

City of Crystal - May 9, 2019 Bus Tour

#	DESCRIPTION	STAFF
1	Gaulke Pond Homes infill development - 39XX Douglas Dr	John S
2	Retaining wall removals, regrading and sodding of yards	Mark
3	Flashing yellow arrows (2019) - Douglas Dr at 36th	Mark
4	Mill & overlay project (2019) - north half of Valley Place neighborhood	Mark
5	Winnetka Pond dredging project	Mark
6	Winpark Drive reconstruction	Mark
7	Utility reconstruction project (2020) - south half of Valley Place neighborhood	Mark
8	Removal of east parking lot at Valley Place this summer	Mark
9	Gardendale Subdivision infill development - 32XX Georgia	John S
10	South Sanitary Sewer Lift Station - 3-phase power and system reliability improvements	Mark
11	Proposed Verizon cell tower near 32nd-Vera Cruz curve	Mark
12	Pedestrian crossing improvements at 36th & Welcome	Mark
13	North Clinic (former Chalet Liquors)	Dan
14	RiverTree School campus expansion	Dan
15	Removal of non-connected sidewalks	Mark
16	2020 relocation of playground at Fair School, soccer field	John E
17	Underground water reservoir - K-9 training area /potential native plantings	Stephanie/Mark
18	Elision Playhouse (former Mill End Fabrics building) at 6105 42nd	John S
19	New house with accessory dwelling unit at 4628 Zane	Dan
20	Welcome Park improvements	John E
21	Bottineau Boulevard median landscaping project	Mark
22	EDA lot sales - new homes along Bottineau Blvd (former vacant county land)	Dan
23	Surplus property - three new homes at 50XX Vera Cruz	John S
24	Blue Line Extension - proposed Bass Lake Road station and park & ride lot	John S
25	EDA lot sales - four new homes at 56th & Adair-Zane	Dan
26	Surplus property - two new homes at 56XX Welcome	John S
27	Bass Lake Road streetscape project	John S
28	Becker Park stormwater infiltration project	Mark
29	Becker Park reconstruction project	John E
30	Target remodel and new Taco Bell in parking lot	John S
31	Extra Space Storage to build on vacant Herzing site	Dan
32	U-Haul renovating former Thriftway building	Dan
33	Stormwater infiltration under 5747 West Broadway parking lot (2020 project)	Mark
34	Future flashing yellow arrow at Bass Lake Road & Jersey	Mark
35	Surplus property - three lots proposed at 51XX Louisiana / Iron Horse Park improvements	John S / John E.
36	Completed train horn quiet zone at Canadian Pacific crossings	John S
37	6715 Corvallis - Lot split for two new homes	Dan
38	Traffic control changes	Mark
39	Old message board removal at CCC, new sign at CCC	John E
40	Flashing yellow arrows (2020) - 42nd & Douglas Dr	Mark
41	Brownwood Pond expansion (flood storage)	Mark

THIS PAGE INTENTIONALLY BLANK

THIS PAGE INTENTIONALLY BLANK

#1 – Gaulke Pond Homes

◀ NORTH

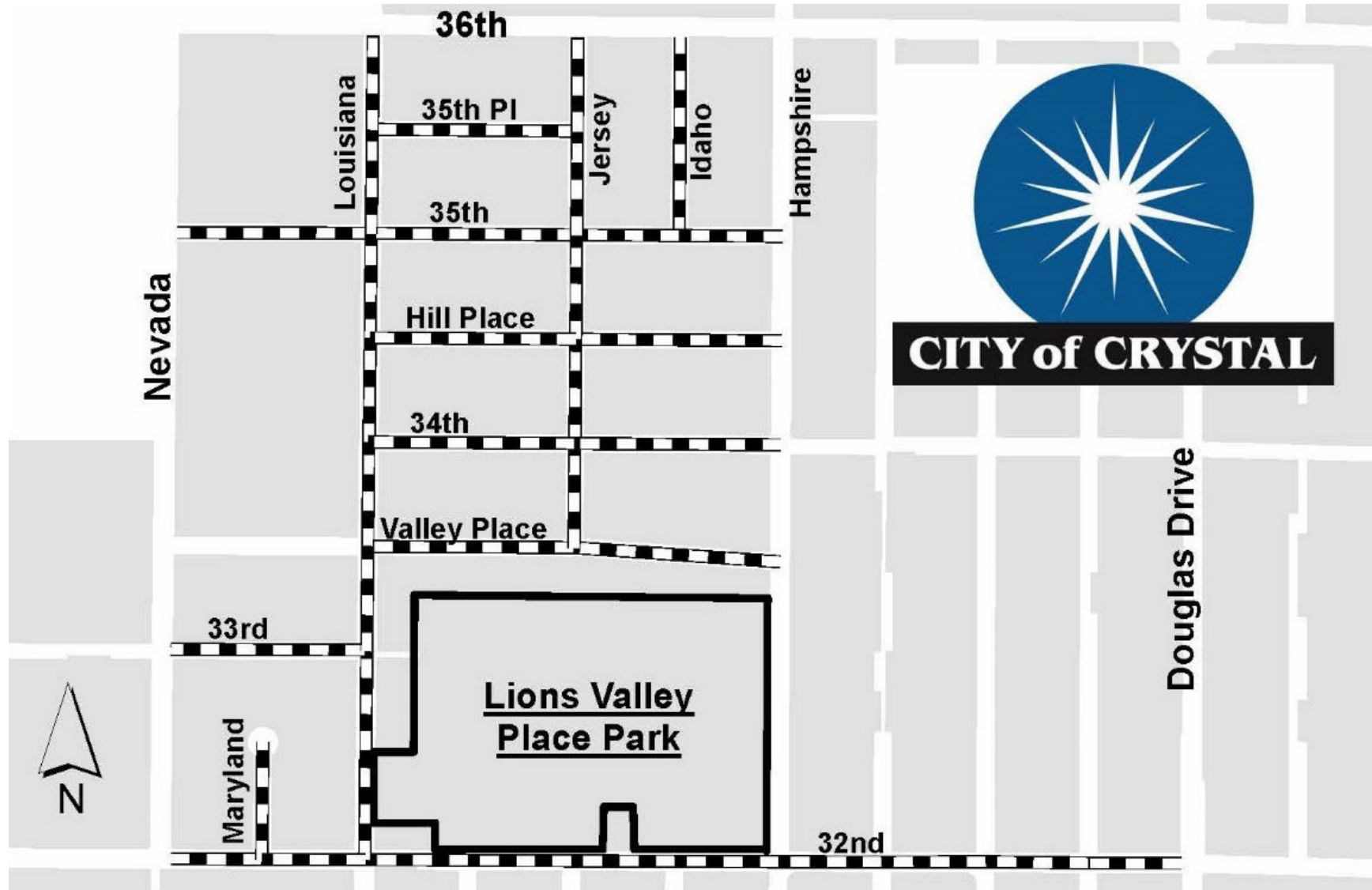
2012 Aerial Photo (overhead)



