EDINA
MINNESOTA

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Planning Commission Meeting Agenda

April 29, 2026, 7:00 PM

Edina City Hall, Council Chambers, 4801 W. 50th St.

Participate in the meeting:

Watch the meeting on cable TV or YouTube.com/EdinaTV.

Provide feedback during Community Comment by calling 312-535-8110. Enter access code 2863 729 2903. Password is 5454. Press *3 on your telephone keypad when you would like to get in the queue to speak. A staff member will unmute you when it is your turn to speak.

Accessibility Support:

The City of Edina wants all residents to be comfortable being part of the public process. If you need assistance in the way of hearing amplification, an interpreter, large-print documents or something else, please call 952-927-8861 at least 72 hours in advance of the meeting.

1. Call to Order

2. Roll Call

3. Approval of Meeting Agenda

4. Approval of Meeting Minutes

4.1. April 15, 2026, Planning Commission Minutes

5. Community Comment

During "Community Comment," the Board/Commission will invite residents to share issues or concerns that are not scheduled for a future public hearing. Items that are on tonight's agenda may not be addressed during Community Comment. Individuals must limit their comments to three minutes. The Chair may limit the number of speakers on the same issue in the interest of time and topic. Individuals should not expect the Chair or Board/Commission Members to respond to their comments tonight. Instead, the Board/Commission might refer the matter to staff for consideration at a future meeting.

6. Public Hearing

During "Public Hearings," the Commission chair will ask for public testimony after staff and/or applicants make their presentations. The following guidelines are in place to ensure an efficient, fair, and respectful hearing; limit your testimony to three minutes and to the matter under consideration; the Chair may modify times, as deemed necessary; avoid repeating remarks or points of view made by previous speakers. The use of signs, clapping, cheering or booing or any other form of verbal or nonverbal communication is not allowed.

6.1. Ordinance Amendment to Parking Requirements at 50th & France

6.2. Comprehensive Plan Amendment, Site Plan and Variances – 6016 Vernon (EV Charging Station)

7. Reports/Recommendations

8. Chair and Member Comments

9. Staff Comments

10. Adjournment

Minutes
City Of Edina, Minnesota
Planning Commission
Edina City Hall Council Chambers
April 15, 2026

I. Call To Order

Chair Alkire called the meeting to order at 7:00 p.m.

II. Roll Call

Answering the roll call were: Commissioners Bennett, Brennan, Daye, Felt, Hahneman, Nelson, Padilla, Smith, Just, and Chair Alkire. Staff Present: Cary Teague, Community Development Director, and Miriam Laredo-Fuentes, Administrative Support Specialist.

Absent from the roll call: Commissioner Jha.

III. Approval Of Meeting Agenda

Commissioner Padilla moved to approve the April 15, 2026, agenda. Commissioner Nelson seconded the motion.

A roll call vote was performed:

Commissioner Bennett	**aye**
Commissioner Brennan	**aye**
Commissioner Daye	**aye**
Commissioner Felt	**aye**
Commissioner Hahneman	**aye**
Commissioner Nelson	**aye**
Commissioner Padilla	**aye**
Commissioner Smith	**aye**
Chair Alkire	**aye**

Motion carried.

IV. Approval Of Meeting Minutes

A. Minutes: Planning Commission, February 25, 2026, Regular and March 25, 2026, Work Session

Commissioner Bennett moved to approve the February 25, 2026, Regular and March 25, 2026, Work Session meeting minutes. Commissioner Smith seconded the motion.

A roll call vote was performed:

Commissioner Bennett	**aye**
Commissioner Brennan	**aye**
Commissioner Daye	**aye**
Commissioner Felt	**aye**
Commissioner Hahneman	**aye**
Commissioner Nelson	**aye**
Commissioner Padilla	**aye**
Commissioner Smith	**aye**
Chair Alkire	**aye**

Motion carried.

V. Community Comment

None.

VI. Reports and Recommendations

A. Sketch Plan Review – 7600 Parklawn (Senior Housing)

Director Teague presented the request for a sketch plan review for 7600 Parklawn.

Appearing for the Applicant

Mr. Josh Branstad of Greco introduced himself and provided a presentation to the Commission.

The Commission asked staff and the applicant questions.

The Commission reviewed the sketch plan and offered comments, which can be viewed in the official meeting video.

B. Sketch Plan Review – 5201 Grandview Lane (4 Townhomes)

Director Teague presented the request for a sketch plan review for 5201 Grandview Lane

Appearing for the Applicant

Ms. Elizabeth (Lisa) McDonough introduced herself, reviewed the building's history, and explained the reason for the change to 4 townhomes.

Mr. David Benke, Donnie Homes, introduced himself and provided a presentation to the Commission.

The Commission asked the applicant questions.

Youth Commissioner Just left the meeting at 8:30 p.m.

The Commission reviewed the sketch plan and offered comments, which can be viewed in the official meeting video.

VII. Chair and Member Comments

Received.

Commissioner Felt left the meeting at 9:05 p.m.

VIII. Staff Comments

Received

IX. Adjournment

Commissioner Hahneman moved to adjourn the April 15, 2026, Meeting of the Edina Planning Commission at 9:07 p.m. Commissioner Padilla seconded the motion.

A roll call vote was performed:

Commissioner Bennett	**aye**
Commissioner Brennan	**aye**
Commissioner Daye	**aye**
Commissioner Hahneman	**aye**
Commissioner Nelson	**aye**
Commissioner Padilla	**aye**
Commissioner Smith	**aye**
Chair Alkire	**aye**

Motion carried.

EDINA
MINNESOTA

Item Report

April 29, 2026
Planning Commission

Item Number: 6.1

Department: Community Development

Item Activity: Action

Prepared By: Addison Lewis, Community Development Coordinator

Item Title: Ordinance Amendment to Parking Requirements at 50th & France

Action Requested:
Motion to recommend approval of the proposed ordinance.

Information/Background:
Section 36-1312 of the Edina Zoning Ordinance allows commercial properties at 50th & France to rely on the public ramps to satisfy their parking requirement up to a floor area ratio (FAR) of 1.0. FAR means the gross floor area of a building divided by the lot area. Buildings that exceed an FAR of 1.0 must provide additional parking for the square footage exceeding an FAR of 1.0. As a policy, Edina has allowed the commercial properties at 50th & France to rely on the parking ramps to meet their parking requirement up to an FAR of 1.0 since 1978. Since the parking is a resource that is shared by all property owners in the district, this was a way to distribute the available parking in a way that was fair. This practice was formally codified in 2022.

In the fall of 2025, a variance from this provision was requested at 5036 France Avenue to allow a restaurant to expand up to an FAR of 1.2 without providing additional parking. The variance was strongly supported by the community and, as a result, the City Council provided feedback to staff to explore amending the parking requirement at 50th & France to allow other property owners in the district the same opportunity. Staff have analyzed the parking data for the three ramps and the potential for redevelopment in the district and are proposing an amendment to Section 36-1312 to increase the amount of FAR allowed before additional parking is required from 1.0 to 1.25.

The ramps at 50th & France are equipped with technology to count the number of vehicles entering and leaving the ramp. The technology is not perfect but provides an estimate of the utilization of the ramps on any given day and at what time the peak demand occurred. Between the North Ramp, Center Ramp, and South Ramp, there are 1069 parking stalls. Staff analyzed the parking utilization data from March 2023 to March 2026 and found that on an average day, after subtracting the number of spaces occupied at peak demand, there are still about 388 stalls available on an average day.

50th & France Parking Ramp Occupancy
Based on the City's parking counter technology from 3/1/2023 to 2/28/2026

Ramp	Total Stalls Available	Average Peak Occupancy	Average Peak Occupancy %	Average Stalls Available at Peak Occupancy

North	547	298.3	54.5%	248.7
Center	114	103.6	90.9%	10.4
South	408	279.4	68.5%	128.6
TOTAL	**1,069**	**681.3**	**63.7%**	**387.7**

When the parking variance at 5036 France Avenue was being considered, staff analyzed the parking availability specifically for Friday and Saturday evening since that was assumed to be the peak time for the restaurant. That analysis found that there should be at least 327 spaces available on an average Friday or Saturday evening.

For retail uses, the code requires 1 stall per 250 square feet, with a 10% reduction for areas served by regular transit. If we assume this ratio, then the district could accommodate approximately 108,000 additional square feet of retail on an average day based on 388 stalls available. When the FAR restriction was put into place back in 1978, a ratio of 1 stall per 312.5 square feet of commercial (3.2 spaces / 1,000 sf) was used to account for the mixed-use nature of the district given that the variety of uses will have differing peak times. Using this ratio, the district could accommodate approximately 121,250 additional square feet of commercial. Given the improvements in transit to the area since 1978 and the emergence of e-bikes and ride-hailing services, even this ratio may be conservative.

Staff have analyzed the potential for redevelopment in the district. Attached to this report is a table that shows the existing properties in the district, including their existing FAR and how much square footage each could add to get to an FAR of 1.0, 1.25 and 1.5. If every property in the district added commercial square footage up to an FAR of 1.25, this would equate to approximately 310,472 additional square feet, which is more than can be accommodated by the existing parking capacity; however, there are several reasons staff feel comfortable with the proposed code change.

1. Most properties are unlikely to expand. Staff identified several parcels that we believe are the most unlikely to redevelop based on existing site conditions and their ability to expand (shaded in gray on the table). After subtracting these sites, the amount of potential additional square footage is reduced to from 310,472 to 222,268.
2. Of the 222,268 square feet, 101,842 square feet is attributed to the US Bank site at 4100 50th St W and 63,581 square feet to the Lunds site at 3945 50th St W. Neither of these sites is likely to add this much commercial square footage without adding additional parking because investors will require proof of adequate parking and tend to be more conservative. The Nolan Mains project added 139 parking stalls to the district when that development occured. In the case of other recent development proposals for the Opus headquarters at 5100 Eden Avenue and the Macy's furniture redevelopment 7235 France Avenue, both projects proposed more parking than required by code.
3. All properties in the district are not going to redevelop at the same time and redevelopment of any individual property will not use up all the remaining parking capacity. If there is major redevelopment, the City can re-evaluate the amount of available parking and change the code again in the future.

Supporting Documentation:

Documents marked with "Board Portal" do not meet ADA Web Content Accessibility Guidelines (URL) and are not included in the public packet. To request a board portal document, please submit a data request (URL).

1. FAR Estimate Table
2. 50th & France District Boundary Map

Ordinance Amendment to Parking Requirements at 50th & France

The City Council Of Edina Ordains:

Section 1. Chapter 36, Article XII. – SUPPLEMENTARY DISTRICT REGULATIONS, DIVISION 3 – PARKING AND CIRCULATION, SUBDIVISION II – PARKING SPACES of the Edina City Code is amended as follows:

Sec. 36-1312 – Planned Commercial District

(2) Planned Commercial District – 2 (PCD-2)(50th and France, area defined in the 50th and France small area plan)

Parking for **non-residential** uses in the 50th and France commercial node may rely on the City Parking Ramps with a floor area ratio up to 1.**250** as defined in section 36-10. ~~**Uses**~~**Non-residential uses** exceeding 1.**250** must provide additional off-street parking spaces for the square footage above 1.**250**.

Multiresidential uses. At least one fully enclosed parking space for each dwelling unit but no more than 1.5 spaces per dwelling unit. Such parking spaces must be designed for the exclusive use of residents of the dwelling units and their guests. The council may require the provision of exposed parking spaces in addition to the required enclosed spaces as a condition to the issuance of a conditional use permit.

Section 2. This ordinance is effective immediately upon passage.

50th France - Estimated Floor-Area-Ratio (FAR)

Address & Building Name	Property Area (SF)	Total Est. Gross Floor Area (SF)	Estimated Floor Area Ratio (FAR)	Additional SF to FAR 1	Additional SF to FAR 1.25	Additional SF to FAR to 1.5
3945 W 50th St Lunds & Byerlys	74,052	28,984	0.39	45,068	63,581	82,094
3939 W 50th St 50th & France Building	16,988	35,717	2.10	-	-	-
3917-25 W 50th St 50th Street Plaza	17,424	32,900	1.89	-	-	-
3909-11-15 W 50th St Edina Theater	13,939	29,182	2.09	-	-	-
3907 W 50th St 5000 France Shops	33,106	20,010	0.60	13,096	21,372	29,649
5030-32-5034 France Ave Salut building	10,890	14,731	1.35	-	-	1,604
5036 France Ave Americana building	6,110	7,252	1.19	-	386	1,913
5050 France Ave BMO Harris	27,007	17,330	0.64	9,677	16,429	23,180
3943 W 50th St Edina Liquor	5,227	7,715	1.48	-	-	126
3909 Market St Spalon Montage	10,019	10,130	1.01	-	2,394	4,899
4924 France Ave Office	2,178	2,074	0.95	104	649	1,193
4936 France Ave Fashion Avenue	3,485	4,392	1.26	-	-	835
4928-30 France Ave Grethen House	3,485	4,110	1.18	-	246	1,117
4940-42-44-46 France Ave Pacifier building	4,356	5,867	1.35	-	-	667
3902 W 50th St and 4948-4950 France Ave Paper Source building	5,663	10,255	1.81	-	-	-
3925-45 Market S Nolan Mains retail	65,340	27,000	0.41	38,340	54,675	71,010
3906 - 3916 W 50th Street Evereve/ Lululemon building	16,553	28,324	1.71	-	-	-
3922 W 50th St Carillion Building	7,841	12,663	1.62	-	-	-
3924-26 W 50th St At Home / Sente Beauty building	10,019	11,664	1.16	-	860	3,364
3930-3948 W 50th Street D'Amicos building and Edina 5-0 Mall	40,075	72,239	1.80	-	-	-
4100 W. 50th St US Bank / LFHI offices	115,870	42,995	0.37	72,875	101,842	130,810
3948 Market St US Post Office	18,295	6,914	0.38	11,381	15,955	20,529
3942-44 Market St The Grind Fitness	5,261	4,735	0.90	526	1,841	3,157
3930-32 Market St Bellecour & FP Movement	4,936	4,442	0.90	494	1,728	2,962
3918-26 Market St Bespoke Salon	8,712	4,897	0.56	3,815	5,993	8,171
4916 France Ave Walgreens	19,166	10,024	0.52	9,142	13,934	18,725
Liquor Store & Lunds parking lot	6,870	0	0.00	6,870	8,588	10,305
TOTAL	**545,997**	**456,544**	**0.84**	**211,389**	**310,472**	**416,310**
Minus parcels unlikely to increase (shaded in gray)				**152,063**	**222,268**	**299,102**

Parcels shaded in gray are identified by staff as unlikely to increase commercial square footage based on existing site conditions.

SF= square feet

FAR=Floor Area Ratio

50th & France District



April 24, 2026

Parcels

1:2,027

0 90 180 360 ft

0 25 50 100 m

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EDINA MINNESOTA

Item Report

April 29, 2026
Planning Commission

Item Number: 6.2 **Department:** Community Development

Item Activity: Action **Prepared By:** Cary Teague, Community Development Director

Item Title:

Comprehensive Plan Amendment, Site Plan and Variances – 6016 Vernon (EV Charging Station)

Action Requested:
Recommend the City Council approve the requests.

Information/Background:

Ionna Rechargery is proposing to remodel the existing Kee's auto repair shop at 6016 Vernon Avenue into an electric vehicle charging station. An electric vehicle charging station is a permitted use in the PCD-4 zoning district, in which this site is located. The site, however, is guided for medium density residential use in the Comprehensive Plan. The site would feature seven (7) level 3 DC fast chargers. The existing building would be remodeled to be a lounge waiting area with a mini convenience store or vending machines. The convenience store and lounge would be accessible 24 hours a day by a QR code, and open to the public with no QR code from 9 am to 6 pm. Security will be via cameras on site, and they would partner with a security firm to dispatch as necessary and only escalate to police if the situation calls for it. If the need arises, a Phase 2 security plan that will have an onsite security guard, though IONNA does not foresee this being a need. The building and site trash from bins will be collected via a janitorial contract, and the site will be checked daily for cleanliness.

To accommodate this request, the following is requested:

- A Comprehensive Guide Plan Amendment to re-guide the site from MDR, Medium Density Residential to Neighborhood Node. The site is zoned PCD-4, in which a gas station is a permitted use. A gas station is defined as *"a principal building and its accessory structures used for the sale of **motor fuels** and oils, where automotive accessories and convenience goods may be sold, but where repair and servicing of motor vehicles does not occur; provided, however, that an accessory carwash is permitted."*
- Site Plan Review.
- Multiple Variances: Drive Aisle/Parking Space Setbacks from 20 to 2 feet, Setback to Residential Property from 50 and 110 feet to 12 and 60 feet, Canopy setbacks from 35 & 25 to 0 and 5 feet, Pump Island Setbacks from 20 to 10 and 0 feet, Patio setback from 20 to 2 feet, Mechanical Equipment Setback from 35 to 13 feet, and Parking Lot Setback from the Building from 10 to 2 and 6 feet.

While the proposed use is permitted in the PCD-4 zoning district, because of the Comprehensive Plan

Amendment and the Variances needed, the City does have some discretion to approve or deny the request.

Supporting Documentation:
Documents marked with "Board Portal" do not meet ADA Web Content Accessibility Guidelines (URL) and are not included in the public packet. To request a board portal document, please submit a data request (URL).

1. Staff Report
2. Applicant Narrative
3. Applicant's Proposed Plans
4. Project Renderings
5. Floor Plan and Architectural Plans
6. LMC Pyramid of Discretion
7. Traffic and Parking Study
8. MPCA Clean Up Letter
9. Engineering Memo
10. Staff PowerPoint Presentation

The CITY of EDINA

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Staff Report

Date: **April 29, 2026**

To: Planning Commission

From: Cary Teague, Community Development Director

Subject: Comprehensive Plan Amendment, Site Plan and Variances – 6016 Vernon (EV Charging Station)

Staff Recommendation: Recommend the City Council approve the request subjects to findings and conditions outlined in this report.

