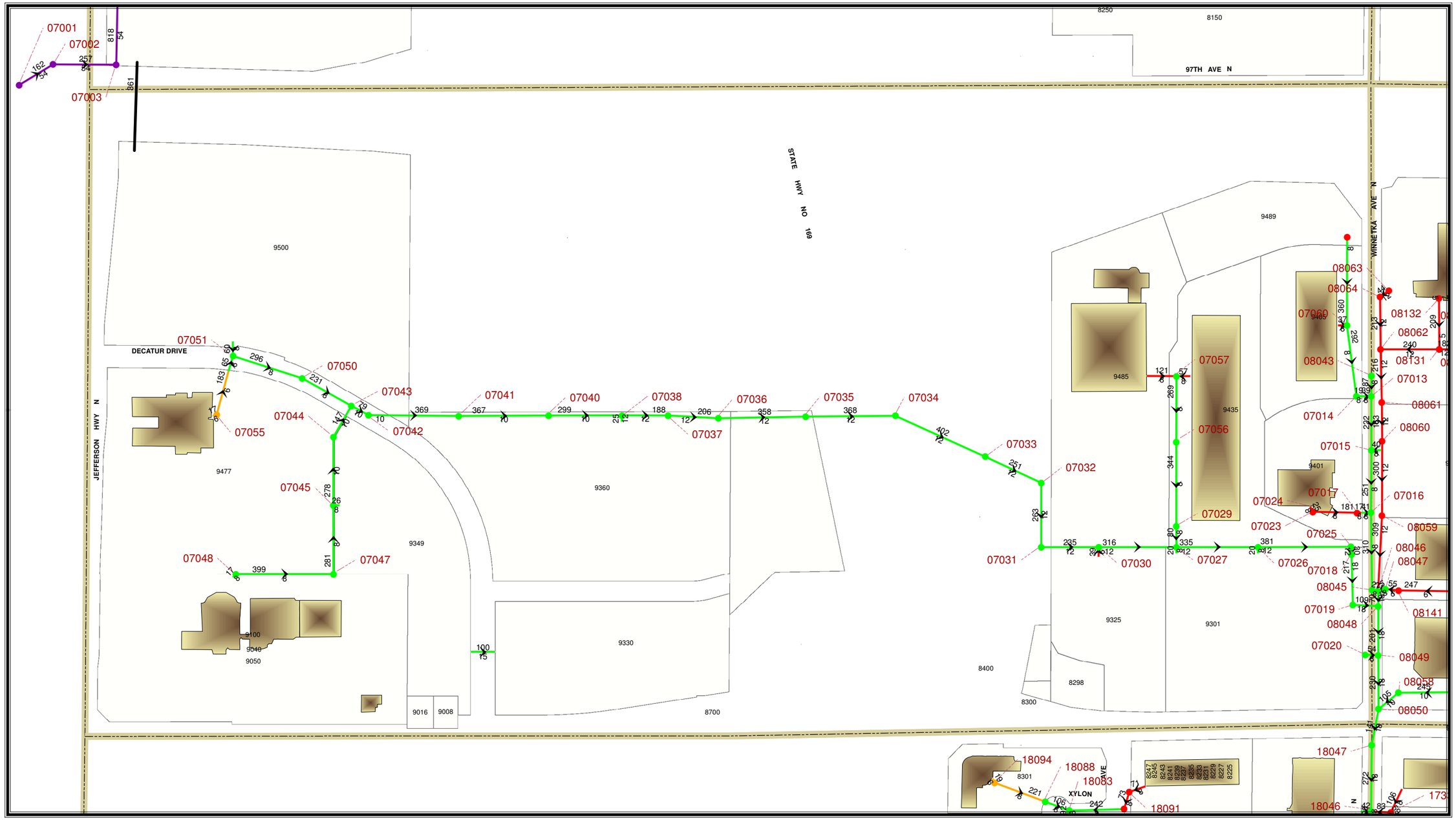
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

07N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
Half Section Grid
Parcel
Pipe Length
Pipe Diameter

99001 MH ID Number

Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
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- Lift Station, Private
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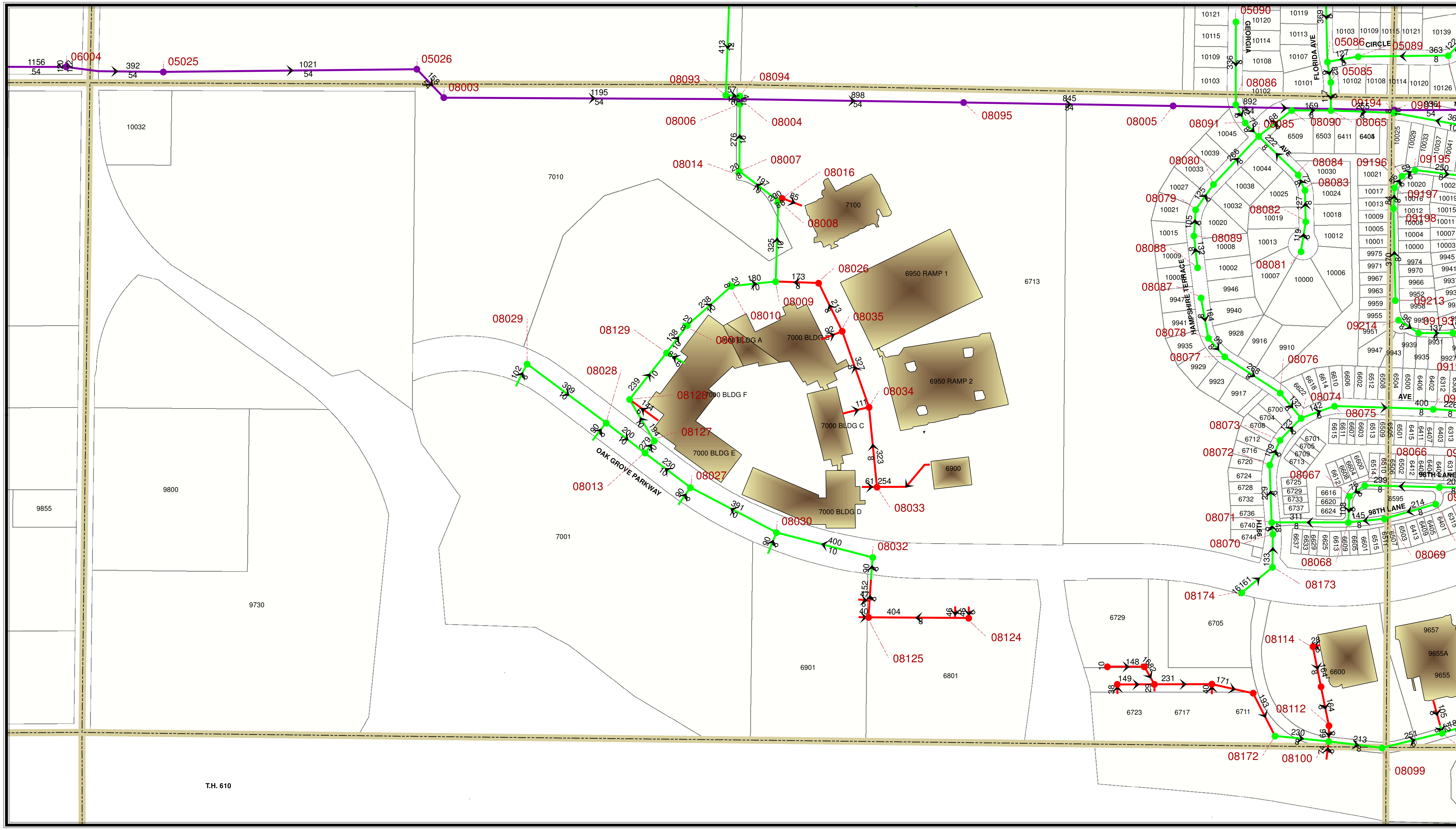
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

07S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length
Pipe Diameter

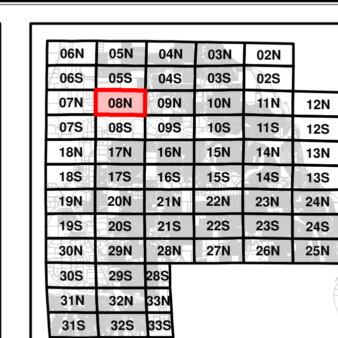
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

Lift Station, Brooklyn Park
Lift Station, Interceptor
Lift Station, Private
Manhole, Brooklyn Park
Manhole, Interceptor
Manhole, Private
Manhole, Surrounding City
Manhole, Other Agency
Sanitary Valve, Brooklyn Park

Sanitary Lines

Force, Brooklyn Park
Force, Private
Gravity, Brooklyn Park
Gravity, Interceptor
Gravity, Private
Force, Champlin
Gravity, Surrounding City
Gravity, Other Agency



1 inch = 400 feet

Date: 3/15/2017

N
W E
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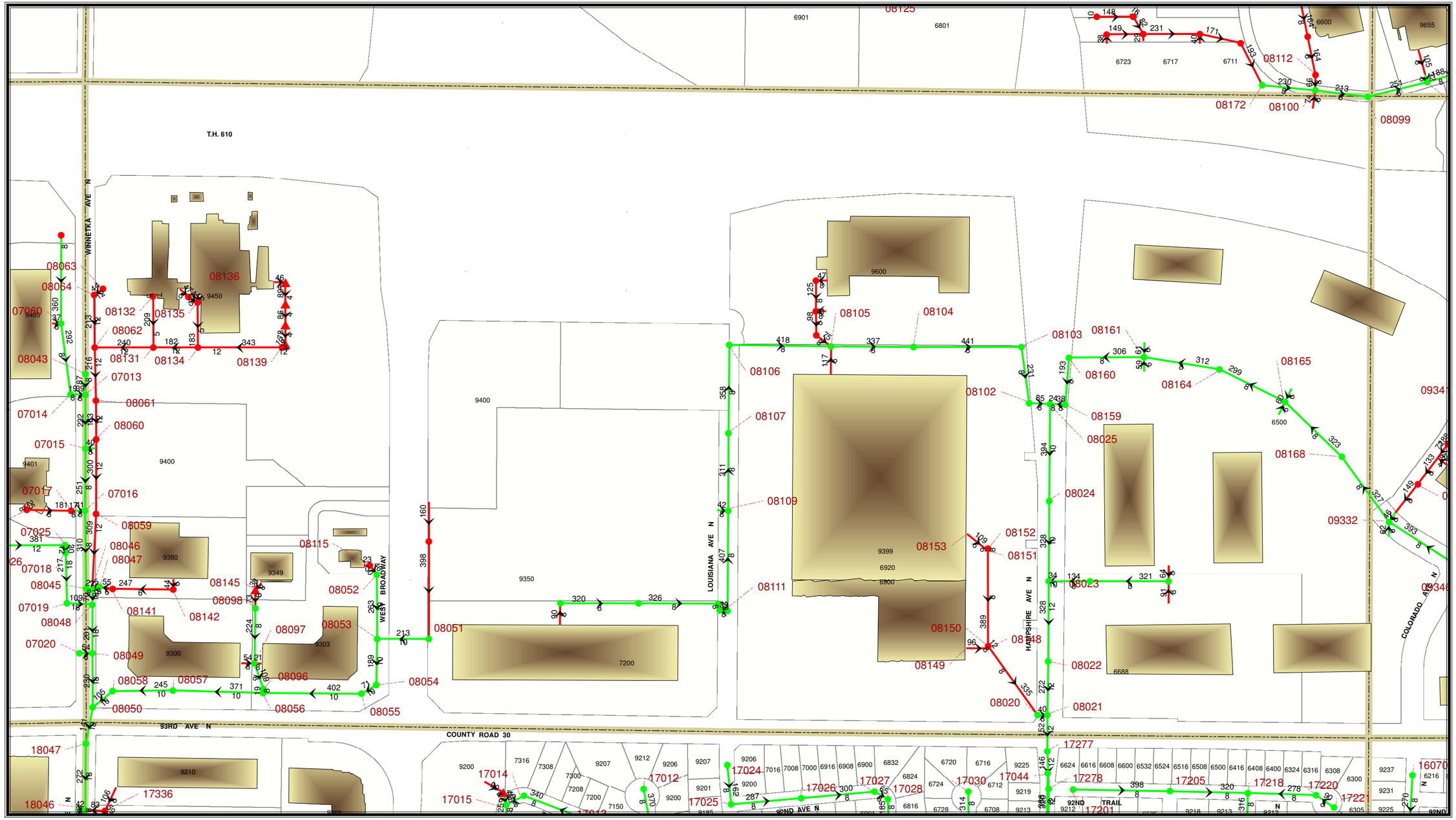
08N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

99001 MH ID Number

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

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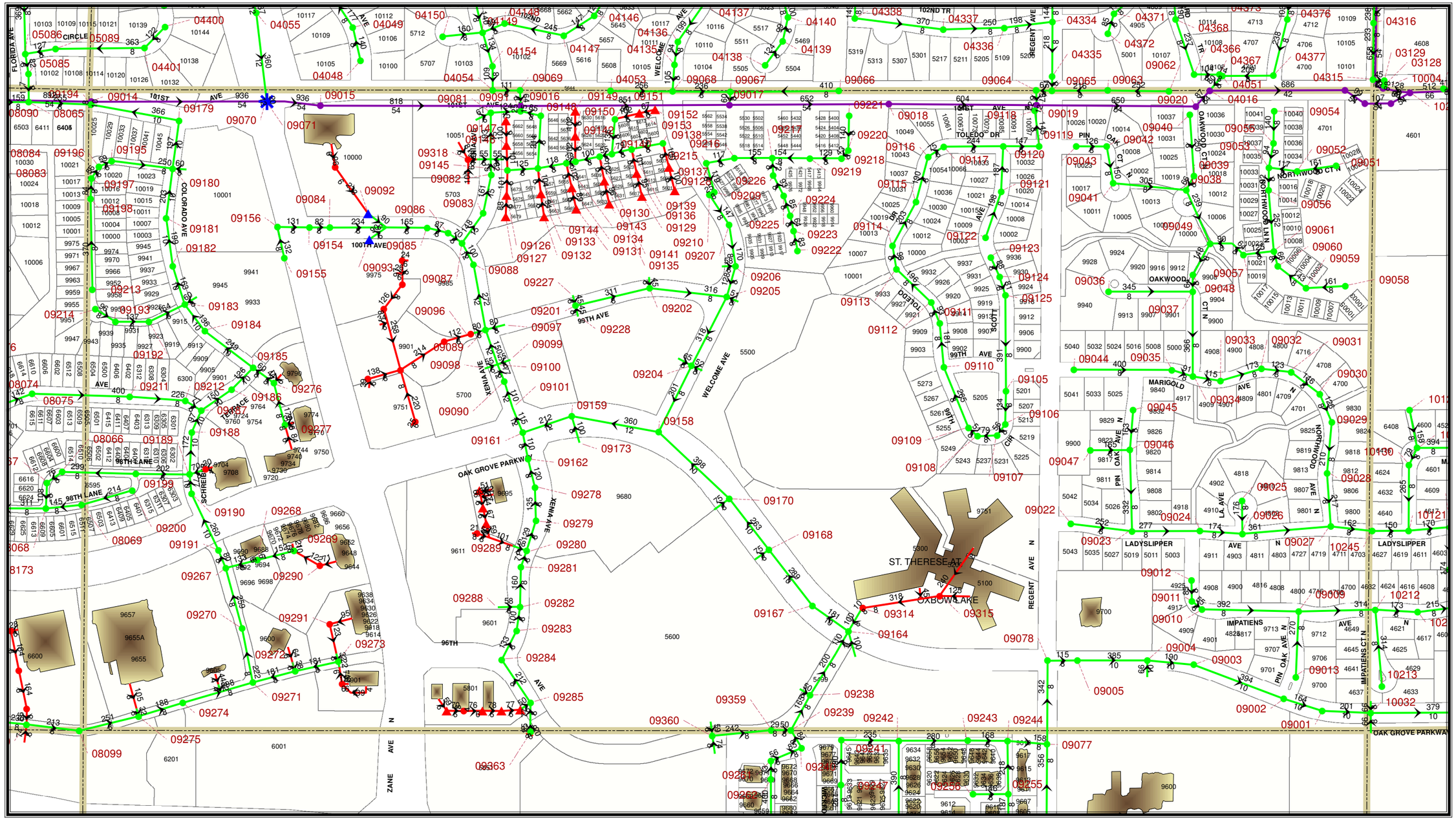
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N W E S

Date: 3/15/2017

08S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

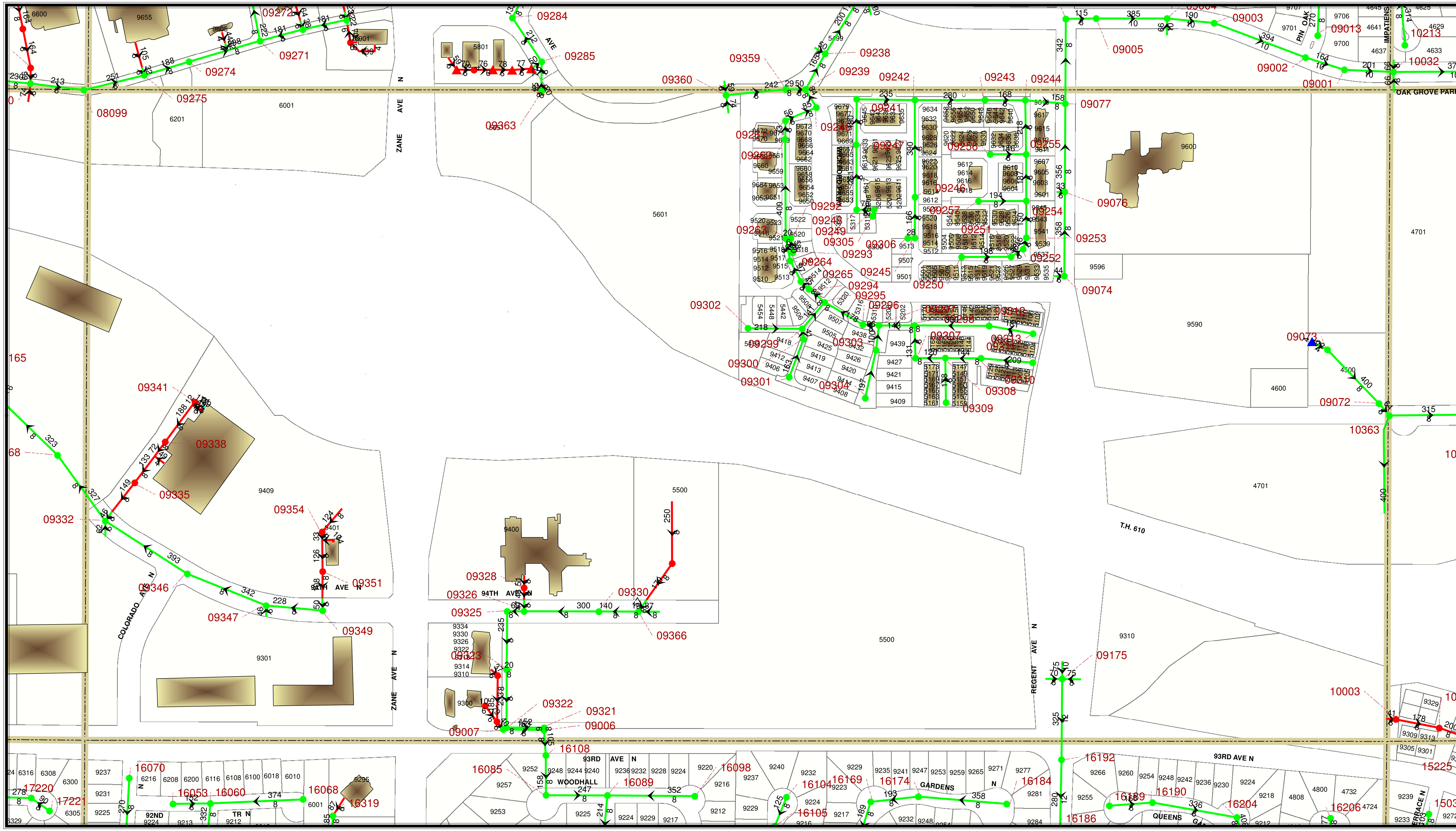
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

09N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length / Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

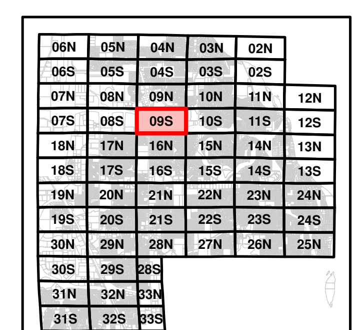
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

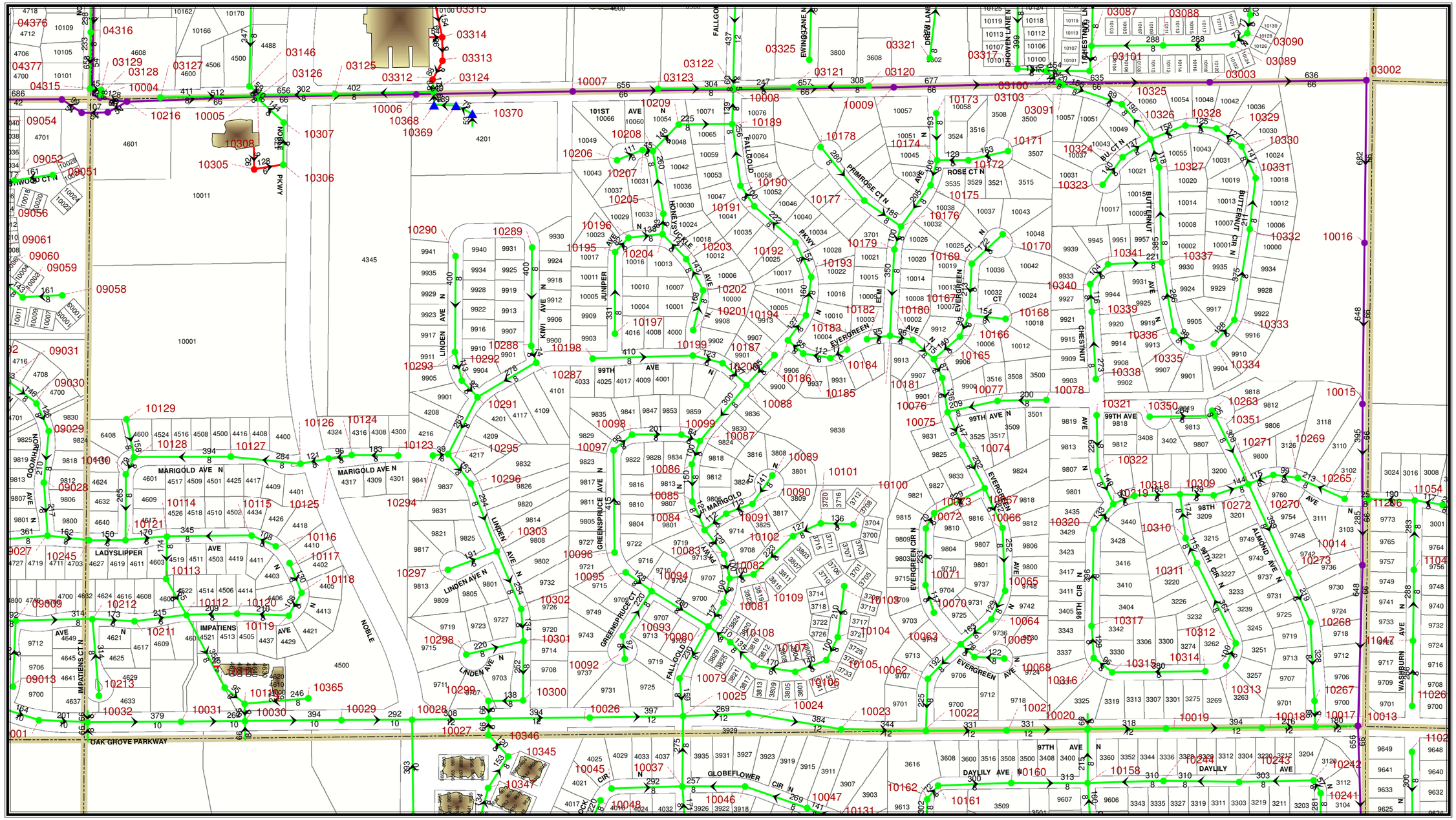


1 inch = 400 feet

Date: 3/15/2017

N W E S

09S



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

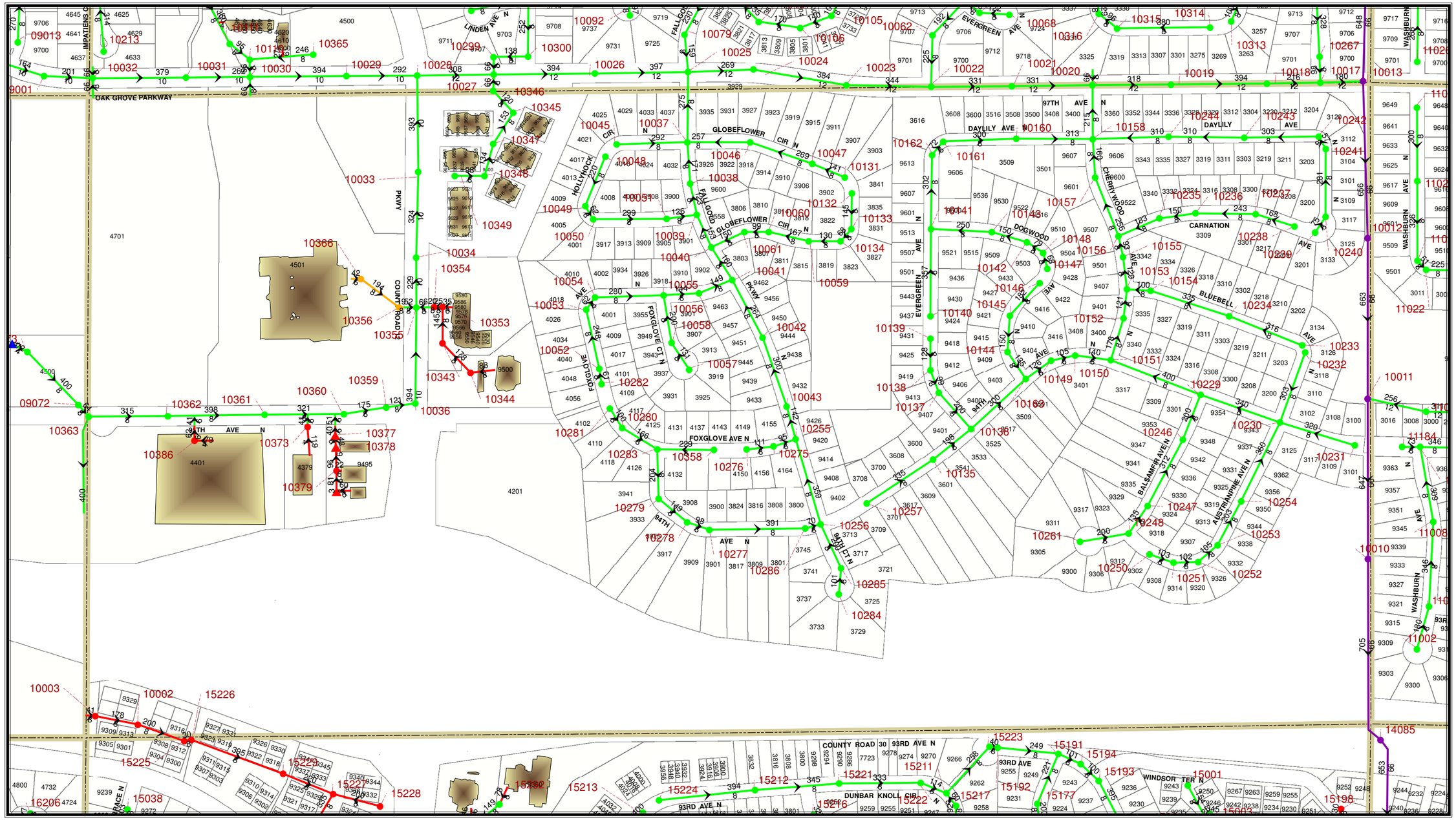
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

10N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
Half Section Grid
Parcel
Pipe Length
Pipe Diameter

99001 MH ID Number

Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

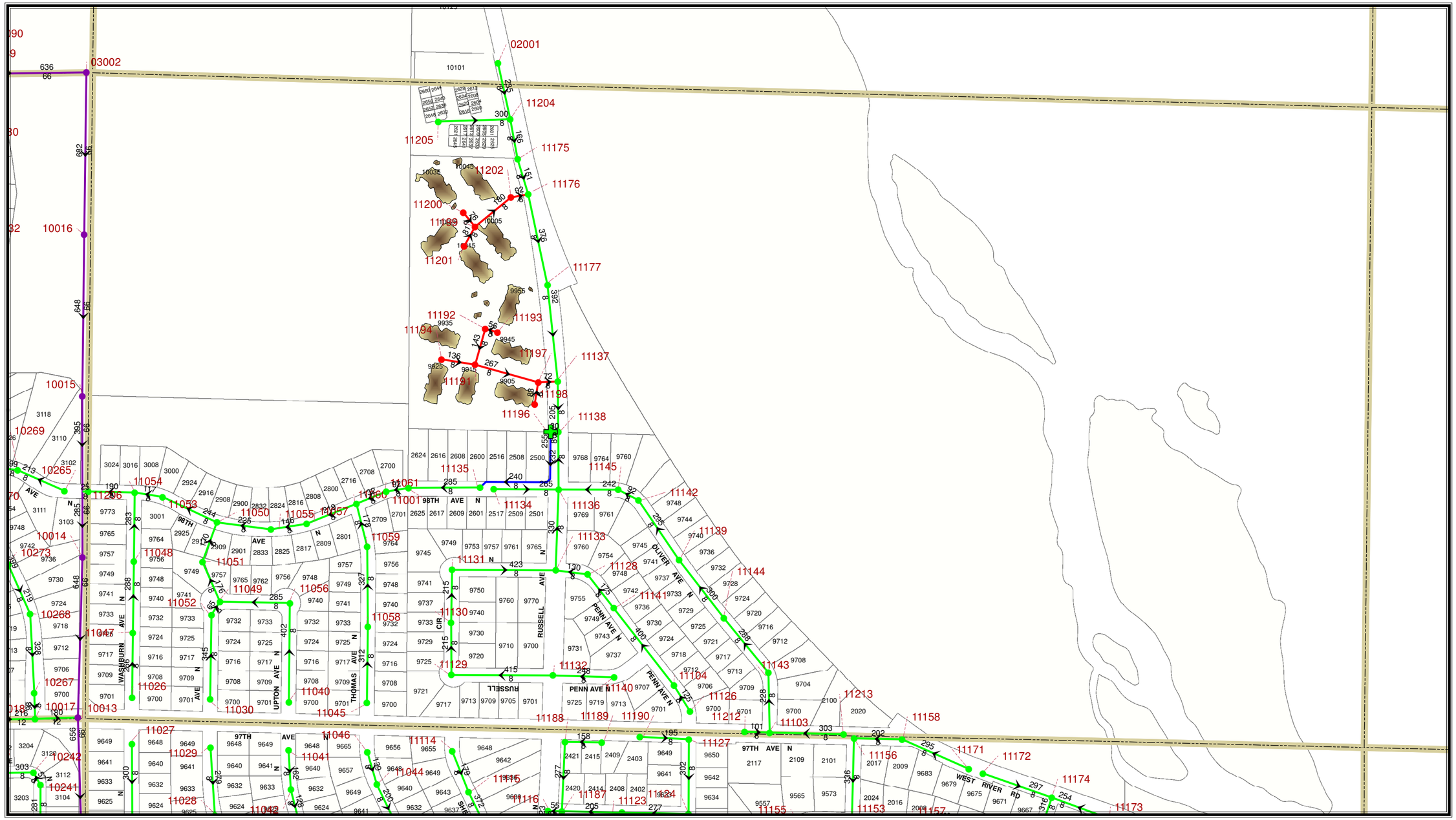
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

10S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

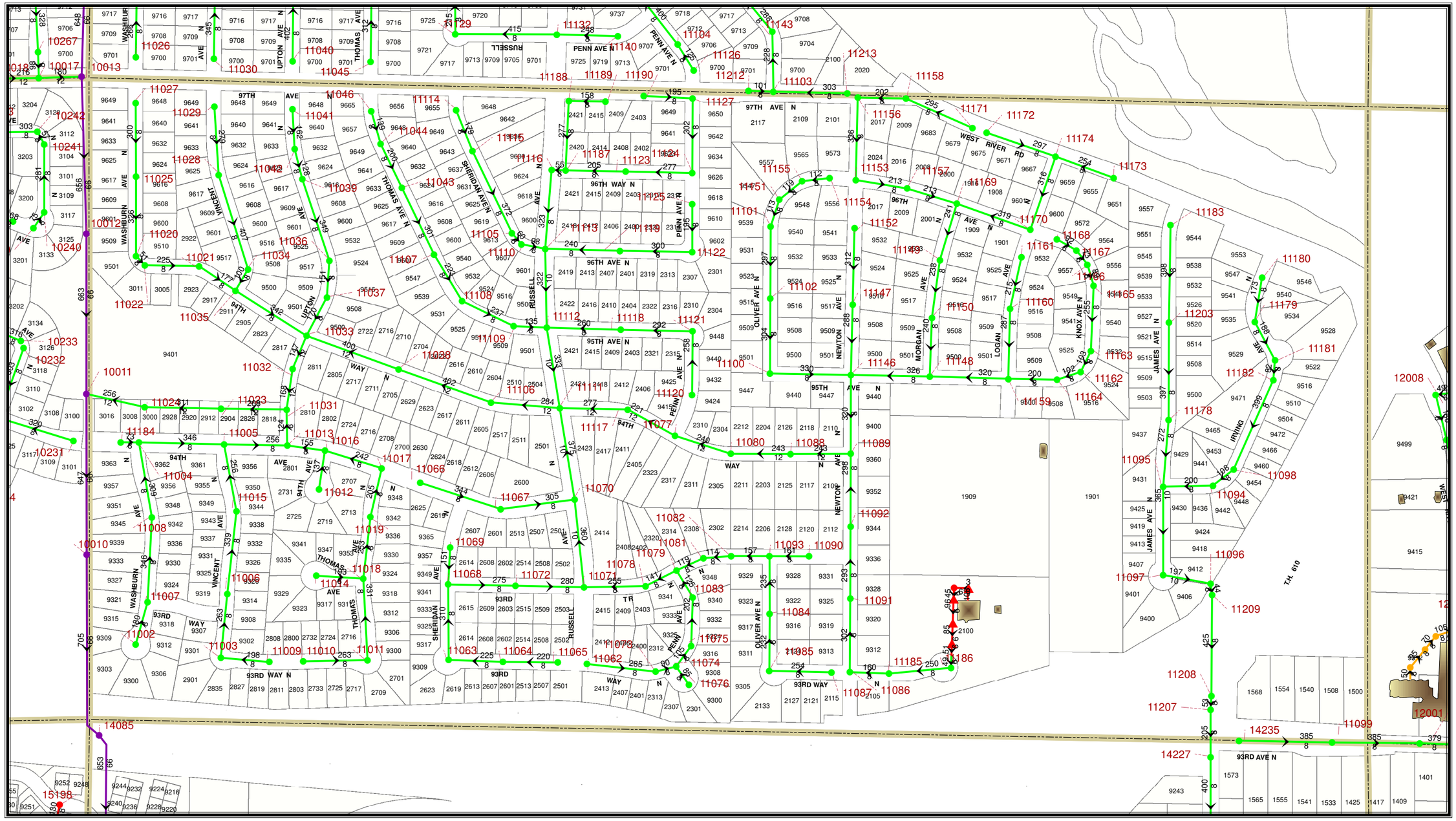
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

11N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length / Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

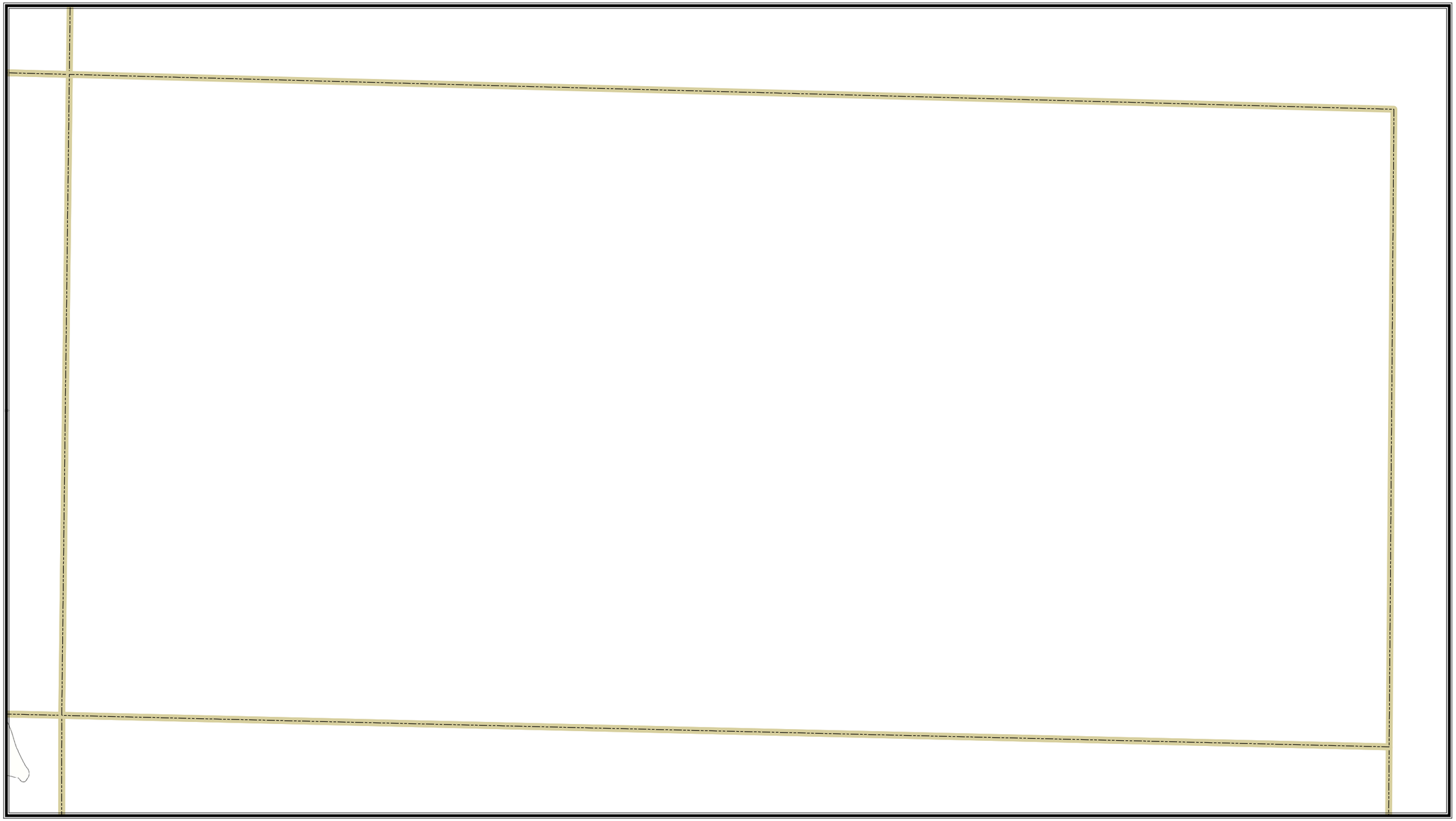
06N	05N	04N	03N	02N		
06S	05S	04S	03S	02S		
07N	08N	09N	10N	11N	12N	
07S	08S	09S	10S	11S	12S	
18N	17N	16N	15N	14N	13N	
18S	17S	16S	15S	14S	13S	
19N	20N	21N	22N	23N	24N	
19S	20S	21S	22S	23S	24S	
30N	29N	28N	27N	26N	25N	
30S	29S	28S				
31N	32N	33N				
31S	32S	33S				

1 inch = 400 feet

Date: 3/15/2017

N W E S

11S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

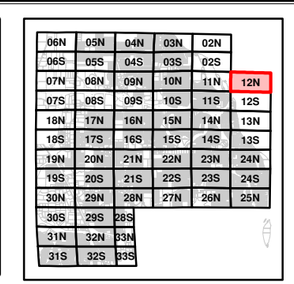
Blind Drop

Sanitary Points

Lift Station, Brooklyn Park
Lift Station, Interceptor
Lift Station, Private
Manhole, Brooklyn Park
Manhole, Interceptor
Manhole, Private
Manhole, Surrounding City
Manhole, Other Agency
Sanitary Valve, Brooklyn Park

Sanitary Lines

Force, Brooklyn Park
Force, Private
Gravity, Brooklyn Park
Gravity, Interceptor
Gravity, Private
Force, Champlin
Gravity, Surrounding City
Gravity, Other Agency

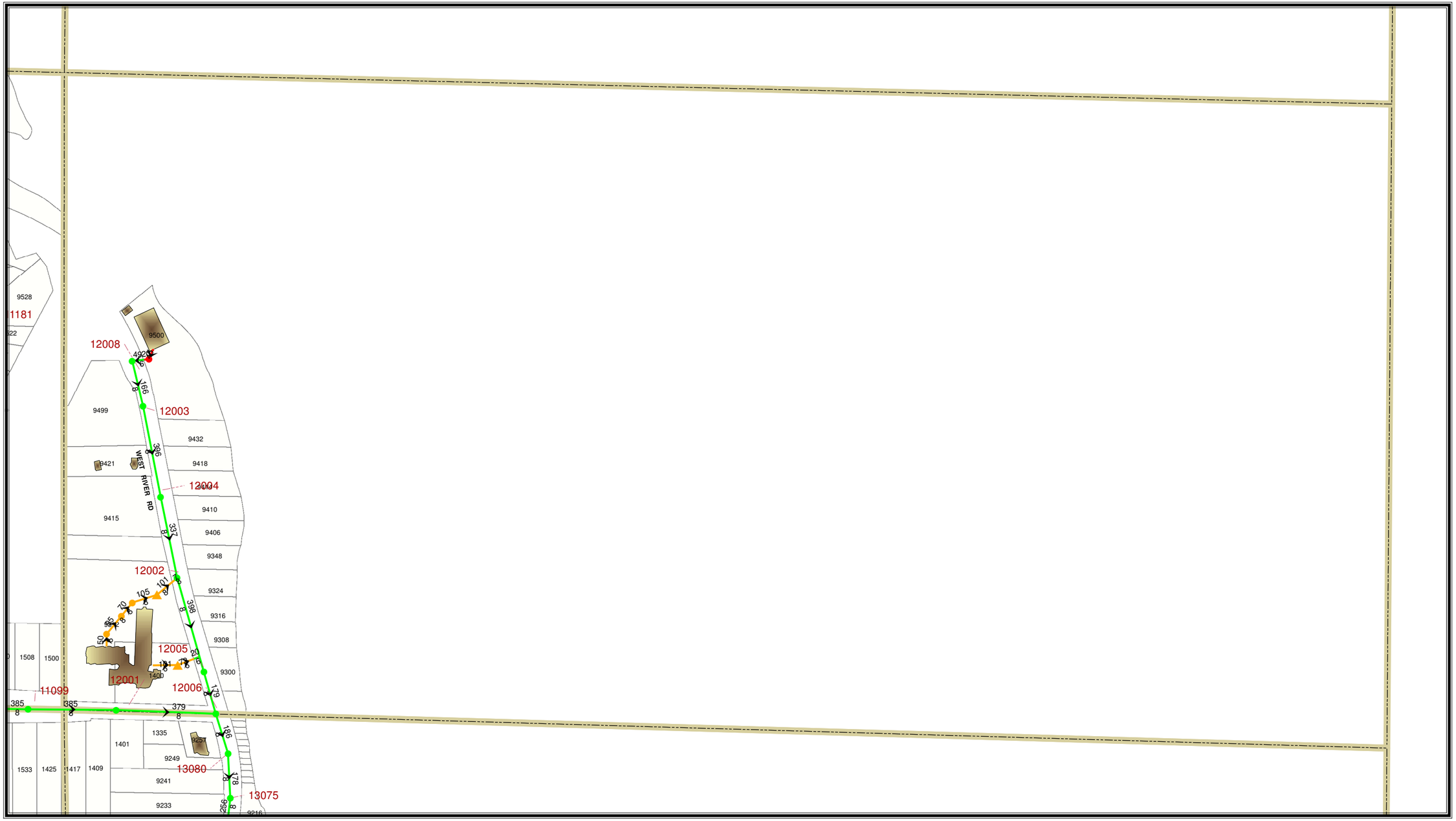


1 inch = 400 feet

Date: 3/15/2017

N
W E
S

12N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

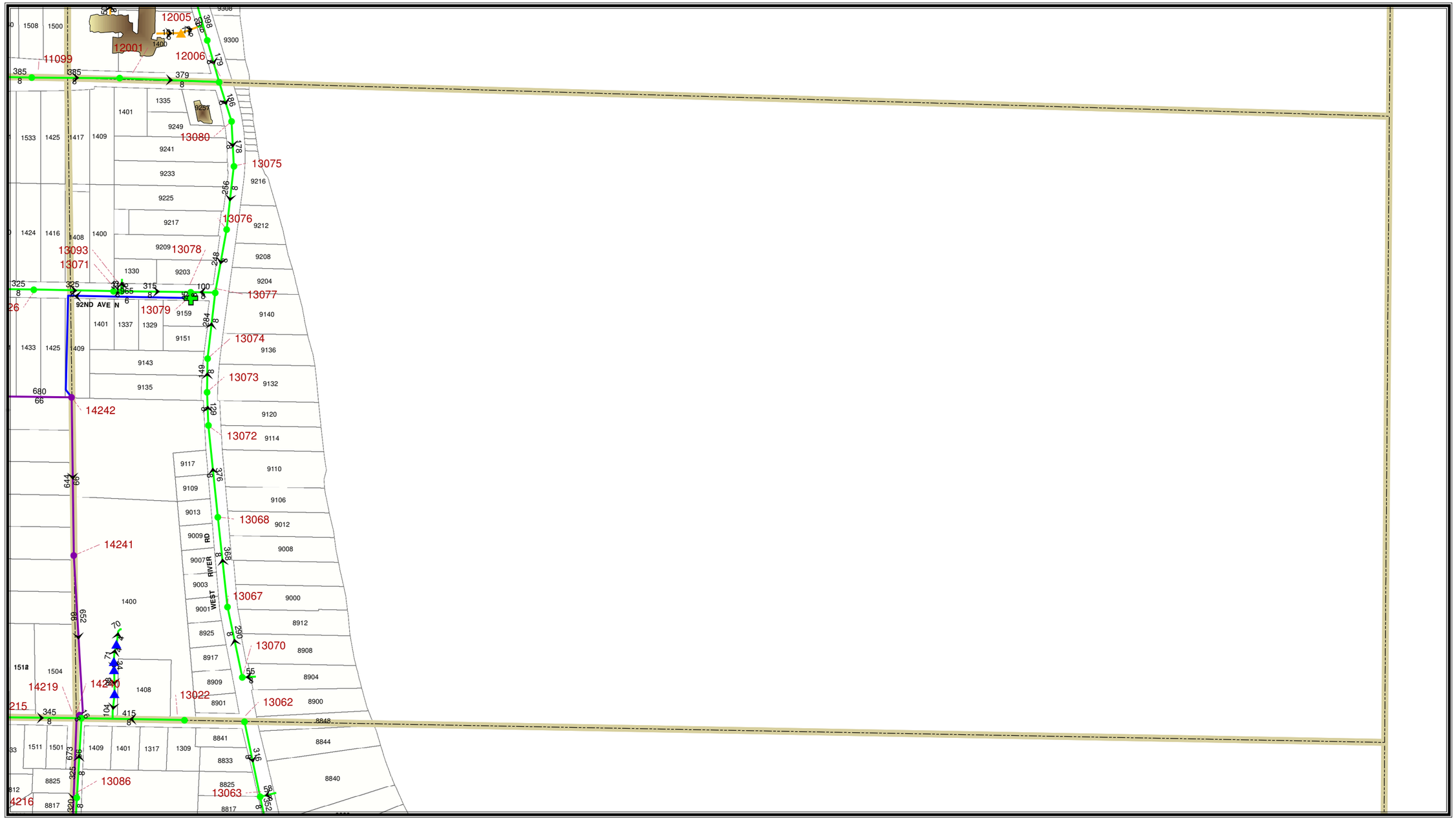
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

12S



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

CIPP

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

99001 MH ID Number

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N W E S

Date: 3/15/2017

13N

Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

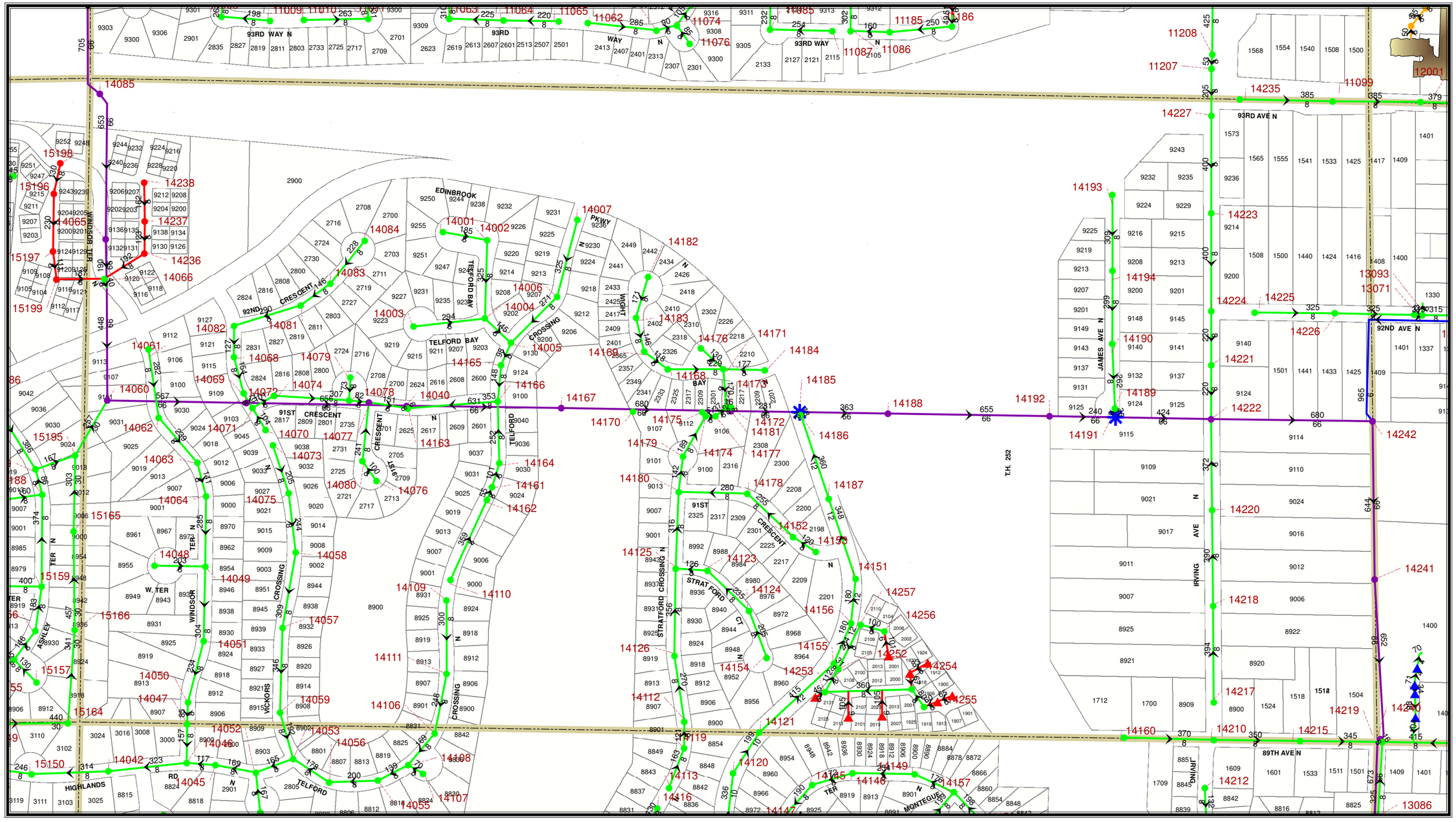
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

13S



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

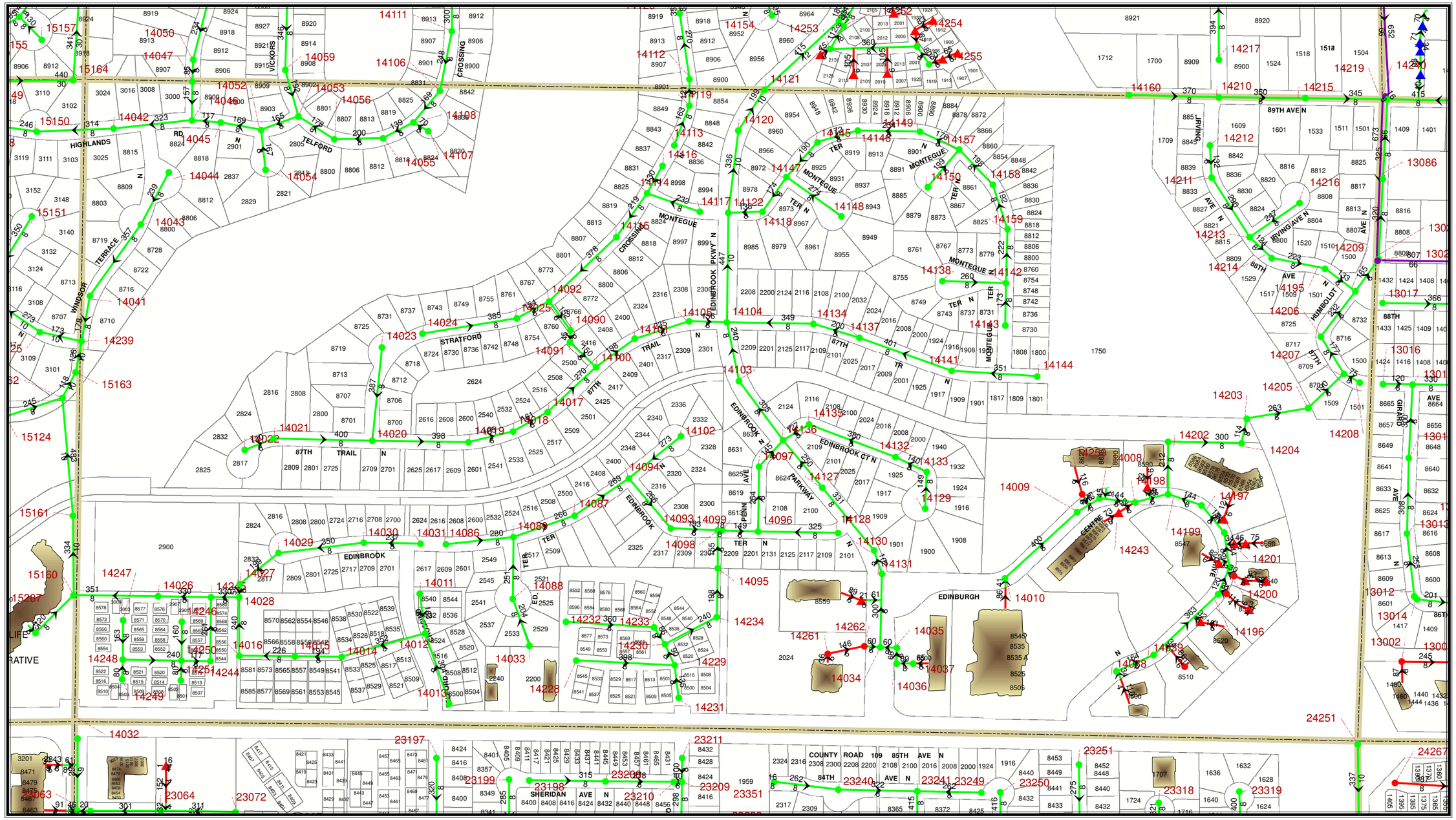
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

14N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

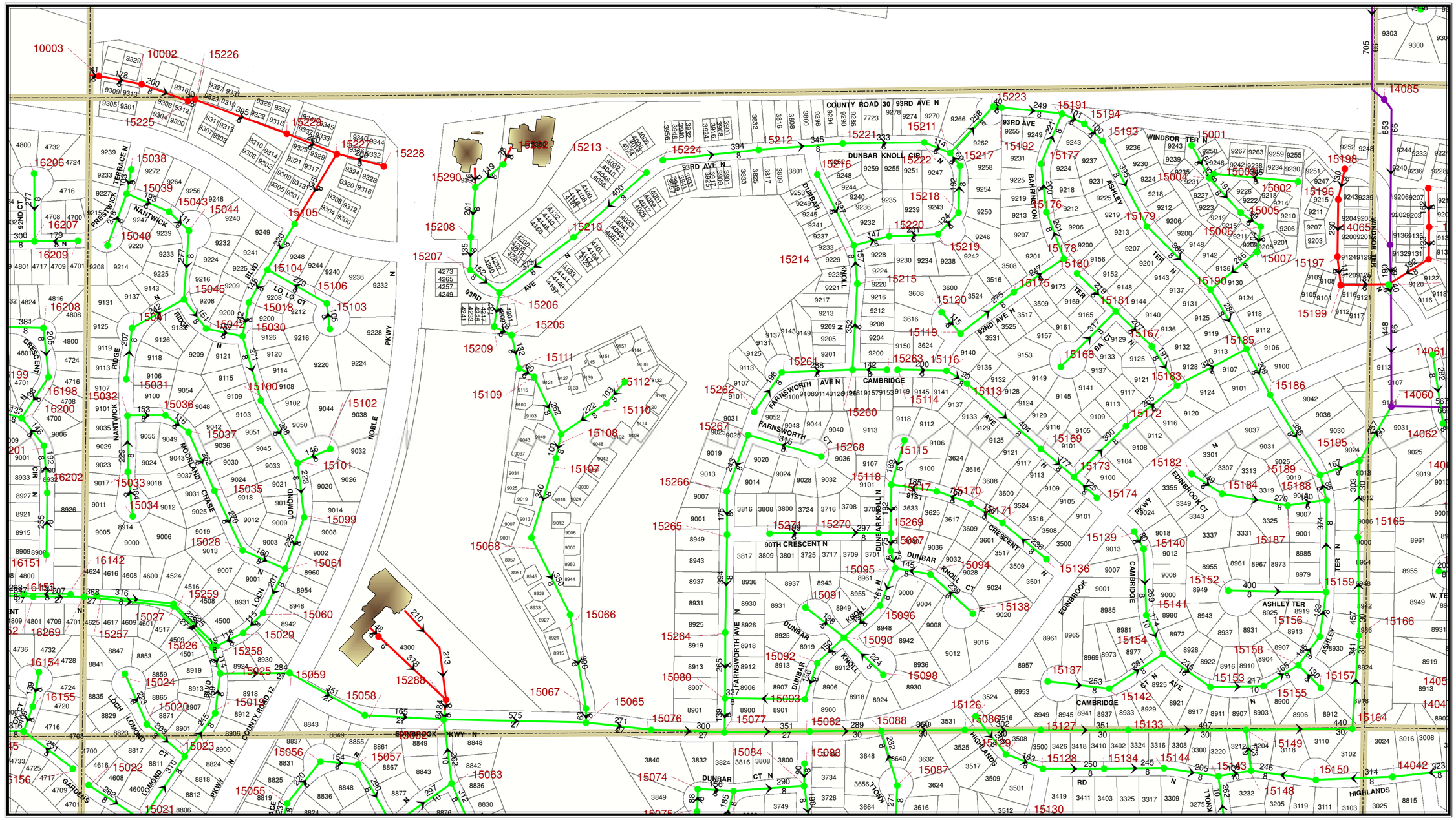
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

14S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

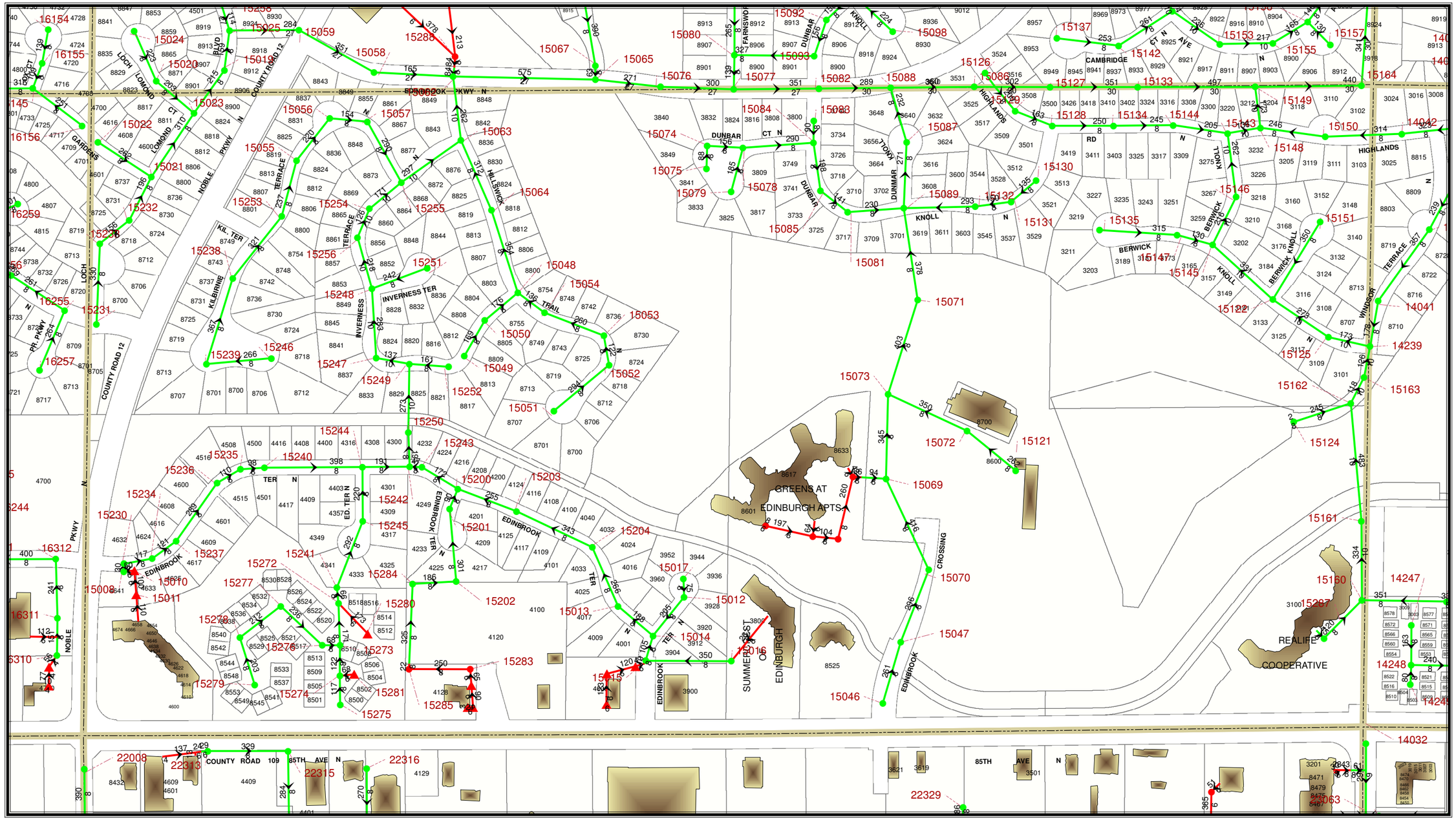
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

15N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
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- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

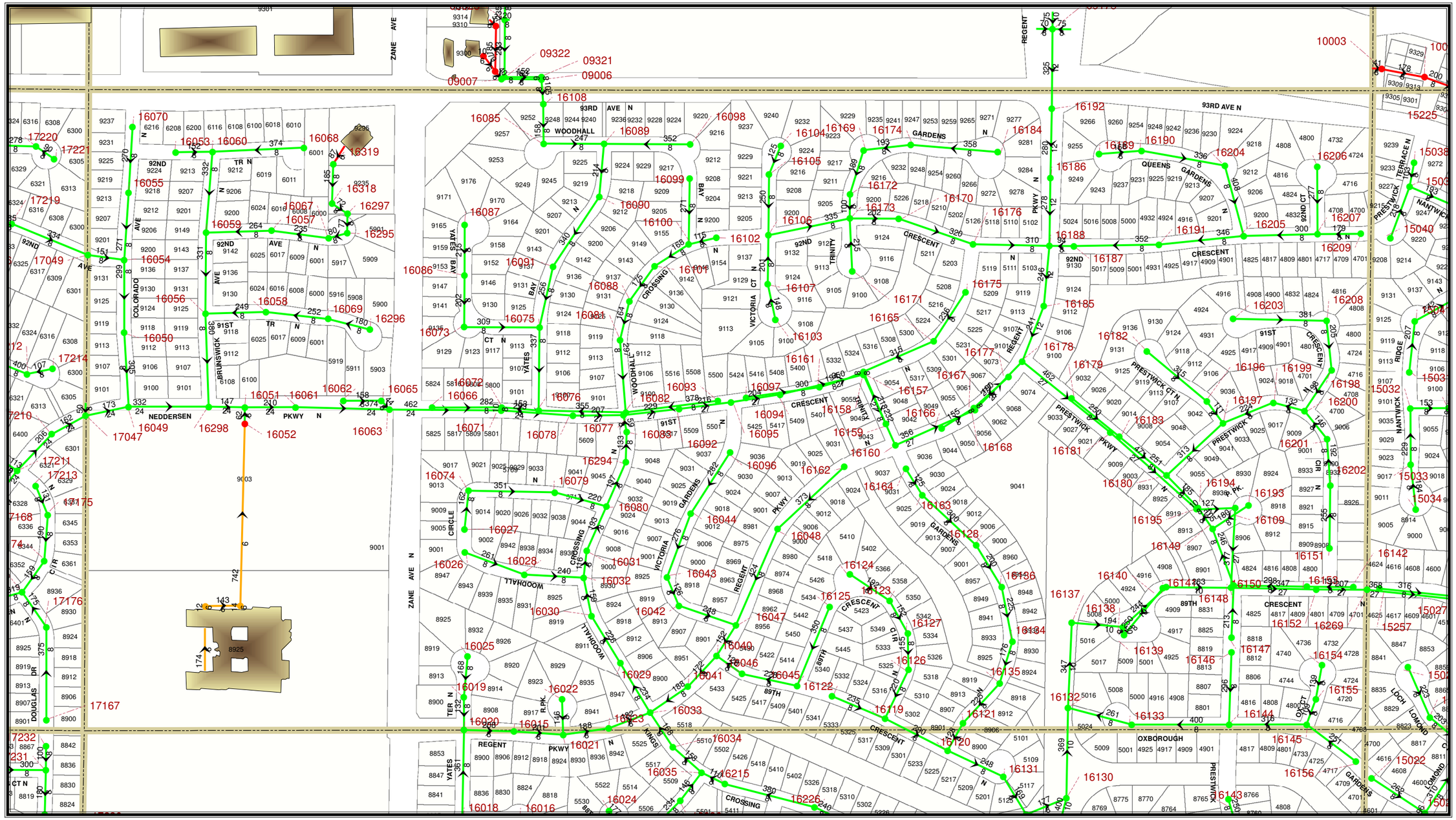
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N W E S

Date: 3/15/2017

15S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

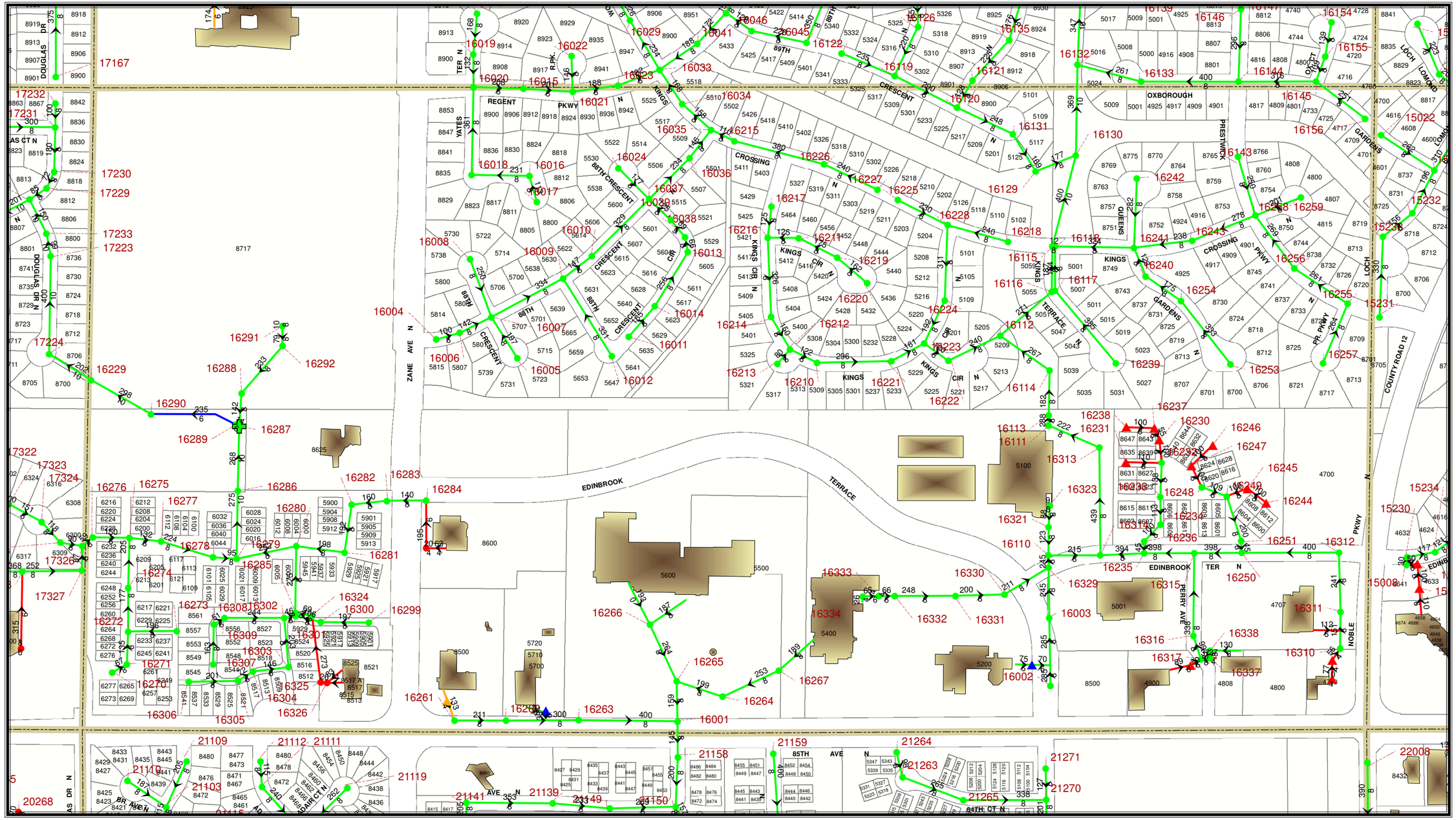
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

16N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- 99001 MH ID Number
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

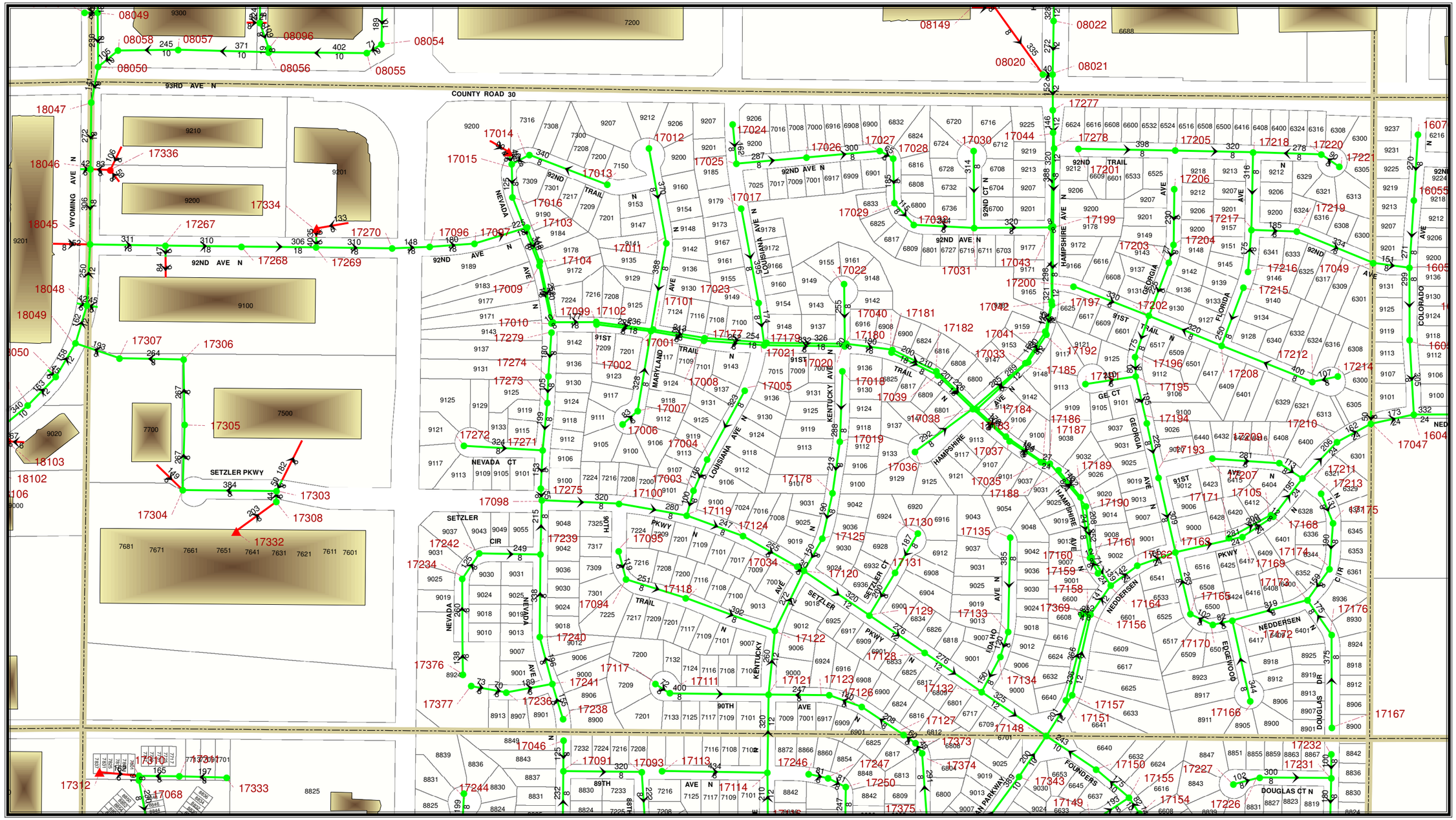
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

16S



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

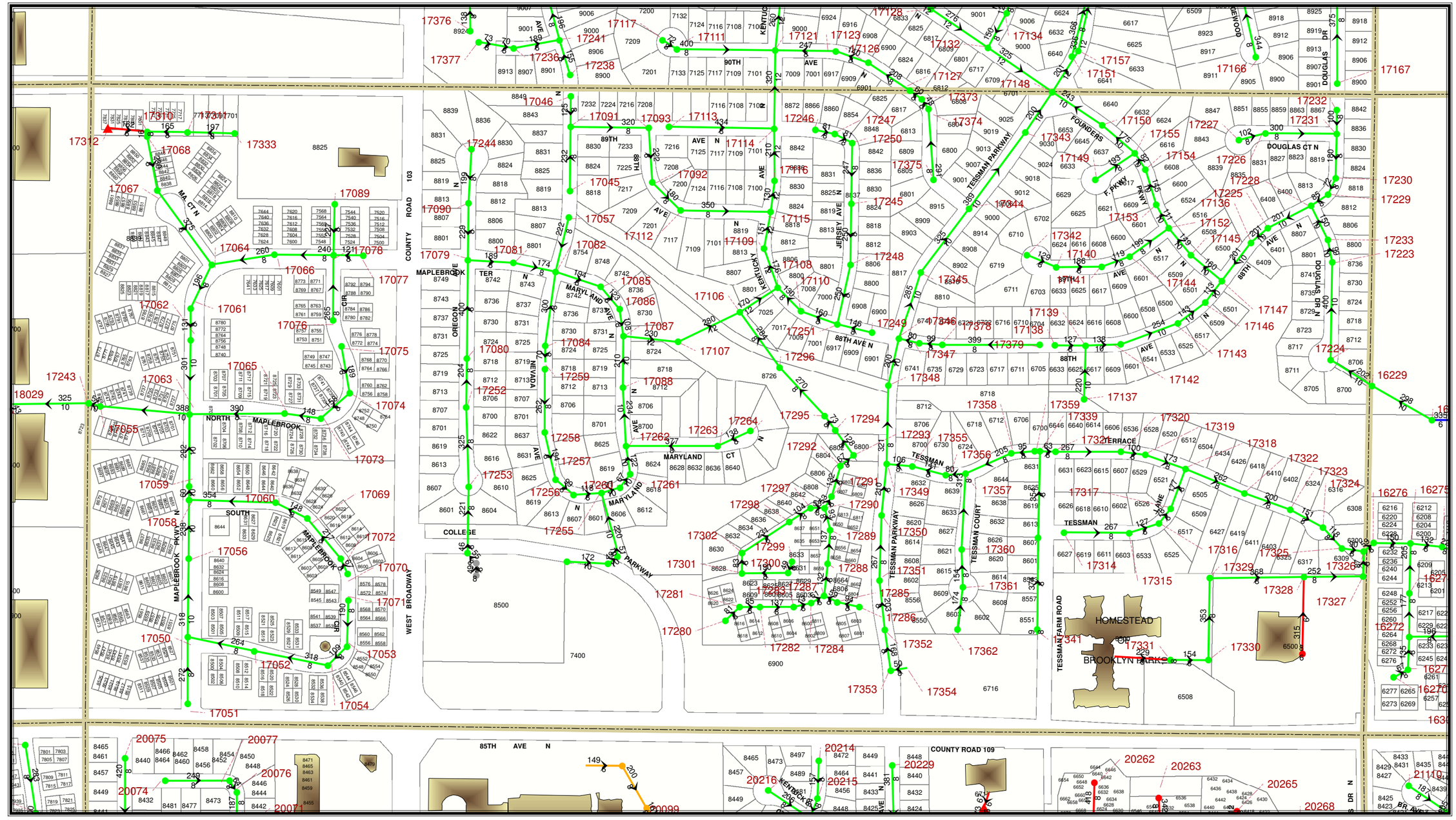
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

17N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

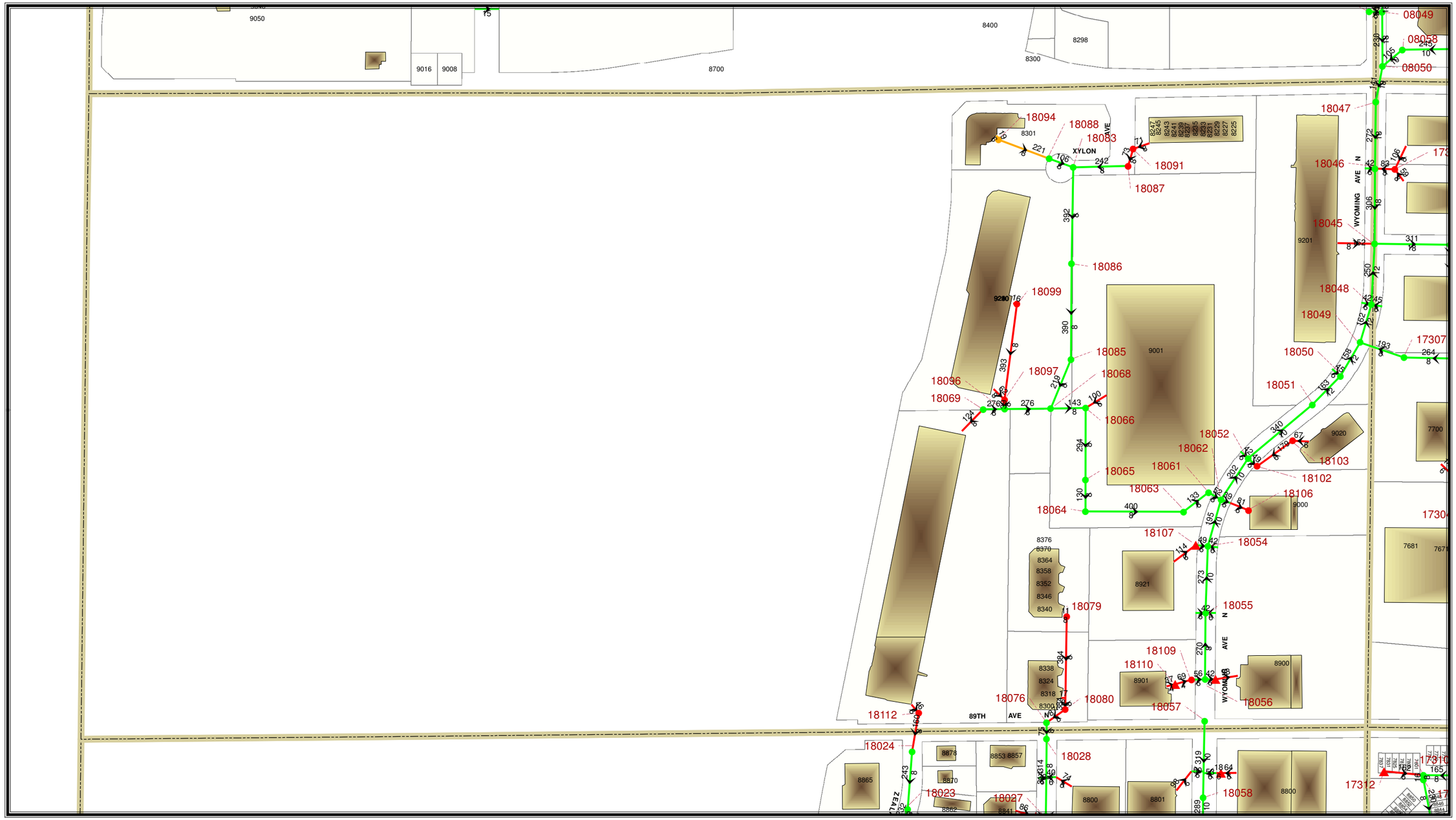
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

17S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

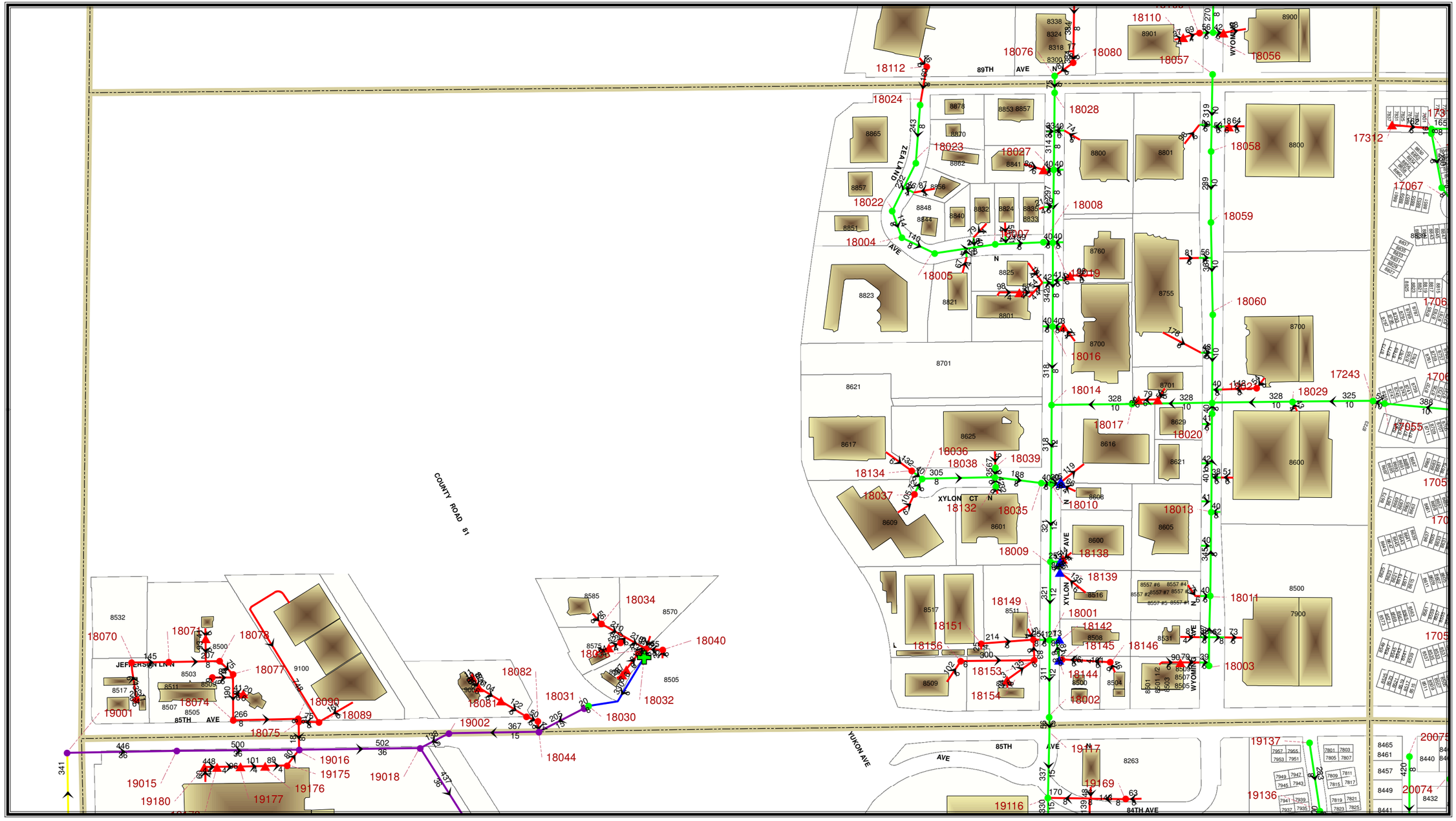
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

18N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

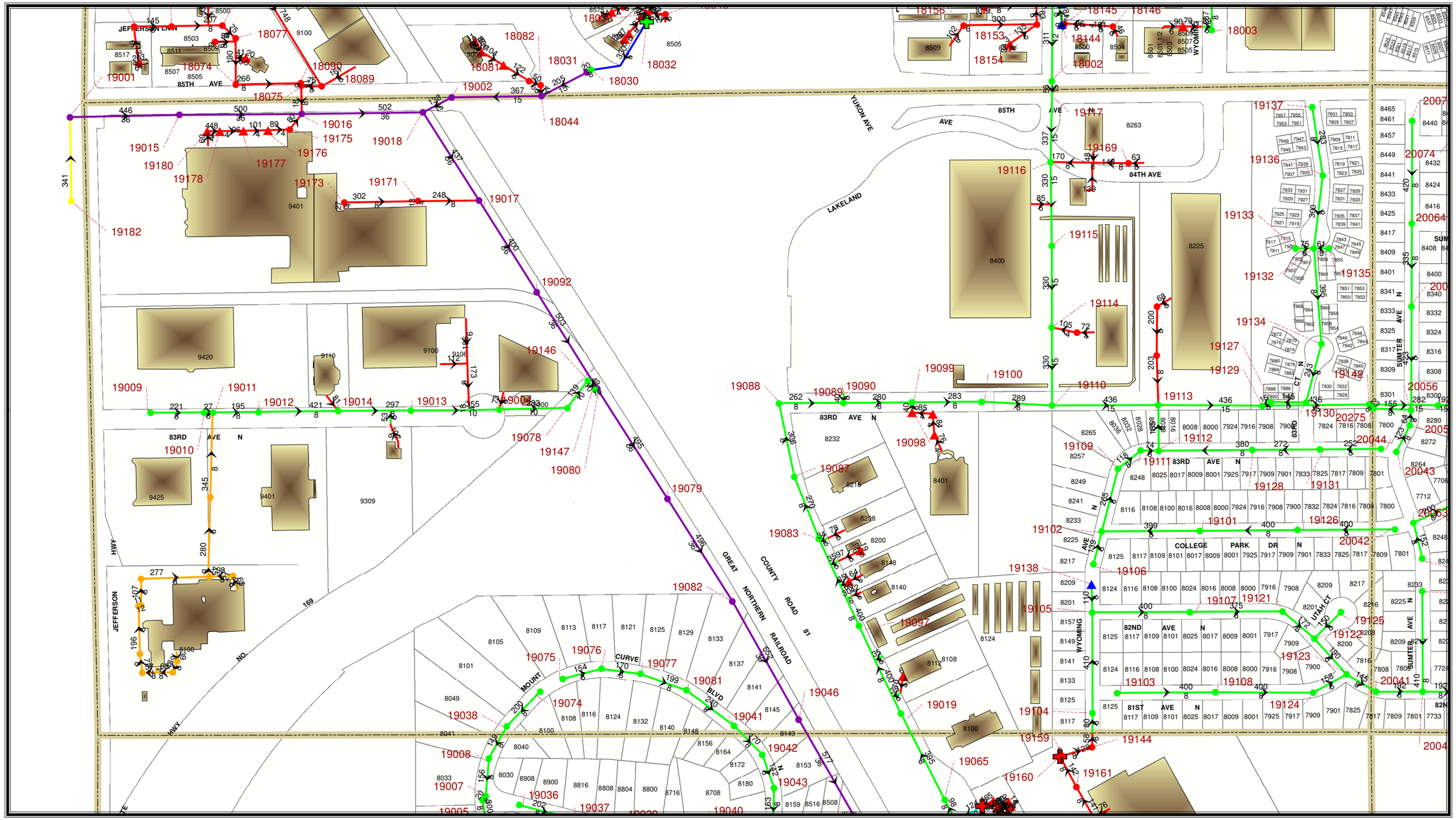
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

18S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter

Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

Lift Station, Brooklyn Park
Lift Station, Interceptor
Lift Station, Private
Manhole, Brooklyn Park
Manhole, Interceptor
Manhole, Private
Manhole, Surrounding City
Manhole, Other Agency
Sanitary Valve, Brooklyn Park

Sanitary Lines

Force, Brooklyn Park
Force, Private
Gravity, Brooklyn Park
Gravity, Interceptor
Gravity, Private
Force, Champlin
Gravity, Surrounding City
Gravity, Other Agency

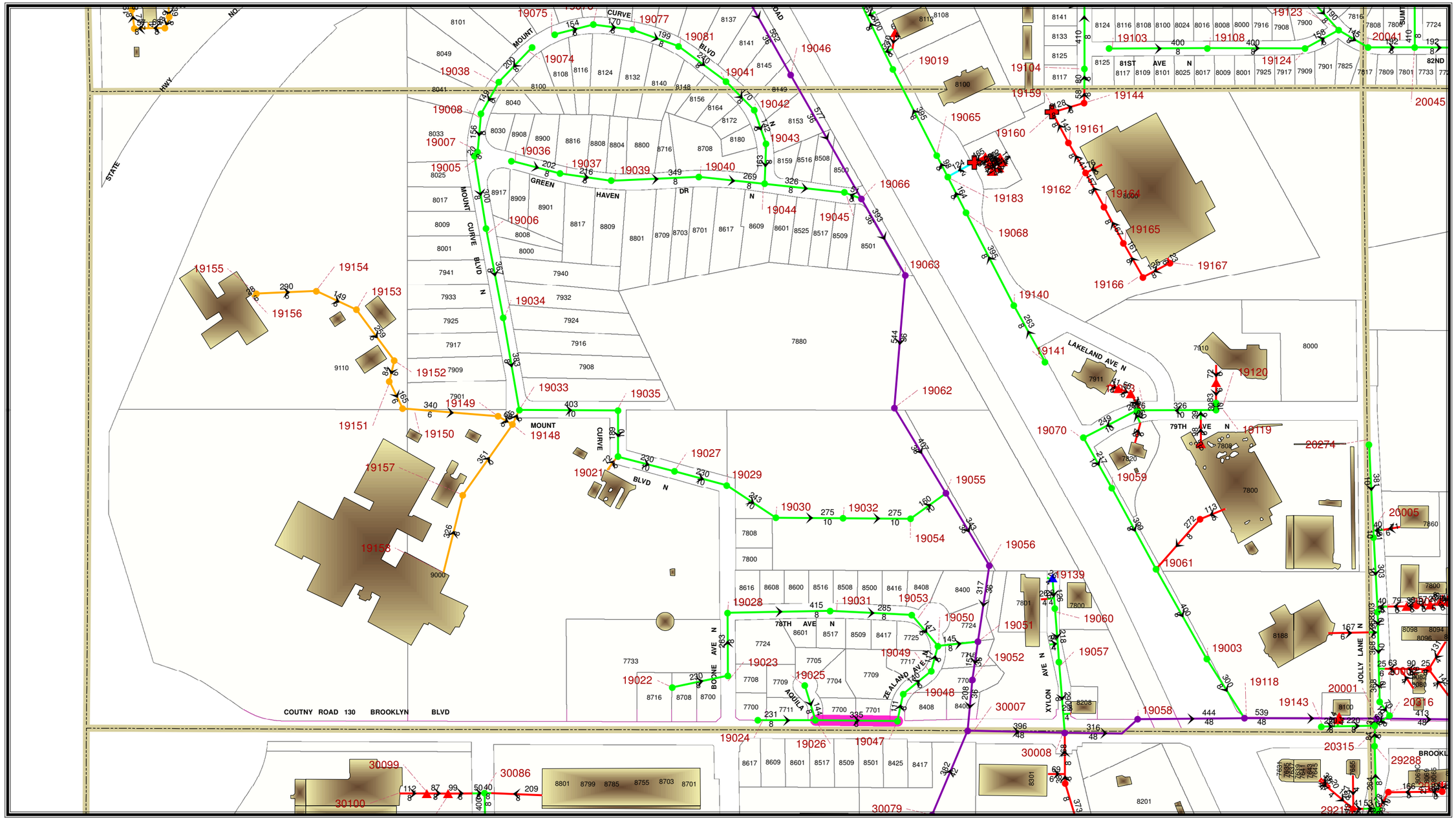
06N	05N	04N	03N	02N		
06S	05S	04S	03S	02S		
07N	08N	09N	10N	11N	12N	
07S	08S	09S	10S	11S	12S	
18N	17N	16N	15N	14N	13N	
18S	17S	16S	15S	14S	13S	
19N	20N	21N	22N	23N	24N	
19S	20S	21S	22S	23S	24S	
30N	29N	28N	27N	26N	25N	
30S	29S	28S				
31N	32N	33N				
31S	32S	33S				

1 inch = 400 feet

Date: 3/15/2017

N
W E
S

19N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- 99001 MH ID Number
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

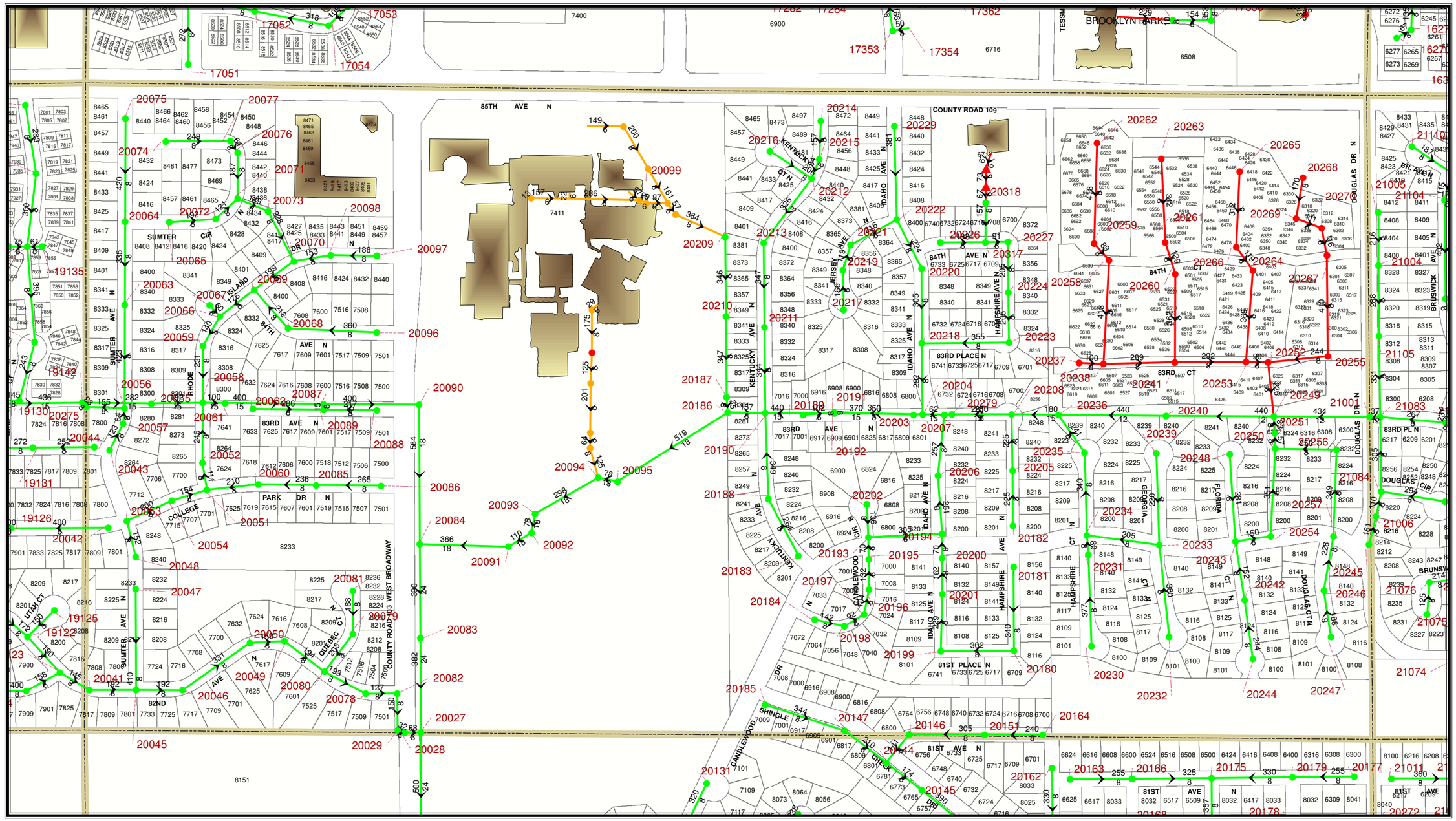
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