2018 Aerial Photo (oblique)



#4 – 2019 Mill & Overlay Paving Project



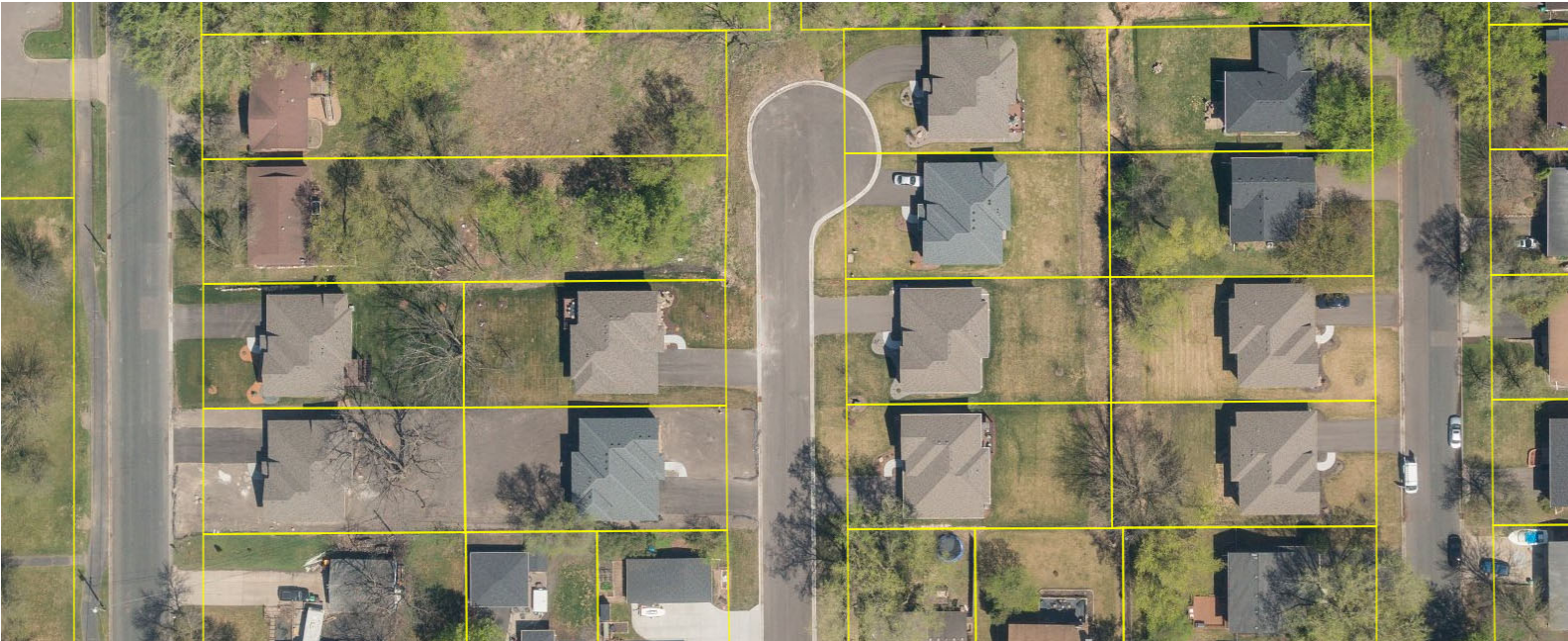
#9 – Gardendale Subdivision

▲ NORTH

2012 Aerial Photo



2018 Aerial Photo



#11 – Potential Verizon Cell Tower at 32nd & Vera Cruz

(illustrative rendering)



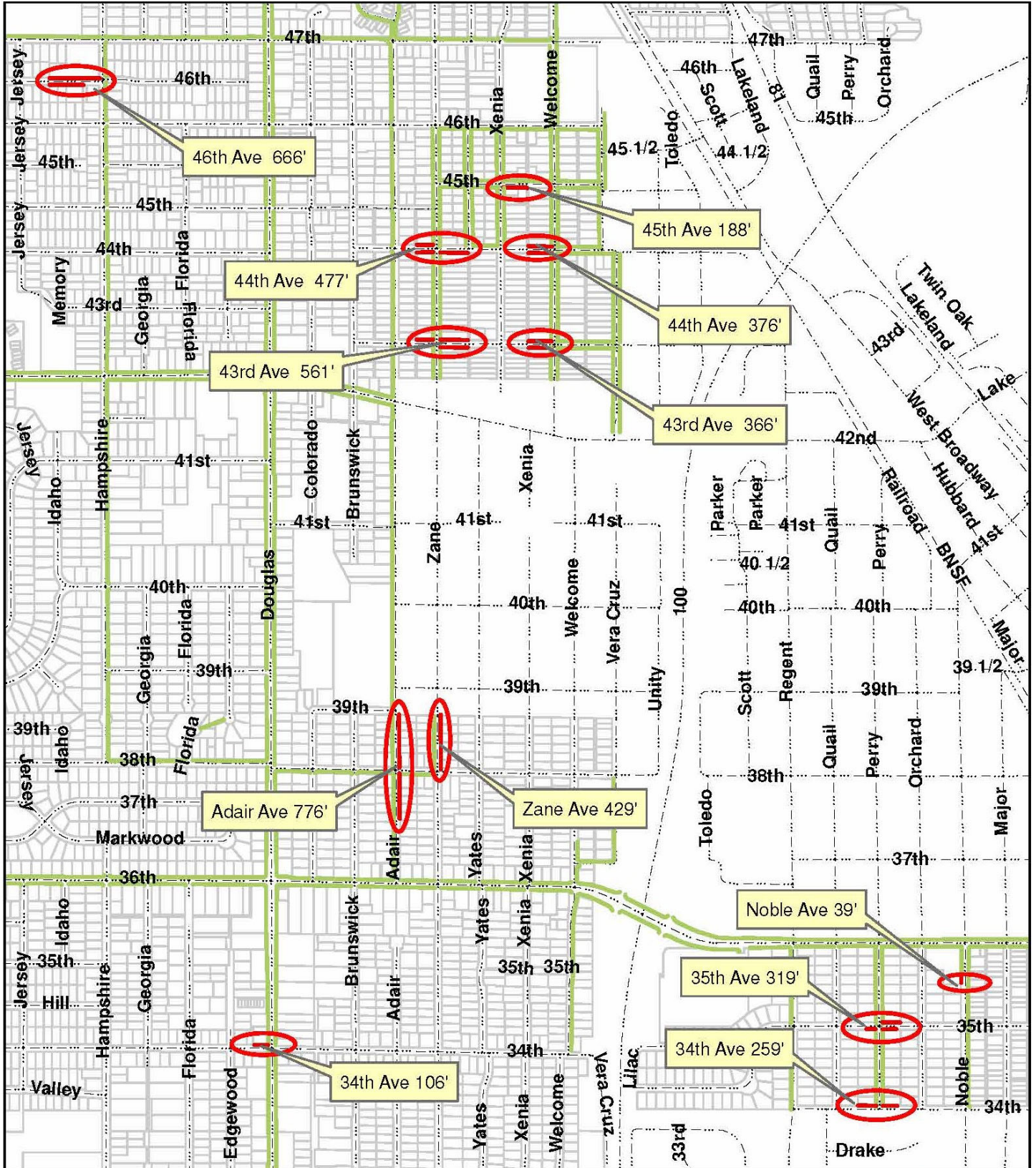
#13 - North Clinic at 5109 36th (former Chalet Liquor building)



#15 - Removal of Non-Connected Sidewalks

NORTH ▲

Non-Network Sidewalks, Potential Removals

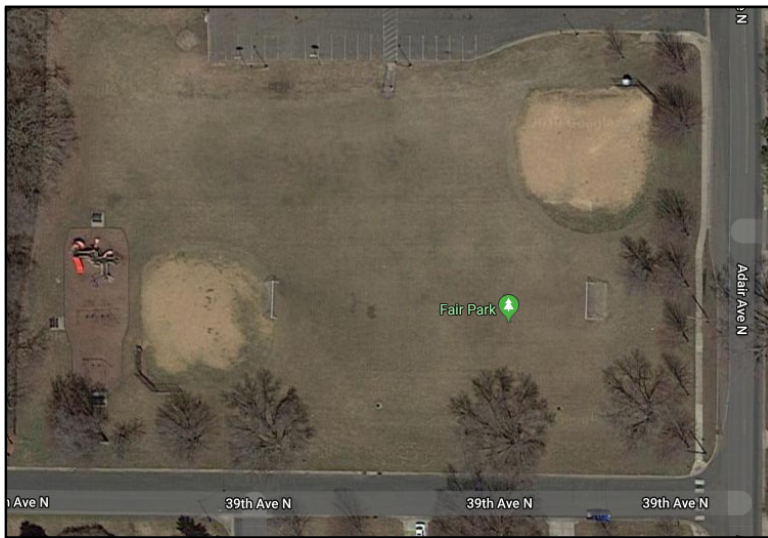


#16 – Fair School Park

The Play Area in Fair School Park was built in 1999 and sees very high use. The play area serves recess during the school day and the general public when school is not in session. The play area is in need of replacement, however, a new location is proposed to make the play area more accessible. Moving the play area would also create an opportunity to improve the soccer field and one backstop (no ag-lime infield). City staff has begun working with the school principal and other district staff to develop a preliminary layout and cost sharing plan – with potential play area construction in 2020. A Park and Recreation Commission ‘Neighborhood Meeting’ will be held here on June 5, 2019.