Information/Background:

Ionna Rechargery is proposing to remodel the existing Kee's auto repair shop at 6016 Vernon Avenue into an electric vehicle charging station. An electric vehicle charging station is a permitted use in the PCD-4 zoning district, in which this site is located. The site, however, is guided for medium density residential use in the Comprehensive Plan.

The site would feature seven (7) level 3 DC fast chargers. The existing building would be remodeled to be a lounge waiting area with a mini convenience store or vending machines. The convenience store and lounge would be accessible 24 hours a day by a QR code, and open to the public with no QR code from 9 am to 6 pm. Security will be via cameras on site, and they would partner with a security firm to dispatch as necessary and only escalate to police if the situation calls for it. If the need arises, a Phase 2 security plan that will have an onsite security guard, though IONNA does not foresee this being a need. The building and site trash from bins will be collected by a janitorial contract, and the site will be checked daily for cleanliness.

To accommodate this request, the following is requested:

- A Comprehensive Guide Plan Amendment to re-guide the site from MDR, Medium Density Residential to Neighborhood Node. The site is zoned PCD-4, in which a gas station is a permitted use. A gas station is defined as *"a principal building and its accessory structures used for the sale of **motor fuels** and oils, where automotive accessories and convenience goods may be sold, but where repair and servicing of motor vehicles does not occur; provided, however, that an accessory carwash is permitted."*
- Site Plan Review.
- Multiple Variances: Drive Aisle/Parking Space Setbacks from 20 to 2 feet, Setback to Residential Property from 50 and 110 feet to 12 and 60 feet, Canopy setbacks from 35 & 25 to 0 and 5 feet, Pump Island Setbacks from 20 to 10 and 0 feet, Patio setback from 20 to 2 feet, Mechanical Equipment Setback from 35 to 13 feet, and Parking Lot Setback from the Building from 10 to 2 and 6 feet. (See Compliance Table on page 9 of this staff report.)

While the proposed use is permitted in the PCD-4 zoning district, because of the Comprehensive Plan Amendment and the Variances needed, the City does have some discretion to approve or deny the request. (See attached pyramid of discretion.)

Surrounding Land Uses

Northerly:	Single-family homes; zoned R-1, Single-Dwelling Unit District and guided Low Density Residential.
Easterly:	Single-family homes; zoned R-1, Single-Dwelling Unit District and guided Low Density Residential.
Southerly:	Single-family homes; zoned R-1, Single-Dwelling Unit District and guided Low Density Residential.
Westerly:	Apartments/Condos; zoned PRD-3, Planned Residential District and guided Medium Density Residential.

Existing Site Features

The subject property is 16,373 square feet in size and contains a single-story two-bay auto repair shop, accessory buildings and parking lot. The main building was constructed in 1957, and the site was also used as a gas station until the early 1990's. In 1992 the gas pumps were removed, and soil pollution remediation was done. The cleanup was satisfactorily done, and no further action was required by the MPCA. (See attached documentation from the MPCA.)

Planning

Guide Plan designation:	MDR, Medium Density Residential
Zoning:	PCD-4, Planned Commercial District – 4

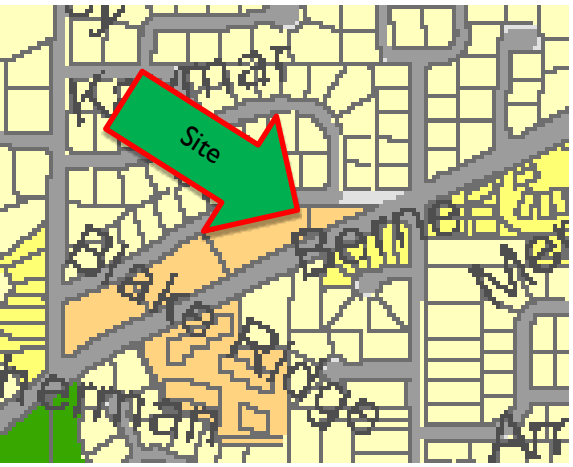
Comprehensive Guide Plan Amendment

This site is unique in Edina in that it is, and has been zoned PCD-4, Planned Commercial District for the automotive repair use and gas station, however, it is guided in the Comprehensive Plan for Medium Density Residential. The Comprehensive Plan designation has been in place at least since 1980 when that Comprehensive was adopted. Staff assumes that when that Comprehensive Plan land use designation was established to match the existing medium density multi-family housing located to the west.

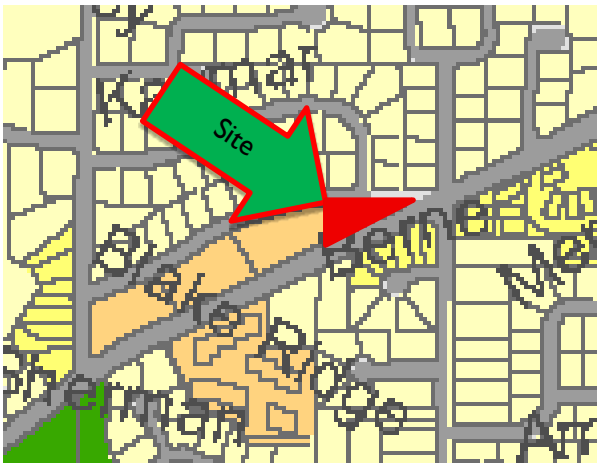
To accommodate the request, a Comprehensive Plan amendment is required to change the future land use designation from Medium Density Residential to NN, Neighborhood Node. This would accommodate a

small-scale commercial use. This category is where several of the City's current gas stations are located. (See attached PowerPoint) Below shows the proposed change:

Existing Land Use Plan



Proposed Land Use Plan Change



Existing

- Low Density Residential
- Low Density Attached Residential
- Medium Density Residential
- High Density Residential
- Greater Southdale District Residential
- Office Residential
- Office

Proposed

- Neigborhood Node
- Mixed Use Center
- Community Activity Center
- Industrial
- Open Space and Parks
- Public/Semi Public
- Regional Medical
- City Limits

3,700

Comprehensive Plan. The site is guided MDR, Medium Density Residential in the Comprehensive Plan. Below is the land use category and description:

Categories	Description, Land Uses	Development Character and Guidelines	Density and Intensity
MDR Medium-Density Residential	Applies to attached housing (townhouses, quads, etc.) and multi-family complexes of moderate density. May also include small institutional uses.	In new development or redevelopment, improve integration of multi-family housing into an interconnected street network and work to create an attractive, pedestrian-friendly street edge.	5 – 12 residential dwelling units/acre

Based on the current designation of medium density residential, a total of 4 units maximum could be developed on the site, due to its small lot size. Over the past couple years, residential developers have looked at the site for potential residential development. None had any interest in pursuing development; that includes the developer that submitted a sketch plan for the 20-unit memory care housing project.

Categories	Description, Land Uses	Development Character and Guidelines	Density and Intensity
NN Neighborhood Node*** Current examples: • 44th & France • 70th & Cahill • Valley View & Wooddale • Lincoln & Londonderry	In general, small-to moderate-scale commercial, residential or mixed-use buildings serving primarily the adjacent neighborhood(s). Primary uses encouraged are neighborhood-serving retail and services, offices, studios, institutional and residential.	Building footprints generally less than 20,000 sq. ft. (or less for individual storefronts). Parking is less prominent than pedestrian features. Encourage underground parking (for comparatively larger developments), district parking for smaller developments, and open space linkages where feasible; emphasize enhancement of the pedestrian environment.	Varies by small area: • Wooddale/Valley View – 12-30 du/acre • 70th & Cahill – 10-50 du/acre • 44th & France – 12-60 du/acre • Lincoln/Londonderry – 10-60 du/acre

Based on the size of the subject property and the density allowed in the MDR Districts, four (4) units could be constructed on the subject property. However, given the odd shape, small size and restrictive setbacks required with two of three street frontages, variances would be needed redevelop the site with housing. (See attached PowerPoint.)

Site Plan Review

Parking

Based on the City Code requirement, Section 36-1311, the proposed parking spaces meet City Code. City Code requires 5 stalls for the proposed use. The applicant is proposing 16 stalls total; 14 charging station stalls and 2 general parking stalls.

A parking study was conducted by Stantec and concluded that there would be adequate parking. (See attached study.)

Site Circulation/Access/Traffic

Primary access to the proposed development would be off Vernon Avenue, by the two existing access points. Stantec conducted a traffic study. The study concludes that the existing roadways can be supported by the project. (See attached traffic study.)

Landscaping

Based on the perimeter of the site, 17 overstory trees would be required. The proposed plans show 17 overstory trees on site. A full complement of understory shrubs and bushes are also proposed. The applicant is proposing a cedar fence to provide screening the residential area to the north and west.

Per Section 36-1457 (4) of the Zoning Ordinance: "Off-street parking facilities containing six or more spaces and all loading facilities shall be screened from streets located within 50 feet, and from lots which are used for any residential purpose which are located within 50 feet. Said distance shall be the shortest distance between the parking facility or loading facility and the nearest part of the street or the nearest lot line of the residential lot." This site is located within 50 feet of residential uses to the west and north but would be screened.

Trash Enclosure

Trash storage facilities, including recycling storage facilities, shall be screened from all lot lines and public road rights-of-way. As proposed, the trash enclosure would be located in front of the building and would be screened.

Grading/Drainage/Utilities

The city engineer has reviewed the proposed plans and found them to be acceptable subject to the comments and conditions outlined in the attached memo. Any approvals of this project would be subject to review and approval of the Nine Mile Creek Watershed District, as they are the City's review authority over the grading of the site.

Mechanical Equipment

Any new rooftop and/or ground level equipment would have to be screened if visible from adjacent property lines. Lights would be LED and pointed down and shielded. Dimming of canopy lighting are proposed to match sunrise and sunset times.

Lighting

The applicant has submitted a lighting plan that demonstrates City Code compliance on all lot lines. (See proposed plans.)

Noise

Noise generated from the chargers will be required to meet the City Code (State Statutes). The applicant has stated that the noise will meet the City Code and provided the information below.

- Sound levels drop significantly as you move away from the source. The 52 dBA rating is typically measured immediately next to the unit. For every doubling of distance, the sound level drops by approximately 6 decibels. By the time the sound reaches the property line or the nearest sidewalk, it will likely be lower than the existing ambient traffic noise in the area.
- The actual sound profile of the entire site will remain well within standard city noise ordinances and will be comparable to the ambient sounds of a quiet suburban street.

Number of Chargers	Total Sound Level (dBA)	Common Comparison
1 Charger	52 dBA	Quiet electric toothbrush
2 Chargers	55 dBA	Coffee percolator
7 Chargers	~60.5 dBA	Background music / Normal conversation
Jet Engine	140 dBA	Threshold of pain

Gas Station Regulations

Per Section 36-618 (15) of the Edina City Code, the following is required for Gas Stations:

(15) *Automobile service centers and gas station standards.*

a. Minimum lot area:

1. For an automobile service center, 20,000 square feet, plus 5,000 square feet for each service bay in excess of three.
2. For a gas station, 15,000 square feet.

b. Maximum lot area: 60,000 square feet.

c. Hydraulic hoists, pits, lubrication, washing, repairing and diagnostic equipment shall be used and stored within a building.

d. Interior curbs of not less than six inches in height shall be constructed to separate driving surfaces from sidewalks, landscaped areas and streets.

e. No automobile service station on a lot adjoining a lot in a residential district shall be operated between the hours of 11:00 p.m. and 6:00 a.m.

f. All driving surfaces shall be constructed and maintained in the same manner as prescribed for parking lots by this chapter.

g. No merchandise shall be displayed for sale outside a building, except in that area within four feet of the building or within pump islands used for dispensing motor fuels.

h. No motor vehicles, except those owned by the operators and employees of the principal use, and vehicles awaiting service, shall be parked on the lot occupied by the principal use. Vehicles being serviced may be parked for a maximum of 48 hours.

i. Body work and painting is prohibited.

j. No buildings, driveway surfaces, parking areas or other improvements shall be located within 110 feet of any portion of a lot in a residential district which is used for residential purposes if separated from the lot by a street, or within 50 feet, if not so separated by a street.

k. Pump islands shall maintain a front and side street setback of at least 20 feet and an interior side yard and rear yard setback of at least 25 feet.

l. Notwithstanding the requirements of article XII, division 3 of this chapter, driveways and drive aisles need only provide a setback of not more than five feet from all lot lines, subject to the requirements of subsection (15)j of this section.

Signage

There were no signage variances requested. Below are the Code requirements for signage in the PCD-4 Zoning District:

PCD-4	20% of wall area	20-foot setback to a street	Number of Signs – One per building per frontage	80 square feet for first sign, 50 square feet for each additional sign	20 feet tall

All signage for the site should meet City Code requirements. The wall sign shown and sign above the canopies on the images do not meet City Code requirements.

Living Streets/Multi-Modal Consideration

Sec. 36-1274. - Sidewalks, trails and bicycle facilities.

(a) In order to promote and provide safe and effective sidewalks and trails in the City and encourage the use of bicycles for recreation and transportation, the following improvements are required, as a condition of approval, on developments requiring the approval of a final development plan or the issuance of a conditional use permit pursuant to article V of this chapter:

(1) It is the policy of the City to require the construction of sidewalks and trails wherever feasible so as to encourage pedestrian and bicycle connectivity throughout the City. Therefore, developments shall provide sidewalks and trails which adjoin the applicant's property:

a. In locations shown on the City's sidewalk and trail plan; and

b. In other locations where the council finds that the provision of such sidewalks and trails enhance public access to mass transit facilities or connections to other existing or planned sidewalks, trails or public facilities.

(2) Developments shall provide sidewalks between building entrances and sidewalks or trails which exist or which will be constructed pursuant to this section.

(3) Developments shall provide direct sidewalk and trail connections with adjoining properties where appropriate.

(4) Developments must provide direct sidewalk and trail connections to transit stations or transit stops adjoining the property.

(5) Design standards for sidewalks and trails shall be prescribed by the engineer.

(6) Nonresidential developments having an off-street automobile parking requirement of 20 or more spaces must provide off-street bicycle parking spaces where bicycles may be parked and secured from theft by their owners. The minimum number of bicycle parking spaces required shall be five percent of the automobile parking space requirement. The design and placement of bicycle parking spaces and bicycle racks used to secure bicycles shall be subject to the approval of the city engineer. Whenever possible, bicycle parking spaces shall be located within 50 feet of a public entrance to a principal building.

(b) The expense of the improvements set forth in subsection (a) of this section shall be borne by the applicant.

The City's Comprehensive Plan identifies a new sidewalk on the north side of Vernon Avenue between Blake Road/Olinger Boulevard to Olinger Road/Highwood Drive. Therefore, a boulevard-style sidewalk should be installed on the site, should this proposal be approved per the attached engineering memo.

Compliance Table

	City Standard (PCD-4)	Proposed
Setbacks (Structure) Front (Vernon) Front (EP Road) Side (West)	 35 feet 25 feet 25 feet	 25 feet (existing) 20 feet (existing) 25 feet (existing)
Setbacks (Canopy) Front (Vernon) Front (EP Road) Side (West)	 35 feet 25 feet 25 feet	 ***0 feet**** ***10 feet**** 40+ feet
Setbacks (Pump Islands) Front (Vernon) Front (EP Road) Side (West)	 20 feet 20 feet 25 feet	 ***0 feet**** ***10 feet**** 50+ feet
Setbacks (Parking lot) Drive aisle (Vernon) Drive aisle (EP Road) Side (West)	 20 feet 20 feet 10 feet	 ***0 feet**** ***10 feet**** 12 feet
Setback from Residential Use From adjacent property From property separated by a street	 50 feet 110 feet	 ***12 feet**** ***60 feet****
Parking Setback from Building	10 feet	***6 & 8 feet****
Maximum Lot Size	60,000 s.f.	16,373 s.f.
Minimum Lot Size	15,000 s.f.	16,373 s.f.
Parking Stalls	1 space per employee plus 1 space per 300 square feet 5 stalls required	16 stalls
FAR	30%	8%

Variance Required

PRIMARY ISSUES/STAFF RECOMMENDATION

Primary Issues

For this project, the City of Edina has discretion to approve or deny this request. A case can be made for both approval and denial of this project. Findings for both approval and denial of this project are provided for the Planning Commission and City Council to consider. (See pages 13-15 of this report.)

As outlined below, staff is recommending approval of this proposal, primarily due to the fact that the site is currently zoned for auto oriented uses (PCD-4) like the gas station and auto repair station that have existed on the site for 50+ years.

Primary Issues

- **Is the Comprehensive Plan Amendment reasonable?**

  Yes. The Comprehensive Plan Amendment is reasonable for the following reasons:

  1. The subject property has been used a commercial site with proper zoning for over 50 years. The proposed amendment is reasonable given the consistency in use from an auto-repair and former gas station to an electric vehicle charging station. The Comprehensive Plan Amendment would be consistent with the existing commercial zoning on the site.

  2. The existing zoning is PCD-4, which allows automobile service centers, gas stations and car washes. The Metropolitan Council requires cities to have their land use plan within the Comprehensive Plan, consistent with their zoning designations.

  3. The proposed NN, Neighborhood Node, would accommodate a small-scale commercial use. This category is where several of the City's current gas stations are located.

  4. The proposed use would be supported by the existing roads. The number of vehicular trips to the site would have minimal impact on the existing roads. (See page 7-1 of the traffic study.)

- **Are the proposed Variances justified?**

  Yes. Subject to approval of the Comprehensive Plan Amendment, staff believes that the Variances requested with this project are reasonable and meet the variance criteria as outlined below.

  - The existing use on the property has been commercial for over 50 years.
  - The closest adjacent structure would be 105+/- feet away and would be screened by fencing and landscaping.

- The practical difficulties include the existing small lot size, irregular shape of the lot and street frontages on two of the three sides.
- It would be difficult to build anything on this site without variances, due to the small size and shape of the lot. (See attached buildable area.)
- The proposed cedar fence and landscaping along the west and north lot lines would minimize impact on the adjacent residential use to the north and west.
- The proposal would be an improvement over existing conditions and use of the site.