19S



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

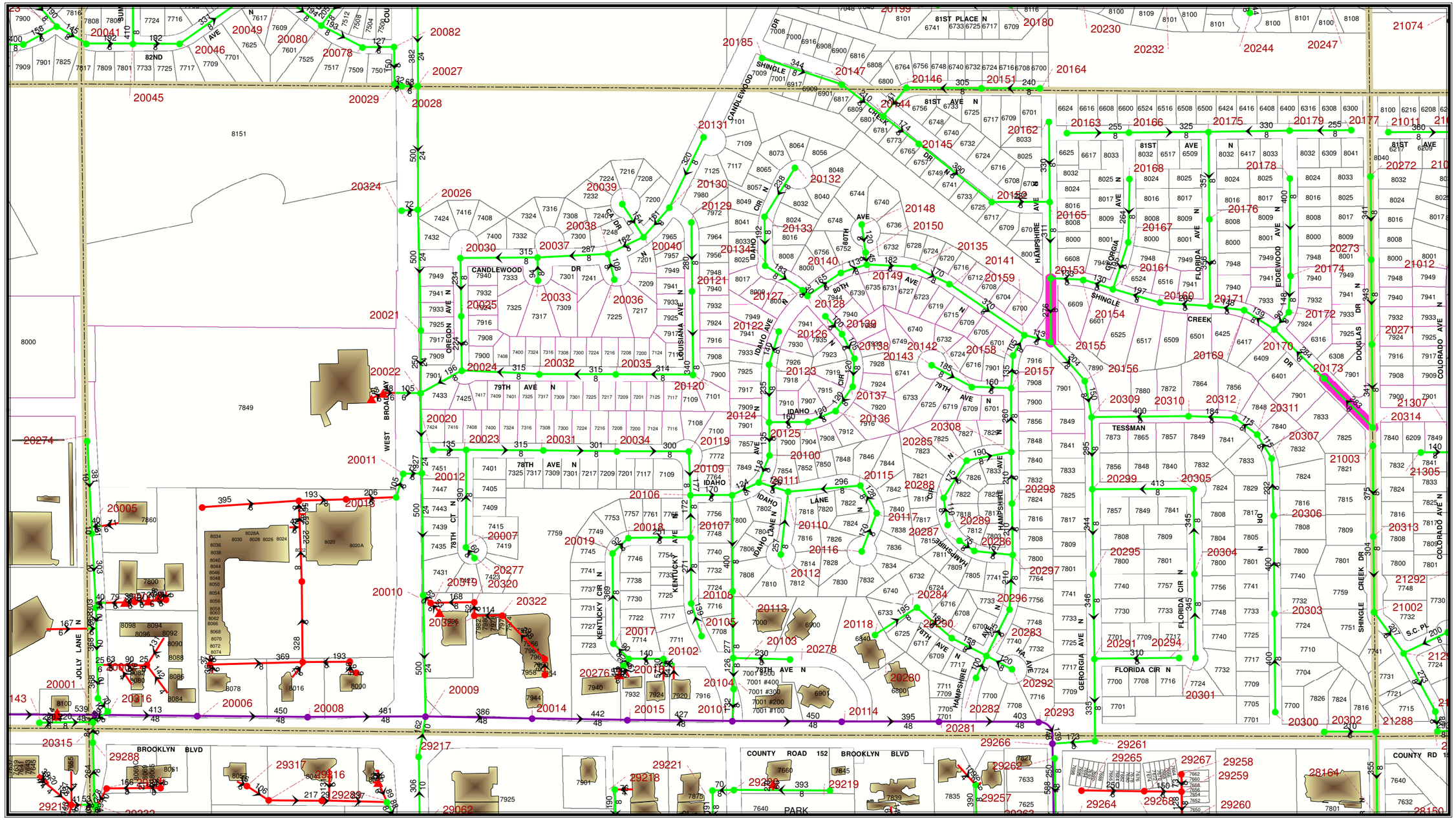
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

20N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

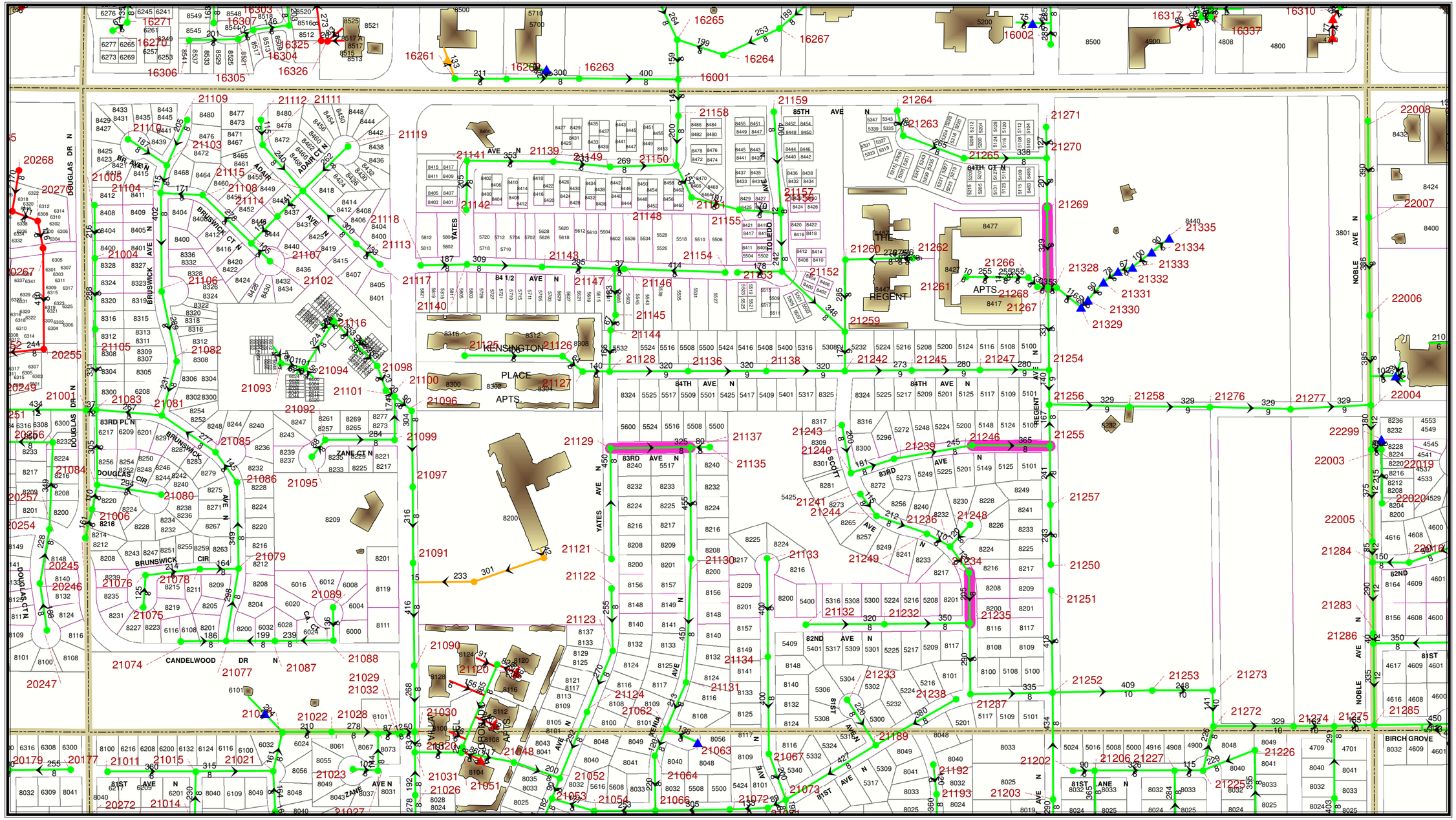
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

20S



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

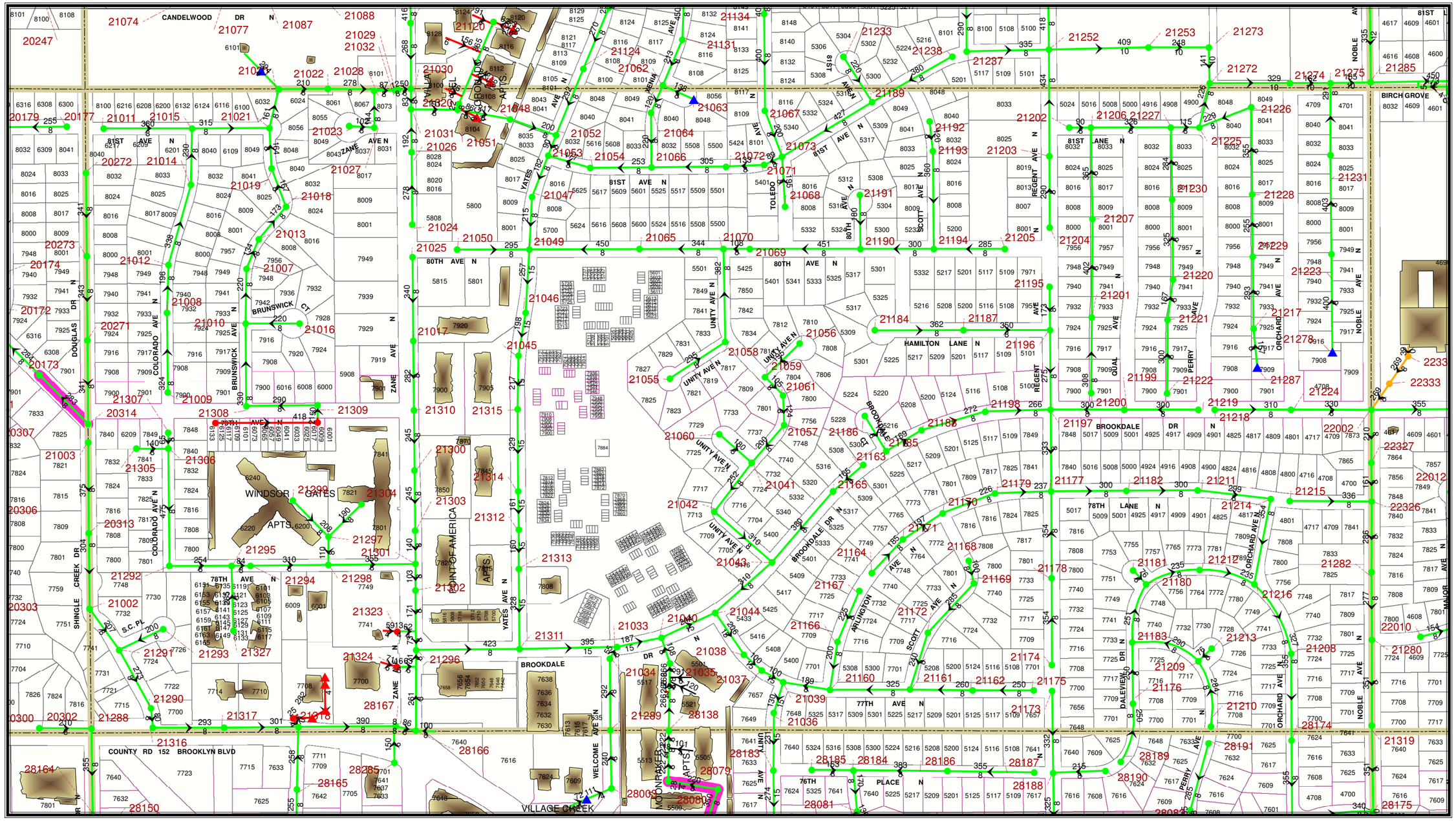
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

21N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

99001 MH ID Number

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

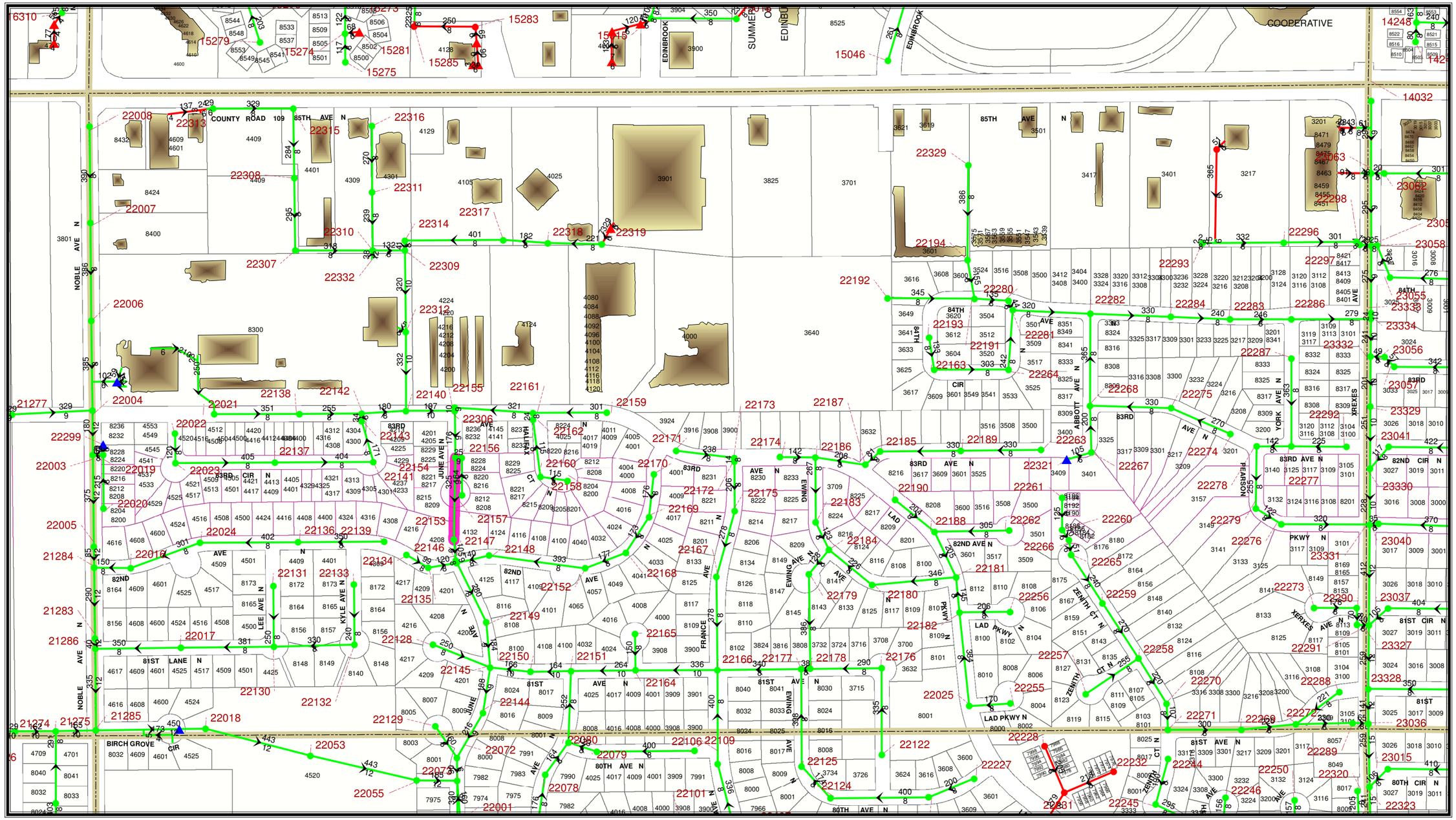
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

21S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
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- Manhole, Interceptor
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- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
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- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

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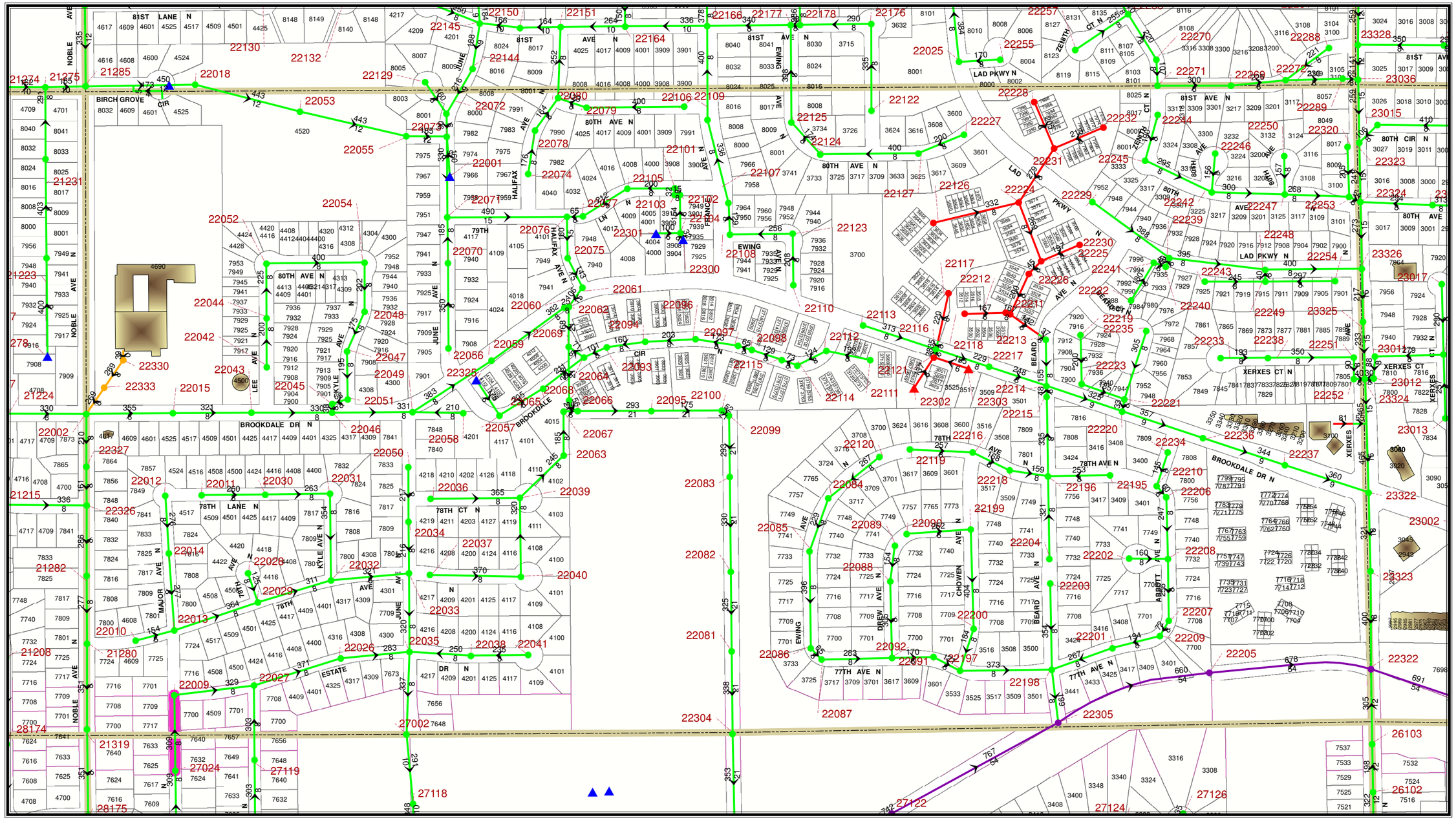
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

22N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

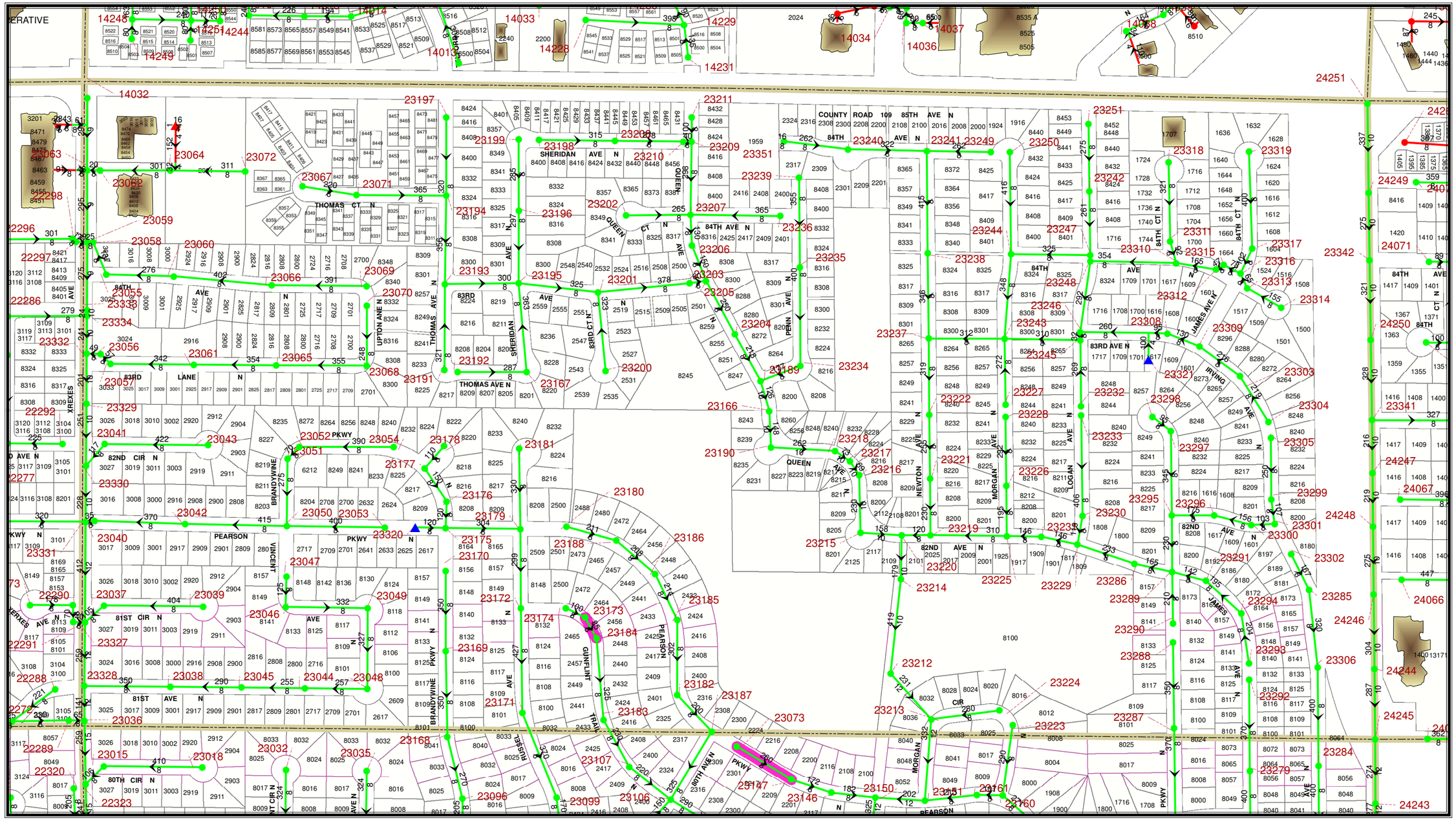
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N W E S

Date: 3/15/2017

22S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

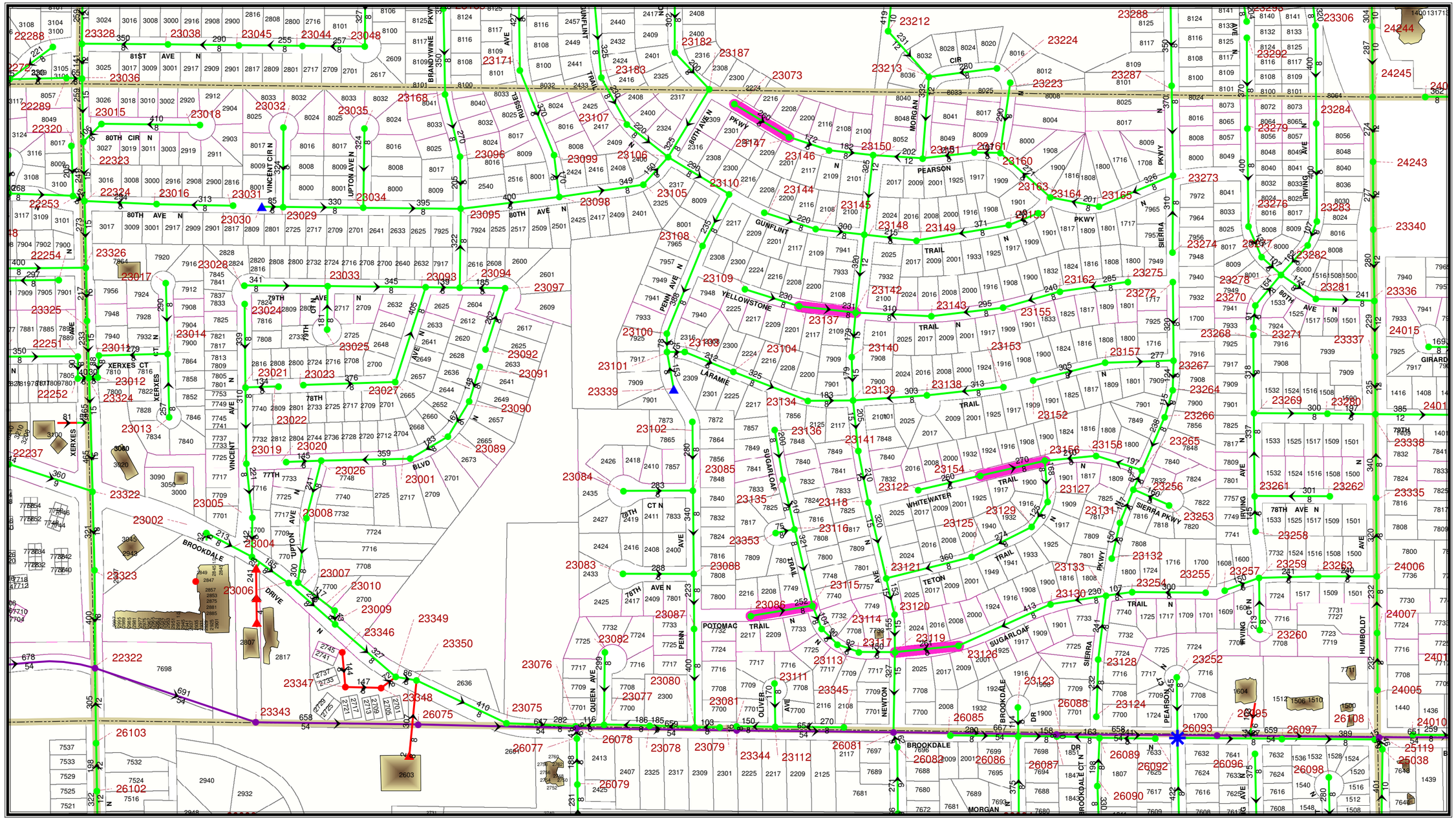
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

23N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

Lift Station, Brooklyn Park
Lift Station, Interceptor
Lift Station, Private
Manhole, Brooklyn Park
Manhole, Interceptor
Manhole, Private
Manhole, Surrounding City
Manhole, Other Agency
Sanitary Valve, Brooklyn Park

Sanitary Lines

Force, Brooklyn Park
Force, Private
Gravity, Brooklyn Park
Gravity, Interceptor
Gravity, Private
Force, Champlin
Gravity, Surrounding City
Gravity, Other Agency

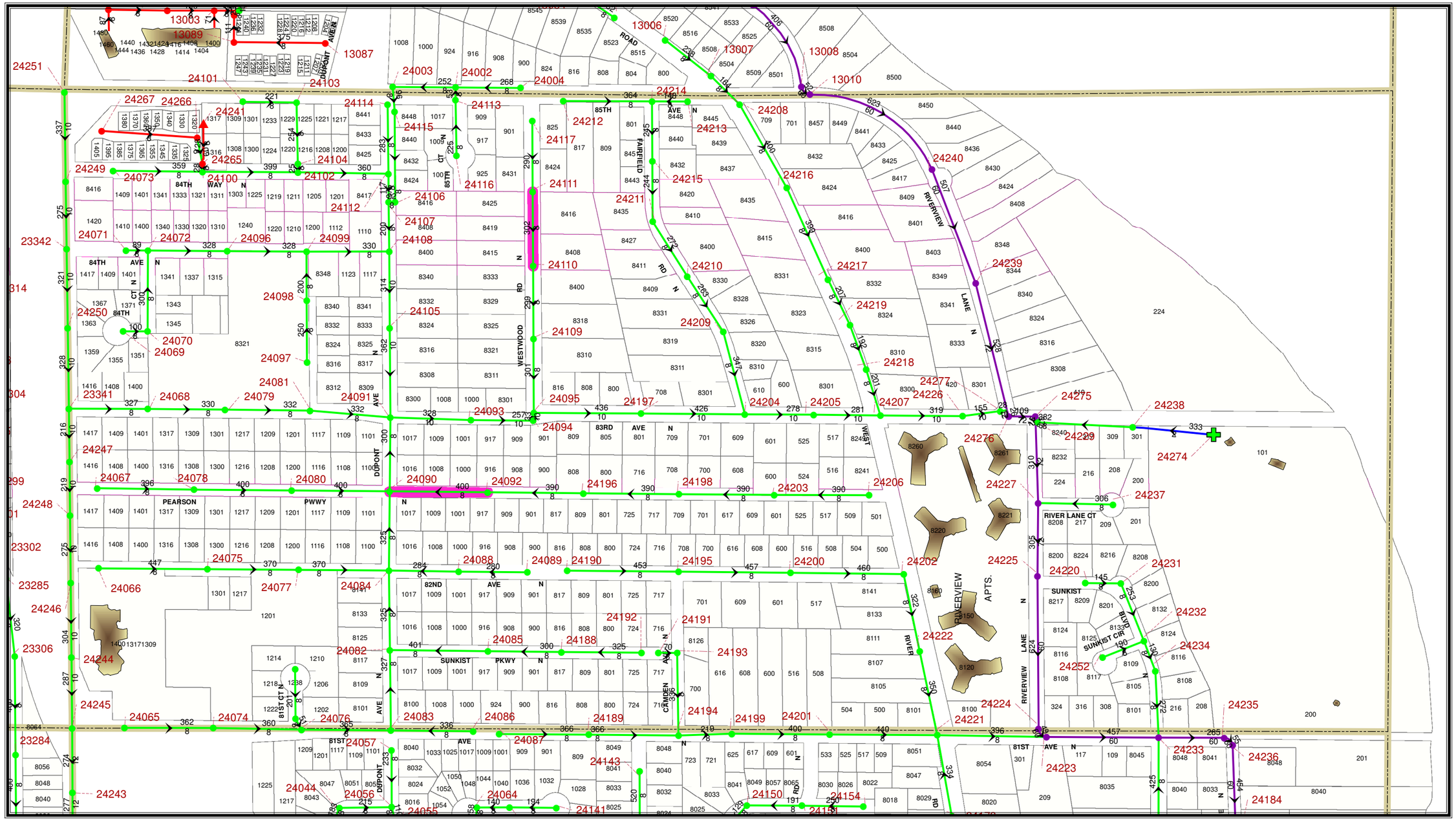
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N
W E
S

23S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

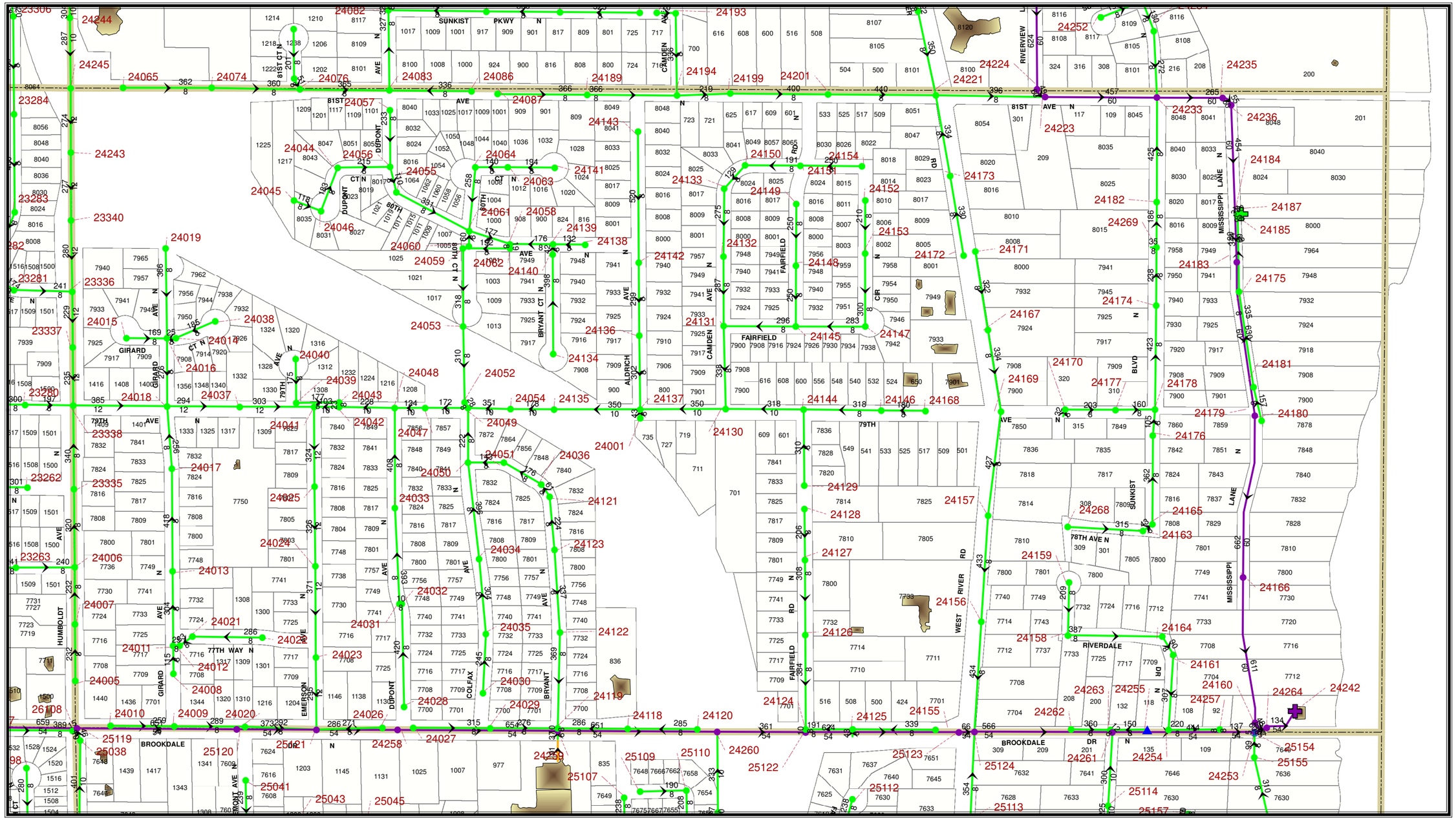
06N	05N	04N	03N	02N		
06S	05S	04S	03S	02S		
07N	08N	09N	10N	11N	12N	
07S	08S	09S	10S	11S	12S	
18N	17N	16N	15N	14N	13N	
18S	17S	16S	15S	14S	13S	
19N	20N	21N	22N	23N	24N	
19S	20S	21S	22S	23S	24S	
30N	29N	28N	27N	26N	25N	
30S	29S	28S				
31N	32N	33N				
31S	32S	33S				

1 inch = 400 feet

Date: 3/15/2017

N W E S

24N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

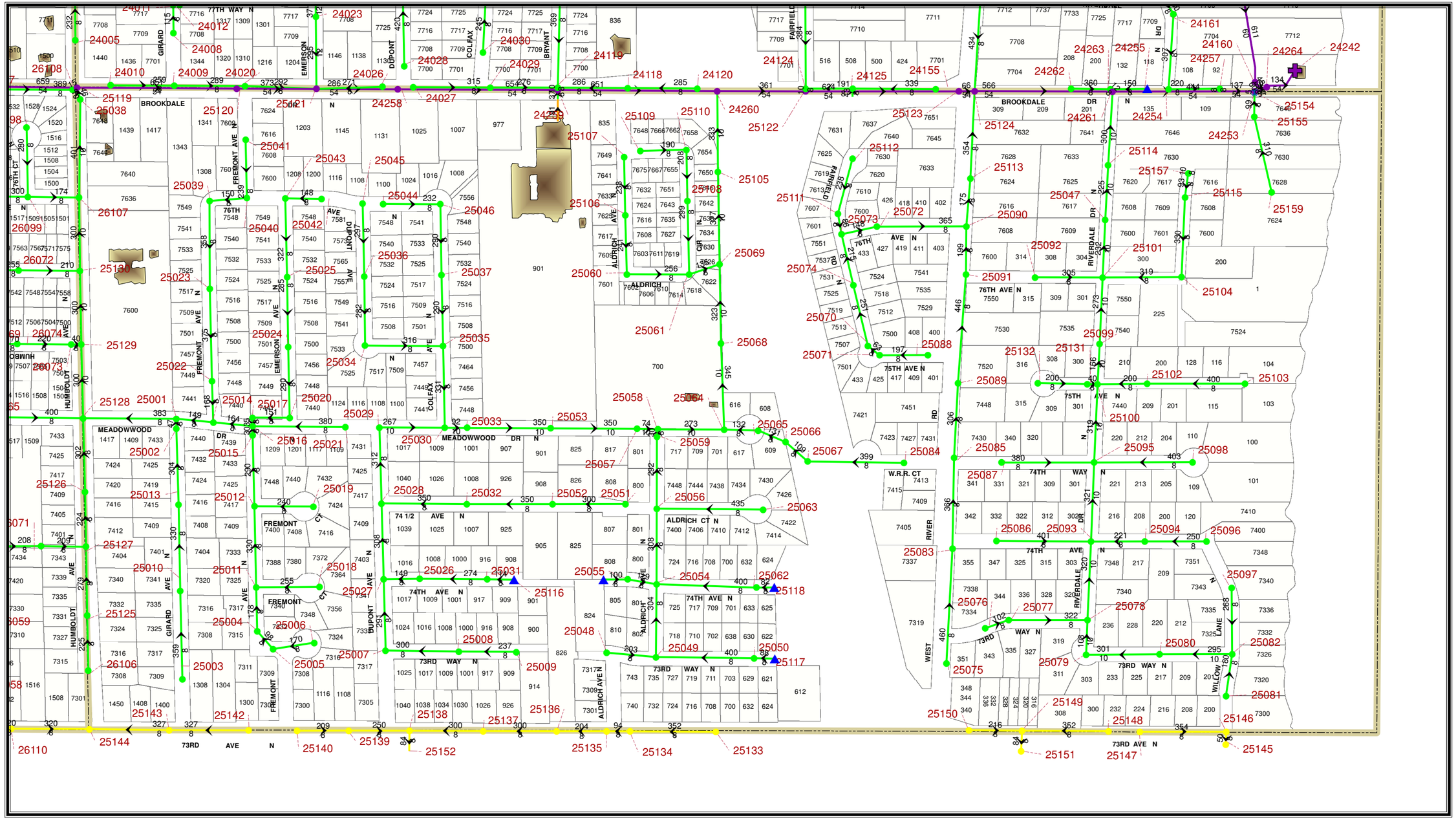
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

24S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

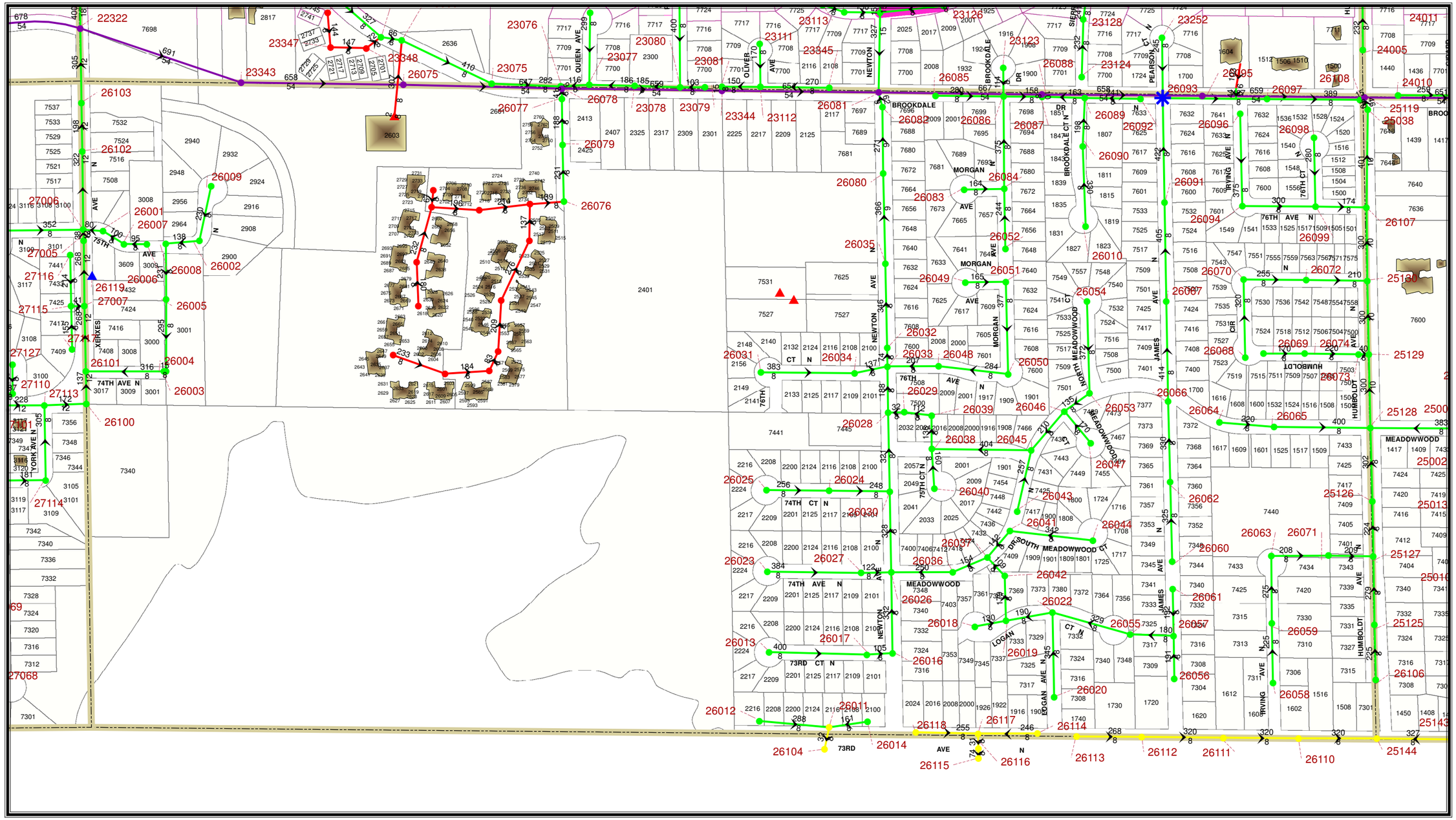
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

25N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

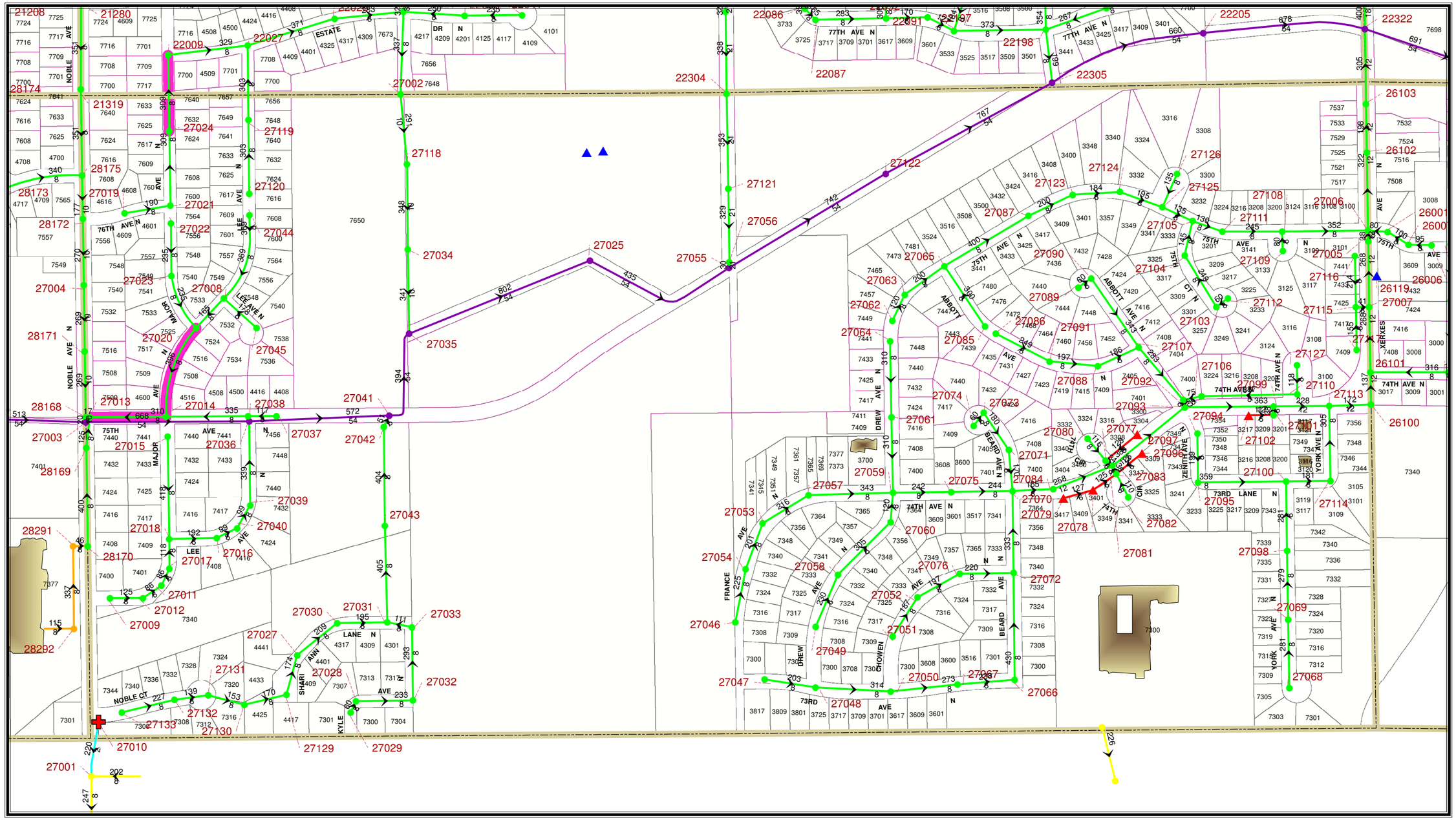
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

26N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
99001 MH ID Number
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

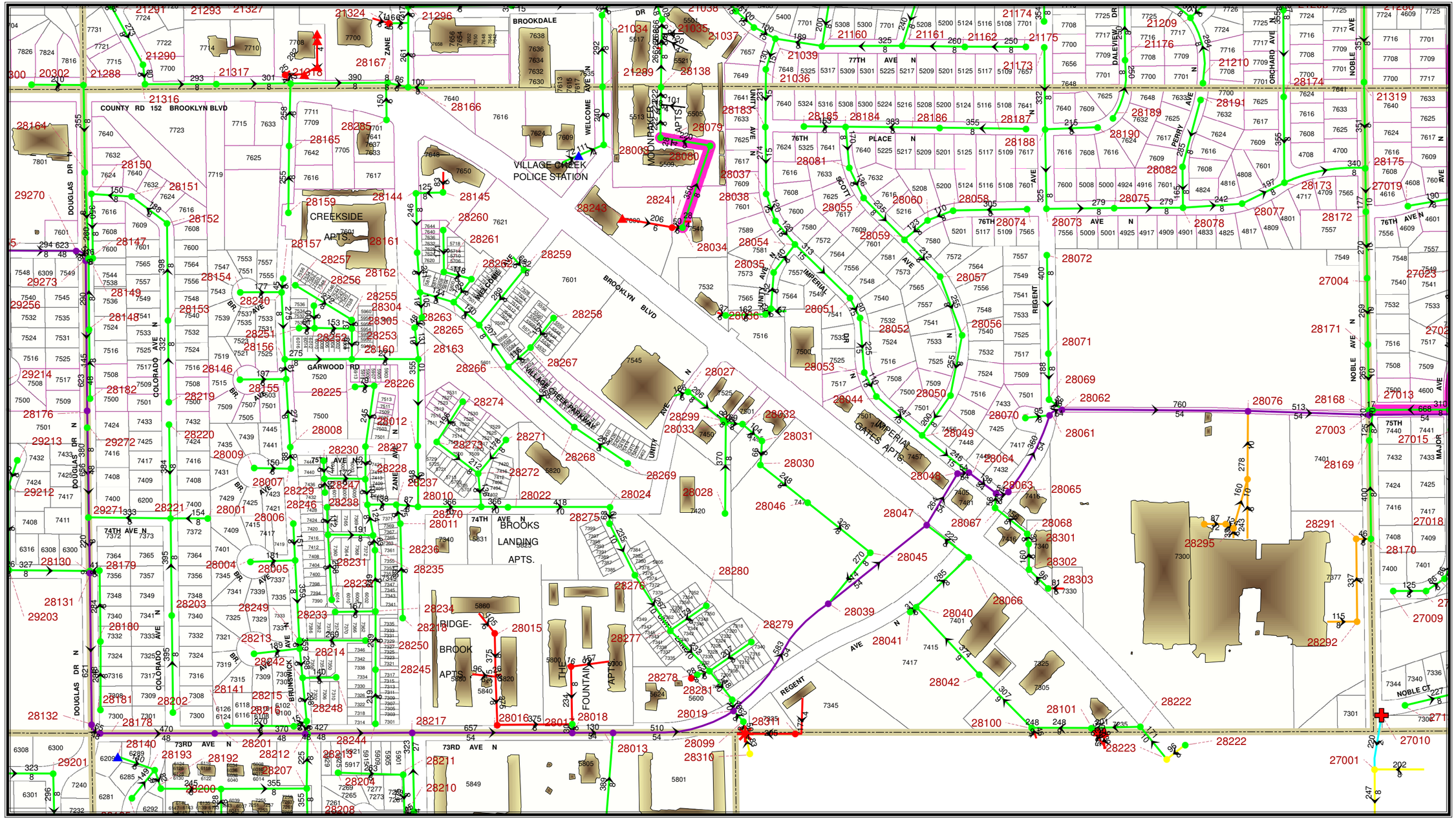
1 inch = 400 feet

N
W E
S

Date: 3/15/2017

27N

SPACER PAGE



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

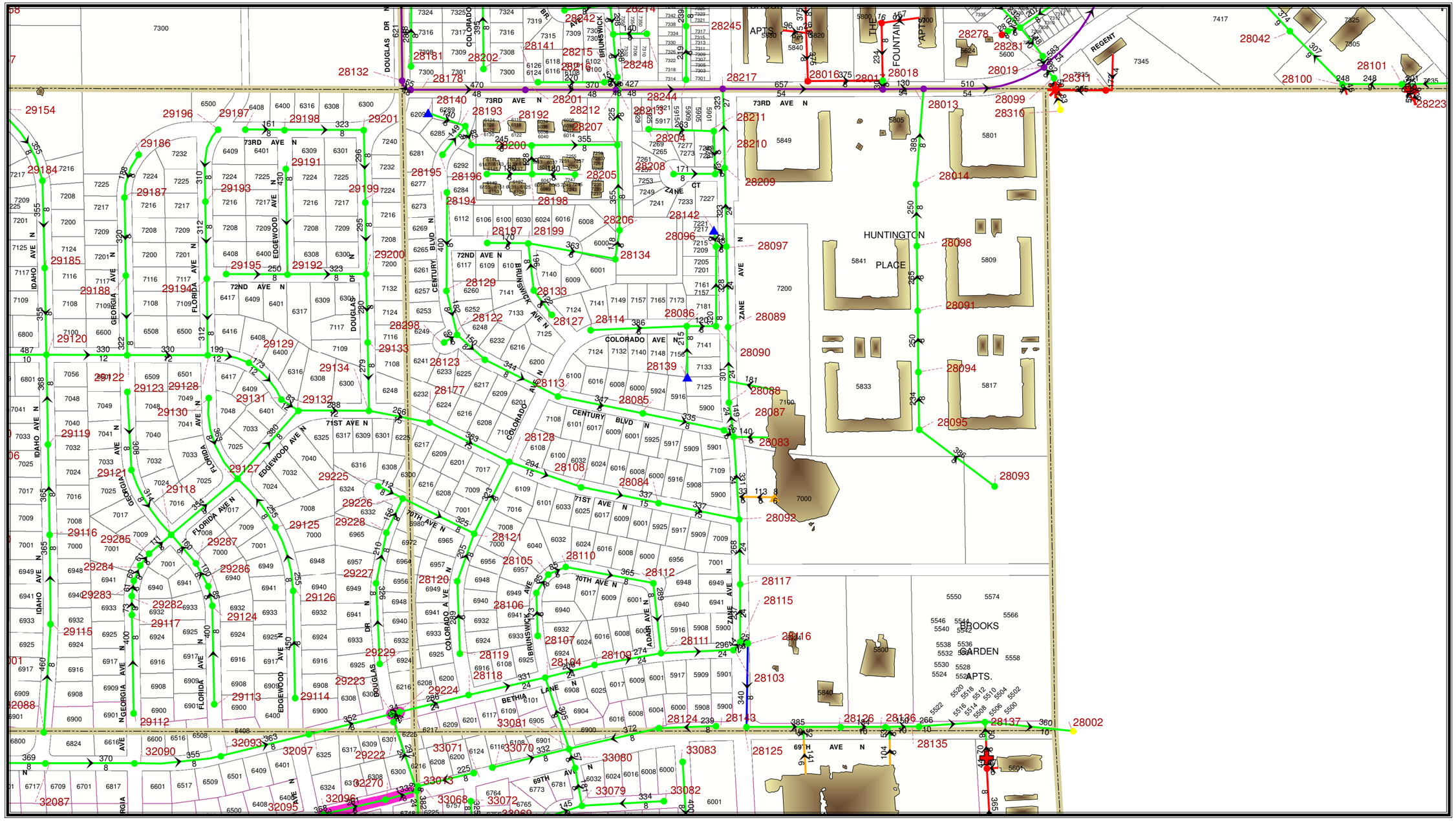
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N W E S

Date: 3/15/2017

28N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

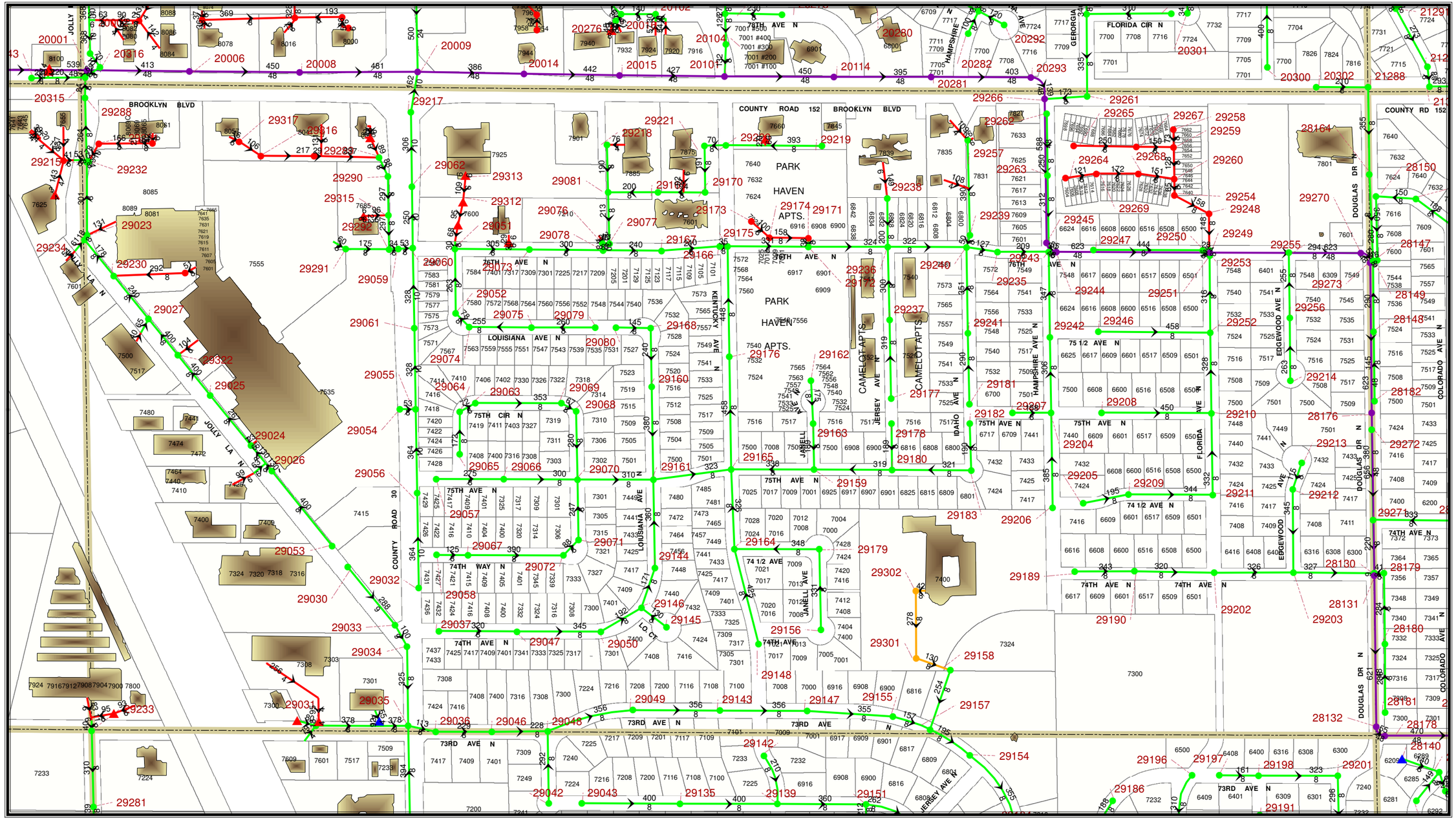
06N	05N	04N	03N	02N		
06S	05S	04S	03S	02S		
07N	08N	09N	10N	11N		12N
07S	08S	09S	10S	11S		12S
18N	17N	16N	15N	14N		13N
18S	17S	16S	15S	14S		13S
19N	20N	21N	22N	23N		24N
19S	20S	21S	22S	23S		24S
30N	29N	28N	27N	26N		25N
30S	29S	28S				
31N	32N	33N				
31S	32S	33S				

1 inch = 400 feet

N W E S

Date: 3/15/2017

28S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

Lift Station, Brooklyn Park
Lift Station, Interceptor
Lift Station, Private
Manhole, Brooklyn Park
Manhole, Interceptor
Manhole, Private
Manhole, Surrounding City
Manhole, Other Agency
Sanitary Valve, Brooklyn Park

Sanitary Lines

Force, Brooklyn Park
Force, Private
Gravity, Brooklyn Park
Gravity, Interceptor
Gravity, Private
Force, Champlin
Gravity, Surrounding City
Gravity, Other Agency

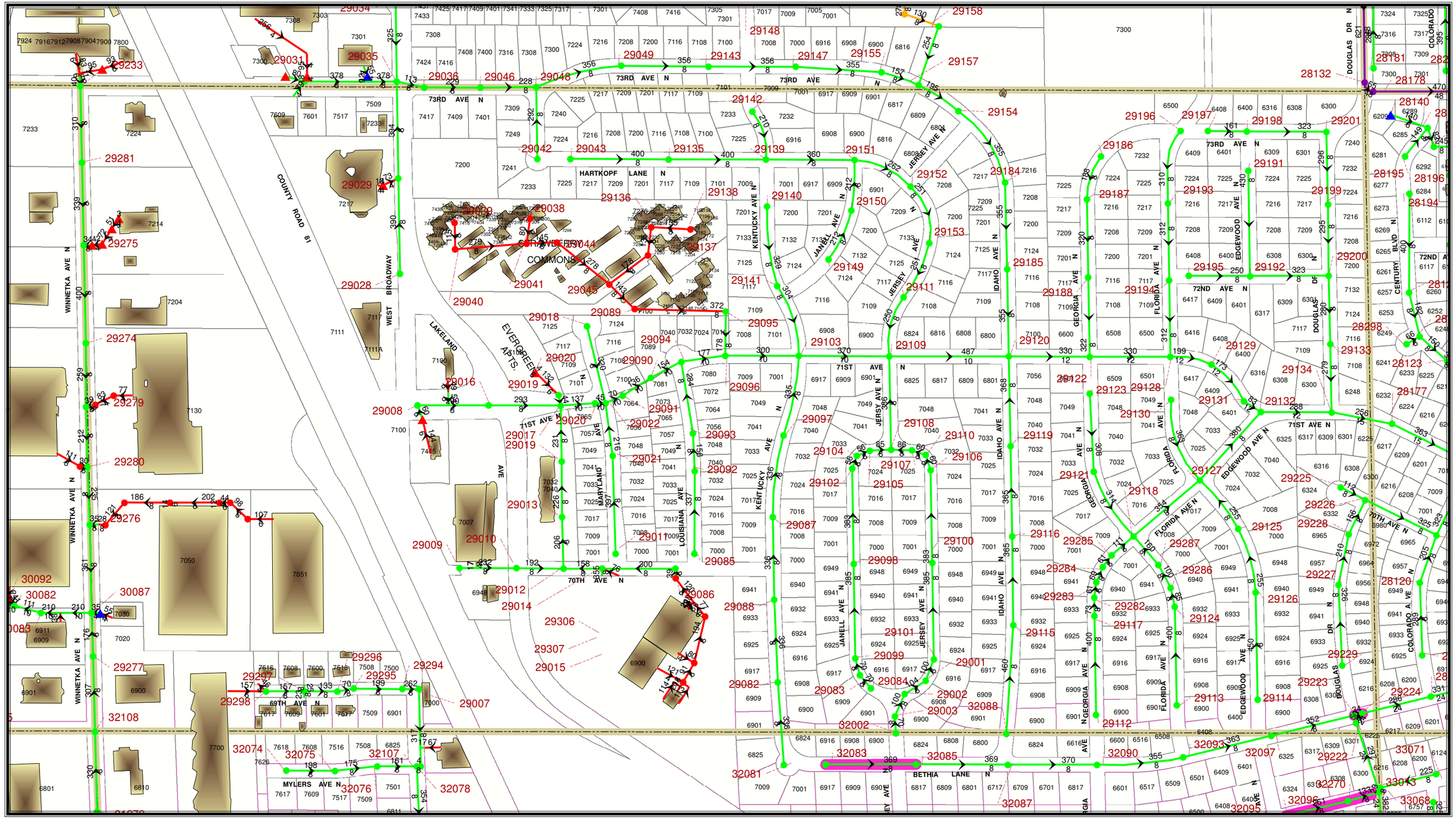
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

29N



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length / Pipe Diameter
- 99001 MH ID Number
- Clean Out, Brooklyn Park
- Clean Out, Private
- Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

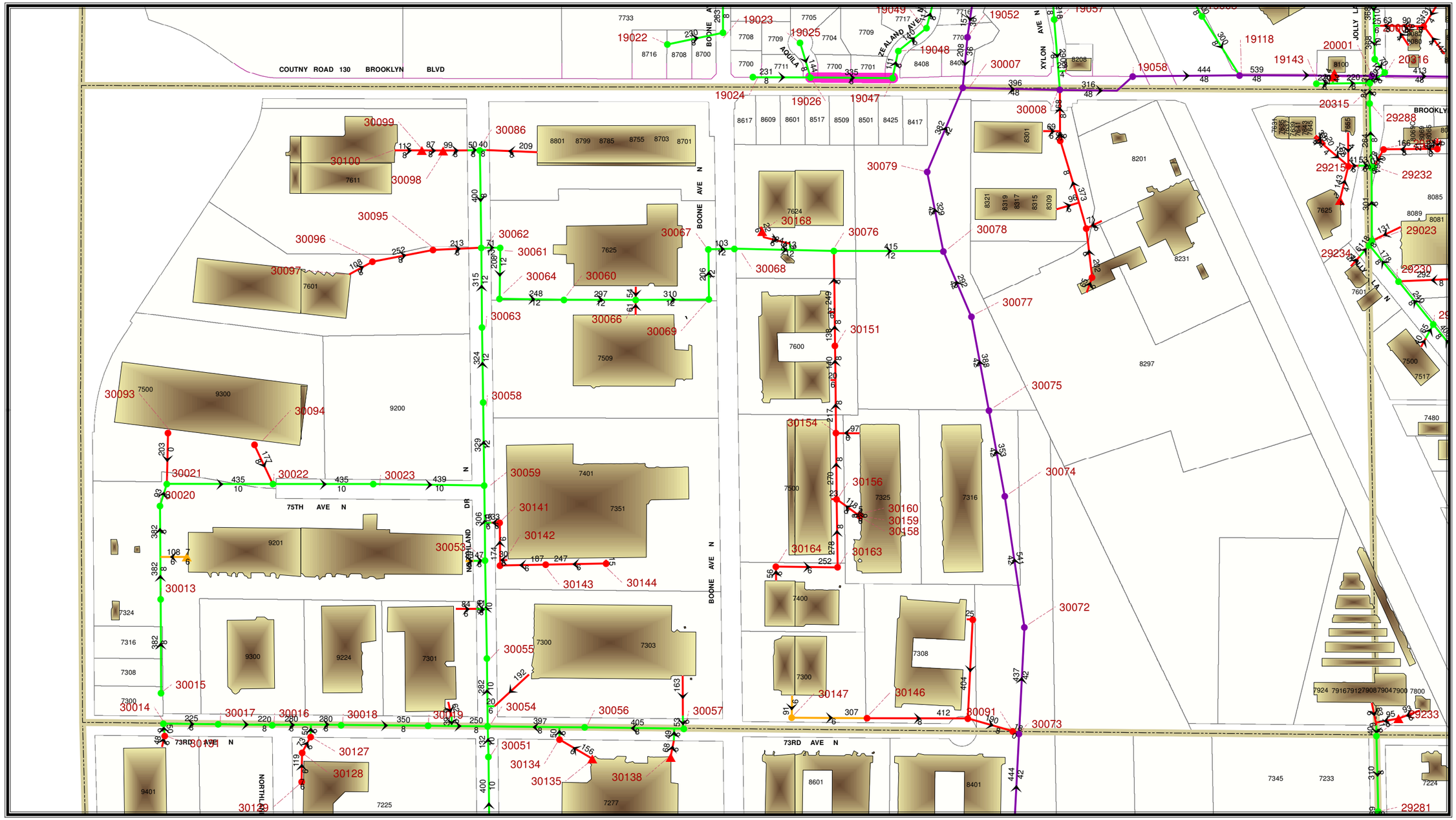
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

29S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
W E
S

Date: 3/15/2017

30N

Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP
99001 MH ID Number
Half Section Grid
Parcel
Pipe Length
Pipe Diameter
Clean Out, Brooklyn Park
Clean Out, Private
Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

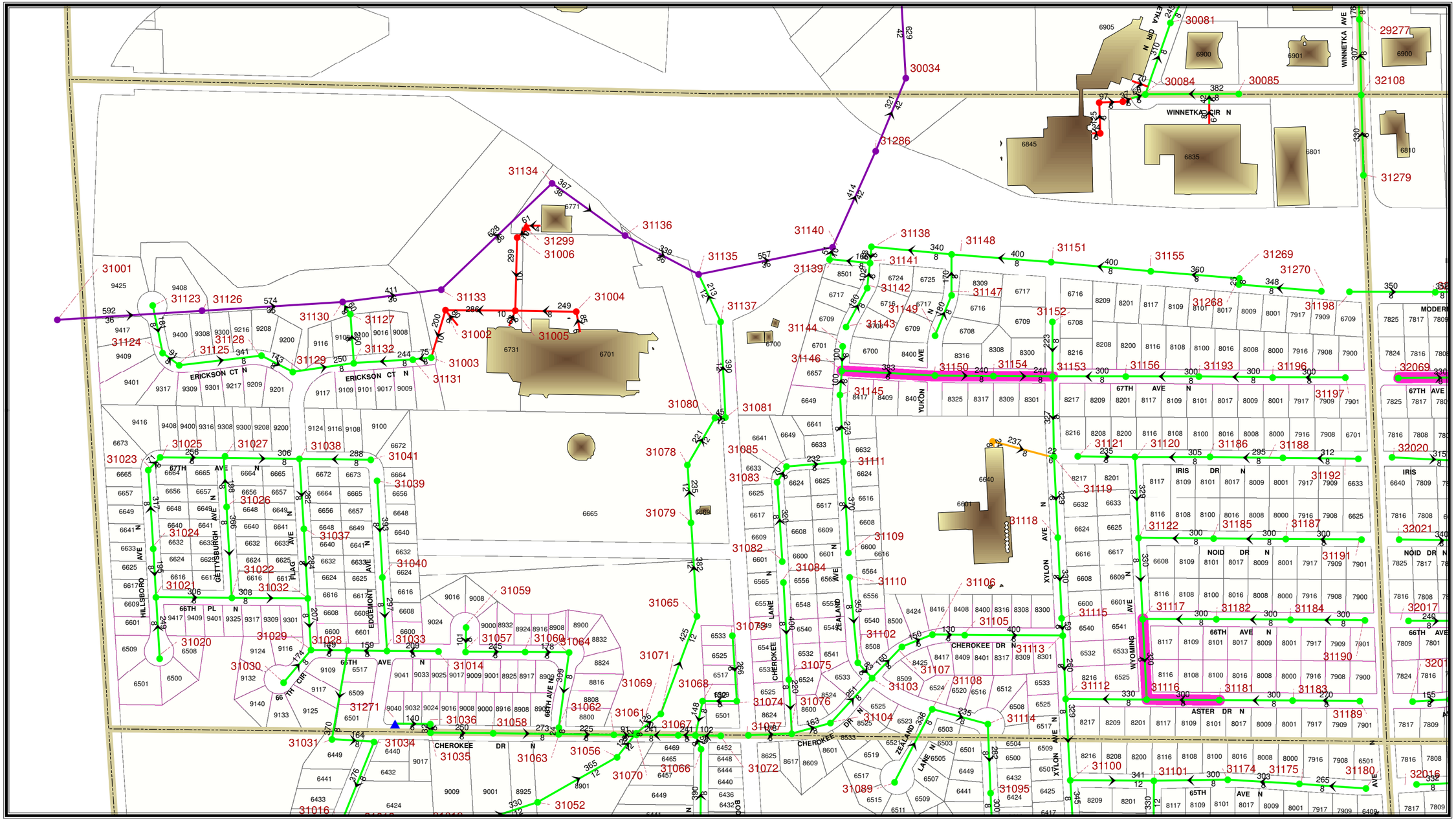
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N
W E
S

30S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

Lift Station, Brooklyn Park

Lift Station, Interceptor

Lift Station, Private

Manhole, Brooklyn Park

Manhole, Interceptor

Manhole, Private

Manhole, Surrounding City

Manhole, Other Agency

Sanitary Valve, Brooklyn Park

Sanitary Lines

Force, Brooklyn Park

Force, Private

Gravity, Brooklyn Park

Gravity, Interceptor

Gravity, Private

Force, Champlin

Gravity, Surrounding City

Gravity, Other Agency

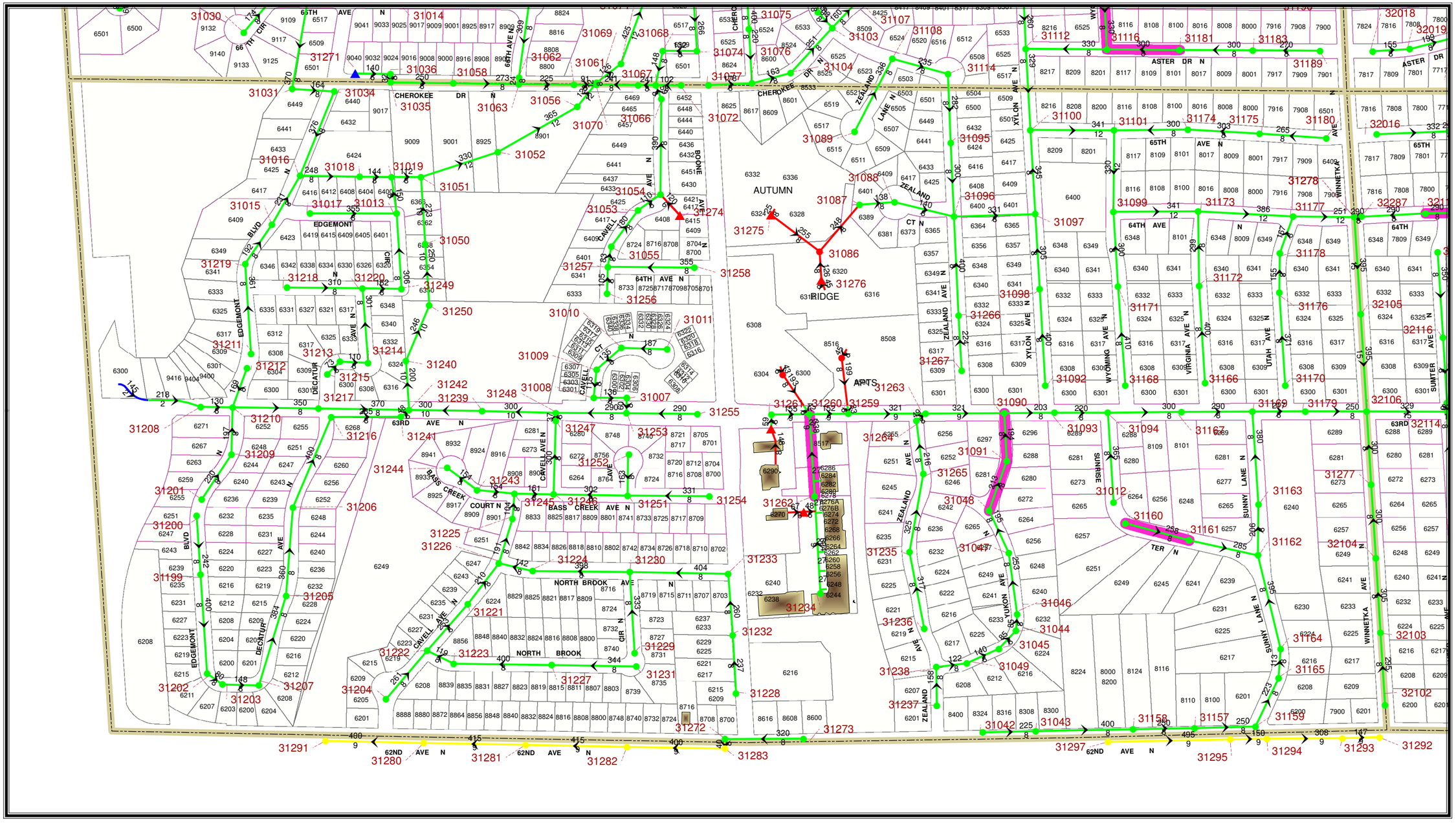
06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

31N



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N
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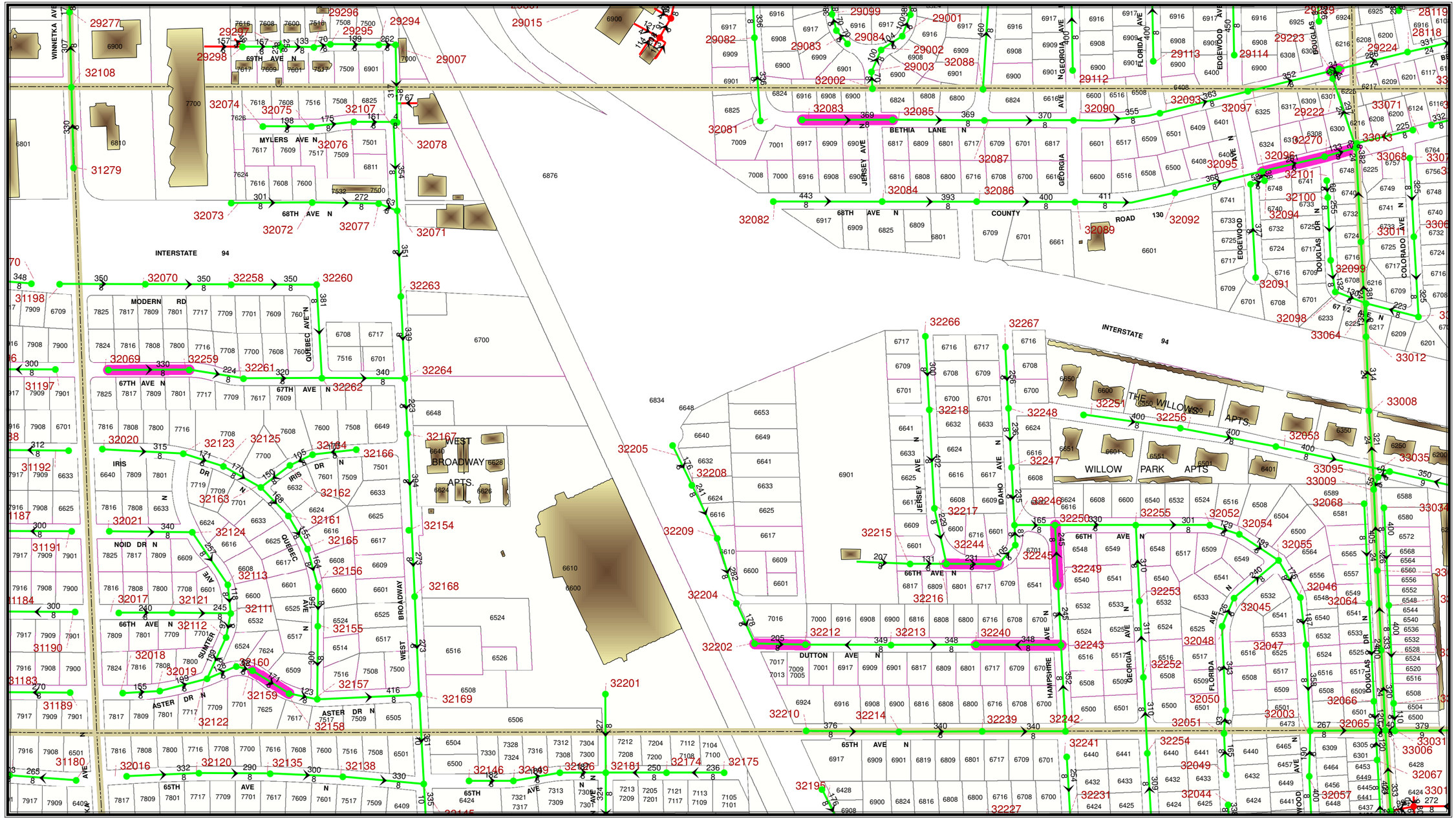
S

Date: 3/15/2017

31S



Legend

City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

Half Section Grid

Parcel

Pipe Length

Pipe Diameter

Clean Out, Brooklyn Park

Clean Out, Private

Blind Drop

Sanitary Points

- Lift Station, Brooklyn Park
- Lift Station, Interceptor
- Lift Station, Private
- Manhole, Brooklyn Park
- Manhole, Interceptor
- Manhole, Private
- Manhole, Surrounding City
- Manhole, Other Agency
- Sanitary Valve, Brooklyn Park

Sanitary Lines

- Force, Brooklyn Park
- Force, Private
- Gravity, Brooklyn Park
- Gravity, Interceptor
- Gravity, Private
- Force, Champlin
- Gravity, Surrounding City
- Gravity, Other Agency

06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

Date: 3/15/2017

N W E S

32N

Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

- CIPP
- Half Section Grid
- Parcel
- Pipe Length
- Pipe Diameter
- 99001 MH ID Number
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06N	05N	04N	03N	02N	
06S	05S	04S	03S	02S	
07N	08N	09N	10N	11N	12N
07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
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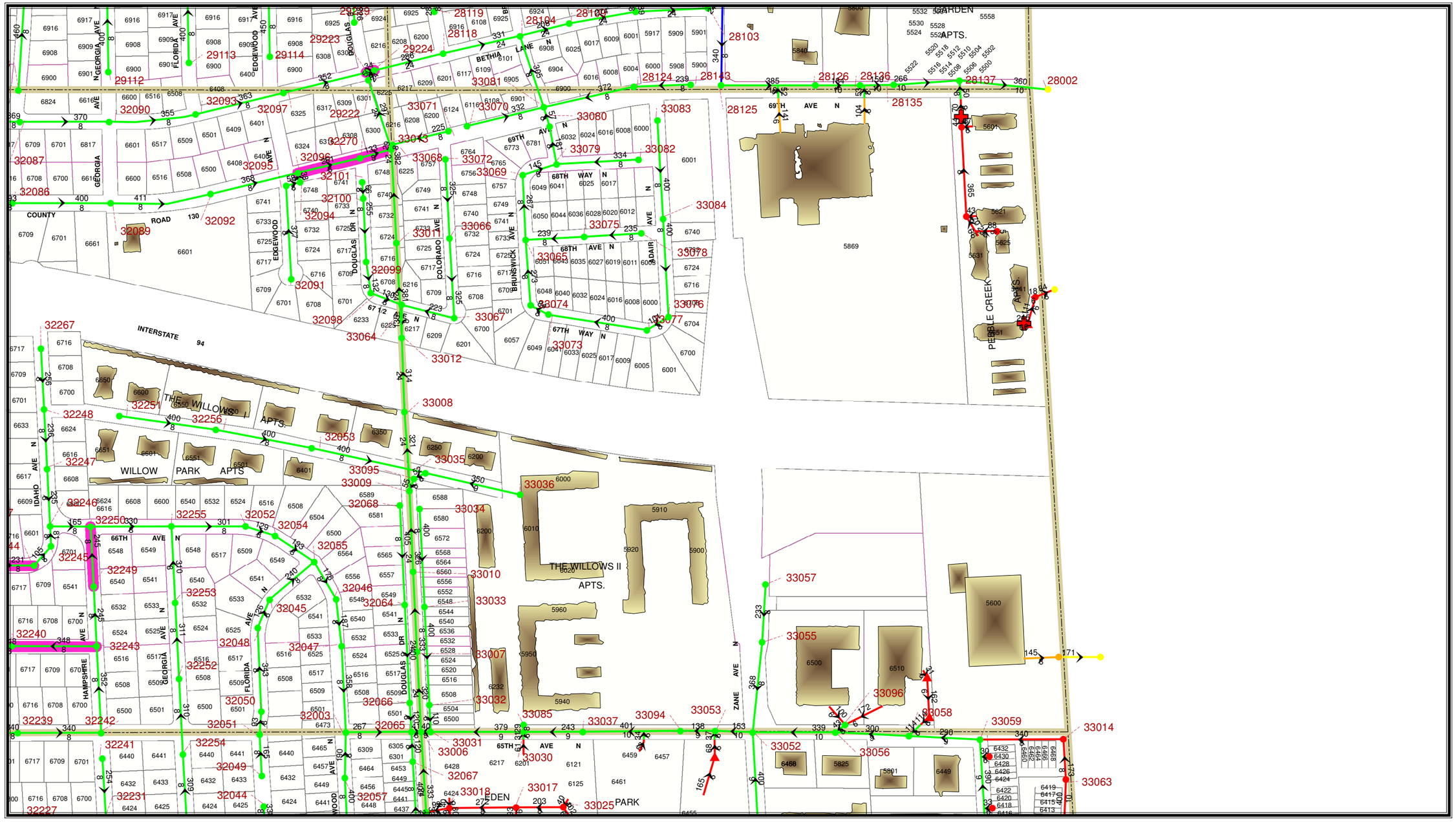
1 inch = 400 feet

N W E S

Date: 3/15/2017

32S



Legend

City of Brooklyn Park Sanitary Sewer System Operations & Maintenance

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07S	08S	09S	10S	11S	12S
18N	17N	16N	15N	14N	13N
18S	17S	16S	15S	14S	13S
19N	20N	21N	22N	23N	24N
19S	20S	21S	22S	23S	24S
30N	29N	28N	27N	26N	25N
30S	29S	28S			
31N	32N	33N			
31S	32S	33S			

1 inch = 400 feet

N W E S

Date: 3/15/2017

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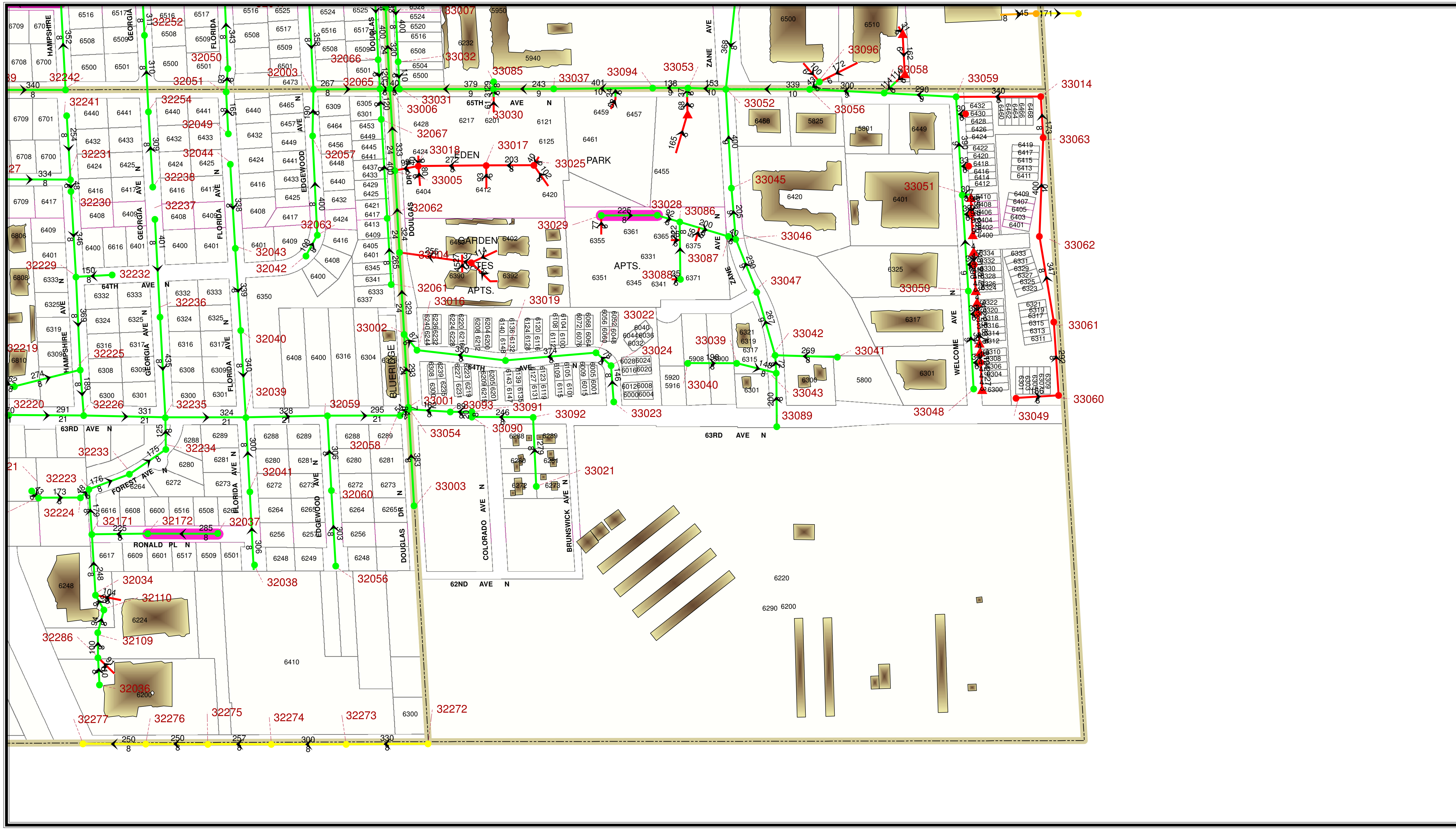

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City of Brooklyn Park
Sanitary Sewer System
Operations & Maintenance

CIPP

99001 MH ID Number

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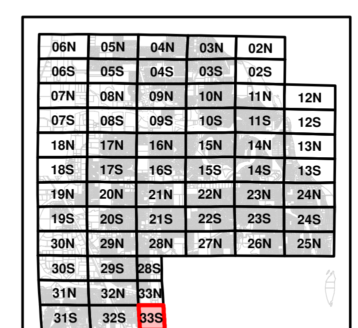

1 inch = 400 feet

Date: 3/15/2017

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Appendix C: Sanitary Sewer Ordinances

CHAPTER 99: SEWERS

Section

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99.03 Damage

99.04 Inspection

99.05 Liability

99.06 Public sewer service connection

99.07 Prohibiting discharges into the sanitary sewer system

Connections and Permits

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Cross-reference:

Private sewer and water systems, see §§ 101.01 et seq.

GENERAL PROVISIONS

§ 99.01 TITLE.

This chapter comprises and is referred to hereinafter as the "sewer code."

('72 Code, § 600:00) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.02 DEFINITIONS.

Unless the context specifically indicates otherwise, the meaning of terms in the sewer code is in accordance with the Minnesota State Building Code, Chapter 4715, Plumbing Code, the Waste Discharge Rules for the Metropolitan Disposal System (MDS), and as set forth as follows:

INDIVIDUAL SEWAGE DISPOSAL SYSTEM. An individual sewage disposal or treatment system other than a public sewer system, and which receives sewage from an individual establishment.

NATURAL OUTLET. Any outlet into a watercourse, pond, ditch, lake or other body of surface or ground water.

PERSON. Any individual, firm, company, association, society, corporation or group.

PUBLIC SEWER. A sanitary sewer in which all owners of abutting properties have equal rights and is controlled by a public authority.

('72 Code, § 600:05) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.03 DAMAGE.

It is unlawful for an unauthorized person to maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment which is a part of the municipal sewage works. Any person violating this provision is guilty of a penal offense.

('72 Code, § 600:10) (Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 99.99

§ 99.04 INSPECTION.

(A) The City Building Official, and other duly authorized employees of the city bearing proper credentials and identification are permitted to enter upon all properties for the purposes of inspection, observation, measurement, sampling and testing in accordance with the provisions of the sewer code.

(B) Every person owning improved real estate that discharges into the city's sanitary sewer system must allow an employee of the city or the city's designated representative to inspect the buildings to confirm that there is no sump pump or other prohibited discharge into the sanitary sewer system. In lieu of having the city inspect their property, any person may furnish a certificate from a licensed plumber certifying that their property is in compliance with this section.

(C) Any person refusing to allow their property to be inspected or refusing to furnish a plumber's certificate within 14 days of the date city employees or the city's designated representatives are denied admittance to the property, immediately becomes subject to the surcharge hereinafter provided for. Any property owner found to violate this section must make the necessary changes to comply with this section and furnish proof of the changes to the city.

(D) All new homes are required to have a sump pump basket and drain tile and be required to have their sump pump system inspected at final inspection for certificate of occupancy and a certificate of compliance completed.

(E) Each sump pump or other clear water conveyance device connection identified will be reinspected on a yearly basis in conjunction with a yearly water meter inspection. The city reserves the right to reinspect all properties within the city for code violations.

('72 Code, § 600:15) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98)

§ 99.05 LIABILITY.

Any person violating any of the provisions of the sewer code becomes liable to the city for any expense, loss, or damage occasioned the city by reason of such violation, including attorney's fees.

('72 Code, § 600:25) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.06 PUBLIC SEWER SERVICE CONNECTION.

(A) *Connection required.* Connection to the public sewer system is required in accordance with the provisions of the Minnesota State Building Code, Chapter 4715, Minnesota Plumbing Code, and the ordinances of the City of Brooklyn Park.

(B) *Private sewage treatment system repair.* At such time as a public sewer becomes available to a property served by a private sewage treatment system, and the private system cannot be repaired or reconstructed as provided in Chapter 101 of this title, a direct connection must be made to the public sewer in compliance with this section, and any septic tanks, cesspools and similar private sewage disposal facilities must be abandoned and removed or filled with suitable material. No individual sewage treatment of disposal system is permitted to discharge into any public sewer or natural outlet.

(C) *Separate public sewer service connections required.*

(1) All connections must be made in accordance with the provisions of the Minnesota State Building Code, Chapter 4715, Minnesota Plumbing Code, and Rule 4715.0310 thereof. A separate and independently connected building sewer must be provided for each property and for each unit contained within a structure; i.e., a duplex must have two services from the public sewer main to the building. Exceptions to this provision may be allowed subject to the approval of the Building Official.

(2) Where one building stands at the rear of another on an interior lot and no public sewer service connection can be constructed to the rear building through an adjoining alley, court, yard or driveway, the sewer service connection from the front building may be extended to the rear building and the whole considered as one sewer service connection except for rate purposes.

(3) Connection of more than one property to a sewer service extension of the public sewer that is intended for a single service connection, is subject to the approval of the Building Official. Such a connection must be made through a manhole constructed at the connection. The manhole, when required, must be located at the public utility easement, right-of-way, or sewer service extension from the public sewer, must be accessibly and safely located, and must be constructed in accordance with plans approved by the Building Official. The manhole must be installed by the owner at the owner's expense, will become the property of the city and maintained by the city so as to be safe and accessible at all times.

('72 Code, § 605:20) (Am. Ord. 1988-587(A), passed 1-25-88; Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 99.99

§ 99.07 PROHIBITING DISCHARGES INTO THE SANITARY SEWER SYSTEM.

(A) Water from any roof, surface, ground water sump pump, footing tile, swimming pool, or other natural precipitation must not be discharged into the sanitary sewer system. Dwellings and other buildings and structures which require, because of infiltration or water into basements, crawl spaces, and the like, a sump pump discharge system or other device intended to convey clear water must have a permanently installed discharge line which must not at any time discharge water into a sanitary sewer system. A permanent installation is one which provides for year round discharge capability to either the outside of the dwelling, building, or structure, or is connected to the city storm sewer or discharges through the curb and gutter to the street. It consists of a rigid discharge line without valving or quick connections for altering the path of discharge, and if connected to the city storm sewer line, include a check valve and an air gap located in a small diameter structure as shown in the city's standard plates.

(B) Before February 1,1999, any person having a roof, surface, ground water sump pump, footing tile or swimming pool now connected and/or discharging into the sanitary sewer system shall disconnect and/or remove same. Any disconnects or openings in the sanitary sewer shall be closed or repaired in an effective, workmanlike manner, as approved by designated city employee(s) or the city's designated representative.

(Ord. 1998-890, passed 12-14-98)

CONNECTIONS AND PERMITS

§ 99.15 CONNECTION CHARGE REQUIRED.

(A) *Connection charges.* It is unlawful to make or cause to be made, any connection to the Brooklyn Park municipal sewer system, unless the person has first paid to the city a connection charge in amounts set by the City Council.

(B) *Special assessments.* In addition, no permit may be issued to tap or connect with any public sewer system main, either directly or indirectly, from any lot or tract of land, unless:

(1) The property has been specially assessed for the public sewer system, or equivalent sums have been paid to the city for the cost of construction and maintenance of the public sewer system to which the connection is made; or

(2) If no assessment has been levied for such construction costs, that proceedings for levying such assessment have been or will

be commenced in due course; or

(3) That the cost of construction for the public sewer system has been paid by the developer or builder platting the lot or tract of land; this does not include lots or tracts of land served by the public sewer system and which were not a part of the plat or tract developed; or

(4) If no assessment has been levied, and no assessment proceedings will be completed in due course, and the developer or builder of the lot or tract has not paid the cost of improving the lot or tract of land, that the developer or builder develops must pay a sum equal to the portion of the cost of constructing the public sewer system which would be assessable against the lot or tract of land has been paid to the City of Brooklyn Park.

(C) *Tax forfeited land - special assessments and reassessment.* When a parcel of tax forfeited land is returned to private ownership and the parcel is benefitted by sanitary sewer or any other improvement for which special assessments were canceled because of the forfeiture, the city may, upon notice and hearing as provided for the original assessment, make a reassessment or a new assessment as to the parcel in an amount equal to the amount remaining unpaid on the original assessment plus interest; or the city may impose fees or charges for the use or availability or the improvement or improvements or for connections therewith in an amount not to exceed the amount remaining unpaid on the canceled assessment.

(D) *Special connection charge.* If such special assessments have not been paid, no such permit to connect to the public sewer system will be issued, unless the applicant pays an additional connection fee which will be equal to the portion of the cost of construction of the public sewer system which would be assessable against the lot or tract to be served by the connection. The assessable cost is to be determined by the City Engineer, upon the same basis per front foot or lot unit as any assessment previously levied against other property for the public sewer system, or if no such assessment has been levied, upon the basis of the uniform charge per front foot or lot unit which may have been or which will be charged for similar connections with the public sewer system, determined on the basis of the total assessable cost of the main allocated on a frontage or lot unit basis.

('72 Code, § 610:00) (Am. Ord. 1978-262(A), passed 4-24-78; Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 99.99

§ 99.16 PERMIT APPLICATION.

Permits for building sewers and connections will be granted to only plumbers licensed by the State of Minnesota.

(A) Application for public sewer service connection must be made on printed forms, must state the legal description, street and official house numbers of the premises to be connected, and the nature of the improvement to be done. A permit and inspection fee in the amount set by the City Council is payable to the city at the time the application is filed.

(B) The charges for connection to public sewer must be paid at the time the application is submitted and before the service is connected.

(C) No person except a plumber or certified pipe layer duly licensed by the State of Minnesota or a duly authorized employee of the city will be permitted to do any work on connections to the public sewer system.

(D) The sewer service extension from the public sewer system main to the public utility easement, or right-of-way is the property of the city and all persons are forbidden to interfere with such extension.

(E) The charges for tapping public sewer mains must be paid at the time the application is submitted and before the service is installed.

('72 Code, § 610:15) (Am. Ord. 1978-262(A), passed 4-24-78; Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 99.99

§ 99.17 COSTS.

All costs and expense incidental to the installation and connection of the building sewer to the public sewer system will be borne by the property owner. The property owner must indemnify the city from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

('72 Code, § 610:30) (Am. Ord. 1978-262(A), passed 4-24-78; Am. Ord. 1995-779, passed 4-24-95)

§ 99.30 PROHIBITED WASTE WATER DISCHARGE.

(A) *Storm water discharge.*

(1) It is unlawful to discharge or cause to be discharged any storm water, surface water, ground water, roof drainage, runoff, or sub-surface drainage to any sanitary sewer. Storm water and all other such unpolluted drainage must be discharged to such drains as are specifically designed as storm sewers, or to a natural outlet approved by the City Engineer. Potable clear water wastes may be discharged, upon approval of the City Engineer, to a storm sewer, or natural outlet. The use of dry wells for the purpose of storm water disposal is prohibited. Any such unauthorized discharge to the sanitary sewer system is considered a penal offense.

(2) In addition to the penalties and surcharges for such penal offenses, the city has the right to make any disconnections or repairs necessary to cease the prohibited use of the city sanitary sewer system; to receive the actual costs for disconnections and repairs made from the property owner; and to recover the actual costs of the sanitary sewer treatment and conveyance from the property owner as estimated and determined by the City Manager or the City Manager's designee.

(B) *Specific waters prohibited.* It is unlawful to discharge or cause to be discharged to any public sewer, any waters or wastes prohibited by the Minnesota State Building Code, Chapter 4715, Minnesota Plumbing Code; or by the Waste Discharge Rules for the Metropolitan Council Environmental Services and promulgated by the Metropolitan Council Environmental Services pursuant to M.S. Chapter 473, and under the control of Metropolitan Council Environmental Services, effective July 1, 1994.

(C) *Storm drains.* It is unlawful for a person to permit any sewage to flow into any public storm drain from any premises owned by that person or under the person's control.