Recommendation from the Park System Master Plan: “Relocating the play area to a more usable location would increase the use of the amenity by both the neighborhood and the school. Consideration should also be given to removing a ballfield and to providing a soccer field.”

Aerial Photograph – *Google Maps*



First DRAFT Concept Drawing



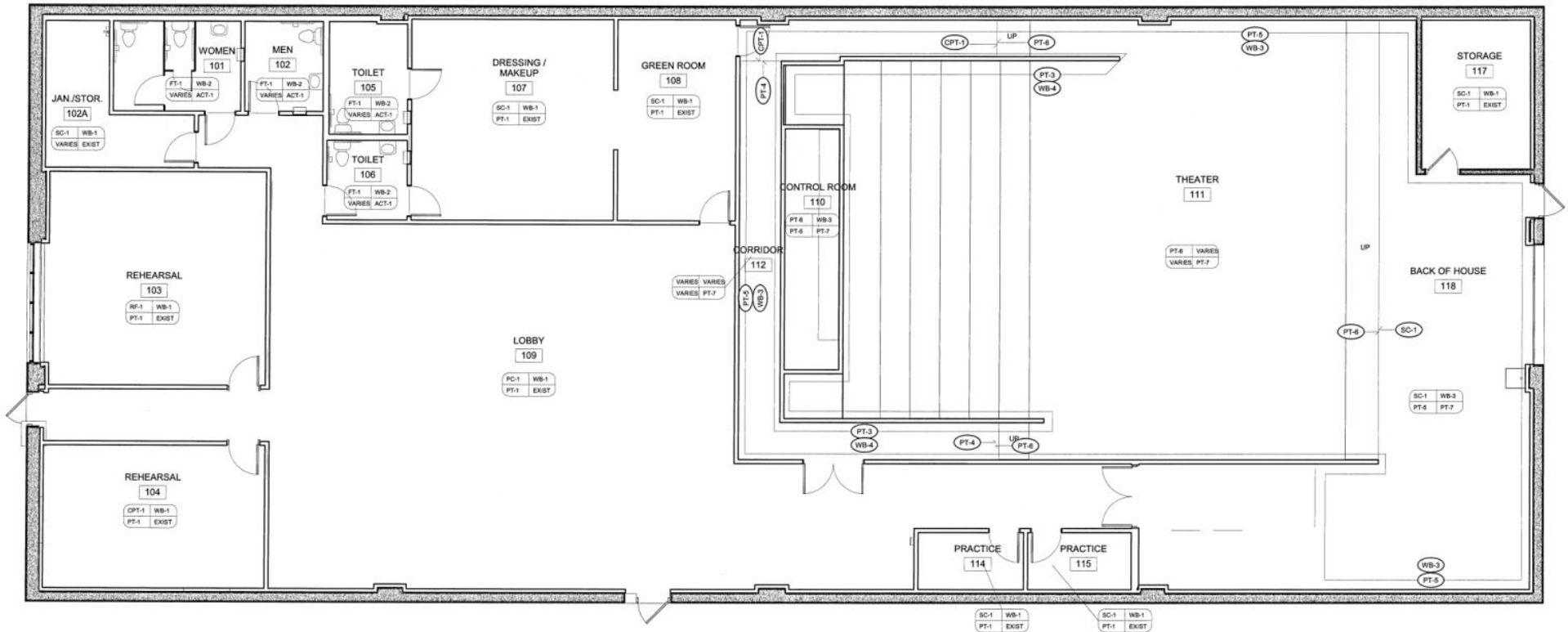
#17 - Introducing Leo

Crystal Police K-9 Officer Leo started with the Crystal Police Department on December 8, 2018. He is originally from Hungary and he is part German Shepherd, part Malinois and he is 16 months old. For the last 3 months he has been in training at the St. Paul Police Department K-9 Training Unit with his handler, Officer Caleb Selin. They are learning how to track, apprehend, search, and conduct obedience training. Leo and Officer Selin will graduate the end of May and will start working the beginning of June and they are both looking forward to building a strong relationship with their community.



#18 - Elision Playhouse

◀ NORTH



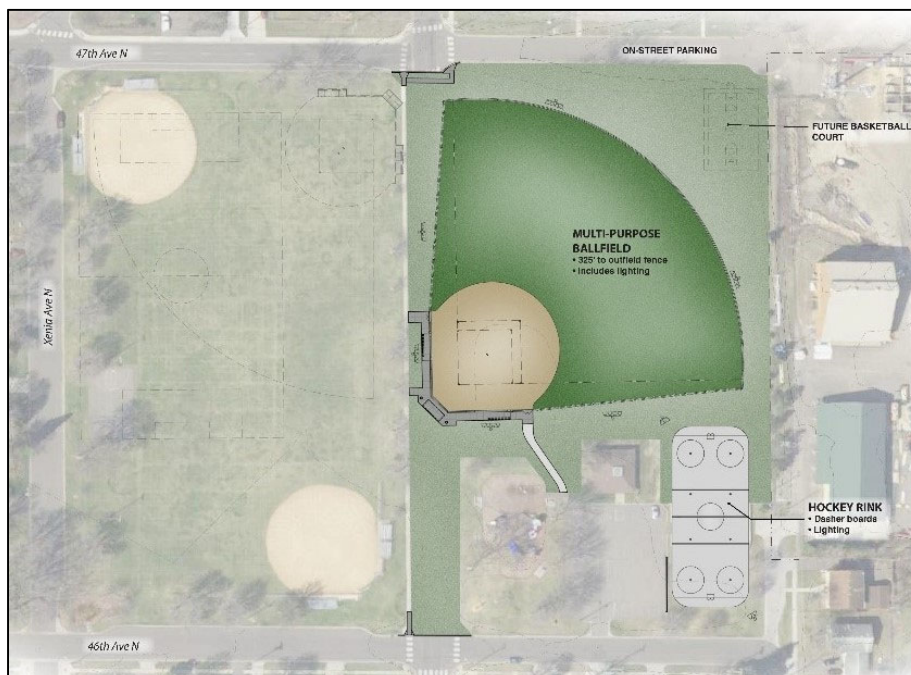
#20 – Welcome Park

The first improvements related to Crystal's new Park System Master Plan occurred at Welcome Park in 2018. The most notable change is the improvement of the softball field in the northeast corner of the park. The field was upgraded with new fencing, lighting and irrigation; and replaced the two lighted fields removed at Becker Park. Welcome Park will become the new home for softball leagues and tournaments beginning in July. The remaining work this spring relates to establishing healthy turf throughout the site. Also of note is the new hockey rink boards and lights that were installed in the southeast corner of the park last fall; which were used during the 2018-19 skating season.