Minnesota Statutes and Section 36-98 of the Edina Zoning Ordinance require that a variance shall not be granted unless the following findings are made:

1. ***The variances would be in harmony with the general purposes and intent of the ordinance.***

   Ariticle 1. – In General; Section 36-1 – Findings state "Through the enactment of the ordinance from which this chapter is derived, the council intends to implement this statement of philosophy so as to provide for the orderly and planned development and redevelopment of lands and waters in the city, to maintain an attractive living and working environment in the city, to preserve and enhance the high quality residential character of the city and to promote the public health, safety and general welfare." Section. 36-2 Objectives of the Zoning Ordinance includes:

   - Control the use, development and expansion of certain nonresidential uses in the Single Dwelling Unit District in order to reduce or eliminate undesirable impacts of such nonresidential uses.
   - Encourage orderly development, use and maintenance of office, commercial and industrial uses which are compatible with the residential character of the city.
   - Recognize and distinguish commercial districts at the neighborhood level, the community level and the regional level, so as to provide retail establishments compatible in use and scale with surrounding properties, especially those used for residential purposes.
   - Establish standards for landscaping and screening to contribute to the beauty of the community, add to the urban forest and buffer incompatible uses from one another.

   By adding conditions to minimize impacts on adjacent property, such as landscaping, screening, limiting hours of operation the intent of the ordinances could be met.

2. ***The variance would be consistent with the Comprehensive Plan.***

   Subject to approval of the Comprehensive Plan amendment, the proposal would be consistent with the Comprehensive Plan. Below is the land use categories and description.

Categories	Description, Land Uses	Development Character and Guidelines	Density and Intensity
NN Neighborhood Node*** Current examples: • 44th & France • 70th & Cahill • Valley View & Wooddale • Lincoln & Londonderry	In general, small-to moderate-scale commercial, residential or mixed-use buildings serving primarily the adjacent neighborhood(s). Primary uses encouraged are neighborhood-serving retail and services, offices, studios, institutional and residential. Within Lincoln & Londonderry, limited industrial is also a primary use.	Building footprints generally less than 20,000 sq. ft. (or less for individual storefronts). Parking is less prominent than pedestrian features. Encourage underground parking (for comparatively larger developments), district parking for smaller developments, and open space linkages where feasible; emphasize enhancement of the pedestrian environment.	Varies by small area: • Wooddale/Valley View – 12-30 du/acre • 70th & Cahill – 10-50 du/acre • 44th & France – 12-60 du/acre • Lincoln/Londonderry – 10-60 du/acre 30%/70% residential/commercial mixed-use

3. There are practical difficulties in complying with the ordinance. The term "practical difficulties" means the following:

i. The property owner proposes to use the property in a reasonable manner not permitted by the Zoning Ordinance.

Reasonable use does not mean that the applicant must show the land cannot be put to any reasonable use without the variance. Rather, the applicant must show that there are practical difficulties in complying with the code and that the proposed use is reasonable. "Practical difficulties" may include functional and aesthetic concerns.

These variances are reasonable given the existing small size of the site, the triangular shape of the site, and two lot frontages. The proposal utilizes the existing building and updates the existing parking lot. The use would be reasonably screened by landscaping and fencing and located 105 feet to the building to the west. The previous use of this site was auto repair and a gas station. The proposed use is generally consistent with those uses. The mechanical equipment would be well screened and located away from the single-family homes to the north.

ii. The plight of the landowner is due to circumstances unique to the property not created by the landowner.

Yes. The unique circumstances including the small lot size, location of existing building, unique shape, existing zoning being commercial (PCD-4) and the Comprehensive Plan designation of multi-family residential are not created by the landowner.

iii. The variance, if granted, will not alter the essential character of the locality.

The variances would not alter the essential character of the locality. The existing use has been automobile repair with outside storage. The remodeling of the building, upgrading of the parking lot, added landscaping and fencing would improve the look of the site, which would remain commercial.

Options for consideration

For this project, the Planning Commission and City Council have discretion to approve or deny the request. A case can be made for both approval and denial of this project. The following outlines alternatives for the Planning Commission to consider.

Denial

Comprehensive Plan

Recommend the City Council deny the Comprehensive Plan Amendment to re-guide the site from MDR, Medium Density Residential to NC, Neighborhood Commercial. Denial is based on the following findings:

1. The subject property is too small to accommodate the proposed uses. The EV charging stations and related mechanical equipment, given the number of variances being requested, would be an overly intensive use for the site.

2. The proposed use and site plan to accommodate the use is not compatible with the adjacent residential land uses. The variances proposed are significant.

3. The site is currently guided for Medium Density Residential land uses.

Site Plan with Variances

Recommend the City Council Deny the Site Plan Review and Variances. Denial is based on the following findings:

1. The Variance criteria have not been met. There are no practical difficulties that prohibit reasonable use of the property.

2. The practical difficulty is caused by the applicant's desire for an expanded parking field for the EV charging stations and mechanical equipment that does not fit properly on the site to minimize impacts on adjacent properties.

Approval

Comprehensive Plan

Recommend the City Council approve the Comprehensive Plan Amendment to re-guide the site from MDR, Medium Density Residential to NN, Neighborhood Node. Approval is based on the following findings:

1. The proposed use and site plan to accommodate the use is consistent with the previous land uses on this site. The existing building would be used rather than tearing it down and replacing it. The proposal would be an improvement to the site compared to current conditions.

2. The subject property has been used a commercial site with proper zoning for over 50 years. The proposed amendment is reasonable given the change in use from an auto-repair and former gas station to an EV charging station and convenience store. The Comprehensive Plan Amendment would then be consistent with the existing commercial zoning on the site.

3. The proposed amendment would allow a re-development of a commercial property that would be an amenity serving the area. A convenience store and lounge could be a small-scale community gathering space for this neighborhood.

4. With the requirement of a fence located along the west and north lot lines and the landscaping proposed, the project would be screened from adjacent residential land uses to minimize impacts.

Site Plan with Variances

Recommend the City Council Approve the Site Plan Review and Variances. Approval is based on the following findings:

1. The proposed variances are reasonable given the practical difficulties associated with the site including the triangular shape of the site, street frontage on two sides, and the lots small size.

2. The project would include a restoration of the existing building; the expansion area would the west, where the nearest building would be 105+/- feet away.

3. The proposed cedar fence along the west and north lot lines would minimize impact on the adjacent residential use to the north and west.

4. The proposal would be an improvement over existing conditions and use of the site.

Approval is subject to the following Conditions:

1. The Final Landscape Plan must meet all minimum landscaping requirements per Chapter 36 of the Zoning Ordinance. A performance bond, letter-of-credit, or cash deposit must be submitted for one and one-half times the cost amount for completing the required landscaping, screening, or erosion control measures at the time of any building permit. The property owner is responsible for replacing any required landscaping that dies after the project is built.

2. Compliance with all the conditions outlined in the city engineer's memo dated April 22, 2026.

3. Variances are subject to approval of the Comprehensive Plan Amendment, Site Plan approval by City Council.

4. Submit a copy of the Nine Mile Creek Watershed District permit. The City may require revisions to the approved plans to meet the district's requirements.

5. A cedar fence must be installed and maintained along the west and north lot line as proposed to provide screening from adjacent properties.

6. A boulevard-style sidewalk must be constructed along Vernon Avenue. Sidewalk must be 6 feet minimum width with a 5-foot minimum width boulevard.

7. Noise levels from the site shall not exceed City Code (State Statutes).

Staff Recommendation

Staff recommends approval of the Comprehensive Plan Amendment, Site Plan and Variances subject to the findings above.

Deadline for a City decision: June 16, 2026

This project proposes to establish a new IONNA Rechargery located at 6016 VERNON AVE, Edina, MN. This installation will feature seven (7) Level 3 DC fast-charging stations with mini canopies, providing essential charging infrastructure for the growing electric vehicle community in Minnesota.

IONNA, a joint venture established by leading automotive manufacturers including BMW, General Motors, Honda, Hyundai, Kia, Mercedes-Benz, Stellantis, and Toyota, is creating North America's premier charging network. This location will serve as a crucial link in IONNA's expanding charging infrastructure, supporting both local EV drivers and travelers along the Interstate 5 corridor.

The proposed installation will feature high-powered charging capabilities compatible with both North American Charging Standard (NACS) and Combined Charging System (CCS) connectors, ensuring accessibility for all electric vehicle makes and models. Along with an amenity building that will provide a lounge, restrooms, and a small, unmanned convenience store powered by Amazon's "Just Walk Out" technology.

The unmanned convenience store will be accessible via QR code 24/7 to the public via access through the lounge. Our lounge will also be 24/7, and open to the public with no QR code from the hours of 9AM – 6PM.

Security will be via cameras on site, and we will partner with a security firm to dispatch as necessary and only escalate to police if the situation calls for it. If the need arises, we have a Phase 2 security plan that will have an onsite security guard, though IONNA does not foresee this being a need.

The building and site trash from bins will be collected via a janitorial contract, and the site will be checked daily for cleanliness.

This Rechargery represents an investment in Edina's future by providing essential EV charging infrastructure to the area. The location's proximity to major thoroughfares makes it an ideal spot for drivers and local businesses, bringing an untapped market to the City.

The project will adhere to all required safety standards and will be designed to minimize impact on existing infrastructure while maximizing accessibility for EV drivers.

IONNA™

IONNA SITE NUMBER: MN-0008

INSTALLATION OF ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

MN-0008 EDINA, MN
6016 VERNON AVE. S.
EDINA, MN 55436

SITE INFORMATION

PROPERTY OWNER:
SPECIAL X PROPERITES
CONTACT: CHRIS DAVIS
PHONE: (612) 791-8033
EMAIL: CHRISDAVIS@EDINREALTY.COM

POWER COMPANY:
XCEL ENERGY
CONTACT: KIERAN SCHWARTZ
PHONE: (612) 494-4271
EMAIL: KIERAN.E.SCHWARTZ@XCELENERGY.COM

PROGRAM MANAGER:
KIMLEY-HORN & ASSOCIATES, INC.
CONTACT: JESS CAIN, P.E.
PHONE: (984) 358-6005
EMAIL: JESS.CAIN@KIMLEY-HORN.COM

SURVEYOR:
WESTWOOD
CONTACT: MATHEW J. WELINSKI, PLS
PHONE: (320) 253-9495
EMAIL: MATT.WELINSKI@WESTWOODPS.COM

EV SITE ADDRESS:
6016 VERNON AVE. S.
EDINA, MN 55436

ASSESSOR PARCEL NUMBER (APN):
32-117-21-23-0027

COUNTY:
HENNEPIN

LATITUDE (NAD83):
N44.900522°

LONGITUDE (NAD83):
W93.37703°

BENCHMARK & BASIS OF BEARING

BENCHMARK: 925.75' (NAVD 88)

BASIS OF BEARING:
THE VERTICAL DATUM FOR THIS PROJECT SHALL BE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD-88) AND THE HORIZONTAL DATUM SHALL BE THE NORTH AMERICAN DATUM OF 1983 (NAD-83) IN THE STATE PLANE OF MN STATE PLANE, ZONE SOUTH, US FOOT.

ZONING INFORMATION

PERMITTING JURISDICTION:	EDINA
ZONING CLASS:	PCD-4
CURRENT USE;	COMMERCIAL
PROPOSED USE:	PUBLIC DC FAST CHARGING AND PARKING

FLOOD HAZARD AREA NOTE

THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE X, AN AREA DETERMINED TO BE 0.2% ANNUAL CHANCE FLOOD; ZONE A, & ZONE AE, AN AREA DETERMINED TO BE 1% ANNUAL CHANCE FLOOD, AS GRAPHICALLY SHOWN ON FIRM MAP COMMUNITY PANEL NUMBER 27053C0344F, EFFECTIVE DATE 11/04/2016.

APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

- MINNESOTA BUILDING CODE 2020
- MINNESOTA ELECTRICAL CODE 2023
- MINNESOTA MECHANICAL CODE 2020
- MINNESOTA PLUMBING CODE 2020
- MINNESOTA FIRE CODE 2020
- MINNESOTA COMMERCIAL ENERGY CODE 2024

NOTE:
IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL.

CONTRACTOR NOTE

- CONTRACTOR SHALL COMPLETE INSTALL PER THE SIGNED AND THE SEALED SET OF DRAWINGS. ANY NECESSARY DEVIATIONS FROM THE DRAWINGS MUST BE SUBMITTED THROUGH AN RFI REQUEST PROCESS WITH ENGINEERING FOR AN APPROVAL PRIOR TO CONTRACTOR PROCEEDING WITH A DEVIATION OF THE SIGNED AND SEALED SET OF DRAWINGS.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE THEN IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

811 Know what's below. Call before you dig.

CAUTION!!
CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

AERIAL MAP



IMAGE REFERENCE
AERIAL IMAGERY PROVIDED BY NEARMAP US, INC. ©2026 NEARMAP, HERE.
Nearmap

PROJECT DESCRIPTION

THIS PLAN IS DEVELOPED WITH THE INTENT TO PROVIDE PUBLIC ELECTRIC VEHICLE (EV) CHARGING STATIONS AND AN ELEVATED LIT CANOPY AT THIS LOCATION. THE EXTENT OF DESIGN WITHIN THIS CONSTRUCTION DOCUMENT INCLUDES THE EV CHARGING STATIONS AND THEIR ACCOMPANYING CIVIL AND ELECTRICAL INFRASTRUCTURE.

- DEMOLITION OF EXISTING SURFACES FOR THE INSTALLATION OF EV CHARGERS AND LIT CANOPIES.
- GRADING OF SURFACES ASSOCIATED WITH EVSE TO COMPLY WITH ADA REQUIREMENTS.
- INSTALL (1) UTILITY TRANSFORMER TO BE COORDINATED WITH LOCAL UTILITY COMPANY.
- INSTALL (1) SWITCHBOARD ASSEMBLY.
- INSTALL (7) 400KW ALPITRONIC HYC400 EV CHARGERS.
- INSTALL (13) EV SIGN POSTS.
- INSTALL (1) ACCESSIBLE EV SIGN POSTS.

DRAWING INDEX

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G1.1	GENERAL NOTES II
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C2.0	SITE PLAN
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C2.2	FF&E PLAN
C2.3	FINISH PLAN
C3.0	DEMOLITION PLAN
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S1.2	CANOPY DETAILS

FOR REFERENCE ONLY DRAWINGS

PROPERTY SURVEY / EXISTING CONDITIONS, SEE SHEET C1.0 - ALTA SURVEY (BY OTHERS)

ENGINEER(S) OF RECORD

CIVIL ENGINEER:
KIMLEY-HORN & ASSOCIATES, INC.
CONTACT: MATTHEW DUENWALD, P.E.
PHONE: (972) 770-3034
EMAIL: MATT.DUENWALD@KIMLEY-HORN.COM

ELECTRICAL ENGINEER:
KIMLEY-HORN & ASSOCIATES, INC.
CONTACT: FORREST TURNER, P.E.
PHONE: (503) 420-0645
EMAIL: FORREST.TURNER@KIMLEY-HORN.COM

Kimley»Horn
11995 SINGLETREE LANE, SUITE 225,
EDEN PRAIRIE, MN 55344
Main: (612) 315-1272 | www.kimley-horn.com

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STIPULATION FOR REUSE

THIS PLAN WAS PREPARED FOR USE ON A SPECIFIC SITE: 6016 VERNON AVE. S., EDINA, MN, AND IS VALID ONLY AS OF ITS ISSUE DATE (3/11/2026). IT IS NOT SUITABLE FOR USE ON ANY OTHER PROJECT SITE OR AT A LATER TIME. ANY USE OF THIS PLAN AS A REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE INVOLVEMENT OF APPROPRIATELY LICENSED ENGINEERS. REPRODUCTION OR REUSE OF THIS PLAN FOR ANOTHER PROJECT IS UNAUTHORIZED AND MAY VIOLATE APPLICABLE LAWS.