('72 Code, § 615:00) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98) Penalty, see § 99.99

§ 99.31 CONTROL MANHOLE.

The owner of any property served by a building sewer carrying industrial wastes as defined in the Waste Discharge Rules for the Metropolitan Council Environmental Services (MCES), must install a suitable control manhole in the building sewer to facilitate observation, sampling and measurement of the wastes. The manhole, when required, must be accessibly and safely located, and must be constructed in accordance with plans approved by the City Engineer. The manhole must be installed by the owner at the owner's expense, and must be maintained by the owner so as to be safe and accessible at all times.

('72 Code, § 615:33) (Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 99.99

§ 99.32 STANDARDS.

All measurement tests and analyses of the characteristics of water and wastes regulated by MCES, Waste Discharge Rules to which reference is made in § 99.30(B), must be determined in accordance with EPA approved methods as specified by 40 C.F.R. Part 136, and must be determined at the control manhole provided for in § 99.31, or upon representative samples taken at the control manhole. In the event that no special manhole has been required, the control manhole is considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected.

('72 Code, § 615:36) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.33 RATES AND CHARGES.

Rates and charges for use and service of the sanitary sewer system are as set by the City Council and §§ 99.75 et seq. of this chapter.

('72 Code, § 615:42) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.34 REVENUES.

All revenues derived from these rates and charges are to be credited to the Public Utilities Revenue Accounts. Such revenue may be used only for the purpose of paying the cost of operating and maintaining the public sewer system and the water supply system, paying charges made by Metropolitan Council Environmental Services, providing an adequate depreciation fund, paying costs of meter-reading, billing, collection, and other similar or related sewer operating expenses, provided that any surplus above such needs may be transferred to the general funds.

('72 Code, § 615:44) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98)

§ 99.35 INDUSTRIAL USER STRENGTH CHARGE.

(A) *Recitals*. Metropolitan Council Environmental Services has been organized and existing under the laws of the State of Minnesota, and has determined to impose an industrial user sewer strength charge upon users of the Metropolitan Disposal System (as defined in M.S. Chapter 473) to recover operational costs of treatment works attributable to the strength of the discharge of industrial waste, such sewer strength charge being in addition to the base sewer volume charge.

(B) *Administration and enforcement*. Administration and enforcement of federal and state laws pertaining to industrial user strength charges and the discharge of industrial wastes is by Metropolitan Council Environmental Services.

('72 Code, § 615:46) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98)

§ 99.36 METERING; INSTALLATION; EXTRA SUPPLYING.

(A) *Metering*. A meter recording the use of water may be installed on any non-residential lot, parcel or premises and thereafter the rate must be based upon such use of water. The City Manager or the City Manager's designee may require and order the installation of such meter on any such lot, parcel or premises where it determines that flat charges are impractical to apply, or result in inequitable charges because insufficient or excessive; and thereafter the rate will be based upon such use of water.

(B) *Meter installation*. Any water meter installed for use or used as a basis for the computation of sewer rates must be installed and maintained in good operating condition at all times, such installation and maintenance to be without expense to the city. Any such meter must be of a type obtained from the city, and must accurately measure all water received on the premises. Installation of and maintenance of such meter must be made in accordance with plumbing regulations of this city.

(C) *Extra meter supplying*. If the lot, parcel of land, or premises discharge normal sewage or industrial waste into the sanitary sewerage system, either directly or indirectly, and it can be shown to the satisfaction of the Council that a portion of the water measured by the water meter does not and cannot enter the sanitary sewerage system, then, and in that event, the Council may permit or require the installation of other or additional meters in such manner that the quantity of water which actually could enter the sewer system may be determined. In such case the charges or rates will be based upon the amount of water which can enter the sanitary sewerage system.

('72 Code, §§ 615:48 - 615:54) (Am. Ord. 1995-774, passed 2-13- 95; Am. Ord. 1995-779, passed 4-24-95)

§ 99.37 INFORMATION.

The owner, occupant, or person in charge of any premises must supply the city with such information as the city may reasonably require related to use of water, use of sewer, or sewer rates. Wilful failure to provide such information or wilful falsification of such information constitutes a violation of this chapter, as does wilful failure to comply with any requirement or order issued pursuant to this chapter.

('72 Code, § 615:57) (Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 99.99

§ 99.38 ESTIMATED BILLS.

If the owner, occupant or person in charge of any premises fails to provide information as provided in § 99.37 hereof, or fails or refuses to comply with any requirement of this chapter, the proper charge for such premises will be estimated and billed in accordance with such estimate.

('72 Code, § 615:60) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.39 BEGINNING SERVICE.

For a fraction of a quarter the charges and rates for non-metered units will be based upon the amount of the established flat charge, provided, however, that the actual month of beginning will be considered as having begun on the first or fifteenth of the month, whichever is closer.

('72 Code, § 615:63) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.40 BILLING.

Bills for charges for the use and service of the sewerage system will be made out by the city in accordance with the usual and customary practice. All bills are payable to the City of Brooklyn Park and are rendered quarterly.

('72 Code, § 615:66) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98)

§ 99.41 UNAUTHORIZED USE OF PUBLIC SEWER PROHIBITED.

(A) It is unlawful to make a connection to the public sewer system without first obtaining permits required by the city. It is unlawful to discharge into the public sewer any wastes prohibited by this chapter. Any such unauthorized connection or use of the public sewer system is considered a penal offense.

(B) In addition to penalties for such penal offense, the city has the right to make any disconnections or repairs necessary to cease the unauthorized use of the public sewer system, and to recover the actual costs for the disconnections and repairs made as determined by the City Manager or the City Manager's designee.

('72 Code, § 615:77) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98) Penalty, see § 99.99

§ 99.42 BUILDING SEWER.

The building sewer and connections thereto extending from the building or structure to the service extension of the public sewer at the public utility easement or right-of-way are the property of the applicant and must be protected and maintained by the applicant. In the event the applicant or any consumer fails to make any necessary repairs to the pipes within 24 hours after being notified to do so by a person designated by the City Manager, this person designated by the City Manager must make such repairs and the cost thereof will be charged to the owner of the premises or the consumer and must be collected in the same manner as other bills for sewer services are collected.

('72 Code, § 615:80) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98) Penalty, see § 99.99

§ 99.43 LOCATING PUBLIC SEWER CONNECTION.

The plumber must assist the person designated by the City Manager in making any measurements necessary in locating the public sewer connection.

('72 Code, § 615:85) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.44 EXCAVATIONS.

All excavations and backfilling of excavations made within a public easement or public right-of-way must be made in accordance with Chapter 96 of this code. All excavations and backfilling of excavations on private properties within the city must be made in accordance with the State Building Code.

('72 Code, § 615:90) (Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 99.99

§ 99.45 CONTRACTS.

All contracts made under the provisions of this chapter must be made by the city with the owner of the property to be served, or the owner's duly appointed agent or attorney, and the owner of the property is liable to the city for all rents accruing through the use of the public sewer upon the owner's premises whether the same be personally used by the owner or the owner's renter or lessees or other occupants of the premises.

('72 Code, § 615:95) (Am. Ord. 1995-779, passed 4-24-95)

§ 99.46 OWNER RESPONSIBILITY.

Each owner of premises desiring the use of the public sewer system thereon must file with the city the name of the owner's agent, if the owner desires to act through an agent, or the owner's address, and must direct in the instrument the one to whom the bill is to be sent, and notices be given, and the same is binding until a further notice differing therefrom is made in writing and filed with the city. The contract made with the owner must provide that any delinquencies in the payment of the public sewer service provided on the premises are a lien and charge against the premises so served regardless of whether the same is a homestead or not. The lien, in case of a delinquency, must be reported to the County Auditor by the city at the same time and in the same manner as special assessments on real estate for street improvements, and must be collected in the same manner as taxes against real estate provided, however, that nothing in this section is intended to prevent the city from cutting off sewer service to premises for delinquent payments in accordance with other provisions of this code, city policies, or other applicable state or federal laws.

('72 Code, § 616:00) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98; Am. Ord. 2007-1076, passed 8-20-07)

§ 99.47 DISCONTINUE PUBLIC SEWER SERVICE.

Any person desiring to discontinue the use of the public sewer must notify the city. No person other than a plumber duly licensed by the State of Minnesota or a duly authorized employee of the city will be permitted to make disconnections from the public sewer system. The public sewer service extension will be disconnected, capped and abandoned in a manner approved by the Building Official or other designated city employee(s).

('72 Code, § 616:05) (Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98)

§ 99.48 CLAIMS.

No claim is to be made against the city for reason of the breaking of any public sewer main or building sewer pipe or for any other interruption of the public sewer service, by reason of the breaking of machinery or stoppage for necessary repair.

('72 Code, § 616:10) (Am. Ord. 1995-779, passed 4-24-95)

SEWER INSTALLERS

§ 99.60 LICENSE REQUIRED.

It is unlawful to engage in the business of installing, repairing, pumping or performing percolation rate tests and soil evaluations for on-site sewage treatment systems within Brooklyn Park, without first obtaining a license to carry on such operation. Persons applying for the issuance of a license are required to show evidence of their competency. Such competency may be demonstrated by evidence of certification from the Minnesota Pollution Control Agency or other evidence acceptable to the City Health Authority.

('72 Code, § 470:00) (Am. Ord. 1984-474(A), passed 12-17-84) Penalty, see § 99.99

Cross-reference:

Licensing and permit regulations; fees, revocation, and the like, see Ch. 110

§ 99.61 APPLICATION.

Application for a license must be made annually on a form furnished by the Clerk. The form must contain information as determined to be necessary by the City's Health Authority.

('72 Code, § 470:05) (Am. Ord. 1984-474(A), passed 12-17-84)

§ 99.62 BOND.

Applicants must procure and post with the City Clerk at the time of application a bond in the amount of $2,000 in favor of the municipality and the public, conditioned upon the faithful performance of contracts and compliance with this chapter.

('72 Code, § 470:10)

§ 99.63 INSURANCE.

The licensee must also file with the City Clerk a certificate showing liability insurance coverage with a company doing business in Minnesota; liability insurance coverage for sewer installers is required in the amounts of $50,000 for property damage and $200,000/$600,000 for bodily injury.

('72 Code, § 470:15) (Am. Ord. 1984-474(A), passed 12-17-84)

§ 99.64 RENEWAL.

The license is renewable annually on or before January 1.

('72 Code, § 470:20)

§ 99.65 REFUSAL TO RENEW AND REVOCATION.

Any such license may be revoked or refused by the Clerk for cause. Any installation, repair, pumping, percolation rate test or soil evaluation on or for construction for an on-site sewage treatment system by a licensee in violation of the provisions of this chapter or refusal on the part of a licensee to correct such defective work performed by such licensee, is cause for revocation of or refusal to renew a license. Persons licensed under this chapter must inform the Health Authority of the location and date of service when they pump septic tanks. If the City Clerk refuses to issue a license or to renew a license or revokes a license, the applicant or licensee has a right to appeal to the City Council.

('72 Code, § 470:25) (Am. Ord. 1984-474(A), passed 12-17-84)

§ 99.66 FEE.

The annual license fee is in the amount set by the Council from time to time and as contained in §§ 99.81 and 99.82 of this chapter.

('72 Code, § 470:30) (Am. Ord. 1986-540(A), passed - -)

RATES AND CHARGES

§ 99.75 RATES AND CHARGES ESTABLISHED.

(A) Rates and charges for use and service of the city sanitary sewer system are established. Such charges and rates to be made against each lot, parcel of land, unit or premises which may have connection directly or indirectly into the city sanitary sewer system and which discharges only normal sewage into such system.

(B) Effective on the first day of February 1999 and on the first day of each calendar year thereafter for all sewage produced in the billing quarter by city sanitary sewer system users, sanitary sewer charges for each quarter year are established by the resolution establishing fees and charges as set forth in the Appendix to this code.

(C) *Basis of rates and charges.*

(1) The residential rates established are to provide sanitary sewer charges based on a service charge plus a usage charge based on the amount of water metered during the winter quarter or actual use if less. Customers may at their written direction be allowed to use the water meter readings for each quarter as a basis for calculating usage.

(2) All metered residential units (residential means single-family, two-family, townhouses or any complex of housing units which have individual sewer and water connections for each unit) include a service charge per quarter plus the usage to the nearest measured unit times the usage charge rate. Non-metered residential units are charged a flat service charge per quarter.

(3) Multi-family, industrial, commercial and institutional charges are based on the water meter reading for each quarter.

(4) All metered commercial, multi-family, industrial and institutional units are the service charge per quarter times the meter equivalent plus the usage to the nearest measured unit times the usage charge rate. Non-metered multi-family, commercial, institutional and industrial units are charged the appropriate service charge per quarter based on the water meter size which would be needed if the property were to be connected to the municipal water system plus a reasonable estimate of the water consumed per quarter.

(D) *Meters.* The city will install water meters on non-metered residential properties at the request of the property owner, for a charge for sanitary sewer metering only, in an amount as established by the fee resolution set forth in the Appendix to this code.

(E) *Surcharge for noncompliance.* A surcharge in the amount established in the fee resolution set forth in the Appendix to this code is imposed on every sewer bill mailed on or after February 1, 1999, to property owners who are not in compliance with the regulations relating to clear water discharges outlined in these code sections or who have refused to allow their property to be inspected to determine if there is compliance. All properties found during reinspection to have violated these code sections are subject to the $100 per month penalty for all months between the two most recent inspections. The surcharge will be added every month until the property is in compliance. The surcharge will continue to be levied monthly on properties not complying with these code sections.

('72 Code, § 510:00) (Am. Ord. 1979-301(A), passed 10-9-79; Am. Ord. 1981-375(A), passed 12-14-81; Am. Ord. 1995-774, passed 4- 24-95; Am. Ord. 1998-890, passed 12-14-98)

§ 99.76 SEWER CONNECTION CHARGES.

(A) In all areas where sanitary sewer service is available, connection charges must be paid before a building permit is issued.

(B) In all areas and for all uses where sanitary sewer service is available, whenever service availability charge(s) (SAC unit/s) must be charged and paid to Metropolitan Council Environmental Services, a sewer connection charge must be paid to the city in the amount established in the fee resolution set forth in the Appendix to this code except as otherwise allowed to be deferred pursuant to the city's Sewer Availability Charge and Water Access Charge Payment Deferral Program.

('72 Code, § 510:05) (Am. Ord. 1986-511(A), passed 1-27-86; Am. Ord. 1993-744, passed 11-22-93; Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98; Am. Ord. 2015-1197, passed 9-28-15)

§ 99.77 PERMIT AND INSPECTION FEE.

(A) A sewer connection permit and inspection fee in the amounts established in the fee resolution set forth in the Appendix to this code must be paid to the city at the time the application is filed.

(B) Any property installing a sump pump or other devices to control clear water discharges to the sanitary sewer is required to

receive a permit from the city to ensure compliance with these code sections. The city will issue the permit upon receipt of an application and the fees as established by the city from time to time. Failure to secure a permit for sump pump installation and/or other devices intended to redirect clear water is considered a violation of City Code and subjects the property owner to the surcharges outlined in these code sections.

('72 Code, § 510:10) (Am. Ord. 1977-240(A), passed 2-28-77; Am. Ord. 1993-744, passed 11-22-93; Am. Ord. 1998-890, passed 12-14- 98)

§ 99.78 BILLS AND METER READINGS.

All bills for sanitary sewage disposal as furnished and supplied by the city are payable quarterly.

('72 Code, § 510:11) (Am. Ord. 1995-774, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98; Am. Ord. 2007-1076, passed 8-20-07)

§ 99.79 LATE CHARGES.

There is a late charge of 10% of the unpaid balance or a minimum of $1 for sewer billings not paid within 20 days after the billing date. Late charges also apply to the surcharges provided for in § 99.75(E).

('72 Code, § 510:15) (Am. Ord. 1998-890, passed 12-14-98)

§ 99.80 CERTIFICATION OF DELINQUENT ACCOUNTS TO COUNTY FOR COLLECTION.

The City Council may make any delinquent charges a lien against the property and certify unpaid charges to the County Auditor with taxes against the property served for collection as other taxes are collected, all pursuant to M.S. § 444.075, Subd. 3. If the delinquent charges are certified for collection with the property taxes, the city will add a fee as established in the resolution set forth in the Appendix to this code to each delinquent account to cover the administrative costs incurred by the city in collecting the delinquent charges.

('72 Code, § 510:16) (Am. Ord. 1980-346(A), passed 12-8-80; Am. Ord. 1981-375(A), passed 12-14-81; Am. Ord. 1993-744, passed 11- 22-93; Am. Ord. 1998-890, passed 12-14-98)

§ 99.81 PRIVATE SEWER SYSTEM PERMIT FEES.

At the time an application is filed for a private sewer system permit, a permit fee for a private sewer system must be paid to the city as established in the fee resolution as set forth in the Appendix to this code.

('72 Code, § 510:20) (Am. Ord. 1980-346(A), passed 12-8-80; Am. Ord. 1985-487(A), passed 8-26-85; Am. Ord. 1986-540(A), passed 8- 18-86)

§ 99.82 REINSPECTION FEE.

In the event a reinspection is necessary, the fee is in the amount established in the fee resolution set forth in the Appendix to this code. This fee also applies for reinspection regarding sump pumps and other clean water discharge devices.

('72 Code, § 510:25) (Am. Ord. 1985-487(A), passed 8-26-85; Am. Ord. 1986-540(A), passed 8-18-86; Am. Ord. 1993-744, passed 11- 22-93; Am. Ord. 1998-890, passed 12-14-98)

§ 99.83 SEWER SERVICE AVAILABILITY CHARGE.

(A) *Charge imposed.* There is imposed on each new building constructed within the city and to each existing building connecting to the municipal sewer system a sewer service availability charge. This charge is imposed to assist the city in meeting its obligations to

the Metropolitan Council Environmental Services pursuant to M.S. Chapter 473C.

(B) *Amount of charge.* The sewer service availability charge established by Metropolitan Council Environmental Services is used as the basis for payments made to Metropolitan Council Environmental Services by the city.

(C) *Credits against charge.* The sewer service availability charge(s) may be reduced by the principal amount of any special assessment for interceptor sanitary sewers financed in whole or in part by Metropolitan Council Environmental Services, or their predecessors in authority, and levied against the parcel of record upon which the building to be charged for such service is or will be located. The city may reduce the charge by amounts previously levied and paid or still unpaid against the parcel. There must be no reduction in the sewer service availability charges levied against any parcel, for trunk, sub-trunk lateral or sewer service connection. If the interceptor assessment exceeds the amount of the sewer service availability charge, the city must not pay out or reduce assessments by the amounts.

(D) *Administration.* An applicant for a permit for a new building construction or for connection to the sewer system must pay the sewer service availability charge to the city together with other fees required for the issuance of a building permit or sewer connection permit. The Building Official may not issue a building or sewer connection permit unless the charge is paid.

('72 Code, § 510:30) (Am. Ord. 1973-136, passed 2-12-73; Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14-98)

§ 99.99 PENALTY.

Anyone who violates any provision of this chapter for which no specific penalty is provided shall be punished as set forth in § 10.99.

CHAPTER 151: SUBDIVISIONS

Section

General Provisions

151.001 Purpose

151.002 Definitions

151.003 Procedural requirements

151.004 Pre-application procedural requirements

151.005 Procedure, preliminary plat, fees and deposit

151.006 Procedure; final plat

151.007 Procedures for time extensions

151.008 Conditional use permit special zoning procedures

151.009 Registered land surveys

151.010 Conveyance by metes and bounds

151.011 Structures abutting public streets

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151.013 Building permits

151.014 Subdivision and zoning fees

Preliminary Plat

151.025 Preliminary plat requirements

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Brooklyn Park, MN Code of Ordinances

CHAPTER 101: PRIVATE SEWER AND WATER SYSTEMS

Section

101.01 Water well construction

101.02 Individual sewage treatment standards adopted

101.03 Enforcement

101.04 Administration

101.05 Permits

§ 101.01 WATER WELL CONSTRUCTION.

Water well construction is regulated by the Minnesota Department of Health.

('72 Code, § 620:01) (Ord. 1984-473(A), passed 12-17-83; Am. Ord. 1995-779, passed 4-24-95)

§ 101.02 INDIVIDUAL SEWAGE TREATMENT STANDARDS ADOPTED.

Minnesota Pollution Control Agency Chapter 7080.0060 through 7080.0315, individual sewage treatment systems, is adopted by reference and made a part of this title except as amended below:

(A) *Amendments.*

(1) Whenever the word “agency” appears, it will be deleted and “City” inserted. Whenever the word “Executive Director” or “director” appears, it will be deleted and “Building Official” inserted.

(2) Sections C1 and C3 are deleted.

(3) Section F26(1) delete 2 or less 750; change 3 or 4 to 4 or less. E Table 11 in Section H2a(2) is amended by deleting Columns II, III, and IV.

(B) *Additional standards.* The following standards will also apply: existing nonconforming systems may be utilized as long as:

(1) The system serves an existing, single family dwelling that is owner occupied.

(2) The system may be required to be brought into conformity when the finished living space is increased or the house is sold.

(3) No nuisance, surface discharge or ground water contamination occur as a result of the operation of the system.

('72 Code, § 620:06) (Ord. 1984-473(A), passed 12-17-84; Am. Ord. 1995-779, passed 4-24-95) Penalty, see § 10.99

§ 101.03 ENFORCEMENT.

In addition to the criminal penalties for violation of this ordinance, any dwelling served by a well or individual sewage system not in conformity with this ordinance is considered to be a dangerous building under Minnesota Statutes and must be dealt with accordingly. No building not served by a municipal sewer and/or water system may be occupied nor will any certificate of occupancy be issued by the Building Official unless the provisions of this ordinance are complied with.

('72 Code, § 620:11) (Ord. 1984-473(A), passed 12-17-84; Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14- 98)

§ 101.04 ADMINISTRATION.

This ordinance will be administered by the Building Official.

('72 Code, § 620:16) (Ord. 1984-473(A), passed 12-17-84; Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14- 98)

§ 101.05 PERMITS.

It is unlawful to repair, install, construct, pump or modify any individual sewage treatment or disposal system unless the person has first obtained a permit from the Building Official. It is the responsibility of the permittee to obtain the necessary inspections before doing the work.

('72 Code, § 620:21) (Ord. 1984-473(A), passed 12-17-84; Am. Ord. 1995-779, passed 4-24-95; Am. Ord. 1998-890, passed 12-14- 98) Penalty, see § 10.99

Appendix D: Sanitary Sewer Design Guidance

CITY OF BROOKLYN PARK, MINNESOTA
STANDARD DETAIL SPECIFICATIONS
FOR THE CONSTRUCTION OF
SANITARY AND STORM SEWER SYSTEMS

MARCH, 2011
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STANDARD DETAIL SPECIFICATIONS

FOR

SANITARY AND STORM SEWER SYSTEMS

CITY OF BROOKLYN PARK, MINNESOTA

MARCH, 2011

S-1 SCOPE OF WORK

The work to be done under this Contract shall include the furnishing of all labor, materials, tools and equipment to construct complete in place the sanitary sewer and/or storm sewer and all appurtenances as shown on the drawings and plans and as specified herein.

The Contractor shall excavate all materials encountered, furnish or compact foundations where required, furnish and install all timbering, sheeting and bracing necessary to safely support all work, remove all water, protect, repair, relocate, maintain and restore all sub-surface, surface and overhead structures directly or indirectly disturbed, injured or affected by their operations and provide all backfilling and furnish all other appurtenant items and services as necessary.

S-2 SPECIFICATIONS WHICH APPLY

All specifications contained herein, including attached detail drawings, together with the construction plans for the designated project or projects and including current revisions of those portions of the following specifications, as indicated by paragraph or designation number, shall apply: American Society for Testing Materials (ASTM); American National Standards Institute (ANSI); American Water Works Association (AWWA); Federal Specifications (WW); Minnesota Department of Transportation "Standard Specifications for Construction" Current Edition.

The Contractor shall comply with all local ordinances and codes together with all rules and regulations of the Minnesota Department of Health and Minnesota Pollution Control Agency which may apply to this work.

The Contractor installing sanitary sewer shall have at least one "Certified Pipelayer" on the job at all times.

S-3 SEWER PIPE MATERIALS, PROCEDURES AND APPURTENANCES

All sanitary sewer and storm sewer pipe, fittings, manholes and all appurtenances shall be new materials and shall be of the type, size, strength, and quality as shown on the plans and as specified herein and/or as indicated in the Special Conditions.

The Contractor may be requested to secure and deliver to the Engineer a written statement from the manufacturer assuring the quality and compliance to the applicable specifications of all materials furnished and installed under this improvement project. This shall in no way relieve the Contractor of any responsibilities as to the quality of materials furnished and installed.

S-3.1 POLYVINYL CHLORIDE PIPE (PVC)

Polyvinyl chloride pipe shall conform to ASTM D 3034, SDR 35 or ASTM F789 and ASTM F794. Joints shall be either solvent cement (ASTM D 2564 or F789) or elastometric gasket joints (ASTM D 1869). Said gasket joints must be approved by the Engineer on the basis of data furnished by the manufacturer.

If two pipes are connected with a “Fernco” type adaptor a manhole brick or block shall be placed underneath the pipe joint for added support.

A heavier wall PVC pipe may be required if soil conditions exist which don't allow for the use of PVC as specified above. Any requirements for heavier wall PVC pipe shall be as indicated in the Special Conditions, or on the plans.

Watermains crossing over or under sanitary/storm lines shall be laid to provide a minimum separation of 18 inches between the outside wall of the watermain line and the outside wall of the sanitary/storm sewer lines.

S-3.2 DUCTILE IRON PIPE (DIP)

Ductile iron pipe and fittings used in sanitary sewer construction shall be mechanical joint, suitable for 175 psi working pressure and shall conform to the applicable dimensions and tolerances of ANSI Spec. A 21.50 and A 21.51. (Unless otherwise specified, ductile iron pipe shall conform to ANSI A 21.51 standard thickness class 53.)

Every pipe and fitting shall be coated with a petroleum asphaltic material on the outside and shall be cement lined on the inside. Cement mortar lining shall be in accordance with ANSI, Specification A21.4. An approved water stop gasket shall be used at manhole connections as directed by the Engineer.

Ductile iron pipe shall be grade 60-42-10 with 40/90 metal strength and shall be tested in accordance with ASTM Spec. A 339. Fittings for ductile iron pipe shall conform to ANSI A 21.10. Twelve inches and smaller shall be class 250; 16 inches and larger, class 150.

S-3.3 STANDARD SERVICE WEIGHT CAST IRON SOIL PIPE (CISP)

Standard service weight cast iron soil pipe shall comply with commercial standards for cast iron soil pipe and fittings as developed by the trade under the procedure of the Commodity Standards Division and issued by the U. S. Department of Commerce.

Cast iron soil pipe joints shall utilize a rubber gasket and shall be "Ty-Seal" as manufactured by Tyler Pipe and Foundry Co. or an approved equal.

S-3.4 REINFORCED CONCRETE SEWER PIPE (RCP) AND END SECTIONS

Reinforced concrete sewer pipe shall conform to ASTM designation C76. The strength class of pipe shall be class III unless otherwise shown on the plans and/or Special Conditions.

Reinforced concrete pipe used in conjunction with piling shall be furnished in eight (8) foot lengths and shall be of special design in accordance with Sec. 7.2, ASTM designation C76.

RCP end sections shall be in accordance with MnDOT 3236 and joints shall be tied as approved by the Engineer. Trash guards will be furnished and installed as shown on Detail Drawing S-15.

Unless otherwise indicated on the plan and/or Special Conditions, reinforced concrete pipe joints shall utilize a rubber gasket and shall conform to ASTM designation C-361, and the Bureau of Reclamation Type R-4. The pipe shall be drawn together by some approved method of jacking or winching. This pressure must be maintained until sufficient backfill is placed to keep the joint from opening.

If plain-end, bell and spigot type reinforced concrete pipe is specified to be used, cement mortar shall completely fill the entire outside annular space and the lower one-half of the inside annular space. The joints shall be cleaned and wet prior to placing the cement mortar.

All connections of RCP to existing manholes/catch basins shall be, as required, core-drilled or sawcut. No jack hammering or chipping of RCP will be allowed.

S-3.5 CORRUGATED STEEL AND METAL PIPE AND END SECTIONS

All corrugated metal pipe shall conform to MnDOT 3226 and the following:

The provisions of MnDOT 3227 (Type A) shall apply if bituminous coating is required on corrugated metal pipe.

End section joints shall be tied as approved. Trash guards will only be provided if required in the Special Conditions.

S-3.6 CORRUGATED HIGH DENSITY POLYETHYLENE (CPP, HDPE)

Corrugated High Density Polyethylene Pipe (CPP, HDPE) shall conform to MnDOT 2503, Current Edition of the Minnesota Department of Transportation "Standard Specifications for Construction" except as modified herein:

Minimum depth of cover for HDPE pipe is three (3) feet for arterial and collector streets and two (2) feet for residential streets.

Dual wall corrugated polyethylene pipe with a smooth interior wall shall be used. The allowable diameters are 12-36 inches. Pipe furnished under this specification shall comply with the requirements for materials, test methods, dimensions, and marking in accordance with the current issue AASHTO M-294 (type S) 12-36 inch diameters. Type S pipe shall consist of a corrugated exterior and a smooth interior wall. All HDPE pipe material furnished shall be by companies who are listed by Plastic Pipe Institute (PPI) as Certified Manufacturers.

Plastic pipe is dependent upon soil interaction for support. The Contractor shall use either select granular material or suitable native soils meeting the performance requirements of Class I, II or III soils (ASTM D2321 designation) and compact it to a depth of six (6) inches above the top of the pipe, in lifts not to exceed 12 inches. Adequate compaction must be attainable for the pipe to perform satisfactorily. Where groundwater or poor soils are encountered within the trench zone, the contractor will notify the Engineer, dewater as necessary, over excavate and backfill using either select granular material or suitable native material in accordance with direction from the Engineer.

PIPE JOINTS

The pipe lengths shall be connected using an ADS (or approved equal) water tight gasketed bell and spigot joint. This shall consist of a factory installed, gasketed double bell polyethylene coupling, a factory welded bell or integral bell. The spigot end of the pipe shall be furnished with a factory installed water-tight elastometric profile rubber gasket as specified in ASTM 2306. The pipe shall be shipped with a removable wrap to protect the gasket. Lubrication shall be provided to the joint prior to pushing together. At least two (2) corrugations of the spigot end must be inserted into the bell end. No direct HDPE to concrete pipe connections will be allowed.

MANHOLE CONNECTIONS

All manholes shall be concrete. For all connections to manholes the contractor shall use an ADS Waterstop Gasket or approved equal. The annular space between the manhole wall and

the HDPE pipe with gasket shall be filled with manhole bricks and grouted with Dow Chemical "Great Stuff" expandable foam sealant. The interior and exterior "Doghouse" shall be grouted with a non-shrink grout after inspection of the foam sealant connection by the Engineer.

FLARED END SECTIONS (FES)

HDPE Flared End Sections are not allowed. The last run of pipe between the upstream or downstream manhole and the FES shall be reinforced concrete pipe (RCP).

S-3.7 MANHOLES AND CATCH BASINS

Sections for pre-cast concrete manholes and catch basins shall conform to ASTM C478.

Standard and "T" manholes and catch basins shall conform respectively to all requirements as shown on the detail drawings attached to these specifications. If the mainline is 42 inches or larger, precast "T" sections shall be used as shown on the detail drawings unless otherwise specified.

When specifically permitted by the Engineer, pre-cast segmental blocks may be used to build up manholes and/or catch basins. The blocks shall conform to ASTM C-139 and shall be radial to form an eight (8) inch wall thickness.

Contractor shall use Type M grout between all adjustment rings. Cracked/broken rings will be rejected.

Frames and covers (castings) for manholes and catch basins shall be as follows or approved equal:

(1) **Sanitary Sewer Manholes** - Neenah Foundry Co. R-1733 with center vent hole and "Brooklyn Park Sanitary Sewer" imprinted on cover.

(2) **Storm Sewer Manholes** - Neenah Foundry Co. R-1733 with center vent hole and "Brooklyn Park Storm Sewer" imprinted on cover.

(3) **Water Main Air Relief Manholes** - Neenah Foundry Co. R-1733 with center vent hole and "Brooklyn Park Water" imprinted on cover.

(4) **Catch Basins** - Neenah Foundry Co. R-3250-A, R-2561-A and R-4340-A, as applicable.

S-3.8 MANHOLE INSIDE AND OUTSIDE DROP STRUCTURES

Manhole drop structures shall be constructed as shown on detail drawings S-3 and S-4. The specific type of drop (inside or outside) will be designated on the plans and/or in the Special Conditions. Generally where an influent main is over two (2) feet above the invert of the effluent main, a drop structure will be required. Where the separation is less than two (2) feet, the Contractor shall form a concrete flume invert to match into the manhole floor.

If connections to sanitary sewer manholes are made in the field, the hole shall be created by using a core drilling machine. An approved sealed connector/rubber boot shall be used.

S-3.9 CLEAN-OUT STRUCTURES

Clean-out structures shall be constructed as shown on detail drawing S-8.

Cleanouts shall be installed at the right-of-way line if a building service line is 70 feet or longer from the sanitary sewer main to the right-of-way line.

S-3.10 BUILDING SERVICES

Building services shall conform respectively to detail drawings S-5, S-6 and S-7. All building service locations will be established in the field by the Engineer. Generally these locations will agree with those shown on the plans, however, the Contractor shall not install a service until its location is verified by the Engineer. It will be the Contractor's responsibility to keep an accurate written record for each service wye as to the location (distance from nearest downstream manhole centerline), depth to top of riser, length of service from main, and submit this to the Engineer prior to backfilling.

If two pipes are connected with a “Fernco” type adaptor a manhole brick or block shall be placed underneath the pipe joint for added support.

All building service pipe shall be four (4) inch SDR 26 PVC unless specified otherwise in the Special Conditions. The service shall be extended to the property line or as otherwise designated on the plans and/or Special Conditions and shall be located downstream of the accompanying water service. The end of the service shall be plugged with an airtight plastic plug or cap.

S-3.11 RIP-RAP

Riprap work shall conform to MnDOT 2511 and the following unless otherwise specified on the plans and/or Special Conditions.

All riprap shall be Class III quarry stone of igneous or metamorphic origin and hand-placed conforming to MnDOT 3601. Geotextile filter fabric shall be type IV conforming to MnDOT 3733. The riprap shall extend to the bottom of the pond, creek or ditch. The elevation of the riprap downstream of the pipe shall not be higher than the invert of said pipe.

Field stones, recycled concrete, broken concrete or sedimentary rock will not be permitted as substitutes for quarry stone.

S-4 TESTING - SANITARY SEWERS AND APPURTENANCES

S-4.1 GENERAL TESTING PROCEDURES

Prior to final acceptance of each section of the sewer line, the Contractor shall flush a rubber ball or other suitable device, the full diameter of the sewer, through the line. All dirt and debris shall be prevented from entering the existing sewer system by means of watertight plugs or other suitable methods.

Sanitary sewer pipes shall be straight and uniform in alignment and grade. Pipes and manholes shall be free of dirt, mortar and other debris.

All testing of sewer pipes, shall be completed after all the utility pipes/mains including storm sewer have been installed in the area to be tested and prior to commencement of street construction.

Upon completion of the majority of the Contract work, i.e. prior to paving the final lift of bituminous wearing course, the Contractor shall Televise all sanitary sewer lines per Section S-4.2 of these specifications. Any cracked or broken pipe shall be removed and replaced.

S-4.1A INFILTRATION TEST

Upon completion of the sewer construction and before any house services are connected, leakage tests shall be made to determine the amount of ground water infiltration into the sewers. Measurements will be taken by means of 90-degree V-notch weirs placed in manhole. Measurements shall be taken at all points where, in the opinion of the Engineer, the flow of the water in the sewer is greater than the maximum allowable leakage. The maximum allowable rate of leakage for **any** section of sewer shall be based upon the following chart as shown below for the pipe sizes listed.

Pipe Size (Inches)	Gallons Per Hour Per 100 Feet of Pipe
6	0.25
8	0.30
10	0.40
12	0.50
15	0.60
18	1.4
21	1.7
24	1.9

In case measurements indicate a leakage greater than the maximum allowable leakage, additional measurements shall be taken and continued until all leaks are located and the necessary repairs and corrective work have reduced the leakage in the section being tested below the maximum allowed by the specifications. All rework and materials used must be approved by the Engineer. For purposes of the test, the line between adjoining manholes will be considered a section and will be tested as such. Leakage within manholes and from services shall be included in all testing.

The Contractor shall furnish the weirs and other material and labor for placing the weirs in the sewer and shall assist the Engineer in making measurements. The Contractor shall receive no additional compensation for making the leakage tests or corrective work necessary to reduce leakage below the maximum allowed.

S-4.1B EXFILTRATION TEST

Exfiltration tests will generally not be utilized but may be accepted at the option of the Engineer.

The test section shall be bulkheaded and the pipe subjected to a hydrostatic pressure produced by a head of water as determined by the Engineer. This head of water shall be maintained for a period of one hour during which it is presumed that full absorption of the pipe body has taken place, and thereafter for a further period of two (2) hours for the actual test of leakage. During this two (2) hour period the maximum allowable rate of leakage shall be 100 gallons per inch diameter of pipe per mile for 24 hours where the maximum hydrostatic head of the centerline of the pipe does not exceed 14 feet.

The introduction of any substance into the water used for testing with the intent to seal such leaks as may be indicated will not be permitted.

Two such test sections, as defined in Sec. 4.1 (Infiltration Test) will be required to be

tested for each type of pipe and for each size of pipe. If the results are satisfactory on the two sections chosen by the Engineer, no further exfiltration tests will be required.

If results of the exfiltration test are not satisfactory, additional tests and/or necessary corrective work will be required until the Engineer is satisfied that the leakage requirements are being met.

S-4.1C AIR TEST METHOD

When sewers are above the water table the primary method utilized will be the air test and in particular when service risers are constructed.

The sewer pipe section under test shall be clean at the time of testing but the pipe may be wetted. Pneumatic plugs shall be used to plug the pipe ends at manholes. Low pressure air shall be introduced into the plugged line until the internal air pressure reaches 4.0 psi greater than the average back pressure of any ground water that may submerge the pipe. If the test section is below the ground water level, determine the height of the ground water above the spring line of the pipe at each end of the test section and compute the average. For every foot of ground water above the pipe spring line, increase the gage test pressures by 0.43 pounds per square inch. At least two (2) minutes shall be allowed for the air temperature to stabilize before readings are taken and the timing started. The air test shall run for four (4) minutes.

S-4.1D DEFLECTION TEST

Pipe deflection tests shall be required on all sanitary sewer lines. These tests are to be conducted no less than 30 days after completion of the construction of the sanitary sewer. Any deviation from this time period shall be approved by the Engineer.

Deflection testing shall be performed by using a certified Go, No-Go Mandrell approved by the Engineer. The mandrell shall be constructed of metal, and its diameter shall be plus or minus 0.010 inch of the calculated minimum acceptable diameter of the pipe being tested considering the allowable tolerances of manufacture. The following is an acceptable way of performing the test.

A. Completely flush the line making sure the pipe is clean of any mud or trash that would hinder the passage of the mandrell.

B. During the final flushing of the line, attach a floating block or ball to the end of the mandrell pull rope and float the rope through the line. (A nylon ski rope is recommended.)

C. After the rope is threaded through the line, connect the pull rope to the mandrell and place the mandrell in the entrance of the pipe.

D. Connect a second rope to the back of the mandrell. This will enable you to retrieve the mandrell if a blockage is encountered.

E. Remove all the slack in the pull rope by gently pulling the rope at the far manhole. After the slack has been removed, place a tape marker on the rope close to the pipe where the mandrell will exit. If mandrell encounters a blockage, the marker will provide a means of measuring the travel distance of the mandrell so that the restricted area can be located.

F. Draw mandrell through the sewer line.

G. An increasing resistance to pull is an indication of excessive deflection. If this occurs, measure the distance from the beginning marker on the rope to the manhole. This will tell you how far up the line the blockage occurred. Locate section and replace bedding or pipe if visual examination reveals damage.*

H. Retest.

*NOTE: Resistance to pull may be caused by not properly flushing or cleaning the line prior to testing. Actions to take prior to digging are as follows:

1. Remove mandrell and flush with water.

2. Or preferably, remove mandrell and pull a rubber sewer cleaning ball through line with water to clear any mud or debris that did not flush during initial cleaning.

In any area where deflections exceed 5% the trench shall be re-excavated, the pipe zone backfill shall be removed and replaced in accordance with the original specifications. If in the opinion of the Engineer, the pipe has been damaged by over deflection, the pipe shall be removed and replaced with new pipe installed and backfilled in full accordance with the original pipe zone backfill specification. This corrective work will be at the expense of the Contractor.

Mandrel Sizing for 5% Deflection		
Nominal Pipe Diameter (Inches)	Mandrel O.D. SDR-35 (Inches)	Mandrel O.D. SDR-26 (Inches)
6	5.46	5.33
8	7.28	7.11
10	9.08	8.87
12	10.79	10.55
15	13.20	12.90
18	16.13	15.76
21	19.00	18.57
24	21.86	20.87

S-4.2 TELEVISING

All sanitary sewer lines shall be televised by the Contractor using an articulated camera so each service lateral location and connection can be fully inspected. All costs associated with televising shall be borne by the Contractor unless covered by a specific bid item in the proposal. The Contractor shall submit two (2) DVD-R recordings along with two (2) written reports. The report shall be placed in a report cover with a clear acetate front. The televising shall include audio on the recording indicating the sewer run being televised and any problems in the line. The report shall note all wyes, depths of manholes, and any problems encountered in the televising. The recording shall also include a video overlay showing the running line total footage, street name, upstream and downstream manhole I.D. numbers and owner of the line.

The Contractor shall request of the City assignment of GIS manhole identification numbers at least one week in advance of televising the new sanitary sewer line. The television report shall include the I.D. numbers as assigned by the City.

The report and DVD-R will be reviewed by the City using criteria from S-4.1. Any deficiencies in the sanitary sewer found in the television report or through the other testing as required in S-4.1 shall be repaired/replaced by the Contractor prior to paving the final layer of asphalt.

The sanitary sewer system will not be accepted to a value greater than 70% until the Televising Reports and DVD-Rs are received.

S.5 TESTING - STORM SEWER AND APPURTENANCES

S-5.1 RCP STORM SEWER POST INSTALLATION TESTING

Storm sewer pipes shall be straight and uniform in alignment and grade. Pipe and manholes shall be free of dirt, mortar and other debris. Any obvious leaks shall be repaired.

No other specific tests other than visual inspection will be required for RCP storm sewer construction.

S-5.2 HDPE STORM SEWER POST INSTALLATION TESTING

Storm sewer pipes shall be straight and uniform in alignment and grade. Pipe and manholes shall be free of dirt, mortar and other debris. Any obvious leaks shall be repaired.

The Contractor shall conduct post installation testing on 25% of the storm sewer system at segments chosen by the Engineer no less than 30 days after the installation. If any segments fail post installation testing, the Engineer, at their discretion, may require the contractor to perform post installation testing on any additional segments or all of the remaining system. Pipe failing post installation testing shall be considered unacceptable. For pipe diameters less than 24 inches, the contractor shall use a nine-point mandrel. The mandrel must be pulled through the pipe by non-mechanical means. For pipe diameters equal to or greater than 24 inches post installation testing shall be performed by television camera meeting the requirements set forth in S-4.2, or by other means approved by the Engineer. The report and television tapes shall be submitted to the City no more than two (2) weeks after televising has been completed. Post installation testing shall be considered incidental.

Pipe Diameter (Inches)	Minimum Mandrel Diameter for 7.5% Deflection (Inches)
12	11.10
15	13.88
18	16.65
24 – 36	Televise or Other means approved by Engineer

S.6 MEASUREMENT AND PAYMENT

S-6.1 SANITARY AND STORM SEWER MAINLINE PIPE

All measurements of pipe length shall be from center of manhole to center of manhole or fitting, along the axis of the pipe for each diameter and type of pipe.

Unless otherwise specified, the depth of cut will be from the centerline profile taken before work by the Contractor begins. In most cases it will be from the existing grade shown on the plans.

Payment made per Contract unit price bid in place as measured above shall include the cost of furnishing the pipe, joint materials, gaskets and all other materials and of delivering, handling, placing, backfilling, compacting, testing and all equipment or work necessary to install the pipe complete in place at the depth specified.

Connections made to any existing manholes or catch basins shall be considered incidental to the project and there will be no additional compensation unless said connection requires a drop structure for which payment will then be made.

The approved method in providing openings in existing manholes and catch basins is core drilling. Jack hammering will not be allowed. Saw cutting will only be allowed, with the approval of the Engineer, in cases where a core-drill cannot make the necessary connection.

S-6.2 MANHOLES AND CATCH BASINS

Payment for standard manholes and catch basins, "T" manholes, shallow catch basins and large diameter catch basins shall be at the Contract unit price bid per each for furnishing and installing a complete structure, not exceeding ten (10) feet. Measurement for payment shall be from the lowest pipe invert at the structure to the top of the casting in place. If the measured depth is over ten (10) feet, an additional payment will be made for each foot (to nearest 1/10 foot) that is in excess of ten (10) feet. The unit price per structure shall also include the manhole base, cover slab, frame and cover (casting), gaskets and steps in place.

The cost of the mainline tee used in conjunction with "T" manholes and catch basins shall be included in the Contract unit price bid for the mainline and there will be no separate payment therefore unless otherwise provided.

S-6.3 MANHOLE DROP STRUCTURES

Measurement for payment shall be from the lowest invert at the manhole to the invert of the incoming pipe for which the drop is provided. The Contract unit price bid shall be compensation in full for a complete structure as shown on the detail drawings.

S-6.4 CLEAN-OUT STRUCTURES

The lump sum Contract unit price bid per structure shall include the cost of a complete structure as shown on detail drawing S-8.

S-6.5 BUILDING SERVICE PIPE

Measurement will be made horizontally from the centerline of the sewer main at the wye location to the plug at the end of the sewer service. The depth of said pipe will not be a factor in payment.

Payment will be made per Contract unit price bid in place as measured above and shall include furnishing and installing the pipe complete as specified including plugs, and 1/8 bends if wyes are used.

Separate payment will be made for casing pipe, clean-out structure and double wye as required for a jacked building service.

S-6.6 SPECIAL PIPE FITTINGS

Additional payment for special pipe fittings (i.e. wyes, tees, bends, etc.) will be made only if a bid item for said fittings has been provided in the proposal form. There will be no additional payment for those fittings which are an integral part of some structure for which a pay item has been provided (i.e. tees and bends on a drop structure or clean-out).

S-6.7 RIPRAP

The provisions of MnDOT 2511 shall apply. Unless other dimensions are specified on the plans or are ordered by the Engineer, the specified thickness shall be one (1) foot for riprap and six (6) inches for filter blankets. The riprap shall be quarry stone of igneous or metamorphic origin, must extend to the bottom of the pond, creek or ditch. The elevation of the riprap downstream of the pipe shall not be greater than the invert elevation of said pipe. Payment will be made per Contract unit price bid.

S-6.8 SAND-GRAVEL MATERIAL, BINDER STONE, COARSE FILTER AGGREGATE

Payment shall be per Contract unit price bid furnished, installed and properly compacted. Contractor shall submit copies of invoices to substantiate quantities utilized. The Contract unit price bid shall include the cost of all excavation and compaction required to place these materials and the cost to dispose of any undesirable

materials unless otherwise specified in the Special Conditions.

S-6.9 RESTORATION

Restoration shall be made in accordance with the "Excavation and Restoration Procedures" of these specifications and paid for in accordance with the Special Conditions and/or Contract unit price bid.

S-6.10 JACKING OPERATIONS

Unless otherwise specified, payment for jacking operations shall be as follows:

If steel casing pipe is required, measurement for payment will be made horizontally from end to end of the casing installed. Payment for the carrier pipe to be threaded through the casing will be made separately at the corresponding mainline or building service Contract unit price bid. The Contract unit price bid for the casing pipe shall include all labor, equipment and materials necessary to furnish and install the casing pipe complete as specified.

S-6.11 SHEETING AND BRACING

Measurement for payment shall be based upon units of thousand board feet (MBF) in place. Payment will be made only for that portion of sheeting or bracing which is ordered to be left in place by the Engineer except that payment will be made for the upper four (4) feet of "Cut-off" section of the sheeting.

S-6.12 PILING

Pile bents (including test piles) shall be paid for at the Contract unit price bid for a bent in place with the number of piles specified or shown on the detail drawings assuming piles to be 20 feet long and shall be complete with caps, cradles, and accessories required. The caps and cradles shall be included as part of the 20 foot minimum length. Any piling required over 20 feet in length shall be paid for as excess length of piling and shall be paid for at the Contract unit price bid in place over 20 feet. Payment will not be made for piling over the cut-off line for piling over 20 feet long.

Unless otherwise specified, there will be no additional compensation for piling delivered only.

S-6.13 MERGED ITEMS

Appendix E: Summary of Sanitary Flows by District using TAZ Information

City of Brooklyn Park, MN

Updated 07.31.2019 TO

SANITARY SEWER SUB-CATCHMENTS

31-Jul-19 TO

Catchment Number	Est Gross Area (acres)	Est Gross Area 2018 (acres)	MCES Interceptor	TAZ	TAZ (2018)	2010 Population	2010 Estimated Flow	2010 Households	2010 Employment	2010 Estimated Flow	2020 Population	2020 Estimated Flow	2020 Households	2020 Employment	2020 Estimated Flow	2030 Population	2030 Estimated Flow	2030 Households	2030 Employment	2030 Estimated Flow	2040 Population	2040 Estimated Flow	2040 Households	2040 Employment	2040 Estimated Flow
W1	636	240	ECI	753, 754	846	43	1	15	53	1	1025	25	347	1998	29	995	28	347	1998	27	6528	215	2297	2898	37
W2	502	425	ECI	752	845	9	0	3	13	0	1011	25	350	3189	46	2866	82	1000	3589	49	2842	93	1000	3589	46
W3	1083	451	ECI	751	843, 844	254	5	88	2100	30	2311	57	800	5999	87	4156	118	1450	6399	87	4121	135	1450	6399	83
W4	1302	234	CAB	755, 757, 760, 2114	846, 850	2869	62	993	1110	16	3467	86	1200	2300	33	3439	98	1200	2700	37	6110	201	2150	5900	76
W5	413	1195	MGN	762, 770, 771	838, 839, 840, 841, 842	2883	62	998	2249	33	3178	79	1100	1319	19	3869	110	1350	1719	23	3837	126	1350	1719	22
W6	643	474	BPI	761, 1558, 1559	840, 1074	2626	57	909	1419	21	2823	70	977	1941	28	3460	99	1207	2341	32	3430	113	1207	2341	30
W7	637	112	BPI	759	851, 854	5435	117	1881	1028	15	5489	136	1900	744	11	6105	174	2130	1144	16	6053	199	2130	1144	15
W8	737	633	MGS	763, 764	1075	214	5	74	6483	94	231	6	80	5178	75	229	7	80	5178	71	227	7	80	5178	67
W9	989	852	BPI	765, 766, 729*	1070, 1071, 1072	8610	186	2980	3394	49	9696	240	3356	3007	44	9619	274	3356	3007	41	9538	313	3356	3007	39
W10	341	310	MGS	769	1112, 1113	1676	36	580	134	2	1956	48	677	220	3	1940	55	677	220	3	1924	63	677	220	3
W11	591	546	BPI	768	1072, 1112	4854	105	1680	389	6	4912	122	1700	568	8	4873	139	1700	568	8	4831	159	1700	568	7
W12	465	560	BPI	767	1073, 1074, 1076, 1077	4787	103	1657	759	11	4912	122	1700	900	13	5561	158	1940	1300	18	5513	181	1940	1300	17
W13		921	CAB		1073, 1076, 1077, 1111																				
C1	1309	774	ECI	750	835, 844	5021	108	1738	395	6	5201	129	1800	231	3	5159	147	1800	231	3	5116	168	1800	231	3
C2	1082	468	CAB	749	828, 834, 835	5744	124	1988	185	3	4917	122	1702	831	12	4878	139	1702	831	11	4837	159	1702	831	11
C3	668	366	CAB	756	836, 837, 843	2239	48	775	646	9	2600	64	900	599	9	3439	98	1200	999	14	3410	112	1200	999	13
C4	334	701	BPI	758	832, 833, 834, 836, 837	4002	86	1385	129	2	4045	100	1400	92	1	4099	117	1430	492	7	4064	134	1430	492	6
C5	456	577	BPI	745	838	2846	61	985	857	12	3219	80	1114	701	10	3480	99	1214	1101	15	3450	113	1214	1101	14
C6	762	662	BPI	743	1078, 1079, 1087	3424	74	1185	1100	16	2915	72	1009	715	10	2892	82	1009	715	10	2868	94	1009	715	9
C7		700	CAB		1080, 1081																				
C8		286	CAB		1086, 1087																				
E1	465	338	CAB	748	828, 829, 832, 834	523	11	181	16	0	581	14	201	10	0	576	16	201	10	0	571	19	201	10	0
E2	1041	781	CAB	746	831	4969	107	1720	798	12	5042	125	1745	850	12	5002	142	1745	850	12	4959	163	1745	850	11
E3	372	297	CAB	747	829, 830	1124	24	389	162	2	1436	36	497	230	3	1425	41	497	230	3	1412	46	497	230	3
E4	707	569	BPI	744	1081	4695	101	1625	324	5	4811	119	1665	357	5	4772	136	1665	357	5	4732	156	1665	357	5
E5	670	441	CAB	741	830, 1083, 1084	3612	78	1250	92	1	3756	93	1300	15	0	3726	106	1300	15	0	3695	121	1300	15	0
E6	459	228	BPI	742	1081, 1082, 1083	3323	72	1150	249	4	3467	86	1200	106	2	3439	98	1200	106	1	3410	112	1200	106	1
E7		371	CAB		1085, 1086																				
E8		111	CAB		1084																				
					TOTALS	**75781**	**1635**	**26229**	**24084**	**349**	**83000**	**2055**	**28720**	**32100**	**465**	**90000**	**2564**	**31400**	**36100**	**492**	**97479**	**3204**	**34300**	**40200**	**519**

MGS =	Maple Grove South (7015-C)	137	132	135	140
MGN =	Maple Grove North (7015-A&B)	95	98	134	148
BPI =	Brooklyn Park Interceptor (4-BP-540)	1102	1279	1528	1718
CAB =	Champlin,Anoka,Brooklyn Park Interceptor (4-BP-541 & 8252-481)	498	610	717	936
ECI =	Elm Creek Interceptor (9004)	152	401	542	781
	(CHECK)	*1984*	*2520*	*3056*	*3723*

*** =** Catchment W-9 does not include all property within TAZ 729. Two multi-family developments, one small industrial property, a religious facility, and a junior high school are serviced by Brooklyn Center.

Note = The Brooklyn Park portion of TAZ 740 (Durham Island) does not have any habitable properties nor sanitary sewer access, therefore not listed in the table above.

Appendix F: Intercommunity Service Agreements

AGREEMENT BETWEEN THE VILLAGE OF BROOKLYN CENTER, MINNESOTA, AND THE VILLAGE OF BROOKLYN PARK, MINNESOTA, RELATIVE TO THE INTERCONNECTION OF SEWERS

THIS AGREEMENT, Made and entered into this 16th day of October, 1961, by and between the Village of Brooklyn Center, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Center," and the Village of Brooklyn Park, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Park," WITNESSETH:

I

The said Brooklyn Center, in consideration of the covenants and agreements of Brooklyn Park, as hereinafter set forth, hereby grants to said Brooklyn Park the right to connect with the sewer system of Brooklyn Center, in accordance with the terms and conditions hereof.

II

A sanitary sewer system only may be connected with the Brooklyn Center sewers, it being understood that no rain water from roofs, yards, lawns, streets or alleys will be admitted into the sewers of Brooklyn Park, and that said sewers are to be constructed as nearly impervious to ground water as is practicable, it being understood that any prolonged and intentional violation of this clause may be sufficient cause for cancellation of this contract.

III

Plans and specifications for the Brooklyn Park sewers having outlet through the Brooklyn Center sewer system must first be submitted to Brooklyn Center and duly approved by it as to compliance with the provisions of this contract. Brooklyn Center shall designate the places where Brooklyn Park shall make connections with Brooklyn Center's sewer system, with due regard for the capacity of Brooklyn Center's sewer system.

IV

At no time shall the sewage flow into the Brooklyn Center system from Brooklyn Park exceed the following levels at the following approximate connection locations:

Connection Location	Sewage Flow
71st and Nob[illegible]	[illegible] C.F.S.
69th and West Brooklyn Center Limits	1.09 C.F.S.
73rd and Lyndale	1.12 C.F.S.

V

Whenever it becomes necessary hereafter to construct any sanitary sewer within the limits of Brooklyn Center in order to connect the sanitary sewer system of Brooklyn Park with the proper trunk sewer of Brooklyn Center, the construction of such sewer within Brooklyn Center shall be done by Brooklyn Park upon approval by Brooklyn Center of the plans and specifications of said construction. The cost of construction and all costs incidental thereto shall be borne by Brooklyn Park. Upon the completion of the construction of said sewer, Brooklyn Park shall submit to Brooklyn Center a detailed cost report.

Brooklyn Center shall have the right, through its Engineer, to inspect the work constructed at all resonable times.

VI

The Village Engineer of Brooklyn Center, or any employee authorized by the Village Council of Brooklyn Center, shall be permitted to inspect the construction, as well as the operation, of the sewer system in Brooklyn Park at all reasonable times to see that the same is being constructed and operated according to plans and specifications, and that the mutual agreement herein contained is being complied with insofar as it is reasonably necessary to protect Brooklyn Center.

VII

For the privilege of discharging its sewage into the Brooklyn Center sewer system, Brooklyn Park shall pay to Brooklyn Center a sewer rental charge per thousand gallons of sewage discharged into the Brooklyn Center sewer system, which charge shall be computed in the following manner, based upon the figures for the year preceding the year in which the charge is made:

The cost of disposing of sewage into the Minneapolis system; the cost of maintenance and operation of lift stations within the Brooklyn Center system; the cost of maintaining transmitting sewer lines within Brooklyn Center; the cost of administering the Brooklyn Center sewer system; the cost of accounting and record keeping regarding the Brooklyn Center sewage system; and the cost of depreciation of the Brooklyn Center sewer system, shall be added together.

The resulting total costs shall be divided by the total sewage flow into the Minneapolis sewer system from Brooklyn Park and Brooklyn Center combined.

VIII

All payments for charges under the provisions of paragraph VII hereof shall be made quarterly beginning on the first day of the third month after Brooklyn Park connects to the Brooklyn Center system.

IX

Brooklyn Park shall provide for, install and maintain accurate sewer meters of remote registering and recording type acceptable to Brooklyn Center. A set of registering and recording instruments shall be installed by Brooklyn Park in a structure provided by Brooklyn Park. In the event the sewage flow from any sewer district within Brooklyn Park is not of sufficient quantity to be accurately measured, the quantity of sewage shall be estimated by Brooklyn Center and shall be based upon the average house connection flow as measured in the Brooklyn Center sewer system, special allotments to be added for multiple dwellings and commercial and industrial connections based upon the quantity of sewage discharged therefrom.

Brooklyn Center shall bave the right, at all reasonable times, to inspect the meters and the registering and recording instruments installed by Brooklyn Park. If Brooklyn Center determines that any of said equipment is faulty or not functioning properly, Brooklyn Park shall, within a reasonable time, after receiving notice of such condition, repair or replace said equipment to the satisfaction of Brooklyn Center. If Brooklyn Park shall fail to correct such condition within a reasonable time, Brooklyn Center shall have the right to do the work and bill Brooklyn Park for the cost thereof.

X

Brooklyn Park shall pay in lump sum to Brooklyn Center the cost of any construction changes in Brooklyn Center's sewer system required to accomodate the sewage flow from Brooklyn Park. This shall include all costs incurred in increasing the capacity of Brooklyn Center's #1 lift station located at Brooklyn Drive and Vincent Avenue North extended.

XI

During the construction of sewers within Brooklyn Park, special care shall be exercised to not allow any gravel, sand, dirt or any other heavy material to be washed or carried into the Brooklyn Center sewers and no grit, dirt or heavy substances of any kind shall be permitted by Brooklyn Park to be dumped into its sewers. When expense is incurred in cleaning

the Brooklyn Center due to any such substance carried into them from Brooklyn Park sewers, such expense will be paid for by Brooklyn Park.

XII

No waste materials of any industrial nature which are harmful or detrimental to the Brooklyn Center or Minneapolis sewage systems shall be discharged into the Brooklyn Park system. In case any such materials shall be discharged into the Brooklyn Park system or in case any obnoxious odors or gases shall develop in the Brooklyn Center sewers due to discharge into the sewers of Brooklyn Park of any substances causing any obnoxious odors or gases, such nuisance must be eliminated by Brooklyn Park at its own expense, upon notice and when requested so to do by Brooklyn Center. A failure to comply with such notice within a reasonable time shall constitute a basis for annulment by Brooklyn Center of the permission granted by this agreement.

XIII

Brooklyn Center shall not be responsible to any person, firm, or corporation for damages claimed as a result of the backing up of sewers in any basement in Brooklyn Park, and in the event of any suit for damage, Brooklyn Park shall immediately intervene and defend against and pay all damages which may be recovered by any such person, firm or corporation.

XIV

The permission hereby granted shall be perpetual and shall include the right to extend and connect additional sanitary sewers in Brooklyn Park. It is understood that Brooklyn Park may, in the future, elect to sever its connections to the Brooklyn Center sewer system. Brooklyn Park shall submit a ninety (90) day written notice to Brooklyn Center prior to any such severance and shall be responsible for all costs incurred in accomplishing said severance.

XV

The permission hereby granted in this agreement shall take effect and be in force from and after the passage of a resolution by the Village Council of Brooklyn Center and a resolution by the Village Council of Brooklyn Park accepting and agreeing to the terms and conditions hereof. Certified copies of said resolutions, as and when adopted, shall be filed with the Village Clerk of Brooklyn Center and the Village Clerk of Brooklyn Park immediately after such adoption. This permit shall continue until cancelled, terminated or annulled, as herein provided.

XVI

Brooklyn Park agrees to conform with, abide by and enforce all laws, rules and regulations of the Minneapolis-St. Paul Sanitary District which apply to Brooklyn Center and the users therein. Brooklyn Park further agrees to conform with, abide by, and enforce the applicable terms and conditions of the sewer connection agreement of November 28, 1951, between Brooklyn Center and the city of Minneapolis which agreement is incorporated herein and made a part hereof.

XVII

Brooklyn Center shall have the right to cancel and annul this agreement on account of any substantial continuing violation of its terms or conditions on the part of Brooklyn Park, first giving reasonable notice to Brooklyn Park of such violation and affording reasonable opportunity to correct such violation. In event of such cancellation, no further payments shall be due hereunder except for past due obligations hereunder.

Brooklyn Park, in consideration of the provisions of this agreement, hereby accepts the permission, right and authority hereby granted subject to the conditions herein, and agrees with Brooklyn Center to do and perform and comply with all acts, matters, things, conditions and requirements herein specified and required of Brooklyn Park to be done, performed and complied with in connection with the maintenance of the sewer system and sewers of Brooklyn Park.

IN WITNESS WHERE, the parties have caused this agreement to be executed in their behalf respectively by their officers thereunto duly authorized, and have caused their corporate seals to be hereunto affixed as of the day and year first above written.

VILLAGE OF BROOKLYN CENTER

By Wm. Pieper
Mayor

(Corporate Seal)

Attest: By Henry A. Doff
Village Clerk

VILLAGE OF BROOKLYN PARK

By Wm. Edward Schirick
Mayor

(Corporate Seal)

Attest: By Albert Joyce
Village Clerk

Brooklyn Center

A G R E E M E N T

THIS AGREEMENT, made and entered into this 17th day of December, 1973, by and between the City of Brooklyn Center and the City of Brooklyn Park, WITNESSETH:

WHEREAS, the centerline of 73rd Avenue North is the boundary between the City of Brooklyn Park and the City of Brooklyn Center in the area between West River Road and Willow Lane, and

WHEREAS, the City of Brooklyn Center has inplace a water main in 73rd Avenue North, and an available sanitary sewer lateral in Willow Lane, and

WHEREAS, the City of Brooklyn Center has indicated that they would allow water and sanitary connections to be made to the above said utility lines, and

WHEREAS, the parties have mutually agreed that it would be in their best interests to provide sanitary sewer and water service from the City of Brooklyn Center systems to the City of Brooklyn Park residents abutting 73rd Avenue North, and

WHEREAS, the charges and costs for sanitary sewers and water connections specified are based on and limited to providing service to Brooklyn Park properties entirely located within a property depth of 135 feet from the north right-of-way line of 73rd Avenue North.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained,

IT IS HEREBY AGREED as follows:

1. The City of Brooklyn Park shall construct sanitary sewer; and connect water services to the City of Brooklyn Center system on 73rd Avenue North between West River Road and Willow Lane.

2. Provision of sanitary sewer and water connections as herein mutually agreed shall be limited to single family residential platted lots contained entirely within a line parallel to and 135 feet north of the north right-of-way line of 73rd Avenue North.

3. Within the limits established in this agreement, residents of the City of Brooklyn Park shall be allowed to connect to and become a part of the sewer and water system of the City of Brooklyn Center, and shall be subject to the same charges and regulations as a resident of the City of Brooklyn Center.

4. The City of Brooklyn Park shall pay to the City of Brooklyn Center $7,525.66 for its share of the capital costs of the Brooklyn Center utilities. A breakdown of the costs is as follows:

A. Sanitary Sewer - West River Road to Willow Lane

1. Sanitary lateral (to be constructed by Brooklyn Park)	$ -0-
2. Sanitary interceptor sewer assessment (i.e., 1,116.05 assessable feet @ $2.16)	$2,410.66*
Total sanitary sewer assessment:	$2,410.66

*The cost and construction of the sanitary sewer lateral and of service lines north from the existing Brooklyn Center manhole in Willow Lane, approximately 50 feet south of 73rd Avenue North, shall be Brooklyn Park's responsibility.

B. Water Main

Eleven (11) single family residential building sites @ $465.00*	$5,115.00

*Actual assessment rate without services. The cost and construction of services to be the responsibility of the City of Brooklyn Park.

5. Residents of the City of Brooklyn Park utilizing the City of Brooklyn Center sanitary sewer system will be charged the same sewer use rate as charged to residents of the City of Brooklyn Center, said rate presently being $8.75 per quarter, and shall be billed directly by the City of Brooklyn Center. Payment of the sanitary sewer use charge to the City of Brooklyn Center by residents of the City of Brooklyn Park shall be guaranteed by the City of Brooklyn Park, subject to cooperation and providing of information by the City of Brooklyn Center to the City of Brooklyn Park, which will allow the City of Brooklyn Park to specially assess any unpaid sanitary sewer use charges.

6. Residents of the City of Brooklyn Park utilizing the Brooklyn Center water system will be charged the same rate as charged to residents of Brooklyn Center, said rate presently being $0.35 per thousand gallons, and shall be billed directly by the City of Brooklyn Center. Payment of the water charge to the City of Brooklyn Center by residents of Brooklyn Park shall be guaranteed by the City of Brooklyn Park subject to cooperation and providing of information by the City of Brooklyn Center to the City of Brooklyn Park, which will allow the City of Brooklyn Park to specially assess any unpaid water use charges.

7. Residents of the City of Brooklyn Park shall be required to obtain connection permits from the City of Brooklyn Center for all sewer and water connections prior to making any connection to the City of Brooklyn Center sewer or water system.

8. The City of Brooklyn Center shall not be responsible to any person, firm or corporation for damages claimed as a result of backing up of sewers in any basement in the City of Brooklyn Park.

9. Brooklyn Center street surfacing damaged during utility connections shall be restored to its original condition by the City of Brooklyn Park. The restoration shall be accomplished by 1) patching the utility cuts made in the inplace surfacing with 4" of Class 5 gravel and 2" of Spec. 2331 bituminous base; and 2) placing a 1" thick Spec. 2331 bituminous overlay with rolled curb over the inplace street surfacing from West River Road to Willow Lane, and on Willow Lane from 73rd Avenue North to approximately 60 feet south.

10. Service lines and new laterals required to connect to Brooklyn Center utilities shall be the responsibility of the City of Brooklyn Park.

11. Water and sanitary sewer construction by the City of Brooklyn Park shall meet the City of Brooklyn Center's Standard Specifications for Water Main & Sanitary Sewer, and any special provisions deemed necessary by the City Engineer of the City of Brooklyn Center.

12. The City of Brooklyn Center agrees to cooperate and make available any and all records, plans, specifications and other materials which may be necessary to allow the City of Brooklyn Park to specially assess any and all costs which the City of Brooklyn Park may be required to pay to the City of Brooklyn Center as a result of these improvements.

IN WITNESS WHEREOF, the parties have hereunto authorized and entered into this agreement upon authority of the City Council of the City of Brooklyn Center and the City Council of the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

By _____
Mayor

By _____
City Manager

CITY OF BROOKLYN PARK

By James J. Kraut
Mayor

By R. M. Hannebergen
City Manager

COOPERATIVE JOINT POWERS AGREEMENT FOR EMERGENCY/STANDBY WATER INTERCONNECT BETWEEN THE CITIES OF BROOKLYN PARK AND BROOKLYN CENTER

THIS AGREEMENT, made and entered into this 9th day of June 1997, by and between the City of Brooklyn Park, herein referred to as "Brooklyn Park" and the City of Brooklyn Center, herein referred to as "Brooklyn Center."

WITNESSETH:

WHEREAS, Brooklyn Center and Brooklyn Park each operate and maintain separate water production and distribution systems for the health, safety, welfare, and benefit of each City's constituents, and;

WHEREAS, Brooklyn Center and Brooklyn Park are desirous of establishing a common water connection between the two systems in the event of a water shortage or water emergency, and;

WHEREAS, Brooklyn Center has identified the need for an emergency water connection with Brooklyn Park in the Brooklyn Center Public Water Supply, Emergency and Water Conservation Plan, and;

WHEREAS, Said Plan has identified France Avenue at 73rd Avenue as an appropriate location to provide an emergency water connection, and;

WHEREAS, Brooklyn Center has authorized a roadway and utility improvement project in the year 1997 for France Avenue from 69th avenue North to 73rd Avenue North, and;

WHEREAS, Brooklyn Center and Brooklyn Park have agreed that it is appropriate and feasible to install a water connection as part of this improvement project, and;

WHEREAS, Minnesota statutes section 471.59 allows Brooklyn Center and Brooklyn Park to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Brooklyn Center and Brooklyn Park, by executing this agreement, mutually approve Brooklyn Center as the lead agency and agree to review and approve plans and specifications for said water improvement. Brooklyn Park shall provide Brooklyn Center with all available data and materials pertinent to the work program as required to complete this project. This data and material may consist of, but will not be limited to; contour maps, utility and street plans, and aerial photos.

2. Brooklyn Center shall provide Brooklyn Park with copies of plans prepared by Brooklyn Center and they shall be reviewed and approved by the Brooklyn Park City Engineer or designee before any work is initiated within the City of Brooklyn Park.

3. Brooklyn Center shall administer the public contract to construct said improvements and shall inspect the construction of the work contemplated herewith, and all work shall be completed in compliance with the plans and specifications. The Brooklyn Park City staff shall have the right, as work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work. Brooklyn Center shall notify the Brooklyn Park City Engineer or designee at least 24 hours prior to initiating any work within Brooklyn Park. Brooklyn Center shall require its Contractor to correct any deficiencies found by Brooklyn Park within Brooklyn Park's cooperate limits.

4. The proposed schedule is to complete the improvement project prior to November 1, 1997.

5. Brooklyn Center shall be responsible for all costs incurred for the project, including construction, engineering, inspection, restoration, and administrative costs.

6. Brooklyn Park agrees to allow Brooklyn Center to utilize existing right-of-way on France Avenue and 73rd Avenue for the construction of the project.

7. It is understood and agreed that upon completion of these improvements, all project elements shall be part of the as-built plans prepared by Brooklyn Center and reviewed by Brooklyn Park and shall become the property of the city in which those improvements are located. All maintenance and repair or replacement required thereafter shall be performed by Brooklyn Center.

8. It is the intent and understanding of both cities that said interconnect shall be utilized for temporary or emergency uses only. It is understood and agreed that upon project completion, opening of the emergency interconnect by either City shall be performed only upon authorization by the City Manager or designee of the other City. Terms of emergency use, such as the length of time of actual water transfer and appropriate compensation shall be negotiated between and by each City's City Manager or designee at the time of emergency. Both Brooklyn Park and Brooklyn Center shall have the authority to close the temporary exchange of water at any time, but must provide reasonable notice to the other City prior to doing so.

9. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to other persons whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense, any action or proceeding commenced for the purpose of asserting any claim or whatsoever character arising in connection with or by virtue of performance of its own work as provided herein. Brooklyn Park also agrees that any contract let by Brooklyn Center for performance of work on the improvements as provided for herein shall include clauses that will:

a) Require the contractor to defend, indemnify, and save harmless Brooklyn Park and Brooklyn Center, their officers, agents, and employees from claims, suits, demands, damages, judgements, costs, interest, expenses(including, without limitation, reasonable attorney fees, witness fees and disbursements included in the defense thereof) arising out of or by reason of the negligence of the said contractor, its officers, employees, agents, or sub-contractors.

b) Require the contractor to provide and maintain sufficient insurance so as to insure the performance of its hold harmless obligation.

c) Nothing herein shall be deemed a waiver of the limitations or liability provided for in Minnesota Statutes, Chapter 466, and neither party shall have any obligation to indemnify the other in any amount in excess of the limitations on liability set forth therein.

10. Brooklyn Center agrees to provide necessary signage warning motorists of work being done within the public right-of-way.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN CENTER

BY Myrna Kragness
Mayor

DATE: _____

AND: _____
City Manager

DATE: 6-25-97

(seal)

CITY OF BROOKLYN PARK

BY Grace Augustt
Mayor

DATE: 6-16-97

AND: _____
City Manager

DATE: 6-16-97

(seal)

A G R E E M E N T

THIS AGREEMENT, made and entered into this 16th day of June, 1969, by and between the City of Brooklyn Center, hereinafter referred to as the "City", and the Village of Brooklyn Park, hereinafter referred to as the "Village", WITNESSETH:

WHEREAS, the parties have mutually agreed that it is in their best interests to cooperate in improving 73rd Avenue North between Lyndale Avenue and Humboldt Avenue North (the boundary line between the two municipalities) by installing sanitary sewer, storm sewer, city water, and regrading and resurfacing said street, and

WHEREAS, the parties have mutually agreed that sanitary sewer, storm sewer, and water service shall be provided from the City system, and

WHEREAS, the charges and costs for sanitary sewers and water services specified and estimated are based on and limited to providing service to Brooklyn Park properties entirely located within a property depth of 135 feet from the north right-of-way line of 73rd Avenue North, and

WHEREAS, the parties have agreed that it is mutually advantageous and beneficial to have one party prepare plans and specifications and contract for construction of said improvements under the public bidding requirements set forth in Chapter 429, Minnesota Statutes,

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained,

IT IS HEREBY AGREED as follows:

1. The City of Brooklyn Center shall construct sanitary sewer, storm sewer, city water, and regrading and resurfacing on 73rd Avenue North between Lyndale Avenue and Humboldt Avenue North.

2. The City shall follow all the public bidding requirements established by Chapter 429 of the Minnesota Statutes as the Village intends to assess the entire cost of the improvements against the abutting property within the Village.

3. Provision of sanitary sewer and water service as herein mutually agreed shall be limited to single family residential lots or, in the case of property presently zoned other than single family residential, provision of sewer and water service shall be limited to platted lots contained entirely within a line parallel to and 135 feet north of the north right-of-way line of 73rd Avenue North.

4. The location and sizes of sanitary sewer stubs and water connection services have been set forth by the Village Engineer of Brooklyn Park and incorporated by the City Engineer of Brooklyn Center into the contract plan for Brooklyn Center Improvement Project No. 1969-72.

5. The sizes and locations of certain sewer and water connections are of such a nature that they could be further extended beyond the provisions of this agreement if such extensions should prove mutually desirable and agreeable; however, no approvals of such extensions are herein granted or implied.

6. Within the limits established in this agreement, residents of the Village of Brooklyn Park shall be allowed to connect to and become a part of the sewer and water system of the City of Brooklyn Center, and shall be subject to the same charges and regulations as a resident of the City of Brooklyn Center.

7. The City of Brooklyn Center shall send an itemized statement to the Village of Brooklyn Park for the capital costs of services provided so that the Village may justify said costs for the purpose of assessing the benefitting property owners. The estimated costs are as follows:

SANITARY SEWER

A. Humboldt to Fremont

Interceptor sewer assessment - $2.16 per lin. ft. - 572.32 assessable feet @ $2.16 .... $1,236.21

Estimated lateral cost - Humboldt to Fremont, including service stubs 5,517.01

Total estimated cost for sanitary sewer between Humboldt and Fremont $6,753.22

B. Fremont to Camden (See Brooklyn Park Village Council Resolution dated May 23, 1963)

Interceptor sewer assessment - $2.16 per lin. ft.

Lateral sewer assessment - $4.48 per lin. ft.

Total interceptor and lateral- $6.64 per lin. ft.

Less service connection stub - .84 per lin. ft.

Footage rate without service connection - $5.80 per lin. ft.

1,660.40 assessable feet (does not include 100' for 1026 - 73rd Ave. No. paid Oct. 17, 1968 - B.C.Invoice No. 763) .... 1,660.40 assessable feet @ $5.80 ..... $9,630.32

7 - 6" service stubs to be installed at an estimated cost of $98.90 each 692.30

4 - 6" service stubs to be installed at an estimated cost of $78.20 each (wye inplace) 312.80

2 - 8" service stubs to be installed at an estimated cost of $148.35 each 296.70

Total estimated cost for sanitary sewer between Fremont and Camden $10,932.12

C. Camden to Lyndale

It is anticipated that this area will be served by Brooklyn Park.

Total estimated cost of sanitary sewer: $17,685.34

STORM SEWER

A. From 96 feet west of Humboldt to Dupont

290,118 sq. ft. @ $3.30/100 sq. ft. $9,573.89

B. Dupont to 763 feet east of Dupont

103,005 sq. ft. @ $3.44/100 sq. ft. $3,543.37

C. 763 feet east of Dupont to Lyndale

631,475 sq. ft. @ $3.57/100 sq. ft. (estimated) $22,543.66

Less cost of future leads up Bryant and Camden to be installed and paid by Brooklyn Park $4,135.40

Estimated Brooklyn Park liability - Dupont to Lyndale Ave. $18,408.26

Total estimated cost of storm sewer: $31,525.52

WATER

2,901.15 assessable feet @ $6.20* $17,987.13

Estimated additional costs for services as requested $5,649.72

Total estimated cost of water: $23,636.85

*Actual flat assessment rate.

STREET

3,001.15 lineal feet, estimated @ $3.55 ..... $10,654.08

Total estimated costs to be paid by Brooklyn Park: $83,501.79

but the final costs shall be based on a statement of charges to be computed and forwarded by the City to the Village upon completion of the work, and shall be paid by the Village to the City within sixty (60) days of the billing date.

8. Residents of the Village utilizing the City sewer system will be charged the same sewer use rate as charged to residents of the City, said rate presently being $3.75 per quarter, and shall be billed directly by the City to the residents of the Village. Payment of the sewer use charge to the City by residents of the Village shall be guaranteed by the Village of Brooklyn Park subject to cooperation and providing of information by the City to the Village which will allow the Village to specially assess any unpaid sewer use charges.

9. Residents of the Village utilizing the City water system will be charged the same rate as charged to residents of the City, said rate presently being $.35 per thousand gallons, and shall be billed directly by the City to the residents of the Village. Payment of the water charge to the City by residents of the Village shall be guaranteed by the Village of Brooklyn Park subject to cooperation and providing of information by the City to the Village which will allow the Village to specially assess any unpaid water use charges.

10. Residents of the Village shall be required to obtain connection permits from the City for all sewer and water connections prior to making any connection to the City sewer or water system.

11. The City of Brooklyn Center shall not be responsible to any person, firm, or corporation for damages claimed as a result of backing of sewers in any basement in the Village of Brooklyn Park.

12. The City agrees to cooperate and make available any and all records, plans, specifications, and other materials which may be necessary to allow the Village of Brooklyn Park to specially assess any and all costs which the Village may be required to pay to the City of Brooklyn Center as a result of this improvement.

IN WITNESS WHEREOF, the parties have hereunto authorized and entered into this agreement upon authority of the City Council of the City of Brooklyn Center and the Village Council of the Village of Brooklyn Park.

CITY OF BROOKLYN CENTER

By _____
Mayor

By _____
City Manager

VILLAGE OF BROOKLYN PARK

By _____
Mayor

By _____
Village Manager

A G R E E M E N T

THIS AGREEMENT, made and entered into this 16th day of June, 1969, by and between the City of Brooklyn Center, hereinafter referred to as the "City", and the Village of Brooklyn Park, hereinafter referred to as the "Village", WITNESSETH:

WHEREAS, the parties have mutually agreed that it is in their best interests to cooperate in improving 73rd Avenue North between Lyndale Avenue and Humboldt Avenue North (the boundary line between the two municipalities) by installing sanitary sewer, storm sewer, city water, and regrading and resurfacing said street, and

WHEREAS, the parties have mutually agreed that sanitary sewer, storm sewer, and water service shall be provided from the City system, and

WHEREAS, the charges and costs for sanitary sewers and water services specified and estimated are based on and limited to providing service to Brooklyn Park properties entirely located within a property depth of 135 feet from the north right-of-way line of 73rd Avenue North, and

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1. The City of Brooklyn Center shall construct sanitary sewer, storm sewer, city water, and regrading and resurfacing on 73rd Avenue North between Lyndale Avenue and Humboldt Avenue North.

2. The City shall follow all the public bidding requirements established by Chapter 429 of the Minnesota Statutes as the Village intends to assess the entire cost of the improvements against the abutting property within the Village.

3. Provision of sanitary sewer and water service as herein mutually agreed shall be limited to single family residential lots or, in the case of property presently zoned other than single family residential, provision of sewer and water service shall be limited to platted lots contained entirely within a line parallel to and 135 feet north of the north right-of-way line of 73rd Avenue North.

4. The location and sizes of sanitary sewer stubs and water connection services have been set forth by the Village Engineer of Brooklyn Park and incorporated by the City Engineer of Brooklyn Center into the contract plan for Brooklyn Center Improvement Project No. 1969-72.

5. The sizes and locations of certain sewer and water connections are of such a nature that they could be further extended beyond the provisions of this agreement if such extensions should prove mutually desirable and agreeable; however, no approvals of such extensions are herein granted or implied.

6. Within the limits established in this agreement, residents of the Village of Brooklyn Park shall be allowed to connect to and become a part of the sewer and water system of the City of Brooklyn Center, and shall be subject to the same charges and regulations as a resident of the City of Brooklyn Center.

7. The City of Brooklyn Center shall send an itemized statement to the Village of Brooklyn Park for the capital costs of services provided so that the Village may justify said costs for the purpose of assessing the benefitting property owners. The estimated costs are as follows:

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Total estimated cost of sanitary sewer: $17,685.34

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103,005 sq. ft. @ $3.44/100 sq. ft. $3,543.37

C. 763 feet east of Dupont to Lyndale

631,475 sq. ft. @ $3.57/100 sq. ft. (estimated) $22,543.66

Less cost of future leads up Bryant and Camden to be installed and paid by Brooklyn Park $4,135.40

Fstimated Brooklyn Park liability - Dupont to Lyndale Ave. $18,408.26

Total estimated cost of storm sewer: $31,525.52

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Estimated additional costs for services as requested $5,649.72

Total estimated cost of water: $23,636.85

*Actual flat assessment rate.

STREET

3,001.15 lineal feet, estimated @ $3.55 ..... $10,654.08

Total estimated costs to be paid by Brooklyn Park: $83,501.79

but the final costs shall be based on a statement of charges to be computed and forwarded by the City to the Village upon completion of the work, and shall be paid by the Village to the City within sixty (60) days of the billing date.

8. Residents of the Village utilizing the City sewer system will be charged the same sewer use rate as charged to residents of the City, said rate presently being $3.75 per quarter, and shall be billed directly by the City to the residents of the Village. Payment of the sewer use charge to the City by residents of the Village shall be guaranteed by the Village of Brooklyn Park subject to cooperation and providing of information by the City to the Village which will allow the Village to specially assess any unpaid sewer use charges.

9. Residents of the Village utilizing the City water system will be charged the same rate as charged to residents of the City, said rate presently being $.35 per thousand gallons, and shall be billed directly by the City to the residents of the Village. Payment of the water charge to the City by residents of the Village shall be guaranteed by the Village of Brooklyn Park subject to cooperation and providing of information by the City to the Village which will allow the Village to specially assess any unpaid water use charges.

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11. The City of Brooklyn Center shall not be responsible to any person, firm, or corporation for damages claimed as a result of backing of sewers in any basement in the Village of Brooklyn Park.

12. The City agrees to cooperate and make available any and all records, plans, specifications, and other materials which may be necessary to allow the Village of Brooklyn Park to specially assess any and all costs which the Village may be required to pay to the City of Brooklyn Center as a result of this improvement.

IN WITNESS WHEREOF, the parties have hereunto authorized and entered into this agreement upon authority of the City Council of the City of Brooklyn Center and the Village Council of the Village of Brooklyn Park.

CITY OF BROOKLYN CENTER

By _____
Mayor

By _____
City Manager

VILLAGE OF BROOKLYN PARK

By _____
Mayor

By _____
Village Manager

763-260-9959

Member Vernon Ausen introduced the following resolution and moved its adoption:

RESOLUTION NO. 72-69

RESOLUTION AUTHORIZING THE MAYOR AND CITY MANAGER TO EXECUTE AN AGREEMENT WITH THE CITY OF BROOKLYN PARK RELATIVE TO PROVIDING UTILITY SERVICE TO BROOKLYN PARK RESIDENTS ON 73RD AVENUE NORTH BETWEEN NEWTON AVENUE AND PENN AVENUE

WHEREAS, the City of Brooklyn Center has indicated that the City of Brooklyn Park residents abutting 73rd Avenue North would be allowed to connect to Brooklyn Center's utility lines on 73rd Avenue North between Newton Avenue and Penn Avenue;

NOW, THEREFORE, BE IT RESOLVED that the City of Brooklyn Center authorize the Mayor and City Manager to execute an agreement with the City of Brooklyn Park relative to providing utility service to Brooklyn Park residents abutting 73rd Avenue North between Newton Avenue and Penn Avenue.

May 8, 1972
Date

Mayor

ATTEST:
Clerk

The motion for the adoption of the foregoing resolution was duly seconded by member John Leary, and upon vote being taken thereon, the following voted in favor thereof: Philip Cohen, John Leary, Vernon Ausen, Howard Heck and Maurice Britts; and the following voted against the same: none, whereupon said resolution was declared duly passed and adopted.

AGREEMENT

THIS AGREEMENT, made and entered into this 9th day of May, 1972, by and between the City of Brooklyn Center and the City of Brooklyn Park, WITNESSETH:

WHEREAS, the centerline of 73rd Avenue North is the boundary between the City of Brooklyn Park and the City of Brooklyn Center in the area between Newton Avenue North and Penn Avenue North, and

WHEREAS, the City of Brooklyn Center has inplace a water main and a storm sewer in 73rd Avenue North, and an available sanitary sewer lateral in Oliver Avenue North, and

WHEREAS, the City of Brooklyn Center has indicated that they would allow water, storm and sanitary connections to be made to the above said utility lines, and

WHEREAS, the parties have mutually agreed by Brooklyn Center Resolution adopted October 13, 1964, and Brooklyn Park Resolutions adopted June 2, 1964 and September 28, 1964 that sanitary sewer and water service shall be provided from the City of Brooklyn Center systems to the City of Brooklyn Park residents abutting 73rd Avenue North, and

WHEREAS, the charges and costs for sanitary sewers, storm sewers and water connections specified are based on and limited to providing service to Brooklyn Park properties entirely located within a property depth of 135 feet from the north right-of-way line of 73rd Avenue North.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained,

IT IS HEREBY AGREED as follows:

1. The City of Brooklyn Park shall construct sanitary sewer; and connect storm sewer and water services to the City of Brooklyn Center system on 73rd Avenue North between Newton Avenue North and Oliver Avenue North.
2. Provision of sanitary sewer, storm sewer and water connections as herein mutually agreed shall be limited to single family residential platted lots contained entirely within a line parallel to and 135 feet north of the north right-of-way line of 73rd Avenue North.

3. Within the limits established in this agreement, residents of the City of Brooklyn Park shall be allowed to connect to an become a part of the sewer and water system of the City of Brooklyn Center, and shall be subject to the same charges and regulations as a resident of the City of Brooklyn Center.

4. The City of Brooklyn Park shall pay to the City of Brooklyn Center $5,605.60 for its share of the capital costs of the Brooklyn Center utilities. A breakdown of the costs is as follows:

A. Sanitary Sewer - Penn Avenue North to Newton Avenue North

1. Sanitary lateral (to be constructed by Brooklyn Park) $ -0-

2. Sanitary interceptor sewer assessment $ 1,266.95*

(i.e., 586.55 assessable feet @ $2.16

Total Sanitary Sewer assessment:. . . . .$ 1,266.95

*The cost and construction of the sanitary sewer lateral a of service lines north from the existing Brooklyn Center manhole in Oliver Avenue, approximately 80 feet south of 73rd Avenue North, shall be Brooklyn Park's responsibility

B. Water Main

Seven (7) single family residentail building sites @ $465.00* . . . . . $ 3,255.00

*Actual assessment rate without services. The cost and construction of services to be the responsibility of the City of Brooklyn Park.

C. Storm Sewer

$\frac{\text{Brooklyn Park drainage area}}{\text{Total drainage area - B.P. \& B.C.}} \times \$3,267.95 =$ $ 983.65*

$\frac{1.24}{1.24+2.88} = \frac{1.24}{4.12} \times \$3,267.95$

*The cost and construction of catch basin leads and manhol to service Brooklyn Park shall be Brooklyn Park's responsibility and are not included in this amount.

5. Residents of the City of Brooklyn Park utilitizing the City of Brooklyn Center sanitary sewer system will be charged the same sewer use rate as charged to residents of the City of Brooklyn Center, said rate presently being $8.75 per quarter, and shall be billed directly by the City of Brooklyn Center.

Payment of the sanitary sewer use charge to the City of Brooklyn Center by residents of the City of Brooklyn Park shall be guaranteed by the City of Brooklyn Park subject to cooperation and providing of information by the City of Brooklyn Center to the City of Brooklyn Park which will allow the City of Brooklyn Park to specially assess any unpaid sanitary sewer use charges.

6. Residents of the City of Brooklyn Park utilizing the Brooklyn Center water system will be charged the same rate as charged to residents of Brooklyn Center, said rate presentl being $0.35 per thousand gallons, and shall be billed directly by the City of Brooklyn Center. Payment of the water charge to the City of Brooklyn Center by residents of Brooklyn Park shall be guaranteed by the City of Brooklyn Park subject to cooperation and providing of information by the City of Brooklyn Center to the City of Brooklyn Park which will allow the City of Brooklyn Park to specially assess any unpaid water use charges.

7. Residents of the City of Brooklyn Park shall be required to obtain connection permits from the City of Brooklyn Center for all sewer and water connections prior to making any connection to the City of Brooklyn Center sewer or water system.

8. The City of Brooklyn Center shall not be responsible to any person, firm or corporation for damages claimed as a result of backing of sewers in any basement in the City of Brooklyn Park.

9. Any Brooklyn Center street surfacing damaged during utility connections shall be restored to its original condition by the City of Brooklyn Park.

10. Service lines and new laterals required to connect to Brooklyr Center utilities shall be the responsibility of the City of Brooklyn Park.

11. Maintenance of storm sewer lines and appurtenances in the City of Brooklyn Park shall be the responsibility of the City of Brooklyn Park.

12. The City of Brooklyn Center shall maintain the storm sewer line in 73rd Avenue North from Oliver Avenue North westerly to the outfall west of Penn Avenue North.

The City of Brooklyn Park shall pay to the City of Brooklyn Center annually an amount equal to 30% of the total costs incurred by the City of Brooklyn Center for maintaining the said storm sewer line in 73rd Avenue North. The total maintenance cost shall include the cost of labor, labor overhead, equipment rental, materials, and an administration cost of 5% applied to the aforementioned costs.

13. Water, storm sewer and sanitary sewer construction by the City of Brooklyn Park shall meet the City of Brooklyn Center's Standard Specifications for Water Min, Sanitary Sewer and Storm Sewer, and any special provisions deemed necessary by the City Engineer of the City of Brooklyn Center.

14. The City of Brooklyn Center agrees to cooperate and make available any and all records, plans, specifications and other materials which may be necessary to allow the City of Brooklyn Park to specially assess any and all costs which the City of Brooklyn Park may be required to pay to the City of Brooklyn Center as a result of these improvements.

IN WITNESS WHEREOF, the parties have hereunto authorized and entered into this agreement upon authority of the City Council of the City of Brooklyn Center and the City Council of the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

By _____
Mayor

By _____
City Manager

CITY OF BROOKLYN PARK

By _____
Mayor

By _____
City Manager

Brooklyn Center

A G R E E M E N T

THIS AGREEMENT, made and entered into this 17th day of December, 1973, by and between the City of Brooklyn Center and the City of Brooklyn Park, WITNESSETH:

WHEREAS, the centerline of 73rd Avenue North is the boundary between the City of Brooklyn Park and the City of Brooklyn Center in the area between West River Road and Willow Lane, and

WHEREAS, the City of Brooklyn Center has inplace a water main in 73rd Avenue North, and an available sanitary sewer lateral in Willow Lane, and

WHEREAS, the City of Brooklyn Center has indicated that they would allow water and sanitary connections to be made to the above said utility lines, and

WHEREAS, the parties have mutually agreed that it would be in their best interests to provide sanitary sewer and water service from the City of Brooklyn Center systems to the City of Brooklyn Park residents abutting 73rd Avenue North, and

WHEREAS, the charges and costs for sanitary sewers and water connections specified are based on and limited to providing service to Brooklyn Park properties entirely located within a property depth of 135 feet from the north right-of-way line of 73rd Avenue North.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained,

IT IS HEREBY AGREED as follows:

1. The City of Brooklyn Park shall construct sanitary sewer; and connect water services to the City of Brooklyn Center system on 73rd Avenue North between West River Road and Willow Lane.

2. Provision of sanitary sewer and water connections as herein mutually agreed shall be limited to single family residential platted lots contained entirely within a line parallel to and 135 feet north of the north right-of-way line of 73rd Avenue North.

3. Within the limits established in this agreement, residents of the City of Brooklyn Park shall be allowed to connect to and become a part of the sewer and water system of the City of Brooklyn Center, and shall be subject to the same charges and regulations as a resident of the City of Brooklyn Center.

4. The City of Brooklyn Park shall pay to the City of Brooklyn Center $7,525.66 for its share of the capital costs of the Brooklyn Center utilities. A breakdown of the costs is as follows:

A. <u>Sanitary Sewer</u> - West River Road to Willow Lane

1. Sanitary lateral (to be constructed by Brooklyn Park)	$ -0-
2. Sanitary interceptor sewer assessment (i.e., 1,116.05 assessable feet @ $2.16)	$2,410.66*
Total sanitary sewer assessment:	$2,410.66

*The cost and construction of the sanitary sewer lateral and of service lines north from the existing Brooklyn Center manhole in Willow Lane, approximately 50 feet south of 73rd Avenue North, shall be Brooklyn Park's responsibility.

B. <u>Water Main</u>

Eleven (11) single family residential building sites @ $465.00*	$5,115.00

*Actual assessment rate without services. The cost and construction of services to be the responsibility of the City of Brooklyn Park.

5. Residents of the City of Brooklyn Park utilizing the City of Brooklyn Center sanitary sewer system will be charged the same sewer use rate as charged to residents of the City of Brooklyn Center, said rate presently being $8.75 per quarter, and shall be billed directly by the City of Brooklyn Center. Payment of the sanitary sewer use charge to the City of Brooklyn Center by residents of the City of Brooklyn Park shall be guaranteed by the City of Brooklyn Park, subject to cooperation and providing of information by the City of Brooklyn Center to the City of Brooklyn Park, which will allow the City of Brooklyn Park to specially assess any unpaid sanitary sewer use charges.

6. Residents of the City of Brooklyn Park utilizing the Brooklyn Center water system will be charged the same rate as charged to residents of Brooklyn Center, said rate presently being $0.35 per thousand gallons, and shall be billed directly by the City of Brooklyn Center. Payment of the water charge to the City of Brooklyn Center by residents of Brooklyn Park shall be guaranteed by the City of Brooklyn Park subject to cooperation and providing of information by the City of Brooklyn Center to the City of Brooklyn Park, which will allow the City of Brooklyn Park to specially assess any unpaid water use charges.

7. Residents of the City of Brooklyn Park shall be required to obtain connection permits from the City of Brooklyn Center for all sewer and water connections prior to making any connection to the City of Brooklyn Center sewer or water system.

8. The City of Brooklyn Center shall not be responsible to any person, firm or corporation for damages claimed as a result of backing up of sewers in any basement in the City of Brooklyn Park.

9. Brooklyn Center street surfacing damaged during utility connections shall be restored to its original condition by the City of Brooklyn Park. The restoration shall be accomplished by 1) patching the utility cuts made in the inplace surfacing with 4" of Class 5 gravel and 2" of Spec. 2331 bituminous base; and 2) placing a 1" thick Spec. 2331 bituminous overlay with rolled curb over the inplace street surfacing from West River Road to Willow Lane, and on Willow Lane from 73rd Avenue North to approximately 60 feet south.

10. Service lines and new laterals required to connect to Brooklyn Center utilities shall be the responsibility of the City of Brooklyn Park.

11. Water and sanitary sewer construction by the City of Brooklyn Park shall meet the City of Brooklyn Center's Standard Specifications for Water Main & Sanitary Sewer, and any special provisions deemed necessary by the City Engineer of the City of Brooklyn Center.

12. The City of Brooklyn Center agrees to cooperate and make available any and all records, plans, specifications and other materials which may be necessary to allow the City of Brooklyn Park to specially assess any and all costs which the City of Brooklyn Park may be required to pay to the City of Brooklyn Center as a result of these improvements.

IN WITNESS WHEREOF, the parties have hereunto authorized and entered into this agreement upon authority of the City Council of the City of Brooklyn Center and the City Council of the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

By _____
Mayor

By _____
City Manager

CITY OF BROOKLYN PARK

By James J. Krautbauer
Mayor

By R. M. Hennebergen
City Manager

AND THE CITY OF BROOKLYN PARK, MINNESOTA, RELATIVE TO PROVIDING UTILITY SERVICE TO BROOKLYN CENTER PROPERTY OWNERS ALONG BROOKLYN BOULEVARD NORTHERLY OF SHINGLE CREEK.