From the Park System Master Plan

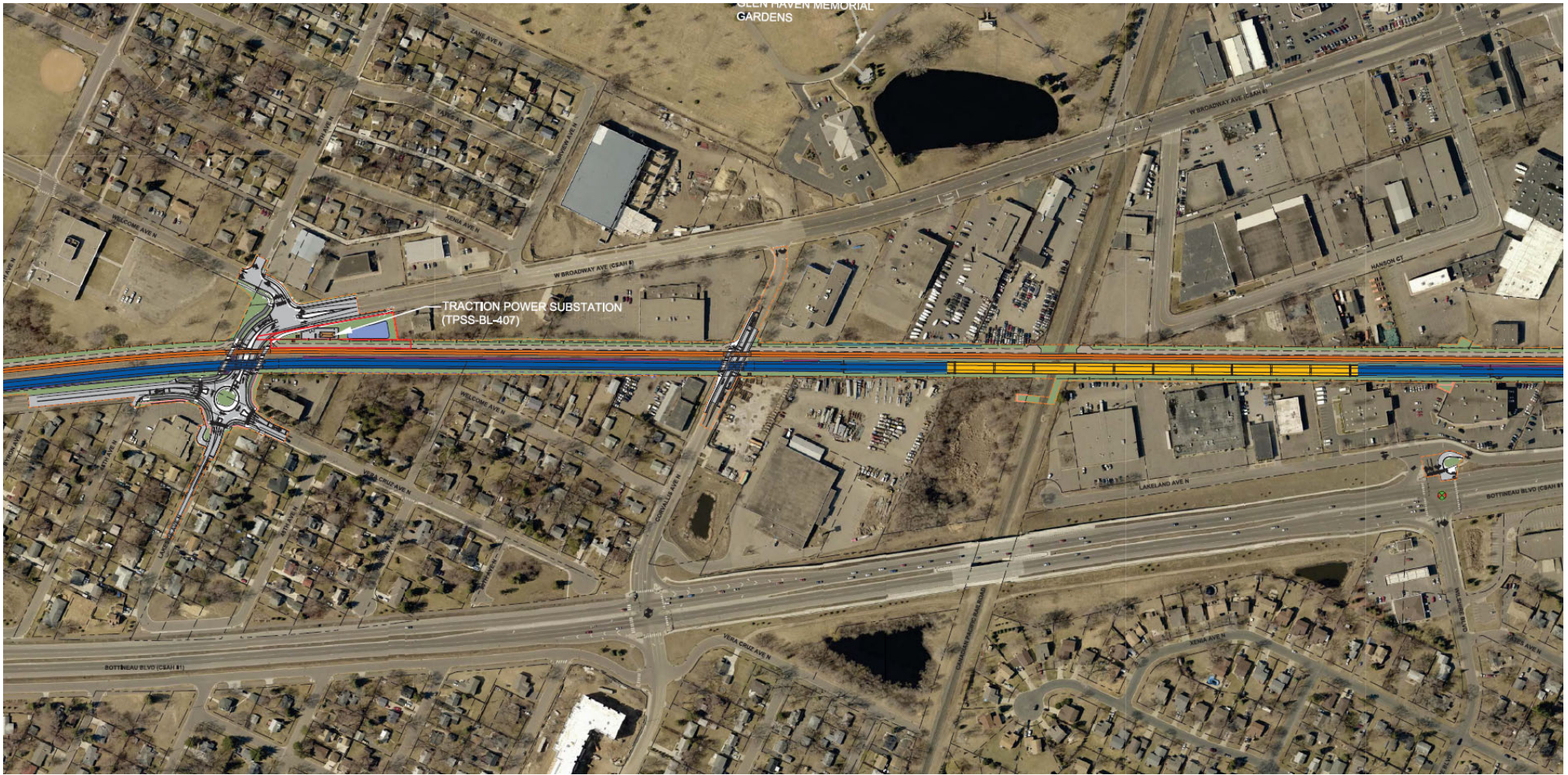


Phase I Construction (2018)



#24 – Blue Line Extension

Route through Crystal – South Half



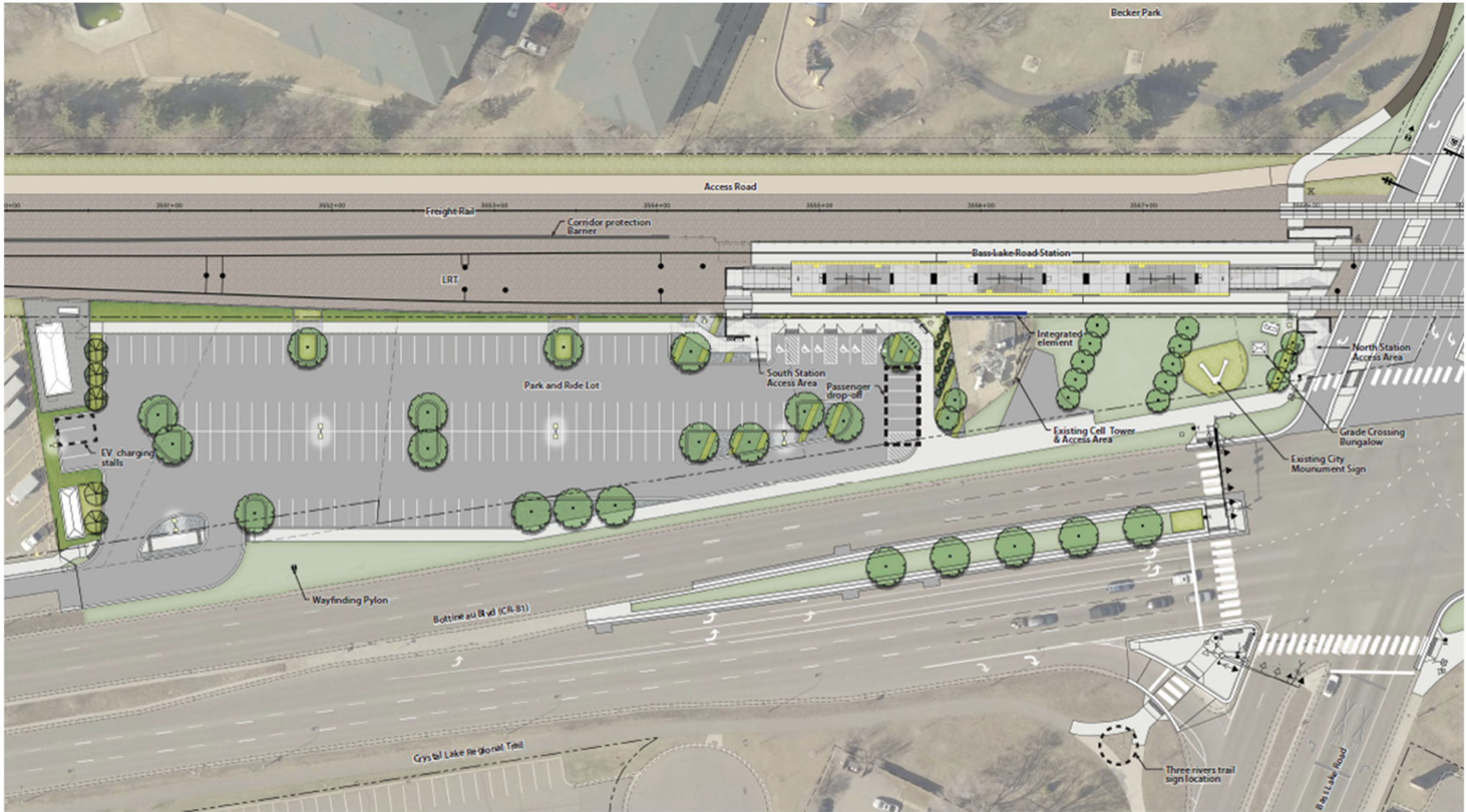
NORTH ↘

Route through Crystal – North Half

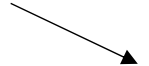


NORTH 

Bass Lake Road Station – Site Plan



NORTH



Bass Lake Road Station – Site Design Elements



Concrete with textured patterns

LANDSCAPE



Forms and Textures



Benches

Combined option



Trash/Recycling Receptacles

Side by side option



"Hoop" option



Bicycle Loops

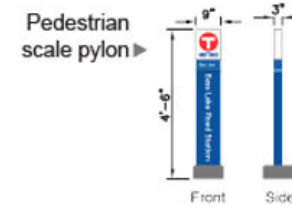
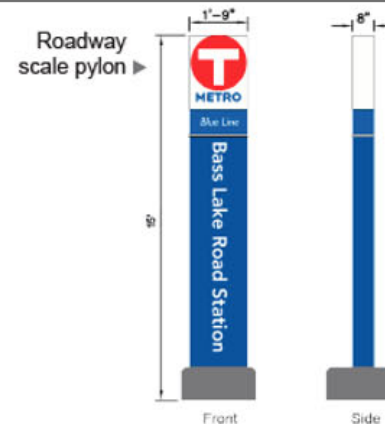
"Hitch" option



Pedestrian / Park and Ride Lighting
(15' and 30' height)



WAYFINDING SIGNAGE



DRAFT-WORK IN P.I.