No	ISSUE BLOCK	DATE	BY
0			
1			
2			
3			
4			
5			
6			
7			
8			

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT	016895119
DATE	3/11/2026
SCALE	AS SHOWN
DESIGNED BY	KAR
DRAWN BY	KAR
CHECKED BY	EGS

IONNA™
6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

COVER SHEET

SHEET NUMBER
G0.0

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GENERAL CONSTRUCTION NOTES

FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:

1. GENERAL CONTRACTOR: TBD
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
5. UNLESS OTHERWISE NOTED PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
6. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
7. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS (CONTRACTOR SHALL CONFIRM TIMELINE WITH IONNA) PRIOR TO COMMENCEMENT OF WORK.
8. THE CONTRACTOR SHALL PROVIDE UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
9. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
10. THE CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
11. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
14. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
15. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
16. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
17. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
18. THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR AND OWNER (IONNA) UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
19. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
20. THE TERM "DESIGN ENGINEER" USED HEREIN SHALL MEAN THE ENGINEER WHO HAS SIGNED AND SEALED HIS/HER RESPECTIVE PLAN SHEETS AND IS IN RESPONSIBLE CHARGE OF THE ENGINEERING DESIGN ON THOSE SHEETS. THE TERM "CONTRACTOR" USED HEREIN SHALL MEAN ANY GENERAL CONTRACTOR OR SUBCONTRACTOR USING THESE PLANS.
21. THE DESIGN ENGINEER SHALL NOT PROVIDE, OBSERVE, COMMENT ON NOR ENFORCE ANY SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, IMPLEMENT, AND MAINTAIN ALL SAFETY MEASURES AND SHALL BE SOLELY RESPONSIBLE FOR ALL REQUIRED SAFETY MEASURES, PROCEDURES AND PROGRAMS AND COMPLYING WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR AGREES THAT SHE/HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
22. THE DESIGN ENGINEER SHALL HAVE NO RESPONSIBILITY FOR ANY OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, TECHNIQUES, EQUIPMENT CHOICE AND USAGE, SEQUENCE, SCHEDULE, SAFETY PROGRAMS, OR SAFETY PRACTICES, NOR SHALL THE DESIGN ENGINEER HAVE ANY AUTHORITY OR RESPONSIBILITY TO DIRECT OR STOP THE WORK OF ANY CONTRACTOR.
23. ANY CHANGES MADE BY THE CONTRACTOR TO THE CONTRACTUALLY AGREED UPON SCOPE, SCHEDULE AND/OR FEE, WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF THE OWNER, IS THE SOLE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR. THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR DIRECTING, IMPLICITLY OR EXPLICITLY ANY SUCH CHANGES AND THE CONTRACTOR ASSUMES ALL RISK OF UNDERTAKING ANY SUCH CHANGES.
24. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE DESIGN ENGINEER AND OWNER, THEIR OFFICERS, AGENTS AND EMPLOYEES, HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, JUDGMENTS, LOSS, DAMAGES, COSTS, EXPENSES, FEES OR LIABILITY WHATSOEVER, REAL OR ALLEGED, IN CONNECTION WITH, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE OR CONCURRENT NEGLIGENCE OF THE OWNER OR THE DESIGN ENGINEER.
25. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS, THE CONTRACTOR SHALL ISSUE A RFI IN WRITING FROM THE DESIGN ENGINEER AND THE OWNER, REQUESTING A CLARIFICATION BEFORE PERFORMING ANY RELATED OR IMPACTED WORK. ANY ELECTRONIC FILES ARE PROVIDED ONLY FOR THE CONVENIENCE OF THE RECEIVING PARTY AND ARE INTENDED SOLELY FOR THE EXCLUSIVE USE BY THAT PARTY FOR THE PURPOSES EXPRESSLY AUTHORIZED. IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICE, ONLY PRINTED COPIES OF DOCUMENTS DESIGNATED AS "ISSUED FOR CONSTRUCTION", OR EQUIVALENT DESIGNATION, MAY BE RELIED UPON.
26. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PREPARING ITS BID, IN WHOLE AND IN PART, BASED UPON THE DESIGN SHOWN ON THESE PLANS. THE CONTRACTOR IS NOT AUTHORIZED TO USE ANY QUANTITIES SHOWN ON THESE PLANS WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. THE DESIGN ENGINEER MAKES NO WARRANTY OR REPRESENTATION AS TO THE SUITABILITY OF ANY INFORMATION SHOWN HEREON FOR DETERMINING A CONTRACTOR BID.
27. ANYTHING MENTIONED IN THE SPECIFICATIONS, IF ANY, AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH.
28. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES AS NEEDED, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO THE ACTUAL LOCATION, SIZE, TYPE, OR CONDITION OF EXISTING FACILITIES DIFFERING FROM WHAT IS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ALL SUCH FACILITIES WHETHER NOTED ON THESE PLANS OR NOT. THE DESIGN ENGINEER ASSUMES NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE OWNER AND/OR AUTHORITY HAVING JURISDICTION AS NEEDED.
29. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK ADJACENT TO, ABOVE OR BELOW THEIR FACILITIES AND SHALL COORDINATE ALL WORK WITH UTILITY COMPANY REPRESENTATIVES.
30. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED GRADING ELEMENTS BEFORE THE START OF CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES.
31. UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S) AS FINISHED GROUND, FINISHED SURFACE, AND FINISHED FLOOR ELEVATIONS. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD. THE EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE FOR PERMITTING PURPOSES ONLY. UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THEY HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, SUBSIDENCE, OVER-EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, STORMWATER QUALITY MEDIA SECTIONS, UTILITY PIPES, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING SLABS THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE PAVEMENTS, ETC. THE CONTRACTOR IS NOT AUTHORIZED TO USE THE ESTIMATES HEREIN FOR BIDDING AND CONSTRUCTION PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD.
32. PROPOSED BUILDING PAD ELEVATIONS, IF SHOWN, ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. CONTRACTOR SHALL CONFIRM SLAB STRUCTURAL SECTION THICKNESSES AND PAD PREPARATION REQUIREMENTS PRIOR TO GRADING FINISHED PADS.
33. THE CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, ELECTRICAL, AND ALL OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. SHOULD DISCREPANCIES OR CONFLICTING INFORMATION BE FOUND ON ANY PLANS, OR IN ANY SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND DESIGN ENGINEER IN WRITING BEFORE PROCEEDING WITH THE WORK IN QUESTION.
34. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT THE PROJECT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR OPERATIONS, BY APPROPRIATE MEANS, OR BY SPECIFIC MEANS DESCRIBED IN THE PROJECT'S PLANS, SPECIFICATIONS OR STORM WATER POLLUTION PREVENTION REPORT, UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHOMEVER IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND THE AGENCY HAVING JURISDICTION. THE DESIGN ENGINEER SHALL HAVE NO RESPONSIBILITY TO DIRECT THE CONTRACTOR REGARDING THE MEANS AND METHODS OF STORMWATER POLLUTION PREVENTION, SEQUENCE, OR SCHEDULE.
35. ALL SHOP DRAWINGS, RFIS AND ANY OTHER DOCUMENTS THAT REQUIRE DESIGN ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, TO ALLOW ADEQUATE REVIEW, COORDINATION AND RESPONSE. SAID DOCUMENTS ARE NOT A DIRECTION FROM THE DESIGN ENGINEER TO MODIFY THE CONTRACTORS SCOPE, SCHEDULE OR PRICE, AND THE CONTRACTOR WARRANTS NOT TO USE THEM AS SUCH.
36. THE CONTRACTOR SHALL ENSURE APPROPRIATE LICENSED PROFESSIONALS HAVE BEEN RETAINED BY THE CONTRACTOR TO PROVIDE ANY/ALL REQUIRED PROJECT CERTIFICATIONS AS MAY BE REQUIRED BY ANY AUTHORITY HAVING JURISDICTION. THE DESIGN ENGINEER WILL NOT PROVIDE ANY PROJECT CERTIFICATIONS UNLESS SPECIFICALLY RETAINED BY THE OWNER TO PROVIDE LIMITED SERVICES.
37. CONTRACTOR SHALL RETAIN A LICENSED SURVEYOR TO DOCUMENT ALL CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS DURING CONSTRUCTION. THE LICENSED SURVEYOR SHALL PREPARE A SIGNED AND SEALED "AS-BUILT" DRAWING UPON COMPLETION OF CONSTRUCTION. THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR THE PREPARATION IN WHOLE OR IN PART OF THE "AS-BUILT" DRAWINGS.
38. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE MOST CURRENT VERSION OF THE LAND SURVEYORS ACT.

SETBACK NOTE

CONTRACTOR TO VERIFY THAT LOCATIONS OF ALL PROPOSED EV ELECTRICAL EQUIPMENT AND INFRASTRUCTURE ARE IN COMPLIANCE WITH ALL LOCAL CODES, SETBACKS, AND BUFFERS.

GEOTECHNICAL NOTE

GENERAL SITE WORK NOTES

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

1. REFERENCES:
   - A. MNDOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION).
   - B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
   - C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

2. INSPECTION AND TESTING:
   - A. GENERAL CONTRACTOR SHALL PERFORM ALL WORK IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. PERFORM INSPECTIONS BEFORE CONCEALING WORK WITH FOLLOW-ON ACTIVITIES (BACKFILL, CONCRETE POUR, ETC).

3. SITE MAINTENANCE AND PROTECTION:
   - A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE CONTRACT.
   - B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
   - C. KEEP SITE FREE OF ALL PONDING WATER.
   - D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT, LOCAL PERMITTING AGENCY AND EPA REQUIREMENTS.
   - E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
   - F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE CONSTRUCTION MANAGER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
   - G. PROVIDE A MINIMUM 48-HOUR (CONTRACTOR SHALL CONFIRM TIMELINE WITH REPUBLIC SERVICES) NOTICE TO THE CONSTRUCTION MANAGER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.
   - H. SOD PLANTED IN THE FALL MUST ESTABLISH ITS ROOTS BEFORE THE FIRST WINTER FROST. DETERMINE WHEN THE FIRST FROST USUALLY OCCURS, AND PLANT THE SOD NO LATER THAN ONE MONTH BEFORE THE FIRST FROST. IF THE CONSTRUCTION IS FINISHED LATER THAN ONE MONTH BEFORE THE FIRST FROST, USE STRAW UNTIL SOD CAN BE INSTALLED.

PART 2 - PRODUCTS

1. SUITABLE MATERIAL – SUITABLE MATERIAL ARE USED FOR GRADING AND BACKFILL. SUITABLE MATERIALS ARE ON SITE SOILS REMOVED FROM EXCAVATIONS THAT EXCLUDE FROZEN SOIL, ROOTS OR ORGANIC MATERIAL, DEBRIS, TRASH, REFUSE, OR PARTICLES SIZE GREATER THAN 3-INCH. SUITABLE SOILS HAVE MOISTURE CONTENTS THAT ALLOW THEM TO BE COMPACTED TO THE SAME DENSITY AS THE NATIVE SOILS.
2. UNSUITABLE MATERIAL – SOILS THAT ARE FROZEN, CONTAIN ROOTS OR ORGANIC MATERIAL, DEBRIS, TRASH, REFUSE, OR PARTICLES SIZES GREATER THAN 3-INCH. SOILS THAT ARE TOO WET OR TOO DRY TO BE COMPACTED TO THE SAME DENSITY AS THE NATIVE SOILS ARE UNSUITABLE.
3. GRANULAR BACKFILL – SHALL MEET THE FOLLOWING GRADATION

SIEVE SIZE	TOTAL PERCENT PASSING
1 1/2 INCH (37.5 MM)	100
No. 4 (4.75 MM)	30 TO 60
NO 200 (0.075 MM)	3 TO 15

4. GRANULAR BEDDING – WELL-GRADED SAND MEETING THE GRADATION REQUIREMENT OF ASTM C 33 FINE AGGREGATE.
5. CONTROLLED LOW STRENGTH MATERIAL (CLSM)– A SELF LEVELING AND SELF COMPACTING CEMENTITIOUS MATERIAL COMPOSED OF SAND, COARSE AGGREGATE, CEMENT, FLY ASH, WATER AND ADMIXTURES. CLSM SHALL BE EXCAVATABLE AND SHALL HAVE A DESIGNED UNCONFINED COMPRESSIVE STRENGTH OF BETWEEN 50 TO 100 PSI.
6. BACKFILL – PRODUCTS MEETING THE REQUIREMENTS OF SUITABLE MATERIAL, GRANULAR BEDDING, GRANULAR BACKFILL OR CLSM.
7. TOPSOIL – SOIL WITH AN ORGANIC CONTENT SUFFICIENT TO ALLOW VEGETATIVE GROWTH.

PART 3 - EXECUTION

1. GENERAL:
   - A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ALL TIMES.
   - B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK. CONDUCT UTILITY LOCATE IN ACCORDANCE WITH THE ONE-CALL NOTIFICATION.
   - C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
   - D. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
   - E. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS. SUFFICIENT TOPSOIL MAY BE STOCKPILED ON SITE FOR USE DURING FINAL SITE GRADING.
   - F. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE MATERIAL.
   - G. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
   - H. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
   - I. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
   - J. DURING EXCAVATION, THE CONTRACTOR SHALL PROVIDE SHORING, SHEETING, AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF EXCAVATION.

2. BACKFILL:
   - A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
   - B. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
   - C. DO NOT PLACE FROZEN MATERIAL IN AS BACKFILL.
   - D. PLACE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACT TO THE SAME DENSITY AS NATIVE SOIL. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
   - E. WHENEVER TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE CONSTRUCTION MANAGER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE COMPACTION REQUIREMENTS.

3. TRENCH EXCAVATION:
   - A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.
   - B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
   - C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, EXCAVATE THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION, THEN BACKFILL WITH 12" OF GRANULAR BEDDING MATERIAL.

4. TRENCH BACKFILL:
   - A. PROVIDE GRANULAR BEDDING MATERIAL OR FLOWABLE FILL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.
   - B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.
   - C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
   - D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.
   - E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.
   - F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.
   - G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH.

5. FINISH GRADING:
   - A. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.
   - B. UTILIZE SATISFACTORY FILL MATERIAL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.
   - C. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

6. ASPHALT PAVING ROAD:
   - A. CONTRACTOR RESPONSIBLE FOR RE-STRIPING AND APPLYING SEALCOATING, UNLESS OTHERWISE NOTED.
   - B. MNDOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION)

7. STAGING:
   - A. WORK / STAGING AREA TO BE CONFIRMED AT PRE-CONSTRUCTION SITE MEETING AND SURROUNDED BY TEMPORARY FENCE (SEE DETAIL BELOW) DURING CONSTRUCTION.
   - B. POSSIBLE LOCATION FOR TEMPORARY DRIVE AISLE CLOSURE DURING CONSTRUCTION.
   - C. CONTRACTOR TO PROVIDE TEMPORARY SIGNS TO DIRECT TRAFFIC FLOW.
   - D. SHORT TERM FENCING TO BE PROVIDED OUTSIDE OF TEMPORARY FENCE FOR ANY OPEN TRENCHES LEFT OVER NIGHT OR UNATTENDED.
   - E. TEMPORARY FENCE SHALL BE CLOSED AND LOCKED AT ALL TIMES. IF GATE MUST BE OPEN FOR MOVING EQUIPMENT OR MATERIALS, A SPOTTER SHALL BE PROVIDED TO TO PREVENT UNAUTHORIZED ENTRY.
   - F. NO EQUIPMENT OR MATERIALS SHALL BE STORED OUTSIDE THE TEMPORARY FENCE FOR ANY AMOUNT OF TIME.

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EROSION PREVENTION & SEDIMENT CONTROL CONSTRUCTION SEQUENCE

INITIAL E&S

1. PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND DIRT.
2. CONSTRUCT INITIAL EPSC MEASURES BEFORE BEGINNING GRADING OPERATIONS.
3. CONTRACTOR TO INSTALL CONSTRUCTION ENTRANCES, SILT FENCE, TREE PROTECTION FENCING, FIBER ROLLS, AND CONCRETE WASHOUTS ON-SITE PRIOR TO DEMOLITION BEGINNING.
4. SILT FENCE IS TO BE INSTALLED AROUND ALL BIORETENTION AREAS TO PROTECT FROM SOIL COMPACTION DURING CONSTRUCTION.
5. AFTER PERIMETER MEASURES ARE INSTALLED, CONTRACTOR SHALL SCHEDULE PRE-CONSTRUCTION MEETING WITH AHJ.
6. CONTRACTOR TO CONTACT AHJ TO OBTAIN STORMWATER PERMIT. THE CONTRACTOR SHALL CONTACT APPROPRIATE PARTY FOR INSPECTION OF EROSION CONTROL DEVICES.
7. ALL 3:1 OR STEEPER SLOPES TO BE STABILIZED WITHIN 7 DAYS.

FINAL E&S

1. CONTRACTOR TO CLEAR, GRUB, EXCAVATE EXISTING UTILITIES ON-SITE AND GRADE REMAINING SITE.
2. INSTALL PROPOSED UTILITIES.
3. CONSTRUCT REMAINING SITE ACCORDING TO THE APPROVED PLANS, OR AS INSTRUCTED BY THE EROSION CONTROL INSPECTOR.
4. PERMANENTLY STABILIZE SITE.
5. UPON PERMANENT SITE STABILIZATION, REMOVE ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES.
6. FINISH INSTALLING PERMANENT STORMWATER BMP'S SHOWN ON PLANS.

ANCHORAGE INSTALLATION NOTES

1. DRILLING THROUGH EXISTING SLAB REBAR DURING POST-INSTALLED ANCHOR BOLTS INSTALLATION IS NOT PERMITTED.
2. POST-INSTALLED ANCHOR BOLT INSTALLATION SHALL BE PERFORMED BY PERSONNEL TRAINED TO INSTALL THE SYSTEM PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING.
3. EXPANSION AND ADHESIVE ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS USING STANDARD EMBEDMENT AND EDGE DISTANCES UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, UNLESS NOTED OTHERWISE: WIDE FLANGE SHAPE: A992, 50KSI
   ANGLE AND CHANNEL SHAPE: ASTM A36, 36 KSI PLATE: ASTM A36, 36KSI
   PIPE: ASTM A53 GRADE B, 35 KSI
   HSS: ASTM A500 GRADE B, 46KSI
5. HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A325: ONE HIGH-STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY NUT, A HARDENED WASHER CONFORMING TO ASTM F436. THE HARDENED WASHER SHALL BE INSTALLED AGAINST ELEMENT TURNED IN TIGHTENING. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.
6. WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.
7. UNLESS NOTED OTHERWISE ON THE DRAWING, ALL ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 WITH HEAVY HEXAGONAL NUT.
8. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION.
9. ALL EXPOSED STRUCTURAL STEEL AND BOLTS SHALL BE HOT DIP GALVANIZED PER ASTM A123.
10. SUBMIT FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND TOP STEEL ELEVATIONS FOR APPROVAL. THE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL CONFORMANCE TO THE CONTRACT DRAWINGS. SUCH APPROVAL SHALL NOT RELIEVE THE FABRICATOR/CONTRACTOR OF THE RESPONSIBILITY FOR EITHER THE ACCURACY OF THE DETAILED DIMENSIONS IN THE SHOP AND ERECTION DRAWINGS OR THE GENERAL FIT-UP OF PARTS THAT ARE TO BE ASSEMBLED IN THE FIELD.
11. PRIMER SHALL BE RED OXIDE-CHROMATE PRIME COMPLYING WITH STEEL STRUCTURES PAINTING COUNCIL (SSPC) PAINT SPECIFICATION NUMBER 11.