THIS AGREEMENT, made and entered into this 16th day of October, 1978, by and between the City of Brooklyn Center, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Center", and the City of Brooklyn Park, a municipal corporation of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Park",

WITNESSETH:

WHEREAS, Brooklyn Park has inplace water main and sanitary sewer lines adjacent to the City limits approximately 210 feet west of Brooklyn Boulevard (T.H. 152); and

WHEREAS, the area in Brooklyn Center lying northerly of Shingle Creek in the Northeast 1/4 of the Southeast 1/4 of Section 28, Township 119, Range 21, consisting of approximately 0.96 acres east of Brooklyn Boulevard and 2.87 acres west of said street, is isolated from existing water main and sanitary sewer in Brooklyn Center by Shingle Creek; and

WHEREAS, Brooklyn Park has indicated that they will allow water and sanitary sewer extensions to connect to above said utility lines to serve said isolated area in Brooklyn Center, but at present can see no need for said extensions to serve areas in Brooklyn Park; and

WHEREAS, the parties have mutually agreed that it is in the best interest of both parties to provide sanitary sewer and water service from the City of Brooklyn Park system to the City of Brooklyn Center property owners within the above described isolated area.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein described,

IT IS HEREBY AGREED as follows:

1. Brooklyn Center shall construct water and sanitary sewer extensions from above described Brooklyn Park utilities to serve above described area. All plans and specifications must be reviewed and approved by the Director of Public Works, Brooklyn Park.

2. Within the limits established in this agreement, property owners in Brooklyn Center shall be allowed to connect to and become part of the sewer and water system of Brooklyn Park, and shall be subject to the same charges and regulations as property owners of Brooklyn Park.

3. At the time that a Brooklyn Center property owner applies for a connection permit to the proposed sanitary sewer or water main described above, the City of Brooklyn Center shall pay a share of the capital costs of the Brooklyn Park utility system, said charges to be paid on the same basis of acreage rates then in force and paid by Brooklyn Park property owners, which at present is as follows:

	CURRENT RATES
Water System Charge:	$800.00 per acre
Sanitary Sewer System Charge:	$375.00 per acre

4. Since apparently no property in Brooklyn Park will be served by the proposed utility extensions, the entire cost of construction of the water and sanitary sewer extensions shall be borne by Brooklyn Center. However, if at any time in the future a connection is desired to serve any property

in Brooklyn Park, the cost of that part of the above described water and sanitary sewer extensions (except for the T.H. 152 crossings) shall be reapportioned, and Brooklyn Park shall pay its share on the basis of the area so served.

5. Users in Brooklyn Center connected to the Brooklyn Park systems shall be billed usage charges on the basis of the same water and sewer rates applicable to users in Brooklyn Park, said charges to be billed directly to the user by Brooklyn Park. Brooklyn Center shall guarantee payment of these charges, subject to the cooperation of Brooklyn Park in providing information to Brooklyn Center which will allow Brooklyn Center to specially assess unpaid water and sewer use charges.

6. Property owners in Brooklyn Center connecting to the Brooklyn Park systems shall be required to obtain connection permits from Brooklyn Park for all sewer and water connections and shall pay all connection fees in the same amounts and manner as Brooklyn Park residents, prior to making any connection to the proposed utility extensions, or for any future extensions of the presently proposed lines within the service area described.

7. Brooklyn Park shall not be responsible to any person, firm or corporation for damages claimed as a result of backing up of sewers in any basement in Brooklyn Center.

8. Brooklyn Park will perform all normal maintenance on the above described sanitary sewer and water main extensions in both cities (except for the T.H. 152 crossings), which shall be maintained by Brooklyn Center or its property owner.

9. Construction of service lines or new laterals required for the service area described above to connect to the above described Brooklyn Park utility extensions shall be the responsibility of property owners in Brooklyn Center and under the auspices of Brooklyn Center.

10. Water and sanitary sewer construction by Brooklyn Center and the property owners in Brooklyn Center shall meet the requirements of Brooklyn Park's Water Main and Sanitary Sewer Standard Specifications, and any special provisions deemed necessary by the Brooklyn Park Director of Public Works.

11. Brooklyn Park agrees to cooperate and make available any and all records, plans, specifications and other materials which may be necessary to allow Brooklyn Center to specially assess any and all costs which Brooklyn Center may be required to pay to Brooklyn Park as a result of these improvements.

IN WITNESS WHEREOF the parties have hereunto authorized and entered into this agreement upon authority of the City Council of the City of Brooklyn Center and the City Council of the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

BY _____
Mayor

BY _____
City Manager

CITY OF BROOKLYN PARK

BY _____
Mayor

BY _____
City Manager

AGREEMENT BETWEEN THE CITY OF BROOKLYN CENTER, MINNESOTA AND THE CITY OF BROOKLYN PARK, MINNESOTA, RELATIVE TO PROVIDING UTILITY SERVICE TO BROOKLYN CENTER PROPERTY OWNERS ALONG BROOKLYN BOULEVARD NORTHERLY OF SHINGLE CREEK.

THIS AGREEMENT, made and entered into this 16th day of October, 1978, by and between the City of Brooklyn Center, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Center", and the City of Brooklyn Park, a municipal corporation of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Park",

WITNESSETH:

WHEREAS, Brooklyn Park has inplace water main and sanitary sewer lines adjacent to the City limits approximately 210 feet west of Brooklyn Boulevard (T.H. 152); and

WHEREAS, the area in Brooklyn Center lying northerly of Shingle Creek in the Northeast 1/4 of the Southeast 1/4 of Section 28, Township 119, Range 21, consisting of approximately 0.96 acres east of Brooklyn Boulevard and 2.87 acres west of said street, is isolated from existing water main and sanitary sewer in Brooklyn Center by Shingle Creek; and

WHEREAS, Brooklyn Park has indicated that they will allow water and sanitary sewer extensions to connect to above said utility lines to serve said isolated area in Brooklyn Center, but at present can see no need for said extensions to serve areas in Brooklyn Park; and

WHEREAS, the parties have mutually agreed that it is in the best interest of both parties to provide sanitary sewer and water service from the City of Brooklyn Park system to the City of Brooklyn Center property owners within the above described isolated area.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein described,

IT IS HEREBY AGREED as follows:

1. Brooklyn Center shall construct water and sanitary sewer extensions from above described Brooklyn Park utilities to serve above described area. All plans and specifications must be reviewed and approved by the Director of Public Works, Brooklyn Park.

2. Within the limits established in this agreement, property owners in Brooklyn Center shall be allowed to connect to and become part of the sewer and water system of Brooklyn Park, and shall be subject to the same charges and regulations as property owners of Brooklyn Park.

3. At the time that a Brooklyn Center property owner applies for a connection permit to the proposed sanitary sewer or water main described above, the City of Brooklyn Center shall pay a share of the capital costs of the Brooklyn Park utility system, said charges to be paid on the same basis of acreage rates then in force and paid by Brooklyn Park property owners, which at present is as follows:

	CURRENT RATES
Water System Charge:	$800.00 per acre
Sanitary Sewer System Charge:	$375.00 per acre

4. Since apparently no property in Brooklyn Park will be served by the proposed utility extensions, the entire cost of construction of the water and sanitary sewer extensions shall be borne by Brooklyn Center. However, if at any time in the future a connection is desired to serve any property

in Brooklyn Park, the cost of that part of the above described water and sanitary sewer extensions (except for the T.H. 152 crossings) shall be reapportioned, and Brooklyn Park shall pay its share on the basis of the area so served.

5. Users in Brooklyn Center connected to the Brooklyn Park systems shall be billed usage charges on the basis of the same water and sewer rates applicable to users in Brooklyn Park, said charges to be billed directly to the user by Brooklyn Park. Brooklyn Center shall guarantee payment of these charges, subject to the cooperation of Brooklyn Park in providing information to Brooklyn Center which will allow Brooklyn Center to specially assess unpaid water and sewer use charges.

6. Property owners in Brooklyn Center connecting to the Brooklyn Park systems shall be required to obtain connection permits from Brooklyn Park for all sewer and water connections and shall pay all connection fees in the same amounts and manner as Brooklyn Park residents, prior to making any connection to the proposed utility extensions, or for any future extensions of the presently proposed lines within the service area described.

7. Brooklyn Park shall not be responsible to any person, firm or corporation for damages claimed as a result of backing up of sewers in any basement in Brooklyn Center.

8. Brooklyn Park will perform all normal maintenance on the above described sanitary sewer and water main extensions in both cities (except for the T.H. 152 crossings), which shall be maintained by Brooklyn Center or its property owner.

9. Construction of service lines or new laterals required for the service area described above to connect to the above described Brooklyn Park utility extensions shall be the responsibility of property owners in Brooklyn Center and under the auspices of Brooklyn Center.

10. Water and sanitary sewer construction by Brooklyn Center and the property owners in Brooklyn Center shall meet the requirements of Brooklyn Park's Water Main and Sanitary Sewer Standard Specifications, and any special provisions deemed necessary by the Brooklyn Park Director of Public Works.

11. Brooklyn Park agrees to cooperate and make available any and all records, plans, specifications and other materials which may be necessary to allow Brooklyn Center to specially assess any and all costs which Brooklyn Center may be required to pay to Brooklyn Park as a result of these improvements.

IN WITNESS WHEREOF, the parties have hereunto authorized and entered into this agreement upon authority of the City Council of the City of Brooklyn Center and the City Council of the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

BY _____
Mayor

BY _____
City Manager

CITY OF BROOKLYN PARK

BY _____
Mayor

BY _____
City Manager

Member Gene Lhotka introduced the following resolution and moved its adoption:

RESOLUTION NO. 78-226

RESOLUTION AUTHORIZING THE MAYOR AND CITY MANAGER TO EXECUTE AN AGREEMENT WITH THE CITY OF BROOKLYN PARK RELATIVE TO PROVIDING UTILITY SERVICE TO BROOKLYN CENTER PROPERTY OWNERS ALONG BROOKLYN BOULEVARD NORTHERLY OF SHINGLE CREEK.

WHEREAS, the City of Brooklyn Park has indicated that the City of Brooklyn Center property owners along Brooklyn Boulevard northerly of Shingle Creek would be allowed to connect to Brooklyn Park's utility lines located adjacent to the City limits approximately 210 feet west of Brooklyn Boulevard.

NOW, THEREFORE, BE IT RESOLVED that the City of Brooklyn Center authorize the Mayor and City Manager to execute an agreement with the City of Brooklyn Park relative to providing utility service to Brooklyn Center property owners along Brooklyn Boulevard northerly of Shingle Creek.

October 16, 1978
Date

Dean G. Nyquist
Mayor

ATTEST: Allen Gardner
Clerk

The motion for the adoption of the foregoing resolution was duly seconded by member Celia Scott, and upon vote being taken thereon, the following voted in favor thereof: Dean Nyquist, Tony Kuefler, Bill Fignar, Gene Lhotka, and Celia Scott;
and the following voted against the same: none,
whereupon said resolution was declared duly passed and adopted.

RESOLUTION #1978-234

RESOLUTION APPROVING AN AGREEMENT WITH
BROOKLYN CENTER FOR THEIR USE OF
SANITARY SEWER AND WATERMAIN IN
BROOKLYN PARK

WHEREAS, the City of Brooklyn Center is desirous of connecting to the City of Brooklyn Park's sanitary sewer and water utilities to provide for the development of lands adjacent to Brooklyn Park because it represents the most feasible solution, and

WHEREAS, the two cities have enacted previous agreements in similar situations satisfactorily, and

WHEREAS, the Metropolitan Waste Control Commission has indicated their approval of said inter-connection provided the two cities amend their Comprehensive Sanitary Sewer Plan accordingly as a part of their land planning effort, and

WHEREAS, both Brooklyn Center and Brooklyn Park find such an amendment to their Comprehensive Sanitary Sewer Plan acceptable and feasible.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BROOKLYN PARK:

1. The Mayor and City Manager are hereby authorized and directed to execute the inter-connection utility agreement with Brooklyn Center for the purpose of connecting lands in Brooklyn Center adjacent to Brooklyn Park's boundary lying north of Shingle Creek in the vicinity of Brooklyn Boulevard.

2. The City Clerk is hereby directed to forward a copy of this resolution and the executed agreement to Brooklyn Center and to the Metropolitan Waste Control Commission.

The foregoing resolution was introduced by Mayor Krautkremer and duly seconded by Councilman Molde.
The following voted in favor of the resolution: Krautkremer, Small, Umland, Rohe, Marshall, Molde and Webster.
The following voted against: None
The following were absent: None
Whereupon the resolution was adopted.

ADOPTED: OCTOBER 23, 1978

James J. Krautkremer
JAMES KRAUTKREMER, MAYOR

CERTIFICATE

STATE OF MINNESOTA
COUNTY OF HENNEPIN
CITY OF BROOKLYN PARK

I, the undersigned, being the duly qualified and acting Clerk of the City of Brooklyn Park, Minnesota, hereby certify that the above resolution is a true and correct copy of the resolution as adopted by the City Council of the City of Brooklyn Park on October 23, 1978.

WITNESS my hand officially as such Clerk and the corporate seal of the City this 24th day of October, 1978.

Wesley Long
WESLEY LONG, CITY CLERK

(SEAL)

AMENDMENT NO. 1 TO AGREEMENT BETWEEN THE CITY OF BROOKLYN CENTER, MINNESOTA, AND THE CITY OF BROOKLYN PARK, MINNESOTA, RELATIVE TO PROVIDING UTILITY SERVICE TO BROOKLYN CENTER PROPERTY OWNERS ALONG BROOKLYN BOULEVARD NORTHERLY OF SHINGLE CREEK

THIS AGREEMENT, made and entered into this 12th day of November, 1980, by and between the City of Brooklyn Center, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Center", and the City of Brooklyn Park, a municipal corporation of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Park",

WITNESSETH:

WHEREAS, on October 16, 1978, the Cities of Brooklyn Center, Minnesota, and Brooklyn Park, Minnesota, entered into an agreement whereby Brooklyn Park would provide utility service to certain property owners in Brooklyn Center in the vicinity of Brooklyn Boulevard at the corporate limits of the two cities, and

WHEREAS, the area known as Lot 2, Block 1, Picadilly Ponds, was not included in the area in Brooklyn Center to be serviced by Brooklyn Park; and

WHEREAS, the owners of Lot 2, Block 1, Picadilly Ponds, desire to be serviced by Brooklyn Park under the terms of the October 16, 1978, inter-city agreement, and the Councils of both Brooklyn Center and Brooklyn Park are agreeable to this arrangement.

NOW, THEREFORE, in consideration of the mutual convenants and agreements set forth in the original agreement of October 16, 1978, and as herein described,

IT IS HEREBY AGREED as follows:

1. The area in Brooklyn Center to be serviced by Brooklyn Park shall be amended to be

   "That area in Brooklyn Center lying northerly of Shingle Creek, in the immediate vicinity of Brooklyn Boulevard, consisting of approximately 5.7 acres west of Brooklyn Boulevard and 1.3 acres east of said street."

[illegible]. All other sections of the original agreement shall remain in effect.

IN WITNESS WHEREOF, the parties hereto authorized and entered into this agreement upon authority of the Councils of the City of Brooklyn Center and the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

By: _____
Mayor

By: _____
City Manager

CITY OF BROOKLYN PARK

By: _____
Mayor

By: _____
City Manager

AMENDMENT NO. 1 TO AGREEMENT BETWEEN THE CITY OF BROOKLYN CENTER, MINNESOTA, AND THE CITY OF BROOKLYN PARK, MINNESOTA, RELATIVE TO PROVIDING UTILITY SERVICE TO BROOKLYN CENTER PROPERTY OWNERS ALONG BROOKLYN BOULEVARD NORTHERLY OF SHINGLE CREEK

THIS AGREEMENT, made and entered into this 12th day of November, 1980, by and between the City of Brooklyn Center, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Center", and the City of Brooklyn Park, a municipal corporation of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Park",

WITNESSETH:

WHEREAS, on October 16, 1978, the Cities of Brooklyn Center, Minnesota, and Brooklyn Park, Minnesota, entered into an agreement whereby Brooklyn Park would provide utility service to certain property owners in Brooklyn Center in the vicinity of Brooklyn Boulevard at the corporate limits of the two cities, and

WHEREAS, the area known as Lot 2, Block 1, Picadilly Ponds, was not included in the area in Brooklyn Center to be serviced by Brooklyn Park; and

WHEREAS, the owners of Lot 2, Block 1, Picadilly Ponds, desire to be serviced by Brooklyn Park under the terms of the October 16, 1978, inter-city agreement, and the Councils of both Brooklyn Center and Brooklyn Park are agreeable to this arrangement.

NOW, THEREFORE, in consideration of the mutual convenants and agreements set forth in the original agreement of October 16, 1978, and as herein described,

IT IS HEREBY AGREED as follows:

1. The area in Brooklyn Center to be serviced by Brooklyn Park shall be amended to be

   "That area in Brooklyn Center lying northerly of Shingle Creek, in the immediate vicinity of Brooklyn Boulevard, consisting of approximately 5.7 acres west of Brooklyn Boulevard and 1.3 acres east of said street."

7. All other sections of the original agreement shall remain in effect.

IN WITNESS WHEREOF, the parties hereto authorized and entered into this agreement upon authority of the Councils of the City of Brooklyn Center and the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

By: _____
Mayor

By: _____
City Manager

CITY OF BROOKLYN PARK

By: _____
Mayor

By: _____
City Manager

AMENDMENT NO. 1 TO AGREEMENT BETWEEN THE CITY OF BROOKLYN CENTER, MINNESOTA, AND THE CITY OF BROOKLYN PARK, MINNESOTA, RELATIVE TO PROVIDING UTILITY SERVICE TO BROOKLYN CENTER PROPERTY OWNERS ALONG BROOKLYN BOULEVARD NORTHERLY OF SHINGLE CREEK

THIS AGREEMENT, made and entered into this 12th day of November, 1980, by and between the City of Brooklyn Center, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Center", and the City of Brooklyn Park, a municipal corporation of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Park",

WITNESSETH:

WHEREAS, on October 16, 1978, the Cities of Brooklyn Center, Minnesota, and Brooklyn Park, Minnesota, entered into an agreement whereby Brooklyn Park would provide utility service to certain property owners in Brooklyn Center in the vicinity of Brooklyn Boulevard at the corporate limits of the two cities, and

WHEREAS, the area known as Lot 2, Block 1, Picadilly Ponds, was not included in the area in Brooklyn Center to be serviced by Brooklyn Park; and

WHEREAS, the owners of Lot 2, Block 1, Picadilly Ponds, desire to be serviced by Brooklyn Park under the terms of the October 16, 1978, inter-city agreement, and the Councils of both Brooklyn Center and Brooklyn Park are agreeable to this arrangement.

NOW, THEREFORE, in consideration of the mutual convenants and agreements set forth in the original agreement of October 16, 1978, and as herein described,

IT IS HEREBY AGREED as follows:

1. The area in Brooklyn Center to be serviced by Brooklyn Park shall be amended to be

   "That area in Brooklyn Center lying northerly of Shingle Creek, in the immediate vicinity of Brooklyn Boulevard, consisting of approximately 5.7 acres west of Brooklyn Boulevard and 1.3 acres east of said street."

[illegible]. All other sections of the original agreement shall remain in effect.

IN WITNESS WHEREOF, the parties hereto have authorized and entered into this agreement upon authority of the Councils of the City of Brooklyn Center and the City of Brooklyn Park.

CITY OF BROOKLYN CENTER

By: _____
Mayor

By: _____
City Manager

CITY OF BROOKLYN PARK

By: _____
Mayor

By: _____
City Manager

AGREEMENT BETWEEN THE VILLAGE OF BROOKLYN CENTER, MINNESOTA, AND THE VILLAGE OF BROOKLYN PARK, MINNESOTA, RELATIVE TO THE INTERCONNECTION OF SEWERS

THIS AGREEMENT, Made and entered into this 16th day of October, 1961, by and between the Village of Brooklyn Center, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Center," and the Village of Brooklyn Park, a municipal corporation, of the County of Hennepin and State of Minnesota, hereinafter called "Brooklyn Park," WITNESSETH:

I

The said Brooklyn Center, in consideration of the covenants and agreements of Brooklyn Park, as hereinafter set forth, hereby grants to said Brooklyn Park the right to connect with the sewer system of Brooklyn Center, in accordance with the terms and conditions hereof.

II

A sanitary sewer system only may be connected with the Brooklyn Center sewers, it being understood that no rain water from roofs, yards, lawns, streets or alleys will be admitted into the sewers of Brooklyn Park, and that said sewers are to be constructed as nearly impervious to ground water as is practicable, it being understood that any prolonged and intentional violation of this clause may be sufficient cause for cancellation of this contract.

III

Plans and specifications for the Brooklyn Park sewers having outlet through the Brooklyn Center sewer system must first be submitted to Brooklyn Center and duly approved by it as to compliance with the provisions of this contract. Brooklyn Center shall designate the places where Brooklyn Park shall make connections with Brooklyn Center's sewer system, with due regard for the capacity of Brooklyn Center's sewer system.

IV

At no time shall the sewage flow into the Brooklyn Center system from Brooklyn Park exceed the following levels at the following approximate connection locations:

Connection Location	Sewage Flow
71st and Nob[illegible]	1.4[illegible] C.F.S.
69th and West Brooklyn Center Limits	1.09 C.F.S.
73rd and Lyndale	1.12 C.F.S.

V

Whenever it becomes necessary hereafter to construct any sanitary sewer within the limits of Brooklyn Center in order to connect the sanitary sewer system of Brooklyn Park with the proper trunk sewer of Brooklyn Center, the construction of such sewer within Brooklyn Center shall be done by Brooklyn Park upon approval by Brooklyn Center of the plans and specifications of said construction. The cost of construction and all costs incidental thereto shall be borne by Brooklyn Park. Upon the completion of the construction of said sewer, Brooklyn Park shall submit to Brooklyn Center a detailed cost report.

Brooklyn Center shall have the right, through its Engineer, to inspect the work constructed at all resonable times.

VI

The Village Engineer of Brooklyn Center, or any employee authorized by the Village Council of Brooklyn Center, shall be permitted to inspect the construction, as well as the operation, of the sewer system in Brooklyn Park at all reasonable times to see that the same is being constructed and operated according to plans and specifications, and that the mutual agreement herein contained is being complied with insofar as it is reasonably necessary to protect Brooklyn Center.

VII

For the privilege of discharging its sewage into the Brooklyn Center sewer system, Brooklyn Park shall pay to Brooklyn Center a sewer rental charge per thousand gallons of sewage discharged into the Brooklyn Center sewer system, which charge shall be computed in the following manner, based upon the figures for the year preceding the year in which the charge is made:

The cost of disposing of sewage into the Minneapolis system; the cost of maintenance and operation of lift stations within the Brooklyn Center system; the cost of maintaining transmitting sewer lines within Brooklyn Center; the cost of administering the Brooklyn Center sewer system; the cost of accounting and record keeping regarding the Brooklyn Center sewage system; and the cost of depreciation of the Brooklyn Center sewer system, shall be added together.

The resulting total costs shall be divided by the total sewage flow into the Minneapolis sewer system from Brooklyn Park and Brooklyn Center combined.

VIII

All payments for charges under the provisions of paragraph VII hereof shall be made quarterly beginning on the first day of the third month after Brooklyn Park connects to the Brooklyn Center system.

IX

Brooklyn Park shall provide for, install and maintain accurate sewer meters of remote registering and recording type acceptable to Brooklyn Center. A set of registering and recording instruments shall be installed by Brooklyn Park in a structure provided by Brooklyn Park. In the event the sewage flow from any sewer district within Brooklyn Park is not of sufficient quantity to be accurately measured, the quantity of sewage shall be estimated by Brooklyn Center and shall be based upon the average house connection flow as measured in the Brooklyn Center sewer system, special allotments to be added for multiple dwellings and commercial and industrial connections based upon the quantity of sewage discharged therefrom.

Brooklyn Center shall bave the right, at all reasonable times, to inspect the meters and the registering and recording instruments installed by Brooklyn Park. If Brooklyn Center determines that any of said equipment is faulty or not functioning properly, Brooklyn Park shall, within a reasonable time, after receiving notice of such condition, repair or replace said equipment to the satisfaction of Brooklyn Center. If Brooklyn Park shall fail to correct such condition within a reasonable time, Brooklyn Center shall have the right to do the work and bill Brooklyn Park for the cost thereof.

X

Brooklyn Park shall pay in lump sum to Brooklyn Center the cost of any construction changes in Brooklyn Center's sewer system required to accomodate the sewage flow from Brooklyn Park. This shall include all costs incurred in increasing the capacity of Brooklyn Center's #1 lift station located at Brooklyn Drive and Vincent Avenue North extended.

XI

During the construction of sewers within Brooklyn Park, special care shall be exercised to not allow any gravel, sand, dirt or any other heavy material to be washed or carried into the Brooklyn Center sewers and no grit, dirt or heavy substances of any kind shall be permitted by Brooklyn Park to be dumped into its sewers. When expense is incurred in cleaning

the Brooklyn Center due to any such substance carried into them from Brooklyn Park sewers, such expense will be paid for by Brooklyn Park.

XII

No waste materials of any industrial nature which are harmful or detrimental to the Brooklyn Center or Minneapolis sewage systems shall be discharged into the Brooklyn Park system. In case any such materials shall be discharged into the Brooklyn Park system or in case any obnoxious odors or gases shall develop in the Brooklyn Center sewers due to discharge into the sewers of Brooklyn Park of any substances causing any obnoxious odors or gases, such nuisance must be eliminated by Brooklyn Park at its own expense, upon notice and when requested so to do by Brooklyn Center. A failure to comply with such notice within a reasonable time shall constitute a basis for annulment by Brooklyn Center of the permission granted by this agreement.

XIII

Brooklyn Center shall not be responsible to any person, firm, or corporation for damages claimed as a result of the backing up of sewers in any basement in Brooklyn Park, and in the event of any suit for damage, Brooklyn Park shall immediately intervene and defend against and pay all damages which may be recovered by any such person, firm or corporation.

XIV

The permission hereby granted shall be perpetual and shall include the right to extend and connect additional sanitary sewers in Brooklyn Park. It is understood that Brooklyn Park may, in the future, elect to sever its connections to the Brooklyn Center sewer system. Brooklyn Park shall submit a ninety (90) day written notice to Brooklyn Center prior to any such severance and shall be responsible for all costs incurred in accomplishing said severance.

XV

The permission hereby granted in this agreement shall take effect and be in force from and after the passage of a resolution by the Village Council of Brooklyn Center and a resolution by the Village Council of Brooklyn Park accepting and agreeing to the terms and conditions hereof. Certified copies of said resolutions, as and when adopted, shall be filed with the Village Clerk of Brooklyn Center and the Village Clerk of Brooklyn Park immediately after such adoption. This permit shall continue until cancelled, terminated or annulled, as herein provided.

XVI

Brooklyn Park agrees to conform with, abide by and enforce all laws, rules and regulations of the Minneapolis-St. Paul Sanitary District which apply to Brooklyn Center and the users therein. Brooklyn Park further agrees to conform with, abide by, and enforce the applicable terms and conditions of the sewer connection agreement of December 28, 1951, between Brooklyn Center and the city of Minneapolis which agreement is incorporated herein and made a part hereof.

XVII

Brooklyn Center shall have the right to cancel and annul this agreement on account of any substantial continuing violation of its terms or conditions on the part of Brooklyn Park, first giving reasonable notice to Brooklyn Park of such violation and affording reasonable opportunity to correct such violation. In event of such cancellation, no further payments shall be due hereunder except for past due obligations hereunder.

Brooklyn Park, in consideration of the provisions of this agreement, hereby accepts the permission, right and authority hereby granted subject to the conditions herein, and agrees with Brooklyn Center to do and perform and comply with all acts, matters, things, conditions and requirements herein specified and required of Brooklyn Park to be done, performed and complied with in connection with the maintenance of the sewer system and sewers of Brooklyn Park.

IN WITNESS WHERE, the parties have caused this agreement to be executed in their behalf respectively by their officers thereunto duly authorized, and have caused their corporate seals to be hereunto affixed as of the day and year first above written.

VILLAGE OF BROOKLYN CENTER

By _____
Mayor

(Corporate Seal)

Attest: By _____
Village Clerk

VILLAGE OF BROOKLYN PARK

By _____
Mayor

(Corporate Seal)

Attest: By _____
Village Clerk

COOPERATIVE JOINT POWERS AGREEMENT FOR
THREE WATER AND SEWER SERVICES ON NOBLE AVENUE
SOUTH OF SHINGLE CREEK BETWEEN
BROOKLYN PARK AND BROOKLYN CENTER

THIS AGREEMENT, made and entered into this 28th day of August, 1995, by and between the City of Brooklyn Park, herein referred to as "Brooklyn Park;" and the City of Brooklyn Center, herein referred to as "Brooklyn Center."

WITNESSETH:

WHEREAS, Brooklyn Park and Brooklyn Center are desirous of providing water and sanitary sewer services to three residential properties on Noble Avenue northerly of Woodbine Lane and south of Shingle Creek, and;

WHEREAS, Brooklyn Center is currently in the process of reconstructing streets on Woodbine Lane and overlaying Noble Avenue, and prior to the completion of the street improvements, there is an opportunity to tap into existing Brooklyn Center watermains and sanitary sewer lines, and;

WHEREAS, the three residential properties mentioned above are in need of these facilities, and;

WHEREAS, it has been determined by the Brooklyn Park City Engineer that it is feasible to construct sanitary sewer and water services to the City of Brooklyn Center in the most economical and feasible manner, and;

WHEREAS, Brooklyn Park desires to use directional boring equipment to minimize the impacts and drastically reduce the restoration costs to its residents and to minimize impacts to Brooklyn Center facilities, and;

WHEREAS, Brooklyn Park will construct these facilities within the Brooklyn Center right-of-way, coordinating this work with other utility companies, and;

WHEREAS, Minnesota statutes section 471.59 allows Brooklyn Park and Brooklyn Center to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Brooklyn Park and Brooklyn Center, by executing this agreement, mutually approve Brooklyn Park as the lead agency and agree to review and approve plans and specifications for said water and sanitary sewer improvements. Brooklyn Center shall provide Brooklyn Park with all available data and

materials pertinent to the work program as required to complete this project. This data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study materials.

2. Brooklyn Park shall provide Brooklyn Center with copies of plans prepared by Brooklyn Park and they shall be reviewed and approved by Brooklyn Center before any work is initiated within the City of Brooklyn Center.

3. Brooklyn Park shall administer the public contract to construct said improvements and shall inspect the construction of the work contemplated herewith, and all work shall be completed in compliance with the plans and specifications. The Brooklyn Center City staff shall have the right, as work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work. Brooklyn Park shall notify the Engineering Department of Brooklyn Center 24 hours prior to initiating any work within Brooklyn Center. Brooklyn Park shall require its contractor to correct any deficiencies found by Brooklyn Center within Brooklyn Center's corporate limits.

4. The proposed schedule is to complete the improvement project prior to September 15, 1995.

5. Brooklyn Park shall be responsible for all costs incurred by it including construction, engineering, inspection, and administration cost.

6. Brooklyn Center agrees to allow Brooklyn Park to utilize existing right-of-way on Noble Avenue for the construction of sanitary sewer and water service connections.

7. It is understood and agreed that upon completion of these improvements, all project elements shall be part of the as-built plans prepared by Brooklyn Park and reviewed by Brooklyn Center and shall become the property of the City in which those improvements are located, and all maintenance and repair or replacement required thereafter shall be performed by Brooklyn Park.

8. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to other persons whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein. Brooklyn Park also agrees that any contract let by Brooklyn Park for performance of work on the

improvements as provided for herein shall include clauses that will:

1) Require the contractor to defend, indemnify, and save harmless Brooklyn Center and Brooklyn Park, their officers, agents, and employees from claims, suits, demands, damages, judgements, cost, interest, expenses (including, without limitation, reasonable attorney fees, witness fees and disbursements included in the defense thereof) arising out of or by reason of the negligence of the said contractor, its officers, employees, agents, or sub-contractors; and

2) Require the contractor to provide and maintain sufficient insurance so as to insure the performance of its hold harmless obligation.

3) Nothing herein shall be deemed a waiver of the limitations of liability provided for in Minnesota Statutes, Chapter 466, and neither party shall have any obligation to indemnify the other in any amount in excess of the limitations on liability set forth therein.

9. Brooklyn Park agrees to provide necessary signage warning motorists of work being done within the public right-of-way.

10. Users in Brooklyn Park connected to the Brooklyn Center system shall be billed usage charges on the basis of the same and water and sewer rates applicable to users in Brooklyn Center, said charges to be billed directly to the user by Brooklyn Center. Brooklyn Park shall guarantee payment of these charges subject to the cooperation of Brooklyn Center in providing information to Brooklyn Park which will allow Brooklyn Park to specially assess unpaid water and sewer use charges.

11. The City of Brooklyn Park will reimburse Brooklyn Center for the connection of these three systems in the equivalent amount of other Brooklyn Center residents for all connection fees. The City of Brooklyn Park will be responsible for collection of these fees from Brooklyn Park residents either through direct charges or through assessments.

12. Brooklyn Center shall not be responsible to any person, firm, or corporation for damages claimed as a result of backing up of sewers in any basement in Brooklyn Park provided that the backup was not caused as a result of negligence of Brooklyn Center employees.

13. Brooklyn Park will be responsible for the service leads from Brooklyn Center utilities. Brooklyn Center shall maintain the remainder of its utility system through its normal maintenance procedure.

14. The water and sanitary sewer construction by Brooklyn Park and the property owners in Brooklyn Park shall meet the requirements of Brooklyn Park's watermain and sanitary sewer standard specifications, and the uniform building code and any special provisions deemed necessary by the Brooklyn Center City Engineer.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK

BY Grace Arbogast
Mayor

DATE: 9-25-95

AND: Dennis Ebben
Acting Manager

DATE: 9-25-95

(seal)

CITY OF BROOKLYN CENTER

BY Myrna Kragness
Mayor

DATE: 10-6-95

AND: G. W. Anderson
Manager

DATE: 10-10-95

(seal)

COOPERATIVE JOINT POWERS AGREEMENT
109TH AVENUE IMPROVEMENTS
(NOBLE TO CHAMPLIN PARK HIGH SCHOOL)
CHAMPLIN AND BROOKLYN PARK

AGREEMENT, made and entered into this 27th day of June, 1994, by and between the City of Champlin, hereinafter referred to as "Champlin;" and the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park."

WITNESSETH:

WHEREAS, Champlin and Brooklyn Park are desirous of bringing about the improvement of that portion of 109th Avenue approved as a Municipal State Aid Street (MSAS) and designated as Champlin MSAS 193-106-08 and Brooklyn Park MSAS 110-113-10 from the easterly side of Noble Avenue westerly to 2554 feet, to be shown on the construction plans, which improvement contemplates concrete curb and gutter; concrete sidewalk/trails; aggregate base; utilities; bituminous base and wearing courses; street lighting; landscaping; storm sewer; and culvert; and other related improvements herein referred to as the Project; and

WHEREAS, the City of Champlin has made this Project part of their southeast area streets and utilities improvement, and

WHEREAS, it is in the best interest of the general taxpayer supporting Champlin and Brooklyn Park to jointly construct 109th Avenue using Municipal State Aid funds, and

WHEREAS, Champlin and Brooklyn Park have, in the past, cooperated in street improvement projects on 109th Avenue between Jefferson Highway and Douglas Drive, Douglas Drive to the eastern limits of the Champlin Park School, and between Noble and County Road 12, as well as recent

improvements to Brooklyn Park's Marvella Subdivision whereby Champlin provided utility connections for water and sewer, and

WHEREAS, Minnesota Statutes Section 471.59 allows the cities of Champlin and Brooklyn Park to enter into a Joint Powers Agreement to plan and construct the proposed road and public utilities on the common boundary between the two cities; and

WHEREAS, the above mentioned construction along 109th Avenue shall be hereinafter identified as Champlin's Southeast Area Improvements Project 92-2 and BP Improvement 94-04, Project ST-1095, SS-1096, S-1097 and W-1098, and

WHEREAS, the Champlin City staff prepared the feasibility reports and the City Councils ordered the improvements, and

WHEREAS, plans and specifications have been prepared for the improvements, and bids have been solicited and approved, and contracts awarding the work have been executed, and construction management will be exercised through the improvement process; all in accordance with approved Municipal State Aid Standards (MSA); and

WHEREAS, Champlin and Brooklyn Park mutually agree that Champlin will be the lead agency to perform the Project management and design work in accordance with MSA Rules and Regulations and obtain MnDOT approvals as required; and

WHEREAS, Champlin, as lead agency, will maintain records of all expenditures and charges associated with the Project and provide a breakdown of those costs for the benefit of each City; and

WHEREAS, the parties hereto have reviewed the plans and specifications and have approved said plans and specifications and agree

to participate in the cost of Project items both eligible and ineligible for MSA funding; and

WHEREAS, it is contemplated that this public improvement Project be carried out by the parties hereto under the provisions, terms and conditions set forth.

NOW, THEREFORE, IT IS HEREBY AGREED:

I

The cities of Champlin and Brooklyn Park, by executing this agreement, mutually approve the City of Champlin as the Lead Agency and agree to review and approve the plans and specifications for said Project. Brooklyn Park shall provide Champlin with all the available data and materials pertinent to the work program as required to complete the Projects. The City's data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study material. Progress meetings will be scheduled for the City staffs and other concerned public agencies to discuss issues during the study/report, design and construction phases.

II

Champlin shall prepare on behalf of the cities' as parties hereto, the necessary feasibility report(s) for usage by each individual city for subsequent public improvement and assessment hearings. Each City shall prepare an addendum to the feasibility report indicating their assessment program, a list of the affected properties and pertinent information unique to each City's special assessment program. Brooklyn Park shall be responsible for calling all necessary hearings in

compliance with Minnesota Law to levy special assessments in their City and Champlin shall be responsible for said procedures for Champlin properties.

III

Champlin shall prepare the plans and specifications, which shall be reviewed and approved by Brooklyn Park, Champlin shall then advertise for and receive bids; enter into a contract for said Project with the successful bidder at the unit prices specified in the bid of the lowest responsible bidder, in accordance with Minnesota Statutes.

The contract documents will include the plans and specifications prepared by Champlin or its agents and approved by Brooklyn Park and MnDOT as a MSA Project. The plans and specifications shall be in compliance with all State Aid Standards and shall be approved for State Aid funding.

IV

Champlin shall administer the contract and inspect the construction of the contract work contemplated herewith. All work on the Project shall be completed in compliance with the plans and specifications. Brooklyn Park 's City Engineer or staff shall have the right, as the work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

V

Champlin shall be responsible for receiving final approval of the Project by the State Aid Engineer and obtaining the necessary agency

approvals. Brooklyn Park and Champlin, at their own expense, shall acquire all rights-of-way and/or easements required in accordance with State law and MnDOT rules and regulations and the approved right-of-way plans, for the construction of said project within their respective corporate limits. Champlin or its agent will provide a description and individual drawing of each parcel involved in the right-of-way program according to the approved right-of-way plan. The individual drawing will show the permanent and temporary right-of-way taking with appropriate dimensions. The right-of-way costs incurred shall include all acquisition costs including, but not limited to, any and all damages occurring to any person or persons, including private utilities, relocation assistance, removing or adjusting main conduits or other structures located in or upon the land taken and within the present right-of-way; or damage in procuring such right-of-way in the performance of this contract with respect to the Project in accordance with the plans and specifications. The right-of-way costs expended by each City shall be included as part of the eligible MSA funding program.

VI

Champlin and Brooklyn Park shall share in the incurred Project costs, including construction, engineering and administrative costs. All costs incurred by Champlin as the lead agency; to manage, provide reports and studies, preliminary work, design, construction and project administration, shall be part of the Project costs in accordance with MSA rules and regulations. All Project costs shall be apportioned to each City in accordance with the percentage of the total construction items completed in each City as defined below.

- Right turn lane and bypass lane at Indiana Avenue and West River Road. The City of Champlin will pay for the right turn lane and bypass lane on West River Road at Indiana Avenue. Brooklyn Park will not participate in this cost.
- Utility and streets on 109th Avenue to the west of Noble Avenue.

  The City of Brooklyn Park will pay for one-half of the construction cost of the watermain lateral (up to 8 inch diameter based on contractors bid) and all of the costs of the services from the east side of Noble Avenue to the east side of Champlin Park High School at station 30+00. Brooklyn Park will pay for the watermain lead extension and hydrant south of the centerline of 109th Avenue at Noble Avenue.

  The City of Brooklyn Park will pay for one-half of the construction cost for the sanitary sewer line plus all of the costs of the services to Brooklyn Park from Noble Avenue to Oxbow Park. Brooklyn Park will be responsible for the entire construction cost of the sanitary sewer to the west of Oxbow Park from manhole #3 at station 38+60.

  The City of Brooklyn Park and Champlin will each pay one-half of the construction cost for the MSA street and storm sewer on 109th Avenue from Noble Avenue to the west with the exception of the storm sewer culvert at station 29+75. The cost to install this storm sewer culvert will be the responsibility of Brooklyn Park.
- Utility and streets on 109th Avenue 660 feet east of Noble

  The City of Brooklyn Park will pay for one-half of the construction cost of watermain lateral (up to 8 inches in diameter

based on contractors bid) and all costs for the four services easterly of Noble to Lee Avenue. These costs will include all cost associated with placing the water service under 109th Avenue.

The City of Brooklyn Park will pay for one-half of the construction cost of the sanitary sewer line plus the cost to jack 3 sanitary sewer services under 109th Avenue to the properties lying within Brooklyn Park.

Brooklyn Park will reimburse the City of Champlin for actual engineering cost to its consultant for the above mentioned construction costs. Documentation is to be provided by the consultant. The engineering overhead cost is estimated to be 19 percent.

Brooklyn Park will be responsible for any easements needed on the south side of 109th Avenue. Champlin will be responsible for any easements on the north side of 109th Avenue.

The City of Brooklyn Park will pay watermain trunk, source and storage fee for each home, based on the same rate as charged to the Marvella Addition. This is $1,050.00 per home.

The aforestated sharing shall be exclusive of trails and sidewalks not funded by MSA funds, which trails and sidewalks shall be paid for, in their entirety, by the City in which they are constructed.

VII

All direct payments for Project design and administration and to the Contractor for work performed on said Project will be made by

Champlin. Champlin shall be responsible for and pay all the construction costs of the contract work for said Project as identified herein and delineated in the contract documents. Ninety percent (90%) of the estimated project cost will be due to Champlin by the City of Brooklyn Park 90 days after the City of Brooklyn Park approves the contract and the final ten percent (10%) is due to Champlin 30 days after final acceptance of the project by Champlin and Brooklyn Park. All change orders, which affect Brooklyn Park's cost, are to be approved by the City of Brooklyn Park.

VIII

Champlin and Brooklyn Park shall each be responsible for reporting of State Aid contracts to MnDOT for their respective segments of the Project and the collecting of State Aid funds.

Champlin shall provide Brooklyn Park all pertinent information for the reporting of the State Aid contract.

IX

All records kept by Champlin and Brooklyn Park with respect to this Project, shall be subject to examination by the representatives of each party hereto.

X

It is understood and agreed that upon completion of the improvement proposed herein, all Project elements shall be part of the as built plans prepared by Champlin and shall become the property of the City in which those improvements are located and all maintenance, restoration, repair or replacement required thereafter shall be

performed by each City at its own expense. A subsequent agreement between Brooklyn Park and Champlin will establish the maintenance program for the roadway as it relates to the street surface and snow removal, water, sanitary sewer and storm sewer.

XI

It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whomsoever for any claims, damages, actions, or causes of actions of any kind or character arising out of or by reason of the performance of any work or part hereof by the other as provided herein; and each party further agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein.

Champlin also agrees that any contract let by the City or its agents for the performance of the work on 109th Avenue as provided for herein shall include clauses that will: 1) Require the Contractor to defend, indemnify, and save harmless Champlin and Brooklyn Park, their officers, agents and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney's fees, witness fees, and disbursements incurred in the defense thereof) arising out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and 2) Require the Contractor to provide and maintain sufficient insurance so as to ensure the performance of its hold harmless obligations.

XII

The City of Brooklyn Park will be responsible for the installation and reading of water meters to each home in Brooklyn Park. The readings will be taken at the time other meters are read in the area. Brooklyn Park agrees to pay quarterly to the City of Champlin for the total gallons used by Brooklyn Park citizens, based on Champlin's current industrial/commercial rate for water and sewer. The quarterly readings will be submitted with the payment.

Brooklyn Park will be responsible for the maintenance, including turning on and turning off, and the collection of unpaid bills for Brooklyn Park residents. Champlin will have the right to review Brooklyn Park meter readings and billings. Brooklyn Park agrees to pay the same fees for water and sewer as charged any other industrial user within the City of Champlin, including the possibility of increased cost for water treatment.

The City of Champlin agrees to give 60 day notice of any rate change.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF CHAMPLIN

BY: Steve E. Boyington
Mayor

DATE: 7/11/94

AND: [illegible]
Administrator

DATE: 6/27/94

(Seal)

CITY OF BROOKLYN PARK

BY: [illegible]
Mayor

DATE: 6/27/94

AND: [illegible]
Manager

DATE: 6/27/94

(Seal)

COOPERATIVE JOINT POWERS AGREEMENT
109TH AVENUE IMPROVEMENTS
BROOKLYN PARK AND CHAMPLIN

AGREEMENT, made and entered into this 9th day of September, 199/, by and between the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park;" and the City of Champlin, hereinafter referred to as "Champlin."

WITNESSETH:

WHEREAS, Brooklyn Park and Champlin are desirous of bringing about the improvement of that portion of 109th Avenue approved as a Municipal State Aid Street (MSAS) and designated as Brooklyn Park MSAS 110-113-040 and Champlin MSAS 193-106-40 from Douglas Drive, east approximately 3300 feet, to be shown on the construction plans, which improvement contemplates concrete curb and gutter; concrete sidewalk/trails; aggregate base; utilities; bituminous base and wearing courses; street lighting; traffic signals; landscaping; storm sewer system and other related improvements herein referred to as the Project; and

WHEREAS, the City of Champlin has in place municipal sanitary sewer facilities and a municipal water system near the Brooklyn Park north boundary and the City of Brooklyn Park does not anticipate extending its municipal sewer and water systems to this area of the City until it is consistent with its growth control plan, and

WHEREAS, it is in the best interest of the general taxpayer supporting municipal and school governing units to extend to the new high school in the area municipal services, this will save the

school district from constructing private sewer and water systems and will benefit the health, safety and general welfare of students at the new school, and

WHEREAS, it is the intent of this agreement to allow but limit Champlin municipal services to the Brooklyn Park boundary where such services shall be constructed with the idea that this water service will act as a municipal water interconnection to benefit both communities in the future and that Champlin and Brooklyn Park agree that there will not be any additional lands in Brooklyn Park served by Champlin public utilities unless and until consistent with future planning in both cities this agreement shall be specifically limited to the new high school being built by Independent School District No. 11, and

WHEREAS, Minnesota Statutes Section 471.59 allows the cities of Brooklyn Park and Champlin to enter into a Joint Powers Agreement to plan and construct the proposed road and public utilities on the common boundary between the two cities; and

WHEREAS, the above mentioned construction along 109th Avenue shall be hereinafter identified as BP Projects S-1018, S-1019, SS-1020, ST-1034 and M-1051, Improvement 91-08/CH 91-2; and, the entire length of the Project lies on the mutual corporate limits of Brooklyn Park and Champlin; and

WHEREAS, Brooklyn Park and Champlin have the authority to special assess to benefitted properties the costs of public improvement projects to governmental units pursuant to State Statutes Chapter 429 and Chapter 435.19; and,

WHEREAS, pursuant to Minnesota Statutes Chapter 429 and 435 the Independent School District #11 petitioned the cities of Brooklyn Park and Champlin to construct certain improvements, and

WHEREAS, the Brooklyn Park City staff prepared the required feasibility reports, and the City Councils ordered the improvements; and

WHEREAS, plans and specifications must be prepared for the improvements, bids must be solicited and approved, and contracts awarding the work must be executed and construction management exercised throughout the improvement process; all in accordance with approved Municipal State Aid Standards (MSA); and

WHEREAS, Brooklyn Park and Champlin mutually agree that Brooklyn Park will be the lead agency to perform the Project management and design work in accordance with MSA Rules and Regulations and obtain MnDOT approvals as required; and

WHEREAS, Brooklyn Park, as the lead agency, will maintain records of all expenditures and charges associated with the Project and provide a breakdown of those costs for the benefit of each City; and

WHEREAS, the parties hereto have reviewed the plans and specifications and have approved said plans and specifications and agree to participate in the cost of Project items both eligible and ineligible for MSA funding; and

WHEREAS, it is contemplated that this public improvement Project be carried out by the parties hereto under the provisions, terms and conditions set forth.

NOW THEREFORE, IT IS HEREBY AGREED:

I

The cities of Brooklyn Park and Champlin, by executing this agreement, mutually approve the City of Brooklyn Park as the Lead Agency and agree to review and approve the plans and specifications for said Project. Champlin shall provide Brooklyn Park with all the available data and materials pertinent to the work program as required to complete the Projects. The City's data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study material. Progress meetings will be scheduled for the City staffs and other concerned public agencies to discuss issues during the study/report, design and construction phases.

II

Brooklyn Park shall prepare on behalf of the cities' as parties hereto, the necessary feasibility report(s) for usage by each individual city for subsequent public improvement and assessment hearings. Each City shall prepare an addendum to the feasibility report indicating their assessment program, a list of the affected properties and pertinent information unique to each City's special assessment program. Champlin shall be responsible for calling all necessary hearing and compliance with Minnesota Law to levy special assessments in their City and Brooklyn Park shall be responsible for said procedures for Brooklyn Park properties.

III

Brooklyn Park shall prepare the plans and specifications,

which shall be reviewed and approved by Champlin, Brooklyn Park shall then advertise for and receive bids; enter into a contract for said Project with the successful bidder at the unit prices specified in the bid of the lowest responsible bidder, in accordance with Minnesota Statues.

The contract documents will include the plans and specifications prepared by Brooklyn Park or its agents and approved by Champlin and MnDOT as an MSA Project. The plans and specifications shall be in compliance with all State Aid standards and shall be approved for State Aid funding.

IV

Brooklyn Park shall administer the contract and inspect the construction of the contract work contemplated herewith. All work on the Project shall be completed in compliance with the plans and specifications. Champlin's City Engineer or staff shall have the right, as the work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

V

Brooklyn Park shall be responsible for receiving final approval of the Project by the State Aid Engineer and obtaining the necessary agency approvals. Champlin and Brooklyn Park, at their own expense, shall acquire all rights-of-way and/or easements required in accordance with State law and MnDOT rules and regulations and the approved right-of-way plans, for the construction of said project within their respective corporate

limits. Brooklyn Park or its agent will provide a description and individual drawing of each parcel involved in the right-of-way program according to the approved right-of-way plan. The individual drawing will show the permanent and temporary right-of-way taking with appropriate dimensions. The right-of-way costs incurred shall include all acquisition costs including, but not limited to, any and all damages occurring to any person or persons, including private utilities, relocation assistance, removing or adjusting main conduits or other structures located in or upon the land taken and within the present right-of-way; or damage in procuring such right-of-way in the performance of this contract with respect to the Project in accordance with the plans and specifications. The right-of-way costs expended by each City shall be included as part of the eligible MSA funding program.

VI

The proposed schedule to complete the improvement project described herein is as follows:

1. Complete the Cooperative Agreement.....August 26, 1991
2. Complete Feasibility/Engineering Report.....July 22, 1991
3. Award Contract.....September 9, 1991
4. Complete Construction.....June 12, 1992
5. Hold Special Assessment Hearings.....September, 1992

VII

Brooklyn Park and Champlin shall share in the incurred Project costs, including construction, engineering and administrative costs. All costs incurred by Brooklyn Park as the lead agency; to

manage, provide reports and studies, preliminary work, design, construction and project administration, shall be part of the Project costs in accordance with MSA rules and regulations. All project costs shall be apportioned to each City in accordance with the percentage of the total construction items completed in each City. The Brooklyn Park project engineering and administrative/management costs shall not exceed eighteen (18%) percent (unless approved by the parties hereto) of the construction cost exclusive of the cost associated with each City's special assessment and public hearing requirements, and, exclusive of the cost to provide right-of-way parcel descriptions and individual parcel drawings and to acquire said rights-of-way. The aforestated sharing shall be exclusive of trails and sidewalks not funded by MSA funds, which trails and sidewalks shall be paid for, in their entirety, by the City in which they are constructed.

VIII

All direct payments for project design and administration and to the Contractor for work performed on said Project will be made by Brooklyn Park. Brooklyn Park shall be responsible for and pay all the construction costs of the contract work for said Project as identified herein and delineated in the contract documents. Ninety percent (90%) of the estimated project cost will be due to Brooklyn Park by the City of Champlin 90 days after the City of Champlin approves the contract and the final ten percent (10%) is due to Brooklyn Park 30 days after notification by Brooklyn Park that the assessment roll has been approved. All change orders, which

effects Champlin's assessment, are to be approved by the City of Champlin.

IX

Brooklyn Park and Champlin shall each be responsible for reporting of State Aid contracts to MnDOT for their respective segments of the Project and the collecting of State Aid funds.

Brooklyn Park shall provide to Champlin all pertinent information for the reporting of the State Aid contract.

X

All records kept by Brooklyn Park and Champlin with respect to this Project, shall be subject to examination by the representatives of each party hereto.

XI

As part of the Project, a signage plan for 109th Avenue North shall be prepared by Brooklyn Park and approved by the City of Champlin. Future modification of that plan by either Brooklyn Park or Champlin shall be mutually approved by the parties hereto.

It is understood and agreed that upon completion of the improvement proposed herein, all Project elements shall be part of the as built plans prepared by Brooklyn Park and shall become the property of the City in which those improvements are located and all maintenance, restoration, repair or replacement required thereafter shall be performed by each City at its own expense. A subsequent agreement between Champlin and Brooklyn Park will establish the maintenance program for the roadway as it relates to the street surface and snow removal.

XII

It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whomsoever for any claims, damages, actions, or causes of actions of any kind or character arising out of or by reason of the performance of any work or part hereof by the other as provided herein; and each party further agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein.

Brooklyn Park also agrees that any contract let by the City or its agents for the performance of the work on 109th Avenue as provided for herein shall include clauses that will: 1) Require the Contractor to defend, indemnify, and save harmless Brooklyn Park and Champlin, their officers, agents and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney's fees, witness fees, and disbursements incurred in the defense thereof) arising out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and 2) Require the Contractor to provide and maintain sufficient insurance so as to ensure the performance of its hold harmless obligations.

XIII

The City of Brooklyn Park agrees to pay the City of Champlin for water metered at the cross connection at a rate equal to that set by the City of Champlin for other similar usages. The City of Brooklyn Park will bill Champlin Park High School for their specific water usage. At a future time when the City of Brooklyn Park connects to this system, the City of Champlin and the City of Brooklyn Park agree to pay to the other city any monies due for water consumed by properties in the other city at the rates charged by Brooklyn Park or Champlin for similar utilization. This interconnection of the two municipal systems shall be maintained in the future to protect the health, safety and general welfare of persons residing in both cities. The City of Champlin shall construct an extension of their municipal water system to the Brooklyn Park City boundary at no cost to the City of Brooklyn Park.

XIV

The projects shall include construction of a connection to the CAB sewer line in Champlin upstream of its meter with the Metropolitan sewer system. The City of Brooklyn Park agrees to pay the City of Champlin for sanitary sewage based on the water billings at the Champlin Park High School during said time that the sewage flows through a meter located in the Metropolitan Waste Control Commission system that meters Champlin sewage only.

XV

The City of Brooklyn Park agrees to pay for all the electric power/maintenance associated with the street lighting of this project and will bill the City of Champlin on a 50/50 basis. The City of Champlin agrees to pay for electric power/maintenance

associated with the street lighting necessary to light their portion of 109th Avenue.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK

BY: _____
Mayor

DATE: 9-26-91

AND: _____
Manager (acting)

DATE: 9-26-91

(Seal)

CITY OF CHAMPLIN

BY: _____
Mayor

DATE: 9/23/91

AND: _____
Manager

DATE: 9/24/91

(Seal)

Edgetown Est

COOPERATIVE JOINT POWERS AGREEMENT
FOR EMERGENCY/STANDBY WATER INTERCONNECT
BETWEEN THE CITIES OF
BROOKLYN PARK AND CHAMPLIN

THIS AGREEMENT, made and entered into this 27th day of April, 1998, by and between the City of Brooklyn Park, herein referred to as "Brooklyn Park" and the City of Champlin, herein referred to as "Champlin."

WITNESSETH:

WHEREAS, Champlin and Brooklyn Park each operate and maintain separate water production and distribution systems for the health, safety, welfare, and benefit of each City's constituents, and;

WHEREAS, Champlin and Brooklyn Park are desirous of establishing a common water connection between the two systems in the event of a water shortage or water emergency, and;

WHEREAS, Champlin has identified the need for an emergency water connection with Brooklyn Park as part of Champlin's water resource management plan, and;

WHEREAS, Champlin and Brooklyn Park have identified Mississippi Drive at the municipal boundary as an appropriate location to provide an emergency water connection, and;

WHEREAS, Brooklyn Park and Champlin have authorized roadway and utility improvements as part of Edgetown Estates Development, and;

WHEREAS, Champlin and Brooklyn Park have agreed that it is appropriate and feasible to install a water connection as part of this improvement project, and;

WHEREAS, Minnesota statutes 471.59 allows Champlin and Brooklyn Park to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Champlin and Brooklyn Park by executing this agreement, mutually approve the plans and specifications for said water improvements.

2. Champlin and Brooklyn Park shall independently enter into development agreements with the developers of Edgetown Estates and thereby requiring the developer to provide all necessary plans prepared by the developers engineer.

3. Champlin and Brooklyn Park shall require that the developer construct said water improvements in compliance with the approved plans and specifications. Champlin and Brooklyn Park shall each inspect and test their own respective utilities. The proposed watermain valves/manhole shall be determined as the boundary of municipal ownership. Each respective City shall be responsible to require that the developer or his designer correct any deficiencies found in the respective City.

4. The proposed schedule by the developer is to complete the improvement project prior to May 1, 1998.

5. Champlin shall be responsible for costs incurred for the watermain valve to manhole including construction, plus 10% for engineering. Brooklyn Park shall require the developer to provide connection to said valve.

6. It is understood and agreed that upon completion of these improvements, all project elements shall be part of the record plans prepared by Brooklyn Park and reviewed by Brooklyn Park and shall become the property of the city in which those improvements are located. All maintenance and repair or replacement required thereafter shall be performed by Champlin for the watermain valve/manhole and utilities located north and east of the municipal boundary. Brooklyn Park shall be responsible for maintenance and repair south of the boundary.

7. It is the intent and understanding of both cities that said interconnect shall be utilized for temporary or emergency uses only. It is understood and agreed that upon project completion, opening of the emergency interconnect by either City shall be performed only upon authorization by the City Manager or designee of the other City. Terms of emergency use, such as the length of time of actual water transfer and appropriate compensation shall be negotiated between and by each City's City Manager or designee at the time of emergency. Both Brooklyn Park and Champlin shall have the authority to close the temporary exchange of water at any time, but must provide reasonable notice to the other City prior to doing so.

8. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to other persons whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense, any action or proceeding commenced for the purpose of asserting any claim or whatsoever character arising in connection with or by virtue of performance of its own work as provided herein.

9. Nothing herein shall be deemed a waiver of the limitations or liability provided for in Minnesota Statutes, Chapter 466, and neither party shall have any obligation to indemnify the other in any amount in excess of the limitations on liability set forth therein.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF CHAMPLIN

BY_____
Mayor

DATE:_____

AND:_____
City Administrator

DATE:_____

(SEAL)

CITY OF BROOKLYN PARK

BY_____
Mayor

DATE:_____

AND:_____
City Manager

DATE:_____

(SEAL)

COOPERATIVE JOINT POWERS AGREEMENT
MARVELLA IMPROVEMENTS
BROOKLYN PARK AND CHAMPLIN

THIS AGREEMENT, made and entered into this 26th day of July, 19 93, by and between the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park;" and the City of Champlin, hereinafter referred to as "Champlin."

WITNESSETH:

WHEREAS, Brooklyn Park and Champlin are desirous of eliminating a public health hazard in a Brooklyn Park Subdivision known as Marvella Addition, and

WHEREAS, Brooklyn Park has developed and maintained a controlled growth program applicable to the subdivision and development of lands within Brooklyn Park for the last 30 years, and

WHEREAS, Brooklyn Park has utilized its power to control the extension of municipal utilities as a manner of limiting growth to areas that are served by public facilities, and in this manner have saved substantial amounts of money for its residents by limiting "leapfrog" development, by eliminating the development of parcels in areas which are not served by municipal facilities and therefore protecting the health, safety and general welfare of its residents, and by promoting an orderly growth program which maximizes municipal services at the most efficient cost possible, and

WHEREAS, Brooklyn Park has been threatened by litigation from property owners whose property lies beyond the existing Brooklyn Park public utility systems, and said parcels have asked to be allowed to develop the individual systems or have suggested the possibility of obtaining services from surrounding communities, and

WHEREAS, the City has litigated this question in the case of Coleman vs. the City of Brooklyn Park and has maintained that the orderly development of Brooklyn Park is within the police powers of Brooklyn Park and protects the health, safety, and general welfare of all of its residents and property owners, and

WHEREAS, current municipal systems do not serve and are not anticipated to serve the Marvella Addition for many years, and

WHEREAS, the next scheduled areas of growth are currently receiving trunk sanitary sewer, water, and storm sewer systems in an area bounded by Zane Avenue, 85th Avenue, West Broadway and 93rd Avenue and on the Comprehensive Plan these areas are a part of Area D, Phases I and II and are projected to take place between the years of 1990 and 2000 and Area E, Phase III, which is expected to develop within the 1990 to 2000 timeframe, and

WHEREAS, the Marvella Addition lies in Area G of Brooklyn Park's Comprehensive Growth Management Phased Areas, which is expected to be developed in the year 2020 and beyond, and

WHEREAS, the Brooklyn Park Health Inspector and City Engineer have determined that between one third and one half of the residents in the Marvella Addition are experiencing either failing septic systems or contamination of shallow wells, and

WHEREAS, both Brooklyn Park and Champlin are concerned about the contamination of ground water, and

WHEREAS, a feasibility study has determined that it is feasible to construct water and sewer facilities from Marvella Addition northerly approximately 1300 feet and connect them to Champlin by crossing under 109th Avenue North, and

WHEREAS, a Consulting Engineer employed by Brooklyn Park has determined that Champlin has the capacity to furnish sewer and water only to the Marvella Addition, and not to any surrounding lands in Brooklyn Park, and

WHEREAS, Brooklyn Park has explored all other possibilities such as replacing existing septic systems with new individual treatment facilities and found this to be unfeasible due to setbacks and cost, and

WHEREAS, the Marvella Addition lies in excess of two miles from the nearest Brooklyn Park water or sewer line, and

WHEREAS, Brooklyn Park agrees with Champlin that Brooklyn Park will not allow any additional properties outside the current development known as the Marvella Addition to connect to the Champlin system due to the limited capacities of Champlin's water and sewer lines, and

WHEREAS, Municipal Statutes Section 471.59 allows Brooklyn Park and Champlin to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities, and

WHEREAS, Brooklyn Park has the authority to specially assess benefitted properties for the cost of public improvements pursuant to State Statutes Chapter 429 and 435.19; and

WHEREAS, Brooklyn Park has received petitions from in excess of 70% of the affected property owners requesting the construction of municipal water and sewer improvements, and

WHEREAS, plans and specifications have been prepared for the improvements and bids have been solicited for these improvements in accordance with Minnesota Statutes, Chapter 429, and

WHEREAS, Brooklyn Park agrees to pay all costs associated with constructing these improvements and interconnecting with the Champlin municipal water and sanitary sewer system and to obtain all necessary permits and approvals from all public agencies, and

WHEREAS, Champlin will be provided an opportunity to review plans and specifications prepared by Brooklyn Park's Consultant as it relates to Champlin's sanitary sewer and water systems, prior to the award of said bids.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Brooklyn Park and Champlin, by executing this agreement, mutually approve Brooklyn Park as the lead agency and agree to review and approve the plans and specifications for said water and sanitary sewer improvements and the interconnection of these improvements to the Champlin municipal system. Champlin shall provide Brooklyn Park with all available data and materials pertinent to the work program as required to complete this project. This data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study materials. Progress meetings will be scheduled for city staffs and other concerned public agencies to discuss issues during the construction phases.

2. Brooklyn Park shall provide Champlin copies of plans prepared by the Consultant and they shall be reviewed and approved by Champlin before any work is initiated within the City of Champlin.

3. Brooklyn Park shall administer the public contract to construct said improvements and shall inspect the construction of the work contemplated herewith, and all work shall be completed in compliance with the plans and specifications. The Champlin City Engineer or staff shall have the right, as work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

   A. The City of Brooklyn Park shall notify Champlin Utility Department 24 hours prior to tying into the sewer and water trunk lines in Champlin. Brooklyn Park shall correct any deficiencies found by the City of Champlin within the Champlin corporate limits.

   B. Any failure of the sewer and water utilities constructed by Brooklyn Park within the City of Champlin, shall be the responsibility of Brooklyn Park to repair to the City of Champlin's satisfaction.

4. Proposed schedule to complete the improvement project described herein is as follows:

Brooklyn Park to conduct public improvement and assessment hearings pursuant to MSA Chapter 429 — July 12, 1993

Award Contract — Between July 12 and August 23, 1993

Complete Construction — August 1, 1994

5. Brooklyn Park shall be responsible for all incurred cost including construction, engineering and administrative cost.

6. Brooklyn Park agrees to pay trunk water and trunk sewer cost as set forth in a letter from Champlin City Engineer, dated February 25, 1993 which is attached hereto and made a part of this agreement (Exhibit A), estimated as follows:

Watermain TSS $1,050 x 30% x 75 units	$23,625.00
Sewer Fees $495.94 x 30% x 75 units	$11,158.65
	$34,783.65

The final number of units will be determined at the assessment hearing.

7. All records kept by Brooklyn Park with respect to construction of these improvements, shall be subject to examination by the City of Champlin.

8. It is understood and agreed that upon completion of the improvements and proposed hearings, all project elements shall be part of the as-built plans prepared by Brooklyn Park and shall become the property of the City in which those improvements are located in, and all maintenance, repair or replacement required thereafter shall be performed by the City where the improvements are located at that City's own expense.

9. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein. Brooklyn Park also agrees that any contract let by the City or its agents for the performance of work on the Marvella Addition improvements as provided for herein shall include clauses that will:

   1. Require the Contractor to defend, indemnify, and save harmless Brooklyn Park and Champlin, their officers, agents, and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney fees,

witness fees, and disbursements incurred in the defense thereof) arising out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and

2. Require the Contractor to provide and maintain sufficient insurance so as to insure the performance of its hold harmless obligation.

10. Brooklyn Park agrees to pay Champlin for water metered and read by Brooklyn Park employees and for sanitary sewer disposal at a rate equal to that set by the Champlin for other similar usages. Brooklyn Park will bill each property in Brooklyn Park for their specific water and sewer usage. At a future time when Brooklyn Park connects these improvements to the Brooklyn Park system, Brooklyn Park agrees to properly disconnect at the right-of-way and to shut off the water valve that interconnects the two systems. An interconnect of the two municipal water systems shall continue in the future and can be used for emergency purposes to protect health, safety, and general welfare of persons residing in both cities. Brooklyn Park shall submit to the City of Champlin by the 28th of each month the total amount of water used from the residents on the line. This will be based on the total water use of the water meters in the meter vault or the total from each of the homes.

11. Brooklyn Park shall notify Champlin in writing within ten (10) days after the permit is issued for one of the subject properties to hook up to said facility, that Champlin may commence to Brooklyn Park for the use charges for said property in it next monthly billing.

12. Service availability connection charges (SAC) made by the Metropolitan Waste Control Commission shall be collected by Brooklyn Park at the time that the permit is issued and Brooklyn Park shall be responsible for the payment of said charges directly to the Metropolitan Waste Control Commission.

13. Either City can request an amendment to this agreement allowing the adjustment of the water and sanitary sewer trunk fee, which is now projected to be changed over to the City of Brooklyn Park in 15 years.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK

BY _____
Mayor

CITY OF CHAMPLIN

BY _____
Mayor

DATE: _____

AND: _____
Manager

DATE: _____

(Seal)

DATE: 9/2/93

AND: _____
Manager

DATE: Sept 9, 1993

(Seal)

EXHIBIT "A"

City of Champlin

11955 CHAMPLIN DRIVE CHAMPLIN, MN 55316-2399 (612) 421-8100

February 25, 1993

City of Brooklyn Park
Attn: Dick Loberg
5200 - 85th Avenue N.
Brooklyn Park, MN 55443-4300

Re: Marvella Addition's Watermain Trunk, Source and Storage Fee and Sanitary Sewer Trunk Fee

Dear Dick:

This is to confirm what was sent to you the other day regarding the fees due on the Marvella Addition at the time of connection. The watermain trunk, source and storage fee is calculated as follows:

> Per the Agreement on the Champlin Park High School: $1,050 per unit X 30% X number of trunk source and storage units in area, which is 75 units for Marvella Addition. The 30 percent was based on the use of the Champlin watermain system for 15 years out of a total watermain lifetime of 50 years. The total for the watermain trunk, source and storage fee is **$23,625.00.**
>
> The sanitary sewer fee is based on the same method of calculation, which is $495.94 per unit times 30% X number of sanitary sewer trunk units in the Marvella Addition, which is 75 units, for a total of **$11,159.00.**

The total amount due upon connection to the Champlin sewer and water system is $34,784. If you have any questions, or if I can be of any service to you please contact me.

Sincerely,

Jack

Jack Bittle, P.E.
City Engineer

JWB/20226

cc: Chet Herrboldt, Utilities Superintendent

The City of Champlin is an Equal Opportunity/Affirmative Action Employer

City of Champlin

11955 CHAMPLIN DRIVE CHAMPLIN, MN 55316-2399 (612) 421-8100

December 16, 1993

Gary Brown, City Engineer
5200 85th Avenue
Brooklyn Park, MN 55443-4300

Re: Updated Letter Regarding Sewer and Water Rates for the Marvella Addition

Dear Gary:

This is in regard to my December 10th letter concerning date of payment by Brooklyn Park and our follow-up discussion on December 23, 1993.

The City of Champlin will be charging Brooklyn Park for the sewer and water use for the Marvella Addition on a monthly basis for the homes connected to the sewer and water based on the flow through the water meter, located at 109th and Quebec Avenues. Brooklyn Park will be responsible for billing the resident in the Marvella Addition.

Brooklyn Park will be charged the following rates for the Marvella Addition:

Water $0.95 per 1000 gallons

Sewer $1.56 per 1000 gallons

The City of Champlin will be responsible for reading the water meter by the 25th of each month and billing the Finance Department at Brooklyn Park by the 7th of the month. Brooklyn Park will be responsible for paying the bill by the 23rd of the month. The above rates are the same as the Champlin Park High School. The City of Champlin will be reviewing its sewer rate structure in 1994 to determine if an adjustment is needed.

The City of Champlin will be billing Brooklyn Park Engineering Department a one-time charge for the sewer and water trunk fee on a quarterly basis. The sewer trunk fee is $148.78 per home. The water trunk, source and storage fee is $315.00 per home. Brooklyn Park will be paying the SAC charge directly to the MWCC.

Attached, along with the invoice is a list of the 23 connections that we are now charging for sewer and water connections. Please send an updated sewer and water connection list by February 25, 1994 for the next billing in March of 94.

If the above is acceptable, I will set up the billing process to start on January 7, 1994.

If you have any questions or if I can be of any further service to you please contact me.

Sincerely,

Jack

Jack Bittle, P.E.
City Engineer File

The City of Champlin is an Equal Opportunity/Affirmative Action Employer

MARVELLA ADDITION
CITY OF BROOKLYN PARK

New [illegible] list 12/7/93

ADDRESS	DATE CONNECTED	COMMENTS
10500 Quebec Avenue		
10501 Quebec Avenue		
10508 Quebec Avenue	10/29/93*	
10509 Quebec Avenue	11/93	
10516 Quebec Avenue	11/93	
10517 Quebec Avenue	11/3/93*	
10524 Quebec Avenue		
10525 Quebec Avenue	10/29/93*	
10532 Quebec Avenue	11/93	
10533 Quebec Avenue		
10540 Quebec Avenue		
10541 Quebec Avenue	10/29/93*	
10600 Quebec Avenue	10/22/93*	
10601 Quebec Avenue		
10608 Quebec Avenue		
10609 Quebec Avenue		
10624 Quebec Avenue		
10625 Quebec Avenue	10/22/93*	
10632 Quebec Avenue		
10633 Quebec Avenue		
10640 Quebec Avenue		
10641 Quebec Avenue		
10500 Rhode Island	11/93	
10501 Rhode Island		
10508 Rhode Island	11/93	
10509 Rhode Island		
10516 Rhode Island		
10517 Rhode Island	11/93	
10524 Rhode Island	10/29/93*	
10525 Rhode Island		
10532 Rhode Island		
10533 Rhode Island	10/29/93*	
10540 Rhode Island		
10600 Rhode Island	11/93	

ADDRESS	DATE CONNECTED	COMMENTS
10601 Rhode Island	11/93	
10608 Rhode Island	11/93	
10609 Rhode Island		
10616 Rhode Island		
10617 Rhode Island		
10624 Rhode Island		
10625 Rhode Island		
10632 Rhode Island		
10633 Rhode Island		
10641 Rhode Island		
10500 Sumter Avenue	11/93	
10508 Sumter Avenue		
10516 Sumter Avenue		
10524 Sumter Avenue		
10525 Sumter Avenue		
10532 Sumter Avenue	11/93	
10533 Sumter Avenue		
10600 Sumter Avenue		
10608 Sumter Avenue		
10616 Sumter Avenue		
10617 Sumter Avenue		
10624 Sumter Avenue		
10625 Sumter Avenue		
10632 Sumter Avenue	10/18/93*	
10640 Sumter Avenue	11/3/93*	
10500 Winnetka	10/22/93*	
10508 Winnetka		
10516 Winnetka		
10524 Winnetka		
10540 Winnetka		
10600 Winnetka		
10608 Winnetka		
10621 Winnetka		
10624 Winnetka		
10625 Winnetka	11/93	

* On last month's list

CITY OF CHAMPLIN
~~12001 Highway 52~~
CHAMPLIN, MINNESOTA 55316
11955 Champlin Drive

Phone ~~421-8064~~ 421-1955

DATE 12/27/93
NUMBER 602-37200-7205
601-37100-7105

City of Brooklyn Park
Engineering Department
5200 85th Avenue N
Brooklyn Park, MN 55443

Attn: Gary Brown

179

TERMS:

PLEASE DETACH AND RETURN WITH YOUR REMITTANCE

$ 10,666.94

DATE	CHARGES AND CREDITS	BALANCE	
	BALANCE FORWARD		
12/27/93	Water Connection/23 homes at $315.00 per home	$7245	00
	Sewer Connection/23 homes at $148.78 per home	$3421	94
	Amount now due	$10666	94

501 4001 804 90.00
501 4101 806 79.00

CITY OF CHAMPLIN

Thank You

PAY LAST AMOUNT IN THIS COLUMN

COOPERATIVE JOINT POWERS AGREEMENT
MARVELLA IMPROVEMENTS
BROOKLYN PARK AND CHAMPLIN

THIS AGREEMENT, made and entered into this 26th day of July, 19 93, by and between the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park;" and the City of Champlin, hereinafter referred to as "Champlin."

WITNESSETH:

WHEREAS, Brooklyn Park and Champlin are desirous of eliminating a public health hazard in a Brooklyn Park Subdivision known as Marvella Addition, and

WHEREAS, Brooklyn Park has developed and maintained a controlled growth program applicable to the subdivision and development of lands within Brooklyn Park for the last 30 years, and

WHEREAS, Brooklyn Park has utilized its power to control the extension of municipal utilities as a manner of limiting growth to areas that are served by public facilities, and in this manner have saved substantial amounts of money for its residents by limiting "leapfrog" development, by eliminating the development of parcels in areas which are not served by municipal facilities and therefore protecting the health, safety and general welfare of its residents, and by promoting an orderly growth program which maximizes municipal services at the most efficient cost possible, and

WHEREAS, Brooklyn Park has been threatened by litigation from property owners whose property lies beyond the existing Brooklyn Park public utility systems, and said parcels have asked to be allowed to develop the individual systems or have suggested the possibility of obtaining services from surrounding communities, and

WHEREAS, the City has litigated this question in the case of Coleman vs. the City of Brooklyn Park and has maintained that the orderly development of Brooklyn Park is within the police powers of Brooklyn Park and protects the health, safety, and general welfare of all of its residents and property owners, and

WHEREAS, current municipal systems do not serve and are not anticipated to serve the Marvella Addition for many years, and

WHEREAS, the next scheduled areas of growth are currently receiving trunk sanitary sewer, water, and storm sewer systems in an area bounded by Zane Avenue, 85th Avenue, West Broadway and 93rd Avenue and on the Comprehensive Plan these areas are a part of Area D, Phases I and II and are projected to take place between the years of 1990 and 2000 and Area E, Phase III, which is expected to develop within the 1990 to 2000 timeframe, and

WHEREAS, the Marvella Addition lies in Area G of Brooklyn Park's Comprehensive Growth Management Phased Areas, which is expected to be developed in the year 2020 and beyond, and

WHEREAS, the Brooklyn Park Health Inspector and City Engineer have determined that between one third and one half of the residents in the Marvella Addition are experiencing either failing septic systems or contamination of shallow wells, and

WHEREAS, both Brooklyn Park and Champlin are concerned about the contamination of ground water, and

WHEREAS, a feasibility study has determined that it is feasible to construct water and sewer facilities from Marvella Addition northerly approximately 1300 feet and connect them to Champlin by crossing under 109th Avenue North, and

WHEREAS, a Consulting Engineer employed by Brooklyn Park has determined that Champlin has the capacity to furnish sewer and water only to the Marvella Addition, and not to any surrounding lands in Brooklyn Park, and

WHEREAS, Brooklyn Park has explored all other possibilities such as replacing existing septic systems with new individual treatment facilities and found this to be unfeasible due to setbacks and cost, and

WHEREAS, the Marvella Addition lies in excess of two miles from the nearest Brooklyn Park water or sewer line, and

WHEREAS, Brooklyn Park agrees with Champlin that Brooklyn Park will not allow any additional properties outside the current development known as the Marvella Addition to connect to the Champlin system due to the limited capacities of Champlin's water and sewer lines, and

WHEREAS, Municipal Statutes Section 471.59 allows Brooklyn Park and Champlin to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities, and

WHEREAS, Brooklyn Park has the authority to specially assess benefitted properties for the cost of public improvements pursuant to State Statutes Chapter 429 and 435.19; and

WHEREAS, Brooklyn Park has received petitions from in excess of 70% of the affected property owners requesting the construction of municipal water and sewer improvements, and

WHEREAS, plans and specifications have been prepared for the improvements and bids have been solicited for these improvements in accordance with Minnesota Statutes, Chapter 429, and

WHEREAS, Brooklyn Park agrees to pay all costs associated with constructing these improvements and interconnecting with the Champlin municipal water and sanitary sewer system and to obtain all necessary permits and approvals from all public agencies, and

WHEREAS, Champlin will be provided an opportunity to review plans and specifications prepared by Brooklyn Park's Consultant as it relates to Champlin's sanitary sewer and water systems, prior to the award of said bids.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Brooklyn Park and Champlin, by executing this agreement, mutually approve Brooklyn Park as the lead agency and agree to review and approve the plans and specifications for said water and sanitary sewer improvements and the interconnection of these improvements to the Champlin municipal system. Champlin shall provide Brooklyn Park with all available data and materials pertinent to the work program as required to complete this project. This data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study materials. Progress meetings will be scheduled for city staffs and other concerned public agencies to discuss issues during the construction phases.

2. Brooklyn Park shall provide Champlin copies of plans prepared by the Consultant and they shall be reviewed and approved by Champlin before any work is initiated within the City of Champlin.

3. Brooklyn Park shall administer the public contract to construct said improvements and shall inspect the construction of the work contemplated herewith, and all work shall be completed in compliance with the plans and specifications. The Champlin City Engineer or staff shall have the right, as work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

   A. The City of Brooklyn Park shall notify Champlin Utility Department 24 hours prior to tying into the sewer and water trunk lines in Champlin. Brooklyn Park shall correct any deficiencies found by the City of Champlin within the Champlin corporate limits.

   B. Any failure of the sewer and water utilities constructed by Brooklyn Park within the City of Champlin, shall be the responsibility of Brooklyn Park to repair to the City of Champlin's satisfaction.

4. Proposed schedule to complete the improvement project described herein is as follows:

Brooklyn Park to conduct public improvement and assessment hearings pursuant to MSA Chapter 429	July 12, 1993
Award Contract	Between July 12 and August 23, 1993
Complete Construction	August 1, 1994

5. Brooklyn Park shall be responsible for all incurred cost including construction, engineering and administrative cost.

6. Brooklyn Park agrees to pay trunk water and trunk sewer cost as set forth in a letter from Champlin City Engineer, dated February 25, 1993 which is attached hereto and made a part of this agreement (Exhibit A), estimated as follows:

Watermain TSS $1,050 x 30% x 75 units	$23,625.00
Sewer Fees $495.94 x 30% x 75 units	$11,158.65
	$34,783.65

The final number of units will be determined at the assessment hearing.

7. All records kept by Brooklyn Park with respect to construction of these improvements, shall be subject to examination by the City of Champlin.

8. It is understood and agreed that upon completion of the improvements and proposed hearings, all project elements shall be part of the as-built plans prepared by Brooklyn Park and shall become the property of the City in which those improvements are located in, and all maintenance, repair or replacement required thereafter shall be performed by the City where the improvements are located at that City's own expense.

9. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein. Brooklyn Park also agrees that any contract let by the City or its agents for the performance of work on the Marvella Addition improvements as provided for herein shall include clauses that will:

   1. Require the Contractor to defend, indemnify, and save harmless Brooklyn Park and Champlin, their officers, agents, and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney fees,

witness fees, and disbursements incurred in the defense thereof) arising out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and

2. Require the Contractor to provide and maintain sufficient insurance so as to insure the performance of its hold harmless obligation.

10. Brooklyn Park agrees to pay Champlin for water metered and read by Brooklyn Park employees and for sanitary sewer disposal at a rate equal to that set by the Champlin for other similar usages. Brooklyn Park will bill each property in Brooklyn Park for their specific water and sewer usage. At a future time when Brooklyn Park connects these improvements to the Brooklyn Park system, Brooklyn Park agrees to properly disconnect at the right-of-way and to shut off the water valve that interconnects the two systems. An interconnect of the two municipal water systems shall continue in the future and can be used for emergency purposes to protect health, safety, and general welfare of persons residing in both cities. Brooklyn Park shall submit to the City of Champlin by the 28th of each month the total amount of water used from the residents on the line. This will be based on the total water use of the water meters in the meter vault or the total from each of the homes.

11. Brooklyn Park shall notify Champlin in writing within ten (10) days after the permit is issued for one of the subject properties to hook up to said facility, that Champlin may commence to Brooklyn Park for the use charges for said property in it next monthly billing.

12. Service availability connection charges (SAC) made by the Metropolitan Waste Control Commission shall be collected by Brooklyn Park at the time that the permit is issued and Brooklyn Park shall be responsible for the payment of said charges directly to the Metropolitan Waste Control Commission.

13. Either City can request an amendment to this agreement allowing the adjustment of the water and sanitary sewer trunk fee, which is now projected to be changed over to the City of Brooklyn Park in 15 years.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK	CITY OF CHAMPLIN
BY _____	BY _____
Mayor	Mayor

DATE: _____

AND: _____
Manager

DATE: _____

(Seal)

DATE: 9/2/93

AND: _____
Manager

DATE: Sept 9, 1993

(Seal)

EXHIBIT "A"

City of Champlin

11955 CHAMPLIN DRIVE CHAMPLIN, MN 55316-2399 (612) 421-8100

February 25, 1993

City of Brooklyn Park
Attn: Dick Loberg
5200 - 85th Avenue N.
Brooklyn Park, MN 55443-4300

Re: Marvella Addition's Watermain Trunk, Source and Storage Fee and Sanitary Sewer Trunk Fee

Dear Dick:

This is to confirm what was sent to you the other day regarding the fees due on the Marvella Addition at the time of connection. The watermain trunk, source and storage fee is calculated as follows:

> Per the Agreement on the Champlin Park High School: $1,050 per unit X 30% X number of trunk source and storage units in area, which is 75 units for Marvella Addition. The 30 percent was based on the use of the Champlin watermain system for 15 years out of a total watermain lifetime of 50 years. The total for the watermain trunk, source and storage fee is **$23,625.00.**
>
> The sanitary sewer fee is based on the same method of calculation, which is $495.94 per unit times 30% X number of sanitary sewer trunk units in the Marvella Addition, which is 75 units, for a total of **$11,159.00.**

The total amount due upon connection to the Champlin sewer and water system is $34,784. If you have any questions, or if I can be of any service to you please contact me.

Sincerely,

Jack

Jack Bittle, P.E.
City Engineer

JWB/20226

cc: Chet Herrboldt, Utilities Superintendent

The City of Champlin is an Equal Opportunity/Affirmative Action Employer

New School

Revised April 5, 2001

AGREEMENT BETWEEN THE CITY OF BROOKLYN PARK, THE CITY OF CHAMPLIN AND ANOKA-HENNEPIN INDEPENDENT SCHOOL DISTRICT NO. 11

THIS AGREEMENT, made and entered into this 9th day of April, 2001, by and between the City of Brooklyn Park, the City of Champlin, Minnesota municipal corporations, and Anoka-Hennepin Independent School District No. 11, hereinafter referred to as the "District."

WITNESSETH:

WHEREAS, the City of Brooklyn Park has developed and maintained a Growth Control Program applicable to the subdivision and development of lands within the City for the last 37 years, and

WHEREAS, the City of Brooklyn Park has utilized its power to control the extension of municipal utilities as a manner of limiting growth to areas that are served by public facilities, and in this manner has saved substantial amounts of money for its residents by limiting "leap frog"development, by eliminating the development of parcels in areas which are not served by municipal facilities and therefore protecting the health, safety, and general welfare of its residents, and by promoting an orderly growth program which maximizes municipal services at the most efficient cost possible, and

WHEREAS, the current municipal systems are essentially located in areas southerly of 101st Avenue and/or easterly of Regent Avenue and then easterly to approximately Xerxes Avenue and then northerly and easterly to the Mississippi River; and

WHEREAS, the next scheduled areas of growth are to proceed easterly to Douglas Drive and northerly to 109th Avenue, and on the Comprehensive Plan these areas are a part of Phase 2 and are projected to take place between the years 2001-2005, and

WHEREAS, the District approached the City of Brooklyn Park in 2000 and indicated an interest in acquiring land southerly of 109th Avenue and westerly of Douglas Avenue, and stated that they were proposing to acquire 22.23 acres in the City of Brooklyn Park for the construction of a new elementary school, and

WHEREAS, the Brooklyn Park City Council and the City of Brooklyn Park staff questioned the acquisition of property in this area because of the lack of public utilities in this area, and the City of Brooklyn Park concluded that it could not extend trunk sanitary sewer and/or trunk municipal water facilities to this property in a timely fashion and without extensive public expenditures and the need to incur debt for services in areas which are not currently scheduled for development under the Comprehensive Plan; and

WHEREAS, despite the City of Brooklyn Park's concerns, the District proceeded to acquire 22.23 acres of property southerly of 109th Avenue and westerly of Douglas Avenue and have developed plans for investing a large sum of public funds in building construction and now need

municipal utilities to service those new buildings, and have approached the City of Brooklyn Park and the City of Champlin indicating that they need municipal services for the new elementary school, and

WHEREAS, the City of Brooklyn Park is not desirous of allowing premature development of lands within the City of Brooklyn Park, but since the City of Brooklyn Park had no legal authority to prohibit the District's acquisition of the property and is unable to stop the construction of the elementary school facility, and the Brooklyn Park City Council is concerned because both the City of Brooklyn Park and the District are spending tax dollars and their responsibilities are to proceed in the most efficient manner to protect the general public, and

WHEREAS, the alternatives which are left available to the City of Brooklyn Park are to extend municipal facilities beyond the existing termination points to protect the health, safety, and welfare of the children who will be attending the elementary school, and

WHEREAS, the City of Brooklyn Park further finds that it is not in the public interest to deny public utilities to serve this property;

WHEREAS, the City of Brooklyn Park does not currently have sanitary sewer service available to serve the District property but has a joint project with Hennepin County to reconstruct Zane Avenue/Douglas Drive from T.H. 610 to north of 109th Avenue and extend sanitary sewer and watermain along Douglas Drive to the planned intersection of 107th Avenue (City of Brooklyn Park Projects ST-1267, S-1297 and W-1298), hereinafter referred to as the "project,"

WHEREAS, Hennepin County is the lead agency for the project and the City of Brooklyn Park therefore has limited ability to control the prosecution of work under the contract for the project,

WHEREAS, the District has acknowledged that sanitary sewer will not be available at the start of construction of their facility, that there is no guarantee it will be available to the school when the District wishes to occupy the building, and that a certificate of occupancy for the elementary school will not be issued by the City of Brooklyn Park until the sanitary sewer is available and operational to the school and until all other requirements necessary for the issuance of a certificate of occupancy have been met, and

WHEREAS, the District has acknowledged that it is responsible for extending sanitary sewer from the intersection of 107th Avenue and Douglas Dive to the school property, and

WHEREAS, the District has acknowledged that the watermain in Douglas Drive will not be operational to serve the school, and

WHEREAS, the City of Champlin lies northerly of and abutting the property acquired by the District, and it appears that their municipal water system could be extended from its present location, northerly of 109th Avenue and westerly of Brittany Drive, and that an extension could be constructed to the property owned by the District within the right-of-way under the control of the Cities, and

WHEREAS, the District has acknowledged that it is its responsibility to extend the watermain from the City of Champlin to the school property and that no permits for construction of the elementary school above grade will be issued until such connection has been made and the watermain is available and operational to the school, and

WHEREAS, the City of Brooklyn Park has on previous occasions constructed future water interconnects with municipal systems located in abutting cities so that the individual municipal water systems could eventually be tied together if needed and provide back-up support in case of a major fire or failure of either of the municipal systems in the abutting communities, and that therefore the interconnects between the municipal systems guarantees water pressure in case of major fires and provides a municipal water supply in case of a failure of either system, and therefore protects the health, safety, and general welfare of the residents of both Cities involved in the interconnect, and

WHEREAS, an alternative would be to require the District to construct an individual water system on their property to serve the school, which would be extremely costly and inefficient in that municipal water will eventually be provided to the site, and the District acknowledges that it is not equipped to operate a large water system, and it is deeply desirous to obtaining a municipal water supply to its new elementary school, and

WHEREAS, the City of Brooklyn Park, the City of Champlin, and the District desire to make arrangements for the collection of fees and charges for municipal water, and

WHEREAS, the City of Champlin has expressed a concern regarding the need for a traffic signal at the intersection of 109th Avenue and Idaho Avenue due to traffic generated by the school, and

WHEREAS, the Anoka-Hennepin Elementary School Traffic Study prepared by SRF Consulting Group, dated December 28, 2000, indicates the intersection does not meet the Minnesota Manual of Uniform Traffic Control Devices (MMUTCD) minimum warrants for the installation of a traffic signal; and

WHEREAS, the parties have met and reviewed the various alternatives and the District acknowledges that the problems in providing municipal utilities in an area which is not scheduled for development and the District has indicated a willingness to cooperate in every way possible with the City to limit development in the area and has agreed with the City to pay costs currently required to make interconnects with the Champlin municipal water system and all applicable fees and assessments, and further desires to acknowledge its responsibility for all future extensions of municipal utilities on or abutting its property and to pay its fair share as any other taxpayer or property owner in the area would be required to do when the systems are extended, and

WHEREAS by entering into this agreement, the City of Brooklyn Park is not intending to change the sequencing of private land development as set forth in the City's master plan for the northern portion of the City.

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENTANTS AND AGREEMENTS HEREIN CONTAINED, IT IS HEREBY AGREED BY AND BETWEEN THE

PARTIES, as follows:

1. The parcels encumbered by this Agreement are as indicated as Parcel A on the Certificate of Survey in Exhibit A which is attached hereto and made a part of this Agreement,

2. The District shall be responsible for the cost of construction and future maintenance of the municipal water system connection and piping from the connection north of 109th Avenue to the school property as shown on the preliminary water service schematic in Exhibit B and any costs associated thereto. The connection shall include at a minimum a valve placed at the right-of-way lines on 109th Avenue in both cities to allow for disconnection in the future as the cities have determined that there is no need to interconnect the two municipal water systems at this location. The final plans for the connection shall be approved by the City of Brooklyn Park and the City of Champlin prior to commencing construction. The District shall be responsible for the costs of any future disconnection and abandonment when the City of Brooklyn Park provides municipal water to the elementary school or as otherwise directed by the City of Brooklyn Park or the City of Champlin.

3. The District agrees to pay the City of Champlin an annual watermain trunk, source and storage fee of $1,900 per residential equivalent connection (REC) unit until March 1, 2003, prorated based on a 50 year design life of the watermain system. The number of REC units will be confirmed by the Metropolitan Council when it makes the determination on the number of Sanitary Availability Charge (SAC) units. If the need for the City of Champlin municipal water system connection extends beyond March 1, 2003, the fee will increase at a $100 per REC on an annual basis if the school stays connected to the City of Champlin watermain system again prorated based on a 50 year design life of the watermain system.

4. The District will pay the City of Brooklyn Park for its water bill as metered at the elementary school just as any other municipal customer within the corporate limits of the City of Brooklyn Park and the City of Brooklyn Park agrees to purchase said water from the City of Champlin at Champlin's public utility rate and will add all its other normal additional administrative costs to the amount charged to the District. The City of Champlin will read the meters and bill the City of Brooklyn Park appropriately.

5. The District has agreed to pay the City of Brooklyn Park $2,850 per acre for trunk watermain in accordance with the approved Conditional Use Permit for the school (CUP#00-182).

6. The District further agrees that when the City of Brooklyn Park extends its municipal water supply to the school, the watermain may be constructed on or near the District property, and the City will make all applicable and remaining special assessments for construction and related costs of the watermain and connection to the school. It is the intention of the City to specially assess said normal costs in accordance with their then existing special assessment policies at the time said watermain is extended, and the District agrees to pay to the City the normal assessment costs as any other property owner in the area, and agrees not to protest, challenge, or contest the City's specially assessing said costs against the District and the properties described in paragraph 1 above. The City has entered into this agreement based on the representations, covenants, and agreements of the

District that it will not protest, challenge, or contest these future special assessments, and the City is entering into this agreement in an effort to provide utilities to the District in a manner which basically is a departure from the City's comprehensive plan, If for any reason the District contests said future costs and the City is required to bring legal action to collect the special assessments, the District hereby agrees to pay all costs incurred by the City including specifically all attorneys' fees.

7. The District further agrees to pay the City of Brooklyn Park all normal Water Availability Charges (WAC) due and owing to the City of Brooklyn Park at the time the school is connected to the City of Brooklyn Park municipal water service.

8. The District shall be responsible for providing the connection from the City of Brooklyn Park sanitary sewer manhole to be provided on the west side of Douglas Drive at the future intersection of 107th Avenue as shown on plan sheet #___ in Exhibit C and any costs associated thereto. The school's service shall be located west of the trail on the west side of Douglas Drive and connected as shown on the Grading, Drainage and Utility Plan in Exhibit D.

9. The District will pay the City of Brooklyn Park $3,500 per acre for trunk sanitary sewer in accordance with the approved Conditional Use Permit for the school (CUP#00-182).

10. The District further agrees to pay the City of Brooklyn Park all SAC charges due and owing to the Metropolitan Council Environmental Services (MCES) at the time the Building Permit for the school is issued.

11. The District further agrees that storm sewer now being constructed on its properties has no positive outlet as shown on the Grading, Drainage and Utility Plan in Exhibit D. A positive outlet will be proved to the District property in the future when the municipal storm sewer system is extended in this area, and the City will make all applicable and remaining special assessments for construction of storm sewer. It is the intention of the City to specially assess said normal costs in accordance with their then existing special assessment policies at the time said storm sewer is extended, and the District agrees to pay to the City the normal assessment costs as any other property owner in the area, and agrees not to challenge, contest, or protest the City's specially assessing said costs against the District and the properties described in paragraph 1 above. The City has entered into this agreement based on the representations, covenants, and agreements of the District that it will not challenge, protest, or contest these future special assessments, and the City is entering into this agreement in an effort to provide utilities to the District in a manner which basically is a departure from the City's comprehensive plan, If for any reason the District contests said future costs and the City is required to bring legal action to collect the special assessments, the District hereby agrees to pay all costs incurred by the City including specifically all attorneys' fees.

12. The District will pay the City of Brooklyn Park $2,500 per acre for trunk storm sewer in accordance with the approved Conditional Use Permit for the school (CUP#00-182).

13. The District will grant easements acceptable to the City of Brooklyn Park along the easterly, southerly, westerly, and northerly boundaries of the District's property as required for the construction of municipal utilities and/or streets, and said easements shall be reviewed and approved by the Engineering Department of the City of Brooklyn Park.

14. The District will grant the City of Champlin access to its property for purposes of reading meters, repair, inspection and replacement of the necessary equipment to connect the school to the City of Champlin municipal water system and the District shall execute all necessary easement documents to establish this access right.

15. The City of Brooklyn Park, the City of Champlin and the District acknowledge that a traffic signal is not currently warranted at the intersection of 109th Avenue and Idaho Avenue based on the Minnesota Manual on Uniform Traffic Control Devices (MMUTCD). The District agrees to pay for the installation of a traffic signal at this location should traffic volumes from the school warrant the installation based on the MMUTCD and as determined by the City of Brooklyn Park and the City of Champlin. The District reserves the right to seek alternative funding to pay for the traffic signal if warranted.

16. The District will not occupy the school without first receiving an appropriate Certificate of Occupancy for the school from the City of Brooklyn Park in accordance with the then governing State Building Code. If the District occupies the school prior to issuance of the appropriate Certificate of Occupancy, the District acknowledges that it will be in breach of this agreement, and in violation of the approved Conditional Use Permit for the school (CUP #00-182). If the District occupies the school in violation of this agreement, the City of Brooklyn Park may exercise any of the rights or remedies available to it under the State Building Code, State Law or the City Code. In addition, the City may charge the District a daily fee of $100.00 per student enrolled in the school for each day that it occupies the school prior to Certificate of Occupancy issuance.

City of Brooklyn Park

By: _____
Its Mayor

By: _____
Its City Manager

City of Champlin

By: _____
Its Mayor

By: _____
Its City Clerk

Anoka-Hennepin Independent School District No. 11

By: _____

Its Chairperson

By: _____

Its Clerk

AGREEMENT BETWEEN THE CITY OF BROOKLYN PARK
AND ANOKA-HENNEPIN INDEPENDENT SCHOOL DISTRICT NO. 11

THIS AGREEMENT, made and entered into this 13th day of May, 1991, by and between the City of Brooklyn Park, a Minnesota municipal corporation, hereinafter referred to as the "City", and Anoka-Hennepin Independent School District No. 11, a Minnesota municipal corporation, hereinafter referred to as the "District".