Bass Lake Road Station – Renderings

Looking northwest towards the platform from the park & ride lot



Looking south towards the platform from Bass Lake Road



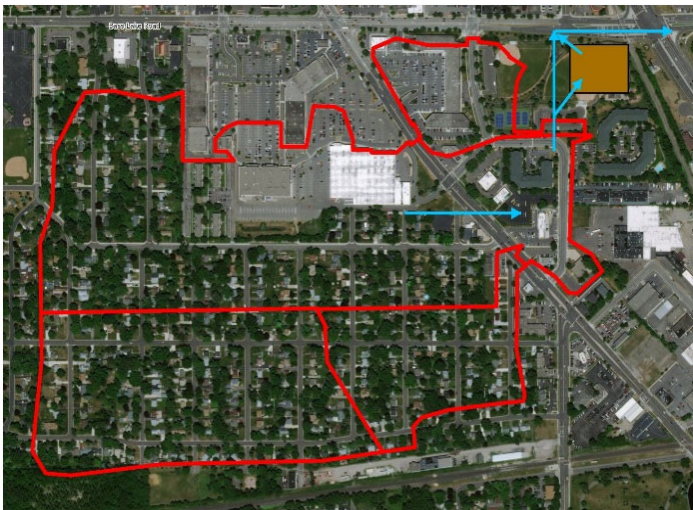
Looking south along the platform



#28 – Becker Park Stormwater Infiltration Project

In 2015 the Shingle Creek Watershed Management Commission partnered with the City of Crystal to prepare a subwatershed assessment in the Crystal Shopping Center Area. Subwatershed assessments are intensive studies of small areas of land to identify the best locations for small stormwater Best Management Practices (BMPs) such as rain gardens, tree trenches, and bioinfiltration basins. They are usually completed in areas that are already developed and have little or no stormwater treatment, and where it is not practical to construct a large BMP such as a stormwater pond. The area studied was roughly 97 acres of commercial real estate bisected at the midpoint by County Road 8 (West Broadway) and County Road 10 (Bass Lake Road.) The entire area is tributary to Upper Twin Lake to the east, an Impaired Waters lake with excess nutrients. Only about 5.5 acres in this densely impervious area has any stormwater treatment.

The subwatershed assessment identified 34 potential BMP retrofits, and ranked them by cost-effectiveness. One, an underground infiltration gallery proposed to be installed in Becker Park, was the highest-ranking project, achieving the largest load reduction at the lowest life cycle cost per pound.



The Becker Park Project drainage area, with the new infiltration gallery location shown in brown.

Becker Park is on the downstream edge of the commercial district, and is ideally located as a regional BMP retrofit site. The assessment originally proposed routing about 28 acres of commercial site drainage to the infiltration gallery. Subsequent conversations with the City expanded the scope of the project to include another 119 acres of residential drainage area with little to no stormwater treatment. Due to this initial work, the Shingle Creek Watershed received a grant for \$725,000 from the Minnesota Bureau of Soil and Water Resources (BWSR). With that grant, plans were put in motion to construct the project in 2019.

As a result of the first storm water grant the momentum was created to do something with the park. Ultimately, the City underwent a visioning process to gain input and completely redesign Becker Park. This flagship park by is being transformed from a ballfield-oriented park to one with more flexible open areas and playground. In the new park layout, the gallery will be concealed below the performance lawn.

Most of the pollution in stormwater runoff is conveyed by the “first flush,” or the first ½ to 1 inch of rainfall. This project is designed to infiltrate 0.6 inches of stormwater runoff from 147 acres, thus preventing nutrients and sediment from being transported to Upper Twin Lake. The infiltration gallery underneath the new performance space will be able to hold over 2.2 million gallons of runoff and let this water soak into the sandy soils below. The estimated annual reduction of pollutants to Upper Twin Lake is 118 pounds of total phosphorus (TP) and 38,400 pounds of total suspended solids (TSS). A Total Maximum Daily Load (TMDL) study for Upper Twin Lake determined that phosphorus to Upper Twin must be reduced by at least 741 pounds per year. This 118 pound reduction represents 16% of the TMDL-required Upper Twin Lake TP reduction.



(Above left) The infiltration gallery consists of 25 rows of interconnected pipe - over 1.42 miles of it.

(Above) As stormwater is routed through this maze of pipe, it will slowly filter through perforations and into a bedding layer of rock. That rock helps support the pipe and also provides additional storage in the void space in the rocks. The entire system can hold over 2.2 million gallons of runoff.



(Left) The gallery will be located under 1.45 acres of new performance lawn in the redesigned park. The gallery can be serviced and maintained without disrupting the park amenities.

Project Cost and Funding

The cost of this project is nearly \$2.5 million. The Commission and City have received a number of grants shown below to help offset that cost. The balance will be funded by the City of Crystal storm water fund.

Minnesota Clean Water Fund Grant	\$725,000
Shingle Creek WMC Cost Share	\$300,000
Metropolitan Council Green Infrastructure Grant	\$200,000
Metropolitan Council Stormwater Grant	\$150,000
Hennepin County Natural Resources Grant	<u>\$100,000</u>
TOTAL GRANTS:	\$1,475,000

Project Contacts

Mark Ray, PE
 City of Crystal
 4141 Douglas Drive North
 Crystal, MN 55422
 (763) 531-1160
Mark.Ray@crystalmn.gov

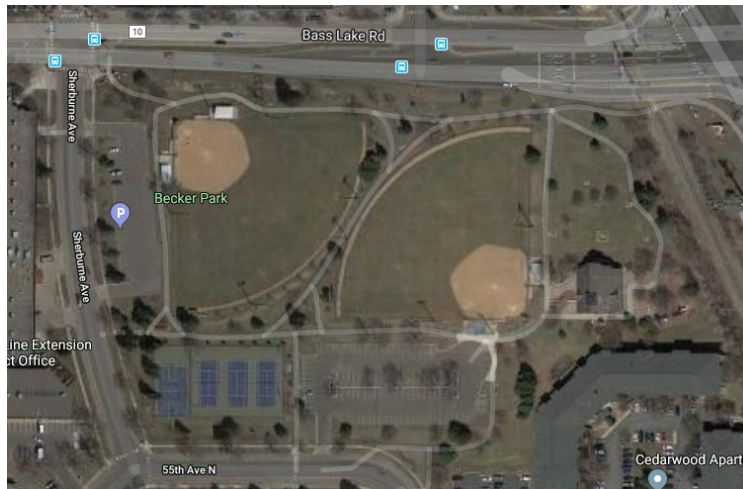
Ed Matthiesen, PE
 Shingle Creek WMC
 7500 Olson Memorial Highway Suite 300
 Golden Valley, MN 55427
 (763) 252-6851
ematthiesen@wenck.com

#29 – Becker Park Reconstruction

Becker Park is in the midst of transitioning from sports fields with declining use to a welcoming and vibrant year-round gathering place. The goal is to have a quality destination park that offers people of all backgrounds and abilities a place to meet throughout the day and year. When fully complete in 2020, Becker Park will feature:

- Inclusive Play Area
- Patio with Shade
- Interactive Fountain
- Performance Lawn
- Picnic Area
- Walking Paths
- Accessible Restrooms
- Ice Skating

The Old Becker Park – Google Maps



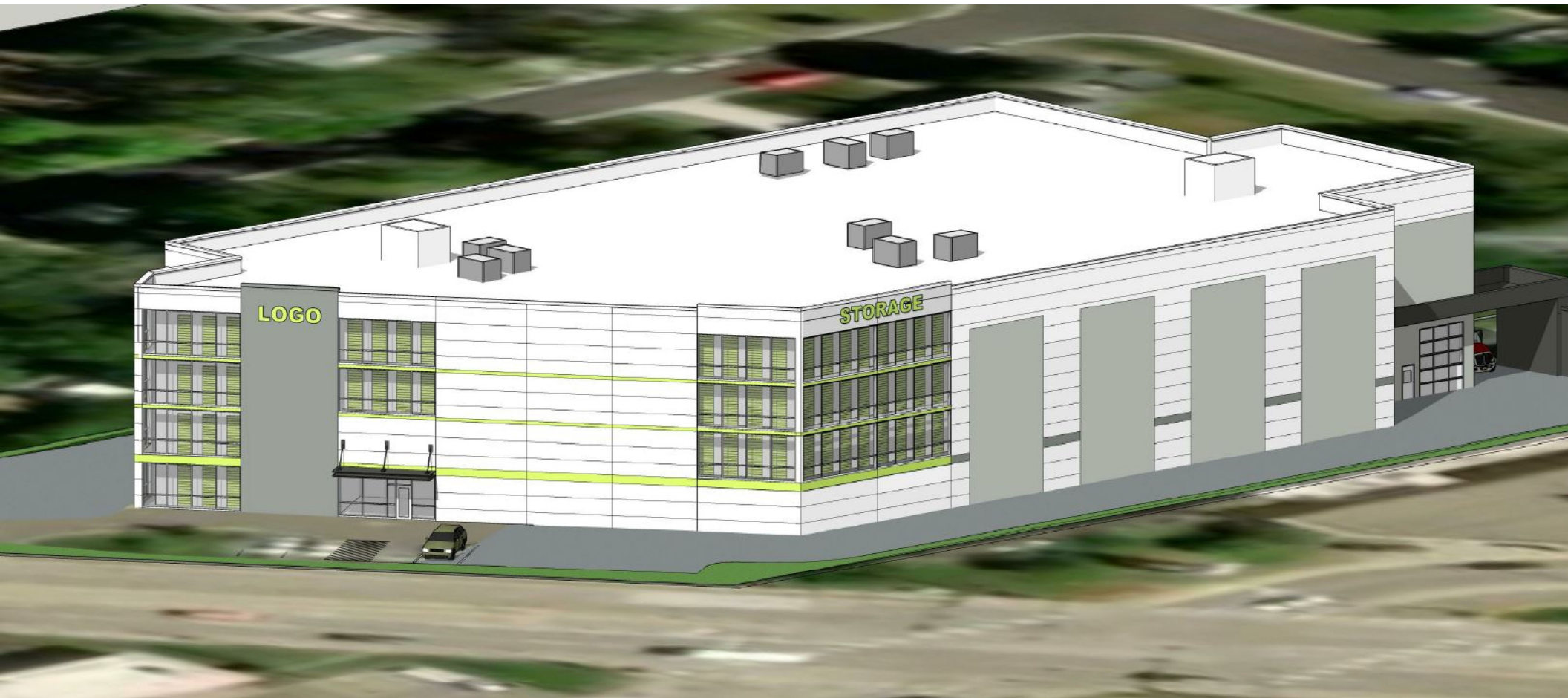
The New Becker Park



#30 - Taco Bell being built north of Target parking lot



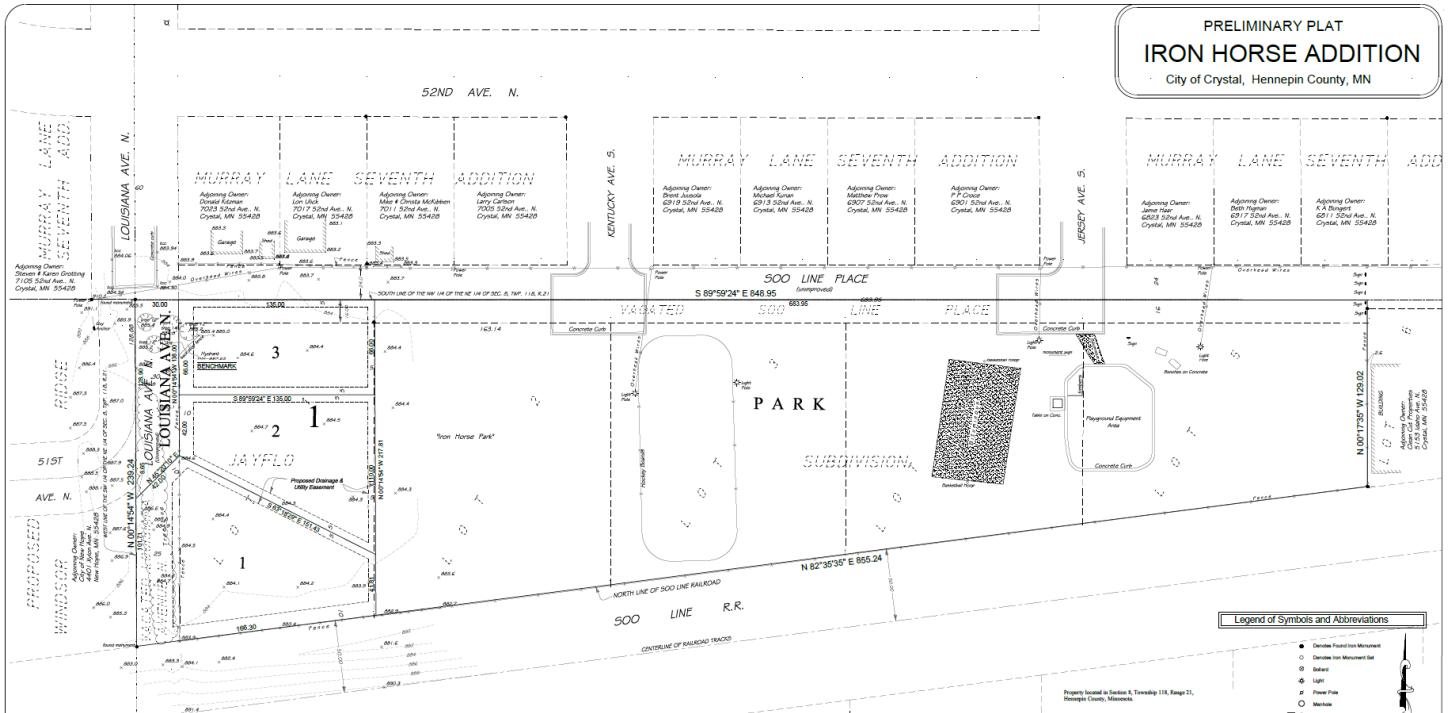
#31 - Extra Space Storage to be built on former Herzing site