REINFORCED CONCRETE NOTES

1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS UNLESS OTHERWISE NOTED CONTINUOUS INSPECTION IS NOT REQUIRED. SLUMP: 4" MIN / 6" MAX.
   i. AIR-CONTENT OF 6% +- 1.5%
2. REINFORCEMENT SHALL BE A NEW BILLET STEEL DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615 GRADE 60, MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4".
3. REINFORCEMENT SHALL COMPLY WITH THE LATEST EDITION OF ACI 318 FOR MINIMUM CLEARANCES AND CONCRETE COVER.
4. ALL EMBEDDED ITEMS SHALL BE SECURELY HELD IN POSITION PRIOR TO PLACEMENT OF CONCRETE. ALL CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.
5. MAINTAIN TEMPERATURE OF CAST IN PLACE CONCRETE BETWEEN 50 DEGREES AND 90 DEGREES FAHRENHEIT.
6. DO NOT USE RETEMPERED CONCRETE, OR ADD WATER TO READY-MIX CONCRETE AT THE JOB SITE.
7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.7.
8. EXCEPT AS DETAILED OR AUTHORIZED, MAKE BARS CONTINUOUS AROUND CORNERS WHERE PERMITTED, SPLICES MADE BY CONTACT LAPS SHALL BE CLASS "B" TENSION LAPS UNLESS NOTED OTHERWISE.
9. DETAIL BARS IN ACCORDANCE WITH "ACI DETAILING MANUAL", PUBLICATION SP-66 AND " BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318.
10. PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING.
11. EXPANSION JOINTS SHALL BE CONSTRUCTED AT LOCATIONS WHERE THE CONCRETE PAD ABUTS CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES, AND AS SHOWN ON APPROVED PLANS. EXPANSION JOINTS SHALL BE FORMED WITH ONE-HALF INCH PRE-FABRICATED NON-EXTRUDING FILLER AND SHALL EXTEND THE FULL DEPTH OF THE SLAB.

DEMOLITION NOTES

1. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM AVAILABLE RECORDS AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR MARKING ONSITE LOCATIONS OF EXISTING UTILITIES.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 72 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
3. ALL EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME THE DRAWINGS WERE PREPARED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE DUE TO THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, AND EROSION CONTROL PLANS AND INSPECTION REPORTS (SWPPP).
5. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER / ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.

PAVING NOTES

1. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS.
2. ALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS, LATEST EDITION.
3. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT AND PAVEMENT MARKINGS SHALL ADHERE TO EDINA AND OWNER STANDARDS.
4. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
5. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
6. EXISTING ASPHALT / CONCRETE PAVEMENT SHALL REQUIRE THE REMOVAL AND REPLACEMENT OF A MINIMUM 2' WIDE SECTION FOR CONSTRUCTION AND PLACEMENT OF CONCRETE FORMS WHERE ADJACENT TO NEW CONCRETE. CONTRACTOR SHALL MATCH EXISTING ASPHALT SECTION.

EROSION PREVENTION & SEDIMENT CONTROL NOTES

1. STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS. STOCK PILE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO GRADING ACTIVITIES. EROSION & SEDIMENT CONTROL PRACTICE SHALL BE INSTALLED PRIOR TO STOCKPILE OPERATIONS.
2. ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL REQUIRED PERMITS ARE SECURED FOR EACH PROPERTY UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
3. MULCH AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED (WITHIN 15 DAYS OF ACHIEVED FINAL GRADES) UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION. STEEP SLOPES (GREATER THAN 3:1) SHALL BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.
4. REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
5. CLEAN SILT BARRIERS WHEN THEY ARE APPROXIMATELY 50% FILLED WITH SEDIMENT OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. SILT BARRIERS SHALL BE REPLACED AS EFFECTIVENESS IS SIGNIFICANTLY REDUCED OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
6. REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND, WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.
7. DO NOT DISTURB VEGETATION OR REMOVE TREES EXCEPT WHEN NECESSARY FOR GRADING PURPOSES.
8. STABILIZATION MEASURES (SEED & MULCH, TRIM WHERE INDICATED) SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, EXCEPT IN THE FOLLOWING TWO CASES.
   8.a. WHERE THERE IS SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE OR WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 15 DAYS. TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE.
   8.b. ALL EROSION CONTROL MEASURES SHALL BE CHECKED TWICE WEEKLY DURING PROLONGED RAINFALL DAILY CHECKING IS NECESSARY. DOCUMENTATION OF ALL CHECKS AND CORRECTIVE MEASURES SHALL BE KEPT AT THE PROJECT. A MONITORING REPORT CAN BE FOUND IN THE EDINA EROSION AND SEDIMENT CONTROL HANDBOOK.
9. CONTRACTOR SHALL PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH EDINA STANDARDS. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.
10. TREE PROTECTION FENCING IS TO REMAIN IN PLACE UNTIL FINAL INSPECTION AND SIGN-OFF ON THE MASTER BUILDING PERMIT AND CERTIFICATE OF OCCUPANCY BY THE URBAN FORESTER. STORMWATER SIGN-OFF AND REMOVAL OF EROSION CONTROL MEASURES IS NOT JUSTIFICATION TO REMOVE TREE PROTECTION FENCING.

TYPICAL ABBREVIATIONS

A	AMPERE	EX	EXISTING	IN	INCH	SS	STAINLESS STEEL
AC	ALTERNATING CURRENT	EGC	EQUIPMENT GROUNDING CONDUCTOR	KVA	KILOVOLT AMPERE	SSWR	SANITARY SEWER
ADA	AMERICANS WITH DISABILITIES ACT	ESMT	EASEMENT	KW	KILOWATT	TYP	TYPICAL
AHJ	AUTHORITY HAVING JURISDICTION	ESA	ENVIRONMENTAL SITE ASSESSMENT	LF	LINEAR FEET	UON	UNLESS OTHERWISE NOTED
AL	ALUMINUM	EMT	ELECTRIC METALLIC TUBING	LVE	LOW VOLTAGE ENCLOSURE	UV	ULTRAVIOLET
ART	ARTICLE	EQ	EQUAL	M	METER	V	VOLT
AUX	AUXILIARY	EQPT	EQUIPMENT	MAX	MAXIMUM	W	WATT
BAY	BAYONET FUSE	EV	ELECTRIC VEHICLE	MIN	MINIMUM	W/	WITH
BLDG	BUILDING STRUCTURE	EVCS	ELECTRIC VEHICLE CHARGING STATION	N	NEUTRAL	W/O	WITHOUT
BOL	BOLLARD	EVSE	ELECTRIC VEHICLE SUPPLY EQUIPMENT	NEC	NATIONAL ELECTRIC CODE	XFMR	TRANSFORMER
BOT	BOTTOM	EVSG	ELECTRIC VEHICLE SWITCH GEAR	NTS	NOT TO SCALE		
℄	CENTER LINE	E&S	EROSION AND SEDIMENT CONTROL	OC	ON CENTER		
CLF	CURRENT LIMITING FUSE	FFE	FINISHED FLOOR ELEVATION	PL	PROPERTY LINE		
CLR	CLEARANCE	FSC	FUTURE SERVICE CENTER	PVC	POLYVINYL CHLORIDE		
CONC	CONCRETE	GALV	GALVANIZED	RMC	RIGID METALLIC CONDUIT		
CU	COPPER	GND	GROUND	SCH	SCHEDULE		
DEMO	DEMOLITION	HDG	HOT DIPPED GALVANIZED	SJI	STEEL JOIST INSTITUTE		
DIST	DISTANCE	HT	HEIGHT	SPA	SPACING		
DC	DIRECT CURRENT	I	CURRENT	SQ	SQUARE		

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KHA PROJECT 016695119
DATE 3/11/2026
SCALE AS SHOWN
DESIGNED BY KAR
DRAWN BY KAR
CHECKED BY EGS

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6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

GENERAL NOTES II

SHEET NUMBER
G1.1

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hyc400

Product data sheet 1/3

100 kW to 400 kW
DC-charging system
for EVs



Up to **97.5 %**
efficiency under full load

Up to **2x 600 A**
simultaneous output

50 kW
dynamic load management granularity

150 - 1000 V
output range

Bidirectional
future capability

All-in-one design for an ultra-compact footprint

Up to 4 simultaneous charge outputs

Power-Stack scalable architecture

Product data sheet HYC400UL / V1-1
© Alpitronic Americas LLC
5815 Westpark Drive, Charlotte, NC 28217
info@alpitronic.us

www.hypercharger.us

alpitronic hypercharger

hyc400

Product data sheet 2/3

Charging Interfaces

Connection options	CCS1, J3400 (NACS), CHAdeMO
Cable lengths	11.5 ft (3.5 m), 16.4 ft (5 m), 25 ft (7.5 m)
RFID system	ISO/IEC 14443A/B, ISO/IEC 15693, NFC
Network connections	Dual SIM, 4G LTE Modems 10/100 Base-T Ethernet
Energy management	Configurable static power limit, Dynamic Power limit via OCPP/Modbus
Network communications protocol	Open Charge Point Protocol (OCPP) 1.6 and 2.0.1 Modbus, API
Vehicle communications protocol	DIN 70121, ISO 15118, Autocharge, Plug and Charge, CHAdeMO 1.2

Electrical

AC nominal voltage (RMS)	480 V ±10%
AC nominal input current (RMS)	480 A
Input connection	3-Phase: L1, L2, L3, GND (no neutral)
Frequency	60 Hz
Power factor	> 0.99 at full load
THDi (Total harmonic distortion)	< 5% at full load
Conversion efficiency	up to 97.5% at full load
SCCR	65 kA
Surge protection	Type 1, In 20 kA, Imax 50 kA
Standby power consumption	43 W
DC output	100 kW (one Power-Stack), max. 300 A 200 kW (two Power-Stacks), max. 600 A 300 kW (three Power-Stacks), max. 900 A (600 A max. per cable) 400 kW (four Power-Stacks), max. 1200 A (600 A max. per cable)
Output voltage	150 - 1000 VDC

(1) Standard environmental conditions 60°F [20°C], 10 ft [3 m] distance
(2) See Manual for environmental derate
(3) Depending on the configuration

www.hypercharger.us

alpitronic hypercharger

hyc400

Product data sheet 3/3

General

Operating temperature	-30°C up to +55°C (-22°F to 131°F)[2][3]
Storage/transport temperature	-40°C to 70°C (-40°F to 158°F)
Altitude	<4,000 m (< 13,000 ft)[2]
Humidity (in operation, storage)	Up to 95% non-condensing
Enclosure type	NEMA 3R (IP54) Indoor/Outdoor
Impact resistance (IEC 62262)	IK10
Noise emission	< 52 dBA[1]
Dimensions (H x W x D)	88 x 29 x 26 in (2185 x 732 x 663 mm)
Weight	1235 lbs up to 1965 lbs (560 kg up to 890 kg)[3]
Accessibility	Meets ADA requirements for height and reach
User interface	15.6" display, 4 buttons, RGB connector status
Multilingual system	GUI in 27 languages
Remote management	Access control, configuration, diagnostics, software updates

Configuration Options

Branding	Options for custom colors (powder coating), custom vinyl
CMS (Cable Management System)	Metal swing arm keeps 16.4 ft (5 m) off the ground
Payment system	Credit card reader optional (Payter/Nayax), EMV Chip, Tap to Pay

Compliance and Safety

NRTL	UL 2202, UL 2231-1, UL 2231-2 CSA C22.2 No. 346.22, No. 281.1-12, No. 281.2-12 File No. E515867
Metering	CTEP No. 5966-24
EMC	FCC 47CFR Part 15B (Class A)
Electrical safety	NEC (NFPA 70) Article 625
NEVI	Buy America, 100% US Steel

More Information:
www.hypercharger.us

alpitronic hypercharger

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DESIGNED AND PROVIDED BY OTHERS

KHA PROJECT 016695119	DATE 3/11/2026	SCALE AS SHOWN	
		DESIGNED BY	N/A
		DRAWN BY	N/A
		CHECKED BY	N/A

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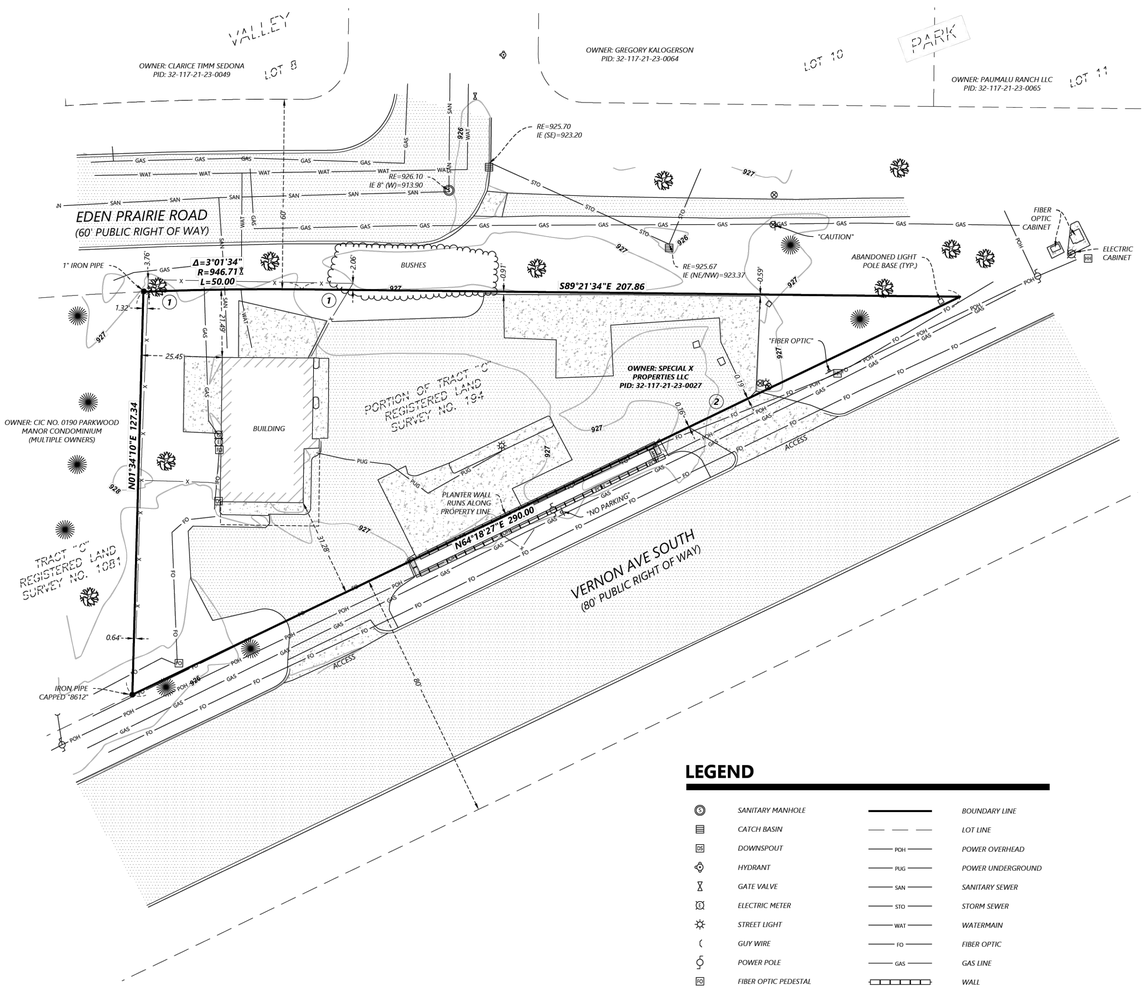
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SITE NO.: MN-0008 EDINA, MN

CHARGER SPEC SHEETS

SHEET NUMBER
G2.0

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LEGAL DESCRIPTION

The following information was provided in Fidelity National Title Insurance Company File Number 5000019550 which has an effective date of October 14, 2025 at 12:00 AM.

Tract C, Registered Land Survey No. 194, files of the Registrar of Titles, except that part of said tract embraced within Registered Land Survey No. 1081, Hennepin County, Minnesota.

AND BEING the same property conveyed to Special X Properties, LLC, a limited liability company from Kevin K. Kee and Kim L. Bechthold-Kee by Warranty Deed dated October 13, 2021 and recorded October 28, 2021 in Instrument No. 5891477.

Tax Parcel No. 32-117-21-23-0027

SCHEDULE B SECTION 2 ITEM NOTES

The following notes correspond to the numbering system of Schedule B , Section 2 of the above mentioned title commitment. Items 1-7, 9 and 10 are not survey related and are not addressed hereon.

8. Matters as shown and noted on Registered Land Survey No. 194 recorded in Instrument No. 392859 ***(PLAT OF SUBJECT PROPERTY)***

LEGEND

SANITARY MANHOLE	BOUNDARY LINE
CATCH BASIN	LOT LINE
DOWNSPOUT	POH POWER OVERHEAD
HYDRANT	PUG POWER UNDERGROUND
GATE VALVE	SAN SANITARY SEWER
ELECTRIC METER	STO STORM SEWER
STREET LIGHT	WAT WATERMAIN
GUY WIRE	FO FIBER OPTIC
POWER POLE	GAS GAS LINE
FIBER OPTIC PEDESTAL	WALL
NATURAL GAS METER	X FENCE LINE
HAND HOLE/JUNCTION BOX	CURB & GUTTER
STEEL/WOOD POST	CONCRETE SURFACE
SIGN	ASPHALT SURFACE
CONIFEROUS TREE	
DECIDUOUS TREE	

CERTIFICATION

To: Ionna, LLC, a Delaware Limited Liability Company and Fidelity National Title Insurance Company;

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 minimum standard detail requirements for ALTA/NSPS land title surveys, jointly established and adopted by ALTA and NSPS, and includes items 2, 3, 4, 5, 6(b), 8, 9,11(a)(b), 13, 17, 18, 20(a), and 20(b) of table a thereof. the fieldwork was completed on October 29, 2025.

Mathew J. Welinski, PLS *Date 11/6/2025*
Minnesota License No. 53596
matt.welinski@westwoods.com

MATTHEW J. WELINSKI
LICENSED LAND SURVEYOR
53596
STATE OF MINNESOTA

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

VICINITY MAP

(NOT TO SCALE)



TABLE A OPTIONAL ITEM NOTES

2. The address of the subject property is 6016 Vernon Avenue South, Minneapolis, Minnesota 55436.

3. The foregoing property is located within Zone X (Unshaded) - (Area of minimal flood hazard,) according to FEMA FIRM Map Number 27053C0344F, Effective Date 11/4/2016.