WITNESSETH:

WHEREAS, the City has developed and maintained a Growth Control Program applicable to the subdivision and development of lands within the City for the last 27 years, and

WHEREAS, the City has utilized its power to control the extension of municipal utilities as a manner of limiting growth to areas that are served by public facilities, and in this manner has saved substantial amounts of money for its residents by limiting "leap frog" development, by eliminating the development of parcels in areas which are not served by municipal facilities and therefore protecting the health, safety, and general welfare of its residents, and by promoting an orderly growth program which maximizes municipal services at the most efficient cost possible, and

WHEREAS, the City has been threatened by litigation from property owners whose property lies beyond the existing municipal public utility system, and said parcels have asked to be allowed to develop with individual systems or have suggested the possibility of obtaining service from surrounding communities, and

WHEREAS, the City has litigated this question in the case of Coleman v. City of Brooklyn Park and has maintained that the orderly development of the City is within the police powers of the City and protects the health, safety, and general welfare of all its residents and property owners, and

WHEREAS, the current municipal systems are essentially in areas southerly of 85th Avenue and/or easterly of Zane Avenue to 93rd Avenue North and then easterly to approximately Xerxes Avenue and then by angles northerly and easterly to the Mississippi River; and

WHEREAS, the next scheduled areas of growth are to proceed westerly from Zane Avenue to an area generally located southwesterly of the proposed right-of-way of the new 610 Highway to the westerly City boundary, and on the Comprehensive Plan these areas are a part of Area D, Phases 1 and 2, and are projected to take place between the years 1990 and 2000 and Area E, Phase 3, which is expected to develop within the 1990-2000 time frame, and

WHEREAS, the District approached the City in 1989 and indicated an interest in acquiring land southerly of 109th Avenue and easterly of Douglas Avenue, and stated that they were proposing to acquire 85 acres in the City of Booklyn Park across from Oxbow Elementary School and Jackson

Junior High School for the construction of a new high school, and

WHEREAS, the City Council and the City staff strongly discouraged the acquisition of property in this area because of the lack of public utilities in the area, and the City concluded that it could not extend trunk sanitary sewer and/or trunk municipal water facilities to this area without extensive public expenditures and the need to incur debt for services in area which are not scheduled for development under the Comprehensive Plan until after the year 2000, and

WHEREAS, the District proceeded over the City's objections to acquire 85 acres of property southerly of 109th Avenue North and easterly of Douglas Avenue North and have developed plans for investing a large sum of public funds in building construction and now need municipal utilities to service those new buildings, and have now approached the City indicating that they need municipal services for the new high school, and

WHEREAS, the City is placed in a position where its entire comprehensive and growth management plan is placed in jeopardy by the premature development of lands within the City, but since the City had no legal authority to stop the District from utilizing its powers of eminent domain, the City was unable to prohibit the District's acquisition of the property and is unable to stop the construction of the high school facility, and the City Council is concerned because both the City and the District are spending tax dollars and their responsibilities are to proceed in the most efficient manner to protect the general public, and

WHEREAS, the alternatives which are left available to the City are to extend unicipal facilities far beyond the existing termination points and to petition the Metropolitan Waste Control Commission to allow the City to extend a line from its CAB interceptor sewer line located in the area, as a part themunicipal system to protect the health, safety, and welfare of the children who will be attending the school, and

WHEREAS, the City further finds that it is not in the public interest to deny sanitary sewer service and require a privately constructed sanitary sewer disposal system in this area and this requires the City to establish an isolated trunk sanitary sewer service district with a unique connection to the Metro Waste Control Commission's CAB interceptor, and whereas, a private system could jeopardize the ground water and could cause other pollution problems, and therefore finds that the best alternative available to the City and to the District is to petition the Metro Waste Control Commission for direct access to that CAB sewer interceptor to protect the public health, and

WHEREAS, there is a one-well municipal system located in the Ferguson-Riverside Addition which is southerly and easterly of the property acquired by the District, and preliminary engineering studies indicate that an extension of that system would put a municipal utility through areas which are not available for subdividing and development, and would further result in the City carrying $500,000 to $600,000 of long term debt for a facility which would not be available for public use since there is no sanitary sewer service or storm sewer service in the area, and the area is not scheduled under the Comprehensive Plan for development until after

the year 2000, and

WHEREAS, the City of Champlin lies northerly of and abutting the property condemned by the District, and it appears that their municipal system could be extended from its present location, northerly of the Oxbow Elementary School and the Jackson Junior High School, and that an extension could be constructed to the border between the Cities of Brooklyn Park and Champlin on 109th Avenue North and that all the construction would be on property owned by the District and/or within the right-of-way under the control of the Cities, and

WHEREAS, the City has on previous occasions constructed future water interconnects with municipal systems located in abutting cities so that the individual municipal water systems will eventually be tied together and provide back-up support in case of a major fire or failure of either of the municipal systems in the abutting communities, and that therefore the interconnects between the municipal systems guarantees water pressure in case of major fires and provides a municipal water supply in case of a failure of either system, and therefore protects the health, safety, and general welfare of the residents of both Cities involved in the interconnect, and

WHEREAS, another alternative would be to require the District to construct an individual water system on their property to serve the school, which would be extremely costly and inefficient in that municipal water will eventually be provided to the site, and the District acknowledges that it is not equipped to operate a large water system, and it is deeply desirous of obtaining a municipal water supply to its new high school, and

WHEREAS, the City of Brooklyn Park agrees that if the City of Champlin's municipal system is constructed to the Brooklyn Park boundary on 109th Avenue North, an interconnect pipe between the two communities will be constructed and that eventually the Brooklyn Park municipal water system will be brought to this location and interconnected with the Champlin water system, and during the interim period the City of Brooklyn Park will be able to offer a municipl water supply to the District, and the District will pay its water bill just as any other municipal customer within the corporate boundaries of the City, and the City of Brooklyn Park will purchase said water from the City of Champlin and bill the cost of the water supply and all its other additional administrative costs to the amount charged to the District, and the District feels this is the best alternative available to provide a safe and stable water supply to their new high school, and

WHEREAS, the City needs to negotiate and draft a joint powers agreement with the City of Champlin to make arrangements for the collection of fees and charges for municipal water and sanitary sewer fees because the District's sewage will go through a Champlin meter before entering the CAB system, and

WHEREAS, the District has purchased approximately 5 acres of property southeasterly of 109th Avenue North, which is the very northeast portion of the property that they have acquired, and said land is generally low and is a part of the surface water drainage system which currently serves the lands in this area and which will be an integral part of the

future storm water system when the Cities of Champlin and Brooklyn Park construct a municipal storm sewer along the Oxbow Creek alignment, and

WHEREAS, the District represents to the City that the lands they have acquired can be used for ponding of surface water and the drainage of water coming from their facilities, and therefore the development of the new high school site will not cause a problem for other properties in the area because of the District's construction on the westerly 80 acres it has acquired, and the District has further represented to the City that it will dedicate any and all necessary easements in this area for the ponding of surface water and for the eventual outfall for this area and a storm sewer system to serve properties lying southerly, easterly and westerly of the District property, and

WHEREAS, the City's Engineering Department has reviewed the existing 109th Avenue from Douglas Drive easterly across the area being purchased by the District, and has determined that the existing street is in a deteriorated condition and that the heavy use of school buses and additional traffic in the area will create extraordinary maintenance problems for the City, and therefore it is necessary to construct a permanent street and storm sewer system consisting of bituminous surfacing, concrete curb and gutter, sidewalk, traffic safety devices and appurtenant improvements all along the entire length of the District's property, and

WHEREAS, the parties have met and reviewed the various alternatives and the District acknowledges that the problems in providing municipal utilities in an area which is not scheduled for development for ten or more years has created problems for the City, and the District has indicated a willingness to cooperate in every way possible with the City to limit development to the one District high school structure and has agreed with the City to pay costs currently required to make interconnects with the Metropolitan Waste Control Commission's CAB interceptor sewer and with the Champlin municipal water system, and further desires to acknowledge its responsibility for all future extensions of municipal utilities on or abutting its property and to pay its fair share as any other taxpayer or property owner in the area would be required to do when the systems are extended, and

WHEREAS, the District has represented to the City that this agreement will be placed of record in the Office of the County Recorder and/or Registrar of Titles encumbering these lands with the District's obligations for future assessments, and as a part of this agreement agrees to pay all costs incurred by the City in providing the District with municipal water supply and an outlet to the CAB interceptor sewer system,

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS AND AGREEMENTS HEREIN CONTAINED, IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES, as follows:

1. The parcels encumbered by this Agreement are legally described in Exhibit A which is attached hereto and made a part of this Agreement,

2. In the future, the City of Brooklyn Park shall install at its expense a water main interconnection with the City of Champlin municipal system when the future Brooklyn Park system is constructed to the Brooklyn Park City boundary. When the two municipal systems are interconnected in the future, the City agrees that the installation shall include a metering device for the purpose of metering the amount of water utilized by Brooklyn Park or Champlin through said interconnect system. The plans and specifications for the interconnect and the construction referred to herein, including the metering devices, shall be approved in writing by the City of Brooklyn Park and the City of Champlin Engineering Departments and the District prior to commencement of construction.

3. The current construction of a line from the Champlin municipal water system to the south side of 109th Avenue North shall contain valves and metering devices which can measure water flowing in either direction. The final physical interconnection of the two municipal water systems shall take place when Brooklyn Park constructs its water trunk from the east and south to the point of the interconnect. The valves and metering devices installed at this time shall be located on the Brooklyn Park side of 109th Avenue North. The water being purchased by Brooklyn Park from Champlin shall be limited by a separate agreement between the cities so that the water service is limited to serving the high school facility located on the property described in paragraph 1 above, with water for human consumption, sanitation, air conditioning, and fire protection, until such time as the Brooklyn park system is constructed and connected to the Champlin system, or unless mutually agreed to by the parties.

4. The District further agrees to pay to the City all of the current construction costs required by the District at this time and described in paragraphs 2, 3, and 5, together with its administrative, engineering, and legal expenses associated therewith and expenses which will be incurred in the preparation of all agreements between the cities for the construction of this interconnect.

5. Sanitary sewer for the District's new high school shall be constructed in accordance with plans prepared by the Brooklyn Park Engineering Department which will provide an outfall from the District property to the Champlin system which will carry the sewage into the CAB interceptor sewer. The City agrees to petition the Metropolitan Waste Control Commission for permision to make such interconnection, with the express understanding the City will commit to the Metropolitan Waste Control Commission and to Champlin that the City will provide a trunk lateral sanitary sewer system and will create a trunk sanitary sewer service area providing an opportunity for the District to install a service connection thereto. The sanitary sewer outfall will be constructed only to serve the new high school and the City has agreed to the necessity for such an interconnection to protect the health, safety, and general welfare of the persons utilizing the high school facility and further to protect the ground water from pollution. The plans and specifications for the sanitary sewer construction, including any metering devices, shall be approved in writing by the Cities of Brooklyn Park and Champlin Engineering Departments and by proper officials representing the District prior to commencement of construction.

6. The District agrees to pay to the City of Brooklyn Park $242,000 as a trunk sanitary sewer and subtrunk sanitary sewer assessment, and to pay all SAC charges due and owing to the Metropolitan Waste Control Commission and further to pay any and all administrative, engineering, and legal costs incurred by the City of Brooklyn Park in the preparation of agreements and for the construction of the system. The construction shall contain valves and metering devices, as required, which shall be located on the Brooklyn Park side of 109th Avenue North.

7. The District further acknowledges that the City will in the future be extending trunk sanitary sewer lines to serve all the properties in this portion of the City of Brooklyn Park, and that the trunk, subtrunk, and lateral lines may be constructed on or near the School District property, and if the District's property were not served by the subtrunk and trunk sanitary sewer system provided for in this Agreement, the City will make normal special assessments for construction of lateral sewer lines. It is the intention of the City to special assess said normal costs in accordance with their then existing special assessment policies at the time said lateral lines are extended, and the District agrees to pay to the City the normal lateral sewer assessment costs as any other property owner in the area, and agrees not to protest the City's specially assessing said costs against the District and the properties described in paragraph 1 above. The City has entered into this agreement based on the representations, covenants, and agreements of the District that it wil not contest these future special assessments, and the City is entering into this agreement in an effort to provide utilities to the District in a manner which basically is a departure from the City's comprehensive plan. If for any reason the District contests said future costs and the City is required to bring legal action to collect the special assessments, the District hereby agrees to pay all costs incurred by the City including specifically all attorneys' fees.

8. The District agrees to grant to the City any and all easements necessary for the construction of surface water/storm sewer facilities on the northeast five acres of property acquired by the District and described in Exhibit A. The District further agrees to grant easements along its easterly, southerly, westerly, and northerly boundaries as required for the construction of municipal utilities, and said easements shall be prepared by the Engineering Department of the City of Brooklyn Park and executed at the same time as this agreement.

9. The District further agrees that storm sewer easements now being given across its properties will be utilized when the Oxbow Creek outfall is constructed in the future and/or when the municipal storm sewer system is extended in this area, and the District agrees to pay special assessments in accordance with the special assessment policies of the City just as any other property owner would in that storm sewer district. The District agrees not to contest the special assessments. The District further agrees to pay any and all administrative, engineering, and legal costs incurred by the City in the preparation of easements, preparation of areas for ponding, and other services incurred by the City to serve the District site and to provide an outfall for the storm waters collected on 109th Avenue North and/or from the District property. If for any reason the District contests said future costs and the City is required to commence

a legal action to collect the special assessments or to enforce this Agreement, the District hereby agrees to pay all costs incurred by the City including specifically all the City's attorneys fees.

10. The District has petitioned the City for bituminous surfacing, concrete curb and gutter, and necessary appurtances, for the construction of a new 109th Avenue North along the boundary between the Cities of Brooklyn Park and Champlin from Douglas Drive easterly to the most easterly portion of the property being acquired by the School District. It has also been determined that traffic safety devices as required along 109th Avenue will be constructed as a part of the 109th Avenue street project. It is understood and agreed by the parties that the street construction will be a joint boundary street project between Champlin and Brooklyn Park and that Brooklyn Park will be the lead agency. The plans and specifications for the work will be approved by both Champlin and Brooklyn Park. The District shall pay the cost of said improvements or shall petition the City to construct said public improvements as a 100% petition for public improvement under Minnesota Statutes Chapter 429, and agrees to pay all the City's administrative, engineering and legal costs.

11. The City agrees it will use its best efforts to obtain cooperative agreements with the City of Champlin for the water and sanitary sewer extensions outlined in this Agreement and to complete the street construction. The District agrees that any and all costs charged to the City of Brooklyn Park by the City of Champlin will be paid by the District.

12. This document shall be placed of record in the office of the Hennepin County Recorder and/or the office of the Registrar of Titles

City of Brooklyn Park

By: _____
Its Mayor

By: _____
Its City Manager

Subscribed and sworn to before me this

23rd day of September, 1991.

_____
Notary Public

CURTIS A. PEARSON
NOTARY PUBLIC - MINNESOTA
HENNEPIN COUNTY
My Commission Expires Feb. 6, 1995

ANOKA-HENNEPIN INDEPENDENT SCHOOL
DIST. NO. 11

By: Michael D. Sullivan
Its Chairperson

By: Marianne Freiberg
Its Clerk

Subscribed and sworn to before me this

13 day of May, 1991.

Ruth Gustafson
Notary Public

RUTH GUSTAFSON
NOTARY PUBLIC — MINNESOTA
ANOKA COUNTY
My Commission Exp June 7, 1993

8/30/00

JOINT POWERS AGREEMENT FOR THE MAINTENANCE AND OPERATION OF A SEWER AND WATER SYSTEM AT THE CRYSTAL AIRPORT

THIS AGREEMENT is made by and between the City of Brooklyn Park ("City"), a municipal corporation of the State of Minnesota, and the Metropolitan Airports Commission ("MAC"), a public corporation of the State of Minnesota.

WITNESSETH:

WHEREAS, under Minnesota Statutes §§473.601-473.679, MAC owns and operates the Crystal Airport ("Airport"), which is located partially within the City; and

WHEREAS, the City and MAC entered into a Joint Powers Agreement, dated July 27, 1998, in which the City agreed to provide stubs for sanitary sewer and water for MAC at the intersection of Zane Avenue and 63rd Avenue for MAC's connection to the systems; and

WHEREAS, the MAC will construct and own the sanitary sewer and water utilities within the Airport property; and

WHEREAS, the parties have agreed that the City will assist MAC with the operation and maintenance of these sewer and water systems; and

WHEREAS, the parties agree that individual users should be responsible for normal and ordinary Sewer Access Charges ("SAC"), Water Access Charges ("WAC"), Trunk Charges, and other fees, subject to the special characteristics of servicing an airport; and

WHEREAS, the parties have agreed that it is advantageous to provide for the future operation and maintenance of said sewer and water systems; and

WHEREAS, Minnesota Statute §471.59 authorizes governmental units of the state to enter into a joint powers agreement for the joint exercise of powers common to each;

NOW, THEREFORE, the City and MAC agree and contract for the joint exercise of their powers upon the following terms and conditions:

I. PURPOSE

The purpose of this Agreement is to provide for the operation and maintenance of this infrastructure required to provide the sanitary sewer and water services to Airport users.

II. METHOD

The City shall provide Routine Maintenance for the water and sewer mains on MAC property within Brooklyn Park, outside of leasehold areas, the cost for which is defined in Section IV of this Agreement.

Routine Maintenance of the **water system** shall consist of:

- Permitting, inspection, metering, and cost accounting according to the provisions of Section 682 of the City Code.
- Hydrant Flushing twice a year (April & September).
- Annual Hydrant lubrication as needed.
- Annual Painting as needed.
- Annual Pumping water from hydrant barrel as necessary.
- Other annual maintenance repairs as needed other than damage caused by negligence such as vehicle hits, etc.

Routine Maintenance of the **sanitary sewer system** shall consist of:

- Permitting, inspection, metering, and cost accounting according to the provisions of Sections 600, 605, and 610 of the City Code.
- Annual inspection of the manholes.
- Cleaning/flushing as needed.
- Monthly inspection of the lift station with MAC personnel.
- Emergency aid to MAC personnel on an as-needed basis.

MAC property consists of leased and non-leased areas. The MAC shall permit City access to any section of water and sewer main on MAC non-leased property upon at least 24 hour notice by the City. Emergency access to non-leased properties shall be granted immediately provided MAC personnel are notified as soon as possible. Emergencies include water main breaks, sewer backups, or other instances requiring immediate attention to avoid substantial environmental remediation.

Permission to access leased properties at the Airport must be granted by individual Airport tenants. The City agrees to give Airport tenants at least 24 hours notice when requesting access to leasehold property for the purposes of reading meters. The City agrees to work with Airport tenants to address emergency situations to meet tenant needs as well as the immediate concerns of the City.

III. CONNECTION, ACCESS, AND TRUNK CHARGES

The MAC agrees to pay the City Sewer Trunk Charges for connection to the sanitary sewer system as described herein. This charge is based on 17.56 acres times the City trunk charge of $3,500.00 per acre. This Sewer Trunk Charge equates to $61,460.00, and shall be paid by MAC on a per-connection rate of $455.26 per connection based on a total of 135 possible connections. The initial sewer and water installation project in 1999/2000 provides for eight (8) connections, which equates to a $3,642.08 to be paid by MAC. Future extensions of the sewer and water system into non-services areas on Airport property, if completed, will require additional payments of the Sewer Trunk Charge by MAC to the City based on the number of proposed connections times $455.26 per connection.

The MAC will pay the City connection, meter, and inspection fees for the MAC-owned maintenance buildings, public restroom facilities, and plane wash at the time of connection, according to the City's regular, published rates. The City will collect connection, meter, and inspection fees from the individual Airport utility users, and the MAC will not be responsible for these fees.

The City will not issue permits to individual Airport tenants for connection to sanitary sewer and/or water until the Airport tenant presents the City with a signed MAC lease amendment and an approval letter from MAC.

The SAC units for all sanitary sewer connections will be computed according to the regular process outlined in the latest edition of the Metropolitan Council Environmental Services (MCES) Guide, subject to approval by the MCES.

The City agrees to charge Water Access Charges (WAC) according to its regular, published rates. According to City Ordinance, Section 515.30, WAC charges are assessed per connection, and do not change whether the Airport tenant is a Commercial Operator or Storage tenant (per MAC designation). Section 515.30 sets the rates for WAC charges per connection at $1,125.00 in 2000; $1,200.00 in 2001; and $1,275.00 in 2002.

The City agrees to charge Sewer Connection Charges according to its regular, published rates. According to City Ordinance, Section 510.05, sewer connection charges are assessed per connection, and do not change whether the Airport tenant is a Commercial Operator or Storage tenant (per MAC designation). Section 510.05 sets the rates for sewer connection charges per connection at $150.00 in addition to the SAC charge imposed by the MCES.

IV. COSTS

The City shall bear all costs for the ongoing Routine Maintenance and operation of water and sewer service to the Airport as described in Section II., Method, except for the Private Maintenance Charges listed below. The MAC will be responsible for the cost of future extensions to the water and sewer systems on MAC property, and any capital costs for infrastructure replacement. In the event repair to the existing system is required, the City shall turn off any water valves necessary, and request that either MAC or an individual tenant hire a contractor to make the repair. Therefore, the City shall not complete repair work on the system in leased or non-leased areas on the Airport, and therefore, will have no reimbursement opportunity for the cost of such repairs.

In the event the City damages MAC property, leased or non-leased, as a result of Routine Maintenance, the City shall restore the property to its preexisting condition. If in the event MAC or an Airport tenant must make repairs as a result of work done by the City, the City shall reimburse MAC or the Airport tenant for the cost of those repairs.

MAC agrees to pay to the City the following fees as Private Maintenance Charges:

- In accordance with City Code Section 515:12, MAC will pay for maintenance items listed below. These fees are subject to future rate increases in Section 515:12 that may be enacted by the City.
- $50.00 per manhole inspection per year.
- $50.00 per month ($600.00 per year) for lift station inspection and emergency consultation.

- Sanitary sewer cleaning/flushing (when needed) will be paid at the current rate for time and materials, the total amount for which to be agreed upon in writing by both parties prior to the start of work.

It is the intention of the parties that individual connecting to the sewer and water service on Airport grounds be treated as individual users of the system. Consequently, each individual user, whether individual Airport hangar, FAA facility, or MAC building, shall have its own water meter and receive periodic invoices from the City.

Similarly, each user shall be responsible for the payment of such invoices, and the City shall retain the right to terminate service to those users in default. The MAC is not responsible for individual user accounts, except those initiated by MAC directly.

V. TERM

This Agreement shall begin on November 1, 2000 and end on November 1, 2001 (one year from beginning date) and shall be automatically renewed on a year to year basis unless canceled by either party by giving 30 days written notice prior to the beginning of a new annual term.

VI. FUTURE CONNECTIONS

Future extensions to any portion of the water and sewer systems on MAC property shall be initiated by MAC, agreed to by both parties, and constructed under MAC direction. The system extension will then be operated and maintained in accordance with this Agreement.

VII. STRICT ACCOUNTABILITY

A strict accounting shall be made of all funds and report of all receipts and disbursements shall be made upon request by either party.

VIII. NOTICE

For purposes of delivery of any notices hereunder, the notice shall be effective if delivered to the City Manager of the City at 5200 - 85th Avenue N., Brooklyn Park, Minnesota 55443-4300, on behalf

of the City, and to the Executive Director of the Metropolitan Airports Commission, 6040 - 28th Avenue South, Minneapolis, Minnesota 55450, on behalf of MAC.

IX. INDEMNIFICATION

The City and MAC mutually agree to indemnify and hold harmless each other from any claims, losses, costs, expenses or damages resulting from the acts or omissions of the respective offices, agents or employees relating to activities conducted by either party under this Agreement.

X. ENTIRE AGREEMENT/REQUIREMENT OF A WRITING

It is understood and agreed that the entire agreement of the parties is contained herein and that this Agreement supersedes all oral agreements and all negotiations between the parties relating to the subject matter thereof, as well as any previous agreement presently in effect between the parties to the subject matter thereof. Any alternations, variations, or modifications of the provisions of this Agreement shall be valid only when they have been reduced to writing and duly signed by the parties.

IN WITNESS WHEREOF, the parties have executed this Joint Powers Agreement on the dates written below.

City of Brooklyn Park

Dated October 2, 2000

By: Grace Arbogast
Grace Arbogast
Title: Mayor

Dated October 2, 2000

By: [illegible]
Curt Boganey
Title: City Manager

Metropolitan Airports Commission

Dated October 17, 2000

By: Nyel D. [illegible]
Deputy Executive Director

JOINT AND COOPERATIVE AGREEMENT
BETWEEN
CITY OF MAPLE GROVE AND CITY OF BROOKLYN PARK
AND
MEMORANDUM OF UNDERSTANDING BY THE MOSQUE

THIS AGREEMENT, made and entered into this _____ day of _____, 1999, by and between the City of Maple Grove, a Minnesota Municipal Corporation ("Maple Grove"); and the City of Brooklyn Park, a Minnesota Municipal Corporation ("Brooklyn Park"); and Memorandum of Understanding by the Mosque, ("Mosque")

WITNESSETH:

WHEREAS, the Mosque is located in Brooklyn Park near the northwest corner of the intersection of 101st Avenue and Jefferson Highway, and

WHEREAS, in the general area northwesterly of 101st Avenue North and Jefferson Highway, the west line of Section 6, is the boundary between Maple Grove and Brooklyn Park; and

WHEREAS, Maple Grove has an operating watermain, sanitary sewer and storm sewer ("municipal services") located _____ which is located westerly of the boundary between Maple Grove and Brooklyn Park; and

WHEREAS, Brooklyn Park does not have municipal services located in the proximity of Jefferson Highway and 101st Avenue North; and

WHEREAS, Brooklyn Park is growing from east to west in the area north of 93rd Avenue and the Comprehensive Plan indicates that Brooklyn Park's staged growth will move westerly to serve the area around 101st Avenue and Jefferson Highway in one of Brooklyn Park's next phases of development, which is estimated to occur in approximately 10 years; and

WHEREAS, the Mosque intends to upgrade and improve it's existing facility with class rooms and a gymnasium, and

WHEREAS, the Mosque, being a building where large numbers of people congregate, needs to be protected by a sprinkling system with sufficient water pressure to fight a fire, and sanitary sewer and storm sewer systems that meets current standards, municipal service availability are therefore necessary to protect the public's health and safety; and

WHEREAS, the Mosque has investigated the type of private water, sanitary sewer and storm sewer system necessary to provide adequate service and the costs are beyond their capacity and municipal services are available in Maple Grove; and

WHEREAS, Brooklyn Park will bring its municipal services from the east and proposes a future emergency water connection to the Maple Grove water line at the boundary between Maple Grove and Brooklyn Park; and

WHEREAS, when Brooklyn Park brings municipal services from the east in the future, the City of Brooklyn Park will require the Mosque to connect to City of Brooklyn Park municipal services and the City of Brooklyn Park will assess the Mosque property for the services; and

WHEREAS, the Mosque is willing to pay the cost of constructing the water, sanitary sewer and storm sewer system from Maple Grove into their property in Brooklyn Park; and

WHEREAS, the City Council and the City staff of each city find and determine that building the emergency water interconnect with the Maple Grove system to the westerly right-of-way line of Jefferson Highway, is advantageous to both Cities, the Mosque and the public health and safety; and

WHEREAS, the Brooklyn Park Council and staff further determine and declare that this action is not a deviation or a variance to the Brooklyn Park growth control program and this action is not intended in any way to change the City's requirement that utilities must be available before subdivision of property is allowed and that utilities will come as an orderly extension as the City develops and not by leapfrogging vacant lands; and

WHEREAS, Chapter 471.95 of Minnesota Statutes provides that two or more governmental units may, through action of the governing bodies, jointly and cooperatively by agreement exercise powers common to the contracting parties; and

WHEREAS, the supplying of municipal services is a power common to both parties herein; and

WHEREAS, Maple Grove is willing to allow the connection to Maple Grove municipal services by a Brooklyn Park property and to provide these services.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES AS FOLLOWS:

1. The Mosque shall install at its expense extension of water, sanitary sewer and storm sewer to the City of Maple Grove for the purpose of serving the following described property:

   Beginning at the NW corner of SW 1/4 of SW 1/4 thence South 0 degrees 34 minutes 26 seconds east along west line thereof to a point distance 968.17 feet north from SW corner thereof thence southeasterly distance 193.97 feet along a non-tangential curve concave to north

having radius 1204.55 feet and a chord bearing south 65 degrees 43 minutes 41 seconds east from said west line thence south 70 degrees 20 minutes 29 seconds east tangent with said curve distance 110.56 feet to westerly right-of-way line of State Highway 52 thence northeasterly along said right-of-way line to north line of said SW 1/4 of SW 1/4 thence west to beginning. Section 6, Township 119, Range 21. (PID#06-11921 33 0006).

The said installation shall include an emergency water interconnect including a gate valve in each city for the purpose of future emergency water connection through said system. The plans and specifications and easements for the herein referred construction, including the watermain, sanitary sewer, storm sewer, street cuts, and other related appurtenances shall be approved in writing by the Brooklyn Park and Maple Grove City Engineers prior to the commencement of construction.

When Brooklyn Park constructs its water trunk from the east the gate valves between the two municipal water systems shall remain in place and serve as a emergency water connection.

2. Water service through the above referred Maple Grove connection shall be limited to serving the Mosque located on the property described in No. 1 above, with water for human consumption, sanitation, air conditioning and fire protection until such time as the Brooklyn Park system is connected to the Maple Grove system. The interconnection will then only be used for emergency situations as mutually agreed by the parties.

3. It is the intent and understanding of both cities that said emergency water interconnect shall be utilized for temporary or emergency uses only. It is understood and agreed that upon project completion, opening of the emergency interconnect by either City shall be performed only upon authorization by the Director of Public Works or Operations and Maintenance Director or designee of the other City. Terms of emergency use, such as the length of time of actual water transfer and appropriate compensation shall be negotiated between and by each City's designee at the time of emergency. Both Brooklyn Park and Maple Grove shall have the authority to close the temporary exchange of water at any time, but must provide reasonable notice to the other City prior to doing so.

4. Maple Grove will bill Brooklyn Park for all metered water used at the same rate as is charged Maple Grove users. The basic rate to Maple Grove users effective July 1, 1999, (subject to change at any time) is $1.04 per 1,000 gallons with a minimum charge of $9.00 per each quarter of a year. The billing to Brooklyn Park shall be made quarterly at the same time as Maple Grove residents are billed. Brooklyn Park shall be entitled to charge its property owner (the Mosque) water rates as established by the Brooklyn Park City Council and these rates need not be the same as other patrons of the Brooklyn Park system. The City of Brooklyn Park intends to recover all costs for water and its administrative costs and charges.

Brooklyn Park shall also pay to Maple Grove $_____ based on watermain trunk charges levied against properties located in the City of Maple Grove and $70.00 per year per acre for the property connected to the Maple Grove water system for costs for maintenance of the water system. These costs shall be paid by Brooklyn Park quarterly to commence after the connection to the system has been made and shall terminate at the time a connection is made to the Brooklyn Park water system.

5. Maple Grove will bill Brooklyn Park for all sanitary sewer service at the same rate as is charged Maple Grove users. The basic rate to Maple Grove users effective _____ is $1.35 per 1,000 gallons plus the Current Sewer Usage Charge of $16.50/Quarter/REU (1 REU equals 100,000 gallons of water/year). The billing to Brooklyn Park shall be made quarterly at the same time as Maple Grove residents are billed. Brooklyn Park shall be entitled to charge its property owner (the Mosque) sewer service rates as established by the Brooklyn Park City Council and these rates need not be the same as other patrons of the Brooklyn Park system. The City of Brooklyn Park shall be allowed to charge an additional 2% for its administrative costs and charges.

   Brooklyn Park shall also pay to Maple Grove $4,020 per year per acre (AC) times the Capital Recovery Factor (0.05103) for a total annual infrastructure charge of _____ for the property connected to the Maple Grove sanitary sewer system for costs for the trunk sanitary sewer system. These costs shall be paid by Brooklyn Park quarterly to commence after the connection to the system has been made and shall terminate at the time a connection is made to the Brooklyn Park sanitary sewer system.

6. Brooklyn Park shall pay to Maple Grove $_____ based on the trunk charges levied against properties located in the City of Maple Grove. The basic trunk rate to Maple Grove users is currently $3,750 per acre. The City of Brooklyn Park shall also pay $_____ per year per acre for annual rates as paid by other Maple Grove properties.

7. Any trunk watermain, sanitary sewer and storm sewer fees paid in lump sum by the City of Brooklyn Park to the City of Maple Grove shall be reimbursed to Brooklyn Park by the Mosque, paid in full prior to issuance of a building permit or any associated utility or right-of-way intrusion permits required by the City of Maple Grove or the City of Brooklyn Park. No permits shall be issued by Maple Grove or Brooklyn Park until payment in full for trunk utility charges as described in Section 4, 5 and 6 is made by the Mosque.

8. All construction undertaken by the Mosque or their agent contractor shall meet the specifications of both Cities and the health department for the construction of watermain and the specifications and special conditions deemed necessary by the City Engineer of the City where the construction is undertaken.

9. The Mosque while doing the construction shall hold harmless, indemnify and defend the other party from all claims, costs and expenses of every kind and nature whether

occurring in Brooklyn Park or in Maple Grove or in any other place, which arise directly or indirectly as a result of the parties doing construction in either City.

10. The parties further agree that any breach of this agreement may result in irrevocable harm to the other party and further agree that any breach of this agreement, as determine by either party, shall give the right to that party to enforce this agreement by injunction and the party seeking relief from the court may rely on this agreement and the statement of the parties seeking said relief.

10. This agreement shall continue in full force and effect until mutually rescinded or terminated at any time by the governing bodies of each, except that after public water service is available to the property described in No. 1 above through the Brooklyn Park public water system, either of the parties may unilaterally terminate the covenants or agreements contained herein. It is understood that the primary purpose of this agreement is to construct the first phase of an interconnection of the two public water systems and to provide a back up system which will benefit the public health, safety and general welfare.

11. The Mosque is the main beneficiary of this agreement as the hook up to existing municipal services will save the Mosque substantial amounts of money. Connecting now to the Maple Grove system will also protect the public health by providing treated water and fire suppression capability and sanitary sewer and storm sewer systems that meet current standards. The Mosque shall execute a copy of this agreement indicating its understanding and willingness to pay to Brooklyn Park special assessments allocated by the City at such time as the Brooklyn Park municipal services are extended to serve this property. The Mosque also agrees that the facts as recited herein are true and correct. The Mosque understands that they are not now being charged or assessed for costs Brooklyn Park has expended in bringing municipal services to their property. Brooklyn Park does not want any misunderstanding at such future date as it proceeds to extend its sanitary sewer, water and storm sewer systems and to recover its costs for said infrastructure.

IN WITNESS WHEREOF, the parties have hereunto authorized and directed the representatives to execute this Agreement.

CITY OF MAPLE GROVE	CITY OF BROOKLYN PARK
By_____ Mayor	By_____ Mayor
By_____ City Clerk	By_____ City Manager

Approved by the Maple Grove City Council _____

Approved by the Brooklyn Park City Council _____

The Mosque hereby agrees that the herein stated agreement between Brooklyn Park and Maple Grove was prepared and created at the request of the Mosque. The Mosque further agrees that it has reviewed the agreement and agrees the facts and terms as stated therein are true and correct. The Mosque further understands that it has the responsibility to construct at its sole cost the watermain, sanitary sewer and storm sewer improvements and that it will be specially assessed in the future when Brooklyn Park extends its municipal improvements to serve the aforedescribed property. The following signatories have been authorized to execute this Agreement binding the Mosque to the terms stated herein.

MOSQUE

By _____
Its _____

By _____
Its _____

AGREEMENT FOR USAGE OF WATER FACILITIES

THIS AGREEMENT made on the 28th day of March, 1966, by and between the VILLAGE OF BROOKLYN PARK, and the VILLAGE OF NEW HOPE, hereinafter collectively referred to as "the parties", WITNESSETH:

WHEREAS, the parties are adjacent municipalities and have a common border street called 62nd Avenue North, and

WHEREAS, New Hope has indicated that they would make water service available to those parcels of land within Brooklyn Park which abut on New Hope water mains which are now constructed or which New Hope determines to construct hereafter in 62nd Avenue North between Louisiana Avenue North and County Road No. 18, and

WHEREAS, it is feasible and practical to serve such areas by furnishing water through New Hope water mains,

NOW, THEREFORE, that the above parties in consideration of the premises and covenants herein contained, have entered into this agreement for the purpose of outlining the terms and conditions whereby certain residents of Brooklyn Park who have property abutting that portion of 62nd Avenue North in which New Hope has constructed or may hereafter construct water mains, will be permitted to connect up to or be served by New Hope water facilities, part of which are located in and under said 62nd Avenue North.

1. Connections: Connections may be made by residents or property owners of Brooklyn Park who are located on 62nd Avenue North where water mains of New Hope are available when such a connection has been approved by both the Village Councils of Brooklyn Park and New Hope. It is understood that New Hope has not heretofore constructed water main in said 62nd Avenue North the entire

distance between Louisiana Avenue and County Road No. 18; that New Hope has no obligation under this agreement to Brooklyn Park or any of its residents to extend water main in that portion not presently served unless New Hope in its sole discretion determines that such construction and extension is in the public interest. At or before the time of making a connection, Brooklyn Park shall pay to New Hope a sum equal to $5.04 per front foot of each lot or parcel to which such connection is made, or at such higher rate, based upon higher construction and installation costs incurred by New Hope, but not to exceed the same rate as was used in computing the front foot lateral assessments of the other real property located in New Hope that are serviced by the same water main and laterals. In addition to the above sum, Brooklyn Park shall pay to New Hope the actual cost of installation and construction of the house service, and furnishing of the water main, the trunk charge provided in "The Water Ordinance of the Village of New Hope", which is paraphrased and set forth in paragraph 3, and all other charges and fees normally charged by New Hope to its own users upon application for municipal water service, which includes brass goods, curb box, tapping and inspection fees, and interest.

2. Brooklyn Park may make such arrangements as it desires with its own property owners for the payment of the charges and fees provided in paragraph 1, but all of said charges and fees should be paid by Brooklyn Park to New Hope at or before the time of connection.

3. The water trunk charge for platted property of 13,500 square feet, or less, is a sum equal to $1.33 per lineal foot for each front foot, but not less than $100 per lot. The water trunk

charge for unplatted property and platted lots of more than 13,500 square feet shall be determined on the basis of $360 per acre, including that part of an abutting street which would revert to the parcel in the event of vacation of such street.

4. All plumbing and pipe work from New Hope water lateral main up to and including the water meter, shall be performed by licensed plumbers and shall conform to all applicable state statutes and the Village of New Hope's ordinances, codes, rules and regulations. There shall be no cross-connection, direct or indirect, between an individual water supply system (private well) and the New Hope water supply. Brooklyn Park hereby agrees that New Hope employees and inspectors may inspect all such work in accordance with its usual procedures and further agrees that Brooklyn Park will take all reasonable steps necessary to correct any deficient work or conditions upon notice from proper New Hope officials or employees.

5. New Hope agrees to read all water meters in Brooklyn Park of premises connected under this agreement, and Brooklyn Park expressly agrees that New Hope employees may enter upon said premises for that purpose. New Hope agrees that quarterly it will prepare and transmit directly to the owner (or occupant if requested to do so by the owner) of each connected property an itemized statement showing the charge for current water consumption and any delinquent charges and penalties. The water rate charged Brooklyn Park property owners will be at the same rates as are charged to New Hope property owners. Payment of the water rates is hereby guaranteed by Brooklyn Park. Brooklyn Park shall require a deposit of $25, which money shall be held on deposit by Brooklyn Park to guarantee payment of the aforementioned charges. New Hope shall advise

Brooklyn Park of delinquent accounts, provided, that failure to do so will not relieve the obligation to pay nor void the guarantee.

6. If water charges remain unpaid after resort to such guarantee deposits, Brooklyn Park shall either pay the charges directly or shall charge the cost against the property as a special assessment and remit the money to New Hope upon collection.

7. New Hope shall not allow any connection to their water system until a permit has been issued by Brooklyn Park and presented to New Hope. Individual property owners of Brooklyn Park shall acquire the standard water connection permit and water meter from the Village of New Hope prior to making any connections to the water main. The meters shall be maintained by New Hope, as far as ordinary wear and tear are concerned, but damage due to freezing, due to hot water or external causes, shall be paid for by the consumer.

8. The owner, occupant or permitee of the premises in Brooklyn Park connected to the New Hope water system shall be governed by the regulations (including billing practices) and ordinances pertaining to New Hope water system. New Hope reserves the right to shut off the water supply for violation of such regulations, ordinances, this agreement, or non-payment of water service charges.

9. In the event that connecting any of the premises in Brooklyn Park results in the necessity of repairing and replacing the street or blacktop, New Hope shall promptly make such repair or replacement, and the actual cost therefor shall be paid to New Hope by Brooklyn Park upon written notification thereof. If the work is done by New Hope employees, skilled labor furnished by

New Hope shall be billed for and allowed at the rate of $4.00 per hour, and overtime shall be billed for and allowed at the rate of $6.00 per hour. It is understood that said billing rate is the rate now fixed by the rules and regulations, presently enforced, of the "Golden Valley, Crystal and New Hope Joint Water Commission" for similar work performed by establishing uniform charges for the cost of maintenance of the trunk system by any of the parties to said agreement. Should any increase in the billing rate existing under said rules and regulations be made or otherwise fixed, during the term of this agreement, then and in such event the billing rate for skilled labor shall be as therein set forth. In the event that billing rates set in such rules and regulations are not from time to time amended to reflect a general wage increase in the construction industry, then either party may notify the other to meet in conference to discuss amending the terms of this agreement. In the event such billing rate cannot be satisfactorily resolved from such conference and the contract amended in conformity thereto, the matter shall be referred for arbitration, and any party may apply to the District Court in Hennepin County for appointment of one or more arbitrators under Minnesota Statutes Chapter 572, and the disagreement shall thereupon be arbitrated in accordance with Chapter 572. The arbitrators, in making their decision, shall consider that the billing rates set forth in this agreement reflect the general cost of living as of the date of this agreement.

10. This agreement shall remain in force and effect throughout the period of useful life of the lateral water mains and appurtenant work, or any renewals or replacements thereof, provided that Brooklyn Park consumers in land connected to the New Hope water system shall pay for costs of maintenance, repair

work and replacement, extension, enlargement or the increase of capacity or storage of the said mains or water system on the same basis as New Hope consumers and connected land are charged.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed in their behalf by their respective executive and recording officers, pursuant to resolutions duly adopted by their respective governing bodies and have caused their respective corporate seals to be affixed hereto as of the day and year first above written.

In the presence of:

VILLAGE OF BROOKLYN PARK

_____ By_____
Its _____

_____ By_____
Its _____

VILLAGE OF NEW HOPE

_____ By_____
Its Mayor

_____ By_____
Its Clerk-Treasurer

File New Hope

Village of Brooklyn Park

RESOLUTION FOR WATER SERVICE THROUGH NEW HOPE

ALONG 62ND AVENUE

Councilman Samardich introduced the following resolution and moved its adoption:

WHEREAS the centerline of 62nd Avenue North is the boundary between the Village of Brooklyn Park and the Village of New Hope in the area between Louisiana Avenue and Mendelsohn Road, and

WHEREAS the Village of New Hope has indicated that they would make water service available to those parcels of land within the Village of Brooklyn Park which abut on 62nd Avenue between Louisiana Avenue and Mendelsohn Road, and

WHEREAS it is more expedient to serve this area by connecting to the New Hope water system,

NOW THEREFORE BE IT RESOLVED by the Village Council of Brooklyn Park that it agrees to the following conditions for providing services:

1. The cost of water service to the property owners of Brooklyn Park will be based on New Hope's internal assessment policy. The cost will amount to $_____ per residential building site, and the respective Brooklyn Park properties shall be financially responsible for the cost of service lines from the water main to the property line.

2. The water rate charged Brooklyn Park property owners will be the current rate charged by New Hope property owners, presently _____¢ per thousand gallons, and said rate to be billed directly to Brooklyn Park property owners by the Village of New Hope. Payment of the water charges shall be guaranteed by the Village of Brooklyn Park. The Village of New Hope shall not allow any connection to their system until a permit has been issued by Brooklyn Park and presented to New Hope. Brooklyn Park shall require a deposit of $25.00, which money shall be held on deposit by the village to guarantee the payment of the aforementioned charges. New Hope shall advise Brooklyn Park if any account is delinquent one quarter.

3. Individual property owners in Brooklyn Park shall acquire the standard water connection permit and a water meter from the Village of New Hope prior to making any connections to the water main.

4. Properties in Brooklyn Park connecting directly to the New Hope water system shall abide by the New Hope rules and regulations regarding the water system.

5. New Hope street surfacing shall be restored to its original condition following any connections to the New Hope water system.

6. This resolution shall take effect and be in force after the acceptance of the terms of the Village of New Hope and the granting of permission by the Village of New Hope.

MOTION SECONDED BY COUNCILMAN BELFORD AND PASSED UNANIMOUSLY JUNE 14, 1965.

Gail Bakken

GAIL BAKKEN, Village Clerk
Village of Brooklyn Park

THIS AGREEMENT, made and entered into this 23rd day of August, 1971, by and between the Village of New Hope, a municipal corporation of the State of Minnesota, hereinafter referred to as New Hope, and the City of Brooklyn Park, a municipal corporation of the State of Minnesota, hereinafter referred to as Brooklyn Park,

WHEREAS, New Hope and Brooklyn Park in various locations are located in juxtaposition to each other,

WHEREAS, there are certain areas within New Hope and Brooklyn Park where it would be to the benefit of said Villages and its citizens to make available to one Village the sanitary sewer facilities of the other Village,

WHEREAS, all of these areas are undetermined at the present time and it is desirable to establish a procedure in which the method of obtaining sewer extensions into the adjoining Village's property be determined,

NOW THEREFORE, in consideration of the premises and covenants herein contained, New Hope and Brooklyn Park do hereby agree to extend their sanitary sewer facilities each to the abutting property of the other Village within 168 feet of the corporate boundary and to single or double residential structures only based upon the following terms, conditions, and requirements:

I. There is established the following classifications:

I. All those situations in which one Village has existing sewer facilities located upon a boundary street and it is desired to allow abutting single or double residential structures of the other Village to connect to said sewer.

II. Boundary streets on which no sanitary sewer facilities are available.

North where water mains of New Hope are available when such a connection has been approved by both the Village Councils of Brooklyn Park and New Hope. It is understood that New Hope has not heretofore constructed water main in said 62nd Avenue North the entire

charge for unplatted property and platted lots of more than 13,500 square feet shall be determined on the basis of $360 per acre, including that part of an abutting street which would revert to the parcel in the event of vacation of such street.

4. All plumbing and pipe work from New Hope water lateral main up to and including the water meter, shall be performed by licensed plumbers and shall conform to all applicable state statutes and the Village of New Hope's ordinances, codes, rules and regulations. There shall be no cross-connection, direct or indirect, between an individual water supply system (private well) and the New Hope water supply. Brooklyn Park hereby agrees that New Hope employees and inspectors may inspect all such work in accordance with its usual procedures and further agrees that Brooklyn Park will take all reasonable steps necessary to correct any deficient work or conditions upon notice from proper New Hope officials or employees.

5. New Hope agrees to read all water meters in Brooklyn Park of premises connected under this agreement, and Brooklyn Park expressly agrees that New Hope employees may enter upon said premises for that purpose. New Hope agrees that quarterly it will prepare and transmit directly to the owner (or occupant if requested to do so by the owner) of each connected property an itemized statement showing the charge for current water consumption and any delinquent charges and penalties. The water rate charged Brooklyn Park property owners will be at the same rates as are charged to New Hope property owners. Payment of the water rates is hereby guaranteed by Brooklyn Park. Brooklyn Park shall require a deposit of $25, which money shall be held on deposit by Brooklyn Park to guarantee payment of the aforementioned charges. New Hope shall advise

New Hope shall be billed for and allowed at the rate of $4.00 per hour, and overtime shall be billed for and allowed at the rate of $6.00 per hour. It is understood that said billing rate is the rate now fixed by the rules and regulations, presently enforced, of the "Golden Valley, Crystal and New Hope Joint Water Commission" for similar work performed by establishing uniform charges for the cost of maintenance of the trunk system by any of the parties to said agreement. Should any increase in the billing rate existing under said rules and regulations be made or otherwise fixed, during the term of this agreement, then and in such event the billing rate for skilled labor shall be as therein set forth. In the event that billing rates set in such rules and regulations are not from time to time amended to reflect a general wage increase in the construction industry, then either party may notify the other to meet in conference to discuss amending the terms of this agreement. In the event such billing rate cannot be satisfactorily resolved from such conference and the contract amended in conformity thereto, the matter shall be referred for arbitration, and any party may apply to the District Court in Hennepin County for appointment of one or more arbitrators under Minnesota Statutes Chapter 572, and the disagreement shall thereupon be arbitrated in accordance with Chapter 572. The arbitrators, in making their decision, shall consider that the billing rates set forth in this agreement reflect the general cost of living as of the date of this agreement.

10. This agreement shall remain in force and effect throughout the period of useful life of the lateral water mains and appurtenant work, or any renewals or replacements thereof, provided that Brooklyn Park consumers in land connected to the New Hope water system shall pay for costs of maintenance, repair

COOPERATIVE JOINT POWERS AGREEMENT
WATER SERVICES (85TH AVENUE, T.H. 169 AND COUNTY ROAD 81)
BROOKLYN PARK AND OSSEO

THIS AGREEMENT, made and entered into this 19TH day of April, 1995, by and between the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park;" and the City of Osseo, hereinafter referred to as "Osseo."

WITNESSETH:

WHEREAS, Brooklyn Park and Osseo are desirous of providing public water to a commercially zoned property located south of Osseo's 4th Street, north of Brooklyn Park's 85th Avenue (County Road 109) between T.H. 169 and County Road 81, and;

WHEREAS, Brooklyn Park has utilized its power to control the extension of municipal utilities as a manner of limiting growth to areas that are served by public facilities, and in this manner have saved substantial amounts of money for its residents by limiting "leapfrog" development, by eliminating the development of parcels in areas which are not served by municipal facilities and therefore protecting the health, safety and general welfare of its residents, and by promoting an orderly growth program which maximizes municipal services at the most efficient cost possible, and;

WHEREAS, Brooklyn Park has been threatened by litigation from property owners whose property lies beyond the existing Brooklyn Park public utility systems, and said parcels have asked to be allowed to develop the individual systems or have suggested the possibility of obtaining services from surrounding communities, and;

WHEREAS, the City has litigated this question in the case of Coleman vs. the City of Brooklyn Park and has maintained that the orderly development of Brooklyn Park is within the police powers of Brooklyn Park and protects the health, safety, and general welfare of all of its residents and property owners, and;

WHEREAS, the current Brooklyn Park Water System is located westerly of the above described property, and;

WHEREAS, it is more economically feasible to provide water to the above referenced site from Osseo, and;

WHEREAS, Osseo's Engineer and staff have determined that Osseo has the capacity to furnish water only to the above referenced property and not to any other surrounding lands in Brooklyn Park, and;

WHEREAS, Municipal Statutes Section 471.59 allows Brooklyn Park and Osseo to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities, and;

WHEREAS, Brooklyn Park has the authority to specially assess benefitted properties for the cost of public improvements pursuant to State Statutes Chapter 429 and 435.19, and;

WHEREAS, Brooklyn Park has received petitions from 100% of the affected property owners requesting the construction of municipal water, and;

WHEREAS, Brooklyn Park agrees to require the developer to pay all costs associated with constructing these improvements and interconnecting with the Osseo municipal water and to obtain all necessary permits and approvals from all public agencies, and;

WHEREAS, Osseo will be provided an opportunity to review plans and specifications prepared by the developer's engineering consultant as its relates to Osseo's water system, prior to the award of said bids.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Brooklyn Park and Osseo, by executing this agreement, mutually approve Brooklyn Park as the lead agency and agree to review and approve the plans and specifications for said water improvements and the interconnection of these improvements to the Osseo municipal system. Osseo shall provide Brooklyn Park with all available data and materials pertinent to the work program as required to complete this project. This data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study materials. Progress meetings will be scheduled for city staffs and other concerned public agencies to discuss issues during the construction phases.

2. Brooklyn Park shall provide Osseo with copies of plans prepared by the property owner's consultant engineer and they shall be reviewed and approved by Osseo before any work is initiated within the City of Osseo.

3. Brooklyn Park shall administer the public contract to construct said improvements and shall inspect the construction of the work contemplated herewith, and all work shall be completed in compliance with the plans and specifications. The Osseo city staff shall have the right, as work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

   A. The City of Brooklyn Park shall notify Osseo Utility Department 24 hours prior to connecting into the water system in Osseo. Brooklyn Park shall require the developer's contractor to correct any deficiencies found by the City of Osseo within the Osseo corporate limits.

B. Any failure of the water system constructed by the developer within the City of Osseo, shall be the responsibility of Brooklyn Park to repair to the City of Osseo's satisfaction.

4. The proposed schedule is to complete the improvement project by August 1, 1995.

5. Brooklyn Park's property owner shall be responsible for all incurred cost including construction, engineering and administrative cost.

6. Brooklyn Park agrees to pay to Osseo trunk water cost as set forth in a letter from Brooklyn Park City Engineer, dated January 28, 1994, which is attached hereto and made a part of this agreement (Exhibit A), estimated as follows:

   7.5 acres x $1,500.00 per acre = $11,250.00
   Equivalent lateral assessment = $13,750.00 (to be collected from developer)

7. All records kept by Brooklyn Park with respect to construction of these improvements, shall be subject to examination by the City of Osseo.

8. It is understood and agreed that upon completion of the improvements, all project elements shall be part of the as-built plans prepared by the developer and reviewed by Brooklyn Park and Osseo and shall become the property of the City in which those improvements are located in, and all maintenance, repair or replacement required thereafter shall be performed by the property owner where the improvements are located at the property owner's expense.

9. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein. Brooklyn Park also agrees that any contract let by the property owner or its agents for the performance of work on the improvements as provided for herein shall include clauses that will:

   1. Require the Contractor to defend, indemnify, and save harmless Brooklyn Park and Osseo, their officers, agents, and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney fees, witness fees, and disbursements incurred in the defense thereof) arising

out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and

2. Require the Contractor to provide and maintain sufficient insurance so as to insure the performance of its hold harmless obligation.

10. Brooklyn Park agrees to pay Osseo for water metered and read by Brooklyn Park employees at a rate equal to that set by Osseo for other similar usages. Brooklyn Park will bill each property in Brooklyn Park for their specific water usage. Brooklyn Park shall submit to the City of Osseo by the 28th of September, December, March and June the total amount of water used from the businesses on the line on a quarterly basis. This will be based on the total water use of the water meters from each of the businesses. Since Brooklyn Park will be reading meters and billing each for said services, only one service connection (at 4th Street) will be considered in the billing. Osseo has the right to review any meters by giving a 24 hour notice.

11. Brooklyn Park shall notify Osseo in writing within ten (10) days after the permit is issued for one of the subject properties to hook up to said facility.

12. Either City can request an amendment to this agreement allowing the adjustment of the water fees to coincide with rate adjustments that may be established for all Osseo residents similar to those established in the letter from City Administrator Dave Callister, dated March 2, 1995, attached here as "Exhibit B."

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK	CITY OF OSSEO
BY [signature] Mayor	BY _____ Mayor
DATE: 4/19/95	DATE: _____
AND: [signature] Acting Manager	AND: _____ City Administrator
DATE: 4/18/95	DATE: _____
(seal)	(seal)

"EXHIBIT A"

Engineering

5900 85th Ave. No., Brooklyn Park, MN 55443-4300 Phone 612 494-8000 Fax 612 493-8393 TDD 612 493-8392

GARY E. BROWN, P.E.
City Engineer

January 28, 1994

Mr. Richard Fursman
City Administrator
City of Osseo
415 Central Avenue
Osseo, Mn. 55369

Dear Mr. Fursman:

Please find enclosed a copy of a letter I received from Ron Anderson, owner of the property located between County Road 81 and 169 north of 85th and south of 4th Street.

We have attempted to estimate the cost of providing water service to this particular site in an attempt to help the property owner develop this parcel. Prior to you becoming City Administrator, I had the opportunity to meet with several of your Council Members regarding how we might go about assisting in the development of this parcel as it is the first thing that people see coming towards the City of Osseo. In order to facilitate this endeavor, the City of Brooklyn Park participated in a Joint Powers Agreement to construct 4th Street on the north side of this property.

The City of Brooklyn Park currently has Joint Powers Agreements with the City of Maple Grove and the City of Champlin to provide water in areas where it is currently difficult to provide water by the City of Brooklyn Park. Although we can serve this particular area with water, it makes more economic sense to obtain the water from the City of Osseo.

The City of Brooklyn Park would not expect the City of Osseo to furnish water without being compensated for what we would call trunk improvements. These trunk improvements would include a proportionate share of elevated towers, wells, etc. As a result, we believe that the City of Osseo should be compensated for these costs. Therefore, in addition to the cost of actually making the watermain connection to 4th Street, the City of Brooklyn Park should reimburse the City of Osseo for the monies they have collected for trunk improvements for this particular property.

Therefore, if the City of Osseo was willing to enter into a Joint Powers Agreement to serve this parcel with water, I would advise our City Council that a fair payment for the trunk cost would be our current charges to other parcels of $1,500.00 per acre. This property consists of approximately 7.5 acres which results in a reimbursement of $11,250.00.

The developer, would be responsible for any cost associated with the extension of watermain facilities including the repair to 4th Street.

If the City of Osseo were to consider this as a possible Joint Powers Agreement, I would then have to take it before the City Council of the City of Brooklyn Park.

Sincerely,

Gary E. Brown, P.E.
Director of Engineering

GEB/md

Enclosure

Founded 1852

"EXHIBIT B"

Incorporated 1875

CITY OF OSSEO

415 CENTRAL AVENUE
OSSEO, MINNESOTA 55369
PHONE 425-2624
FAX 425-1111

March 2, 1995

Mr. Gary Brown, City Engineer
City of Brooklyn Park
5200 85th Avenue North
Brooklyn Park, MN 55443-4300

Dear Gary:

The City of Osseo is prepared to enter into a joint powers agreement with the City of Brooklyn Park to provide water service to the proposed commercial development located in Brooklyn Park between US 169, County 81, 85th Avenue North and 4th Street SE.

Quarterly water rates, as of January 1, 1995, are a base rate of $10.00 per connection plus a charge of $.85 per thousand gallons over 10,000 gallons of water usage.

Please provide me with a proposed joint powers agreement for review.

If you have any questions, please contact me.

Sincerely,

CITY OF OSSEO

Dave Callister

Dave Callister
City Administrator

Founded 1852

Incorporated 1875

CITY OF OSSEO

415 CENTRAL AVENUE
OSSEO, MINNESOTA 55369
PHONE 425-2624
FAX 425-1111

April 3, 1996

Mr. Gary Brown, City Engineer
City of Brooklyn Park
5200 85th Avenue North
Brooklyn Park, MN 55443-4300

Dear Gary:

As per the Cooperative Joint Powers Agreement between the cities of Osseo and Brooklyn Park to provide water service to the commercial development located in Brooklyn Park between US 169, County 81, 85th Avenue North and 4th Street SE, Osseo is hereby notifying you that we wish to amend "EXHIBIT B" by increasing the quarterly water rates as follows:

	1995 Rates	1996 Rates
Base Rate (Min. charge for 1st 10,000 gal/qtr.)	**$10.00**	**$10.00**
Rate per 1,000 gallons over 10,000 gal/qtr.	**$ .85**	**$ 1.00**

The new rates were adopted by Council resolution and are effective as of January 1, 1996. Please update your records with these new rates.

If you have any questions, please feel free to contact me.

Sincerely,

CITY OF OSSEO

Dave Callister
City Administrator

L W Add Exist Water (Osseo)

COOPERATIVE JOINT POWERS AGREEMENT
WATER SERVICES (85TH AVENUE, T.H. 169 AND COUNTY ROAD 81)
BROOKLYN PARK AND OSSEO

THIS AGREEMENT, made and entered into this 19TH day of April, 1995, by and between the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park;" and the City of Osseo, hereinafter referred to as "Osseo."

WITNESSETH:

WHEREAS, Brooklyn Park and Osseo are desirous of providing public water to a commercially zoned property located south of Osseo's 4th Street, north of Brooklyn Park's 85th Avenue (County Road 109) between T.H. 169 and County Road 81, and;

WHEREAS, Brooklyn Park has utilized its power to control the extension of municipal utilities as a manner of limiting growth to areas that are served by public facilities, and in this manner have saved substantial amounts of money for its residents by limiting "leapfrog" development, by eliminating the development of parcels in areas which are not served by municipal facilities and therefore protecting the health, safety and general welfare of its residents, and by promoting an orderly growth program which maximizes municipal services at the most efficient cost possible, and;

WHEREAS, Brooklyn Park has been threatened by litigation from property owners whose property lies beyond the existing Brooklyn Park public utility systems, and said parcels have asked to be allowed to develop the individual systems or have suggested the possibility of obtaining services from surrounding communities, and;

WHEREAS, the City has litigated this question in the case of Coleman vs. the City of Brooklyn Park and has maintained that the orderly development of Brooklyn Park is within the police powers of Brooklyn Park and protects the health, safety, and general welfare of all of its residents and property owners, and;

WHEREAS, the current Brooklyn Park Water System is located westerly of the above described property, and;

WHEREAS, it is more economically feasible to provide water to the above referenced site from Osseo, and;

WHEREAS, Osseo's Engineer and staff have determined that Osseo has the capacity to furnish water only to the above referenced property and not to any other surrounding lands in Brooklyn Park, and;

WHEREAS, Municipal Statutes Section 471.59 allows Brooklyn Park and Osseo to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities, and;

WHEREAS, Brooklyn Park has the authority to specially assess benefitted properties for the cost of public improvements pursuant to State Statutes Chapter 429 and 435.19, and;

WHEREAS, Brooklyn Park has received petitions from 100% of the affected property owners requesting the construction of municipal water, and;

WHEREAS, Brooklyn Park agrees to require the developer to pay all costs associated with constructing these improvements and interconnecting with the Osseo municipal water and to obtain all necessary permits and approvals from all public agencies, and;

WHEREAS, Osseo will be provided an opportunity to review plans and specifications prepared by the developer's engineering consultant as its relates to Osseo's water system, prior to the award of said bids.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Brooklyn Park and Osseo, by executing this agreement, mutually approve Brooklyn Park as the lead agency and agree to review and approve the plans and specifications for said water improvements and the interconnection of these improvements to the Osseo municipal system. Osseo shall provide Brooklyn Park with all available data and materials pertinent to the work program as required to complete this project. This data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study materials. Progress meetings will be scheduled for city staffs and other concerned public agencies to discuss issues during the construction phases.

2. Brooklyn Park shall provide Osseo with copies of plans prepared by the property owner's consultant engineer and they shall be reviewed and approved by Osseo before any work is initiated within the City of Osseo.

3. Brooklyn Park shall administer the public contract to construct said improvements and shall inspect the construction of the work contemplated herewith, and all work shall be completed in compliance with the plans and specifications. The Osseo city staff shall have the right, as work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

   A. The City of Brooklyn Park shall notify Osseo Utility Department 24 hours prior to connecting into the water system in Osseo. Brooklyn Park shall require the developer's contractor to correct any deficiencies found by the City of Osseo within the Osseo corporate limits.

B. Any failure of the water system constructed by the developer within the City of Osseo, shall be the responsibility of Brooklyn Park to repair to the City of Osseo's satisfaction.

4. The proposed schedule is to complete the improvement project by August 1, 1995.

5. Brooklyn Park's property owner shall be responsible for all incurred cost including construction, engineering and administrative cost.

6. Brooklyn Park agrees to pay to Osseo trunk water cost as set forth in a letter from Brooklyn Park City Engineer, dated January 28, 1994, which is attached hereto and made a part of this agreement (Exhibit A), estimated as follows:

   7.5 acres x $1,500.00 per acre = $11,250.00
   Equivalent lateral assessment = $13,750.00 (to be collected from developer)

7. All records kept by Brooklyn Park with respect to construction of these improvements, shall be subject to examination by the City of Osseo.

8. It is understood and agreed that upon completion of the improvements, all project elements shall be part of the as-built plans prepared by the developer and reviewed by Brooklyn Park and Osseo and shall become the property of the City in which those improvements are located in, and all maintenance, repair or replacement required thereafter shall be performed by the property owner where the improvements are located at the property owner's expense.

9. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein. Brooklyn Park also agrees that any contract let by the property owner or its agents for the performance of work on the improvements as provided for herein shall include clauses that will:

   1. Require the Contractor to defend, indemnify, and save harmless Brooklyn Park and Osseo, their officers, agents, and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney fees, witness fees, and disbursements incurred in the defense thereof) arising

out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and

2. Require the Contractor to provide and maintain sufficient insurance so as to insure the performance of its hold harmless obligation.

10. Brooklyn Park agrees to pay Osseo for water metered and read by Brooklyn Park employees at a rate equal to that set by Osseo for other similar usages. Brooklyn Park will bill each property in Brooklyn Park for their specific water usage. Brooklyn Park shall submit to the City of Osseo by the 28th of September, December, March and June the total amount of water used from the businesses on the line on a quarterly basis. This will be based on the total water use of the water meters from each of the businesses. Since Brooklyn Park will be reading meters and billing each for said services, only one service connection (at 4th Street) will be considered in the billing. Osseo has the right to review any meters by giving a 24 hour notice.

11. Brooklyn Park shall notify Osseo in writing within ten (10) days after the permit is issued for one of the subject properties to hook up to said facility.

12. Either City can request an amendment to this agreement allowing the adjustment of the water fees to coincide with rate adjustments that may be established for all Osseo residents similar to those established in the letter from City Administrator Dave Callister, dated March 2, 1995, attached here as "Exhibit B."

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK	CITY OF OSSEO
BY [signature] Mayor	BY _____ Mayor
DATE: 4/19/95	DATE: _____
AND: [signature] Acting Manager	AND: _____ City Administrator
DATE: 4/18/95	DATE: _____
(seal)	(seal)

Certification

Water Supply & Distribution System Comprehensive Plan

for

City of Brooklyn Park, Minnesota

T21.114460

November 28, 2018

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By: _____

Steve Nelson, P.E.
License No. 24388

Date: November 28, 2018

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Appendix

Appendix A – Local Water Supply Plan Template Third Generation for 2016-2018

I. INTRODUCTION

A. Purpose

Currently the City pumps, treats and distributes an average 8.2 million gallons per day (MGD) to approximately 22,900 customers. The purpose of this plan is to provide regulatory documentation for the City's Comprehensive Plan as it relates to water supply and distribution. The City's overall goal is "to provide a potable, reliable, long-lived water system with economical operations and low costs maintenance that meets quality standards and peak day water demands for rate payers an users."

Minnesota Statue 473.859 requires Water Supply Plans to be completed for all local units of government in the seven-county Metropolitan Area as part of the local comprehensive planning process. Additionally, Minnesota Statute 103G.291 requires all public water suppliers that serve more than 1,000 people to have a Water Supply Plan approved by the Minnesota Department of Natural Resources (DNR). An approved Water Supply Plan is required by the DNR to obtain a Water Appropriations Permit Amendment.

A Water Supply Plan was completed & submitted to the Minnesota Department of Natural Resources on December 14, 2017. It is currently under review by the State. The Metropolitan Council will also review the Plan to assure that it matches up with the City's overall Comprehensive Plan elements.

This Plan consists of four parts:

Part 1: Water supply system description and evaluation

Part 2: Emergency planning and response procedures

Part 3: Water conservation plan

Part 4: Metro area water suppliers

The Met Council's required Comprehensive Plan elements for addressing water supply is the completion of a Water Supply Plan.

In 2006, SEH (Short Elliot Hendrickson, Inc.) completed a *Water System Supply and Treatment Master Plan* for the City of Brooklyn Park. This Plan can be found in its entirety with the City's Public Utilities Division of the Operations & Maintenance Department. It provided a detailed analysis of the existing and proposed trunk water system, including a water system model, and served as a guide as Brooklyn Park extends city water to urbanizing areas. The Master Plan performed a more thorough scientific, engineering and financial analysis of the existing and future water system than was required to meet the Met Council and DNR requirements.

The City hired Bolton & Menk, Inc. to update the water system model and Plan in 2017. Through this process, the water system model was updated to include all changes in water infrastructure since 2006. The computerized model was also updated to include scenarios through 2040 to determine where and when future infrastructure changes or additions may be required. These updates, both past and proposed, are described in the updated portions of the Plan. The updated portions of the report are on file with the City's Public Utilities Division of the Operations & Maintenance Department.

The purpose of this chapter is to plan and review the City's water supply and distribution system to accommodate current and future needs. This chapter includes sections discussing historical and future water demand, existing and proposed water system elements, and the

implementation of proposed infrastructure modifications.

The City has experienced steady growth over the past several decades. The City anticipates continued growth through 2040, but expects that the growth will be primarily commercial and high density residential rather than the traditional single family residential growth that was seen in the past.

The City is divided into six utility districts to allow for better planning throughout the City. Figure DW-01 illustrates the City's utility districts.

Insert Figure DW-01

B. Water Supply and Distribution Plan

In 2017, the City pumped, treated and distributed an average 8.9 million gallons per day (MGD) to approximately 22,700 customers. The City's goal is to provide a potable, reliable, long-lived water system with economical operations and low costs maintenance that meets quality standards and peak day water demands for rate payers and users. In 2008, the City prepared a Water System Plan updated for the northern growth area that had replaced previous plans in 1991, 1993, 1998, and 1999. This plan replaces the 2008 update.

II. EXISTING WATER SYSTEM

Figure DW-02 illustrates the City's current water distribution system, including the location of the water treatment facility, wells, reservoirs and tanks, inter-community connections, and water distribution system.

A. Water Supply

In 2017, the City has obtained 100 percent of its domestic and irrigation water from 11 ground water wells. The water was drawn from 2 aquifers: Quaternary 'glacial drift' – 89 percent, Wonewoc-Tunnel City (formerly known as Franconia-Ironton-Galesville or 'FIG') – 11 percent. The glacial drift wells are the primary supply to the system, however the quality of the raw water is low. The raw water contains manganese, iron, magnesium, calcium and other dissolved solids. The raw water is conveyed through transmission mains to the City's water treatment facility. Once at the water treatment plant, the water is brought up to drinking water standards in accordance with State and Federal regulations. The water is then pumped into the distribution system.

Recently, the regulators have been urging the City to diversity their aquifer use, and the City is working towards that goal.

B. Water (Wellhead) Protection Plan

The *Wellhead Protection Plan* is a two-part document that can be found in its entirety with the City's Public Utilities Division of the Operations & Management Department. Part 1 developed criteria which delineated an area known as the DSWMA (Drinking Water Supply Management Area) and identified the vulnerability of the available aquifer(s) to contamination. Part 1 of the plan was completed and submitted to the state and approved on August 6, 2004. Part II was approved on June 16, 2007 and an amendment was submitted on Part 1 December 23, 2015 and Part II January 18, 2018. Figure DW-03 shows the location of the Drinking Water Supply Management Areas for Brooklyn Park.

Overall the plan sets parameters for implementation. In general, the goals of the plan are:

1) Protect the aquifer, public water supply wells and promote wise land use in the DWSMA(s) and the City as a whole;
2) Provide a safe, potable water supply, manage the available aquifers, promote and increase public awareness of groundwater problems and monitor or restrict activities that expose the groundwater to contamination;
3) Educate the general public about groundwater issues;
4) Advocate and implement land use best management practices; and
5) Administer well management and collection of data relevant to wellhead protection planning.

Part II and the Amendment to Part II of the Wellhead Protection Plan include:

1) The results of an inventory of potential contamination sources that may impact the City of Brooklyn Parks' Public Water Supply;
2) Strategies to address potential contaminant sources identified;
3) An evaluation plan to assess implementation effectiveness of the WHP Plan; and
4) An Emergency/Alternative Water Supply Contingency Plan to assist the City in the event of an environmental disaster or major disruption of the water supply system.

At this time, it is the City's intention to continue to use ground water for current and future consumption demands.

*Insert Figure DW-02

*Insert Figure DW-03

C. Water Treatment

The City has one centrally located water treatment plant. The Treatment plant removes the manganese and iron from the raw water. The hardness is removed by the customers by use of water softeners. The water treatment facility's capacity is 26 million gallons per day (MGD) and efficiency is 96-97 percent. Waste water from the plant is disposed via the sanitary sewer system. Other chemicals such as fluoride, polyphosphate, and chlorine are added prior to delivery into the distribution system.

D. Water Storage

The City has five reservoirs which can store 15 million gallons of water, nine (9) MG is located at the water treatment plant ground reservoir in the center of the City, four (4) MG is in elevated reservoirs (3 water towers) throughout the City and the remaining two (2) MG is in the Bass Creek ground reservoir. A pressure of 50-70 pounds per square inch is maintained for fire protection.

Table DW-01

Existing Water Supply, Treatment and Storage

	Current	**Proposed 2040**
Pumping Capacity	29 MGD	34 MGD
Treatment Capacity	26 MGD	30 MGD
Storage Capacity	15 MG	17 MG
Emergency Capacity	10.0 MGD	10 MGD
(MGD) Million Gallons per Day (MG) Million Gallons		

E. Inter-Community Connections

In November of 2006, Blue Stone Engineering completed a *City of Brooklyn Park Water Main Interconnections with Adjoining Communities* report, which can be found in its entirety with the City's Public Utilities Division of the Operations & Maintenance Department. The City has a total of 9 emergency interconnections that have a total capacity of approximately 10 million gallons per day. Table DW-02 below shows a summary of the interconnections.

Table DW-02

City of Brooklyn Park Emergency Watermain Interconnections with Adjoining Communities

Community	**Number of Inerconnections**	**Service Capacity (MGD)**
Maple Grove	3	2.7
Champlin	4	2.9
Brooklyn Center	1	2.7
Osseo	1	1.7
Total Emergency Capacity		10.0

III. WATER DEMAND

A. Historic Demand

Historical pumping and demand data can be seen in the table below. Brooklyn Park's population, as well as commercial and industrial developments, have shown continuous growth for the past 50 years, and water demand has increased at a similar pace.

Table DW-03
Historic Water Demand

Year	Population	Water Demand		Per Capita Demand
		Average Day (MGD)	Maximum Day (MGD)	
1970	26,230	N/A	N/A	N/A
1980	43,332	4.023	10.999	93
1990	56,381	6.252	18.081	111
2000	67,388	8.545	18,722	127
2010	75,781	8.57	20.840	113

B. Future Demand

Based on population projections made in conjunction with the Metropolitan Council and the City, as well as the City's projected land use and growth areas, the table below shows projected future water demand through the year 2040. The City expects to see continued growth as in the past, but projects that growth will consist of primarily commercial and multi-residential growth, rather than single family residential growth as in the past.

Table DW-04
Project Water Demand

Year	Population Total	Population Served		Water Demand		Estimated Water Withdrawal (MGY)
			Overall gpcd	Average Day (MGD)	Maximum Day (MGD)	
Current	81,500	80,275	112	8.99	23.38	3,281.64
2020	83,000	81,825	113	9.25	25.43	3,374.87
2030	90,000	89,200	109.5	9.77	26.86	3,565.10
2040	97,900	97,900	109.5	10.72	29.48	3,912.82

Table DW-05 below shows the 2017 water use connections broken down by land use. The majority of those connections are residential.

Table DW-05 Water Connections by Land Use				
Water Connections		**Estimated Annual Consumption (MG)**	**Average Daily Consumption per Connection (gallons/day)**	**% of Total**
Land Use	**Number of Connections**			
Single Family	17,206	1,516	241	55.7
Townhomes	3,816	173	124	6.4
Duplex	932	63	185	2.3
Multi-family	165	339	5,629	12.5
Residential Sub-total	22,119	2,091		76.9
Commercial	441	268	1,786	9.8
Institutional	65	50	1,442	1.8
Industrial	79	40	1,387	1.5
Non-Residential Sub-total	585	358		13.1
Metered Irrigation	500	273	1,496	10.0
Total	23,204	2,722		100.0

IV. FUTURE WATER SYSTEM

This section includes discussion of projected future water needs and location of planned improvements for the City's water system.

Future additions and improvements of the water system consider the following factors:

1) Future land use and new development.
2) Water system integrity;
3) Location and reliability of existing water supply.

A. Water Supply

The City is anticipating the need for additional wells and the use of other aquifers to meet future demand or potential regulations that may require water source diversification by 2040. Additional State water appropriations will be necessary to meet the future water demands. Potential future water source locations can be seen in Figures DW-04 and DW-05.

B. Water Treatment and Distribution

The water treatment plant is in good condition and has sufficient capacity to provide water for the City through 2040. At this time, the City does not have plans for a water treatment expansion.

There are several planned City, County, and State roadway projects in the next few years that cover areas where the City would like to replace or install water main. Several sections have been identified in the City's *WSSTMP.* Proposed changes to trunk water mains can been seen in Figure DW-04.

C. Water Storage

Based on the expected future demand, the City anticipates there will be a need for additional water storage by approximately 2025. A two million gallon elevated water storage tank is proposed in the expected growth area to in the northwest part of the City. The proposed location for this tower can be seen on Figures DW-04 and DW-05.

Insert FiguresDW-4

* and DW-5

V. IMPLEMENTATION

A. Funding

Utility rates, water access changes, and special assessments will be used to fund the necessary water supply improvements and major maintenance of the system.

B. Conservation

The City encourages conservation and is working towards meeting conservation goals, as outlined in the *Water Supply Plan*.

C. Brooklyn Park 2025

As part of future planning, the community developed "Brooklyn Park 2025" – a plan for the future of Brooklyn Park and what the community would like the City to look like. The plan includes six goals.

Safe, dependable, and affordable drinking water can be related directly to the 4 goals listed below:

Goal #2) Beautiful spaces and quality infrastructure make Brooklyn Park a unique destination

Goal #3) A balanced economic environment that empowers business and people to thrive

Goal #4) People of all ages have what they need to feel healthy and safe

Goal #6) An effective and engaging government recognized as a leader

The City has worked to include water supply planning and to meet the 2025 goals, including providing safe, quality drinking water through well-maintained infrastructure.

Appendix A – Local Water Supply Plan Template Third Generation for 2016-2018

Real People. Real Solutions.

DRAFT Local Water Management Plan Update

City of Brooklyn Park

November 27, 2018

Prepared by:
Bolton & Menk, Inc.
2035 County Road D East
Maplewood, MN 55109
P: 651-704-9970
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Certification

Local Water Management Plan Update

City of Brooklyn Park
Brooklyn Park, MN
BMI Project No. N15.114532

November 27, 2018

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By: _____
Brent Johnson, P.E.
License No. 20378

Date: November 27, 2018

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Appendix

Appendix A: Minimum Engineering Standards for Storm Water Management
Appendix B: Chapter 153 Stormwater Management

Acronyms and Abbreviations

Unless otherwise stated in the body of this report the following acronyms and/or abbreviations shall be used

BMP	Best Management Practices
Commissions	Shingle Creek/ West Mississippi Watershed Management Commissions
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
HSG	Hydrologic Soil Group
JPA	Joint Powers Agreement
LGU	Local Government Unit
LWMP	Local Water Management Plan
MCES	Metropolitan Council Environmental Services
MnDNR	Minnesota Department of Natural Resources
MNRRA	Minnesota National River and Recreation Area Plan
MPCA	Minnesota Pollution Control Agency
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
NURP	National Urban Runoff Program
OHW	Ordinary High Water level
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USACE	United States Army Corps of Engineers
USDA-NRCS	United States Department of Agriculture-Natural Resources Conservation Service
WCA	Minnesota Wetland Conservation Act
WLA	Wasteload Allocation

I. EXECUTIVE SUMMARY

The City of Brooklyn Park, along with all other communities in the metropolitan area, must update their local water plan, as part of the comprehensive plan update, between January 1, 2017 and December 31, 2018. In general, local surface water plans need to include a summary of the priorities and problems in the community; structural, nonstructural and programmatic actions to take to address the priorities and problems; and clearly identified funding mechanisms to fix the problems. This plan provides the City of Brooklyn Park with an update to the Comprehensive Storm Water Management Plan adopted in 2009. It will serve as a guide to managing the City's surface water, ground water and storm water activities in the City for the 10 year period 2019-2029.

This Local Water Management Plan (LWMP) was prepared in reponse to the requirements of Minnesota statues 8410 and 103B.235 as well as the standards set forth by the Shingle Creek and West Mississippi Watershed Management Comrnission. The Commision adopted their Third Generation Watershed Management Plan in 2013. Member cities are required to update their LWMP to be in compliance with the Commissions Third Generation Watershed Management Plan.

The purpose of this document is to provide the City of Brooklyn Park with an updated LWMP in accordance with the requirements noted above and will serve as a comprehensive planning document to guide the City in conserving, protecting and managing local surface and ground water resources. Local plans must be submitted to the Metropo1itan Council and the Commissions for review. The watersheds have a 60 day review period upon receipt of the local plan. The Metropolitan Council has 45 days to provide comments to the Commissions regarding the revised local water management plan.

This report addresses the City's current water management needs and provides a framework for successful implementation of a comprehensive storm water management program.

The report is organized as follows:

- Section II - Introduction
- Section III - Land and Water Resource Inventory, describes the physical environment including watersheds and drainage pattems, dominant land uses, and significant water bodies within the City.
- Section IV - Goals and Policies, lists the City's goals and policies along with public agency requirements affecting surface water management in the City.
- Section V - System Assessment describes the existing storm water management system in the City and details the various assessments of problems in the existing system.
- Section VI - Implementation Plan, covers regulatory responsibilities, priority implementation items, operation and maintenance, and financial considerations. A Plan amendment process is also identified.
- Section VII - Summary and Recommendations, contains a summary of the LWMP and makes recommendations for implementing the Plan.

The Goals and Policies section of the LWMP (Section IV) outlines goals and policies specific to water management in Brooklyn Park. The goals are broad statements regarding the motivation and intent of the LWMP. The policies that follow the individual goals are specific requirements that promote attainment of the goal.

The primary goal of this plan is to bring the City into statutory compliance and provide the City a framework for effective storm water management, to guide development and redevelopment activities, and also to identify and implement retrofits to the existing system. These retrofits consist

of both projects and programs. Additionally, the plan provides clear guidance on how Brooklyn Park intends to manage surface water quantity and quality.

The System Assessment (Section V) contains a description and assessment of the City's surface water system The system assessment describes problems that the Plan must address. These assessments are provided by the City, the Commissions and the MPCA. The intent is to identify the source of problems and specific actions the City proposes to take to address these problems either independently or in collaboration with other organizations -most commonly one of the watershed commissions.

This Implementation Plan (Section VI) describes those activities and programs the City proposes to develop to improve its surface water management program. Brooklyn Park will continue to install required storm water treatment systems as part of development and redevelopment and will look for opportunities to upgrade those parts of the system that lack adequate storm water treatment measures.

Section VI also includes:

- An overview of the City's NPDES-MS4 permit.
- A discussion of operation and maintenance procedures and strategies.
- Implementation priorities.
- Financial considerations.
- A discussion of the process for amending this Plan.

Section VII summarizes the LWMP and provides recommendations for implementation of the plan.

After review and approval by the Commissions, the LWMP will be submitted to the City Council for consideration with the following recommendations:

- That the City continues to operate and maintain its storm water system in accordance with this LWMP.
- That the City continues to support a sense of common purpose with the Commissions and adjacent communities regarding storm water management issues.
- That the City adopt this Local Water Management Plan and adopt amendments to it as deemed necessary.

II. INTRODUCTION

A. Background

In 1995, Minnesota Statutes Section 473.859, subd. 2 was amended to make the local water plan (often referred to as local surface water management plans) required by section 103B. 235 a part of the land use plan of the local comprehensive plan. Minnesota Rules Chapter 8410, updated in July of 2015, includes the requirements for local water management plans. All communities in the metropolitan area must update their local water plan between January 1, 2017 and December 31, 2018. Therefore, the City of Brooklyn Park must update its local water plan as part of the comprehensive plan update. The community's updated local water plan should be submitted to the Council for its review concurrent with the review by the Watershed Management Organization(s) within whose watershed(s) the community is located. Failure to have an updated local water plan will result in the comprehensive plan being found incomplete for review until the required plan is provided to the Council.

Local water plans must meet the requirements for local water plans in Minnesota Statutes, section 103B.235 and Minnesota Rules Chapter 8410. In general, local surface water plans need to include a summary of the priorities and problems in the community; structural, nonstructural and programmatic actions to take to address the priorities and problems; and clearly identified funding mechanisms to fix the problems.[1]

This plan provides the City of Brooklyn Park with an update to the Comprehensive Storm Water Management Plan adopted in 2009. It will serve as a guide to managing the City's surface water system and comply with Minnesota Statutes. The LWMP will guide surface water, ground water and storm water activities in the City for the 10 year period 2019-2029. Periodic amendment to the Plan will likely occur in the intervening 10 years so that the Plan remains current to watershed plan amendments and Metropolitan Council requirements.

The City of Brooklyn Park occupies approximately 26.3 square miles of land in northeastern Hennepin County (**Figure l).** Brooklyn Park is a second-ring suburb, located immediately north of Brooklyn Center along the Mississippi River. Brooklyn Park also borders the cities of Coon Rapids, Fridley, Crystal, New Hope, Maple Grove, Osseo and Champlin.

The City of Brooklyn Park is approximately 85% developed. The existing City land use is one of a well-defined commercial/industrial core surrounded by residential neighborhoods. The City is also home to a large park and open space system. The major natural surface water features of Brooklyn Park are the Mississippi River and Shingle Creek. The topography is relatively flat to gently rolling with a maximum elevation differential of approximately 100 feet.

B. Purpose and Scope

The Brooklyn Park LWMP will serve as a comprehensive planning document to guide the City in conserving, protecting, and managing its surface water resources. The LWMP has been updated to meet requirements as established in Minnesota Rules 8410. In addition, the Plan reflects the requirements of the Commissions with jurisdiction within the City.

The City must submit the LWMP to the Metropolitan Council and the Commissions for review. The Commissions have 60 days for their review after written receipt of the City Plan.

[1] https://metrocouncil.org/Communities/Planning/Local-Planning-Assistance/System-Statements/System-Statements/02393429_BrooklynPark_2015SS.aspx

Met Council provides comments within 45 days. The Council directs its comment to the Commissions which consider these comments in formulating their own comments.

This report addresses the City's current surface water management need and provides a framework for succesfu1 implementation of a comprehensive storm water management program.

C. Organization

The report is organized as follows:

- Section III -Land and Water Resource Inventory, describes the physical environment including watersheds and drainage pattems, dominant land uses, and significant water bodies within the City.
- Section IV -Goal and Policies, lists the City's goals and policies along with public agency requirements affecting surface water management in the City.
- Section V -System Assessment describes the existing surface waters and the storm water management system in the City and details the various assessments of problems in the existing system.
- Section VI -Implementation Plan covers regulatory responsibilities, priority implementation items, operation and maintenance, and financing considerations. A Plan amendment process is also identified.
- Section VII -Summary and Recommendations contain' a summary of the LWMP and make recommendations for implementing the Plan.

III. LAND AND WATER RESOURCE INVENTORY

A. Land Use

Figures 2 and **3** show the current Land Use and Zoning Districts within the City of Brooklyn Park. Brooklyn Park is approximately 85% urbanized, with approximately 50% of the land use comprised of single family residential development and the remainder being mostly commercial and industrial development. **Figure 4** shows the Land Cover Classifications in the City. Remaining agricultural and undeveloped lands generally are found along the TH 610 and TH 169 corridors. These lands are expected to develop as shown in the proposed 2040 Land Use Plan for the City of Brooklyn Park (**Figure 5**).

The City also includes significant green spaces as shown in **Figure 6**. In total the City has over 60 developed parks and two golf courses. Several regional trails and the Coon Rapids Dam Regional Park are 1ocated within the City limits. The Rush Creek Regional Trail links Elm Creek Park Reserve to Coon Rapids Dam Regional Park. The Shingle Creek Regional Trail begins at its connection with the Rush Creek Regional Trail in Brooklyn Park and heads south through Brooklyn Center, where it connects to the Shingle Creek Parkway and trails in Minneapolis.

The Comprehensive Plan update provides a significant amount of narrative on existing conditions and potential opportunities within the City and the reader is referred to that document for more information on land use planning.

B. Topography and Watersheds

The City of Brooklyn Park is located along the Mississippi River in northeastern Hennepin County. The Minnesota landscape is a product of the continental glaciers. Sediments transported by the glacial meltwaters filled the area with sand and gravel. (Soil Survey of Hennepin County, Minnesota).

Most of Brooklyn Park is relatively flat with some areas having gently rolling terrain. Fairly steep slopes occur along the east border of the City along the Mississippi River. Surface elevations in the City range from approximately 820 feet along the Mississippi River to approximately 920 feet along the City's western border.

The City's hydrologic system is part of the Mississippi River watershed. The City is a member of two watershed management commissions. Both of these Commisions were formed by Joint Power Agreements (JPA). The northern portion of the City is in the West Missippippi Watershcd Management Commission. The southern portion of the City is in the Shingle Creek Watershed Management Commission. **Figure 7** shows the jurisdictional boundaries for the two Commissions within the City.

C. Soils

The soils in Brooklyn Park are mapped within the USDA-NRCS Soil Survey of Hennepin County which was updated in 2004. The most common soils mapped in the City of Brooklyn Park are Isan, Hubbard, Soderville, Verndale, Forada, Seelyeville and Duelm (**Figures 8A and 8B).** The acreages of the major soil types in Brooklyn Park are shown in Table 2.1. This table also includes each soils corresponding Hydrologic Soil Group. Most of the City includes soils of the Hydrologic Soil Group A. The Verndale soil is found in 7% of the City and is classificd as a hydrologic soil group B. Additional information about each of the soils is available in the soil survey.

Table 2.1 - Soil Types

Soil Type	Hydrologic Group	Area (acres)	% of Total
Isan	A/D	3522	21%
Hubbard	A	3034	18%
Soderville	A	1839	11%
Verndale	B	1231	7%
Forada	A/D	1092	6%
Seelyeville	A/D	968	6%
Duelm	A	898	5%
Urban land		889	5%
Koronis	A	626	4%
Zimmerman	A	590	3%
Dorset	A	303	2%
Other Soils	Various		10%
Water		283	2%
	Total	**16984**	100%

The infiltration capacity of soils is important in determining the surface water runoff. If the soil has a moderate to high infiltration capacity, a significant portion of precipitation will be infiltrated into the ground thereby reducing the volume of runoff. If a soil has low infiltration capacity, much more precipitation will become surface runoff. The hydrologic soil group (HSG) defines a soil's relative infiltration capacity and determines how much runoff will be generated for a given rainfall event.

"...Soil Scientists have classified soil map units in soil survey reports into Hydrologic Soils Groups (HSGs). The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that occur naturally in group D are assigned to dual classes.

Specifically for those areas with HSGs ratings of A/D, B/D and C/D, they indicate a drained condition/undrained condition rating. Unless the area has a documented, effective and maintained drainage system(s) as the site land-use is proposed to change, the HSGs should be interpreted as a Group D soil.[2]*"*

D. Key Water Resources

The key surface water resources within the City of Brooklyn Park include the Mississippi River; several creeks including Shingle Creek, Bass Creek, Eagle Creek, Twin Creek and the Edinbrook-Century Channel-Mattson Brook, Lake Magda and Lake Success; and numerous wetlands. These valuable water resources provide many public benefits for the use and enjoyment of its residents. Key water resources and MnDNR protected waters are shown in **Figure 9** and listed in **Table 2.3**.

[2] Minnesota Board of Water and Soil Resources, http://www.bwsr.state.mn.us/outreach/eLINK/Guidance/HSG_guidance.pdf Accessed January 2018

Table 2.3 - Key Water Resources			
Name	**DNR ID No.**	**Area (acres)**	**Comments**
Lakes and Wetlands			
Lake Magda	27-65P	12	Small Lake located in southwestern Brooklyn Park
Lake Success	27-634W	8	Small Lake located in south central Brooklyn Park.
Mueller Marsh	27-565W	21	Wetland adjacent to Bass Creek
Palmer Lake	27-59P	271	Large wetland located on boundary of Brooklyn Park and Brooklyn Center
Unnamed	27-566W	25	Adjacent to Eagle Creek
Unnamed	27-563W	130	Adjacent to Shingle Creek
Unnamed	27-562W	17	Adjacent to Shingle Creek
Unnamed	27-560W	26	Adjacent to Shingle Creek
Rivers and Creeks			
Mississippi River	N/A	N/A	The River defines the entire eastern municipal border
Shingle Creek/Bass Creek/Eagle Creek	N/A	N/A	Natural Streams and County Ditch flowing through southern Brooklyn Park
Edinbrook/CenturyChannel/ Mattson Brook	N/A	N/A	Natural Stream and Constructed open channels flowing across entire City (west to east)
Twin Creek	N/A	N/A	Natural Stream flowing through southwest area of City between Crystal and Brooklyn Center

1. Lakes and Ponds

Two 1akes are present in the City: Lake Magda and Lake Success.

Lake Magda is a small lake located along the western border of Brooklyn Park adjacent to T.H. 169. There is a small park along the northern edge of the Lake providing public access. Other recreational use on the Lake is by the surrounding property owners. Outflow from the lake drains to Eagle Creek then to Shingle Creek.

The Watershed Plan indicates that Lake Magda is hypereutrophic and listed as impaired for excessive nutrients by the MPCA, and residents report a significant carp population. A TMDL was approved in 2010.

Lake Success is another small lake located in south central Brooklyn Park. The Lake was created by the original developer by excavating sand and gravel from an existing wetland and creating an open water basin. The lake drains through storm drains to Shingle Creek. There is no public land adjacent to this lake. Residents appreciate the aesthetics of the lake and also its recreational value. The lake historically had good water quality, but it appears to be declining. Water levels have also been lower than

expected in recent years, prompting the City and DNR to investigate whether groundwater flows to or from the lake may be changing.

The majority of the ponds in Brooklyn Park were created as part of the storm water system. Although some of these are treated as recreational water bodies by the adjacent residents, the City classifies them as storm water retention basins and maintains them accordingly.

2. Rivers and Creeks

The Mississippi River forms the eastern corporate boundary of Brooklyn Park. Approximately 10% of the City drains to the Mississippi River directly through larger diameter trunk storm sewers extending under Highway 252. The section of the Mississippi River adjacent to Brooklyn Park has an EPA-approved impairment for: Mercury in Fish Tissue, Fecal Coliform; and PCB in Fish Tissue. These impairments are considered non-construction related and do not require any additional best management practices (BMPs) or plan review for compliance with the NPDES/SDS construction permit.

Bass Creek and Eagle Creek are small natural streams located in the southwestern part of the City. Shingle Creek flows through Brooklyn Park from the confluence of Bass Creek and Eagle Creek to the Palmer Lake Basin. Shingle Creek serves as the primary drainage corridor for the southern portion of the City.

Shingle Creek has an EPA-approved impairment for: Aquatic Macroinvertebrate Bioassessments; Chloride; and Dissolved Oxygen. These impairment(s) are considered to be construction related parameters and require the additional best management practices (BMPs) found in Appendix A of the permit (C.1 & C.2) if the project has a discharge point on the project within 1 mile (aerial radius measurement) of, and flows to the impaired stream. Shingle Creek was added to the 303(d) list in 2014 as impaired for aquatic recreation due to excessive levels of E. coli. The TMDL and load reductions are incorporated into the Upper Mississippi River Bacteria TMDL.

Twin Creek is a small natural stream flowing through the southwestern area of the City between Crystal and Brooklyn Center. The Edinbrook/Century Channel is a drainage channel that carries runoff through Brooklyn Park and discharges to Mattson Brook. The Mattson Brook flows to the Mississippi River.

Figure 10 shows impaired waters in the City. **Figure 11** shows potential hotspots and contaminant sources in "What's in my Neighborhood." Additional information concerning impaired water issues is provided in Section V of this report. Additional information regarding the condition and management strategies for rivers and creeks in the City is provided in Section IV and V of this report.

3. Wetlands

Figure 9 shows the DNR Protected Waters and Wetlands within the City. The figure also shows additional wetland areas within the City that are included within the National Wetland Inventory (NWI). There are 28 unnamed wetlands within the City that are categorized as DNR protected waters and wetlands. Additional information about these wetlands is contained in **Table 2.3.**

4. Groundwater

The City obtains 100% of its water supply from 17 groundwater wells. Wells within unconfined glacial drift are the primary supply source. The "Wellhead Protection Plan" (approved January 18, 2018 by Minnesota Department of Health) for the City

addresses both water supply vulnerability and source protection. The plan delineated the Wellhead Protection Area (WHPA) and the Drinking Water Supply Management Area (DWSMA), and assessed the vulnerability of the wells and the aquifers (**FIGURE 12)**. The Brooklyn Park wells draw from the unconfined drift sand/gravel quaternary aquifer and the Wonewoc-Tunnel City aquifer. Most of the DWSMA is classified as highly vulnerable (H) to contamination due to a lack of an effective confining layer to prevent surface contaminants from reaching the aquifer.[3]

Commission rules require infiltration of stormwater for volume control and water quality benefits. The Wellhead Protection Plan describes the potential conflict between the benefits of stormwater infiltration (for volume control, surface water quality, rate control, and aquifer recharge) and the risks of aquifer contamination. The Commissions prohibit infiltration with the Emergency Response Area, in areas of known contamination, and on sites with certain land uses such as with petroleum tanks. The City Stormwater Management Ordinance Chapter 153.07 C.5.g Infiltration Requirements states that "…Infiltration will be restricted and subject to additional city review where the infiltration BMP will be constructed… b. Where drinking water supply management areas are present…."

The Minnesota Department of Health and the MPCA offer guidance on evaluating infiltration within DWSMAs (**Figure 13).** Use of this reference will assist the City in evaluating proposed infiltration sites located within the DWSMA.

5. Existing Flood Insurance Studies

The Federal Emergency Management Agency (FEMA) revised the Flood Insurance Study (FlS) and Flood Insurance Rate Map (FIRM) for Hennepin County November 4, 2016. The FIRM maps show all 1% annual chance (i.e.100-year) floodplain boundaries for the County, and include both the floodway and flood fringe for rivers and streams where FEMA has completed detailed engineering studies. Within Brooklyn Park, floodways and flood fringe areas, as well as flood elevations, are provided for Shingle Creek, Edinbrook Channel and the Mississippi River. Special flood hazard areas have also been established around many of the storm water ponds, lakes and wetlands within the City.

Figure 14 shows the FEMA Special Flood Hazard Areas within Brooklyn Park.

Table 2.4 lists the riverine and lacustrine flooding sources studied within the City.