#35 - Iron Horse Addition

▲ NORTH

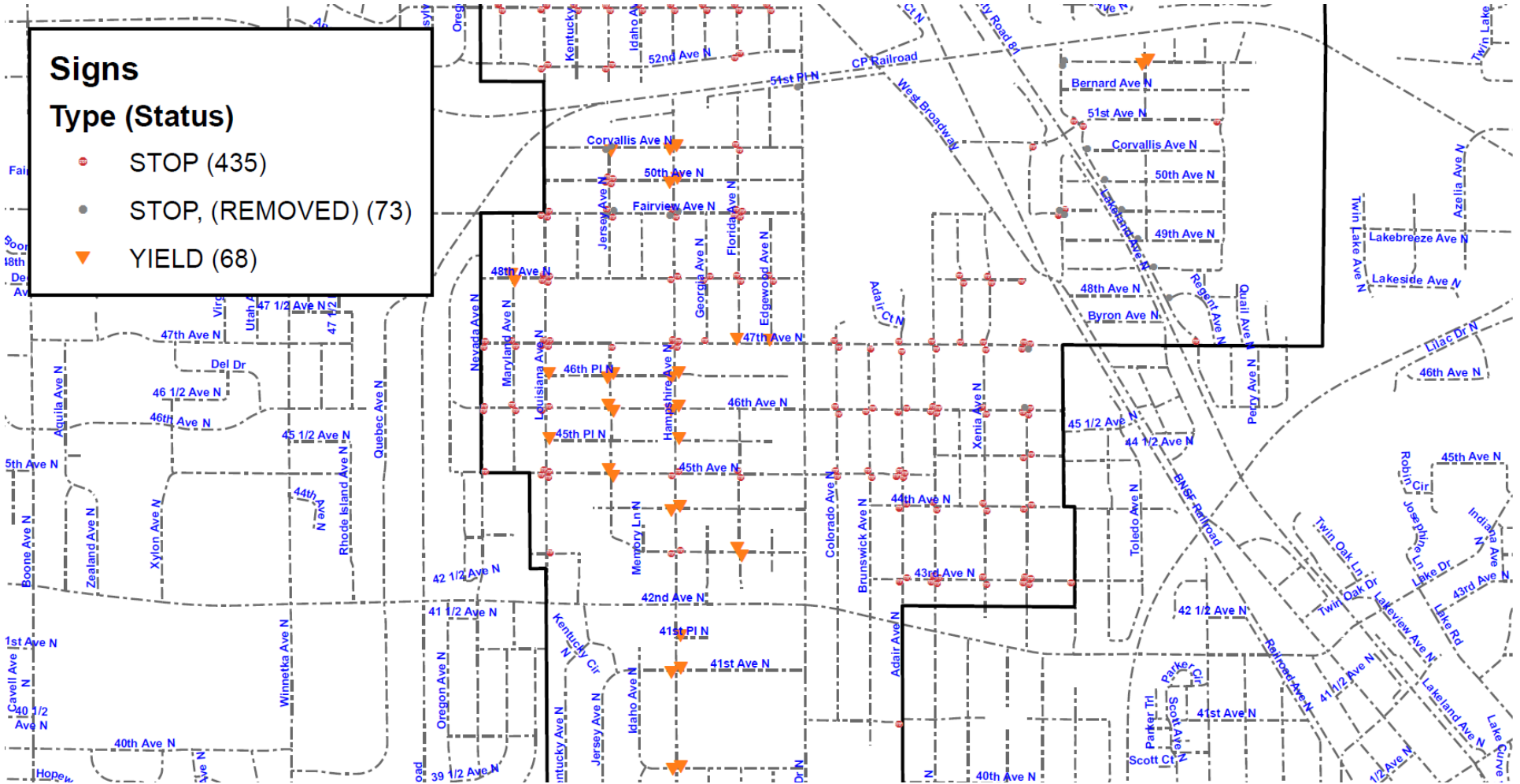
Proposed re-plot of Lots 1-5, Block 1, Jayflo Subdivision



Preliminary concept plan for Iron Horse Park improvements



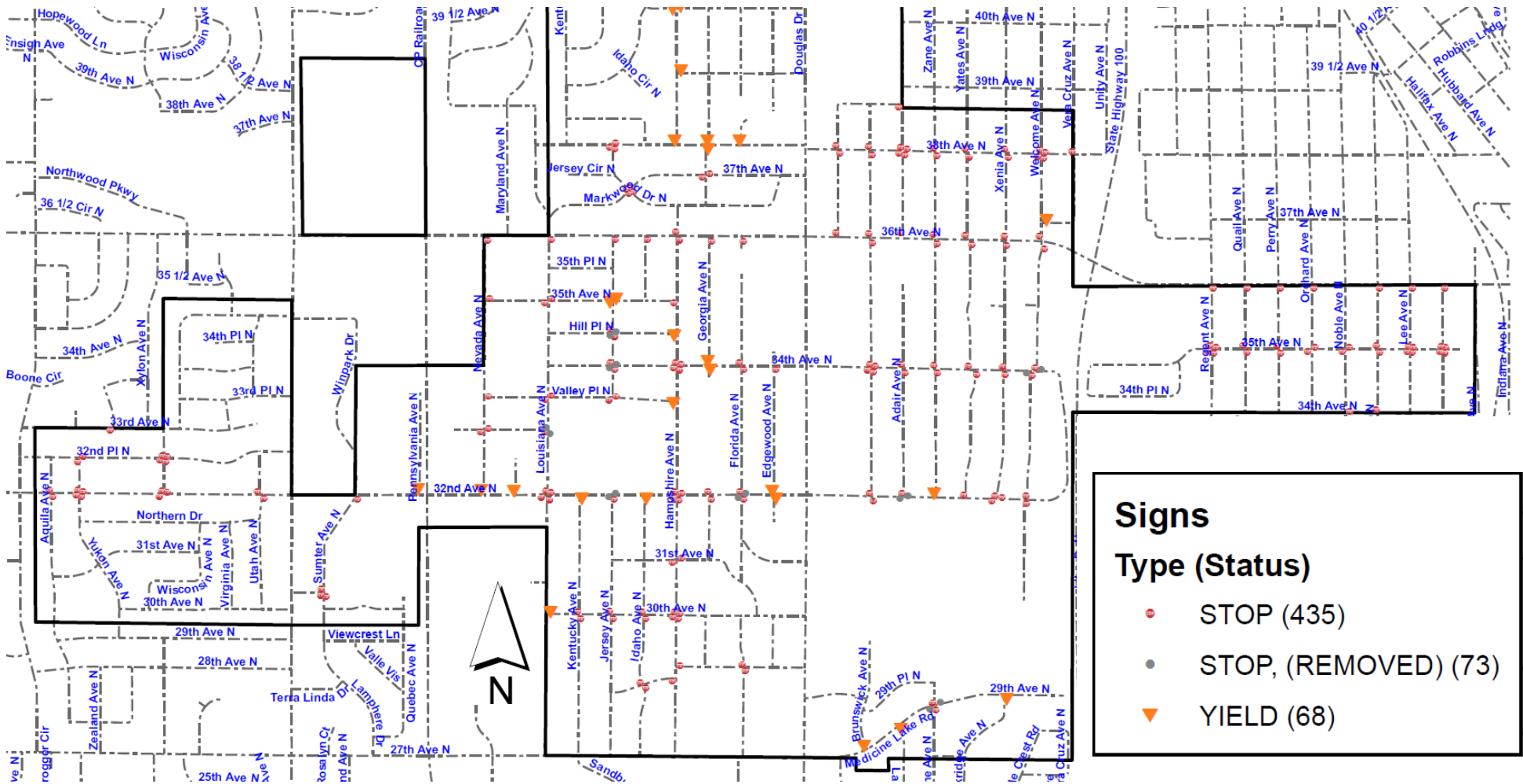
Stop, Yield and Removed Stop Signs



▲ NORTH

(South Third)