4. Subject tract area is 0.380 acres, or 16,562 square feet.

5. Elevations and contours shown hereon are based on NAVD88, derived from on the ground survey displaying 1'-5' contour intervals. Site benchmark is shown hereon.

6(b). Subject tract is in the City of Edina City Limits, and it is Zoned PCD-4 (Planned Commercial) according to City GIS Zoning Map.

8. The surveyor has made a good faith effort to show all substantial, above ground, visible, and permanent features observed during the course of the survey as shown hereon.

9. 0 parking spaces were found on site.

11(a). Evidence of underground utilities existing on or serving the surveyed property as determined by visible surface markings and appurtenances. No plans or reports were provided by the client.

11(b). A private utility marking request was made by Westwood and completed by BLVD on 10/24/2025. The underground utility lines shown hereon have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned, nor do we guarantee the accuracy or completeness of the markings and maps provided.

13. Names of adjoining owners are shown according to the Hennepin County Appraisal District, shown hereon.

17. The surveyor is not aware of any proposed changes in street right of way lines. and there was no observable evidence of recent street or sidewalk construction or repairs at the time of survey.

18. Any plottable offsite easements provided in the Title Insurance Commitment are shown hereon. See General note #1.

20(a). No evidence of soil borings were found on the subject property at the time of the survey.

20(b). No wetland delineation markers were observed in the process at the time of the survey. The surveyor is not aware of any recent wetland delineations taking place on the subject property.

SURVEYOR'S GENERAL NOTES

1. The horizontal datum is the Minnasota State Plane Coordinate System, South Zone NAD83(2011), US Survey Foot.

2. Plat Reference: Registered Land Survey No. 194.

3. Site improvements and topographic information are limited to the area shown hereon as per direction of the client.

POSSIBLE ENCROACHMENTS

1 Fence crosses property line.
2 Concrete crosses property line.

1" = 20'
0' 20' 40' 60'

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DESIGNED AND PROVIDED BY OTHERS

KHA PROJECT	016895119
DATE	3/11/2026
SCALE	AS SHOWN
DESIGNED BY	N/A
DRAWN BY	N/A
CHECKED BY	N/A

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6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

ALTA SURVEY (BY OTHERS)

SHEET NUMBER
C1.0

CHECKED: MW
DRAWN: PMP
HORIZONTAL SCALE: 1" = 20'

REVISIONS:

PREPARED FOR:
Ionna, LLC
Durham, NC

Westwood
Phone (320) 253-9495 1900 Medical Arts Ave S, Suite 100
Fax (320) 358-2001 Sartell, MN 56377
Toll Free (800) 270-9495 westwoods.com
Westwood Professional Services, Inc.

Minneapolis
6016 Vernon Ave,
Minneapolis, Minnesota 55436

ALTA/NSPS Land Title Survey

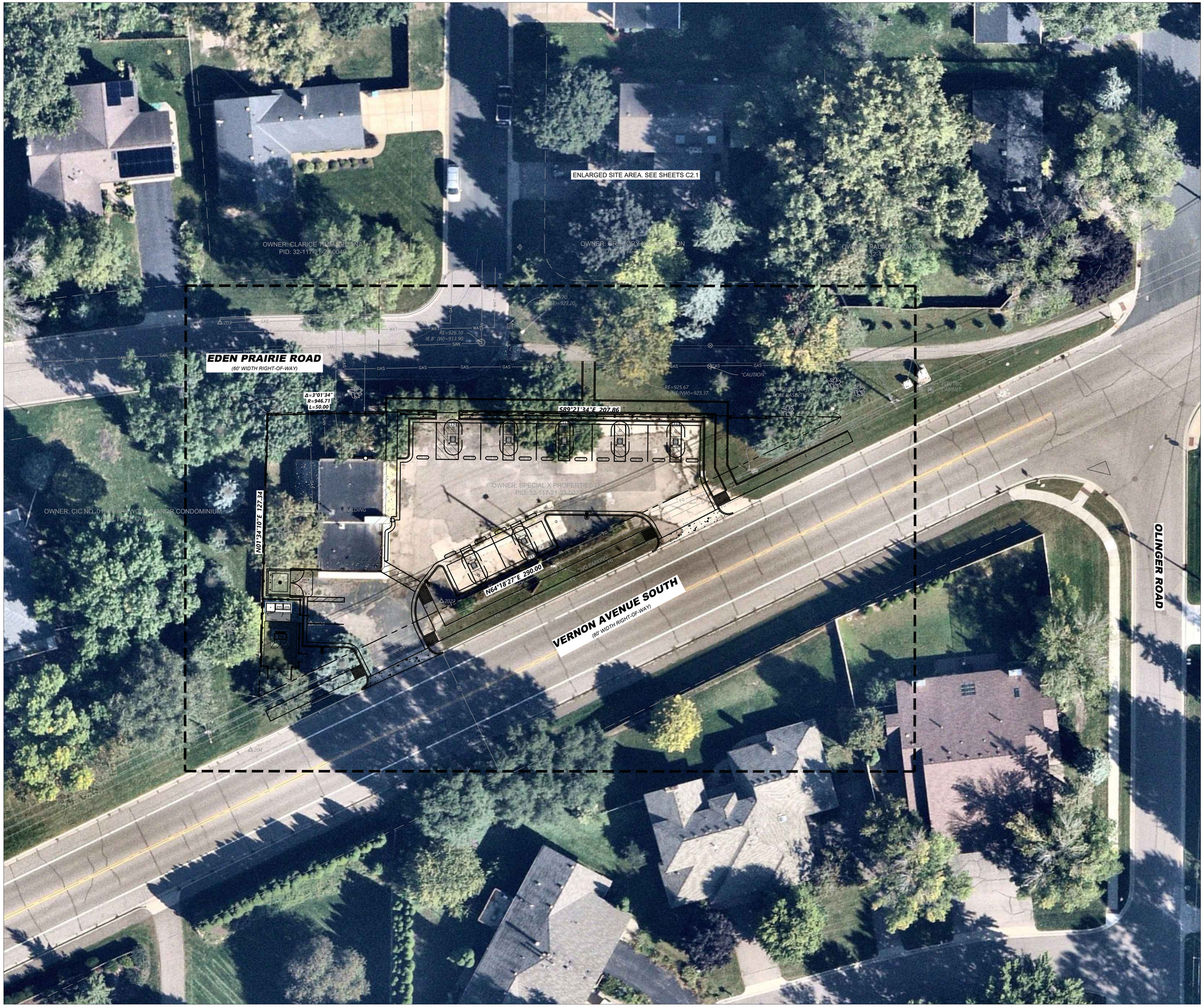
PROJECT NUMBER: 0072207.41

SHEET NUMBER: 1 OF 1
DATE: 11/6/2025

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SCALE: 1" = 20'
WHEN PRINTED AT FULL SIZE (24"x36")

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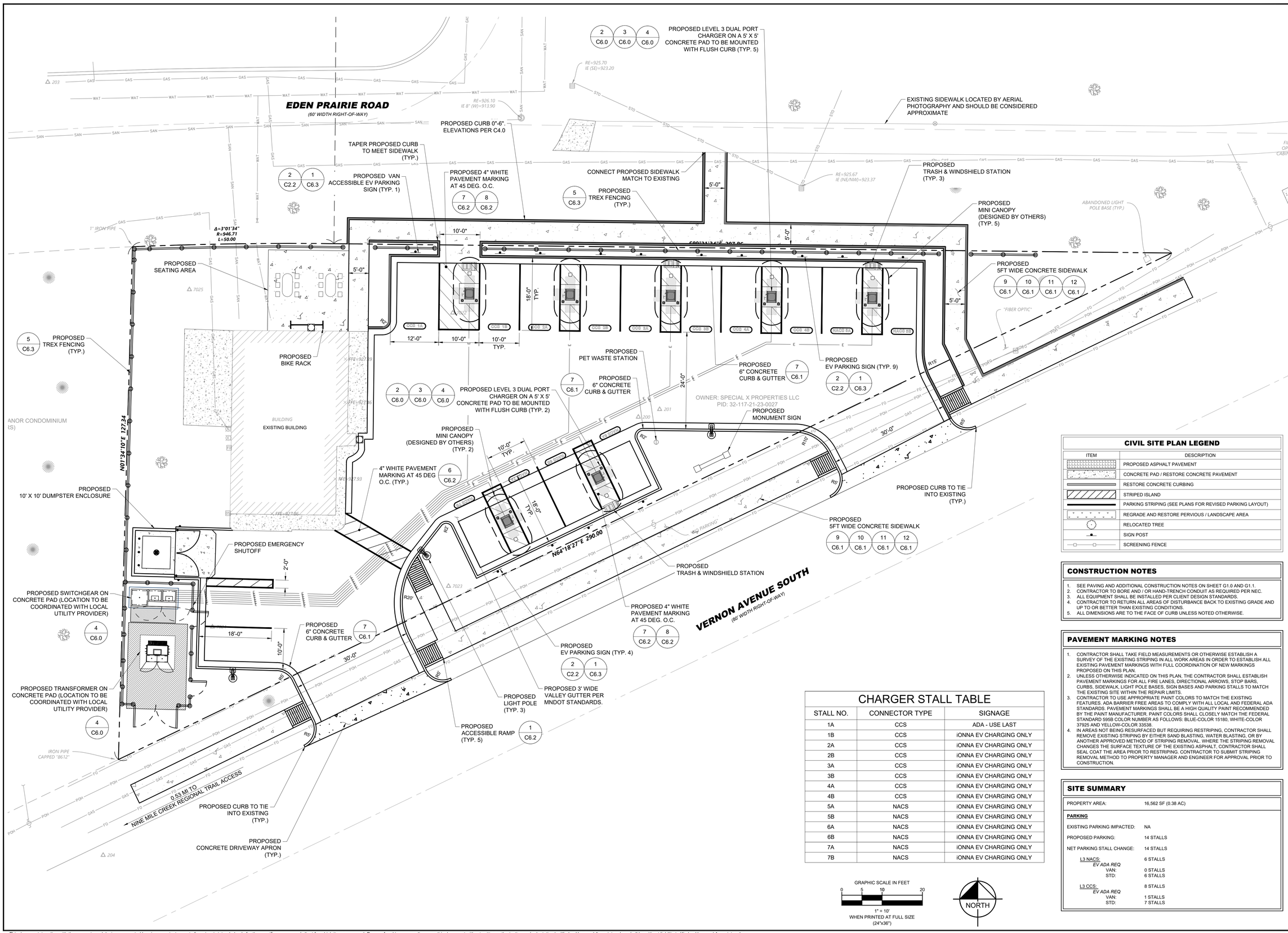
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SITE NO.: MN-0008 EDINA, MN

SITE PLAN

SHEET NUMBER
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CHARGER STALL TABLE

STALL NO.	CONNECTOR TYPE	SIGNAGE
1A	CCS	ADA - USE LAST
1B	CCS	iONNA EV CHARGING ONLY
2A	CCS	iONNA EV CHARGING ONLY
2B	CCS	iONNA EV CHARGING ONLY
3A	CCS	iONNA EV CHARGING ONLY
3B	CCS	iONNA EV CHARGING ONLY
4A	CCS	iONNA EV CHARGING ONLY
4B	CCS	iONNA EV CHARGING ONLY
5A	NACS	iONNA EV CHARGING ONLY
5B	NACS	iONNA EV CHARGING ONLY
6A	NACS	iONNA EV CHARGING ONLY
6B	NACS	iONNA EV CHARGING ONLY
7A	NACS	iONNA EV CHARGING ONLY
7B	NACS	iONNA EV CHARGING ONLY

GRAPHIC SCALE IN FEET
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1" = 10'
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CIVIL SITE PLAN LEGEND

ITEM	DESCRIPTION
	PROPOSED ASPHALT PAVEMENT
	CONCRETE PAD / RESTORE CONCRETE PAVEMENT
	RESTORE CONCRETE CURBING
	STRIPED ISLAND
	PARKING STRIPING (SEE PLANS FOR REVISED PARKING LAYOUT)
	REGRADE AND RESTORE PERVIOUS / LANDSCAPE AREA
	RELOCATED TREE
	SIGN POST
	SCREENING FENCE

CONSTRUCTION NOTES

1. SEE PAVING AND ADDITIONAL CONSTRUCTION NOTES ON SHEET G1.0 AND G1.1.
2. CONTRACTOR TO BORE AND / OR HAND-TRENCH CONDUIT AS REQUIRED PER NEC.
3. ALL EQUIPMENT SHALL BE INSTALLED PER CLIENT DESIGN STANDARDS.
4. CONTRACTOR TO RETURN ALL AREAS OF DISTRUBANCE BACK TO EXISTING GRADE AND UP TO OR BETTER THAN EXISTING CONDITIONS.
5. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.

PAVEMENT MARKING NOTES

1. CONTRACTOR SHALL TAKE FIELD MEASUREMENTS OR OTHERWISE ESTABLISH A SURVEY OF THE EXISTING STRIPING IN ALL WORK AREAS IN ORDER TO ESTABLISH ALL EXISTING PAVEMENT MARKINGS WITH FULL COORDINATION OF NEW MARKINGS PROPOSED ON THIS PLAN.
2. UNLESS OTHERWISE INDICATED ON THIS PLAN, THE CONTRACTOR SHALL ESTABLISH PAVEMENT MARKINGS FOR ALL FIRE LANES, DIRECTIONAL ARROWS, STOP BARS, CURBS, SIDEWALK, LIGHT POLE BASES, SIGN BASES AND PARKING STALLS TO MATCH THE EXISTING SITE WITHIN THE REPAIR LIMITS.
3. CONTRACTOR TO USE APPROPRIATE PAINT COLORS TO MATCH THE EXISTING FEATURES. ADA BARRIER FREE AREAS TO COMPLY WITH ALL LOCAL AND FEDERAL ADA STANDARDS. PAVEMENT MARKINGS SHALL BE A HIGH QUALITY PAINT RECOMMENDED BY THE PAINT MANUFACTURER. PAINT COLORS SHALL CLOSELY MATCH THE FEDERAL STANDARD 595B COLOR NUMBER AS FOLLOWS: BLUE-COLOR 15180, WHITE-COLOR 37925 AND YELLOW-COLOR 33538.
4. IN AREAS NOT BEING RESURFACED BUT REQUIRING RESTRIPING, CONTRACTOR SHALL REMOVE EXISTING STRIPING BY EITHER SAND BLASTING, WATER BLASTING, OR BY ANOTHER APPROVED METHOD OF STRIPING REMOVAL. WHERE THE STRIPING REMOVAL CHANGES THE SURFACE TEXTURE OF THE EXISTING ASPHALT, CONTRACTOR SHALL SEAL COAT THE AREA PRIOR TO RESTRIPING. CONTRACTOR TO SUBMIT STRIPING REMOVAL METHOD TO PROPERTY MANAGER AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

SITE SUMMARY

PROPERTY AREA:	16,562 SF (0.38 AC)
PARKING	
EXISTING PARKING IMPACTED:	NA
PROPOSED PARKING:	14 STALLS
NET PARKING STALL CHANGE:	14 STALLS
L3 NACS:	6 STALLS
EV ADA REQ	
VAN:	0 STALLS
STD:	6 STALLS
L3 CCS:	8 STALLS
EV ADA REQ	
VAN:	1 STALLS
STD:	7 STALLS

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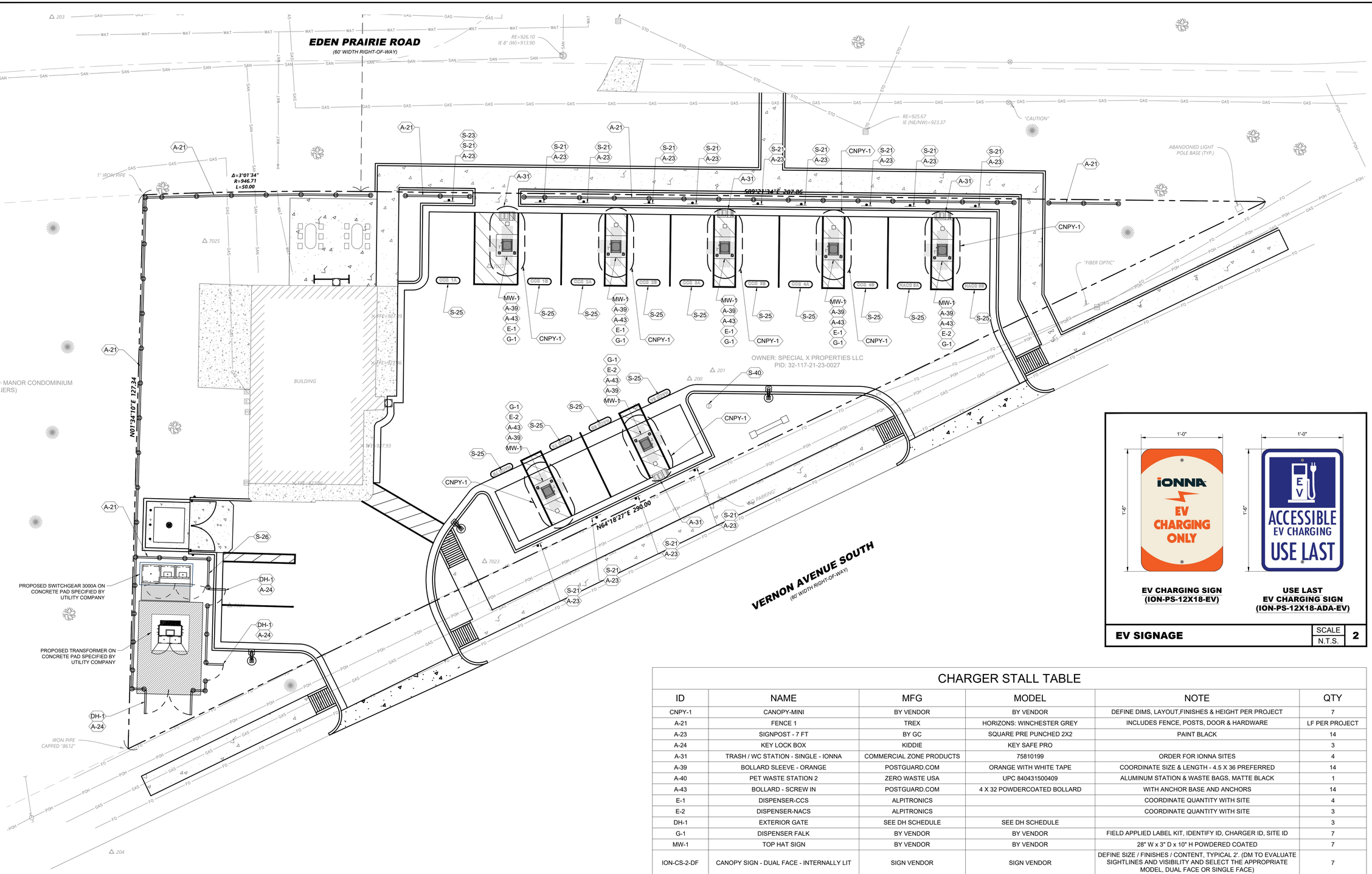
KHA PROJECT 016895119
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ENLARGED SITE PLAN