Table 2.4 - FEMA Special Flood Hazard Areas within Brooklyn Park	
Riverine Flooding Sources	Lacustrine Flooding Sources
Bass Creek	Century Channel Pond 1-22
Eagle Creek	Edinbrook Channel Ponds 15-53 and 76
Shingle Creek	Lake Success
Unnamed Creek (Twin Creek)	
Edinbrook Channel	
Mississippi River	

[3] WELLHEAD PROTECTION PLAN AMENDMENT PART II, City of Brooklyn Park, Minnesota October 16, 2017

IV. GOALS AND POLICIES

A. Purpose

The primary goal of this plan is to bring the City into statutory compliance and provide the City a framework for effective storm water management, to guide development and redevelopment activities, and also to identify and implement retrofits to the existing system. These retrofits consist of both projects and programs. Additionally, the plan provides clear guidance on how Brooklyn Park intends to manage surface water in terms of both quantity and quality.

This plan is an update to the Comprehensive Storm Water Management Plan adopted in 2009 providing the City with a plan that meets the requirements of the Metropolitan Water Management Act (Minnesota Statute 103B), Minnesota Rules Chapter 8410, and the Commission requirements outlined in their Third Generation Watershed Management Plan dated April 2013.

B. City of Brooklyn Park LWMP Goals and Policies

This section outlines goals and policies specific to surface water management in Brooklyn Park. The goals identified below are broad statements regarding the motivation and intent of the LWMP. The policies that follow individual goals are specific requirements that promote attainment of the goal.

Goal 1
To minimize public capital and maintenance expenditures necessary to control excessive volumes and rates for storm water runoff.

Policy 1.1 - Preserve existing storage capacities of protected waters, wetlands and natural water courses.

Policy 1.2 - Perform hydrologic and hydraulic modeling on a case-by-case basis to analyze runoff characteristics for development and redevelopment projects.

Policy l.3 - Limit storm water runoff rates from development and redevelopment sites based on the Commission requirements, City Ordinance and design standards.

Policy 1.4 - Provide additional storage either on site or within the subwatershed where necessary to comply with the design standards.

Policy 1.5 - Implement cost effective and efficient method of storm water management to limit public expenditures.

Goal 2
To provide a reasonable level of protection within the City of Brooklyn Park to limit potential flood damage.

Policy 2.1- Prohibit encroachment that will reduce the storage capacity of floodplains, unless mitigating action is undertaken.

Policy 2.2 - Allow only structures that have been flood-proofed or will not be subject to excessive damage in the floodway fringe.

Policy 2.3 - Establish a 10-year rainfall event as the minimum criteria for new storm water conveyance facility designs.

Policy 2.4 - Require new habitable structures to be protected from flooding during the 100-year rainfall event.

Goal 3
To maintain or improve both surface water and groundwater quality.

Policy 3.1 - Require the implementation of water quality best management practices for treatment and/or control of storm water runoff in accordance with Commission requirements, City design standards and TMDL implementation plans.

Policy 3.2 - The City will coordinate efforts with the Commissions and other agencies to establish reasonable short and long term goals for water bodies within the City or impacted by storm water runoff leaving the City.

Policy 3.3 - Support water quality monitoring efforts being undertaken by the Commission.

Goal 3B
Wellhead Protection Goals[4]

Policy 3B.1 - Provide a safe, potable, water supply that meets or exceeds State and Federal standards.

Policy 3B.2 - Manage the available aquifers so as to assure a sustainable water supply.

Policy 3B.3 - Promote and increase public awareness of potential groundwater problems, wellhead protection, and water conservation.

Policy 3B.4 - Monitor and/or restrict activities that expose the groundwater to contamination.

Goal 4
To protect and enhance fish and water related wildlife habitats.

Policy 4.1 - Promote those aspects of local shoreland regulations that enhance fish and wildlife habitat to the extent feasible.

Policy 4.2 - Preserve protected waters and wetlands that provide habitat for game fish and wildlife to the extent feasible.

Policy 4.3 - Coordinate efforts to protect areas of significant natural communities with the MnDNR.

Policy 4.4 - Coordinate efforts to protect rare and endangered species with the MnDNR.

Goal 5
To protect and enhance opportunities for water recreation.

Policy 5.1 - Coordinate efforts with state, county and neighboring municipalities to enhance water-based recreation to the extent practical.

Goal 6
To coordinate storm water management efforts with the Commission, adjacent communities and citizens within Brooklyn Park.

Policy 6.1 - Work with adjacent municipalities and the Commission in planning and implementing mutually beneficial regional storm water management improvements.

C. Shingle Creek and West Mississippi Watershed Management Commissions Third Generation Watershed Management Plan Goals and Policies.

[4] Wellhead Protection Plan Amendment Part II, City of Brooklyn Park, Minnesota, October 16, 2017

The following tables in this section address how the goals, policies, and strategies in this Plan address the goals and policies outlined in the Commissions Third Generation Watershed Management Plan Section 4.

Commission Policy	**Brooklyn Park Comment or Proposed Action**
Goal Area A. Water Quantity	
Goal A.1. Maintain the existing 100-year flood profile throughout the watersheds.	Policy 1.1 and 1.3.
Goal A.2. Determine ecological low flows for Shingle and Bass Creeks	Noted, no proposed action.
Actions:	
a. Maintain and update as necessary a calibrated hydraulic model of Shingle Creek and its tributaries	Noted, no proposed action.
b. Maintain rules and standards requiring new development and redevelopment to control the rate and volume of runoff discharged from their sites, and update those standards as necessary.	Policy 1.3 and City Stormwater Management Ordinance Chapter 153 (Appendix B)
c. Develop a sustainable water budget for each watershed and an action plan for management activities necessary for its achievement.	Noted, no proposed action.

Commission Policy	**Brooklyn Park Comment or Proposed Action**
Goal Area B. Water Quality	
Goal B.1. As lake water quality improves and lakes are removed from the State's Impaired Waters list, implement management strategies to protect lake water quality. It is anticipated that Schmidt, Lower Twin, and Ryan Lakes will be removed in 2014.	Policy 3.1, 3.2 and 3.3
Goal B.2. Implement phosphorus and sediment load reduction actions sufficient to achieve de-listing from the Impaired Waters list for Bass, Eagle, Crystal, and Middle Twin Lakes.	Policy 3.1 and 3.2. City Stormwater Management Ordinance Chapter 153 (Appendix B)
Goal B.3. Improve water clarity in the balance of the lakes by 10% over the average of the previous ten years.	Policy 3.2 and 3.3
Goal B.4. Improve at least 30% of the length of Shingle Creek to meet Corridor Study and TMDL design standards.	Policy 3.2 and 3.3

Goal B.5. Maintain nondegradation of all waterbodies compared to 1985 conditions.	Policy 3.1 and 3.3
Actions:	
a. Maintain and update as necessary calibrated P8 models for each lakeshed in Shingle Creek and the major drainage areas of West Mississippi.	Noted, no proposed action.
b. Maintain rules and standards requiring new development and redevelopment to control the total phosphorus and total suspended solids discharged from their sites, and update those standards as necessary.	Policy 3.1. City Stormwater Management Ordinance Chapter 153 (Appendix B)
c. Conduct an intensive BMP assessment for at least 25% of that part of the watershed that developed prior to Commission rules in 1984, and achieve 25% of the recommended load reduction within 10 years of the analysis.	Policy 3.1 and 3.2.
d. Contribute 25% of the cost of TMDL capital implementation projects (up to $250,000).	Noted, no proposed action.
e. Pursue grant and other funding to implement improvement projects and feasibility studies.	Policy 6.1.
f. Prepare and implement an Annual Monitoring Plan and conduct monitoring necessary to evaluate water quality conditions and trends in the lakes and streams in the two watersheds.	Policy 3.3
g. Evaluate progress toward achieving TMDL goals every five years following adoption of the respective Implementation Plans.	Policy 3.3

Commission Policy	**Brooklyn Park Comment or Proposed Action**
Goal Area C. Groundwater	
Goal C.1. Infiltrate stormwater runoff from new impervious surface.	Policy 1.3, 3.1, and 3B.4. City Stormwater Management Ordinance Chapter 153 (Appendix B)
Goal C.2. Identify opportunities for and implement projects to infiltrate runoff from existing impervious surface.	Policy 1.3, 3.1, and 3B.4. City Stormwater Management Ordinance Chapter 153 (Appendix B)
Goal C.3. Work with the appropriate state agencies to incorporate groundwater assessment into the sustainable water budget analysis for each watershed.	Noted, no proposed action.
Actions:	
a. Maintain rules and standards requiring new development and redevelopment to abstract or infiltrate stormwater runoff from new impervious surface, and update those standards as necessary.	Policy 1.3, 3.1, and 3B.4. City Stormwater Management Ordinance Chapter 153 (Appendix B)

b. Conduct an intensive BMP assessment for at least 25% of that part of the watershed that developed prior to Commission rules in 1984, and achieve 25% of the recommended volume reduction within 10 years of the analysis.	Policy 3.1 and 3.2.
c. Coordinate with the Minnesota DNR and other agencies to develop an action plan addressing surficial groundwater elevation issues in northern Brooklyn Park and the associated impacts on wetlands and Lake Success.	Policy 3.2 and 6.1.
d. Prohibit infiltration within the Inner Wellhead Protection Zone (IWMZ) and petroleum distribution areas.	Introduce this goal to the City Council in 2019.

Commission Policy	**Brooklyn Park Comment or Proposed Action**
Goal Area D. Wetlands	
Goal D.1. Maintain the existing functions and values of wetlands identified in the Commissions' Water Quality Plan as high-priority.	Policy 4.2.
Goal D.2. Informed by the sustainable water budget study, improve functions and values of wetlands.	Noted, no proposed action.
Actions:	
a. Adopt a wetland replacement sequencing policy.	Noted, no proposed action.
b. Identify wetland restoration opportunities and implement projects to restore wetland functions and values or to create new wetland acreage.	Policy 4.2, 4.3, 4.4 and 5.1.

Commission Policy	**Brooklyn Park Comment or Proposed Action**
Goal Area E. Drainage Systems	
Goal E.1. Continue current Hennepin County jurisdiction over County Ditch #13	Noted, no proposed action.
Actions:	
a. Periodically reconsider the appropriate jurisdiction over County Ditch #13.	Noted, no proposed action.

Commission Policy	Brooklyn Park Comment or Proposed Action
Goal Area F. Commission Operations and Programming	
Goal F.1. Identify and operate within a sustainable funding level that is affordable to member cities.	Goal 1 and Policy 1.5
Goal F.2. Foster implementation of TMDL and other implementation projects by sharing in their cost and proactively seeking grant funds.	Policy 3.2, 6.1
Goal F.3. Operate a public education and outreach program that meets the NPDES Phase II education requirements for the member cities.	Policy 3.1 and 3B.3 The Commission's "Education and Public Outreach" has been incorporated into the City's NPDES-MS4 permit.
Goal F.4. Operate a monitoring program sufficient to characterize water quantity, water quality, and biotic integrity in the watersheds and to evaluate progress toward meeting TMDL goals.	Policy 3.3
Goal F.5. Maintain rules and standards for development and redevelopment that are consistent with local and regional TMDLs, federal guidelines, source water and wellhead protection requirements, sustainable water yields, nondegradation, and ecosystem management goals.	Policy 3.1
Goal F.6. Serve as a technical resource for member cities.	Noted, no proposed action.
Actions:	
a. Annually review the budget and Capital Improvement Program.	Policy 6.1
b. Maintain an Education and Public Outreach Committee (EPOC) that is charged with developing and implementing an annual education and outreach plan.	Policy 3B.3. The Commission's "Education and Public Outreach" has been incorporated into the City's NPDES-MS4 permit.
c. Prepare and implement an annual monitoring plan and summarize the results in an annual water quality report.	Policy 3.3
d. According to the schedules set forth in TMDL Implementation Plans, every five years evaluate progress toward meeting TMDL water quality goals, and adjust the Implementation Plans as necessary to achieve progress.	Policy 3.2 and 3.3
e. Every five years or as necessary review the development rules and standards for adequacy and make revisions as necessary.	Policy 3.1

f. Continue research projects on innovative and cost-effective stormwater management practices and technologies.	Policy 1.5 and 3.1
g. Coordinate water resources management between the Commissions and the member cities.	Policy 6.1

D. County, State and Federal Agency Jurisdiction

This section presents a synopsis of the current agency jurisdictions within Brooklyn Park. The City is committed to the preservation and enhancement of its wetlands and water resources through full compliance with local, state, and federal wetlands regulations.

1. Minnesota Department of Natural Resources (DNR)

The DNR has regulatory authority over the lakes, wetlands and watercourses in the Protected Waters Inventory (FIGURE 9). Public Waters are defined within Minnesota Statutes 103G.005 Subdivision 15. Wetlands in the public waters inventory are generally those Types 3, 4, and 5 wetlands in excess of 10 acres in rural areas or in excess of 2.5 acres in municipalities and incorporated areas. Watercourses in the inventory generally include natural streams and altered watercourses with a total drainage areas exceeding two square miles and designated trout streams.

The eastern portion of the City abutting the Mississippi River, is located in the Mississippi River Critical Area Corridor. According to the DNR:

The purposes of designating the Mississippi River as a state critical area include the following:

a) Protecting and preserving a unique and valuable state and regional resource for the benefit of the health, safety, and welfare of the citizens for the state, region, and nation;

b) Preventing and mitigating irreversible damage to this resource;

c) Preserving and enhancing its natural, aesthetic, cultural, and historical value for public use;

d) Protecting and preserving the river as an essential element in the national, state, and regional transportation, sewer and water, and recreational systems; and protecting and preserving the biological and ecological functions of the corridor.

The MnDNR has three primary roles for the Mississippi River Critical Area Program. The MnDNR has undertaken the mandate of reviewing existing ordinances that affect lands within the Mississippi River Critical Area Corridor for their compliance with state critical area standards and guidelines. Technical assistance for ordinance development will be provided to local communities to ensure adoption and approval of a compliant state critical area ordinance or any ordinance amendments. MnDNR will also provide individualized technical assistance for amending existing ordinances or developing proposed ordinances that will be consistent with the voluntary MNRRA Comprehensive Management Plan (CMP) policies. In addition, adoption or amendment of plans and ordinances affecting lands within the Mississippi River Critical Area Corridor and relating to Executive Order 79-19 purposes and standards are effective only after approval by the MnDNR. The MnDNR reviews the plans and ordinances to ensure their consistency with the provisions of Executive Order 79-19, following an evaluation by the Metropolitan Council.

In communities where critical area plans and ordinances have become effective, the local governmental unit also must notify the MnDNR area hydrologist at least 30 days before action is taken for all development applications or variances requiring a public hearing or discretionary action.

In communities where plans and regulations have not been adopted or approved, the MnDNR is also to be notified about additional types of projects listed in the Interim Regulations. MnDNR will review and comment on the project's compliance with critical area and state requirements and MNRRA policies, as well as provide technical assistance as requested. Notice of the final action is to be sent to the MnDNR.

Other powers and duties of this Minnesota state agency within the City include:

- Floodplain Management: The Minnesota DNR offers assistance to local floodplain administrators. Communities use their floodplain ordinance in conjunction with FEMA-approved maps to guide land use decisions. The DNR assists local communities by providing general regulatory assistance.
- Management of the Flood Hazard Mitigation program. Program Purpose: To provide technical and financial assistance to local governmental units for conducting flood damage reduction studies and for planning and implementing flood damage reduction measures. Eligible projects include: Flood damage reduction studies for planning and implementing structural and non-structural measures including: acquisition of structures in the flood plain, relocations, flood-proofing, development of flood warning systems, public education, flood plain restorations, dams, dikes, levees, flood bypass channels, flood storage structures, water level control structures and other related activities.
- Shoreland Management. Minnesota's Shoreland Management Program guides land development along Minnesota’s lakes and rivers to protect their ecological, recreational, and economic values. The state shoreland rules (MR 6120.2500 - 6120.3900) establish minimum standards to protect habitat and water quality and preserve property values. These standards are implemented through local shoreland ordinances. Anyone who owns land along a lake or river should contact their city with questions about the standards and permit requirements that apply to their property. The DNR’s role is to ensure that local shoreland ordinances comply with the state shoreland rules and to provide technical assistance and oversight to these local governments.
- Mississippi River Corridor Critical Area: The Minnesota Department of Natural Resources (DNR) published rules for the Mississippi River Corridor Critical Area (MRCCA), an important milestone toward protecting the river's 72-mile stretch through the Twin Cities metropolitan area. The rules are the result of extensive collaboration with local governments, business and environmental groups, and property owners to hear concerns, gather ideas, and balance interests for rules that:
    - Improve protections for water quality, habitat and scenic views;
    - Protect existing development and allow redevelopment while protecting key resources; and
    - Provide clear standards for landowners and simplify local government administration.

2. U.S. Army Corps of Engineers (USACE)

The Corps' regulatory program includes Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Under Section 10, a Corps permit is required to do any work in, over or under a 'Navigable Water of the U.S.' Waterbodies have been designated as 'Navigable Waters of the U.S.' based on their past, present or potential use for transportation for interstate commerce. Under Section 404, a Corps permit is required for the discharge of dredged or fill material into waters of the U.S. Many waterbodies and wetlands in the nation are waters of the U.S. and are subject to the Corps' Section 404 regulatory authority.

3. Board of Water and Soil Resources (BWSR)

The local and regional wetland rules are governed by the Wetland Conservation Act (WCA). The WCA, passed in 1991, extends protection to wetlands. The WCA follows a "no net loss" policy. The wetlands covered under the WCA must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetlands of at least equal public value under an approved replacement plan. Replacement ratio is typically 2:1 (2 acres created for every 1 acre filled) for wetland impacts.

A designated Local Government Unit (LOU) is responsible for making exemption, no-loss determinations, and approving replacement plans. Currently, the Commissions act as the LGU for WCA within the City.

The powers and duties of this Minnesota state agency also include:

- Coordination of water and soil resources planning among counties, watersheds, and local units of government.
- Facilitation of communication among state agencies in cooperation with the Environmental Quality Board.
- Approval of watershed management plans.

4. Minnesota Pollution Control Agency (MPCA)

The MPCA implements provisions of Section 404 of the Clean Water Act with guidance from the EPA through a permitting process. The Section 404 permit also requires a Section 401 water quality certification before it is valid. The EPA has given Section 401 certification authority to the MPCA.

The powers and duties of this Minnesota state agency include:

- Fulfilling mandates from the EPA, particularly in regard to the Clean Water Act.
- Administration of Brooklyn Park's NPDES MS4 permit.
- Administration of the NPDES construction stormwater permit program.
- Administration of the NPDES industrial site discharge permit program.
- Development of Total Maximum Daily Loads (TMDLs) for water bodies and watercourses in Minnesota (often in conjunction with other agencies or joint powers organizations such as watersheds).

5. United States Environmental Protection Agency (EPA)

As it relates to surface water management within Brooklyn Park this agency is charged with interpreting and applying aspects of the Clean Water Act. This has led to the City's need for its NPDES MS4 Permit. TMDL limits as mandated by the EPA also

stem from the EPA's role as steward of the Clean Water Act. Administration of both the MS4 permits and TMDL's are handled by the MPCA.

6. Shingle Creek and West Mississippi Watershed Management Commissions (Commission)

   The powers and duties of the Commission within Brooklyn Park include:

   - Approval authority over the LWMP.
   - Ability to develop rules regarding management of the surface water system.
   - Ability to develop an annual budget and collect revenue in accordance with the JPA for the purpose of administrative, program and capital improvement costs.
   - Regulation of land use and development when one or more of the following apply:
     - The City is in violation of their approved local plan.
     - The City authorizes the watershed toward such regulation.
   - Wetland Conservation Act administration as the designated LGU for the City.
   - Other powers and duties as given in statute and joint powers agreements.

7. Hennepin County

   Hennepin County serves as the Drainage Authority with jurisdiction over County Ditch #13 (Shingle Creek) a portion of which is in Brooklyn Park. County Ditch #13 was established in 1910 as a channelized reach of Shingle Creek extending from Xerxes Avenue North in Brooklyn Park to Webber Park (North 44th Avenue) in Minneapolis.[5]

   Hennepin County is also represented on the Technical Evaluation Panel for administration of the WCA in Brooklyn Park.

8. Three Rivers Park District (TRPD)

   The TRPD has jurisdiction over the Coon Rapids Dam Regional Park and has partnered with the City on maintenance and reconstruction efforts of the portion of the Rush Creek and Shingle Creek Regional Trail Systems that traverse the City.

9. Metropolitan Council

   Metropolitan Council, through Metropolitan Council Environmental Services (MCES), serves as a review agency for Local Water Management Plans. They also review and approve municipal comprehensive plans and have a prominent role in the Mississippi River Critical Area Corridor as described on the MnDNR website:

   The Metropolitan Council reviews existing plans that affect lands within the Mississippi River Critical Area Corridor. Technical assistance is provided to communities in amending or adopting plans to conform to Executive Order 79-19 standards and guidelines and any voluntary MNRRA CMP policies. The council reviews all critical area plans and ordinances and makes an evaluation to MnDNR prior to the approval decision. In addition, the council administers the pass-through funds from the National Park Service to provide financial assistance to communities wishing

[5] Shingle Creek and West Mississippi Watershed Management Commission, Third Generation Watershed Management Plan, April 2013

to revise their plans and ordinances. The council is also involved with oversight of the Metropolitan Land Planning Act.

E. Water Resource Management-related Agreements

The City of Brooklyn Park is party to two separate joint powers agreements (JPA's) related to surface water management:

1. With the cities of Brook1yn Center, Crystal, Maple Grove, Minneapolis, New Hope, Osseo, Plymouth, and Robbinsdale establishing the Shingle Creek Watershed Management Commission.
2. With the cities of Brooklyn Center, Champlin, Maple Grove, and Osseo establishing the West Mississippi Watershed Management Commission.

The City has also designated the Commissions to act as the LGU for administration of the WCA.

F. Impacts of the Brooklyn Park LWMP on Other Units of Government

Upon approval of this LWMP by the Commissions with jurisdiction over the City, it is the City's intent to maintain its current permitting powers through its Permit for Land Disturbing Activities. Currently, the Commissions do not issue permits, so no impact to these organizations would occur. The Commissions would continue in their role as a project review agency.

G. Watershed Rules and Standards that Affect the City of Brooklyn Park

The City of Brooklyn Park stormwater ordinance and engineering standards, presented in **Appendix A and B**, are a close reflection of the rules and standards of the Commissions, only presented through the municipal filter. The Minimum Engineering Standards in Appendix A will be revised to include the Commissions' volume management requirement of 1" of abstraction from new impervious surface; and to note that the water quality standard can be met by infiltrating 1.3" of runoff from impervious surface.

The left column in Table 3.1 is a summary of the Commissions rules and standards, while the right column describes the applicable City controls as described in the LWMP or contained within the City' s Code of Ordinances. The standards presented in **Appendix A** and **B** are the minimum standards for storm water conveyance and management within the City of Brooklyn Park and are required to be met for all new development and redevelopment.

Table 3.1 - Summary of Design Standards and Criteria for Shingle Creek/West Mississippi Watershed Management Commission and the City of Brooklyn Park			
	Commission Standard	Applicability	Brooklyn Park Local Control
Project Reviews Required	A Stormwater Management Plan consistent with all applicable management rules and standards* must be reviewed and approved prior to commencement of land disturbing activities. Generally, the Commission reviews single family projects larger than 15 acres and all other land uses larger than 5 acres; linear projects; and projects with wetland impacts where the Commission is LGU for WCA. Cities generally review all other projects.	All development or redevelopment projects of the following types: □ Single family detached housing project 1 acre or larger in size □ Projects in any other land use 0.5 acres or larger in size □ Projects within the 100-year floodplain □ Projects adjacent to or within a lake, wetland, or watercourse □ Any land disturbing activity requested by a member city to be reviewed regardless of project size □ Linear projects creating more than one acre of new impervious surface	All activities requiring a permit for land disturbing activities from the City shall conform to all requirements of federal, state and local laws, rules and regulations.
Rate Control	Peak runoff rates may not exceed existing rates for the 2-year, 10-year, and 100-year critical storm event; or the capacity of downstream conveyance facilities; or	All projects on more than one acre requiring a project review. Redevelopment projects disturbing less than 50 percent of the site must meet the requirement only for the disturbed area.	Ch.153.07 outlines the requirements for Stormwater Management Plans Ch.153.07.C.5.b.3 describes the requirements for Rate Control.

	contribute to flooding		
Volume Managem ent	One inch of impervious surface runoff must be abstracted on site for at least 48 hours (Definition of Abstraction: Removal of stormwater from runoff, by such methods as infiltration, evaporation, transpiration by vegetation, and capture and reuse, such as capturing runoff for use as irrigation water.[6])	All projects on more than one acre requiring a project review. Redevelopment projects disturbing less than 50 percent of the site must meet the requirement only for the disturbed area.	Ch.153.07 outlines the requirements for Stormwater Management Plans Ch.153.07.C.5.b.1 b&c describe volume control for new, nonlinear developments and redevelopments. The Minimum Engineering Standards in Appendix A will be revised to include the Commissions' volume management requirement of 1" of abstraction from new impervious surface; and to note that the water quality standard can be met by infiltrating 1.3" of runoff from impervious surface.
Erosion and Sediment Control	Erosion control plan using Best Management Practices (BMPs) and consistent with the NPDES General Construction Permit is required	All projects requiring a project review	Ch.153.08 outlines the requirements for temporary and permanent erosion and sediment controls. Ch153.A.3 lists the projects requiring erosion control plans.

Floodplain Alteration	Compensating storage is required to mitigate floodplain fill	All development or redevelopment projects within the 100-year floodplain regardless of project size	Policy 2.1 Prohibits encroachment that will reduce the storage capacity of floodplains, unless mitigating action is undertaken. Ch152.515.B.3 requires the designated engineer to : "…Compute the floodway necessary to convey or store the regional flood without increasing flood stages and providing compensation storage volumes on a 1:1 basis

[6]Shingle Creek And West Mississippi Watershed Management Commissions Rules and Standards, 2013

			below the 100-year flood elevation."
Water Quality	Removal of 60% of TP and 85% of TSS, using either permanent sedimentation and water quality ponds consistent with NURP design standards, providing a permanent wet pool with dead storage of at least the runoff from a 2.5 inch event, or a combination of BMPs providing those removals	All projects on more than one acre requiring a project review. Redevelopment projects disturbing less than 50 percent of the site must meet the requirement only for the disturbed area.	Ch153.07.C.5.b requires: "Proposed stormwater management plans shall incorporate volume control, water quality control, and rate control as the basis for stormwater management in the proposed development plan on sites without restrictions. All proposed projects shall be in conformance with the most current requirements of the MPCA's Municipal Separate Storm Sewer Systems (MS4) Permit and the Shingle Creek and West Mississippi Watershed Management Commissions, as applicable. Ch153.07.C.5.b.2 requires new development with net increase in impervious of 1 acre, and redevelopment with construction area greater than 1 acre, to provide water quality treatment to meet NURP guidelines. Ch153.07.C.5.f Pond design standards require permanent pool "dead storage" volumes greater than or equal to the runoff from a 2.5-inch, 24-hour storm over the entire contributing drainage area assuming full development.
Buffer Strips	Vegetated buffer strips of a minimum 20 foot, average 30 foot width are required adjacent to wetlands and watercourses	All projects requiring a project review that contain or abut a wetland or watercourse	Standard 4B, Appendix A: A vegetated buffer strip with a minimum buffer width of 20-feet and an average width of 30-feet measured from the ordinary high water level of the watercourse or wetland is required adjacent to wetlands, lakes and natural water course.
Wetland	Wetlands may not be drained, filled, excavated, or otherwise altered without an approved wetland replacement plan from the	All land disturbing activity impacting a wetland as defined by the Wetland Conservation Act (WCA)	Wetlands may not be drained, filled or excavated without prior approval from the Shingle Creek or West Mississippi Watershed Management Commission in accordance with the Wetland Conservation Act.

	local government unit (LGU) with jurisdiction		

*Important Note: Approved TMDL Implementation Plans may have additional site-specific requirements.

V. SYSTEM ASSESSMENT

A. General

This section describes how storm water is conveyed through the City and provides an assessment of the functionality of the system. The storm water drainage system for the City is sbown on **Figure 15**. This figure shows storage areas, pipes, channels, and BMPs in the City.

The assessment portion catalogues the various assessments of problems that have been performed in the past. The intent is to identify the source of problems and specific actions the City proposes to make to address these problems either independently or in collaboration with other organizations.

System Description

This subsection describes the surface water management system for the City of Brooklyn Park. Approximately 55% of the City is located in the West Mississippi Watershed, and 45% of the City is located in the Shingle Creek Watershed. The watershed boundary is shown in **Figure 7.**

There are six storm water districts in the City of Brooklyn Park.

1. West Mississippi Watershed

Within Brooklyn Park, the West Mississippi watershed generally encompasses the area of the City north of 85th Avenue North and extends from the Mississippi River to the western City boundary. That portion of the City lying easterly of TH 252, south of 85th Avenue is also included. There are four storm water districts within the West Mississippi Watershed: Edinbrook/ Century Channel, Riverside, Oxbow Creek and Northwest. All four districts are tributary to the Mississippi River. A brief description of each district follows:

- **Oxbow Creek** - This district encompasses a small area along 109th Avenue in the northern part of the City. This drainage is collected and flows northerly under 109th Avenue through Oxbow Creek Park in Champlin and eventually reaches the Mississippi River. This drainage has historically been referred to as Oxbow Creek. Storm drains in the Northwest district collect runoff from much of the area that originally drained to Oxbow Creek, this runoff is carried easterly to a wetland complex draining to the Mississippi River.
- **Riverside** - This district encompasses those areas of the City that are located near the Mississippi River and drain to the river either directly or through storm drains. "There are no lakes or streams in this subwatershed…The Commission does not perform water quality monitoring of the Mississippi River."[7]
- **Edinbrook/Century Channel** - This district generally lies between 85th Avenue and the TH 610 corridor. It is characterized by the constructed drainage channel that serves as the trunk conveyance feature in this district. This channel also conveys runoff from the Cities of Osseo and Maple Grove through Brooklyn Park and outlets into Mattson Brook which flows a short distance to the Mississippi River. The watershed plan indicates: "The subwatershed is generally drained by storm sewers which discharge into Century/Edinbrook Channel, which is a Minnesota DNR protected watercourse. The channel

[7] Shingle Creek and West Mississippi Watershed Management Commissions, Third Generation Watershed Management Plan, April 2013

system is also known as county ditch #5, although it is not under the ditch authority of Hennepin County. Like the other subwatersheds to the north, this subwatershed is very sandy. Stormwater ponds are often lined to maintain a stable permanent pool. Flow and water quality monitoring conducted in 2010 and 2011 suggests that the subwatershed yields less runoff than Shingle Creek…There are no lakes in this subwatershed. Century and Edinbrook channels are constructed drainageways, in some locations excavated naturally intermittent channels and ditched waterways elsewhere. Edinbrook Channel discharges into Mattson Brook, a small natural stream. In 2010 and 2011 Mattson Brook was monitored for water quality. While this stream is too small to be required to meet state water quality standards, those standards are a useful metric for comparison. Total phosphorus, orthophosphorus, and total suspended solids during base flow were all lower than eutrophication and TSS state standards proposed to be effective in 2014, or ecoregion references. However, during storm events those parameters were measured at nearly or in exceedance of the proposed state standard or reference, indicative of urban wash-off. Four of eleven samples collected exceeded the chronic standard for chloride; none exceeded the acute standard. Five of the eight samples collected exceeded the state standard for *E. coli* concentration. The macroinvertebrate community in Mattson Brook is monitored by student volunteers, so dissolved oxygen concentration was also monitored in this stream. None of the samples fell below the 5 mg/L dissolved oxygen minimum standard."[8]

- **Northwest** - This District includes much of northern Brooklyn Park between TH 610 and 109th Avenue North. As the City developed, storm drains were constructed in this district to collect runoff from much of the area that originally drained to Oxbow Creek, this runoff is carried easterly and outlets into wetlands near the Mississippi River. Trunk storm drains have been constructed along 101st Avenue to provide an adequate outlet for this area. These trunk lines carry storm water to the eastern end of 101st Avenue where the stormwater is discharged into a large wetland complex on the City's Environmental Preserve. Water flows on through wetlands within the Coon Rapids Regional Park to eventually outflow to the Mississippi River. The watershed plan explains: "…this subwatershed is very sandy. Stormwater ponds are often lined to maintain a stable permanent pool. Flow and water quality monitoring conducted in 2010 and 2011 suggests that the subwatershed yields less runoff than Shingle Creek… There are no lakes or perennial streams in this subwatershed…in 2010 and 2011 outflow from the Environmental Preserve was monitored for water quality. While this site is not a natural stream and thus is not required to meet state water quality standards, those standards are a useful metric for comparison. Total phosphorus, orthophosphorus, and total suspended solids during base flow were all lower than the eutrophication and TSS standards proposed to be effective in 2014 or ecoregion references. However, during storm events those parameters were measured at nearly or in exceedance of the proposed

[8] Shingle Creek and West Mississippi Watershed Management Commissions, Third Generation Watershed Management Plan, April 2013

standard or reference, indicative of urban wash-off. Five of the nine samples collected exceeded the state standard for *E. coli* concentration."[9]

2. Shingle Creek Watershed

The southern portion of the City of Brooklyn Park is within the Shingle Creek Watershed. This watershed encompasses that portion of the City lying generally south of 85th Avenue and west of TH 252—it contains two storm water districts, Shingle Creek and Southwest.

A brief description of these two districts follows:

- **Shingle Creek** – Shingle Creek in this district receives runoff from Brooklyn Park as well as the Cities of Maple Grove, New Hope, Osseo and Plymouth. Shingle Creek is the main storm water conveyance feature in this area. The majority of the tributary area to the creek was developed by the mid 1970's and contains very few water quality treatment facilities. Shingle Creek exits Brooklyn Park through the Palmer Lake basin in Brooklyn Center and continues on through Minneapolis to the Mississippi River.

  The Shingle Creek Watershed Management Commission has set a limit on the discharge rate for Shingle Creek at the City's downstream limits. The maximum discharge for Shingle Creek exiting Brooklyn Park is 790 cfs. Based on the Commissions Hydro CAD model from August 2002, which reflected 2002 land use, the 2002 peak flow rate was 634 cfs. Since this portion of Brooklyn Park is essentially fully developed, future changes to the peak flow rates due to development are not expected.

  The Watershed Commission is receiving grant funds from FEMA to update the Flood Insurance hydrology and hydraulics models of Shingle Creek. The grant will provide for surveying of bridges and culverts on the creek, for updating the hydrology to reflect the NOAA Atlas 14 design precipitation, and to update the hydraulics models and floodplain maps. Since the NOAA Atlas 14 precipitation depths are greater, and rainfall distribution is more intense, than previous precipitation design data, the simulated peak flows and flood stages are likely to increase.

  The Commission assessment of Shingle Creek explains: "The average water yield from the watershed…is 5.1 inches, which is within the range of 4-7 inches per year typically seen in the urbanized part of the Twin Cities Metro Area… Water quality in Shingle Creek is typical of an urban stream in the Twin Cities and is dominated by runoff from impervious surfaces…(Pollutant) Loads are typically higher in years with more storm events and higher annual runoff volumes…Total Phosphorus…concentrations in Shingle Creek…are on the low end of those found in typical urban streams, although concentrations can be high during rain wash-off events… Total Suspended Solids (TSS)…(are)…Higher than ecoregion typical values could be a result of streambank erosion, however the Shingle Creek Corridor Study concluded that both Shingle and Bass Creeks were generally stable and found only a few locations of evident aggradation or excess embeddedness, or areas with a silty streambed. Most of those sites were downstream of storm sewer outfalls or in low- velocity areas. The likely source

[9] Shingle Creek and West Mississippi Watershed Management Commissions, Third Generation Watershed Management Plan, April 2013

of higher than typical TSS is fine sediments conveyed in stormwater runoff from developed areas….dissolved oxygen data for Shingle Creek…The state standard is a minimum DO concentration of 5 mg/L, and a number of readings are below that threshold. The determination of impairment is based on data collected before 9 AM as that is the period when DO is typically the lowest. The TMDL determined that the likely causes of low DO were low-oxygen discharge from headwaters wetlands and excessive sediment oxygen demand resulting from the overwide channel. Stream restoration to create a low-flow channel, add reaeration structures, and improvements to headwaters wetlands would have the most impact in increasing dissolved oxygen…. The chloride TMDL found that the source of excess chloride was road salt applied for winter ice control, primarily on streets and highways but also in parking lots and other private facilities. An overall 71 percent reduction in chloride from all sources in the entire watershed is required to meet the state chloride standard for streams."[10]

The following paragraphs from the Third Generation Watershed Management Plan provides additional information regarding the lake characteristics and water quality.

Lake Magda:

"Lake Magda is an Impaired Water, and a TMDL and Implementation Plan were completed and approved in 2010. This shallow lake is hypereutrophic. Residents report a significant population of carp is present, but no systematic survey has quantified or characterized the fish community. No systematic plant surveys have been conducted on Lake Magda. Residents report that the dominant aquatic species is sago pondweed, with curly-leaf pondweed, coontail and elodea also present. The TMDL concluded that a nutrient load reduction of 69 percent would be required to consistently meet standards under average precipitation conditions and that internal load management and reduction of nonpoint sources of phosphorus in the watershed by retrofitting BMPs would have the most impact on reducing phosphorus load and improving water quality. Because the watershed to this lake is very small, retrofit opportunities may be limited."[11]

Lake Success:

"Lake Success has a very small watershed. Surface runoff from nearby is collected in storm sewers and routed into the lake. The lake outlets south into storm sewer. Over the last several years lake levels have fallen, although since precipitation recently has been above normal the levels have risen. There is some suspicion that groundwater input to the lake has declined, and the lake is now more dependent on runoff to sustain its normal water level. A staff gauge has been installed and lake level is now being read more frequently. The City of Brooklyn Park is working with residents and the DNR to see if lake levels may be affected by groundwater appropriations from the city's wells. Historically Lake Success has had very good, clear water, although that has changed significantly recently, and residents report more aquatic vegetation and algae blooms. This shallow lake may have "flipped" from a clear-water state to a

[10] Shingle Creek and West Mississippi Watershed Management Commissions, Third Generation Watershed Management Plan, April 2013

[11] Shingle Creek and West Mississippi Watershed Management Commissions, Third Generation Watershed Management Plan, April 2013

turbid-water state, although more data are necessary to determine if that is the case and cause(s)."[12]

- **Southwest** – Twin Creek in this district receives storm water runoff from the Cities of Brooklyn Park, New Hope and Crystal. Just downstream from the Brooklyn Park City boundary, Twin Creek flows through DNR protected wetland 639W (located adjacent to the Crystal airport) then into Upper Twin Lake. "Upper Twin is very shallow and hypereutrophic…with frequent algae blooms and occasional winter fish kills."[13]

  City staff have observed surface flooding near the intersection of 67th Avenue N. and Douglas Dr. N. Storm drains in this area need to be analyzed to determine potential solutions.

B. System Assessment

1. City Assessments

Several Previous City assessments have been completed including:

(i) Comprehensive Storm Drainage Plan for Northern Brooklyn Park, City of Brooklyn Park, Minnesota, Consulting Engineers Diversified, Inc., June 1978 This study included research, analysis and design of stormwater management features in the northern part of the City (i.e. north of 85th Avenue).

(ii) Comprehensive Stormwater Management Plan, City of Brooklyn Park, Orr-Schelen-Mayeron & Associations, Inc., 1995 (CSWMP) The City assessed the entire storm water system in its 1995 Water Management Plan. The 1995 CSWMP was very detailed in its analysis of problem areas associated with water quality and quantity problems. That report analyzes each drainage district separately, identifying flooding and quality issues on a local level. The reader is referred to that report for an in-depth analysis of storm water management issues.

(iii) The "Northern Brooklyn Park Trunk Storm Sewer Conveyance System Study" was completed in September, 2000. This study examined in more detail the storm water needs of the City primarily north of the T.H. 610 corridor.

(iv) Local Water Management Plan, City of Brooklyn Park, Minnesota, 2009. The local water management plan was prepared in response to the requirements of Minnesota Statutues 8410 and 103B.235 as well as the standards set forth by the Shingle Creek and West Mississippi Watershed Management Commissions.

(v) Groundwater Resources

Specific Brooklyn Park Issues:

- Brooklyn Park obtains all of its municipal water supply from groundwater. The majority is pumped from the "Drift Aquifer". As described in the City's Wellhead Protection Plan the drift aquifer has a high vulnerability to contamination due to rapid infiltration rates through the upper layers of the subsurface geology. This vulnerability creates a conflict for the City

[12] Shingle Creek and West Mississippi Watershed Management Commissions, Third Generation Watershed Management Plan, April 2013

[13] Shingle Creek and West Mississippi Watershed Management Commissions, Third Generation Watershed Management Plan, April 2013

between government mandates on infiltration of storm water, aquifer recharge and the vulnerability of the resource.

- Beginning in the early 1990's and more recently related to Lake Success the decline of the surficial groundwater levels has been debated by regulatory agencies, residents and City staff. The main issue is whether the observed decline in water levels in Lake Success, and other wetlands located in the northern part of the City, is a direct result of groundwater withdrawals by the City's municipal well field, changes in shallow groundwater due to utility construction such as sanitary sewer interceptors, change in climate, cyclical pattern of drought, or combinations of these. No specific actions other than continued monitoring by the City are proposed at this time.

(vi) Issues

Global issues are major inter-community, inter-watershed, or inter-district issues requiring the cooperation of one or more outside parties. Local issues are storm water management issues that can be resolved by the City of Brooklyn Park.

- Global Issues

The City has completed several retrofit projects to add regional storm water treatment facilities. For example, the Brooklyn Park construction of the 62nd Avenue Stormwater Pond has resulted in a TP annual load reduction of 46 pounds per year to Twin Creek and Upper Twin Lake.

The City will continue to seek opportunities for redevelopment or reconstruction of its infrastructure to improve treatment of storm water runoff. The City intends to explore opportunities to retrofit existing BMPs in the watershed of each TMDL to maximize their pollutant removal capacity. All city construction projects will consider Green Infrastructure practices when feasible. Upon reevaluation of the TMDL waters on a ten-year monitoring cycle conducted by the state, the City will consider any necessary modifications to this approach.[14]

- Local Issues
  - One of the most challenging issues for the City are the unfunded mandates from state and federal agencies regarding storm water i.e. NPDES-MS4, TMDL's etc.
  - Redevelopment sites are evaluated regarding storm water quality improvements by either the City or the Commissions based on the project size, The City is committed to maximizing treatment of storm water runoff for these projects.

2. Watershed Assessments

The Commissions Third Generation Water Management Plan gives a thorough analysis of water resources existing conditions, opportunities and issues within the West Mississippi and Shingle Creek Watersheds, both general and specific to Cities and

[14] City of Brooklyn Park, MS4 SWPPP Application for Reauthorization for the NPDES/SDS General Small Municipal Separate Storm Sewer System (MS4) Permit MNR040000 reissued with an effective date of August 1, 2013

smaller sub watersheds. Although excerpts from the Commissions Plan are included in this document, the reader is directed to that plan for additional details. Shingle Creek Channel Assessment

General Summary:

- A profile survey of Shingle Creek was completed in 1998. In most areas the banks were stable and well vegetated and no severe erosion was detected. Some minor erosion was detected where vegetation had exposed roots, but that is unlikely to be a major source of sediment to the creek.
- In 2004 the Commission completed the initial Shingle Creek Corridor Study and in 2006 a Shingle Creek Corridor Study, Phase II was completed that assessed tributaries and other streams in the two watersheds, specifically Bass Creek and Mattson Brook. Those studies identified general management activities and standards for the streams. Because these stream corridors are either fully developed or in public ownership, the City will manage and implement improvements in conformance with these studies as funding becomes available.

3. Clean Water Act Assessments, Impairments and TMDLs

Shingle Creek, Bass Creek, Lake Magda and the Mississippi River (within the City limits) are listed on the state impaired waters list. The Twin Lake Chain downstream from the City is also impaired. Known as the 303(d) list from the applicable section of the Federal Clean Water Act; these waters are ones that do not currently meet their designated use due to the impact of a particular pollutant or stressor. If monitoring and assessment indicate that a waterbody is impaired by one or more pollutants, it is placed on the list. During the process, a strategy will be developed leading to attainment of the applicable water quality standard. Developing this strategy is commonly known as the Total Maximum Daily Load (TMDL) process and involves the following phases:

- Assessment and listing
- TMDL study
- Implementation plan development and implementation
- Monitoring of the effectiveness of implementation efforts

Responsibility for implementing the requirements of the Federal Clean Water Act falls to the EPA. In Minnesota, the EPA delegates much of the program responsibility to the MPCA. Information on the MPCA program can be obtained at the following web address: http://www.pca.state.mn.us/water/tmdl/index.html. The following is an excerpt from the MPCA website describing the program and its need:

"The federal Clean Water Act requires the MPCA to:

1. *Assess all waters of the state to determine if they meet water quality standards*
2. *Create a list of impaired waters that do not meet standards, and update the list every even-numbered year.*
3. *Set pollutant-reduction goals needed to restore impaired waters, called the total maximum daily load*

   States must develop a list of impaired waters that require total maximum daily load (TMDL) studies, and submit an updated list to the U.S. Environmental

Protection Agency (EPA) every even-numbered year for approval. The TMDL is the maximum amount of a pollutant a body of water can receive without violating water quality standards, and an allocation of that amount to the pollutant's sources."

This list forms the starting point for many of the state and federal requirements placed on local governments regarding water quality. However, beyond the federal requirements, there are many reasons for us to move forward with the development of TMDLs. Foremost is the need to clean up our rivers, streams and lakes to maximize their contributions to the state's economy and quality of life and to protect them as a resource for future generations.

For each pollutant that causes a water body to fail to meet state water quality standards, the Federal Clean Water Act requires the MPCA to conduct a TMDL study. A TMDL study identifies both point and non-point sources of each pollutant that fails to meet water quality standards. Water quality sampling and computer modeling determine how much each pollutant source must reduce its contribution to assure the water quality standard is met. Rivers and streams may have several TMDLs, each one determining the limit for a different pollutant.

The absence of a waterbody from the 303(d) list does not necessarily mean the waterbody is meeting its designated uses. It may be that it has either not been sampled or there is not enough data to make an impairment determination. **Table 4.1a** provides a list of impaired waters within Brooklyn Park.

Table 4.1a - List of Impaired Waters within the City of Brooklyn Park

Water Body	Year First Listed	Assessment Unit ID #	Affected Use	Pollutant or Stressor	TMDL start/ TMDL complete
Mississippi River	1998	07010206-509	Aquatic consumption	Mercury FCA, PCB FCA	1999/2011
Shingle Creek	1998	07010206-506	Aauatic life	Chloride	2002/2006
Shingle Creek	2004	07010206-506	Aquatic life	Low Oxygen	2004/2006
Shingle Creek	2006	07010206-506	Aquatic life	Invertebrate IBI	2013/2015
Shingle Creek	2014	07010206-506	Recreation	E. coli.	2008/2015
Bass Creek	2002	07010206-527	Aquatic life	Fish Bioassessments/Chloride	2007/2009
Lake Magda	2002	27-0065-00	Recreation	Nutrients	2008/2012

Mississippi River TMDL

The **Mississippi River** adjacent to Brooklyn Park has an EPA-approved impairment for: Mercury in Fish Tissue, Fecal Coliform; and PCB in Fish Tissue. These impairments are considered non-construction related and do not require any additional best management practices (BMPs) or plan review for compliance with the NPDES/SDS construction permit.[15]

Shingle Creek and Bass Creek Biota and Dissolved Oxygen TMDL

Shingle Creek flows through Brooklyn Park from the confluence of Bass Creek and Eagle Creek near the western boundary of the City to the Palmer Lake Basin. Shingle Creek serves as the primary drainage corridor for the southern portion of the City.

[15] MPCA Construction Stormwater Special Waters Search, https://pca-gis02.pca.state.mn.us/CSW/index.html

Shingle Creek has an EPA-approved impairment for: Aquatic Macroinvertebrate Bioassessments; Chloride; and Dissolved Oxygen. These impairments are considered to be construction related parameters and require the additional best management practices (BMPs) for temporary and permanent stormwater management on construction projects within 1 mile of, and flowing to the impaired stream.[16]

The Shingle and Bass Creek Biota and Dissolved Oxygen Total Maximum Daily Load (TMDL) Implementation Plan addresses biotic integrity and dissolved oxygen (DO) impairments. The TMDL also identifies additional stressors affecting the biotic integrity of Bass and Shingle Creeks – altered hydrology, lack of habitat, loss of connectedness, and ionic strength (chloride). The previously-completed Shingle Creek Chloride TMDL and Implementation Plan identify the load reductions necessary to reduce chloride concentrations in Shingle Creek. The TMDL implementation plan calls for the City to assist with the activities listed in **Table 4.1b** in order to increase dissolved oxygen and improve biotic integrity:[17]

The city continues to implement the best management practices of their MS4 permit and SWPPP (including the Minimum Control Measures (MCMs) 1-6). Existing BMPs will be inspected and maintained as necessary to ensure they are working. The City will continue to seek opportunities for redevelopment or reconstruction of its infrastructure to improve treatment of storm water runoff.

Table 4.1b - Brooklyn Park Participation in Shingle and Bass Creek Implementation Plan Activities[18]

Location	Reach	Action	Responsible Party	Estimated Schedule	Estimated Cost
Watershed Wide		Retrofit BMPs to add stormwater treatment	Cities	Ongoing	Varies by project
Watershed Wide		Increase infiltration in watershed	Cities	Ongoing	Varies by project
Upper Shingle Creek	1	Add reaeration Structures	Brooklyn Park, SCWMO	2020-2025	$50,000
	2	Thin trees, establish buffer	Brooklyn Park	2015-2020	$80,000
	3	Ecological stream restoration	Brooklyn Park, SCWMO	2020-2025	$700,000
	4	Ecological stream restoration	Brooklyn Park, SCWMO	Completed	--
	5 & 6	Enhance restoration	Brooklyn Park	2015-2020	$70,000
	7 & 8	Enhance restoration	Brooklyn Park	2015-2020	$50,000
	7 & 8	Restore balance of reach (Regent to Brooklyn Blvd)	Brooklyn Park, Brooklyn Center, SCWMO	2020-2025	$350,000
	9 & 10	Ecological stream restoration, fish bypass	Brooklyn Park, Brooklyn Center, SCWMO	2012-2015	$350,000
	11	Enhance off-line refugia	Brooklyn Park, SCWMO	2015-2020	$500,000
	11	Ecological stream restoration	Brooklyn Park, SCWMO	2012-2015	$30,000

[16] MPCA Construction Stormwater Special Waters Search, https://pca-gis02.pca.state.mn.us/CSW/index.html
[17] Shingle and Bass Creeks Biota and Dissolved Oxygen TMDL Implementation Plan, Wenck Associates, Inc. Maple Plain, MN January 2012
[18] Shingle and Bass Creeks Biota and Dissolved Oxygen TMDL Implementation Plan, Wenck Associates, Inc. Maple Plain, MN January 2012

	12	Ecological stream restoration	Brooklyn Park, SCWMO	2020-2025	$75,000
Bass Creek	1	Ecological stream restoration	Brooklyn Park, SCWMO	2015-2020	$300,000
	2	Ecological stream restoration	Brooklyn Park, new Hope, SCWMO	2015-2020	$300,000

Shingle Creek Chloride TMDL

Shingle Creek was designated an impaired water for chloride concentrations that exceed the state standards in 1998. A TMDL was completed to determine the pollutant reductions needed to meet the chloride standards in Shingle Creek. Most of the chloride in Shingle Creek is attributed to nonpoint sources related to deicing and fertilizer applications, with the primary source being road salt applied to the streets and highways in the watershed. The TMDL concluded that a 71% reduction in chloride must be achieved to meet the state chloride standards.[19]

The City of Brooklyn Park and the other stakeholders in the watershed agreed to work collectively to achieve a 71% reduction in chloride use to achieve the standard (understanding that each stakeholder was working under unique financial, public safety and perception, and feasibility limitations). Each stakeholder agreed to implement BMPs to the maximum extent practicable. By incorporating and applying the following BMPs into operations, the City is meeting its TMDL obligations. Activities and BMPs include:[20]

1. Annually calibrate spreaders and reduce salt by adjusting application rates
2. Use the Road Weather Information Service (RWIS) and other sensors such as truck mounted or hand held sensors to improve application decisions such as the amount and timing of application
3. Evaluate new technologies such as prewetting and anti-icing as equipment needs to be replaced. These technologies will be adopted where feasible and practical.
4. Investigate and adopt new products (such as Clear Lane, a commercially available pretreated salt) where feasible and cost effective. (Reference MS4 Application)
5. Cover salt stockpiles, store salt on impervious surfaces, practice good housekeeping when handling salt to minimize spillage and minimize potential wash off.
6. Annually train operators on finding the best balance between public safety and environmental concerns. Train operators to determine the least amount of product necessary to maintain public safety.
7. Pile snow away from sensitive areas. Sweep streets in as soon as possible in late winter to remove residual salts.
8. BMPs will be incorporated into the NPDES SWPPP. Activities will be tracked and reported in the annual NPDES report.

The implementation plan for the Shingle Creek chloride TMDL has been completed and has been incorporated into its NPDES-MS4 SWPPP. TMDL implementation strategies may result in additional adjustments to the BMP's included in the City's SWPPP.

[19] Shingle Creek Chloride TMDL Implementation Plan, Wenck Associates, Inc. , Maple Plain, MN February 2007
[20] Shingle Creek Chloride TMDL Implementation Plan, Wenck Associates, Inc. , Maple Plain, MN February 2007

Lake Magda Nutrient TMDL

Lake Magda is a small lake of about 12 acres located along the western border of Brooklyn Park adjacent to T.H. 169. Lake Magda is hypereutrophic and residents report a significant carp population. Lake Magda has an aquatic recreation affected use.[21] The lake has an EPA-approved impairment for: Nutrient/Eutrophication Biological Indicators. These impairments are considered to be construction related parameters and require the additional best management practices (BMPs) for temporary and permanent stormwater management on construction projects within 1 mile of, and flowing to the impaired water.[22]

The Lake Magda Nutrient TMDL indicates that "…phosphorus load reduction of 69% would be required to consistently achieve a total phosphorus concentration of 60 µg/L, which would meet the state standard."[23]

The city continues to implement the best management practices of their MS4 permit and SWPPP (including the Minimum Control Measures (MCMs) 1-6). Existing BMPs will be inspected and maintained as necessary to ensure they are working. The City will continue to seek opportunities for redevelopment or reconstruction of its infrastructure to improve treatment of storm water runoff including identified opportunities (**Table 4.2a).**

Table 4.2a - Brooklyn Park Participation in Lake Magda Implementation Plan Activities[24]

Approach	Activity	Responsible Party	Estimated Schedule	Estimated Cost
Reduce External Load	Retrofit BMPs to add stormwater treatment ponds, infiltration, filters, etc.	Brooklyn Park, MNDOT, SCWMO	Ongoing	Varies by project
	Increase infiltration in watershed	Brooklyn Park, MNDOT, SCWMO	Ongoing	Varies by project
	Shoreline Management and Restoration	Property Owners, Brooklyn Park,	Ongoing	$130,500 to $217,500
	Street Sweeping	Brooklyn Park	Ongoing	$65 to $85 per mile of additional sweeping
Biologic Integrity Management	Aquatic Plant Management	Property Owners, Brooklyn Park,	Ongoing	$5,000 for plant survey, $3000 to $5000 per year for treatments
	Fish Population Management	Property Owners, Brooklyn Park, DNR	Ongoing	Varies by strategy
Tracking and Reporting	Activities will be tracked in annual NPDES MS4 Report	Brooklyn Park, MNDOT, SCWMO	Ongoing	Unknown

[21] MPCA Impaired Waters Viewer, https://www.pca.state.mn.us/water/impaired-waters-viewer-iwav Accessed 1/19/2018

[22] MPCA Construction Stormwater Special Waters Search, https://pca-gis02.pca.state.mn.us/CSW/index.html accessed 1/18/2018

[23] Lake Magda Nutrient TMDL Implementation Plan FINAL, Wenck Associates, Inc. Maple Plain, MN October 2010

[24] Lake Magda Nutrient TMDL Implementation Plan FINAL, Wenck Associates, Inc. Maple Plain, MN October 2010

Twin and Ryan Lakes Nutrient TMDL

Twin Creek is a natural stream flowing through southwest area of the City between Crystal and Brooklyn Center. Twin Creek receives storm water runoff from the Cities of Brooklyn Park, New Hope and Crystal. Just downstream from the Brooklyn Park City boundary, Twin Creek flows through DNR protected wetland 639W (located adjacent to the Crystal airport) then into Upper Twin Lake. The Twin Lakes Chain are impaired waters. **Table 4.2b** provides a list of impaired waters downstream of Brooklyn Park on Twin Creek and the Twin Creek chain of lakes.

Table 4.2b - List of Impaired Waters on Twin Creek downstream of the City of Brooklyn Park

Water Body	Year First Listed	Assessment Unit ID #	Affected Use	Pollutant or Stressor	TMDL start/ TMDL complete
Twin-North	2002	27-0042-01	Aquatic recreation, Aquatic Consumption	Excess nutrients, Hg, PCB, PFOs	2003/2007
Twin-Middle	2002	27-0042-02	Aquatic recreation, Aquatic Consumption	Excess nutrients, Hg, PCB, PFOs	2003/2007
Twin-South	2002	27-0042-03	Aquatic recreation, Aquatic Consumption	Excess nutrients, Hg, PCB, PFOs	2003/2007
Ryan Lake	2002	27-0058-00	Aquatic recreation	Excess nutrients	2003/2007

The city continues to implement the best management practices of their MS4 permit and SWPPP (including the Minimum Control Measures (MCMs) 1-6). Existing BMPs will be inspected and maintained as necessary to ensure they are working. The City will continue to seek opportunities for redevelopment or reconstruction of its infrastructure to improve treatment of storm water runoff.

As part of the Twin Lakes Nutrient TMDL implementation activities, Brooklyn Park constructed the 62nd Avenue Stormwater Pond which has resulted in a TP annual load reduction of 46 pounds per year to Twin Creek and Upper Twin Lake. The City also participated in the restoration activities related to DNR Wetland 639W (tributary to upper Twin Lake). The implemented projects are beneficial and water quality progress is being made in the chain of lakes. Evidence of this is that Lower Twin and Ryan Lakes were "delisted" in 2014[25]

Implementation efforts to meet the TMDL continue, and the City will cooperate with the Commission and other MS4's to consider:

"*Opportunistic Projects*
The cities, Hennepin County, and MnDOT have been routinely including load reduction and infiltration BMPs into their highway and street reconstruction projects.

Maximize Existing BMPs
The member cities have identified several locations in the watershed where existing BMPs, mostly ponds, could be enhanced to achieve additional total phosphorus and dissolved phosphorus load reductions. Potential enhancement projects include:

1) *Expand the 62nd Avenue pond and add a filter bench.*
2) *Stabilize the Twin Creek channel through Edgewood Park, add storage and a filter bench*

[25] MPCA Impaired Waters Viewer, https://www.pca.state.mn.us/water/impaired-waters-viewer-iwav accessed 1-19-2018

Small BMP Projects

The subwatershed assessments completed by the Commission in consultation with the cities will identify a number of small BMPs that could be completed along with street or park projects or as stand-alone improvements. Cities will use this information to complete these BMPs as opportunities arise."[26]

The city continues to implement the best management practices of their MS4 permit and SWPPP (including the Minimum Control Measures (MCMs) 1-6). Existing BMPs will be inspected and maintained as necessary to ensure they are working. The City will continue to seek opportunities for redevelopment or reconstruction of its infrastructure to improve treatment of storm water runoff including identified opportunities (**Table 4.3).**

Table 4.3 - Brooklyn Park Participation in Twin Lake Chain Implementation Plan Activities[27]

Approach	Activity	Responsible Party	Estimated Schedule	Estimated Cost
Opportunistic Projects	Incorporate load reduction and infiltration BMPs into street projects.	Brooklyn Park and other MS4s, MNDOT, SCWMO	Ongoing	Varies by project
Maximize Existing BMPs	Expand 62nd Avenue Pond and add filter	Brooklyn Park, SCWMO	Ongoing	Unknown
	Stabilize Twin Creek channel through Edgewood Park, add storage and a filter	Brooklyn Park, SCWMO	Ongoing	Unknown
Small BMP Projects	Volume control and water quality treatment BMPs	Brooklyn Park and other MS4s, MNDOT, SCWMO	Ongoing as opportunities arise	Varies by project
Tracking and Reporting	Activities will be tracked in annual NPDES MS4 Report	Brooklyn Park, MS4s, MNDOT, SCWMO	Ongoing	Unknown

VI. IMPLEMENTATION PLAN

A. General

This Implementation Plan section describes those activities and programs the City proposes to develop toward improving its surface water management program. Brooklyn Park will continue to install required storm water treatment systems as part of development and redevelopment and will look for opportunities to upgrade those parts of the system that lack adequate storm water treatment measures. Typically, costs for upgrades and replacements will be borne by the storm water utility fund or through special assessments.

This implementation plan also includes:

- An overview of the City's NPDES MS4 permit.
- A discussion of operation and maintenance procedures and strategies.

[26] Twin and Ryan Lakes Nutrient TMDL, *Five Year Review, December 2014,* Wenck Associates, Inc. Maple Plain, Minnesota 55359
[27] Twin and Ryan Lakes Nutrient TMDL, *Five Year Review, December 2014,* Wenck Associates, Inc. Maple Plain, Minnesota 55359

- Implementation priorities.
- Financial considerations.
- A discussion of the process for amending this Plan.

B. NPDES Permit Summary

"Stormwater runoff is a leading source of water pollution and can harm surface waters such as lakes, rivers, streams and wetlands. Common pollutants in stormwater runoff include pesticides, fertilizers, oils, metals, pathogens, salt, sediment, litter and other debris. These pollutants are transported via stormwater from a variety of sources including construction projects, industries and urbanized areas.

The MS4 General Permit is designed to reduce the amount of sediment and pollution that enters surface and ground water from storm sewer systems to the maximum extent practicable. Stormwater discharges associated with MS4s are subject to regulation under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS). Through the MS4 General Permit, the system owner or operator is required to develop a stormwater pollution prevention program (SWPPP) that incorporates best management practices (BMPs) applicable to their MS4."[28]

The SWPPP identifies BMPs, including education, maintenance, control techniques, system design, engineering methods, and such other practices, both existing and planned, determined appropriate to meet the NPDES Permit requirements.

The City's SWPPP includes specific BMPs in the following broad categories or Minimum Control Measures:

- Public Education and Outreach
- Public Participation and Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention/Good Housekeeping

Each year of the 5-year permit cycle, the City must conduct an Annual Public Meeting and submit an Annual Report to the MPCA which summarizes:

a) The status of compliance with Permit conditions;

b) Assessment of the appropriateness of the BMPs;

c) Progress towards achieving the measurable goals for each of the minimum control measures;

d) Storm water activities planned for the next reporting cycle;

e) A change in any BMP or measurable goals for any of the minimum control measures; and

f) A notice that the City is relying on another entity to satisfy some of the Permit obligations (if applicable).

[28] MPCA MS4 Overview https://www.pca.state.mn.us/water/municipal-stormwater-ms4 accessed 1/19/2018

The BMPs listed in the SWPPP are a legally enforceable part of the Permit. The City must complete the tasks and milestones to remain authorized to discharge storm water into waters of the state. The LWMP Implementation Plan provides assistance and guidance for specific BMP implementation.

C. Operation and Maintenance

1. Activities

The storm water conveyance system is a major infrastructure investment for the City of Brooklyn Park, both in terms of initial capital cost and ongoing maintenance costs. Typically, system maintenance is funded by the City's storm water utility and through the general fund.

The City's storm water system maintenance responsibilities include items such as the following:

- Street sweeping
- Cleaning of sump manholes and catch basins
- Repair of catch basins, manholes, and pipe segments
- Assessing pipe condition
- Inspection of storm sewer inlet and outlet structures
- Excavation of accumulated sediments from ponds

The City has maintained its stormwater system for decades and City staff have a good understanding of the associated costs. As development brings more pipes, ponds and other structural storm water treatment devices into the system, maintenance will require an increasing amount staff time and maintenance budget.

The management of the storm water system, including record keeping, inspection, assessment, maintenance and replacement of system components is facilitated by the City's GlS database. The City recognized the importance of creating an interactive GIS based system for this purpose and developed the database and mapping platform of the storm water conveyance and management system. The system includes the ponds, pipes, outfalls, pollution control devices, channels, streams and lakes. Through an interactive program developed by City staff, all of the record drawings and construction information is linked to this system. City staff along with the public can view and print this information from this very user friendly map based system. The City is committed to the long term maintenance and improvement of this system.

2. Stormwater Ponds

Storm water ponds represent a significant part of the City's overall stormwater management system. General maintenance of these facilities helps ensure proper performance and reduces the need for major repairs. The City's Operations and Maintenance Department completes inspections of the major storm water elements on a rotating basis to identify needed maintenance and repairs. Inspection and maintenance cover pond inlets, outlets, sideslopes, sediment deposition, and illicit dumping and discharges.

Pond Outlets

A key issue with storm water ponds is ensuring that the outlets perform at design capacity. Inspection and maintenance of basin outlets address the following:

- The area around outlets is kept free and clear of debris, litter, and heavy vegetation. Trash guards are installed and maintained over all outlets to prevent clogging of the downstream storm sewer.
- Trash guards are inspected in accordance with the inspection schedule. Problem areas are addressed more frequently, as required.
- Emergency overflow outlets are provided for all ponds when possible. These are kept clear of debris, equipment, and other materials and properly protected against erosion.

Basin Inlets

Inspection and maintenance of basin inlets address the following:

- Inlets are inspected for erosion.
- Where erosion occurs near an inlet, riprap or other erosion control measures are installed.
- Inlets are inspected for sediment deposits, which can form at the inlets due to poor erosion practices upstream.
- Where sediment deposits occur, these are removed to ensure design capacities of storm sewers entering the basin are maintained.

Illicit Dumping and Discharges

Investigation of illicit dumping and discharge complaints are generally initiated through the City's Code Enforcement Division staff. When a complaint is received they coordinate the investigation with other City departments to determine the source and take any necessary action.

3. Sump Manholes and Sump Catch Basins

   Sump manholes and sump catch basins are included in storm sewer systems to collect sediments before they are transported to downstream waterbodies.

4. Storm Sewer Inlet Structures

   To fully utilize storm sewer capacity, inlet structures are kept operational in order to efficiently convey runoff into the system. Significant efforts are made to keep catch basins and inlet flared ends free of debris and sediments so as not to restrict inflow and cause flood damage. Leaf and lawn litter are the most frequent cause of inlet obstructions.

5. Open Channels and Ravines

   Open channels are typically vegetated and occasionally lined with more substantial erosion protection materials. The lined channels typically require little or no maintenance. Vegetated channels are periodically inspected and maintained, particularly following floods as high flows can create erosion within vegetated channels.

6. Piping System

   The storm sewer system constitutes an investment for the City. Currently the City maintains approximately 180 miles of storm sewer pipe, 250 storm water ponds and 760 storm sewer outfalls. The City has developed a comprehensive maintenance

program to maximize the life of the facilities and reduce capital expenditures. The following periodic inspection and maintenance procedures are followed:

- Catch basin and manhole castings are inspected and are cleaned and replaced as necessary.
- Catch basin and manhole rings are inspected and are replaced and/or re-grouted as necessary.
- Catch basin and manhole structures are inspected and are repaired or replaced as needed. Pipe inverts, benches, steps (verifying integrity for safety), and walls are checked. Cracked, deteriorated, and spalled areas are grouted, patched, or replaced.
- Storm sewer piping is inspected either manually or televised to assess pipe conditions. Inspection items include root damage, deteriorated joints, leaky joints, excessive spalling, and sediment buildup. The piping system is programmed for cleaning, repair, or replacement as needed to ensure the integrity of the system.

7. Street Sweeping

Street sweeping is an integral part of the City's effective surface water management system. It greatly reduces the volume of sediments that have to be cleaned out of sump structures and downstream waterbodies. The Cities standard practice is to sweep arterials and secondary roadways three times a year and residential roadways twice a year. The first time is in the spring, beginning in either late March of early April after the risk of later snowfall has passed, the second occurs mid-summer, and the third sweep occurs in the fall after leaf fall.

Brooklyn Park does not allow residents to rake leaves into the street for municipal pickup. Hennepin County and the City encourage residents to compost their yard waste. If residents desire to have yard waste removed by their private hauler, then compostable bags or reusable containers are required. Alternately, yard waste can be brought to the Maple Grove yard waste site which is free for residents of Brooklyn Park. Overall the City's approach to minimizing organic matter entering its storm water system greatly reduces the incidence of inlet blockages and protects the water quality of downstream waterbodies.

The objective of the City's street sweeping and de-icing programs is to minimize impacts from leaf litter, sand, salt and other debris on the surface waters of the City.

8. Detection of Illicit Connections

During routine inspection for inlet grates, outfalls, and other portions of the storm water system, City staff also looks for evidence of illicit discharge, dry weather flow (indicating possible sanitary sewer connections), sedimentation and other non-point source pollution problems. As part of its SWPPP, the City will review any existing illicit discharge ordinances and policies, and develop and implement an illicit discharge action plan.

D. Implementation Priorities and Programs

This section describes those activities and programs that are priorities for the City to implement to improve its surface water management program. These items are generated from the SWPPP, known water resource related problems in the City, and the Commissions Third Generation Watershed Management Plan. A tentative timetable and cost estimate for

each activity or program is included in the following tables. Ongoing operation and maintenance activities detailed in Section VI.C are also included in Table 6.2. Items under the section title SWPPP are efforts the City is taking to comply with the current NPDES permit. Priorities will be adjusted as the NPDES permit is revised in the future.

1. Policies, Ordinances, Rules and Standards: Implementation of this surface water management plan is supported by the policies, ordinances, rules and standards adopted and enforced by the City of Brooklyn Park. The City of Brooklyn Park surface water management plan will adopt and implement the rules and standards for development and redevelopment referenced within the Commission's 3rd Generation Watershed Management Plan. The City's Chapter 153 Stormwater Ordinance incorporates the Commission's rules and standards including stormwater management, erosion and sediment control, wetland alteration, and floodplain alteration. Table 6.1 lists the expected implementation activities, schedules and costs.

Table 6.1 - Ordinances, Rules and Standards

Implementation Activity	Tentative Date for Implementation	Tentative Cost ($)
Adoption of Commissions Rules and Standards	Following revisions of Commission Rules	$2000.
Amend City Ordinances, Rules and Standards to be consistent with Commissions.	Following revisions of Commission Rules	$5000.
Review of Development and Redevelopment Project Applications for Conformance with Stormwater, Erosion and Sediment Control, and Floodplain Ordinances, Rules and Standards	Ongoing	$TBD/year

2. Operation and Maintenance of Stormwater Management System: Table 6.2 lists the expected implementation activities, schedules and costs associated with operation and maintenance of the City's stormwater management system. The system collects, conveys and treats stormwater within the City.

Table 6.2 - Stormwater Management System Operation and Maintenance

Implementation Activity	Tentative Date for Implementation	Tentative Cost ($)
Inspect system annually including ponds, ditches and pipes.	Ongoing	$25,000 per year
Maintenance and repairs (average of 120/year)	Ongoing	$940,000 per year

Replace components of system in coordination with other City, County and State Projects. Specific BMPs will include installations of pond filtering systems, SAFL baffles, sumps, Stormceptor structures, infiltration vessels, and other devices. These devices will be installed with the construction of large State, County and City projects in the next 10 years and maintained by the City.	Ongoing	$855,000 per year
Street Sweeping of 260 miles of City Streets, two to three rounds annually.	Ongoing	$180,000 per year (2018 cost).
Total		$2,000,000 per year.

3. Studies: Table 6.3 lists the expected implementation activities, schedules and costs for Brooklyn Park participation in studies.

Table 6.3 – Studies		
Implementation Activity	Tentative Date for Implementation	Tentative Cost ($)
Hydrology and Hydraulics Modeling on a Case by Case Basis. An example project is analysis of surface flooding near the intersection of 67th Avenue N. and Douglas Dr. N.	Annual	$5,000 to $10,000
Lake Success Groundwater Study. The City is working with citizens and the DNR to see if lake levels may be affected by groundwater appropriations or other factors.	Ongoing	TBD

4. TMDLs Table 6.4 lists the expected implementation schedules and costs associated with TMDL implementation plans for the Mississippi River, Shingle Creek and Bass Creek, Lake Magda, and the Twin and Ryan Lakes TMDLS. Annual costs are estimated based upon an assumed 10-year schedule with project costs assumed split with 1/3 paid by the City.

Table 6.4 - TMDLS		
Implementation Activity	Tentative Date for Implementation	Tentative Cost ($)
Mississippi River TMDL	Ongoing	N/A
Upper Mississippi River Bacteria TMDL (E. coli. load reduction).	Ongoing	N/A
Shingle Creek and Bass Creek Biota and Dissolved Oxygen TMDL	Ongoing	$6,000 per year.
Shingle Creek Chloride TMDL	Ongoing	Included in MS4 SWPPP
Shingle Creek /Upper Mississippi River Bacteria TMDL(BMP Installations and Staff In-kind for public education regarding pet wastes and waterfowl feeding).	Ongoing	$5000 per year
Lake Magda Nutrient TMDL (Brooklyn Park cost sharing for shoreline restoration, aquatic plant management and street sweeping).	Ongoing	$2,000 per year

Twin and Ryan Lakes Nutrient TMDL	Ongoing	Unknown as costs vary by project.

5. MS4: The City of Brooklyn Park is an NPDES MS4 community. The NPDES MS4 permit and SWPPP require the BMP activities listed within Table 6.5.

Table 6.5 - MS4 and SWPPP Implementation		
Implementation Activity	**Tentative Date for Implementation**	**Tentative Cost ($)**
Maintain Storm Sewer Base Map and GIS System	Annual	$5,000 to $10,000 per year
Public Education and Outreach	Annual	$5,000 per year
Public Participation	Annual	$2,000 per year
Illicit Discharge Detection and Elimination	Annual	$3,000 per year
Construction Site Stormwater Runoff Control	Annual	TBD
Post Construction Stormwater Management	Annual	TBD
Pollution Prevention Good Housekeeping for Municipal Operations	Annual	$5,000 per year
Amend MS4 permit as TMDL implementation plans are approved, modified and updated.	Ongoing	N.A.

6. Commissions Third Generation Watershed Management Plan Requirements. Table 6.6 lists the expected implementation activities, schedules and costs associated with operation and maintenance of the City's stormwater management system.

Table 6.6 - Commissions Implementation Priorities		
Implementation Activity	**Tentative Date for Implementation**	**Tentative Local Cost ($)**
Shingle Creek WMC Third Generation Watershed Management Plan Requirements		
Shingle Creek Reaeration Project	2013	$120,000
Shingle Creek Restoration, Regent to Brooklyn Blvd.	2015	$300,000
Shingle Creek or Bass Creek Restoration Project	2016-2022	$1,500,000
Develop Whole Watershed Sustainable Water Budgets	2015	No cost to City
Intensive BMP Assessment by Subwatershed	Multi-year	No cost to City
The Watershed Commission is receiving grant funds from FEMA to update the Flood Insurance hydrology and hydraulics models of Shingle Creek.	2019	No cost to City
West Mississippi WMC Third Generation Watershed Management Plan Requirements		
Wetland Restoration Project	2014, 2016, 2018-2022	$750,000
Develop Whole Watershed Sustainable Water Budgets	2015	No cost to City
Intensive BMP Assessment by Subwatershed	Multi-year	No cost to City

E. Financing

The total average annual cost for operating and maintaining the City of Brooklyn Park's storm water management system is approximately $2 Million (not including depreciation). This includes storm water management programs, SWPPP activities, systems operation and maintenance, and construction of future improvements and enhancements. The City has adopted a storm water utility to fund maintenance and capital projects. Under the current rate structure this utility generates approximately $2 Million per year. The City recently raised the stormwater utility fee and will continue to do so as necessary to adequately meet budgetary needs. Appendix C includes a copy of Storm Sewer Utility Rates and Charges adopted December 11, 2017. About 5% of that is available for capital projects with the balance used for maintenance activities. The City periodically reviews the rates and intends to increase the rates over time to allow the establishment of a CIP for storm water projects. The City will make every effort to generate sufficient revenue through the storm water utility fund to accommodate future projects and activities related to regulatory mandates such as TMDL BMP's. However funding for maintenance of the existing infrastructure will hold priority over those projects.

F. Amendment Procedures

The Brooklyn Park LWMP is intended to extend through the year 2029. For the plan to remain dynamic, an avenue must be available to implement new information, ideas, methods, standards, management practices and any other changes that may affect the intent and/or results of the LWMP. The plan may need to be revised from time to time as a result of a Major Plan Amendment to the Commissions' Plan. The amendment procedure for the LWMP ispresented below.

Request for Amendment

Written request for Plan amendment is submitted to City staff. The request shall outline the need for the amendment as well as additional materials that the City will need to consider before making its decision.

Staff Review of Amendment

A decision is made as to the validity of the request. Three options exist: 1) reject the amendment, 2) accept the amendment as a minor issue, with minor issues collectively added to the Plan at a later date, or 3) accept the amendment as a major issue, with major issues requiring an immediate amendment. In acting on an amendment request, City staff shall recommend to City Council whether or not a public hearing is warranted. Major amendments to the Plan will have to be submitted to the watersheds for review and approval prior to final action by the Council.

Council Consideration

The amendment and the need for a public hearing shall be considered at a regular Council meeting. A staff recommendation will be presented to the Council for consideration.

Public Hearing and Council

This step allows for public input based on public interest. Council shall determine when the public hearing should occur in the process. Based on the public hearing, the City Council could approve the amendment.

Council Adoption

Final action on an amendment is City Council adoption. However, prior to the adoption, an additional public hearing could be held to review the Plan changes and notify the appropriate stakeholders.

It is anticipated that the City's LWMP will remain in effect through 2029. The City will then review the LWMP for consistency with cunent water resource management methods. At that time, all annual reports and past amendments will be added to the document. Depending on the significance of changes, a new printing of the LWMP may be appropriate.

VII. SUMMARY AND RECOMMENDATIONS

A. Summary

The Brooklyn Park LWMP will serve as a comprehensive planning document to guide the City in conserving, protecting, and managing its surface water resources. The LWMP meets requirements as established in Minnesota Rules 8410. In addition, the Plan reflects the requirements of the Commissions with jurisdiction within the City.

The Brooklyn Park LWMP has its own particular emphasis, which includes:

- Collecting and compiling the efforts of agencies and organizations including the City, its departments and residents. This includes past reports and studies, management plans, monitoring studies, as well as completed and proposed improvement projects.
- Reviewing the current state of the City's surface water resources in the context of goals and policies, ordinances, operations and maintenance, flood mitigation, and achievement of targeted water quality levels.

- Establishing reasonable, achievable and affordable goals, and supporting them by strong regulatory and management culture. Developing an implementation plan that includes projects and processes that derive from a thorough assessment of current City problem areas and current City surface water regulations and controls.

The review of the City's surface water resources begins with an evaluation of its surface water management goals and policies. Section IV of the Plan provides the City's current goals and policies to achieve these goals

The System Assessment section of the LWMP serves two functions. The first part of the section describes the City's surface water management system. The storm water conveyance system is shown in **Figure 15**. This map indicates the storage areas, conveyance (including pipe and channels) and lakes in the City. The system assessment portion catalogues the various assessments of problems that the Plan must address. The intent is to identify the source of problems and specific actions the City proposes to take to address these problems either independently or in collaboration with some other organization - most commonly one of the watershed management organizations.

Finally, this Plan develops implementation priorities for the City. The Implementation Plan (Section VI) of the Brooklyn Park LWMP describes those activities and programs the City intends to develop to improve its surface water management program. Typically, costs for maintenance, upgrade and/or replacement would be borne by the storm water utility fund, general fund or through special assessments.

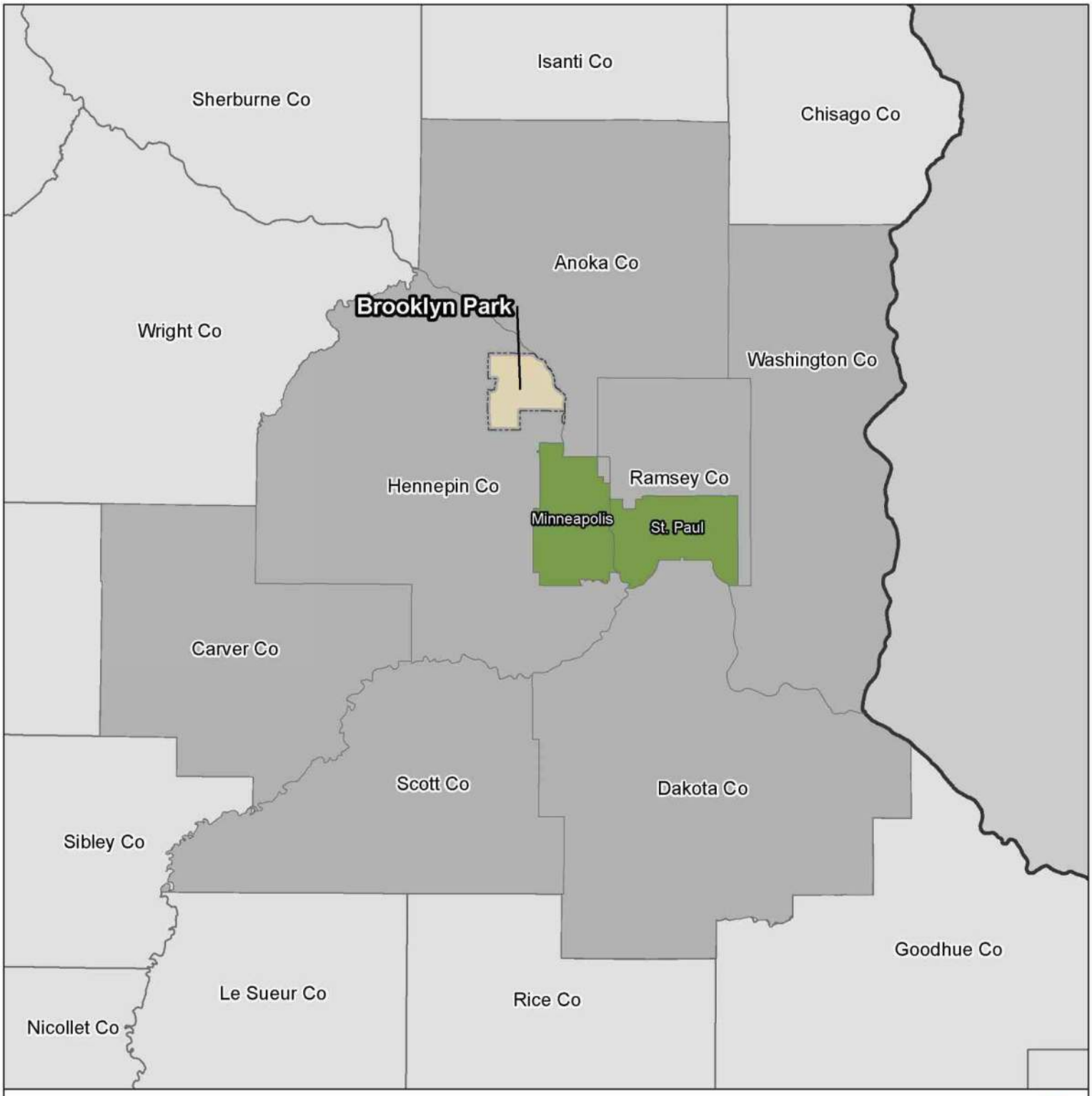
The Implementation Plan section also includes:

- An overview of the City's NPDES permit.
- A discussion of operation and maintenance procedures and strategies.
- Financial considerations.
- Implementation priorities.
- A discussion of the process for amending this plan and an annual report to council.

B. Recommendations

After review and approval by the Commissions, the LWMP will be submitted to the City Council for consideration with the following recommendations:

- That the City continues to operate and maintain its storm water system in accordance with this LWMP.
- That the City continues to support a sense of common purpose with the Commissions and adjacent communities regarding storm water management issues.
- That the City adopt this Local Water Management Plan and adopt amendments to it as deemed necessary.



Brooklyn Park

Brooklyn Park Comprehensive Plan

Regional Location Map
Figure 1

BOLTON & MENK
Real People. Real Solutions.

0 10 Miles

Source: Met Council, Brooklyn Park

Legend

- City Limits
- St. Paul & Minneapolis
- Metro Counties
- Other Counties

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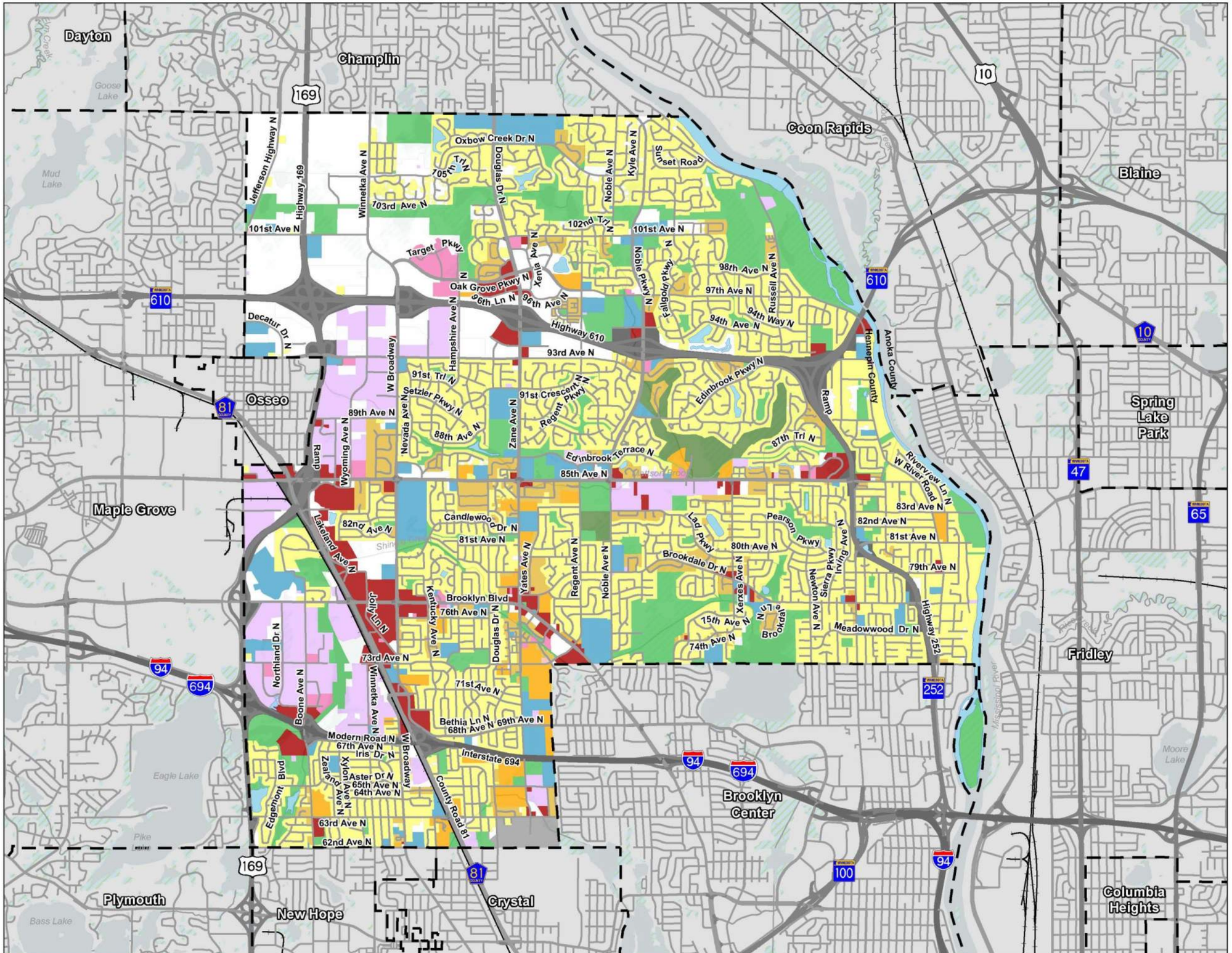

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Existing Land Use
Figure 2

Legend

Existing Land Use

- Single-Family Residential
- Single-Family Attached
- Multifamily
- Mixed Use Residential
- Commercial
- Office
- Industrial and Utility
- Institutional
- Park, Recreational, or Preserve
- Golf Course
- Airport
- Major Highway / Railway
- Open Water
- Agricultural

Source: Met Council, Brooklyn Park

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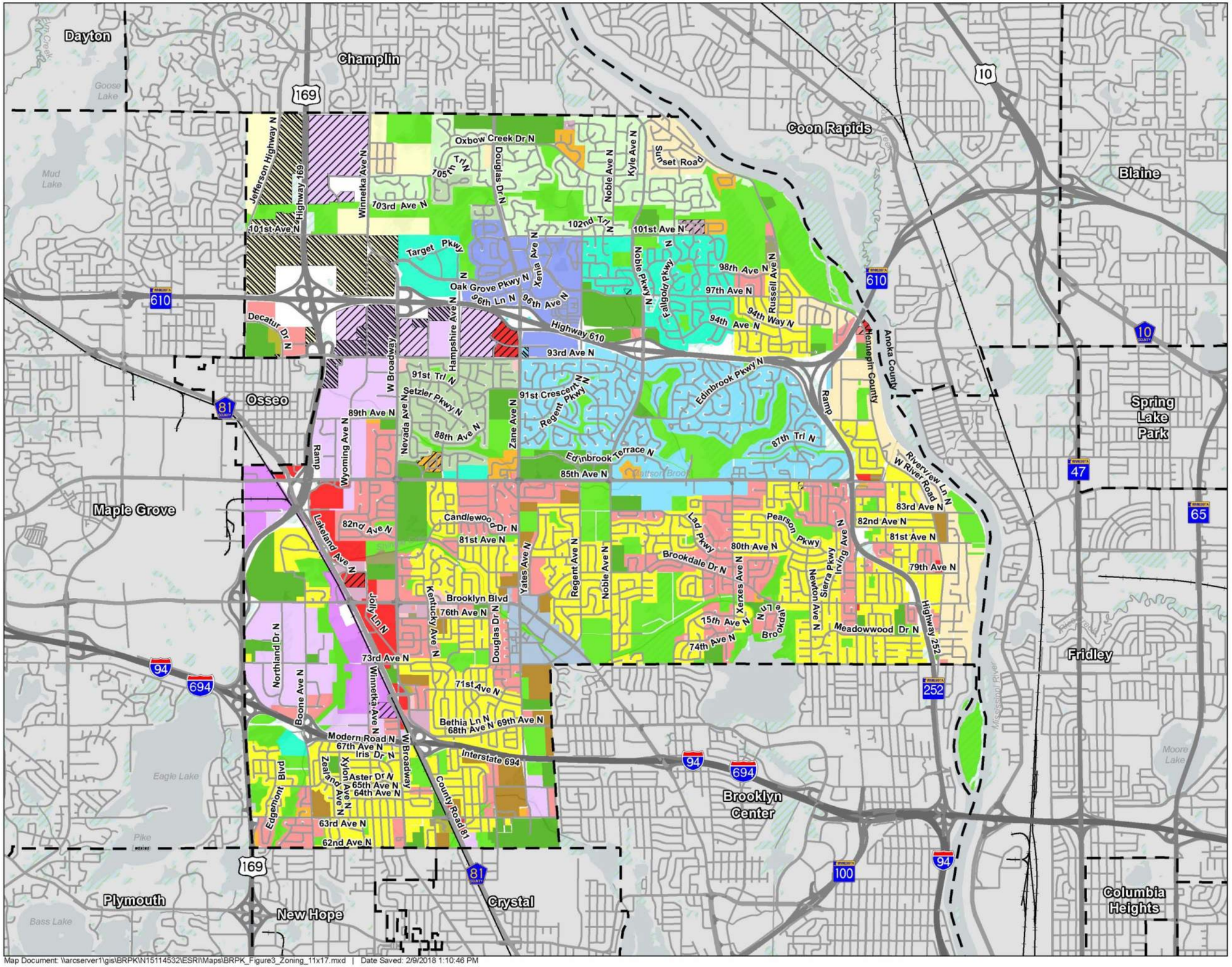

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Zoning
Figure 3

Legend

Zoning

Residential Districts

- Urban Reserve District
- Detached Single Family Estate District
- Detached Single Family Residential District
- Detached Single Family Residential District
- Detached Single Family Residential District
- Detached Single and Attached Two Family Residential District
- Townhouse District
- Detached Single Family Residentia
- Multiple Family Residential District
- Multiple Family Residential District
- Multiple Family Residential District

Business Districts

- Office Park District
- Neighborhood Retail Business District
- General Business District
- Vehicle Sales and Showroom District
- Business Park District
- General Industrial District

Special Districts

- Planned Community Development District
- Planned Unit Development
- Town Center District
- Conservancy District
- Public Institution
- Village Redevelopment District

Zoning Overlay Districts

- Planned Development Overlay District
- Highway Overlay District

Source: Met Council, Brooklyn Park

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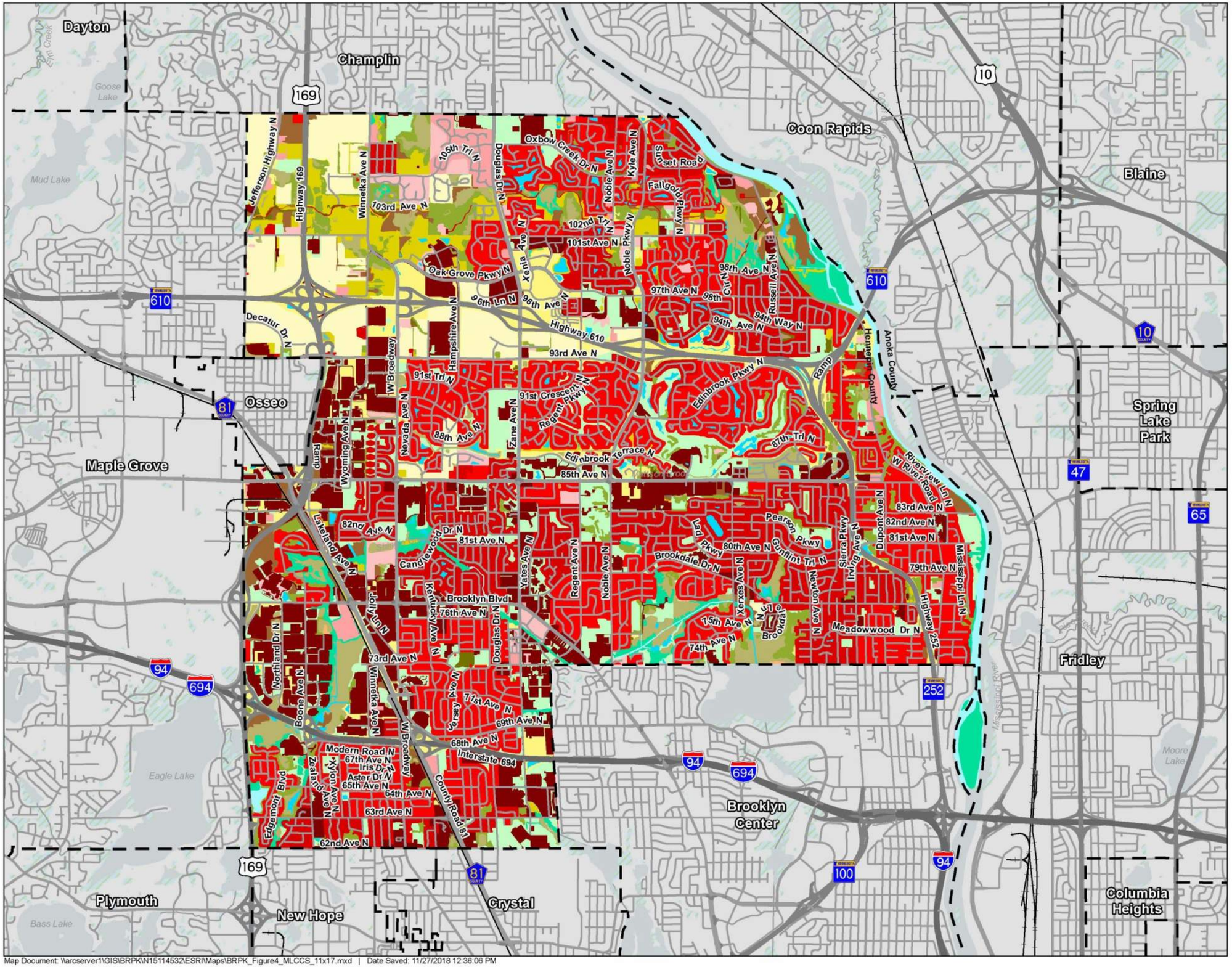

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Land Cover
Figure 4

Legend

Minnesota Land Cover Classification System

- 11. 5-10% Impervious
- 12. 11-25% Impervious
- 13. 26-50% Impervious
- 14. 51-75% Impervious
- 15. 76-100% Impervious
- 21. Short Grasses
- 22. Agricultural Land
- 23. Maintained Tall Grass
- 24. Tree Plantation
- 31. Forest
- 32. Wetland Forest
- 51. Shrubland
- 52. Wetland Shrubs
- 61. Tall Grasses
- 62. Wetland Emergent Veg.
- 63. Dry Tall Grasses
- 71. Lichen Scrubland
- 81. Rock Outcrop
- 82. Mud Flat
- 90. Open Water
- 92. Wetland Open Water
- Lakes and Ponds
- Island or Land
- Lake, Pond or Reservoir
- River or Stream (polygon)
- Rivers and Streams
- Wetlands