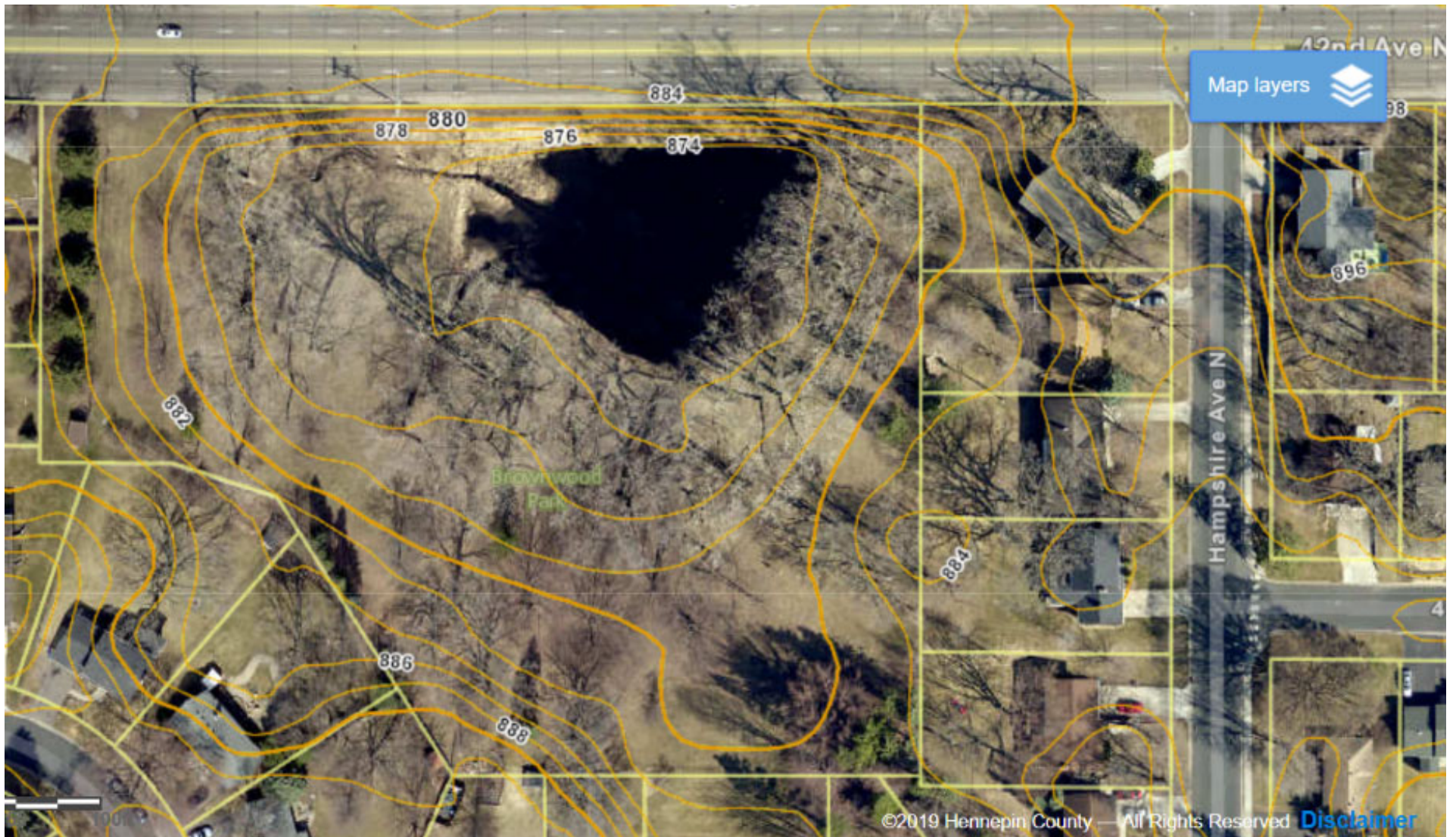
Stop, Yield and Removed Stop Signs



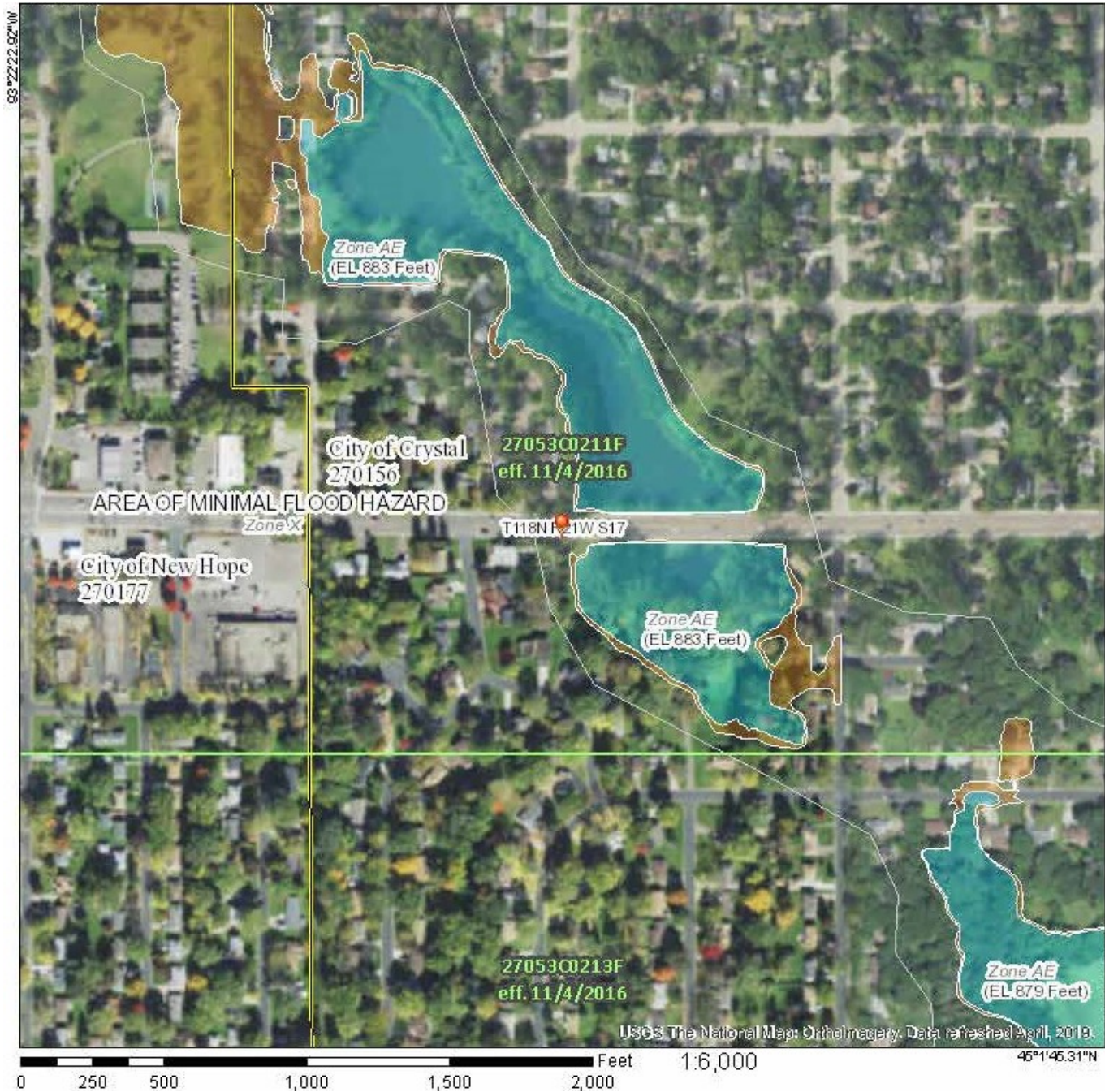
#41 – Brownwood Pond

NORTH ▲

2015 aerial photo with 2 foot elevation contours



FEMA Flood Insurance Rate Map



SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone A, X, A99
- With BFE or Depth Zone AE, AD, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS

- Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transsect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transsect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/6/2019 at 11:07:51 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

USGS The National Map, Orthoimagery, Data refreshed April, 2019.

0 250 500 1,000 1,500 2,000 Feet 1:6,000 45°145.31"N

THIS PAGE INTENTIONALLY BLANK