SHEET NUMBER
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EV SIGNAGE — SCALE: N.T.S. — 2

CHARGER STALL TABLE

ID	NAME	MFG	MODEL	NOTE	QTY
CNPY-1	CANOPY-MINI	BY VENDOR	BY VENDOR	DEFINE DIMS, LAYOUT,FINISHES & HEIGHT PER PROJECT	7
A-21	FENCE 1	TREX	HORIZONS: WINCHESTER GREY	INCLUDES FENCE, POSTS, DOOR & HARDWARE	LF PER PROJECT
A-23	SIGNPOST - 7 FT	BY GC	SQUARE PRE PUNCHED 2X2	PAINT BLACK	14
A-24	KEY LOCK BOX	KIDDIE	KEY SAFE PRO		3
A-31	TRASH / WC STATION - SINGLE - IONNA	COMMERCIAL ZONE PRODUCTS	75810199	ORDER FOR IONNA SITES	4
A-39	BOLLARD SLEEVE - ORANGE	POSTGUARD.COM	ORANGE WITH WHITE TAPE	COORDINATE SIZE & LENGTH - 4.5 X 36 PREFERRED	14
A-40	PET WASTE STATION 2	ZERO WASTE USA	UPC 840431500409	ALUMINUM STATION & WASTE BAGS, MATTE BLACK	1
A-43	BOLLARD - SCREW IN	POSTGUARD.COM	4 X 32 POWDERCOATED BOLLARD	WITH ANCHOR BASE AND ANCHORS	14
E-1	DISPENSER-CCS	ALPITRONICS		COORDINATE QUANTITY WITH SITE	4
E-2	DISPENSER-NACS	ALPITRONICS		COORDINATE QUANTITY WITH SITE	3
DH-1	EXTERIOR GATE	SEE DH SCHEDULE	SEE DH SCHEDULE		3
G-1	DISPENSER FALK	BY VENDOR	BY VENDOR	FIELD APPLIED LABEL KIT, IDENTIFY ID, CHARGER ID, SITE ID	7
MW-1	TOP HAT SIGN	BY VENDOR	BY VENDOR	28" W x 3" D x 10" H POWDERED COATED	7
ION-CS-2-DF	CANOPY SIGN - DUAL FACE - INTERNALLY LIT	SIGN VENDOR	SIGN VENDOR	DEFINE SIZE / FINISHES / CONTENT, TYPICAL 2'. (DM TO EVALUATE SIGHTLINES AND VISIBILITY AND SELECT THE APPROPRIATE MODEL, DUAL FACE OR SINGLE FACE)	7
S-21	EV PARKING ONLY	BUILD A SIGN	PER GC	USE APPROVED ARTWORK - 18" H x 12" W x $\frac{3}{8}$" D	13
S-23	EV ACCESSIBLE PARKING	PER GC	PER GC	SELECT APPROPRIATE SIGN PER AHJ	1
S-25	PARKING MARKER	GRAPHIC VENDOR	GRAPHIC VENDOR	GC TO USE STENCIL AND COORDINATE LOCATIONS WITH CHARGER GRAPHICS	14
S-26	EMERGENCY SHUTOFF SIGN	ULINE	S-24757P	LOCATED ON ELECTRICAL ENCLOSURE, IN VISIBLE LOCATION	1

GRAPHIC SCALE IN FEET
0 5 10 20
1" = 10'
WHEN PRINTED AT FULL SIZE
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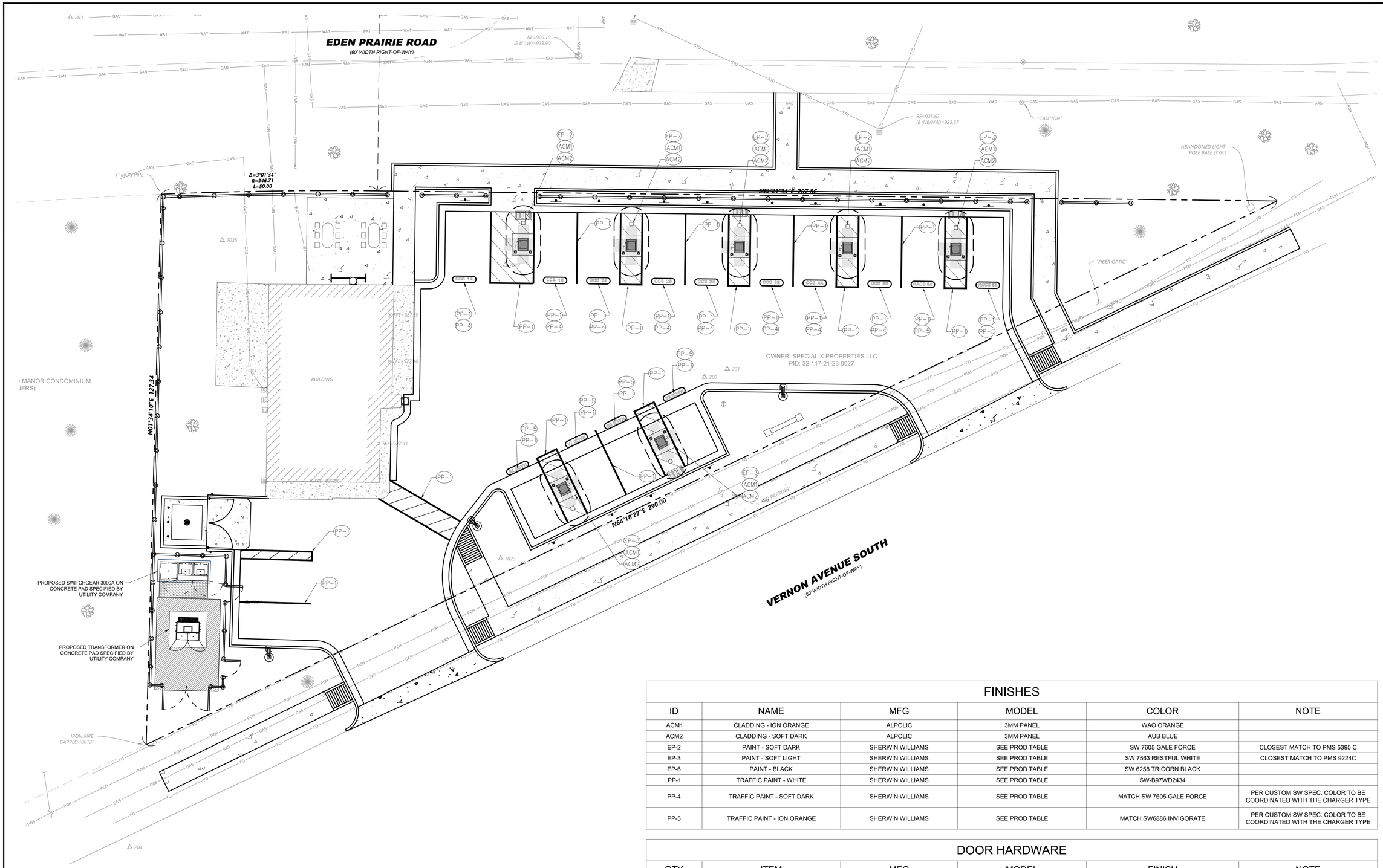
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FF&E PLAN

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FINISHES

ID	NAME	MFG	MODEL	COLOR	NOTE
ACM1	CLADDING - ION ORANGE	ALPOLIC	3MM PANEL	WAO ORANGE	
ACM2	CLADDING - SOFT DARK	ALPOLIC	3MM PANEL	AUB BLUE	
EP-2	PAINT - SOFT DARK	SHERWIN WILLIAMS	SEE PROD TABLE	SW 7605 GALE FORCE	CLOSEST MATCH TO PMS 5395 C
EP-3	PAINT - SOFT LIGHT	SHERWIN WILLIAMS	SEE PROD TABLE	SW 7563 RESTFUL WHITE	CLOSEST MATCH TO PMS 9224C
EP-6	PAINT - BLACK	SHERWIN WILLIAMS	SEE PROD TABLE	SW 6258 TRICORN BLACK	
PP-1	TRAFFIC PAINT - WHITE	SHERWIN WILLIAMS	SEE PROD TABLE	SW-B97WD2434	
PP-4	TRAFFIC PAINT - SOFT DARK	SHERWIN WILLIAMS	SEE PROD TABLE	MATCH SW 7605 GALE FORCE	PER CUSTOM SW SPEC. COLOR TO BE COORDINATED WITH THE CHARGER TYPE
PP-5	TRAFFIC PAINT - ION ORANGE	SHERWIN WILLIAMS	SEE PROD TABLE	MATCH SW6886 INVIGORATE	PER CUSTOM SW SPEC. COLOR TO BE COORDINATED WITH THE CHARGER TYPE

DOOR HARDWARE

QTY	ITEM	MFG	MODEL	FINISH	NOTE
DOOR HARDWARE: DH-01 - EXT GATE					
1 EA	MECHANICAL DEADBOLT LOCK	LOCKEY USA	2900	JB	
1 EA	GATE BOX	LOCKEY USA	GB900+	N/A, PAINT TO MATCH	
1 EA	STRIKE BRACKET	LOCKEY USA	SB2900	N/A, PAINT TO MATCH	

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1" = 10'
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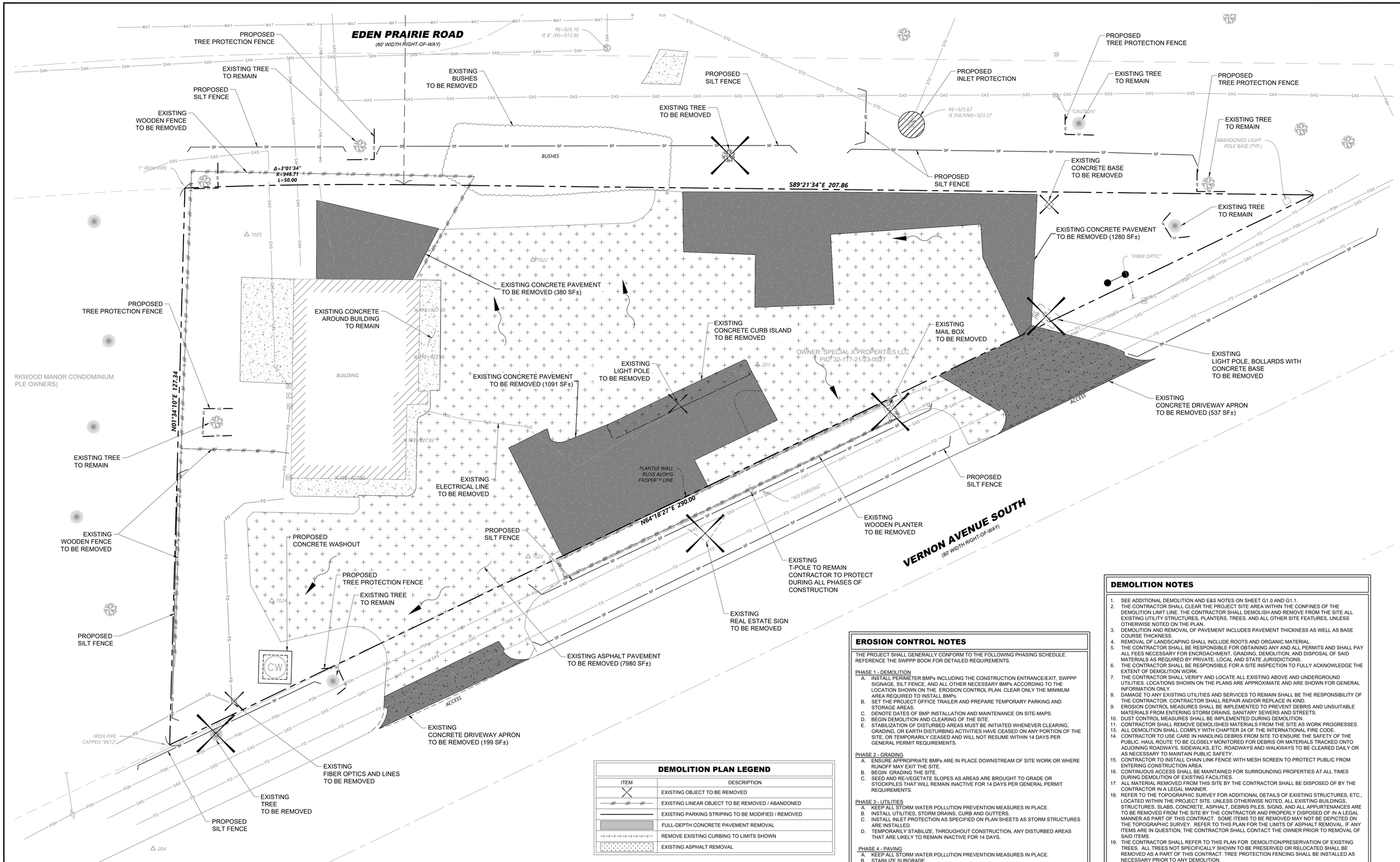
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FINISH PLAN

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DEMOLITION PLAN LEGEND

ITEM	DESCRIPTION
	EXISTING OBJECT TO BE REMOVED
	EXISTING LINEAR OBJECT TO BE REMOVED / ABANDONED
	EXISTING PARKING STRIPING TO BE MODIFIED / REMOVED
	FULL-DEPTH CONCRETE PAVEMENT REMOVAL
	REMOVE EXISTING CURBING TO LIMITS SHOWN
	EXISTING ASPHALT REMOVAL

EROSION AND SEDIMENT CONTROL LEGEND

ITEM	DESCRIPTION
	STORMWATER FLOW DIRECTION ARROW
	CONSTRUCTION SIGN
CE	CONSTRUCTION EXIT
SF	SILT FENCE
EE	EROSION EEL / FILTER SOCK
IP	INLET PROTECTION
TP	TREE PROTECTION
CW	CONCRETE WASHOUT AREA

EROSION CONTROL NOTES

THE PROJECT SHALL GENERALLY CONFORM TO THE FOLLOWING PHASING SCHEDULE. REFERENCE THE SWPPP BOOK FOR DETAILED REQUIREMENTS.

PHASE 1 - DEMOLITION
- A. INSTALL PERIMETER BMPs INCLUDING THE CONSTRUCTION ENTRANCE/EXIT, SWPPP SIGNAGE, SILT FENCE, AND ALL OTHER NECESSARY BMPs ACCORDING TO THE LOCATION SHOWN ON THE EROSION CONTROL PLAN. CLEAR ONLY THE MINIMUM AREA REQUIRED TO INSTALL BMPs.
- B. SET THE PROJECT OFFICE TRAILER AND PREPARE TEMPORARY PARKING AND STORAGE AREAS.
- C. DENOTE DATES OF BMP INSTALLATION AND MAINTENANCE ON SITE-MAPS.
- D. BEGIN DEMOLITION AND CLEARING OF THE SITE.
- E. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WHENEVER CLEARING, GRADING, OR EARTH DISTURBING ACTIVITIES HAVE CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED AND WILL NOT RESUME WITHIN 14 DAYS PER GENERAL PERMIT REQUIREMENTS.

PHASE 2 - GRADING
- A. ENSURE APPROPRIATE BMPs ARE IN PLACE DOWNSTREAM OF SITE WORK OR WHERE RUNOFF MAY EXIT THE SITE.
- B. BEGIN GRADING THE SITE.
- C. SEED AND RE-VEGETATE SLOPES AS AREAS ARE BROUGHT TO GRADE OR STOCKPILES THAT WILL REMAIN INACTIVE FOR 14 DAYS PER GENERAL PERMIT REQUIREMENTS.

PHASE 3 - UTILITIES
- A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE.
- B. INSTALL UTILITIES, STORM DRAINS, CURB AND GUTTERS.
- C. INSTALL INLET PROTECTION AS SPECIFIED ON PLAN SHEETS AS STORM STRUCTURES ARE INSTALLED.
- D. TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION, ANY DISTURBED AREAS THAT ARE LIKELY TO REMAIN INACTIVE FOR 14 DAYS.

PHASE 4 - PAVING
- A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE.
- B. STABILIZE SUBGRADE.
- C. PAVE PARKING LOT AND SIDEWALKS AS SPECIFIED ON PLAN SHEETS.

PHASE 5 - LANDSCAPING AND DEVELOPMENT
- A. INSTALL LANDSCAPING PER THE LANDSCAPE PLANS AND DETAILS.
- B. REMOVE EROSION CONTROL DEVICES WHEN FINAL STABILIZATION IS ACHIEVED PER THE GENERAL PERMIT.
- C. STABILIZE ANY AREAS DISTURBED BY REMOVAL OF BMPs.