Source: Met Council, Brooklyn Park

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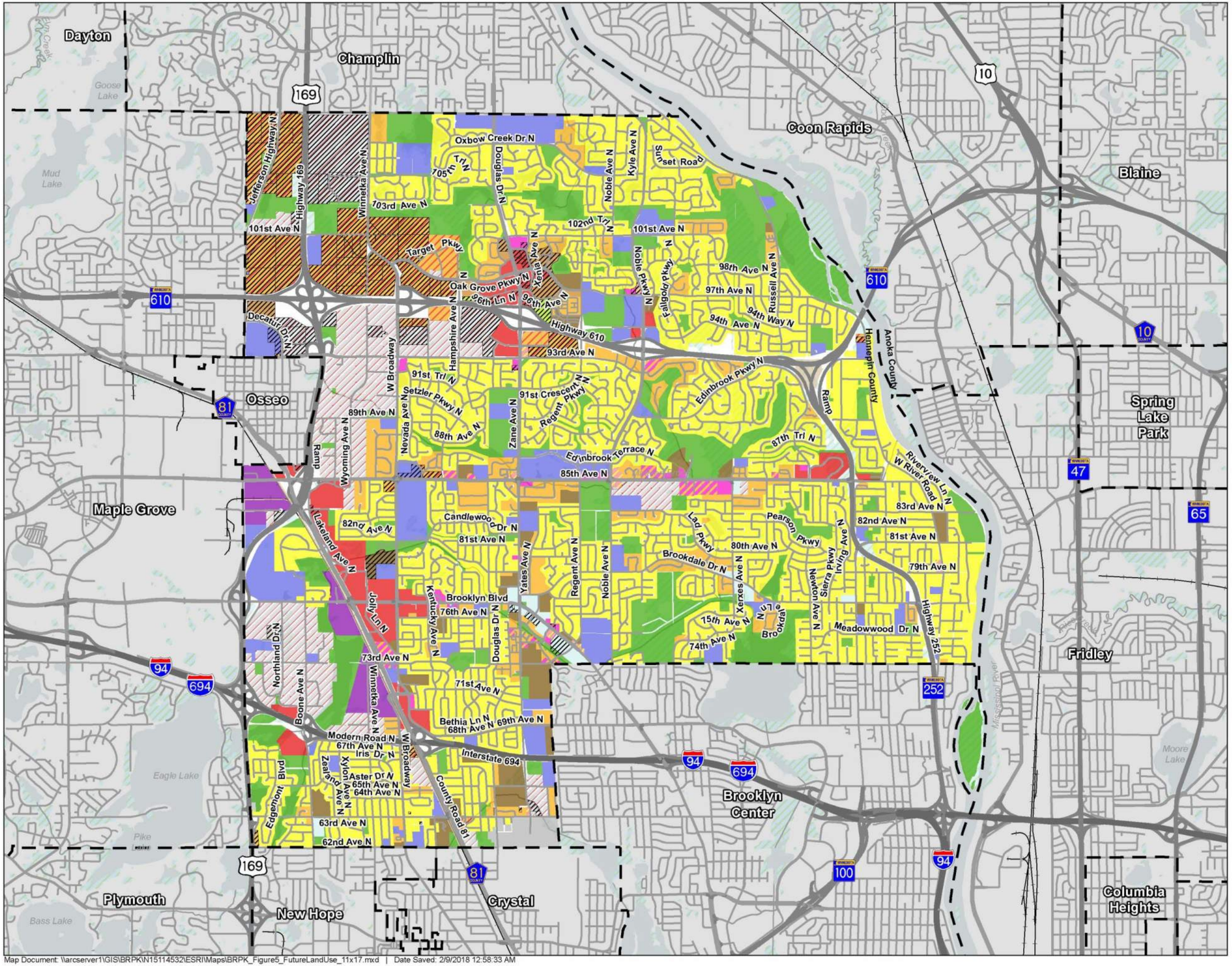

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Brooklyn Park

Brooklyn Park Comprehensive Plan

2040 Future Land Use
Figure 5

Legend

- Devel/Redevel Areas

Future Land Use

- Airport
- Business Park
- Community Commercial
- Flex
- Industrial
- Institutional
- Low Density Residential
- Medium Density Residential
- Medium-High Density Residential
- High Density Residential
- Neighborhood Mixed Use
- Mixed Use
- Neighborhood Service Center
- Office/Limited Business
- Office/Medium Density Residential
- Parks & Open Space
- RR

Source: Met Council, Brooklyn Park

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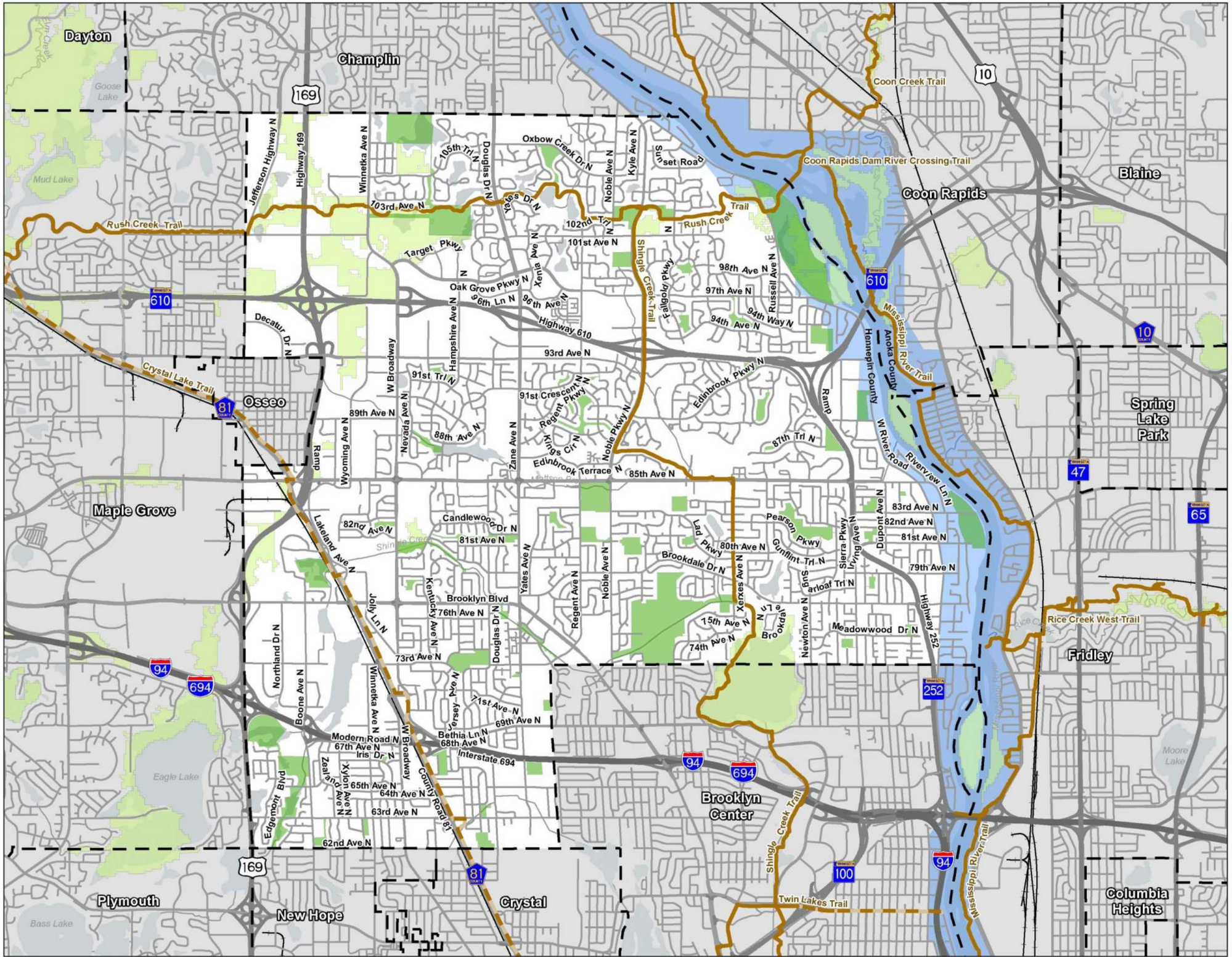

Brooklyn Park

Brooklyn Park Comprehensive Plan

Natural Areas, Open Space & RSEA

Figure 6

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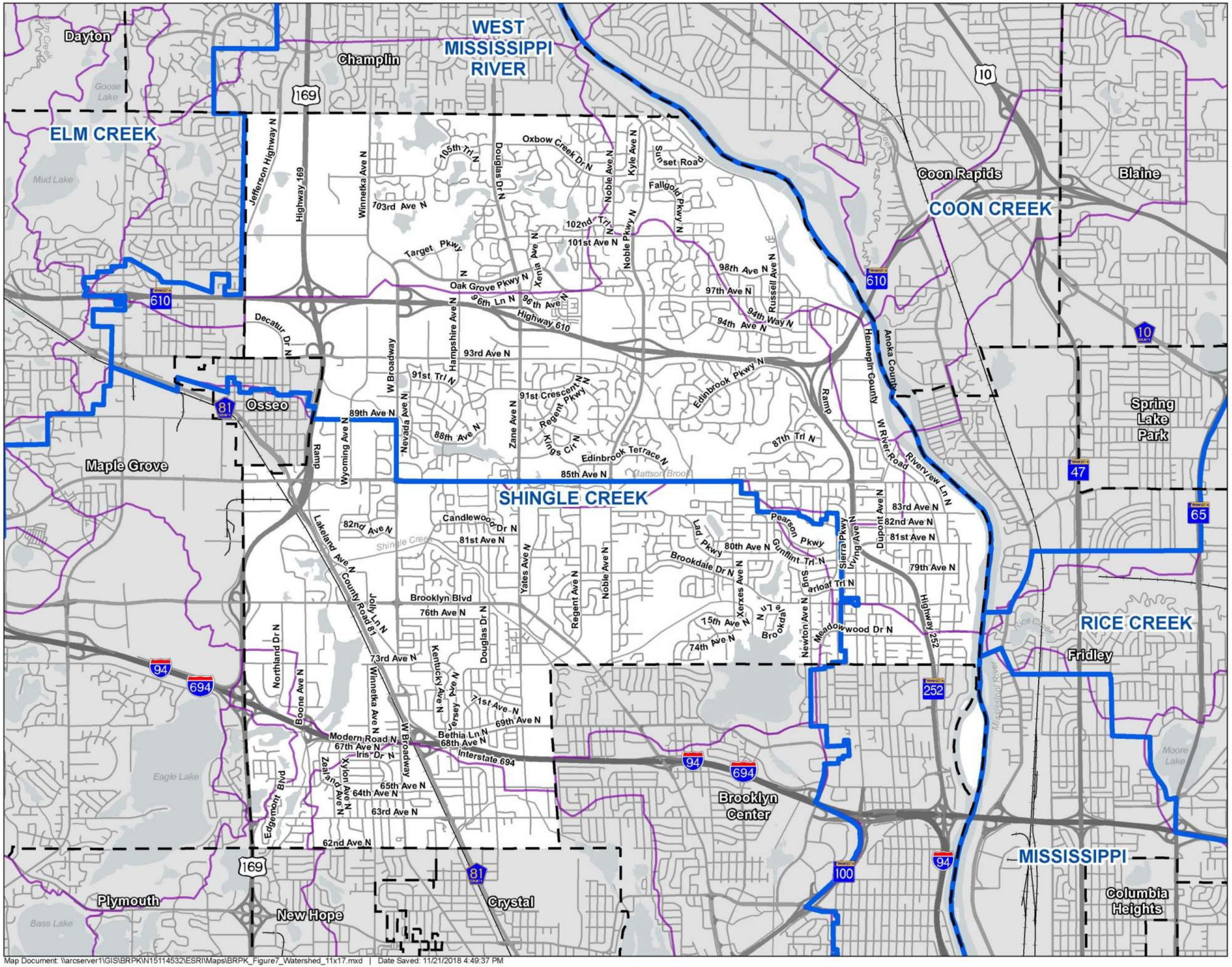

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Watershed Districts
Figure 7

Legend

- Watershed Management Organization
- Subwatersheds (Catchments)

Source: Met Council, Brooklyn Park, MnDNR

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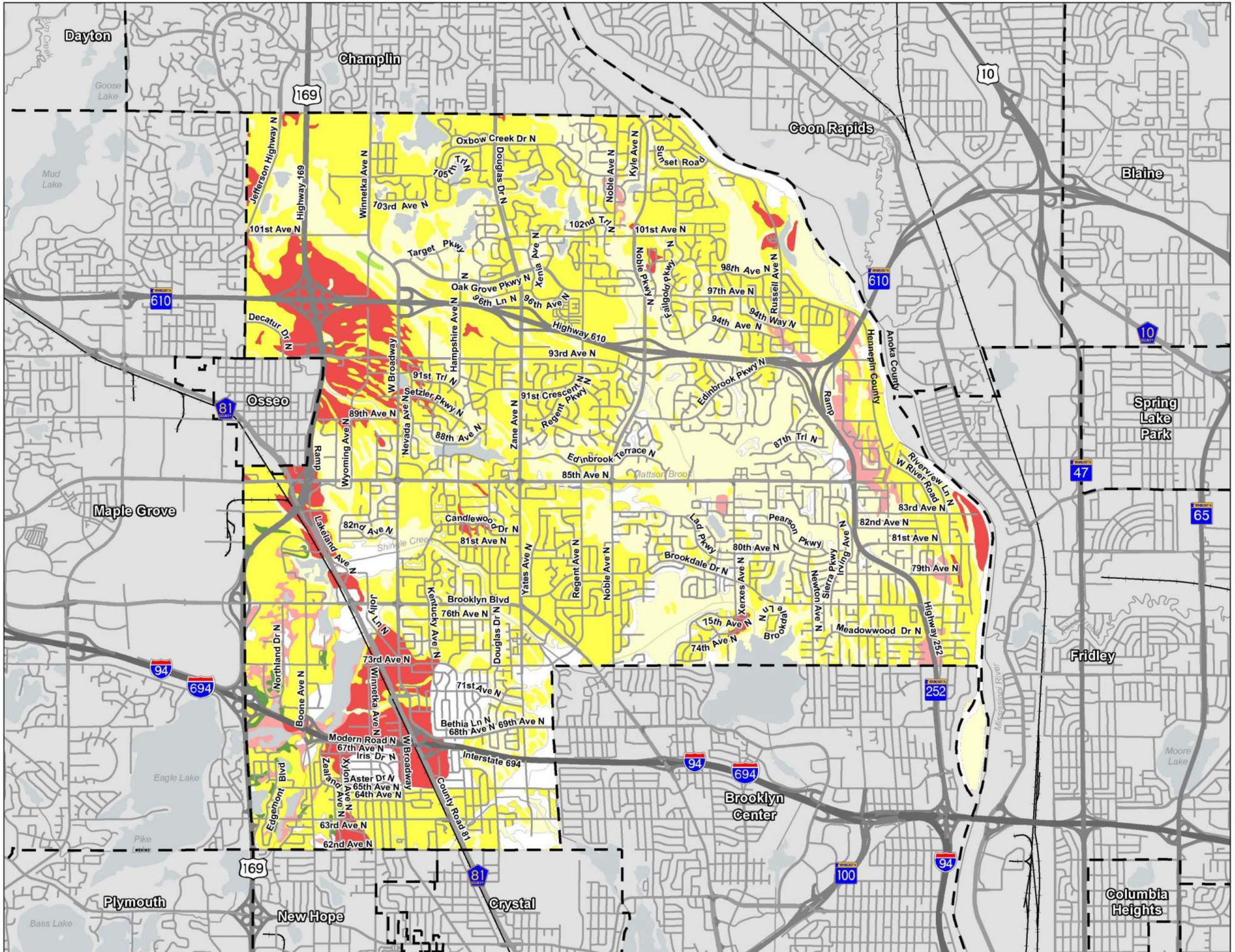

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Hydrologic Soils
Figure 8A

Legend

Soils By Drainage Class

- Unclassified
- A
- A/D
- B
- B/D
- C
- C/D

Source: Met Council, Brooklyn Park

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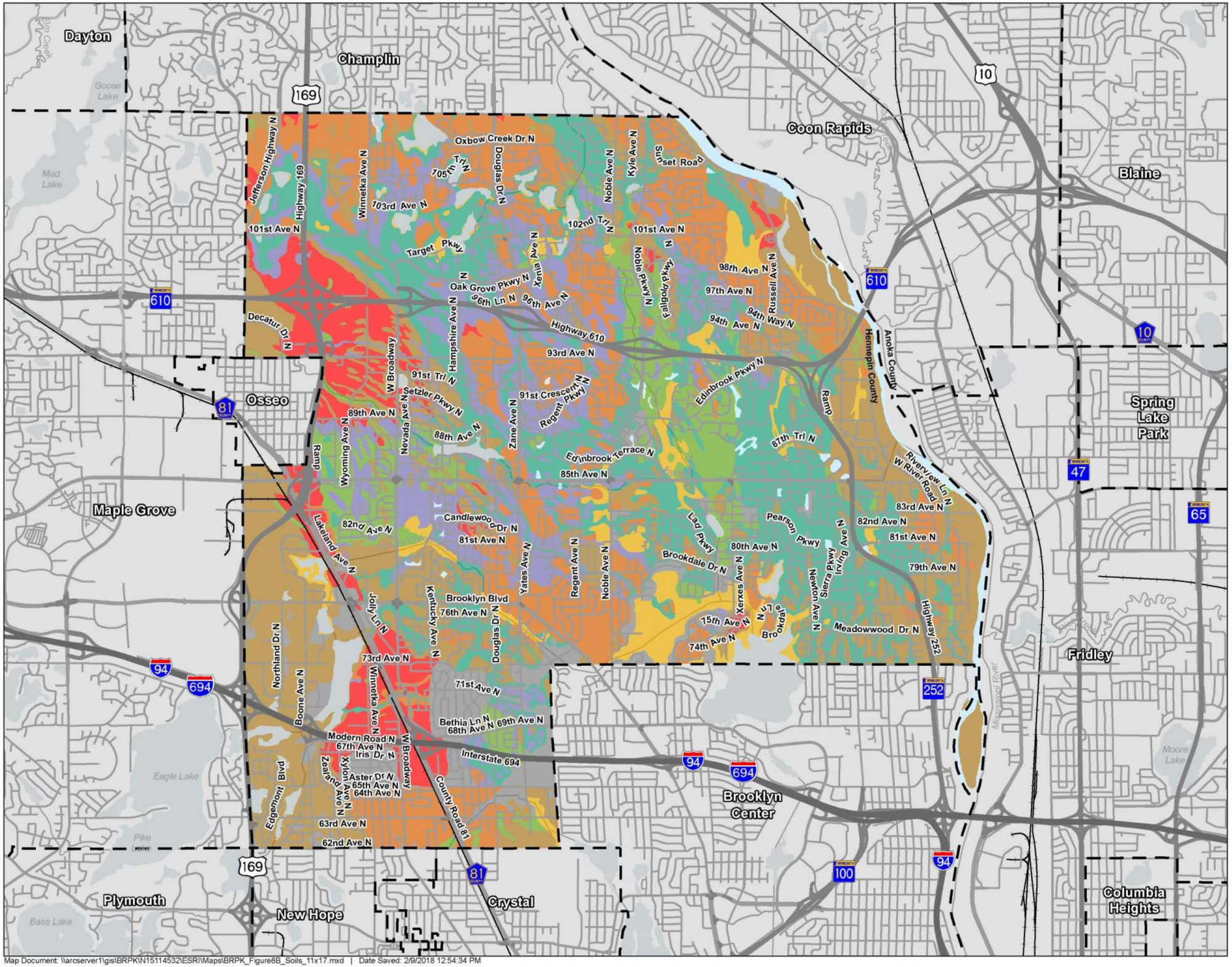

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Soils
Figure 8B

Legend

Soils By Type

- Isan
- Hubbard
- Soderville
- Verndale
- Forada
- Seelyeville
- Other
- Urban land
- Water

Source: Met Council, Brooklyn Park

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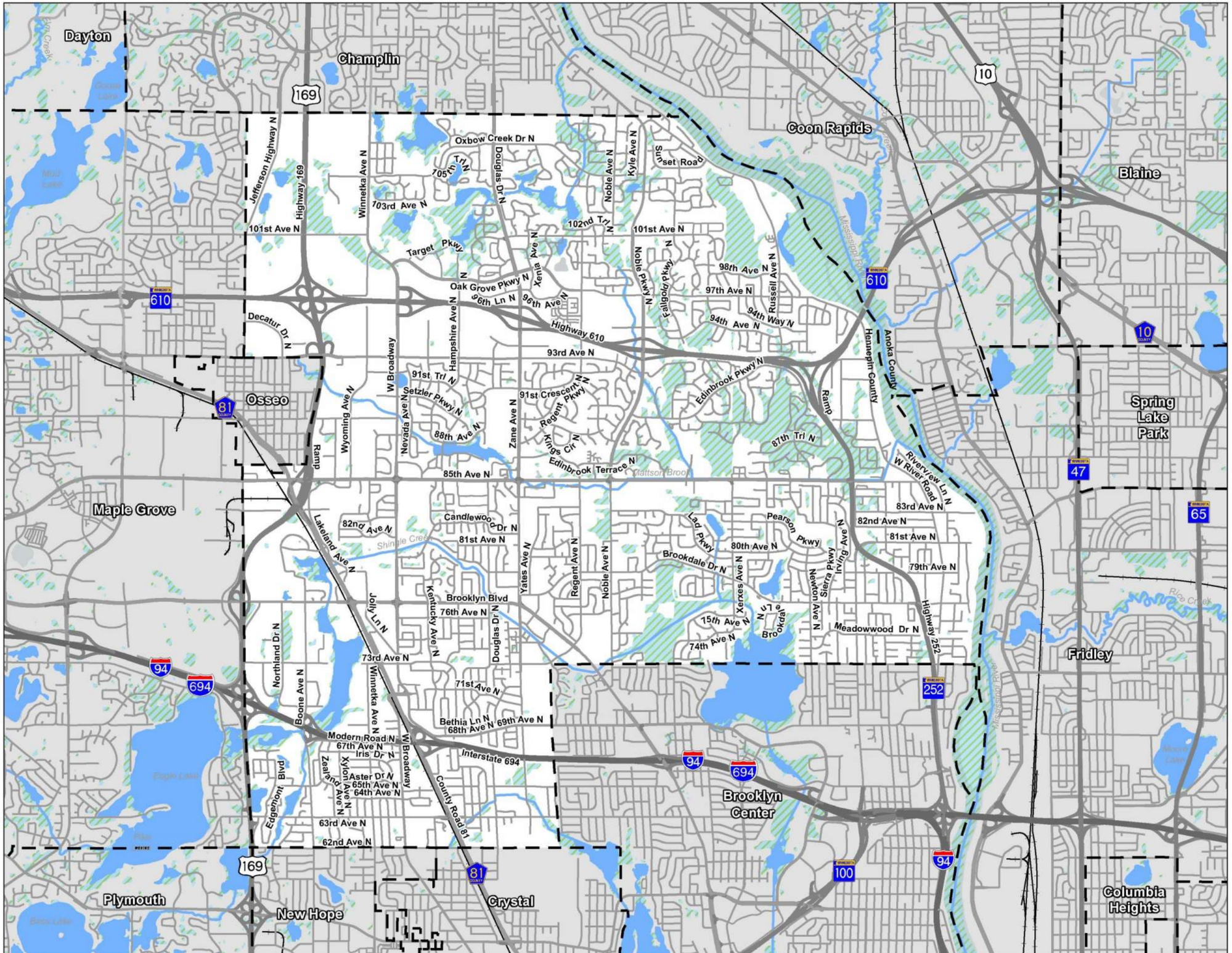

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Wetlands
Figure 9

Legend

- National Wetlands Inventory
- PWI - Basin
- PWI Watercourse

Source: Met Council, Brooklyn Park

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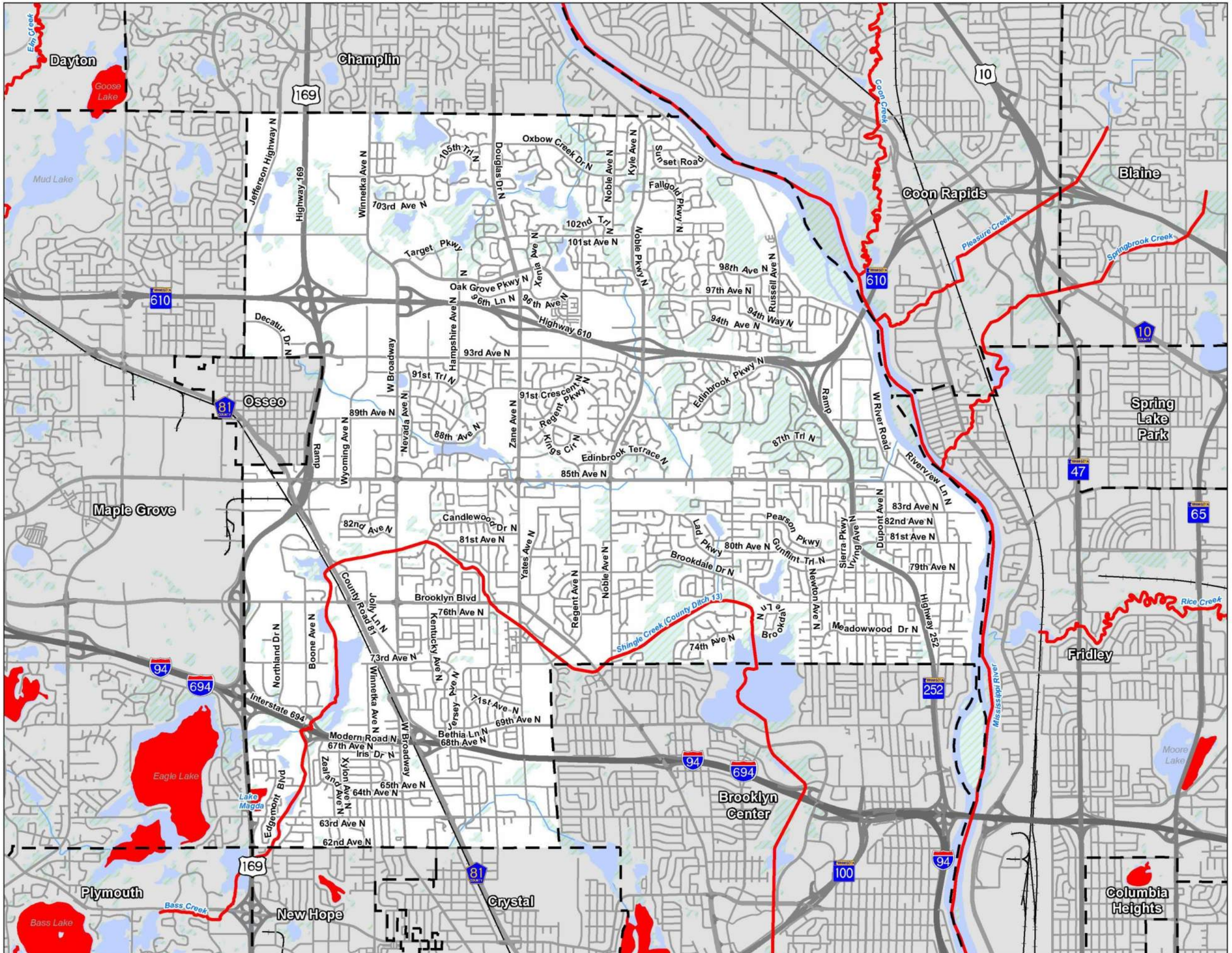

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Impaired Waters
Figure 10

Legend

- Impaired Lakes
- Impaired Rivers & Streams

Source: Met Council, Brooklyn Park

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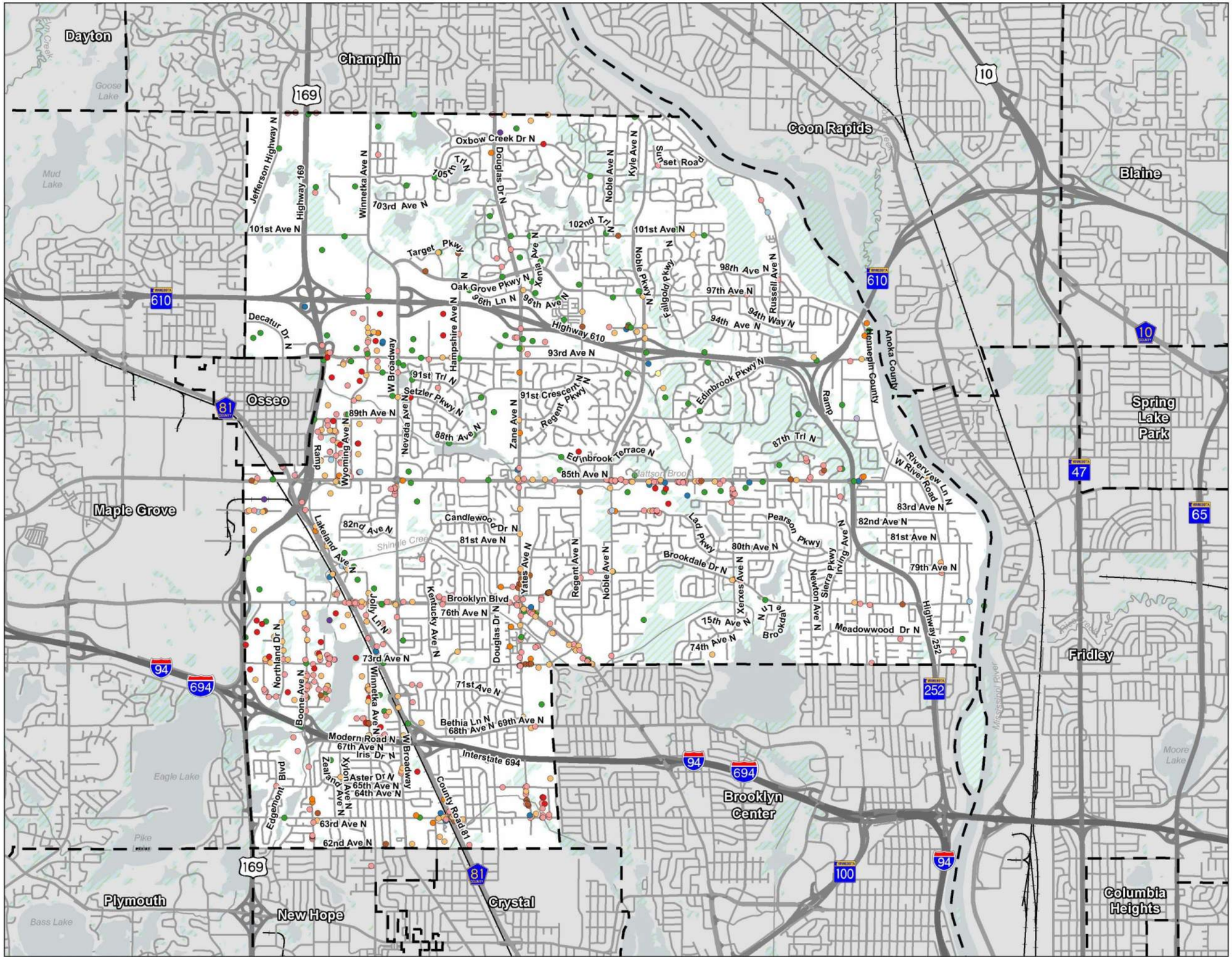

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Brooklyn Park

Brooklyn Park Comprehensive Plan

What's In My Neighborhood
Figure 11

Legend

MPCA WIMN Sites

- Aboveground Tanks
- Brownfields
- CERCLIS Site
- Construction Stormwater
- Hazardous Waste
- Industrial Stormwater
- Multiple Activities
- Petroleum Remediation, Leak Site
- SSTS, Licensed Organization
- Site Assessment
- Solid Waste, Unpermitted Solid Waste
- Underground Tanks
- Wetlands
- Lakes and Ponds
- Rivers and Streams
- City Limits

Source: Met Council, Brooklyn Park

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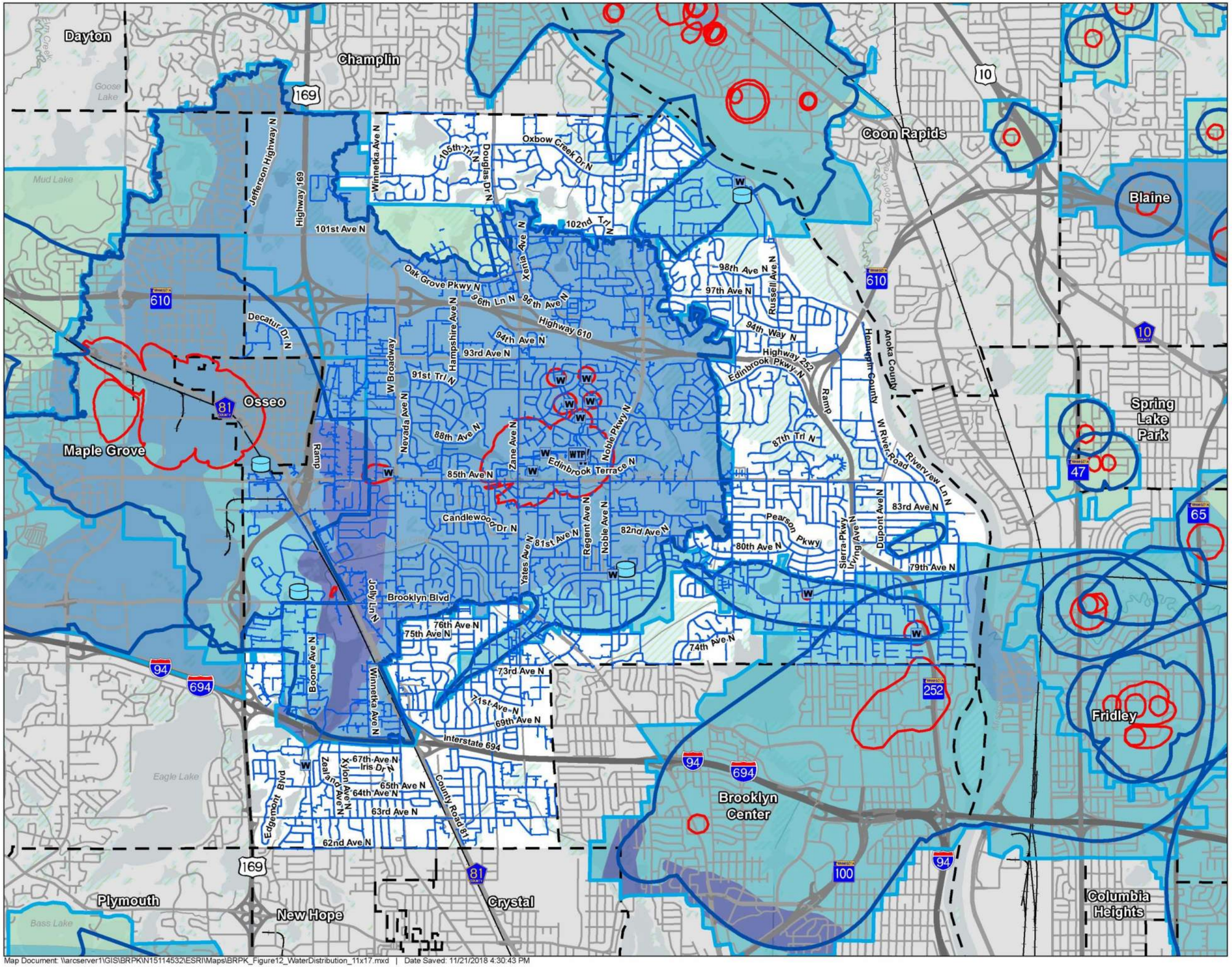
Brooklyn Park

Brooklyn Park Comprehensive Plan

Water Distribution
Figure 12



Legend

- Wells
- Water Treatment Plant
- Water Storage
- Watermain
- Wellhead Protection Area
- DWSMA
- Emergency Response Area

DWSMA Vulnerability

- Very High
- High
- Moderate
- Low
- Very Low

Source: Met Council, Brooklyn Park

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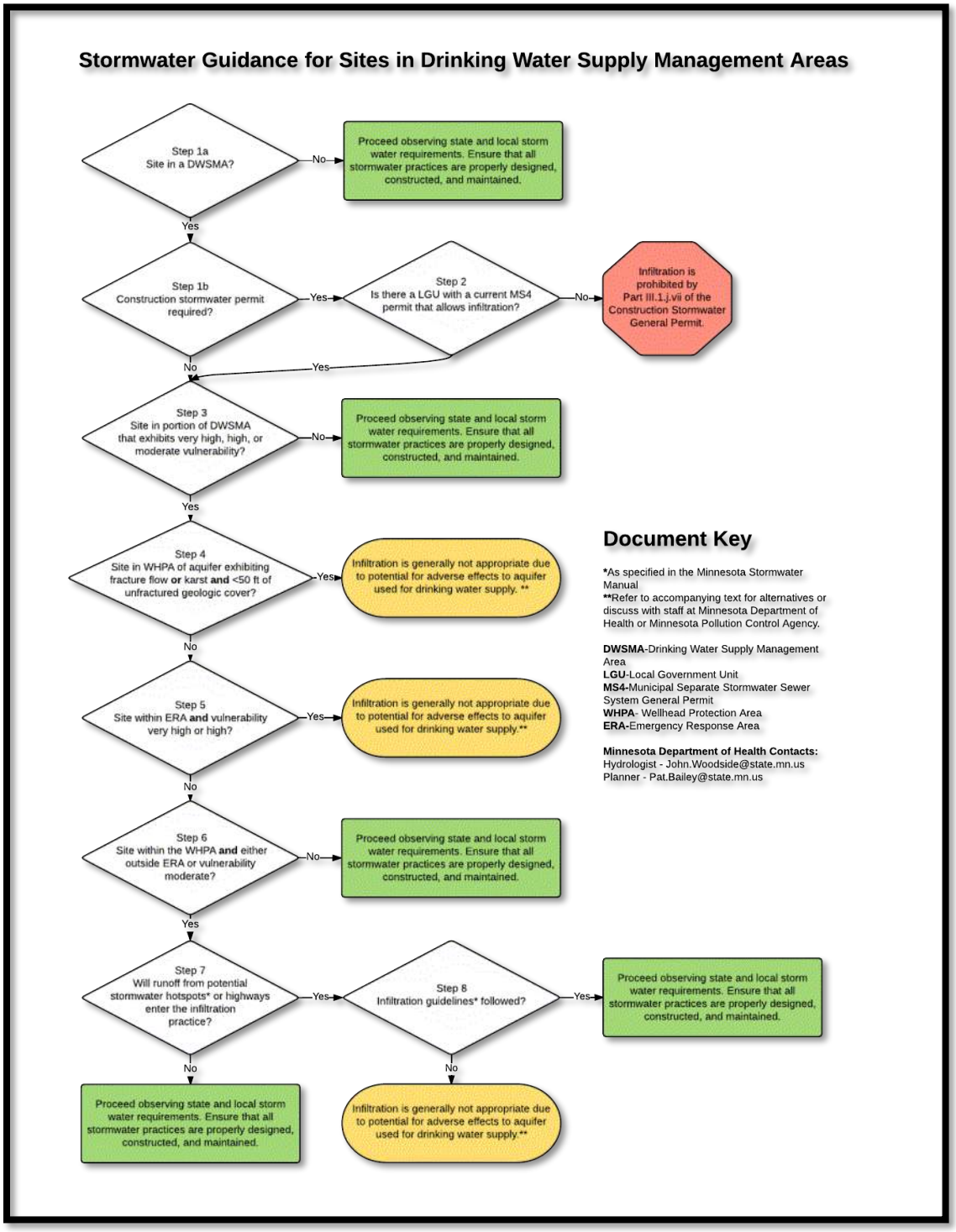
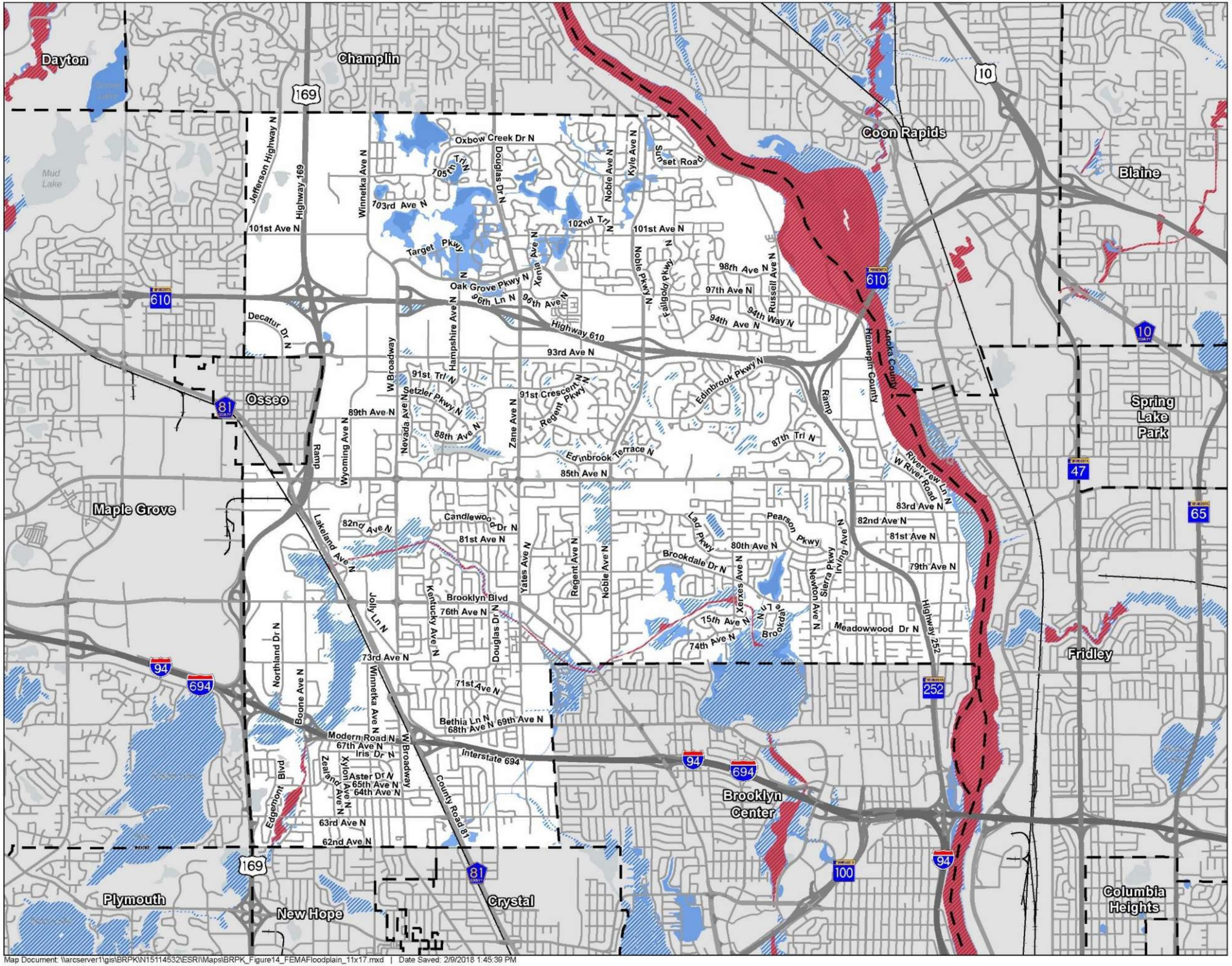
Map Document: \\arcserver1\GIS\BRPK\N15114532\ESRI\Maps\BRPK_Figure12_WaterDistribution_11x17.mxd | Date Saved: 11/21/2018 4:30:43 PM

Figure 13 - Flowchart for Evaluating Infiltration within Drinking Water Supply Management Areas[29]



[29] Minnesota Department of Health and Minnesota Pollution Control Agency, Evaluating Proposed Stormwater Infiltration Projects in Drinking Water Supply Management Areas, January 26, 2016



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Brooklyn Park

Brooklyn Park Comprehensive Plan

FEMA Floodplain
Figure 14

Legend

- 100 Year Floodplain
- 500 Year Floodplain
- Floodway

Source: Met Council, Brooklyn Park

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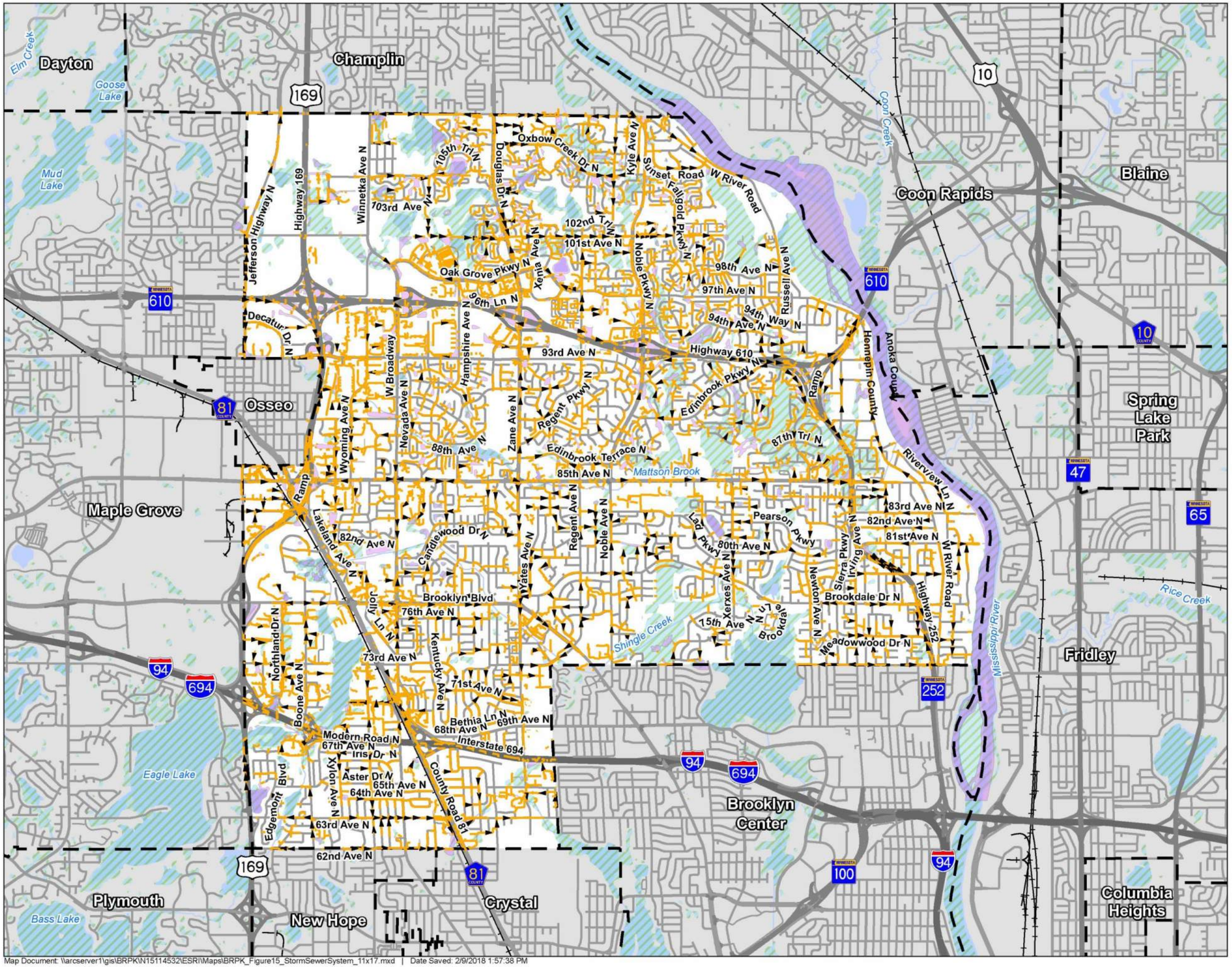

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Brooklyn Park

Brooklyn Park Comprehensive Plan

Storm Sewer System
Figure 15

Legend

- Storm Pipe
- Stormwater Ponds
- National Wetlands Inventory

Source: Met Council, Brooklyn Park

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Appendix A: Minimum Engineering Standards for Storm Water Management

Minimum Engineering Standards for Storm Water Management

1. Storm Water Runoff Conveyance

   A. Storm water drainage system design shall be based on a 10-year frequency storm for local and trunk storm sewer, and a 100-year frequency storm for ponds and open channels. The design storms shall be as defined in the NOAA Atlas 14 values for rainfall intensity are as follows:

NOAA Atlas 14 10-Year Depth-Duration-Intensity		
Duration (minutes)	Depth (inches)	Intensity (inches/hour)
5	0.619	7.43
10	0.906	5.44
15	1.11	4.44
30	1.59	3.18
60	2.09	2.09

   B. Storm sewers and open channels shall be designed using the Rational Method or other technical method approved by the City. Runoff Coefficient "C" shall be in accordance with the guidelines provided in the Minnesota Department of Transportation Drainage Manual.

   C. Emergency overflow drainage routes shall be provided at all low point locations a minimum of 1.5 feet below the lowest adjacent building opening. Emergency overflow drainage routes shall be constructed in a manner that will accommodate a l00-year storm event.

2. Storm Water Rate Control

   A. A hydrograph method based on sound hydrologic theory shall be used to analyze runoff rates and high water levels for proposed development and redevelopment projects.

   B. Runoff rates for proposed development and redevelopment sites shall not exceed existing runoff rates for the 2-year, 10 year and 100-year critical storm frequency event or rates noted in the approved local water management plan. Runoff rates may be restricted to less than the existing rates when necessary for the public health and general welfare of the watershed or where restricted downstream capacity exists.

   C. Analysis of flood levels, storage volumes and flow rates for waterbodies and detention basins shall be based on a range of rainfall and snow melt duration producing the critical

flood levels and discharges. Hydrologic analysis shall include a study of runoff rates for a 24-hour duration storm event.

D. The high water levels of storm water detention facilities shall be based on a minimum 100-year frequency storm event. A minimum freeboard of two (2) feet shall be provided for the lowest adjacent building open.

E. Emergency overflow routes shall be provided for all detention basins. The elevation of emergency overflow routes shall be a minimum 1.5 feet below all adjacent building openings. Emergency overflow drainage routes shall be constructed in a manner that will accommodate a 100-year storm event. In the event that a surface emergency overflow cannot be constructed, the storage volume shall be expanded to accommodate two 100-year storm events while maintaining the 1.5 foot freeboard.

F. Various design guidelines contained in the Minnesota Storm Water Manual may be required at the discretion of the City based on specific site conditions.

G. The maximum side slope of detention areas or open channel shall be 1:4 (Vertical: Horizontal).

H. Adequate access for future maintenance of storm water detention facilities, including easements, grading and elimination of obstructions shall be provided.

I. All detention basins water quality ponds or water quality treatment devices which are installed as an integral part of the public storm water conveyance system shall be located within a public easement or another form of recordable document.

J. For projects that fall outside of the Commissions review requirements volume management in the form of infiltration may be incorporated into the drainage design for development and redevelopment projects. Examples of acceptable infiltration practices include infiltration trenches, rainwater gardens, and infiltration basins. Infiltration shall not be provided for runoff from fueling and vehicle maintenance areas or for runoff from industrial, commercial and institutional parking lots. Infiltration practices shall not be installed in areas with less than 3 feet separation from the bottom of the infiltration system to the elevation of seasonal high groundwater; in areas with less than 5 feet separation distance from the bottom of the infiltration system to the elevation of seasonal high groundwater for locations receiving runoff from public and private roadways; areas within 400 feet of a community water well or within 100 feet of a private well; and in areas located within the Drinking Water Supply Management Area of the City of Brooklyn Park or any other community' s Drinking Water Supply Management Area that extends into the corporate boundary of the City of Brooklyn Park <u>(without higher engineering review by the City).</u>

3. Storm Water Quality Treatment Ponds

A. Development and redevelopment projects in excess of one (1) acre or more in size shall incorporate water quality treatment ponds or other effective measures to minimize the discharge of sediment and other storm water related pollutants from the site. This requirement may be waived by the City if the site drains to an existing regional storm water management facility that was designed to accommodate the water quality treatment requirements of the proposed land development project. Infiltration, wetland buffers and erosion control practices may still apply.

B. Water quality treatment ponds (wet ponds) shall be designed in accordance with National Urban Runoff Program (NURP) guidelines and other specific standards as established by the City of Brooklyn Park.

C. Water quality treatment ponds shall have an elongated shape (preferably a 3:1 length to width ratio) and be sized with a permanent wet pool volume equal to the runoff from a

2.5-inch storm event generated from the tributary drainage area (when practical as determined by the City of Brooklyn Park).

D. The ground surface slopes immediately adjacent to ponds shall be less than 25% but greater than 0.5 to 1% to promote flow towards the pond. Ground surface slopes adjacent to the pond shall terminate on a submerged aquatic bench (a shallow slope area just inside the pond perimeter) to prevent people from slipping into the deep water portion of the pond and to facilitating the growth of aquatic plants.

E. The aquatic bench shall extend into the pond from the normal water level a minimum of 10 feet and shall be sloped at a grade of 1:10 (V:H).

F. The aquatic benches shall be landscaped to prevent access to the pond.

G. The ground surface slopes within the permanent pool (below the aquatic bench) shall not exceed 1:3 (V:H).

H. Permanent pool depth shall be a minimum of four feet and maximum of 10 feet at the deepest points.

I. The pond outlet shall be equipped with removable trash racks on other approved devices to prevent clogging by large debris and to restrict access to the interior for safety purposes. The pond outlet shall not permit access by small children or unauthorized persons.

J. Drainage and utility easements shall be dedicated over newly constructed storm water management ponds.

4. Wetlands

A. Activities within jurisdictional wetlands such as draining, filling, or excavation shall require prior approval from the Commissions in accordance with the Wetland Conservation Act.

B. A vegetated buffer strip with a minimum buffer width of 20-feet and an average width of 30-feet measured from the ordinary high water level of the watercourse or wetland is required adjacent to wetlands, lakes and natural water course.

C. Drainage and utility easements shall be dedicated over wetland buffer areas.

5. Floodplain Management

A. Existing water storage capacity should be preserved below the 100-year critical flood elevation on all public waters within designated floodplain areas.

B. Development within the floodplain should be minimized that will unduly restrict flood flows or aggravate known high water problems.

C. Compensatory storage will be required for floodplain fill.

Appendix B: Chapter 153 Stormwater Management

Print

Brooklyn Park, MN Code of Ordinances

CHAPTER 153: STORMWATER MANAGEMENT

Section

153.01 Title

153.02 Purpose

153.03 Scope

153.04 Severability

153.05 Incorporation by reference

153.06 Definitions

153.07 Stormwater management plan

153.08 Erosion control plan

153.99 Penalty

§ 153.01 TITLE.

Chapter 153 of the Brooklyn Park City Code shall be known and may be referred to as the "Stormwater Management Ordinance" or the "Stormwater Management Chapter." When referred to herein it shall be known as "this chapter."

(Ord. 2017-1217, passed 7-10-17)

§ 153.02 PURPOSE.

This chapter is established to promote, preserve and enhance natural resources within the City of Brooklyn Park and protect them from adverse effects occasioned by poorly sited development or incompatible activities by regulating land disturbing or development activities that would have an adverse and potentially irreversible impact on water quality and unique or fragile environmentally sensitive land. This chapter minimizes conflicts and encourages compatibility between land disturbing and development activities and environmentally sensitive lands. By requiring detailed review standards and procedures for land disturbing or development activities proposed for such areas, this chapter achieves a balance between urban growth and development and the protection of water and natural resources within the city.

(Ord. 2017-1217, passed 7-10-17)

§ 153.03 SCOPE.

(A) *Applicability.*

(1) Every applicant for subdivision approval, conditional use permit, or a grading permit to allow land disturbing activities must submit a stormwater management plan to the Engineering Department. The stormwater management plan shall be submitted with the building permit, grading permit application, or as directed by the Engineering Department. No subdivision approval or grading permit will be issued until approval of the stormwater management plan or a waiver has been obtained in conformance with the provisions of this chapter.

(2) Every applicant for subdivision approval or a grading permit that involves wetland disturbing activities or work near wetlands must submit a wetland assessment and delineation report to the Engineering Department. The wetland assessment and delineation report shall be submitted with the grading permit application, or as directed by the Engineering Department. No subdivision approval, or grading permit will be issued until approval of the wetland replacement plan application or a Certificate of Exemption has been obtained in conformance with the provisions of this chapter and the Minnesota Wetland Conservation Act of 1991, M.S. §§ 103G.222 - .2373 ("WCA").

(3) Every applicant for a building permit, subdivision approval, conditional use permit, or a grading permit must submit an application for an erosion control plan to the Engineering Department. The erosion control plan shall be submitted with the building permit application, land use application, grading permit application, or as directed by the Engineering Department. No grading permit or building permit will be issued until approval of the erosion control plan has been obtained in conformance with the erosion control measures, standards and specifications contained in the MPCA's Minnesota Stormwater Manual, or as otherwise approved by the City Engineer.

(B) *Exemptions.* The provisions of this chapter do not apply to:

(1) Any part of a subdivision if a preliminary plat for the subdivision that has been approved by the City Council on or before the effective date hereof.

(2) Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles.

(3) Excavations or land moving activities involving less than 50 cubic yards of soil.

(4) Emergency work to protect life, limb, or property.

(C) *Waiver.* The Engineering Department, may waive any of the requirements of this chapter upon making a finding that compliance with the requirement will involve an unnecessary hardship and the waiver of such requirement will not adversely affect the water quality and natural resources of the city or adversely impact environmentally sensitive land. The Engineering Department may require as a condition of the waiver that the applicant dedicates easements or construct certain facilities as it deems necessary.

(Ord. 2017-1217, passed 7-10-17)

§ 153.04 SEVERABILITY.

Every section or subdivision of this chapter is declared separable from every other section or subdivision. If any section or subdivision is held to be invalid by competent authority, no other section or subdivision shall be invalidated by such action or decision.

(Ord. 2017-1217, passed 7-10-17)

§ 153.05 INCORPORATION BY REFERENCE.

(A) The following are hereby incorporated into this chapter by reference:

(1) The National Pollutant Discharge Elimination System Permit, MN R100001 (NPDES Construction General Permit) issued by the MPCA, August 1, 2013, as amended. The NPDES Construction General Permit.

(2) The city's Surface Water Management Plan. These standards shall serve as the official guide for principles, methods, and practices for proposed development activities.

(Ord. 2017-1217, passed 7-10-17)

§ 153.06 DEFINITIONS.

For purposes of this chapter the following definitions shall apply unless the context clearly indicates or requires a different meaning.

APPLICANT. The owner, their agent, or representative having interest in land where an application for city review of any permit, use or development is required by this chapter.

BEST MANAGEMENT PRACTICE (BMP). Practices to reduce the volume of runoff, and improve water quality, to prevent pollution of waters of the state. ***BEST MANAGEMENT PRACTICES*** are designed to reduce stormwater runoff volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, and filtration, and may include activities, prohibitions of practices, treatment requirements, operating procedures, and other management practices.

CHANNEL. A natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

CONSTRUCTION ACTIVITY. Any disturbance to the land that results in a change in the topography, existing soil cover, or the existing soil topography that may result in accelerated stormwater runoff, including clearing, grading, filling, and excavating.

CONTROL MEASURE. A practice or combination of practices to control erosion and attendant pollution.

DETENTION FACILITY. A permanent natural or human-made structure, including wetlands, for the temporary storage of runoff which contains a permanent pool of water.

FLOOD FRINGE. All the land in a flood plain not lying within a delineated flood way. Land within a floodway fringe is subject to inundation by relatively low velocity flows and shallow water depths. The flood fringe includes at a minimum, the areas designated as zone AE

on the Flood Insurance Rate Map outside of the floodway, except as modified on the Zoning Overlay Map.

FLOOD PLAIN, GENERAL. A 100-year flood plain area shown on the Flood Insurance Rate Map where flood way and flood fringe boundaries and/or 100-year flood elevations have not been determined. These areas include areas designated as Zone A on the Flood Insurance Rate Map and zone AE areas where a floodway is not shown.

FLOODWAY. The channel of a natural stream or river and portions of the flood plain adjoining the channel, which are reasonably required to carry and discharge the flood water or flood flow of any natural stream or river. The floodway, at a minimum, includes the floodway areas shown on the Flood Insurance Rate Map and as depicted on the Zoning Overlay Map.

HYDRIC SOILS. Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

HYDROPHYTIC VEGETATION. Macrophytic plant life growing in water, soil, or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

IMPERVIOUS SURFACE. Any surface that prevents absorption of water into the ground. Examples of impervious surfaces include, but are not limited to, cement, asphalt, and paving brick.

LAND DISTURBING OR DEVELOPMENT ACTIVITIES. Any change of the land surface including removing vegetative cover, excavating, filling, grading, and the construction of any structure.

MAINTENANCE AGREEMENT. A document recorded against the property which provides for long-term maintenance of stormwater treatment practices.

NEW DEVELOPMENT. Any construction activity that is not defined as redevelopment.

NEW IMPERVIOUS SURFACE. Any newly constructed surface area that changes the infiltration rate from a pervious surface to that of an impervious surface.

PERSON. Any individual, firm, corporation, partnership, franchisee, and association.

PERVIOUS SURFACE. Any surface area that allows infiltration of all or the majority of the precipitation that falls on it. Pervious surfaces include turfgrass, rain gardens, planting beds, and other infiltration BMPs.

PLAN. A stormwater management plan governed by this chapter.

PUBLIC WATERS. Waters of the state as defined in M.S. § 103G.005, Subd. 15, as it may be amended from time to time.

REDEVELOPMENT. Any construction activity where, prior to the start of construction, the areas to be disturbed have 15% or more of impervious surface.

REGIONAL FLOOD. A flood which is representative of large floods known to have occurred generally in Minnesota and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of the 100-year recurrence interval. ***REGIONAL FLOOD*** is synonymous with the term ***BASE FLOOD*** used in the Flood Insurance Study.

RETENTION FACILITY. A permanent natural or human-made structure that provides for the storage of storm water runoff by means of a permanent pool of water.

SEDIMENT. Solid matter carried by water, sewage, or other liquids.

STORMWATER MANAGEMENT. The use of structural or non-structural practices that are designed to reduce stormwater runoff pollutant loads, discharge volumes, and/or peak discharge rates.

STORMWATER TREATMENT PRACTICES. Measures, either structural or nonstructural, that are determined to be the most effective and practical means of preventing or reducing point source or nonpoint-source pollution inputs to stormwater runoff and waterbodies.

STRUCTURE. Anything manufactured, constructed, or erected which is normally attached to or positioned on land, including portable structures, earthen structures, roads, parking lots, and paved storage areas.

WATERCOURSE. A permanent or intermittent stream or other body of water, either natural or fabricated, which gathers or carries surface water.

WATERSHED. The total drainage area contributing runoff to a single point.

WETLAND. Poorly drained, environmentally sensitive lands as designated by M.S. § 103G.221 et seq. known as the Wetland Conservation Act, or any other state or federal agency.

(Ord. 2017-1217, passed 7-10-17)

§ 153.07 STORMWATER MANAGEMENT PLAN.

(A) *Approval procedures.*

(1) *Application.* A written application for stormwater management plan approval, along with a proposed stormwater management plan and maintenance agreement, shall be filed with the Engineering Division of the Operations and Maintenance Department. The application shall include a statement indicating the grounds upon which the approval is being requested, that the proposed use is permitted by right or as an exception in the underlying zoning district, and adequate evidence showing that the proposed use will conform to the standards set forth in this chapter and the City Code.

(2) *Required plan submittals.*

(a) Two sets of clearly legible blue or black lined copies of drawings, electronic copy of drawings, and required information shall be submitted to the Engineering Division of the Public Works Department along with the process and approval fee. The plans shall be drawn at a minimum scale of one inch equals 100 feet and shall contain the following information:

1. *Existing site map.* A map of existing conditions showing the site and immediately adjacent areas within 200 feet of the site, including:

a. The name and address of the applicant, the section, township and range, north point, date and scale of drawing and number of sheets.

b. The location of the property by showing an insert map at a scale sufficient to clearly identify its location and giving such information as the name and numbers of adjoining roads, railroads, utilities, subdivisions, cities, townships and districts or other landmarks.

c. The existing topography with a contour interval appropriate to the topography of the land but in no case having a contour interval greater than two feet.

d. A delineation of all ponds, infiltration features, streams, rivers, public waters and wetlands located on and immediately adjacent to the site, including the depth of the water, the normal water level (NWL), the 100-year high water level (HWL), the ordinary high water level (OHW), a description of all vegetation which may be found in the water, a statement of general water quality and any classification given to the water body or wetland by the Minnesota Department of Natural Resources (MnDNR), the MPCA or the United States Army Corps of Engineers (USACE).

e. The location and dimensions of existing stormwater drainage systems and natural drainage patterns on and immediately adjacent to the site delineating in which direction and at what rate stormwater is conveyed from the site, identifying the receiving stream, river, public water, or wetland, and setting forth those areas of the unaltered site where stormwater collects.

f. A description of the soils of the site, including a map indicating soil types of areas to be disturbed as well as a soil report containing information on the suitability of the soils for the type of storm water system proposed and describing any remedial steps to be taken by the applicant to render the soils suitable.

g. The location and description of any vegetative cover and a clear delineation of any vegetation proposed for removal.

h. The location of 100-year floodplains, flood fringes and floodways.

i. The locations of any existing overhead or underground utilities.

j. The locations of property lines and easements.

k. A city approved benchmark listing location and elevation.

(3) *Site construction plan.* A site construction plan including:

(a) Locations and dimensions of all proposed land disturbing activities and any phasing of those activities.

(b) Total site area.

(c) Total area disturbed.

(d) Locations and dimensions of all temporary soil or dirt stockpiles.

(e) Locations and dimensions of all construction site erosion control measures necessary to meet the requirements of this chapter. A schedule of the anticipated start and completion date of each land disturbing activity including the installation of construction site erosion control measures needed to meet the requirements of this chapter.

(f) Provisions for maintenance of the construction site erosion control measures during construction.

(4) *Plan of final site conditions.* A plan of final site conditions on the same scale as the existing site map showing the proposed site changes, including:

(a) Finished grading shown at contours at the same interval as provided above or as required to clearly indicate the relationship of proposed changes to existing topography and remaining features.

(b) A landscape plan, drawn to an appropriate scale, including dimensions and distances and the location, type, size and description of all proposed landscape materials which will be added to the site as part of the development.

(c) A drainage plan of the developed site delineating in which direction and at what rate stormwater will be conveyed from the site and setting forth the areas of the site where stormwater will be allowed to collect.

(d) The proposed size, alignment and intended use of any structures to be erected on the site.

(e) A clear delineation and tabulation of all areas which will be paved or surfaced, including a description of the surfacing material to be used.

(f) Any other information pertinent to the particular project which, in the opinion of the applicant or the Engineering Department, is necessary for the review of the project.

(g) Proposed normal water level (NWL), 100-year high water level (HWL), ordinary high water level (OHW) of any ponds, infiltration facilities, streams, rivers, public waters, or wetlands on or downstream from the site.

(h) Building elevations including low floor elevations and low building opening elevations.

(i) Overland emergency overflow routes and their elevations.

(5) *Stormwater calculations.* Calculations demonstrating the following data shall be provided, according to the method established by the Engineering Department:

(a) Drainage maps that show the site, land that drains onto the site, and land that the site drains onto for existing and proposed conditions. Delineated drainage areas for ponds, wetlands, or other relevant waters should be indicated on these maps.

(b) A stormwater model conforming to Engineering Department standards that includes drainage areas, cover types, pond and wetland sizes, pond and wetland outlets, and natural or piped conveyance systems.

(c) Peak runoff rates from the site before and after development demonstrating that the proposed conditions conform to the policies outlined in the city's Surface Water Management Plan and this chapter's design criteria.

(d) Volume of runoff from the site before and after development.

(e) National Urban Runoff Program ("NURP") volume below the normal outlet required and provided in each pond.

(f) Infiltration calculations for proposed conditions.

(g) A narrative summarizing the calculations and demonstrating that proposed drainage alterations do not unreasonably burden upstream or downstream land.

(h) Soil borings, if requested by the Engineering Department.

(6) *Maintenance agreement.* The applicant shall enter into a maintenance agreement with the city that documents all responsibilities for operation and maintenance of long-term stormwater treatment practices. Such responsibility shall be documented in a maintenance plan and executed through a maintenance agreement. All maintenance agreements must be approved by the city and recorded at the Hennepin County recorder's office prior to final plan approval. At a minimum, the maintenance agreement shall describe the following inspection and maintenance obligations:

(a) The responsible party who is permanently responsible for maintenance of the structural and nonstructural measures.

(b) Pass responsibilities for such maintenance to successors in title.

(c) Allow the city and its representatives the right- of-entry for the purposes of inspecting all permanent stormwater management systems.

(d) Allow the city the right to repair and maintain the facility, if necessary maintenance is not performed after proper and reasonable notice to the responsible party of the permanent stormwater management system.

(e) Include a maintenance plan that contains, but is not limited to the following:

1. Identification of all structural permanent stormwater management systems.

2. A schedule for regular inspections, monitoring, and maintenance for each practice. Monitoring shall verify whether the practice is functioning as designed and may include, but is not limited to quality, temperature, and quantity of runoff.

3. Identification of the responsible party for conducting the inspection, monitoring and maintenance for each practice.

4. Include a schedule and format for reporting compliance with the maintenance agreement to the city.

(f) The issuance of a permit constitutes a right-of-entry for the community or city, its contractors, and agents to enter upon the construction site. The applicant shall allow the community city, its contractors, agents and any their authorized representatives, upon presentation of credentials, to:

1. Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations or surveys.

2. Bring such equipment upon the permitted development as is necessary to conduct such surveys and investigations.

3. Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of the permit.

4. Inspect the stormwater pollution control measures.

5. Sample and monitor any items or activities pertaining to stormwater pollution control measures.

6. Correct deficiencies in stormwater and erosion and sediment control measures.

(B) *Stormwater management plan review procedure.*

(1) *Process.* Stormwater management plans and maintenance agreements meeting the requirements of this chapter shall be submitted to the Engineering Department for review and approval. The Engineering Division shall recommend approval, approval with conditions, or denial of the stormwater management plan and maintenance agreement to the Planning Commission. Following Planning Commission review, the stormwater management plan and maintenance agreement shall be submitted to the City Council for its review along with the Planning Commission's recommendation.

(2) *Duration.* Approval of a stormwater management plan and maintenance agreement submitted under the provisions of this chapter shall expire two years after the date of approval by the City Council unless construction has commenced in accordance with the plan. However, if prior to the expiration of the approval, the applicant makes a written request to the Engineering Department for an extension of time to commence construction setting forth the reasons for the requested extension, the City Council may grant one extension of not greater than one single year.

(3) *Revisions.* A stormwater management plan and maintenance agreement may be revised. All revised plans must contain all information required by this chapter and must be reviewed and approved by the Engineering Department.

(4) *Conditions.* A stormwater management plan and maintenance agreement may be approved by the City Council subject to compliance with conditions that are necessary to ensure that the requirements contained in this chapter are met. Such conditions may, among other matters, limit the size, kind or character of the proposed development; require the construction of structures, drainage facilities, storage basins and other facilities; require replacement of vegetation; establish required monitoring procedures; require that the work be staged over time; require alteration of the site's design to ensure buffering; or require the conveyance to the city or other public entity of certain lands or interests therein.

(5) *Agreement.* Upon approval of the stormwater management plan and maintenance agreement by the City Council, the applicant shall enter into an agreement with the city to ensure that any required improvements are constructed, any required easements are granted or dedicated and that there is compliance with any conditions imposed by the City Council. The agreement shall guarantee completion and compliance with the conditions within a specific time, which time may be extended by the City Council. The agreement shall be in a form acceptable to the city.

(6) *Financial guarantee.* Upon approval of the stormwater management plan and maintenance agreement by the City Council, the applicant shall submit a letter of credit, or cash escrow, to cover 125% of the amount of the established cost of complying with the stormwater management plan. This financial guarantee shall be in a form acceptable to the city and may be incorporated into the financial guarantee provided for grading activities and/or the financial guarantee provided for street and utility activities.

(7) *Fees.* All applications for stormwater management plan and maintenance agreement approval shall be accompanied by a processing and approval fee as set by the most recent edition of the city's adopted Fee Schedule.

(C) *Stormwater management plan approval and implementation standards.*

(1) *Compliance with standards.* No stormwater management plan which fails to meet the standards contained in this section shall be approved by the City Council.

(2) All stormwater management plans must be submitted to the City Engineer prior to the start of construction activity. At a minimum all applicants shall meet the criteria set forth below and observe the standards established in NPDES Construction General Permit requirements.

(3) The city adopts the MPCA's Minnesota Stormwater Manual as its stormwater runoff design standards.

(4) All stormwater management plans must address erosion and sediment control requirements of this chapter.

(5) *Stormwater management requirements for permanent facilities.*

(a) An applicant shall install or construct, on or for the proposed land disturbing or development activity, all stormwater management facilities necessary to meet the criteria of the NPDES Construction General Permit. No private stormwater facilities will be approved by the city unless a maintenance agreement and maintenance plan are provided that defines who will conduct the maintenance, the type of maintenance and intervals of the maintenance to be performed. In the alternative, or in partial fulfillment of this requirement and upon approval of the Engineering Department, an applicant may make an in-kind or monetary contribution to the development and maintenance of regional stormwater management facilities designed to serve multiple land disturbing and development activities undertaken by one or more persons, including the applicant.

(b) Proposed stormwater management plans shall incorporate volume control, water quality control, and rate control as the basis for stormwater management in the proposed development plan on sites without restrictions. All proposed projects shall be in conformance with the most current requirements of the MPCA's Municipal Separate Storm Sewer Systems (MS4) Permit and the Shingle Creek and West Mississippi Watershed Management Commissions, as applicable.

1. *Volume control.*

a. *New development projects less than one acre in size.*

i. The applicant shall provide a detailed plan and/or narrative describing the BMPs that will be incorporated in the development to reduce runoff volume and improve water quality.

ii. There shall be no net increase from pre-project conditions (on an annual average basis) of:

1) Stormwater discharge volume, unless precluded by the stormwater management limitations as defined by the MPCA's MS4 Permit.

2) Stormwater discharges of total suspended solids (TSS).

3) Stormwater discharges of total phosphorus (TP).

b. *New development.* For new, nonlinear developments, stormwater runoff volumes will be controlled and the post-construction runoff volume shall be retained on site for 1.0 inches of runoff from all impervious surfaces on the site that result in a net increase of impervious of one acre or greater.

c. *Redevelopment.* For redevelopment projects, stormwater runoff volumes will be controlled and the post-construction runoff volume shall be retained on site for 1.0 inches of runoff from the new impervious surfaces created by the project. There shall be a net reduction from pre-project conditions (on an annual average basis) of:

i. Stormwater discharge volume, unless precluded by the stormwater management limitations as defined by the MPCA's MS4 permit.

ii. Stormwater discharges of TSS.

iii. Stormwater discharges of TP.

2. *Water quality control.*

a. *New development.* Water quality treatment is required to meet NURP guidelines and to result in no net increase from pre-project conditions (on an annual average basis) of stormwater discharges of TSS and TP for projects that result in a net increase of impervious of one acre or greater.

b. *Redevelopment.* Water quality treatment is required to meet NURP guidelines and to result in a net reduction in pre-project conditions (on an annual average basis) of stormwater discharges of TSS and TP for projects that have construction activity that is one acre or greater in size.

3. *Rate control.* Rate control measures are required on new development and redevelopment projects to meet this chapter's design criteria, the Minnesota Stormwater Manual and Shingle Creek and West Mississippi River Watershed Management Commissions requirements.

(c) The applicant shall reduce the need for stormwater treatment practices by incorporating the use of natural topography and land cover such as wetlands, ponds, natural swales and depressions as they exist before development to the degree that they can accommodate the additional flow of water without compromising the integrity or quality of the wetland or pond.

(d) The following stormwater management practices shall be investigated by the applicant in developing a stormwater management plan in the following descending order of preference, and the results of that investigation shall be provided to the city in written form as a part of the application:

1. Natural infiltration of precipitation on-site.

2. Flow attenuation by use of open vegetated swales and natural depressions.

3. Green infrastructure by use of rain gardens, bioswales, constructed wetlands, and other constructed infiltration practices.

4. Stormwater retention facilities.

5. Stormwater detention facilities.

(e) A combination of stormwater treatment practices may be used to achieve the applicable minimum control requirements specified in the subsection above. Justification shall be provided by the applicant for the method selected.

(f) *Pond design standards.* Stormwater detention facilities constructed in the city shall be designed according to standards established by the Engineering Division of the Operations and Maintenance Department, and shall contain, at a minimum, the following design factors:

1. A permanent pool ("dead storage") volume below the principal spillway (normal outlet) which shall be greater than or equal to the runoff from a 2.5-inch, 24-hour storm over the entire contributing drainage area assuming full development.

2. A permanent pool average depth (basin volume/basin area) of four to ten feet.

3. An emergency overflow (emergency outlet) adequate to control the 100-year frequency critical duration rainfall event.

4. Basin side slopes below the 100-year high water level should be no steeper than 4:1, and preferably flatter. A basin shelf with a minimum width of ten feet and one foot deep below the normal water level is recommended to enhance wildlife habitat, reduce potential safety hazards, and improve access for long-term maintenance.

5. To prevent short-circuiting, the distance between major inlets and the normal outlet shall be maximized.

6. A flood pool ("live storage") volume above the principal outlet spillway shall be adequate so that the peak discharge rate from the 1-, 10- and 100-year frequency critical duration storm is not greater than the peak discharge for a similar storm and predevelopment watershed conditions.

7. Effective energy dissipation devices which reduce outlet velocities to four feet per second or less shall consist of riprap, stilling pools or other such measures to prevent erosion at all storm water outfalls into the basin and at the detention basin outlet.

8. Consideration for aesthetics and wildlife habitat should be included in the design of the pond.

9. A skimming device must be provided to deter floatable pollutants from discharging out of pond.

10. Pond NWL elevations shall be established above the OHW of adjacent MnDNR water bodies, except where topography of the site, floodplain mitigation activities, or other design considerations are determined to be unfavorable for these conditions to occur. This determination shall be performed by an engineer, provided by the applicant, and approved by the Engineering Division of the Operations and Maintenance Department.

11. All constructed ponds shall have a maintenance access bench sufficient to provide access to all inlets and outlets. The maintenance bench shall be located within a designated outlot or within a permanent easement. The maintenance bench shall extend from the outlet elevation to

one foot above the outlet elevation and its cross slope shall be no steeper than 10:1. The maintenance bench shall connect to the maintenance access.

12. All constructed ponds shall be provided a maintenance access from an adjacent roadway. The maintenance access shall be provided in the form of an easement no narrower than 20 feet. The maintenance access shall have a longitudinal slope no steeper than 6:1 and minimal cross slope. Maintenance access routes, due to their extra width, also serve well as emergency overflow (EOF) routes.

(g) *Infiltration requirements.* BMPs will be required to the maximum extent practical as determined by the Engineering Division of the Operations and Maintenance Department or its designee.

1. Maximum extent practical shall be the infiltration of runoff from the 100-year, 24-hour rainfall event within 48 hours. The maximum extent practical may be less than this if the Engineering Division of the Operations and Maintenance Department determines that one or more of the following conditions apply:

(a) Infiltration characteristics of soils on site are not favorable for infiltration of stormwater.

(b) The site's drainage course is to regional infiltration or detention facilities controlled by the city that reduce runoff volumes.

(c) When the site's impervious areas are not increased due to development.

(d) Other site conditions that make infiltration of stormwater impractical on the site as determined by the Engineering Division of the Operations and Maintenance Department.

(e) If one or more of these conditions apply, the Engineering Division of the Public Works Department shall quantify infiltration that will be deemed as the maximum extent practical for the site.

2. Infiltration will be prohibited where the infiltration BMP will be constructed in any of the following areas:

a. Where documented past, present, or anticipated future land uses have resulted in or may result in contamination coming in contact with stormwater runoff.

b. With less than three feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.

c. Where vehicle fueling and maintenance occur.

d. Where industrial facilities are not authorized to infiltrate industrial stormwater under and NPDES/SDS Industrial Stormwater Permit issued by the MPCA.

3. Infiltration will be restricted and subject to additional city review where the infiltration BMP will be constructed in any of the following areas:

a. Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features.

b. Where drinking water supply management areas are present, as defined by Minn. Rules 4720.51000, subp.13, unless precluded by a local unit of government with an MS4 permit.

c. Soils are predominately Hydrologic Soil Group D (clay) soils.

d. Soil infiltration rates are more than 8.3 inches per hour unless soils are amended to slow the infiltration rate below 8.3 inches per hour.

4. Stormwater runoff shall be treated in a stormwater pond or by other means prior to entering an infiltration facility.

5. The minimum infiltration requirements for any region of the city will be the requirements of the Shingle Creek and West Mississippi River Watershed Management Commissions' policies that govern that region. Shingle Creek and West Mississippi River Watershed Management Commissions' standards may be met through the use of regional or downstream systems prior to discharge of runoff to waters of the state.

6. Infiltration systems must not be excavated to final grade until the contributing drainage area has been constructed and fully stabilized. When the infiltration feature is excavated to final grade, rigorous erosion prevention and sediment control BMPs must be implemented to keep sediment and runoff completely away from the infiltration area.

7. To prevent clogging of the infiltration system, a pretreatment device must be used to settle particles before the stormwater discharges into the infiltrations system.

8. Per the stormwater management requirements for permanent facilities section of this chapter, the infiltration system must provide a water quality volume (calculated as an instantaneous volume) of one inch of runoff (or one inch minus the volume of stormwater treated by another system on the site) from the new impervious surfaces created by the project.

9. The applicant must ensure filtration systems with less than three feet of separation from seasonally saturated soils or from bedrock are constructed with an impermeable liner.

10. A minimum maintenance access of 12 feet is required.

(h) *Mitigation.*

1. Where construction projects cannot meet the TSS and/or TP reduction requirements for new or development projects on the site of original construction, all methods must be exhausted prior to considering alternative locations where TSS and TP treatment standards can be achieved. If the City has determined that all methods have been exhausted, the permittee will be required to identify alternative locations where TSS and TP treatment standards can be achieved. Mitigation projects will be chosen in the following order of preference:

a. Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.

b. Locations within the same MnDNR catchment area as the original construction activity.

c. Locations in the next adjacent MnDNR catchment area up-stream.

d. Locations anywhere within the City of Brooklyn Park.

2. In addition, mitigation projects must also meet the following criteria:

a. Mitigation projects shall involve the establishment new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP.

b. Previously required routine maintenance of structural stormwater BMPs cannot be considered mitigation.

c. Mitigation projects must be finished within 24 months after the original construction activity begins.

d. A maintenance agreement specifying the responsible party for long-term maintenance shall be identified.

(i) Stormwater and infiltration facilities must be located at least 50 feet away from the top of bluff.

(j) *Watershed management plans/groundwater management plans.* Stormwater management plans shall be consistent with the Shingle Creek and West Mississippi River Watershed Management Commissions requirements and groundwater management plans prepared in accordance with Minnesota Board of Water and Soil Resources in accordance with state law.

(k) *Easement.* If the stormwater management plan involves direction of some or all runoff off of the site, it shall be the responsibility of the applicant to obtain from adjacent property owners any necessary easements or other property interests to permit the flow of water across the property.

(l) *Low floor/building opening elevations.*

1. Any new development or redevelopment shall maintain a minimum building opening elevation of at least three feet above the anticipated 100-year high water elevation as a standard practice. However, if the applicant demonstrates that this requirement would be a hardship, the standard may be reduced to two feet if all of the following can be demonstrated:

a. That, within the two-foot freeboard area, stormwater storage is available which is equal to or exceeds 50% of the storm water storage currently available in the basin below the 100-year elevation.

b. That a 25% obstruction of the basin outlet over a 24-hour period would not result in more than one foot of additional bounce in the basin.

c. That an adequate overflow route from the basin is available that will provide one foot of freeboard for the proposed low building opening.

2. Basement floor elevations must be set to an elevation that meets all of the following criteria:

a. The lowest floor elevation must be at least four feet above the currently observed groundwater elevations in the area.

b. The lowest floor elevation must be at least two feet above the elevation of any known historic high groundwater elevations for the area. Information on historic high groundwater elevations can be derived from any reasonable sources including piezometer data, soil boring data, percolation testing logs, etc.

c. The lowest floor elevation must be at least two feet above the 100-year high surface water elevation for the area unless it can be demonstrated that this standard creates a hardship. If the two-foot standard is determined by the City Council to constitute a hardship, the standard shall be at least one foot above the highest anticipated groundwater elevation resulting from a 100-year critical duration rainfall event. The impact of high surface water elevations on groundwater elevations in the vicinity of the structure should take into consideration the site's distance from the floodplain area, the soils, the normal water elevation of surface depressions in the area, the static groundwater table and historic water elevations in the area. This information shall be provided by a registered engineer or soil scientist.

(m) Impervious surface coverage of each lot must not exceed the impervious surface coverage allowed under the Zoning Ordinance.

(n) Storm sewers shall be designed to accommodate discharge rates associated with a 10-year, 24-hour rainfall event.

(Ord. 2017-1217, passed 7-10-17)

§ 153.08 EROSION CONTROL PLAN.

(A) *Applicability.*

(1) *Application.* An erosion control plan shall be submitted to the Engineering Division of the Operations and Maintenance Department when required by this chapter along with a grading permit application. All applications for a grading permit shall be accompanied by a processing and approval fee as set by the city's Fee Schedule.

(2) *Required plan submittals.* The erosion control plan shall contain all of the following with respect to conditions existing on site during construction and after final structures and improvements have been completed.

(a) A description of and specifications for sediment retention and settling devices.

(b) A description of, specifications for, and detail plates for surface runoff and erosion control devices.

(c) A description of vegetative measures.

(d) A detailed timetable for restoring all disturbed areas.

(e) A graphic representation of the location of all specified erosion and sediment control devices.

(f) An implementation schedule for installing and subsequently removing devices described above.

(g) A maintenance schedule for all sediment and erosion control devices specified.

(h) An estimate of the costs to implement all final and temporary erosion and sediment control measures.

(i) An Information sheet on the parties responsible for constructing and maintaining the erosion control measures as shown on the erosion control plan. The information sheet should

contain the phone numbers and addresses of at least two persons and indicate how they can be contacted at all times (days, nights, weekends, etc.) regarding repairing and maintaining the erosion control measures.

(j) The erosion control plan must contain details to specify which erosion and sediment control facilities are permanent and which are temporary.

(k) If required, a NPDES Construction General Permit must be obtained from the MPCA prior to commencing construction activities. The associated stormwater pollution prevention plan (SWPPP) should be included in the erosion control plan and approved by the Engineering Division of the Operations and Maintenance Department prior to construction. A copy of the NPDES Construction General Permit must be provided to the city prior to construction.

(3) *Application review and inspection fees.*

(a) The City of Brooklyn Park shall charge an application review fee for the review of the building permit application and the erosion control plan. As part of this review, the city will review the permittee's as-built survey submitted after the completion of grading activities to ensure that it conforms to the overall erosion control plan for the area. The application fee shall be set by the city's Fee Schedule.

(b) An inspection fee will be charged for any inspections of the site by the city that are needed to review corrective erosion control work or to follow up on previously incomplete work. This inspection fee will be deducted from the financial security. The amount will be set by the city's Fee Schedule. If this fee is not paid within 45 days, the fee may be taken from the financial security provided by the applicant.

(B) *Implementation of erosion control plan.* Prior to the start of any earthwork activities, the permittee must have in place and functional erosion and sediment controls as outlined on the approved erosion control plan and/or SWPPP. Additional erosion control measures may be required as directed by the Engineering Division of the Operations and Maintenance Department or its designee.

(1) No earthmoving activities shall commence until the erosion controls have been field inspected and approved by the Engineering Division of the Operations and Maintenance Department.

(2) At a minimum, the permittee shall meet the specifications set forth below and observe the standards established in the NPDES Construction General Permit requirements:

(a) *Soil stabilization.* Soil stabilization shall be completed in a time period as specified by the NPDES Construction General Permit and the city's general specifications and standards. The City of Brooklyn Park may require the site to be reseeded or a nonvegetative option employed.

(b) *Seeding.* Seeding shall be in accordance with seeding specifications. All seeded areas shall be fertilized, mulched, and disc anchored as necessary for seed retention.

(c) *Soil stockpiles.* Soil stockpiles which shall be inactive for a period of 14 or more days must be stabilized or covered at the end of each workday. Stockpiles shall include perimeter sediment controls and must not be placed in natural buffers or surface waters, including stormwater conveyance systems.

(d) *90% coverage.* The entire site must be stabilized at a 90% coverage, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.

(e) *Site development sediment controls.* Site development sediment controls practices shall include those identified in the city's general specifications including, but not limited to:

1. Settling basins, sediment traps, or tanks.

2. Protection for adjacent properties by the use of a vegetated buffer strip in combination with perimeter controls.

3. Perimeter control including machine sliced silt fence or other city approved BMP, which shall be in place before, during and after grading of the site. Fencing shall be removed only after 70% stabilization.

4. Designated as a temporary construction staging area.

(f) *Temporary sediment basins.* For sites that have more than ten acres of disturbed soil that drains to a common location (or, five or more acres for special or impaired waters), one or more temporary sediment basins shall be constructed. Use of temporary basins is encouraged when construction projects will impact steep slopes or when highly erodible soils are present. The basin shall provide treatment to the runoff before it leaves the construction site or enters surface waters. The temporary sediment basins must be designed and constructed as follows:

1. Provide live storage for a calculated volume of runoff from a two-year, 24-hour storm from each acre drained to the basin. All basins shall provide at least 1,800 cubic feet of live storage from each acre drained or more.

2. For basins where the calculation in § 153.08(B)(2)(f)1 has not been performed, a temporary sediment basin providing 3,600 cubic feet of live storage from each acre drained to the basin shall be provided for the entire drainage area of the temporary basin.

3. The outlet structure must be designed to withdraw water from the surface in order to minimize the discharge of pollutants.

4. The basin outlet shall be designed to prevent short-circuiting and the discharge of floating debris.

5. Ensure the basin can be completely drawn down to conduct maintenance activities.

6. Include energy dissipation on the outlet of the basin and a stabilized emergency overflow to prevent failure of pond integrity.

7. Be located outside of surface waters or any buffer zone, and be designed to avoid draining water from wetlands unless appropriate approval from the USACE and the MnDNR is obtained.

8. If installation of a temporary sediment basin is infeasible equivalent sediment controls such as smaller sediment basins, and/or sediment traps, silt fences, vegetative buffer strips, or any appropriate combination of measures are required for all down-slope boundaries of the construction area and for side-slope boundaries where appropriate. Determination of infeasibility shall be documented in the erosion and sediment control plan.

(g) *Individual construction site sediment controls.* Individual construction site sediment controls shall include:

1. Rock construction entrance (driveway).

2. Perimeter controls including silt fence in-place before, during and after grading of the site. Fencing shall be removed only after proper turf establishment.

(h) *Waterway and watercourse protection.* Waterway and watercourse protection requirements shall include stabilization of the watercourse channel before, during and after any in-channel work consistent with the city's general specifications.

1. A temporary stream crossing must be installed and approved by the local government unit and regulating agency if a wet watercourse will be crossed regularly during construction.

2. The watercourse channel shall be stabilized before, during, and within 24 hours after any in-channel work.

3. No in-water work shall be allowed in public waters during the MnDNR's work exclusion dates.

4. Prior to placement of any equipment into any waters, all equipment must be free of aquatic invasive species.

5. All on-site stormwater conveyance channels designed according to the criteria outlined in this document. Stabilization adequate to prevent erosion located at the outlets of all pipes and paved channels is required.

(i) *Site dewatering.* Site dewatering shall be conducted pursuant to the NPDES Construction General Permit. Water pumped from the site shall be treated by temporary sediment basins, grit chambers, sand filters, or other controls as appropriate to ensure adequate treatment is obtained and that nuisance conditions will not result from the discharge. Discharges from the site shall not be released in a manner that causes erosion, scour, sedimentation or flooding of the site to receiving channels or wetlands.

(j) *Waste and material disposal.* All waste and unused building materials (including garbage, debris, cleaning wastes, wastewater, toxic materials or hazardous materials) shall be properly disposed of off-site and not allowed to be carried by runoff into a receiving channel or storm sewer system.

1. *Solid waste.* All unused building materials and waste (including, but not limited to: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, etc.) must be disposed of accordingly and shall comply with disposal requirements set forth by the MPCA.

2. *Hazardous/toxic waste.* Paint, gasoline, oil and any hazardous materials must be properly stored, including secondary containment, to prevent spills, leaks or other discharges. Access to the storage areas must be restricted to prevent vandalism. Storage and disposal of hazardous or toxic substance must be in compliance with the requirements set forth by the MPCA.

3. *Liquid waste.* All other non-stormwater discharges (including, but not limited to, concrete truck washout, vehicle washing or maintenance spills) produced during the construction activity shall not be discharged to any surface waters.

4. *External washing of equipment and vehicles.* All external washing activities shall be limited to a designated area of the site. All runoff must be contained and wastes from external washing activities must be disposed of properly. No engine degreasing shall be allowed on the site.

5. *Wastes generated by concrete and other washout operations.* All liquid and solid wastes generated by any concrete or other washout operations must be contained in a leak proof facility or impermeable liner. Concrete waste must not come into contact with the ground. Concrete waste must be disposed of properly and in compliance with applicable MPCA regulations.

(k) *Drain inlet protection.* All storm drain inlets shall be protected during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection measures must meet the city's standards and specifications.

(l) *Energy dissipation.* Pipe outlets must have temporary or permanent energy dissipation within 24 hours of connection to a surface water.

(m) *Tracking.* Vehicle tracking BMPs (including, but not limited to: rock pads, mud mats, slash mulch, concrete or steel wash racks, or similar systems) must be installed to minimize track out of sediment from the construction site. If vehicle tracking BMPs are not actively preventing sediment from being tracked into the street, the applicant must utilize street sweeping to contain sediment.

(n) *Final stabilization.* Final stabilization is not complete until the following criteria are met:

1. All land disturbing activities must be finished and all soils shall be stabilized by a uniform perennial vegetative cover with a density of 70% or greater of its expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.

2. The permanent stormwater management system is constructed, meets all of the required design parameters and is operating as designed.

3. All temporary synthetic and structural erosion prevention and sediment control BMPs (such as silt fence) have been removed. BMPs designed to decompose on site may be left in place.

4. For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished and temporary erosion protection and down gradient perimeter control has been completed and the residence has been sold to the homeowner.

5. For construction projects on agricultural land the disturbed land has been returned to its preconstruction agricultural use.

(3) The permittee must maintain the erosion and sediment control measures on the site to the satisfaction of the City Engineer throughout the entire construction process. If erosion and sediment control is not being maintained to the City Engineer's satisfaction, the city may perform remedial work on the site as outlined in this section.

(4) All erosion control systems must be maintained by the permittee in an acceptable condition until turf is established or structural surfaces are constructed to protect the soil from erosion.

(C) *Inspection of erosion control plan.* The city will make periodic inspections of the site to ensure compliance with the erosion control plan. The permittee or his/her agent shall ensure that a trained person will regularly inspect the construction site at least once every seven days until final stabilization and within 24 hours of a rainfall event of one-half inch or greater in a 24-hour period. All inspection and maintenance activities conducted on the site during construction must be recorded in writing and retained within the erosion control plan. Records of each inspection and maintenance activity shall include the following:

(1) Date and time of inspection.

(2) Name of person(s) conducting the inspection.

(3) Findings of inspections, including recommendations for corrective actions.

(4) Corrective actions taken, including the dates, times and the name of the party completing the corrective action.

(5) Date and the amount of rainfall events that are greater than one-half inch in a 24- hour period.

(6) Documentation of any changes made to the erosion and sediment control plan.

(D) *Site and BMP maintenance.* Prior to any construction, the developer shall provide the City Engineer with a schedule for erosion and sediment control inspection and maintenance, including schedules for street cleaning, and street sweeping. All site and BMP maintenance activities must comply with the requirements of the NPDES construction general permit. The applicant shall investigate and comply with the following BMP maintenance requirements:

(1) *Perimeter control.* All perimeter controls must be repaired, replaced or supplemented when they become nonfunctional or the sediment reaches one-half of the height of the fence. Repairs shall be made by the end of the next business day after discovery or as soon as field conditions allow access.

(2) *Temporary sediment basins.* Temporary sedimentation basins must be drained and the sediment must be removed when the depth of the sediment collected in the basin reaches one half the storage volume. Drainage and removal must be completed within 72 hours of discovery or as soon as field conditions allow access.

(3) *Surface waters and conveyance systems.* Surface water, including drainage ditches and conveyance systems, must be inspected for visible signs of sediment being deposited by erosion. The applicant must remove all sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems and must restabilize the areas of exposed soil as a result of sediment removal. The removal and stabilization must take place within seven days of discovery unless legal, regulatory or physical access constraints prevent remediation. In the event of an access constraint, the applicant shall use all reasonable efforts to obtain access. If access is precluded, removal and stabilization must take place within seven calendar days of obtaining access. The applicant is responsible for contacting all local, regional, state and federal authorities and obtaining any required permits prior to conducting any work.

(4) *Streets and impervious surfaces.* Where vehicle traffic leaves any part of the site, the exit locations must be inspected for visible signs of off-site sediment tracking onto impervious surfaces. Tracked sediment must be removed from all off-site impervious surfaces as soon as possible or within 24 hours of discovery.

(5) *General maintenance.* The applicant shall be responsible for the operation and maintenance of temporary and permanent water quality management BMPs, as well as erosion prevention and sediment control BMPs for the duration of the construction work on the site. The applicant remains responsible until another party has assumed control over all areas of the site that have not established final stabilization and a notice of termination (NOT) has been submitted to the MPCA.

(6) *Infiltration areas.* All infiltration areas must be inspected to ensure that no sediment from ongoing construction activities is reaching the infiltration area and these areas are protected from compaction caused by construction equipment driving across the infiltration area.

(E) *Notification of failure of erosion control plan.* The city shall notify the permittee of the failure of the erosion control measures that have been constructed. The notification will be by phone or written correspondence to the parties listed on the information sheet required by this section. The city, at its discretion, may begin remedial work within 48 hours after notification has been provided.

(F) *Erosion off-site.* If erosion breaches the perimeter of the site, the permittee shall immediately develop a cleanup and restoration plan, obtain a right-of-entry from the adjoining property owner, and implement the cleanup and restoration plan within 48 hours of obtaining the adjoining property owner's permission. In no case, unless written approval is received from the Engineering Division of the Operations and Maintenance Department, may more than seven calendar days pass without any corrective action being taken. If at the discretion of the city, the permittee does not repair the damage caused by the erosion, the city may perform the remedial work required, after notice is provided to the permittee.

(G) *Erosion into streets, wetlands, or other surface waters.* If eroded soils enter, or entrance appears imminent into streets, wetlands, or other surface waters, cleanup and repair shall be immediate. The permittee shall provide all traffic control and flagging required to protect the public during the cleanup operations. If at the discretion of the city, the permittee does not repair the erosion and sedimentation, the city may perform the remedial work required, after notice is provided to the permittee.

(H) *Failure to complete corrective work.* When a permittee fails to conform to any provision of this section within the time stipulated, the city may take the following actions:

(1) *Issue a notice of violation.* When the city determines that an activity is not being carried out in accordance with the requirements of this chapter, it shall issue a written notice of violation to the owner of the property. The notice of violation shall contain:

(a) The name and address of the owner or applicant.

(b) The address when available or a description of the land upon which the violation is occurring.

(c) A statement specifying the nature of the violation.

(d) A description of the remedial measures necessary to bring the development activity into compliance with this chapter and a time schedule for the completion of such remedial action.

(e) A statement of the penalty or penalties that shall or may be assessed against the person to whom the notice of violation is directed.

(f) A statement that the determination of violation may be appealed to the city by filing a written notice of appeal within 15 days of services of the notice of violation. Service may be accomplished by mail or by personal delivery of the notice.

(2) *Withhold the scheduling of inspections.*

(3) *Withhold the issuance of a certificate of occupancy.*

(4) *Issue a stop work order.*

(5) *Direct the correction of the deficiency by city forces or separate contract.* The issuance of an erosion control permit constitutes a right-of-entry for the city or its contractor to enter upon the construction site for the purpose of correcting deficiencies with respect to erosion and sediment control. All costs incurred by the city in correcting erosion and sediment control deficiencies, including administrative expenses, shall be reimbursed by the permittee. If payment is not made within 30 days after an invoice is issued, the city may draw from the financial security. If the financial security is of an insufficient amount, the city may assess the remaining amount against the property. As a condition of the permit, the owner shall waive notice of any assessment hearing to be conducted by the city, concur that the benefit to the property exceeds the amount of the proposed assessment, and waive all rights by virtue of M.S. § 429.081 to challenge the amount or validity of assessment.

(Ord. 2017-1217, passed 7-10-17)

§ 153.99 PENALTY.

A person violating any provision of this chapter shall be guilty of a misdemeanor and upon conviction shall be subject to the penalties imposed by Minnesota Statutes for misdemeanor offenses.

(Ord. 2017-1217, passed 7-10-17)

Appendix C: Storm Sewer Utility Rates

RESOLUTION #2017-211

RESOLUTION TO APPROVE CITY CODE APPENDIX FEE RESOLUTION TABLE AMENDMENTS TO STORM SEWER UTILITY RATES AND CHARGES

WHEREAS, a storm sewer utility and street/signal lighting system rate study was completed by the Finance and Operations and Maintenance Departments; and

WHEREAS, the study results recommend the following City Code Appendix fee resolution table amendments to the Storm Sewer Rates and Charges table:

Storm Sewer Rates and Charges		
QUARTERLY STORM SEWER RATES		
Land Use Class	**Quarterly Charge**	**Reference**
Single Family Residential	~~$10.00~~ per unit	§ 108.04
Townhouse/Two Family Residential	~~$6.50~~ per unit	§ 108.04
Multiple Family Residential	~~$3.55~~ per unit	§ 108.04
Business	~~$60.50~~ per acre	§ 108.04
Industrial	~~$68.90~~ per acre	§ 108.04
School/Church	~~$28.70~~ per acre	§ 108.04

STORM SEWER RATES AND CHARGES

Storm Sewer Rates and Charges			
QUARTERLY STORM SEWER RATES			
Year	**Land Use Class**	**Quarterly Charge**	**Reference**
January 1, 2018	Single Family Residential	$12.58 per unit	§ 108.04
	Townhouse/Two Family Residential	$8.00 per unit	§ 108.04
	Multiple Family Residential	$4.36 per unit	§ 108.04
	Business	$63.53 per acre	§ 108.04
	Industrial	$72.35 per ace	§ 108.04
	School/Church	$30.14 per acre	§ 108.04
January 1, 2019	Single Family Residential	$14.38 per unit	§ 108.04
	Townhouse/Two Family Residential	$8.90 per unit	§ 108.04
	Multiple Family Residential	$4.81 per unit	§ 108.04
	Business	$66.70 per acre	§ 108.04
	Industrial	$75.96 per ace	§ 108.04
	School/Church	$31.64 per acre	§ 108.04
January 1, 2020	Single Family Residential	$16.18 per unit	§ 108.04
	Townhouse/Two Family Residential	$9.80 per unit	§ 108.04
	Multiple Family Residential	$5.26 per unit	§ 108.04

	Business	$70.04 per acre	§ 108.04
	Industrial	$79.76 per ace	§ 108.04
	School/Church	$33.22 per acre	§ 108.04
January 1, 2021	Single Family Residential	$17.98 per unit	§ 108.04
	Townhouse/Two Family Residential	$10.70 per unit	§ 108.04
	Multiple Family Residential	$5.71 per unit	§ 108.04
	Business	$73.54 per acre	§ 108.04
	Industrial	$83.75 per ace	§ 108.04
	School/Church	$34.89 per acre	§ 108.04
January 1, 2022	Single Family Residential	$19.78 per unit	§ 108.04
	Townhouse/Two Family Residential	$11.60 per unit	§ 108.04
	Multiple Family Residential	$6.16 per unit	§ 108.04
	Business	$77.22 per acre	§ 108.04
	Industrial	$87.94 per ace	§ 108.04
	School/Church	$36.63 per acre	§ 108.04

WHEREAS, a public hearing concerning the amendments was held on December 11, 2017.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Brooklyn Park to approve City Code Appendix fee resolution table amendments to the Storm Sewer Quarterly Rates and Charges table as proposed within this resolution.

The foregoing resolution was introduced by Mayor Pro Tem B. Mata and duly seconded by Council Member Parks.
The following voted in favor of the resolution: B. Mata, Pha, Gates, Jacobson and Parks.
The following voted against: M. Mata.
The following was absent: Lunde.
Where upon the resolution was adopted.

ADOPTED: December 11, 2017

BOB MATA, MAYOR PRO TEM

#2017-211

CHAPTER 11: Resilience

11.1 Energy Conservation

11.1.1 Alternative Energy Systems & Fuels

In recent years, attention has been drawn to the nation's energy supply. Historically, most of Brooklyn Park's energy came from non-renewable sources. These resources are in limited supply as well as some having been linked to negative environmental impacts. The City has taken steps to make our facilities more efficient and develop alternative energy sources. In addition, we have modified city code to allow facilities that support alternative energy such as wind and solar. The following are examples of the work that has been done and will continue into the future.

Solar Access

The Metropolitan Land Planning Act requires that the comprehensive plan shall contain "an element for the protection and development of access to direct sunlight for solar energy systems" (Minn. Stat. 473.859). An analysis of Brooklyn Park's solar energy capacity, based on exposure to sunlight, indicates that the city does have solar resources available for alternative energy production. These estimates are based on the total potential resources in the community and are as follows:

Community[1]	Gross Potential (Mwh/yr	Rooftop Potential (Mwh/yr)	Gross Generation Potential (Mwh/yr)[2]	Rooftop Generation Potential (Mwh/yr)[2]
Brooklyn Park	42,427,421	4,393,779	4,242,742	439,377

[1] There are a few communities where generation potential calculations could not be produced. There are areas within some maps where data was unusable. These areas were masked and excluded from gross rooftop potential and generating potential calculations.

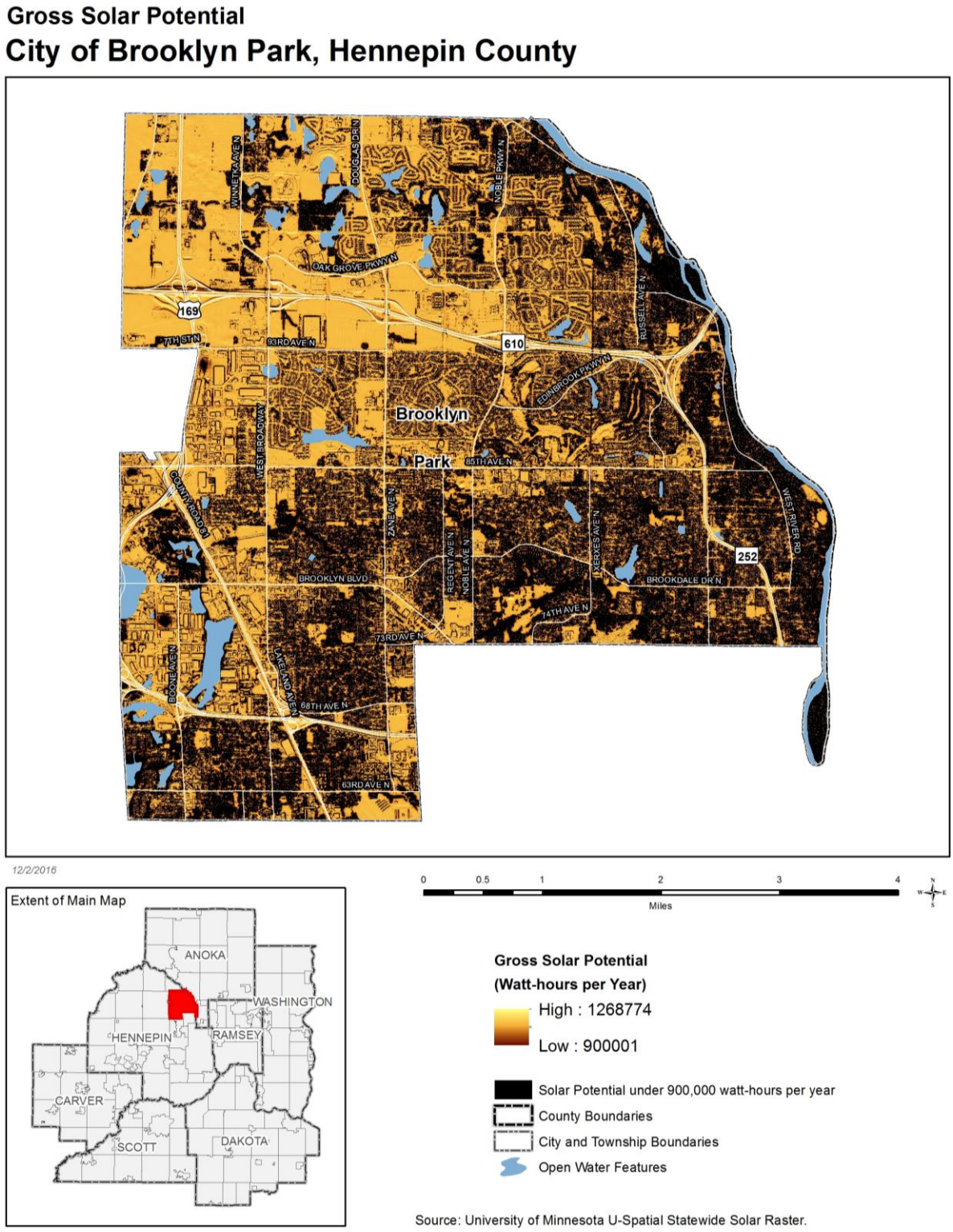
[2] In general, a conservative assumption for panel generation is to use 10% efficiency for conversion of total insolation into electric generation. These solar resource calculations provide an approximation of each community's solar resource. This baseline information can provide the opportunity for a more extensive, community-specific analysis of solar development potential for both solar gardens and rooftop or accessory use installations. For most communities, the rooftop generation potential is equivalent to between 30% and 60% of the community's total electric energy consumption. The rooftop generation potential does not consider ownership, financial barriers, or building-specific structural limitations.

June 2017

Source: Metropolitan Council

Map 11-1 shows the gross solar potential for the City.

Map 11-1: Gross solar capacity that could produce 4,242,742 Mwh/yr of electricity with current technology. Source Metropolitan Council.



In alignment with the state requirements of identifying protection of renewable resources, the community has a strong desire to set specific goals related to energy-related greenhouse gas emission reduction and energy consumption reductions. The City is committed to allowing businesses and residents' access to direct sunlight for solar energy systems. Solar energy collectors are permitted accessory uses in all of the City's zoning districts. Residents and businesses are encouraged to include such systems as part of their homes or buildings.

The City is installing solar systems at multiple locations on city facilities in order to provide power to city buildings.

Alternative Fuels

The City of Brooklyn Park has been a leader in using biodiesel in all City diesel-fueled trucks and maintenance equipment. The City will continue to use alternative fuel vehicles, including E-85 and hybrid vehicles.

The city has an oil recycle center that accepts oil that is then cleaned and used as a fuel source instead of natural gas in particular buildings on the Operation and Maintenance campus.

Wind

The City is committed to allowing businesses and residents' the ability to have wind as a power source on their properties. The city code was changed in 2012 to allow wind generation equipment of various types and sizes in all zoning districts.

Geothermal System

The city installed a system to support the heating and cooling requirements at the Community Activity Center. Providing an energy and water savings for the operation of the ice rinks in the facility.

Lighting

The city has completed a number of lighting projects to help in energy conservation. Lighting inside most city facilities has been converted to motion sensor fixtures. In addition, lighting types have been converted to energy efficient systems. Exterior lighting on many streets and city parking facilities have been converted to LED or induction lighting systems. All lighting changes have resulted in cost savings and reduced energy use.

Other Systems

Technological advancements and new discoveries in energy systems could lead to individual energy systems that are appropriate for an urban or suburban environment. The City will continue to work at with property owners as these systems are introduced and to change our own facilities as appropriate.

11.2 Recycling

Brooklyn Park was the first city in Minnesota to adopt residential single-stream recycling in which all recyclables are placed together in a cart for automated collection. Service is provided to all residents at the place where they live whether it be single family or multifamily residential buildings.

Recycling is one of the easiest practices residents can use to reduce their impact on greenhouse gas emissions. More than 150 tons of recyclable materials are collected through the curbside program every month.

Textile Recycling. In 2017 Brooklyn Park added curbside collection of clothing and textiles for reuse or recycling. According to the U.S. EPA, 85% of used clothing is disposed of in the trash. Clothing is one of the ten top materials most frequently found in residential trash in Hennepin County.

Special Materials Drop-Off Days. Not everything that is recyclable can go in your trash. Twice a year Brooklyn Park hosts a special drop-off for residents to bring in certain unwanted items. This event is held at the Brooklyn Park Operations and Maintenance facility at 8300 Noble Avenue North.

Organics Composting. After Halloween each fall the City has a drop-off station for pumpkins. They are composted at our Environmental Area and the finished compost is used by city crews on various landscaping projects.

Hennepin County will be enacting an ordinance requiring cities to provide curbside residential organics collection. A recent study by Hennepin County found that more than a third of residential trash is organics would could be composted instead of being managed with garbage. For a composting program, residents would separate out food scraps (including meat and dairy) and non-recyclable papers such as napkins. Those items would be hauled to an industrial composting facility.

Chapter 12: Mississippi River Corridor Critical Area Plan

12.1 Background and History

From the moment it trickles out of Minnesota's Lake Itasca until it pours into the Gulf of Mexico, the Mississippi River shapes the life of its region. It fosters cities and commerce; transports people and goods; provides habitat for fish, plants, and wildlife; and enriches human life with natural and recreational amenities.

Fashioned by eons of geologic and human activity, the Mississippi reflects the story of the North American continent. Native Americans fished, hunted, traveled and settled along the river; Seventeenth Century Europeans explored it; and cultural visionaries such as Mark Twain implanted it in the American imagination as a symbol of freedom and adventure. The Mississippi is a treasure in a multitude of ways: economically, environmentally, historically, and culturally.

The Upper Mississippi watershed embraces millions of acres of land and waterways that drain into the Mississippi, reaching from the western plains to the iron and copper ranges of the Great Lakes. Drainage from the watershed's marshes, bogs, wetlands, lakes, streams, and rivers all seep into the Mississippi. Similarly, because water washes over the land on the way to the river, activities on the land--from tilling the soil to harvesting trees to paving--also affect the river. The river collects and carries whatever is drained, thrown, spilled, or discharged into it, as well as substances that find their way into the watersheds lakes, streams, or aquifers. The watershed of the Mississippi is a complex, dynamic and a mutually dependent system. People downstream live with the activities of their upstream river neighbors.

Ecologically, the river is a watershed. Thus, river conservation efforts increasingly emphasize a watershed approach. This means considering everything from urban development to agricultural practices as factors in the health of the river. Drainage from marshes ditched for farming or suburban development, chemicals applied to farm fields, and waste disposed from households and industries all end up in the Mississippi. By the same token, efforts to clean up or prevent pollution anywhere in the watershed can benefit the Mississippi directly or indirectly.

Brooklyn Township grew slowly as vacation homes and country style neighborhoods began appearing along the west bank of the Mississippi River. Activity along the river, natural tree cover and vegetation, and the location of old U.S. Highway 169 spurred development in river corridor through the first half of the 20th Century. The Village of Brooklyn Park was formed in 1954 as increased real estate activity caused land prices to rise and contributed toward the construction of some of the highest quality homes in the early days of Brooklyn Park. Residential development within the corridor has created a wide variety of housing styles. Continued private investment has resulted in expansion and renovation of older homes. This

country estate style of living set a pattern of secluded low density residential development which continues today.

The Critical Areas Act, passed by the State Legislature in 1973, established criteria for selection of areas of the state that have critical environmental concerns and authorized the Governor to designate critical areas, and require comprehensive planning for environmental protection, future development and permit issuance.

In 1976, Governor Wendell Anderson established the Mississippi River Corridor Critical Area (MRCCA) to protect and enhance the Mississippi River Corridor. The designation of the river and its corridor as a Critical Area was reaffirmed and continued by Governor Albert Quie in 1979 through Executive Order 79-19 and made permanently a Critical Area by action of the Metropolitan Council later in 1979.

New rules guiding the land planning and regulatory framework began in 2009 and became effective on January 4, 2017 and replace Executive Order 79-19. The rules require that the local jurisdictions update their MRCCA plans and ordinances to be consistent with the new rules.

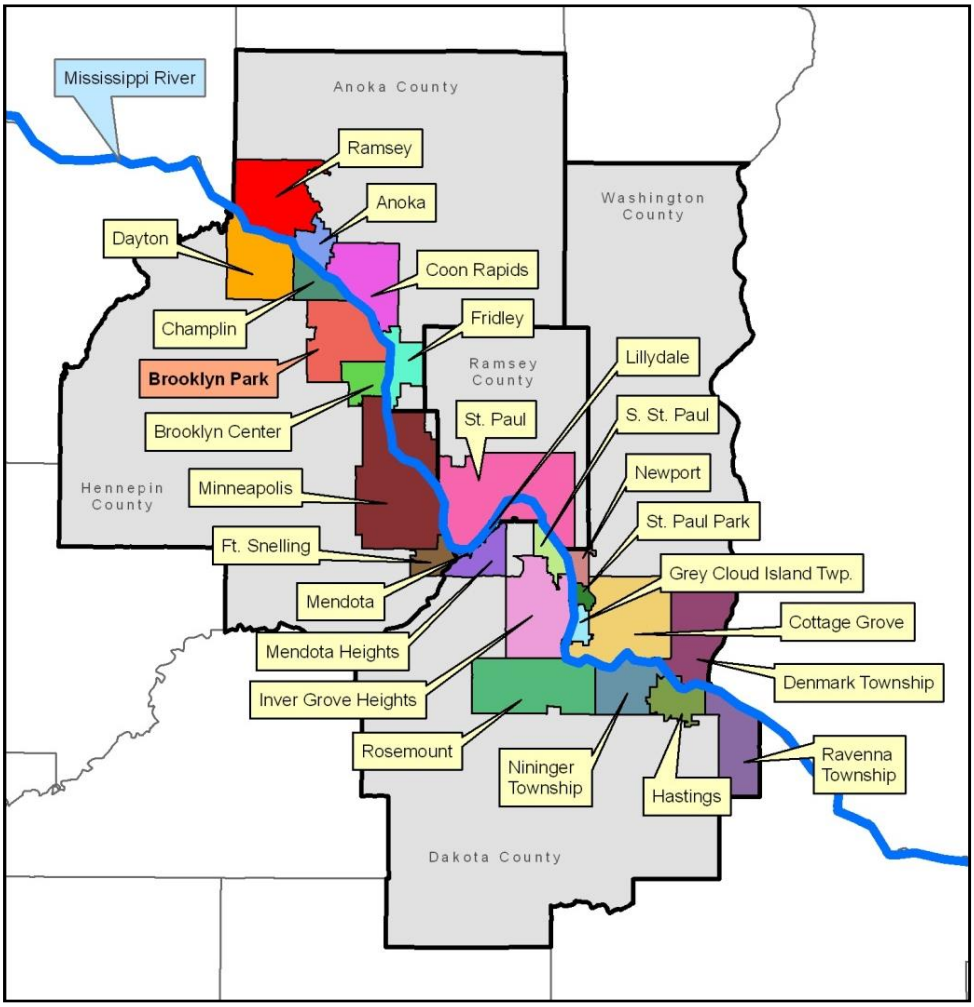


Figure 12.1 Communities included in the MRCCA

12.2 Goals of the Mississippi River Corridor Critical Area

Designated goals of the MRCCA program include:

1. Protect and preserve the Mississippi River and adjacent lands that the legislature finds to be unique and valuable state and regional resources for the benefit of the health, safety, and welfare of the citizens of the state, region, and nation;

2. Prevent and mitigate irreversible damages to these state, regional, and natural resources;

3. Preserve and enhance the natural, aesthetic, cultural, and historical values of the Mississippi River and adjacent lands for public use and benefit;

4. Protect and preserve the Mississippi River as an essential element in the national, state, and regional transportation, sewer and water, and recreational systems; and

5. Protect and preserve the biological and ecological functions of the Mississippi River corridor.

12.3 Process

Many community members were involved in the development of the rules through the state process. The Issak Walton League, with local headquarters in Brooklyn Park, hosted a community meeting to review the process of developing the plan, which is an update to the existing approved plan**.** The public will have input opportunities at two planning commission public hearings in the spring of 2018. As the plan is routed for adjacent community review the public will also have opportunity to comment during this period. The new rules were adopted in January of 2017 but the process for inclusion into the comprehensive plan was not available until August 2017 and was changed as recently as February 2018. This did not allow a robust stand- alone process for inclusion into the comprehensive plan.

12.4 Progress

The City of Brooklyn Park has accomplished many of the goals described in previously approved plans including the Critical Area Plan and the Mississippi Stewardship plan. The following is a partial list of accomplishments since plans have been adopted in the city.

1. "Edgetown Estates" converted an undeveloped tract of land in the corridor to 47 single family residential lots in 1997. The development contains properties within Brooklyn Park and Champlin. Coordination between the local governments and the Department of Natural Resources during the review process ensured high quality site design, preservation of natural features, and the use of best management practices in the construction of homes. All residential lots have been provided with public sewer and water facilities.

2. In 1980, there were 143 septic tanks in the Mississippi River corridor. Since that time utilities have been extended and are now available for all properties within the Mississippi River Corridor. Residential properties have been connecting to the public utilities system as

needed and as a part of development or redevelopment projects.

3. The Coon Rapids Dam underwent a comprehensive rehabilitation that was completed in the Spring of 2017. The new facilities maintain access across the dam and promote park visitation and recreational use. The Mississippi Gateway Regional Park will be part of a redevelopment planned by Three Rivers Park District.

4. In the summer of 1997, the City purchased approximately 13 acres adjacent to River Park. The park grew from 33 to 46 acres in size with nearly 2,000 feet of shoreline on the Mississippi River. Additional property was added in 2016 with the purchase of an adjacent property. The park is identified to have new facilities added that are more connected to the river. Plans also include treatment of area storm water that currently enters directly into the river through a treatment train on the south side of the park. Ponding treatment was added on the north end of the park in the early 2000's.

5. Implementation of the Village Redevelopment Plan has resulted in acquisition of land adjacent to Shingle Creek for open space and extension of the City Trail System through the Brooklyn Boulevard / Zane Avenue corridor. Stabilization techniques have been employed along the banks of Shingle Creek with landscaping, ponding, and other improvements installed to help increase the health of the creek.

6. Several improvements have been made to the transportation system within the river corridor including Trunk Highway 252, construction of the Highway 610 bridge and reconstruction of West River Road. The improvements provided storm water management controls as required at the time. This has provided treatment for run-off that had historically gone directly into the river.

7. Mississippi Gardens is a private commercial facility that was constructed at the front edge of the footprint of an old structure dating back to the early 1900's. The site is adjacent to the Highway 610 Bridge. The new construction and landscaping has a nicer appearance. The facility provides beautiful views of the river and captures these from both the interior and exterior of the building. Storm water now has some pre-treatment before entering the river with the addition of swales and a rock spillway to help with erosion.

12.5 Districts

The 2017 MRCCA rules established six new districts that more accurately represent existing and planned future development along the 72-mile stretch. The six districts include: Rural & Open Space District, River Neighborhood District, River Towns and Crossings District, Separated from River District, Urban Mixed District, and Urban Core District. Each of the districts reflects the character and development along the river and recognizes planned and future development. Different dimensional standards (building height, river setback, and bluff setback) are applied to each district. These standards are administered through local zoning ordinances, and some provisions default to the standards outlined in the district's underlying municipal zoning regulations.

These districts are important for managing the MRCCA because they help protect the Mississippi River as a natural and cultural resource. The standards defined in each district take the existing characteristics into account and keep buildings and other structures away from sensitive shoreline areas and areas prone to soil erosion and slope failure. Keeping a distance between sensitive shoreline areas and the development helps to maintain the river's water clarity and quality and reduce sediment runoff. Height provisions help to preserve the natural views within the corridor.

In Brooklyn Park we have three districts designated for land in the corridor:

1. River Neighborhood District (CA-RN) - Developed residential lands and existing/planned parkland that are visible from the river, or that abut riparian parkland. The CA-RN district must be managed to maintain the character of the river corridor within the context of existing residential and related neighborhood development, and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas Minimizing erosion and the flow of untreated storm water into the river and enhancing habitat and shoreline vegetation are priorities in the district.
2. Separated from River District (CA-SR) - Land that is separated from and not visible from the river. The CA-SR district provides flexibility in managing development without negatively affecting the key resources and features of the river corridor. Minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated storm water into the Mississippi River are priorities in the district.
3. Rural & Open Space District (CA-ROS) – Rural undeveloped and developed low density residential land that is riparian or visible from the river, often contains tracts of high quality ecological resources. The CA-ROS district must be managed to sustain and restore the rural and natural character of the corridor and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas.

The land along the corridor is private single family residential use, public land, and a small commercial area. The underlying zoning is not proposed to change in the corridor but will utilize an overlay to apply new rules.

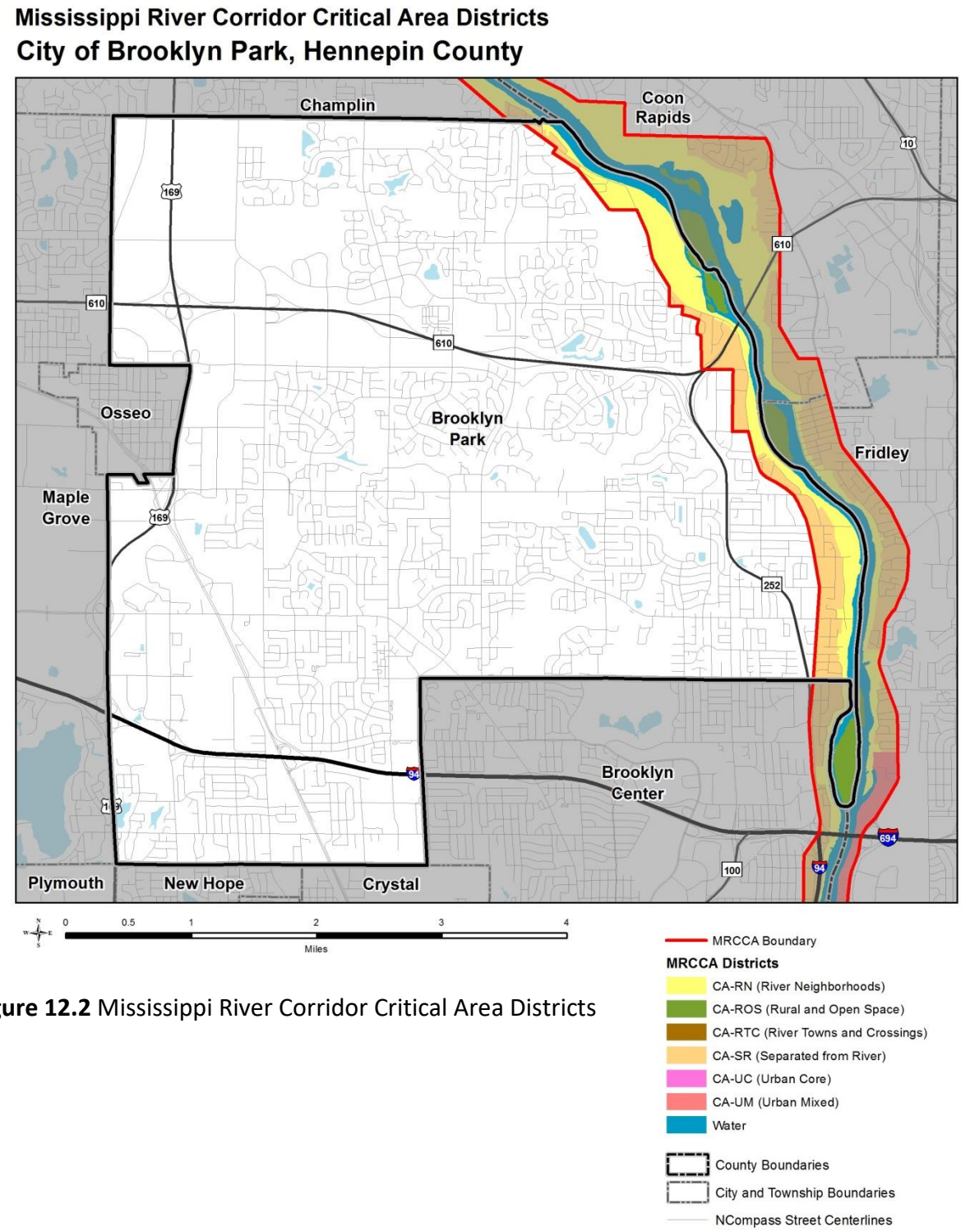


Figure 12.2 Mississippi River Corridor Critical Area Districts

12.6 Primary Conservation Areas (PCAS)

The term primary conservation areas (PCAs) defines the key natural and cultural resources and features that are addressed by the MRCCA rules. This term includes natural and cultural resources and features listed in the statute into a single definition and includes such features as

bluffs and bluff impact zones, cultural and historic properties, shore impact zones, natural drainage ways, native plant communities, etc.

A. Shore Impact Zone:

The land along the water's edge is environmentally sensitive and needs special protection from development and vegetation removal. The shore impact zone is a "buffer" area between the water's edge and the area where development is allowed. This area is generally 50 percent of the building setback which is 100 feet. So, it is the area 50 feet wide between the normal water's edge and the minimum building setback.

B. Flood plains and wetlands:

Brooklyn Park's flood plain within the Mississippi River Corridor has different characteristics above and below the Coon Rapids Dam. Water elevation of the six-mile pool above the dam is monitored and controlled. The river front area contains both private residential properties and public land. A gentle slope from bluff lines to the waterline protects residential properties from experiencing flooding problems.

Below the dam, the majority of flood plain areas are protected by public land in the Mississippi Gateway Regional Park and River Park. Residential properties between the regional park and River Park have steep slopes that protect homes built above bluff lines. South of River Park, residential properties have been subdivided to allow homes to be located safely outside of the flood plain with a few exceptions immediately south of River Park. Current floodplain regulations restrict new construction within the flood plain. Elevations for flood plains are noted on the officially adopted Flood Insurance Rate Map.

Wetland inventories have been completed by the U.S. Fish and Wildlife Service as published on the National Wetlands Inventory Maps, and by the Minnesota Department of Natural Resources as published in their Protected Waters Inventory. Many of the wetlands have changed characteristics in the community and no longer meet the definition although may still be protected. The city has worked with the DNR to identify and protect, replace or modify the wetlands as allowed.

C. Unstable soils and bedrock

The City is unaware of any probable areas of unstable soils or bedrock.

Mississippi River Corridor Critical Area - Wetlands & Floodplains

City of Brooklyn Park, Hennepin County

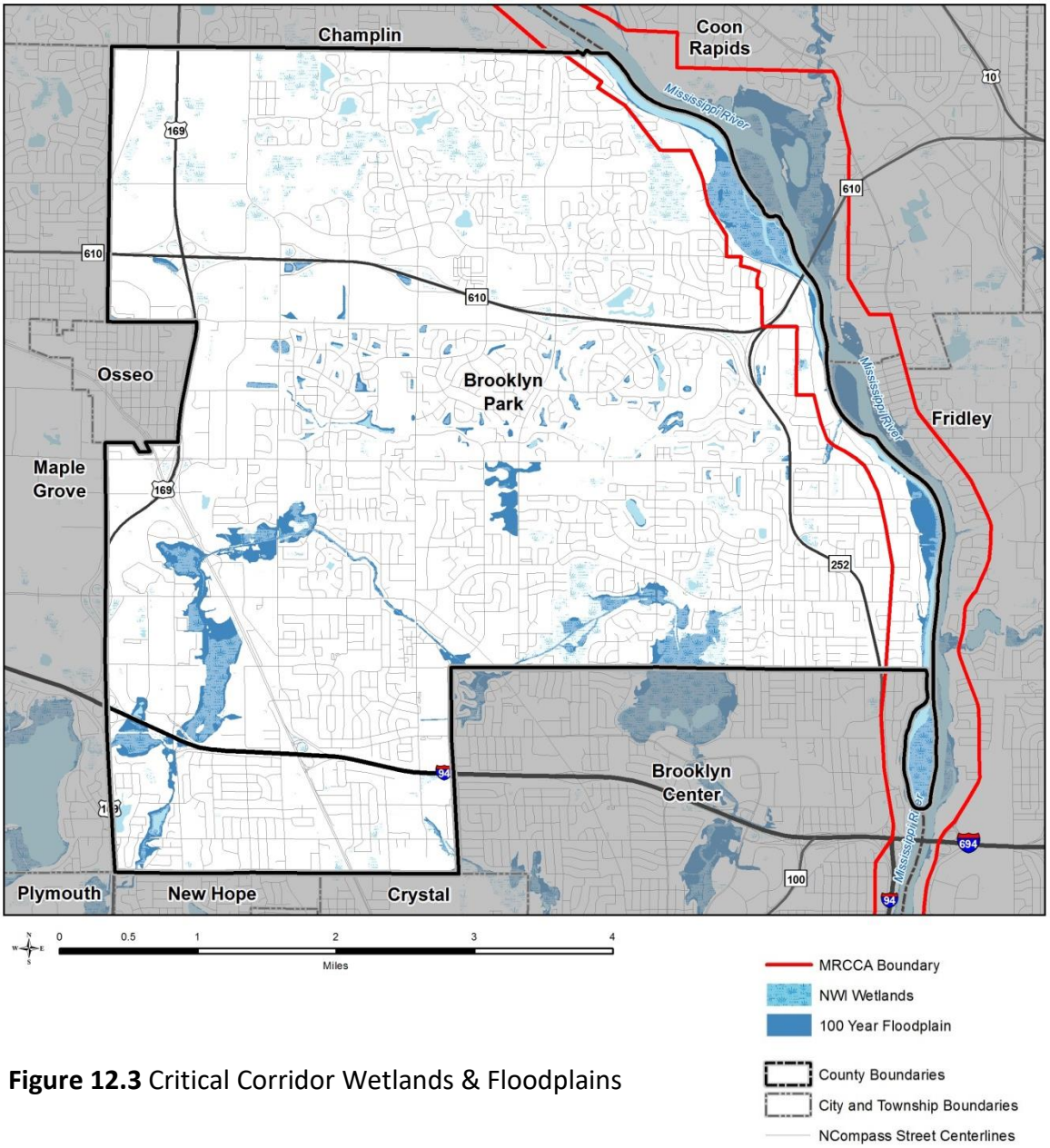


Figure 12.3 Critical Corridor Wetlands & Floodplains

Natural Drainage Ways are mapped below and show historical or existing drainage routes. Some of the routes are not natural and are manmade stormwater conveyance systems that may have replaced historically natural systems

Mississippi River Corridor Critical Area - Major Natural Drainage Routes
City of Brooklyn Park, Hennepin County

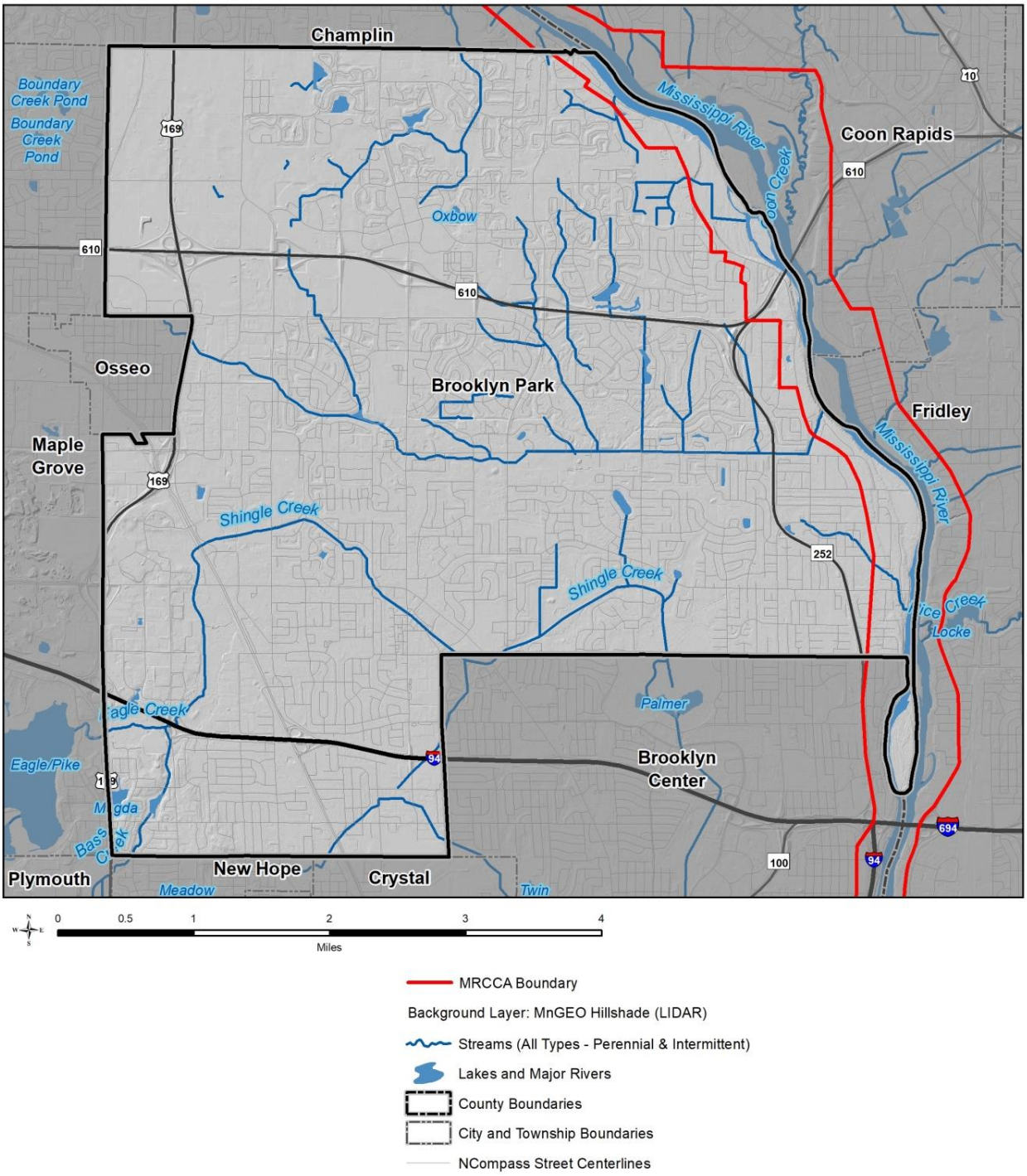


Figure 12.4 Corridor Critical Area Major Natural Drainage Routes

D. **Bluffs & Bluff Impact Zones.** The protection of bluffs in the MRCCA is important to reducing erosion and slope failure, as well as maintaining wildlife habitat, native vegetation and the corridor's scenic character. As a PCA, bluffs and the associated bluff impact zones within 20 feet of the bluffs are regulated by the MRCCA program.

Mississippi River Corridor Critical Area - Bluff Impact Zones

City of Brooklyn Park, Hennepin County

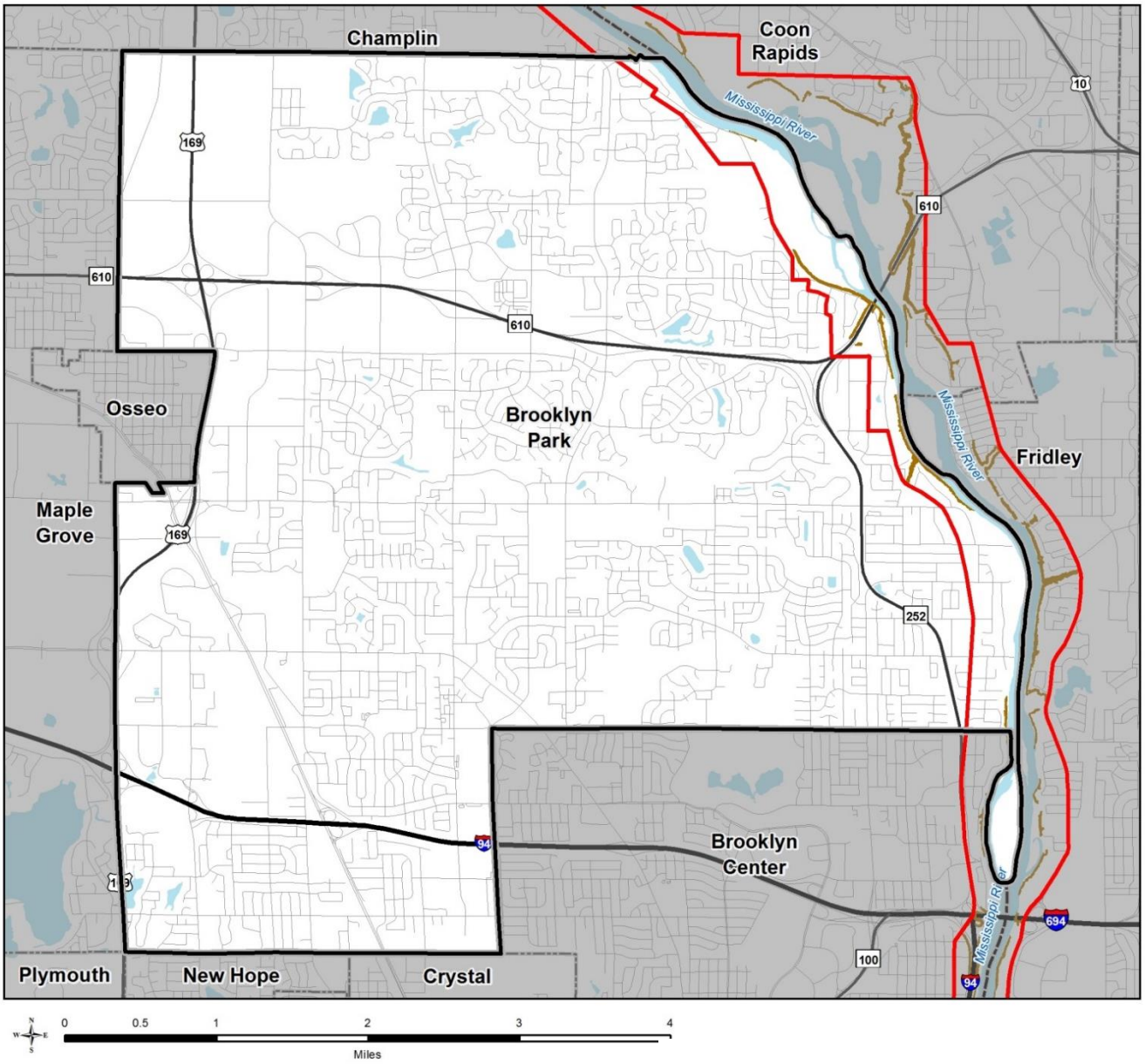


Figure 12.5 Corridor Critical Area Bluff Impact Zones

MRCCA Boundary

MRCCA Bluff Impact Zones
(Bluffs and land within 20 feet of bluffs)

County Boundaries

City and Township Boundaries

NCompass Street Centerlines

E. **Native Plant Communities and Significant Vegetative Stands**. The majority of the areas are on public land.

Mississippi River Corridor Critical Area - Native Plant Communities and Significant Existing Vegetative Stands
City of Brooklyn Park, Hennepin County

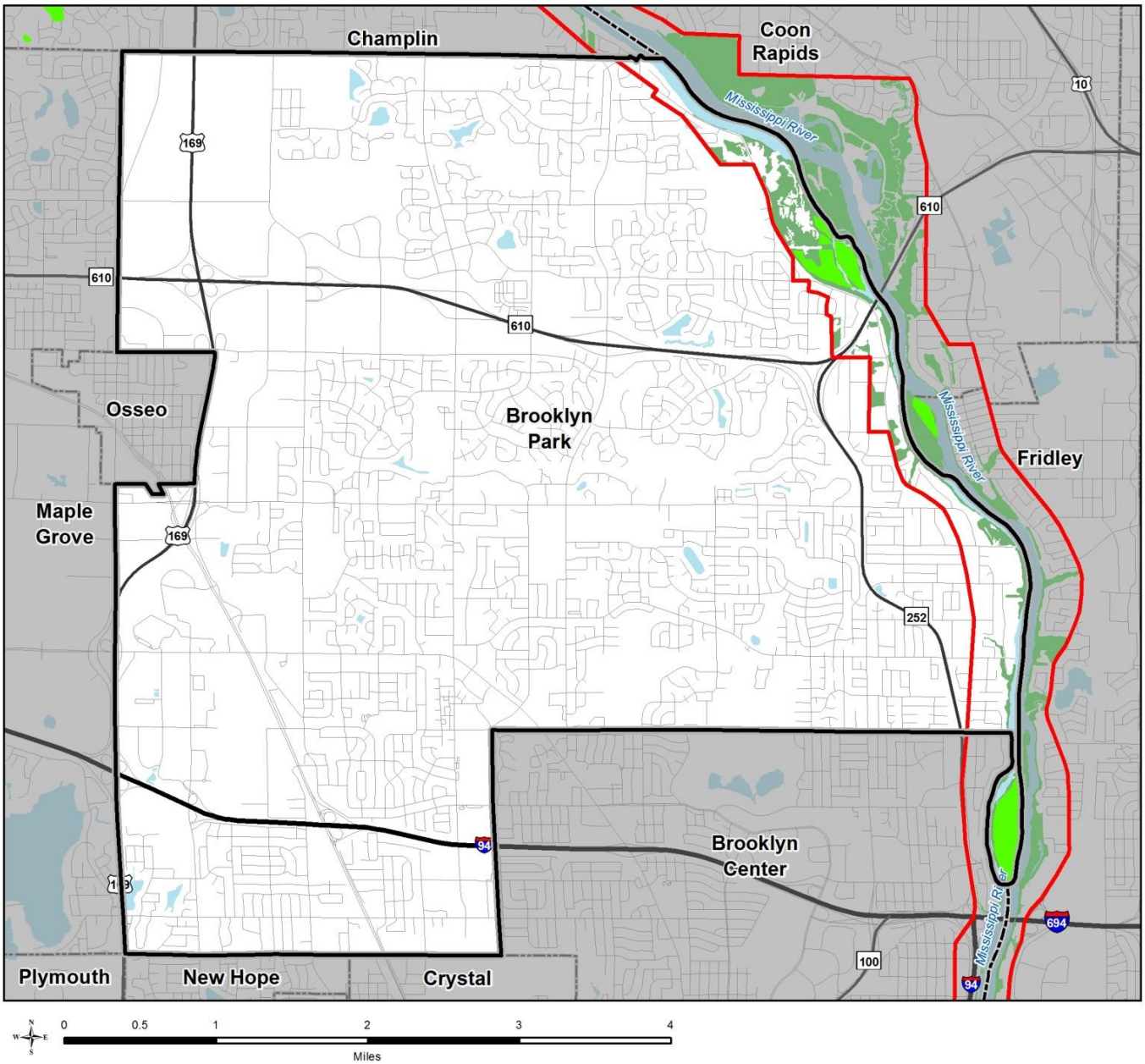


Figure 12.6 Native Plant Communities and Significant Existing Vegetative Stands

MRCCA Boundary
DNR Native Plant Communities
MRCCA Significant Existing Vegetative Stands
County Boundaries
City and Township Boundaries
NCompass Street Centerlines

F. Vegetation Restoration Priorities

Provided below is a map indenting area deemed priorities for vegetation restoration by the Minnesota DNR. When and where feasible, the City will coordinate with the DNR and other participating agencies in the restoration of vegetation within the MRCCA.

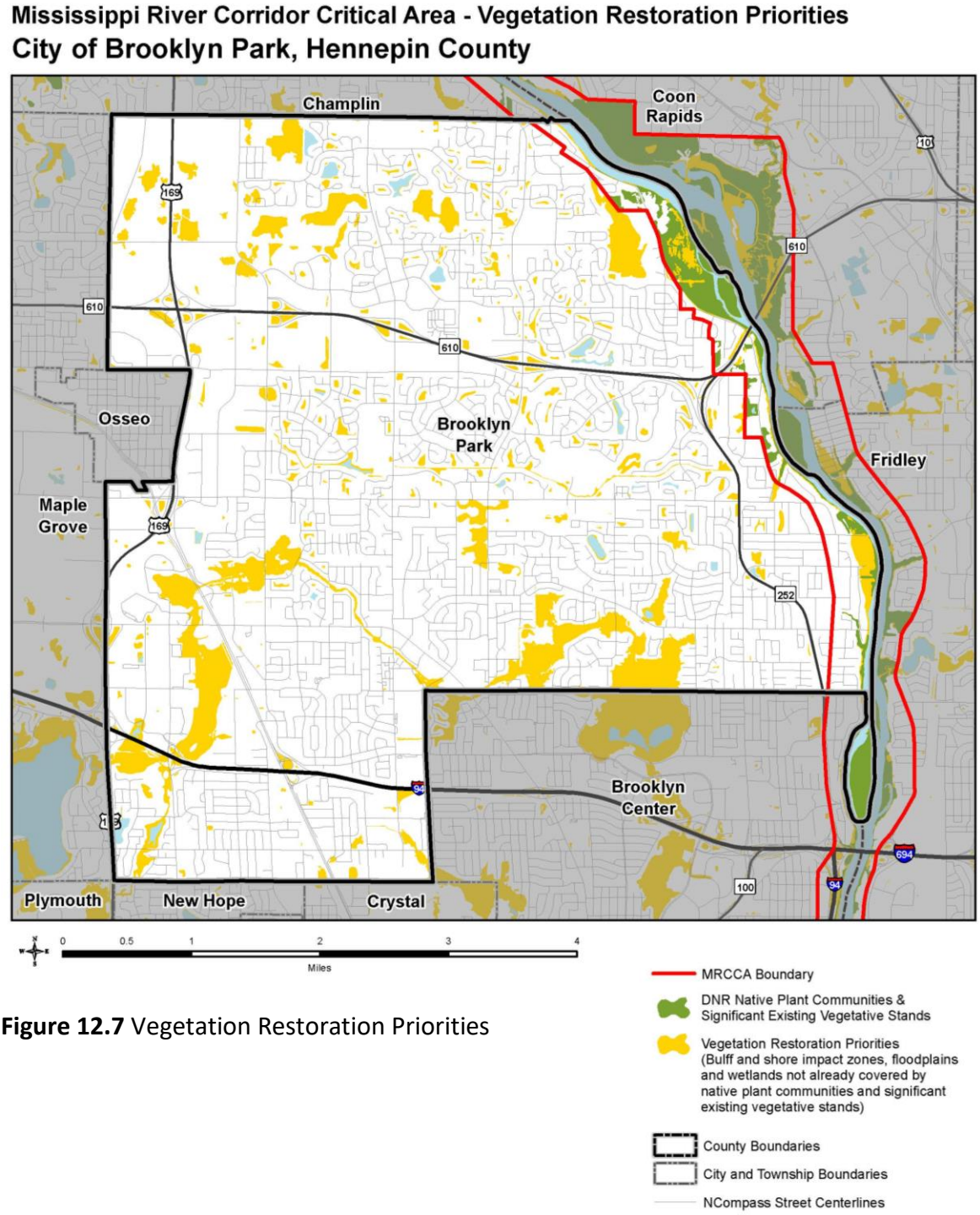


Figure 12.7 Vegetation Restoration Priorities

G. **Cultural and Historical Resources**

Residents of Brooklyn Park. Property owners within the river corridor have, through significant private investment, have made improvements to properties that have created healthy residential neighborhoods and preserved many of the natural resources within the corridor.

Camden-Brooklyn Township-Anoka Stage. One of the first Twin City area stage runs was a horse and wagon which made daily trips between St. Paul and St. Anthony in the mid-19th Century. The route included a local stage that also made daily runs between Camden and Anoka in the morning and afternoon. Four horses pulled the stage as it traveled the narrow gravel West River Road through Brooklyn Township to Champlin and then across the Mississippi River Bridge and the Rum River Bridge to Anoka. In the spring, it was not uncommon to see men in the fields with a wooden plow, pulled by oxen, preparing the fields for planting.

About halfway through the journey, the stage would stop to allow the horses to rest at what came to be called the 'Half-way House' in Brooklyn Township. The house, converted from a farmhouse in 1873, was opened to the public in 1874 and continued to operate as a rest area for travelers until 1912. The 'Half-way House' could be easily identified by the six-inch white board siding from local mills. The house still stands alongside West River Road today, just north of 85th Avenue, and is still owned by the Mattson Family.

Great River Road. Great River Road is a national landmark for travelers in the Mississippi River Corridor from Itasca State Park in Minnesota down through Louisiana and to the Gulf of Mexico. Great River Road enters Brooklyn Park on Trunk Highway 252 and follows 252 north to Brookdale Drive. The route turns east at Brookdale Drive and proceeds to West River Road. The route then turns north and follows West River Road to 97th Avenue. At Russell Avenue the route turns north and connects with West River Road again and follows West River Road into The City of Champlin. A map of the entire route, including tourist information, is available from the Mississippi River Parkway Commission of Minnesota.

Local chapter of Izaak Walton League. The Izaak Walton League is a national conservation organization dedicated to preserving and enhancing natural areas. The Local Chapter is located at 8816 West River Road. Izaak Walton, writer and naturalist was born in Stafford, Staffordshire, England, UK. In 1621 he settled in London as an ironmonger but left the city for Staffordshire during the Civil War,

and after the Restoration lived in Winchester. He is best known for his treatise on fishing and country life, The Compleat Angler (1653), he also wrote several biographies.

12.7 Public River Corridor Views (PRCVS)

The City of Brooklyn Park is fortunate to have a series of public locations from which residents and visitors can view the Mississippi River. Those areas are shown on Map It is important that both the City and adjacent communities work together to preserve and where possible enhance these views.

Area 1. Trail across the dam connecting Anoka and Hennepin County

This is a valuable view and location due to its function as a pedestrian connection across the Mississippi River and thus its ability to provide views of the river from any location along the top of the dam. Dam alterations that would affect pedestrian accessibility would alter the ability for residents and visitors to utilize this amenity would negatively affect its ability to provide a viewpoint of the river. Additionally, reductions in vegetation, water quality, or blight would negatively affect the views from this PRCV.

Area 2. Public View from River Park of water intake facility supplying water to St. Paul

This view is from River Park which is a large public park in the City which borders along the Mississippi River. This is a valuable view as it provides a point from which to view the historic water intake facility. Additionally, its location due to its ability to directly connect people to the river's edge is a positive amenity. Riverbank erosion would negatively affect accessibility and thus limit residents and visitor's ability to utilize this amenity. Additionally, reductions in vegetation, water quality, or blight would negatively affect the views from this PRCV.

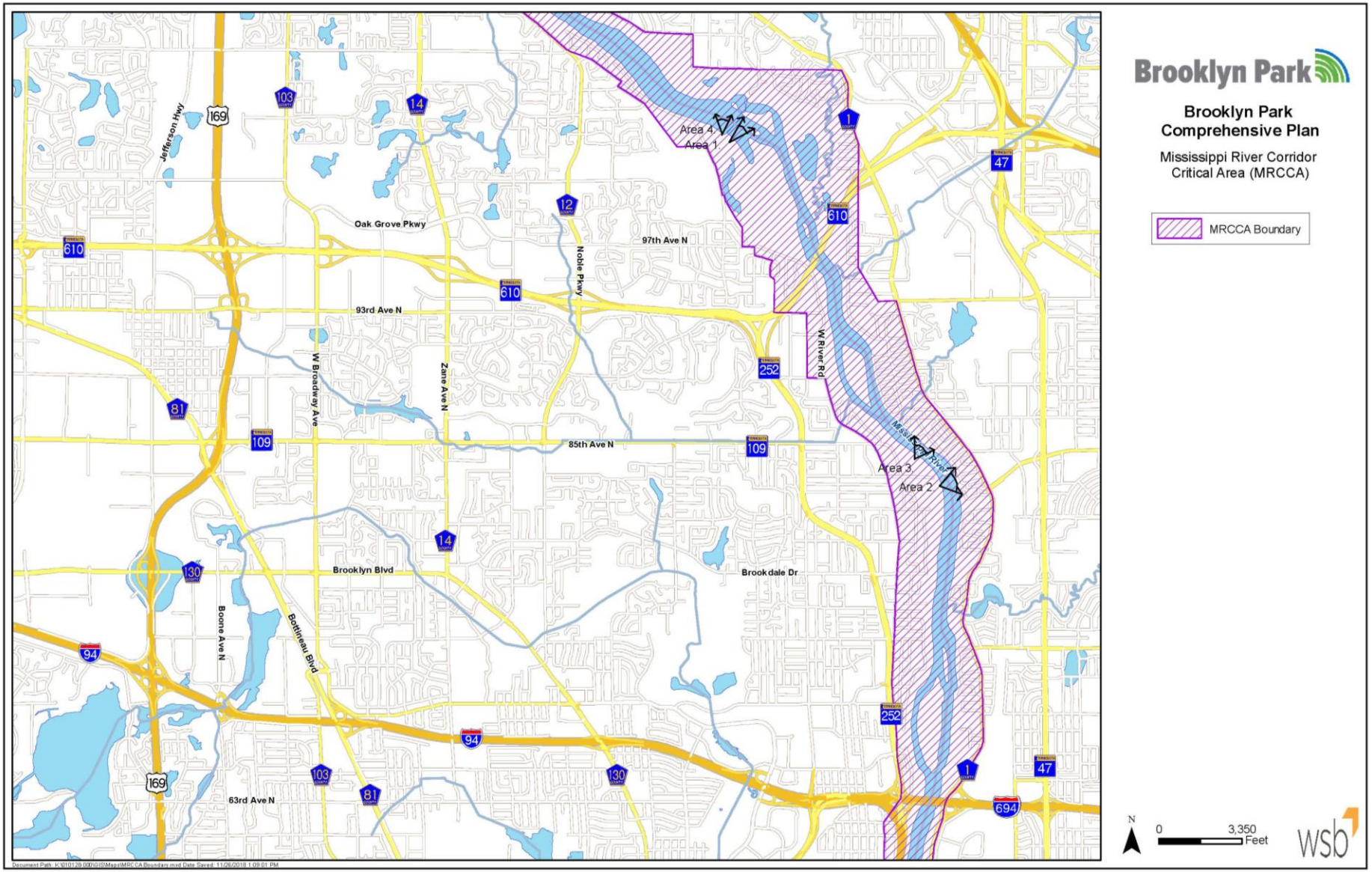
Area 3. Bluff across the river in Fridley

This public river corridor view provides a view of the bluff across the river in the City of Fridley which includes single family residential homes. The ability to protect the slopes and prevent riverbank erosion is important as both would negatively affect the views from this PRCV.

Area 4. View of the Pool

This view of the pool above the dam is unique in that it provides a lake like setting along the Mississippi River. The uniqueness of this pool along on an otherwise flowing river is valuable in itself and the views of single-family homes and cabins set within dense vegetation further cements a north woods like view. Riverbank erosion would negatively affect accessibility and thus limit residents and visitor's ability to utilize this amenity. Additionally, reductions in vegetation, water quality, or blight would negatively affect the views from this PRCV.

Figure 12.8 Location and viewshed of Public River Corridor Views (PRCVs)



12.8 Transportation and Public facilities

Transportation System

The Mississippi River Corridor transportation system is primarily comprised of local streets that connect residential neighborhoods to north-south routes like West River Road and Trunk Highway 252. Brookdale Drive and 85th Avenue are east-west routes classified as arterial roadways in the corridor. Improvements to the roadway system include construction of the 610 bridge, reconstruction of West River Road including a regional trail, and construction of a pedestrian bridge over Trunk Highway 252.

610 Bridge

The 610 (Richard Braun) Bridge was constructed to provide an intermediate river crossing between the Anoka Bridge (TH 169) and Interstate 694. An Environmental Impact Statement and cooperation between local, county and state agencies ensured that the design of the bridge minimized impacts on the natural features of the river corridor and provided mitigation for areas that were disturbed during construction. The new bridge was designed to match an existing bridge and include trail access across the river to link Brooklyn Park, Three Rivers Park District, and Anoka County trail systems.

Trunk Highway 252

Trunk Highway 252 was relocated outside the Mississippi River Critical Area in 1986. The new alignment allowed expansion from a two to four lane system. Due to funding and timing constraints, the new highway system was constructed as an on-grade facility with four controlled intersections. Relocation of Trunk Highway 252 has allowed West River Road to revert to a collector street for the residential neighborhoods of the corridor and was reconstructed at 28 feet in width and posted with a 30-mph speed limit. A multi-jurisdictional study is currently underway for conversion of Highway 252 into a freeway.

Pedestrian Bridge

As traffic levels on Trunk Highway 252 increased, the highway created a barrier that prevented pedestrian traffic and the City's trail system from reaching the Mississippi River. In the summer of 1999, a tragic accident claimed the life of Kara Kavanaugh, a young girl who attempted to cross the highway at the 85th Avenue intersection. That tragedy resulted in an outpouring of community support and volunteerism that created a benefit concert and an ongoing community effort to raise money for the pedestrian bridge. The 'Building a Bridge' fund was created with the help of residents and local businesses. The funding was secured, and the bridge was completed in 2004.

West River Road Reconstruction

Relocation of Trunk Highway 252 has allowed West River Road to revert to a collector street for the residential neighborhoods of the corridor. A street reconstruction project converted approximately 4 miles of West River Road from rural to urban street design with curb and gutter. The project began at Brookdale Drive and ended at 97th Avenue and includes a 3.6-mile section of the Great River Road. The existing ditch storm sewer system was converted to a conduit (pipe) storm sewer system and integrated into the city storm water system.

The West Mississippi River Regional Trail, A ten-foot-wide bituminous trail was constructed on the west side of the roadway. The trail connects to existing trails south of Brookdale Drive to allow access through Brooklyn Center to the Minneapolis trail system and links Mississippi Gateway Regional Park and provides a second river crossing at the Trunk Highway 610 Bridge. The roadway and trail are enhanced with parkway style landscaping and decorative lighting.

Residential Streets

Some local streets within the corridor continue to have a rural street design but many have been converted to an urban section. The roadways are inspected as part of a roadway classification system that ranks roadways according to their condition. A proposal to overlay or reconstruct a roadway is made to the affected neighborhood based on the condition of the roadway. Extension of storm sewer, sanitary sewer and water lines is a part of all street reconstruction projects. No new private septic systems are allowed once municipal sanitary sewer service is available.

Transit

There is one Metro Transit route in the Mississippi River Corridor. It provides morning and afternoon bus service beginning in the cities of Anoka and Champlin and follows West River Road into Downtown Minneapolis. In Brooklyn Park, bus stops are located along West River Road, Russell Avenue, and 97th Avenue. Stops are also made at park and ride facilities at the northwest corner of T.H. 610 and Noble Parkway.

Commercial Activity

There is currently no commercial activity or barge fleet traffic on the Mississippi River within the municipal boundary of the City of Brooklyn Park.

Other Public Facilities

Electric power is provided by the substation located adjacent to the Coon Rapids Dam. The substation powers transmission lines that provide electricity throughout Brooklyn Park and surrounding communities.

Sanitary Sewer System

Both Municipal and Metropolitan Council sanitary sewer facilities exist in Brooklyn Park. Sanitary sewer service is available for all properties in the Mississippi River Corridor. Municipal sanitary sewer service will be extended to the remaining properties as a part of a public improvements project that is either requested by the neighborhood or necessary as private systems begin to fail. The Metropolitan Council Environmental Services Interceptor line enters the corridor at 92nd Avenue and continues south through the corridor before turning west and exiting the corridor adjacent to Brookdale Drive.

Storm Sewer System

Existing storm sewer facilities are located throughout the corridor to provide for the collection and transmission of storm water that is not conveyed by the topography of the corridor. Six man made and two natural discharge points allow storm water to enter the Mississippi River in Brooklyn Park. The design and maintenance of these facilities is governed by the Comprehensive Stormwater Management Plan and applicable state and federal regulations. Storm water retention ponds exist to absorb and filter the water before allowing it to reach the river north of 89th Avenue. Additional ponding areas will be created as development or redevelopment occurs.

Municipal Water System

Water service is available for all properties in the corridor except for properties along the river between 81st and 86th Avenues. This neighborhood has not petitioned the City for water service, so private wells will continue to provide water for these properties unless a public petition is filed with the City or a public health concern arises.

River Crossings

At the present time, the Mississippi River is crossed by four power line easements and the T.H. 610 bridge. Three of these easements meet at the Xcel Energy Substation located adjacent to the Coon Rapids Dam. The fourth easement has a 345 KV line constructed on it and is located 1.5 miles to the south. All river crossings will be located in existing easements whenever possible and alternatives to additional river crossings will be explored prior to designing additional river crossings.

Electric Power Generating Facilities

At the present time, there are no existing principal use commercial solar or wind facilities within the boundary of the MRCCA in the City. The City is also not currently aware of any planned principal use commercial solar or wind facilities. Land within the MRCCA boundary is zoned as either R2, R2b, R3, R4, R5, R6, B2, B3, or P/I (public / institutional).

Solar energy systems in accordance with standards set forth in the city's zoning ordinance are allowed as a permitted accessory use in all zoning districts. They are not however permitted as a principal use. Roof mounted solar energy systems are required to comply with the maximum

height requirements in the applicable zoning district. Ground mounted solar energy systems are not permitted to exceed 15 feet in height. Subsequently, those height limitations for roof and ground mounted solar energy systems limit the potential impact they could have on area PRCV's.

Utility wind turbines are not permitted in any of the zoning districts within the MRCCA boundary; however, small wind turbines are allowed as an accessory use in all business districts, and nonresidential uses in commercial districts. The height of small wind turbines in business districts shall not exceed 75 feet. Residential turbines (only vertical axis style permitted) are allowed as an accessory use in all residential districts. Residential wind turbines can be either building mounted a maximum height of 15 feet above the roofline of the principal structure; or mounted on a tower a maximum height of 20 feet above the roof line of the principal structure. Poles must be connected to the principal structure and cannot be freestanding. All residential wind turbines are required to be of the vertical axis style.

Height limitations for both small wind turbines in business districts and residential turbines within residential districts as well as height limitations for roof mounted and ground mounted solar energy systems limit the potential impact they could have on PRCV's. Additionally, because neither solar or wind energy systems are permitted as a principal use they're potential to impact PCA's is also greatly reduced.

Essential Services and Transmission Services:

Currently there are four power line crossings in the City within the MRCCA boundary. These power lines have an effect on the aesthetic of PCAs and PRCVs; however, their size limits that effect. Ultimately, those power and transmission lines are a critical and necessary component of the City's power infrastructure.

12.09 Water-Oriented Land Uses

A boat landing is available for the general public off of 83rd Avenue N within River Park. The boat landing has space available for truck and trailer parking and also has kayaks available for rent through the Mississippi River Paddle Share Program. The put-in station at River Park is one of a few stations located along the Mississippi River and is a partnership with the Three Rivers Park District. The boat landing provides an important public access to the river. The City is currently undertaking a new master plan for River Park that will seek to provide passive recreational opportunities for area residents. River Park provides an important buffer to residential properties that may have otherwise been negatively affected by traffic generated by the boat launch. Boat speeds may have a negative effect on shoreline erosion both above and below the Coon Rapids Dam; however, the City does not intend to regulate surface water uses.

Mississippi Gateway Regional Park: it encompasses a total of 267 acres and offers both Brooklyn Park residents and regional visitors a unique opportunity to observe the "Mighty Mississippi" up close. The City of Brooklyn Park owns and operates the Environmental Nature Area (96.5 acres) located directly across West River Road from each other and are connected via the Rush Creek Regional Trail. The Three Rivers Park District and the City of Brooklyn Park formed a partnership to develop a join master plan that incorporates both parks with the goal for the two parks to seamlessly function as one: namely Mississippi Gateway Regional Park.

12.10 Goals

Goal #1: Preserve and enhance the natural environmental characteristics and scenic qualities of the Mississippi River corridor.

Goal #2: Maintain the existing high quality residential and recreational environment provided with the river corridor.

Goal #3: Increase opportunities for City residents and the general public to use the river corridor as a recreational resource.

Goal #4: Achieve and maintain water quality conditions conducive to recreational activity and propagation of aquatic life.

Goal #5: Work with property owners to replace diseased trees with new plantings and introduce appropriate vegetation on river banks and steep slopes to control erosion.

Goal #6: Design systems to improve water quality and ensure elimination of non-point sources of pollution.

Goal #7: Achieve enhanced shoreline restoration, tree preservation and replacement, water quality management, and erosion control in the corridor.

Goal #8: Promote the economic benefits of the river corridor including tourism and closer coordination with Three Rivers Park

Goal #9: Continue to use intergovernmental cooperation and education to address corridor issues and to increase public appreciation of corridor resources.

12.11 Policies

The following general policies for protection, preservation, and management of the river corridor reflect the direction of the goals outlined:

Policy #1: The Mississippi River is a working river and as such is important to the local, state, and regional economy. As such, the river corridor is a unique and valuable regional, state, and national resource.

Policy #2: Protect and preserve the working river corridor for the benefit of the economic, health, safety, and welfare of residents of the city, region, state, and nation.

Policy #3: Prevent and mitigate irreversible damage to the river corridor.

Policy #4: Protect and preserve the biological and ecological functions of the river corridor.

Policy #5: Manage the river corridor in accordance with all applicable state and federal regulations.

Policy #6: Provide an uninterrupted vegetated shoreline where practical by encouraging preservation and replacement of natural plant materials as well as the restoration of native plant communities where and when feasible.

Policy #7: Control and prevent riverbank erosion by regulating preservation of shoreline vegetation, encouraging restoration/replacement of lost shoreline vegetation with native plant materials, and encouraging installation of systems to control existing areas of erosion.

Policy #8: Install appropriate erosion control measures at all City storm water management facilities and manage surface water drainage to maintain river water quality.

Policy #9: Improve quality of surface water runoff received by streets and watercourses through Best Management Practices and manage the use of chemical fertilizers on public lands and application of salt to streets in winter.

Policy #10: Minimize site alteration within the corridor.

Policy #11: Preserve natural areas within parks and open space while allowing some intensification of use. Encourage creation, connection, and maintenance of open space, recreational facilities, including those providing public access to the river.

Policy #12: Where practicable preserve or restore a 40-foot wide zone of vegetation along the shoreline and protect and where and when possible, enhance Public River Corridor Views (PRCVs).

Policy #13: Where practicable prohibit disturbance of bluff faces with slopes of greater than 12%.

Policy #14: To help review impacts to the river bluff, PRCVs, or vegetation stands, a detailed topographic survey will be required for all new construction/reconstruction if deemed

necessary after construction/reconstruction. The city will coordinate with adjacent jurisdictions to protect PRCVs located within and identified by communities adjacent or across the river.

Policy #15: All new development or redevelopment requires a site plan that adequately assess and minimize adverse impacts to PCAs. The city will consider on a case by case basis the support of subdivisions/PUDs, variances, CUPs, and other permits which could assist in the protection of PCAs and PRCVs. Proposed developments will be evaluated for erosion preventions and bank and slope stabilization issues and require restoration as part of the development process.

Policy #16: The city will develop zoning regulations that support the polices and rules outlined by the MRCCA

Policy #17: The city will notify the Department of Natural Resources at least 30 days before taking action on any development requiring discretionary action or a public hearing by the City.

Policy #18: The city will continue to guide land use consistent with the management purposes of the MRCCA districts.

Policy #19: Protect the Primary Conservation Areas (PCAs) and Public River Corridor Views (PRCVs) listed in the City's MRCCA plan and minimize impact to PCAs from public and private development and land use activities (landscape maintenance, river use, walking/hiking, etc.).

Policy #20: The city will consider alternative design standards that protect the LGU's identified PCAs through zoning and site design techniques that achieve better protections or restoration of primary conservation areas.

Policy #21: When feasible the city will pursue permanent protection measures such as public acquisition, conservation easement, deed restrictions to protect PCAs as a high priority.

Policy #22: Protect native and existing vegetation during the development process and require restoration if any is removed by development. Priorities for restoration shall include stabilization of erodible soils, riparian buffers and bluffs or steep slopes visible from the river.

Policy #23: When feasible, the city will seek opportunities to restore vegetation to protect and enhance PRCVs identified in this plan.

Policy #24: When feasible, the city will seek opportunities to restore vegetation in restoration priority areas identified in this plan through the CUP, variance and subdivision/PUD processes.

Policy #25: The city will sustain and enhance ecological functions (habitat value) during vegetation restorations.

Policy #25: The city will identify and encourage connection of CA-SR district land to existing and planned parks and trails for LGUs with developable land in CA-SR districts.

Policy #26: Where feasible and appropriate, the city will encourage that land dedication requirements be used to acquire land suitable for public river access.

Policy #27: The city will minimize impacts to PCAs and PRCVs from solar and wind generation facilities, public transportation facilities and public utilities.

Policy #28: The city will protect water-oriented uses and work to minimize any potential conflicts of water-oriented uses with other land uses.

12.12 Implementation Plan

Implementation Action	Responsible Group	Anticipated Completion Date
Districts		
Update Zoning Map to reflect new MRCCA districts	GIS Staff Planning Staff	2019
Adopt new MRCCA ordinance	Planning Staff	2020
Primary Conservation Areas		
Make the location of PCAs readily available to residents and provide relevant ordinance information for items such as vegetation management and land alteration permits.	Planning Staff	2020
Establish procedures and criteria for processing applications with potential impacts to PCAs, including: 1. Identifying the information that must be submitted and how it will be evaluated. 2. Determining appropriate mitigation procedures/methods for variances and CUPs, 3. Establishing evaluation criteria for protecting PCAs when a development site contains multiple types of PCAs and the total area of PCAs exceed the required set aside percentages.	Planning Staff Engineering Staff	2020

4. Developing administrative procedures for integrating DNR and local permitting of riprap, walls and other hard armoring.		
Public River Corridor Views		
Make the location of Public River Corridor Views (PRCVs) readily available to property owners to understand how PRCV-relevant ordinance requirements such as vegetation management and land alternation permits apply to their property for projects and permitting.	Planning Staff	2020
Establish procedures for procession applications with potential impacts to PRCVs including: 1. Identifying the information that must be submitted and how it will be evaluated, and 2. Determining appropriate mitigation procedures/methods for variances and CUPs 3. Actively communicate with adjacent communities to protect views identified as valuable.	Planning Staff	2021
Restoration Priorities		
If areas are identified as natural vegetation restoration areas, the City will provide information on their location and make readily available to property owners ordinance requirements that apply to their property for project planning and permitting.	Planning Staff	2020
Establish a vegetation permitting process that includes permit	Planning Staff	2021

review procedures to ensure consideration of restoration priorities identified in this plan in permit issuance as well as standard conditions requiring vegetation restoration for areas identified as priority areas.		
Establish a process for evaluating priorities for natural vegetation restoration, erosion prevention and bank slope stabilization, or other restoration priorities identified in this MRCCA plan in CUP, variances and subdivision/PUD processes.	Planning Staff	2021
Open Space & Recreational Facilities		
Include improvements for open space and recreational facilitates within the MRCCA boundary in the Capital Improvement Program.	Recreation and Park Staff Operation and Maintenance Staff Planning Staff	2019
Develop a system for reviewing, tracking, and monitoring open space required as part of the subdivision process.	Planning Staff	2019
Transportation & Public Utilities		
Include transportation facilities, or portions of facilities, located within the MRCCA boundary to the Capital Improvement Program	Engineering Staff Planning Staff	2019
Incorporate specific design and placement conditions into local permits for solar and wind generation facilities and essential and transmission services that minimize impacts to PCAs and PRCVs.	Planning Staff	2019
Water-Oriented Land Uses		
When adopting an MRCCA ordinance, provide regulations for water-oriented land uses.	Planning Staff	2020

CHAPTER 13: Implementation Program

The Implementation chapter of the Comprehensive Plan addresses how the policies and direction described in the previous chapters will be accomplished in Brooklyn Park.

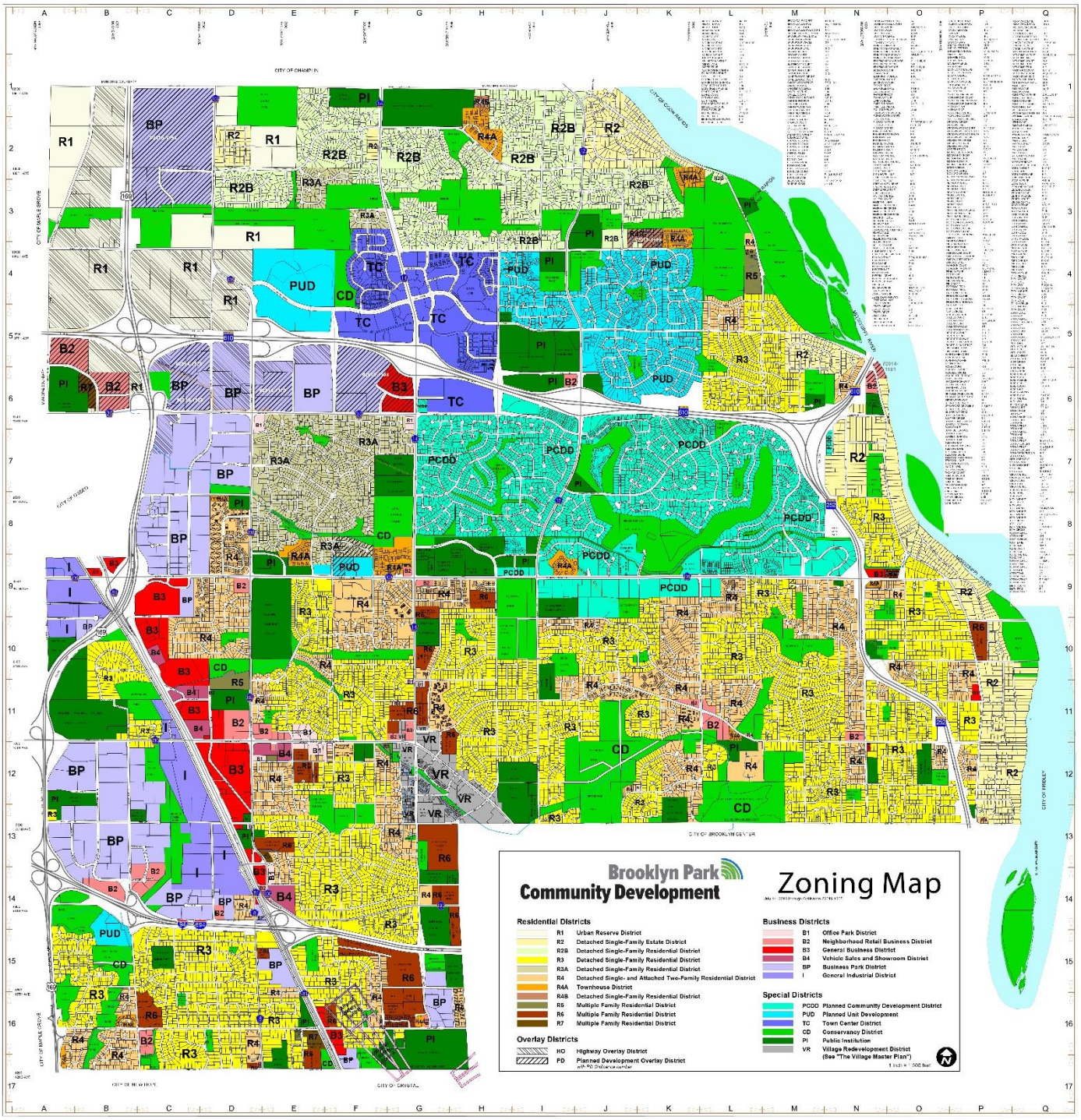
Often, the most challenging part of the Comprehensive Plan is implementation. It is easy to complete a document, and then watch it collect dust on a shelf. To increase the likelihood of its implementation, the following Implementation Matrix provides priorities and probable funding mechanisms. The implementation steps should be reviewed by the City periodically (annually or more often) to:

- Establish **priority work activities** for City staff and volunteers (and for City partner organizations) on an annual basis,
- Establish **priorities for annual City budget** (and for City partner organization budgets),
- Establish **priorities for Capital Improvement Plans**.

Three additional areas are specifically addressed; 1) Official Controls; 2) Capital Improvement Plan; and 3) Housing Implementation Program.

13.1 Official Controls

The City utilizes the zoning and subdivision regulations as the primary control for development and land use regulation. The zoning ordinance is the main implementation tool for the comprehensive plan and will be updated within nine months of the adoption of the comprehensive plan. A current zoning map and zoning category descriptions are provided below.


Brooklyn Park
Community Development
Zoning Map
Residential Districts
R1 Urban Reserve District
R2 Detached Single-Family Estate District
R2B Detached Single-Family Residential District
R3 Detached Single-Family Residential District
R3A Detached Single-Family Residential District
R4 Detached Single- and Attached Two-Family Residential District
R4A Townhouse District
R4B Detached Single-Family Residential District
R5 Multiple Family Residential District
R6 Multiple Family Residential District
R7 Multiple Family Residential District
Overlay Districts
HO Highway Overlay District
PD Planned Development Overlay District
Business Districts
B1 Office Park District
B2 Neighborhood Retail Business District
B3 General Business District
B4 Vehicle Sales and Showroom District
BP Business Park District
I General Industrial District
Special Districts
PCDD Planned Community Development District
PUD Planned Unit Development
TC Town Center District
CD Conservancy District
PI Public Institution
VR Village Redevelopment District
(See "The Village Master Plan")

Zoning District		Description
R-1	Urban Reserve	Allows for the orderly phasing and development of land until city services, including sanitary sewer, storm sewer, and water, are extended into the area; Typically requires significant amounts of open land area such as athletic and cultural facilities, country clubs, government buildings, educational uses, and land reclamation; Short-term agriculture uses and very low density residential uses and those accessory uses customarily incidental to them.
R-2	Detached Single-Family Estate	Large lot detached single-family dwellings
R-2B	Detached Single-Family Residential	Detached single-family dwellings
R-3	Detached Single-Family Residential	Detached single-family dwellings
R-3A	Detached Single-Family Residential	Detached single-family dwellings
R-4	Detached Single and Attached Two-Family Residential	Detached single and attached two-family dwellings
R-4A	Townhouse	Low or medium density attached residential dwellings
R-4B	Detached Single Family	Low or medium density single family homes within association-maintained communities
R-5	Multiple Family Residential	Two story multiple family structures
R-6	Multiple Family Residential	Multiple family dwellings over two stories
R-7	Multiple Family Residential	Multiple family dwellings
B-1	Office Park	Office uses, with other accessory retail and service uses offered on site to serve the primary use or their employees
B-2	Neighborhood Retail Business	Commercial or mixed use development centers for retail sales and services that serve the adjacent neighborhoods and to preserve and protect the general character of the adjacent areas.
B-3	General Business	Centralized areas for commercial or mixed use development that have a community or regional customer base in that they generally draw customers from farther away than the adjacent neighborhoods
B-4	Vehicle Sales and Showroom	Vehicle sales businesses that draw from a regional customer base and has outdoor storage, display and/or sales of vehicles and/or recreational equipment
BP	Business Park	Office, commercial, industrial, or mixed use that enhance the city's tax base, have few customers coming to the site, but may have a large employee base, involve manufacturing, warehousing, office uses, and other accessory retail and service uses offered on site to service the primary use or their employees.
I	General Industrial	Warehousing and industrial uses that may present negative off-site impacts to adjacent properties and are potentially environmentally sensitive due to the characteristics of the use of the property, and/or have an extensive amount of outdoor storage requirements.
PCDD	Planned Community Development District	Designed for use where the general areas contain a unique physical or recreational feature or require detailed, coordinated planning efforts to achieve specific goals.
PUD	Planned Unit Development	Development that is in compliance with the land use designation that allows innovation in development standards.
TC	Town Center	High quality, comprehensively designed commercial and residential neighborhoods with developments designed to promote walking, bicycling and transit use.
CD	Conservancy	Valuable environmental qualities which are to be preserved as park or open space amenities and to prevent the over-crowding of land, to avoid undue concentration of population, a specific public purpose, and/or alleviate the burden of development from environmentally sensitive lands.

PI	Public Institution	Public buildings, uses and needs that otherwise may not fit into other zoning districts because of their specialized land use needs and public purpose.
VR	Village Redevelopment	implement the goals and objectives of the Village Redevelopment Plan and to define strategies and design standards for the implementation of the Plan. The district is intended to promote creative and efficient use of land within the Redevelopment District by providing flexibility in design and to allow mixed land uses while encouraging compact and pedestrian oriented development

There are many changes anticipated in order to be able to implement the policies and objectives in the plan. The anticipated changes include the following items identified by chapter:

Land Use:

1. Revise zoning districts to reflect the densities and uses described in Table 3-2 of this Plan
2. Revise the city's zoning map to reflect the new MRCCA districts
3. Rezone properties in accordance with the 2040 Future Land Use Plan
4. Implement Transit Overlay Districts as described in the Station Area Plans

Housing

1. Guide future land use to densities that support the development of affordable housing.
2. Explore adopting tenant protection ordinances that would require landlord notice of non-renewal leases, significant rent increases, or changes in screening criteria.
3. Explore ordinances and policies that support mixed-income residential developments with a goal of 20 percent units being affordable to 50% Area Median Income to preserve long-term affordability near public transit.
4. Update zoning code in accordance with the Mixed-Income Housing Policy

13.2 Capital Improvement Plan

The Capital Improvement Plan is a flexible plan based upon long-range physical planning and financial projections, which schedules the major public improvements that may be incurred by the City over the next five years. Flexibility of the Capital Improvement Plan is established through annual review, and revision if necessary. The annual review assures that the program will become a continuing part of the budgetary process and that it will be consistent with changing demands as well as changing patterns in cost and financial resources. Funds are appropriated only for the first year of the program, which is then included in the annual budget.

The Capital Improvement Plan serves as a tool for implementing certain aspects of the City's comprehensive plan; therefore, the program describes the overall objectives of City development, the relationship between projects with respect to timing and need, and the City's fiscal capabilities.

The Capital Improvement Plan can help assure:

- A systematic approach to planning and initiating capital projects affording the opportunity to plan the location, timing, and financing of needed public improvements;
- The development of a realistic program of capital spending within the City's projected fiscal capability to finance such projects, avoiding sharp changes in the tax levy or bonded indebtedness;
- The coordination of public and private improvement projects permitting adequate time for design and engineering to eliminate duplication of effort and expense;
- The expenditure of public funds that are compatible with the City's adopted Comprehensive Plan;
- That the public is kept informed of the proposed future projects and expenditures;
- That private investors are aware of the City's long-range development program so that they may guide their development in a way that is compatible with the City's program;
- Aid in achieving federal and/or state participation by providing the necessary planning and lead time necessary for a successful application in addition to meeting prerequisites needed for certain federal and state grants.

The full Capital Improvement Plan is available at Brooklyn Park City Hall and as Appendix I to the Comprehensive Plan. Specific implementation strategies for water, sewer and transportation infrastructure are also described in those chapters.

13.3 Housing Implementation Program

The City of Brooklyn Park, through the use of various programs and initiatives, has been a leader in supporting affordable housing, preservation of housing and neighborhoods, funding programs for housing rehabilitation, and providing life-cycle housing opportunities. The Housing Chapter of this Plan addresses the programs and implementation strategies for the housing in the community.

13.4 Implementation Matrix

The implementation work plan outlined in the following table expands upon the strategies and action items presented in all preceding chapters of this Plan by assigning a responsible body or actor (**who**), a timeframe for action (**when**), and a suggestion of where the funding that will enable the action will come from (**how**).

While the following lays out a work plan covering the years 2018 – 2040, it is to be expected that the task list will change from year to year. As time goes on, some tasks will take longer than expected and will shift into the next year's list. Priorities will change, and tasks will be moved up to be accomplished earlier. New ideas will be presented to accomplish the goals and vision cited here and will be added to the task list and new funding tools may be developed. This is all part of the cyclical process of implementation.

Implementation actions and strategies are arranged in the Implementation Matrix by Plan chapter, which has the following color scheme:

	Land Use
	Housing
	Economic Development
	Transportation
	Parks
	Resilience
	Surface Water
	Water Supply
	Sanitary Sewer

An “X” in the “Ongoing” column indicates that the corresponding action or strategy item will not be completed as a discrete task, but will instead require periodic or continuous attention once the identified action or strategy has been initiated.

In the “When” column, timeframes are organized into four classifications:

- Ongoing (an action that is already happening and will occur as needed or on a continual basis)
- Short-term (starting now, completed within the next five years)
- Medium-term (5 – 10 year completion)
- Long-term (10+ year completion)

Table 13-1 BROOKLYN PARK IMPLEMENTATION MATRIX

Action or Strategy		Who	When	Ongoing?	How ($)
	Land Use				
	Create new zoning districts that reflect the new future land use designations in this Plan	Community Development staff	Short-term		City funds
	Update residential densities within the zoning ordinance to reflect density ranges proposed in this Plan	Community Development staff	Short-term		City funds
	Create flexible development standards for new residential developments that allow innovative development patterns and more efficient densities that protect and enhance the character, stability, and vitality of residential neighborhoods.	Community Development staff	Short-term		City funds
	Revise the city's zoning map to reflect the new MRCCA districts	Community Development staff	Short-term		City funds
	Rezone properties in accordance with the 2040 Future Land Use Plan	Community Development staff	Short-term		City funds
	Implement Transit Overlay Districts as described in the Station Area Plans	Community Development staff	Short-term		City funds
	Update zoning code in accordance with the Mixed-Income Housing Policy	Community Development staff	Short-term		City funds
	Housing				
	See Housing Implementation Matrix in Chapter 4				
	Economic Development				
	Continue to support economic activities that increase the overall tax base of the community.	All staff		X	City funds
	Explore strategies for attracting additional restaurants to grow the variety of dining options for residents, businesses, and the workforce.	Economic Development staff	Short-term		City funds

Action or Strategy	Who	When	Ongoing?	How ($)
Identify opportunities to enhance resident access to existing businesses.	Economic Development staff	Short-term		City funds
Continue to review the Business Forward Advisory Board recommendations to sustain a strong, business-friendly environment in Brooklyn Park.	Economic Development staff		X	
Continue to support business attraction, retention, and expansion in the growing cluster of medical device and technologies, biosciences, precision manufacturing, research and development facilities, professional offices, and headquartered companies in Brooklyn Park.	Community Development staff		X	
Explore strategies for reducing barriers to opening a business in Brooklyn Park.	Economic Development staff	Short-term		City funds
Continue to support community-owned amenities, such as Edinburgh USA golf course and clubhouse, and prepare publicly-owned land, such as the Village Creek redevelopment area, for redevelopment.	Economic Development staff		X	
Consider creating a new forum for entrepreneur development to share resources with potential new business owners and stimulate the locally-owned business community.	Economic Development staff	Short-term		City funds
Explore small business incubation models, including whether the foundation for an incubator already exists in Brooklyn Park.	Economic Development staff	Short-term		City funds

Action or Strategy	Who	When	Ongoing?	How ($)
Continue to include the Brooklyn Park business community in policy creation and decision making via the Business Forward Advisory Board.	Economic Development staff		X	City funds
Continue small business support programs, such as Open to Business, and one or more City Staff positions to support businesses.	Economic Development staff		X	City funds, grants
Explore strategies to engage emerging entrepreneurs.	Economic Development staff		X	
Evolve the work of the Brooklyn Park Development Corporation to maximize its potential as a tool for business development.	Economic Development staff	Short-term		City funds
Consider using the Equitable Development Principles and Scorecard as a tool to engage the community and evaluate impacts during the development process.	Economic Development staff	Short-term		City funds
Evaluate the impact of policies and strategies on people of color through data analysis and community engagement. Adapt policies based on that evaluation.	Economic Development staff		X	City funds
Aim to attract employers that can support higher density employment to meet 2040 jobs goals.	Economic Development staff	Medium-term		City funds
Develop job creation, career pipeline, and livable wage policies in Brooklyn Park.	Economic Development staff	Short-term		City funds
Continue to cultivate workforce development partnerships with employers, schools, chambers of commerce, and other governmental and nonprofit organizations.	Economic Development staff		X	City funds, grants
Explore options to connect the local workforce to local employers.	Economic Development staff	Short-term		City funds

Action or Strategy		Who	When	Ongoing?	How ($)
	Remain involved with local programming to continue supporting partnerships without duplicating established, functioning initiatives.	Economic Development staff		X	
	Consider introducing City practices that promote local procurement in purchasing wherever possible.	Economic Development staff	Short-term		City funds
	Encourage local procurement in purchasing by other Brooklyn Park public and private anchors, including post-secondary institutions and Brooklyn Park's largest employers.	Economic Development staff		X	
	Evolve programs and practices to create more openness and opportunity to access available business resources.	Economic Development staff	Short-term		City funds
	Transportation				
	Pursue available funding grants and identify alternative funding strategies , including private sector options, to reduce reliance on shrinking state and federal funding sources.	Engineering staff, Operations and Maintenance		X	Federal funds, MnDOT, other grants
	Promote mixed use development and transportation demand management, especially in designated growth areas, to reduce the need for single occupancy vehicle trips and encourage transit oriented development.	All staff		X	
	When developing and updating the city's Capital Improvement Plan, review the CIP for conformity with the Comprehensive Plan.	Engineering staff, Operations and Maintenance		X	City funds
	Consider the impact on quality of life, aesthetics to adjacent land uses and all other travel modes when constructing new or reconstructing existing roadways.	Engineering staff, Operations and Maintenance		X	

Action or Strategy	Who	When	Ongoing?	How ($)
Improve coordination of public and private roadway and utility projects to minimize pavement cuts and traffic disruptions.	Engineering staff, Operations and Maintenance		X	
Work with MnDOT, Hennepin County and other agencies to utilize Intelligent Transportation Systems (ITS) to maximize the efficiency and safety of all roadways within the city.	Engineering staff, Operations and Maintenance		X	MnDOT, Hennepin County, City funds
Continue to identify and implement safety strategies to address speeding, young drivers, occupant protection, impaired driving, roadway departure, intersection safety and reliance on good data.	Engineering staff, Operations and Maintenance		X	MnDOT, Hennepin County, City funds
Work with MnDOT and Hennepin County to initiate studies within the next five years of the three areas identified above in 5.3.13 of the Transportation Chapter as requiring additional multi-agency study.	Engineering staff, Operations and Maintenance	Short-term		MnDOT, Hennepin County, City funds
Work with Hennepin County to transfer jurisdiction of the roadways identified in 5.3.14 of the Transportation Chapter.	Engineering staff, Operations and Maintenance	Medium-term		Hennepin County, City funds
Implement the roadway improvements described in 5.3.13 of the Transportation Chapter as funding become available with emphasis on regional coordination to fund and implement the large-scale projects.	Engineering staff, Operations and Maintenance	Short to Long-term		MnDOT, Hennepin County, City funds
Work with Metro Transit to provide convenient, reliable, and efficient mass transit	Community Development staff, Engineering staff		X	
Promote transit-oriented development opportunities where appropriate	Community Development staff		X	

Action or Strategy		Who	When	Ongoing?	How ($)
	When locating affordable housing and senior housing sites, transit availability will be considered	Community Development Staff		X	
	Include pedestrian, bicycle, and transit use in public and private developments. Walkways and Transit in High Density Housing and Commercial Areas will be required	Community Development Staff, Engineering staff		X	City funds, new developments
	Work with Hennepin County, MNDOT, and Metro Transit with the Target project	Community Development Staff, Engineering staff	Short-term		Hennepin County, MnDOT, Metro Transit
	Parks and Trails * See also City Park System Plan, Chapter 5 which includes a detailed 10 year capital reinvestment plan				
	Rehabilitation: Park buildings and shelters	Parks and Recreation staff	Short-term		City funds
	Rehabilitation: Parks irrigation system rehab.	Parks and Recreation staff	Short-term		City funds
	Rehabilitation: Central Park improvements	Parks and Recreation staff	Short-term		City funds
	Rehabilitation: Eidem Homestead improvements	Parks and Recreation staff	Short-term		City funds
	Golf Courses: Brookland Golf Park Rehabilitation	Parks and Recreation staff	Short-term		City funds
	Golf Courses: Edinburgh USA Course Rehab	Parks and Recreation staff	Short-term		City funds
	Rehabilitation: Edinburgh USA Clubhouse Reinvestments	Parks and Recreation staff	Short-term		City funds
	CAC: General Rehabilitation/Remodeling	Parks and Recreation staff	Short-term		City funds
	Rehabilitation: Zanewood Recreation Center	Parks and Recreation staff	Short-term		City funds

Action or Strategy		Who	When	Ongoing?	How ($)
	Emerald Ash Borer	Parks and Recreation staff	Short-term		City funds
	Natural Resource Management	Parks and Recreation staff	Short-term		City funds
	Park Bond: Park Reinvestment	Parks and Recreation staff	Short-term		Park Bond
	Parks: Playground/Skate Park Equipment Replacement	Parks and Recreation staff	Short-term		City funds
	Parks: Parking Lot Replace/Construct	Parks and Recreation staff	Short-term		City funds
	Tennis, Pickleball & Basketball Court Replace/Rehab	Parks and Recreation staff	Short-term		City funds
	Trail & Pedestrian Bridge Replacement/Rehab	Parks and Recreation staff	Short-term		City funds
	Northwoods Park Improvements	Parks and Recreation staff	Short-term		City funds
	River Park Improvements	Parks and Recreation staff	Short-term		City funds
	Zane Sports Park Improvements	Parks and Recreation staff	Short-term		City funds
	Env. Nature Area/Mississippi Gateway Master Plan	Parks and Recreation staff	Short-term		City funds
	Park Bond: Natural Resources Management	Parks and Recreation staff	Short-term		Park Bond
	Park Bond: Trails	Parks and Recreation staff	Short-term		Park Bond
	Park Bond: CAC Improvements and Senior Facilities	Parks and Recreation staff	Short-term		Park Bond
	Park Bond: Field and Court Improvements	Parks and Recreation staff	Short-term		Park Bond
	Park Bond: Historic Eidem Farm Improvements	Parks and Recreation staff	Short-term		Park Bond

Action or Strategy		Who	When	Ongoing?	How ($)
	New Trail Construction	Parks and Recreation staff	Short-term		City funds
	Land/Facilities Acquisition	Parks and Recreation staff	Short-term		City funds
	Park Bond: Additional Recreation/Teen Center	Parks and Recreation staff	Short-term		Park Bond
	Community Aquatics Facility	Parks and Recreation staff	Short-term		City funds
	Central Park Redevelopment	Parks and Recreation staff	Short-term		City funds
	Field House/Dome	Parks and Recreation staff	Short-term		City funds
	Artificial Turf Sports Field	Parks and Recreation staff	Short-term		City funds
	Community Gymnasium	Parks and Recreation staff	Short-term		City funds
	Resilience				
	Encourage residents and businesses to include solar systems as part of their homes or buildings.	Operations and Maintenance, City Administration, Community Development staff		X	City funds
	Install solar systems at multiple locations on City facilities to provide power to City buildings	Operations and Maintenance	Short-term		City funds, grants
	Continue use of alternative fuels in City vehicles, including E-85 and hybrid vehicles	Operations and Maintenance		X	City funds
	Continue to work at with property owners as new energy systems are introduced and change our own facilities as appropriate	Operations and Maintenance, Community Development staff		X	City funds
	Provide curbside residential organics collection in accordance with upcoming Hennepin County ordinance	Operations and Maintenance	Short-term		City funds