SEQUENCE OF CONSTRUCTION CLARIFICATION

NOTE: THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY, PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

DEMOLITION NOTES

1. SEE ADDITIONAL DEMOLITION AND E&S NOTES ON SHEET G1.0 AND G1.1.
2. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE AREA WITHIN THE CONFINES OF THE DEMOLITION LIMIT LINE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL EXISTING UTILITY STRUCTURES, PLANTERS, TREES, AND ALL OTHER SITE FEATURES, UNLESS OTHERWISE NOTED ON THE PLAN.
3. DEMOLITION AND REMOVAL OF PAVEMENT INCLUDES PAVEMENT THICKNESS AS WELL AS BASE COURSE THICKNESS.
4. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIAL.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF DEMOLITION WORK.
7. THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL INFORMATION ONLY.
8. DAMAGE TO ANY EXISTING UTILITIES AND SERVICES TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
9. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAINS, SANITARY SEWERS AND STREETS.
10. DUST CONTROL MEASURES SHALL BE IMPLEMENTED DURING DEMOLITION.
11. CONTRACTOR SHALL REMOVE DEMOLISHED MATERIALS FROM THE SITE AS WORK PROGRESSES.
13. ALL DEMOLITION SHALL COMPLY WITH CHAPTER 24 OF THE INTERNATIONAL FIRE CODE.
14. CONTRACTOR TO USE CARE IN HANDLING DEBRIS FROM SITE TO ENSURE THE SAFETY OF THE PUBLIC. HAUL ROUTE TO BE CLOSELY MONITORED FOR DEBRIS OR MATERIALS TRACKED ONTO ADJOINING ROADWAYS, SIDEWALKS, ETC. ROADWAYS AND WALKWAYS TO BE CLEARED DAILY OR AS NECESSARY TO MAINTAIN PUBLIC SAFETY.
15. CONTRACTOR TO INSTALL CHAIN LINK FENCE WITH MESH SCREEN TO PROTECT PUBLIC FROM ENTERING CONSTRUCTION AREA.
16. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF EXISTING FACILITIES.
17. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
18. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. REFER TO THIS PLAN FOR THE LIMITS OF ASPHALT REMOVAL. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
19. THE CONTRACTOR SHALL REFER TO THIS PLAN FOR DEMOLITION/PRESERVATION OF EXISTING TREES. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED AS NECESSARY PRIOR TO ANY DEMOLITION.
20. THE CONTRACTOR SHALL RETURN SIDEWALKS, LANDSCAPING, PLANTERS, IRRIGATION SYSTEMS, AND ANY OTHER FACILITIES DISTURBED BY THE WORK TO THE SAME OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF THE WORK.
21. ALL QUANTITIES LISTED IN DEMOLITION PLAN SHEET ARE ONLY APPROXIMATIONS. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES BEFORE BIDDING.
22. TRENCHING IS TO BE USED EXCEPT IN HEAVY TRAFFIC AREAS, MAIN DRIVE AISLES AND ACROSS STORE ENTRANCE.
23. THE CONTRACTOR SHALL PROTECT EXISTING INFRASTRUCTURE IN PLACE WITHIN THE AREA OF IMPROVEMENTS.
24. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.

EXISTING UTILITY NOTE

THE EXISTING UTILITIES SHOWN ON THIS PLAN ARE BASED UPON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD-DETERMINE THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED INFRASTRUCTURE TO THE ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.

GRAPHIC SCALE IN FEET
0 5 10 20
1" = 10'
WHEN PRINTED AT FULL SIZE (24"x36")

NORTH

811 Know what's below. Call before you dig.

CAUTION!!
CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

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PRELIMINARY NOT FOR CONSTRUCTION

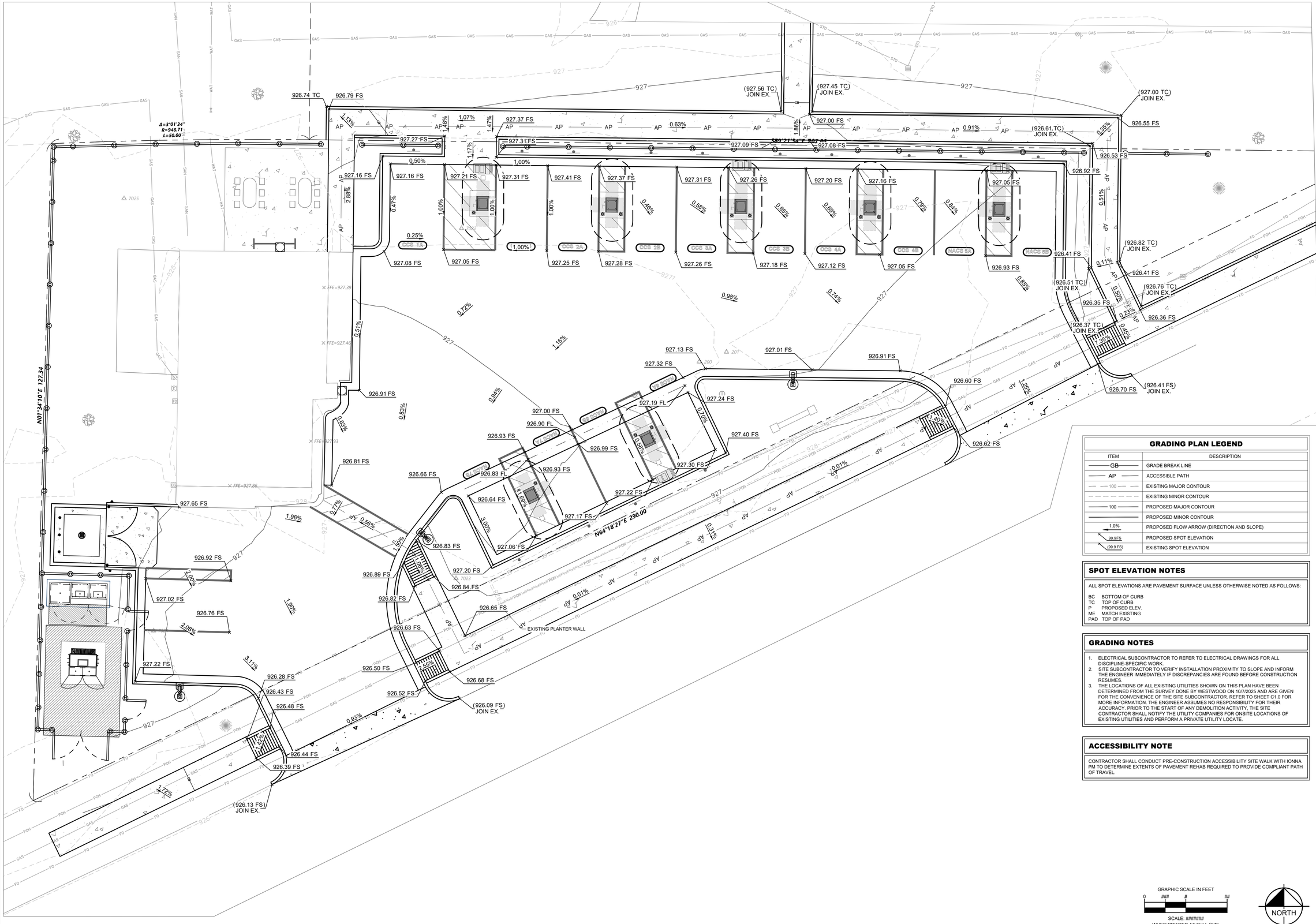
KHA PROJECT 016895119
DATE 3/11/2026
SCALE AS SHOWN
DESIGNED BY KAR
DRAWN BY KAR
CHECKED BY EGS

IONNA™
6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

DEMOLITION PLAN

SHEET NUMBER
C3.0

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GRADING PLAN LEGEND

ITEM	DESCRIPTION
GB	GRADE BREAK LINE
AP	ACCESSIBLE PATH
100	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
100	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
1.0%	PROPOSED FLOW ARROW (DIRECTION AND SLOPE)
99.9FS	PROPOSED SPOT ELEVATION
(99.9 FS)	EXISTING SPOT ELEVATION

SPOT ELEVATION NOTES

ALL SPOT ELEVATIONS ARE PAVEMENT SURFACE UNLESS OTHERWISE NOTED AS FOLLOWS:

BC BOTTOM OF CURB
TC TOP OF CURB
P PROPOSED ELEV.
ME MATCH EXISTING
PAD TOP OF PAD

GRADING NOTES

1. ELECTRICAL SUBCONTRACTOR TO REFER TO ELECTRICAL DRAWINGS FOR ALL DISCIPLINE-SPECIFIC WORK.
2. SITE SUBCONTRACTOR TO VERIFY INSTALLATION PROXIMITY TO SLOPE AND INFORM THE ENGINEER IMMEDIATELY IF DISCREPANCIES ARE FOUND BEFORE CONSTRUCTION RESUMES.
3. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE SURVEY DONE BY WESTWOOD ON 10/7/2025 AND ARE GIVEN FOR THE CONVENIENCE OF THE SITE SUBCONTRACTOR. REFER TO SHEET C1.0 FOR MORE INFORMATION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE SITE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES AND PERFORM A PRIVATE UTILITY LOCATE.

ACCESSIBILITY NOTE

CONTRACTOR SHALL CONDUCT PRE-CONSTRUCTION ACCESSIBILITY SITE WALK WITH IONNA PM TO DETERMINE EXTENTS OF PAVEMENT REHAB REQUIRED TO PROVIDE COMPLIANT PATH OF TRAVEL.

GRAPHIC SCALE IN FEET
0 ### # ##
SCALE: #######
WHEN PRINTED AT FULL SIZE
(24"x36")

NORTH

Kimley»Horn
6671 S LAS VEGAS BLVD SUITE 320,
LAS VEGAS, NV 89119
Main: (702) 862-3600 | www.kimley-horn.com

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PRELIMINARY
NOT FOR CONSTRUCTION

KHA PROJECT	296087118	DESIGNED BY	MCS
DATE	3/11/2026	DRAWN BY	JG
SCALE	AS SHOWN	CHECKED BY	MCS

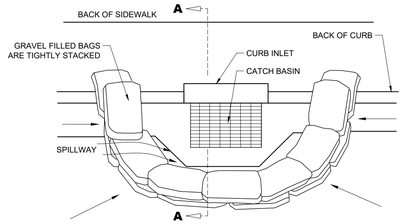
IONNA™

15 W MAIN STREET
GREEN RIVER, UT 84525
SITE NO.: GREEN RIVER/15 W MAIN ST

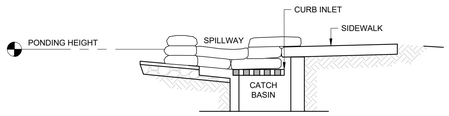
GRADING PLAN

SHEET NUMBER
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PLAN VIEW



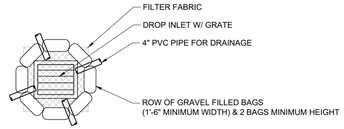
SECTION A-A

NOTES:

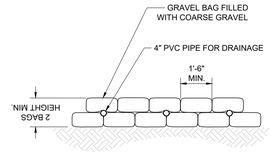
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. GRAVEL BAG MATERIAL: POLYPROPYLENE, POLYETHYLENE OR POLYMIDE WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.
3. GRAVEL BAG SHALL BE FILLED WITH 3/4" ROCK OR 1/4" PEA GRAVEL.
4. PLACE SEVERAL LAYERS OF SAND BAGS (1'-0" MINIMUM HIGH) OVERLAPPING THE BAGS AND PACKING THEM TIGHTLY TOGETHER.
5. LEAVE GAP OF ONE BAG ON THE TOP ROW TO SERVE AS A SPILLWAY.
6. PLACE FILTER FABRIC OVER WIRE MESH. FILTER FABRIC SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE, NYLON, POLYESTER, OR ETHYLENE FABRIC WITH AN EQUIVALENT OPENING SIZE NOT GREATER THAN 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLONS/MINUTE/SQ. FT.
7. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER

SCALE N.T.S. | 1



PLAN VIEW



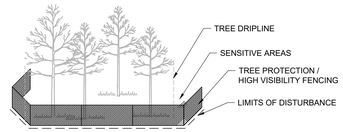
SECTION VIEW

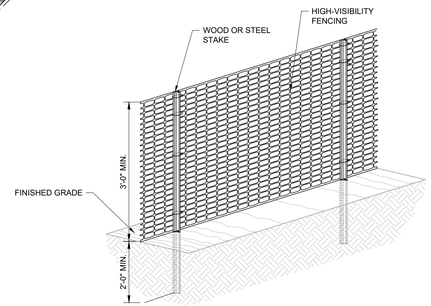
NOTES:

1. GRAVEL BAG MATERIAL: POLYPROPYLENE, POLYETHYLENE OR POLYMIDE WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%
2. GRAVEL BAG SHALL BE FILLED WITH 3/4" ROCK OR 1/4" PEA GRAVEL.
3. PLACE SEVERAL LAYERS OF SAND BAGS (1'-0" MINIMUM HIGH) OVERLAPPING THE BAGS AND PACKING THEM TIGHTLY TOGETHER.
4. LEAVE GAP OF ONE BAG ON THE TOP ROW TO SERVE AS A SPILLWAY.
5. PLACE WIRE MESH OVER AND 1'-0" (MINIMUM) BEYOND THE INLET STRUCTURE.
6. PLACE FILTER FABRIC OVER WIRE MESH. FILTER FABRIC SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE, NYLON, POLYESTER, OR ETHYLENE FABRIC WITH AN EQUIVALENT OPENING SIZE NOT GREATER THAN 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLONS/MINUTE/SQ. FT.
7. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT.

DROP INLET SEDIMENT BARRIER

SCALE N.T.S. | 2





NOTES:

1. FURNISH AND INSTALL TEMPORARY HIGH-VISIBILITY FENCING AT THE TREE DRIPLINE OR CONSTRUCTION LIMITS AS SHOWN ON EROSION CONTROL PLANS PRIOR TO ANY LAND DISTURBANCE.
2. WHEN POSSIBLE PLACE FENCE 25 FEET BEYOND THE DRIP LINE.

TREE PROTECTION

SCALE N.T.S. | 3

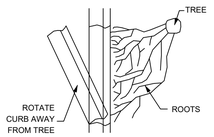
PERMANENT STABILIZATION MEASURES SHALL BE DONE IN ACCORDANCE WITH LOCAL EROSION AND SEDIMENT CONTROL REQUIREMENTS

PERMANENT STABILIZATION

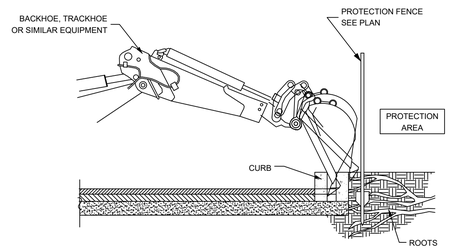
SCALE N.T.S. | 4

SEQUENCE

1. PERFORM ANY ROOT PRUNING.
2. INSTALL PROTECTION FENCING.
3. BREAK OR CUT CURB A 6' SECTION OF CURB.
4. CAREFULLY ROTATE CURB SECTION AWAY FROM ROOTS.
5. COORDINATE ALL DEMOLITION OPERATIONS w/ LANDSCAPE ARCHITECT.
6. INSTALL NEW BACKFILL OR SIDEWALK/CURB.



PLAN



ALL DEMOLITION PROCEDURES SHALL OCCUR OUTSIDE THE PROTECTION AREA. COORDINATE WITH LANDSCAPE ARCHITECT.

DEMOLITION PROCEDURE - CURBING

SCALE N.T.S. | 5

NOT USED

SCALE N.T.S. | 6

Kimley»Horn

11995 SINGLETREE LANE, SUITE 225.
EDEN PRAIRIE, MN 55344
Main: (612) 315-1272 | www.kimley-horn.com

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PRELIMINARY
NOT FOR CONSTRUCTION

KHA PROJECT 016905119
DATE 3/11/2026
SCALE AS SHOWN
DESIGNED BY KAR
DRAWN BY KAR
CHECKED BY EGS

iONNA™

6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

E&S DETAILS

SHEET NUMBER
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POST-INSTALLED ANCHOR NOTES

1. UNLESS OTHERWISE INDICATED ON PLANS, POST-INSTALLED ANCHORS SHOULD CONSIST OF THE FOLLOWING ANCHOR TYPES, OR APPROVED EQUAL:

CHARGER	5/8" EXPANSION ANCHORS, EMBED. 3.75", HILTI KB-TZ2 SS
SWITCHBOARD	1/2" EXPANSION ANCHORS, EMBED. 3.75", HILTI KB-TZ2 SS

2. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHOULD PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT AND CURRENT BUILDING CODE.

FOUNDATIONS

1. FOUNDATIONS ARE DESIGNED USING PRESUMPTIVE SOIL VALUES IN ACCORDANCE WITH THE LOCAL BUILDING CODE REQUIREMENTS.
2. ALL FOOTING EXCAVATIONS SHOULD BE INSPECTED BY THE GENERAL CONTRACTOR'S GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
3. IBC PRESUMPTIVE VERTICAL BEARING CAPACITY: 1,500 PSF
4. IBC PRESUMPTIVE LATERAL BEARING CAPACITY: 100 PCF
5. CONTRACTOR SHOULD ENGAGE A GEOTECHNICAL TESTING LABORATORY LICENSED IN THE STATE OF THE PROJECT TO CONFIRM SOIL PREPARATION AND SPECIFY PROCEDURES AND SPECIFY COMPACTING REQUIREMENTS NECESSARY TO OBTAIN THE DESIGN SOIL PROPERTIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ENGINEER OF RECORD IF ASSUMED SOIL PROPERTIES CANNOT BE OBTAINED ON SITE.

PROJECT GENERAL NARRATIVE AND REQUIREMENTS:

1. THESE CONSTRUCTION DOCUMENTS ARE SPECIFICALLY APPLICABLE TO FOUNDATIONS SUPPORTING THE COMPONENTS LISTED BELOW:

COMPONENT NAME	COMPONENT DIMENSIONS (WxHxD, FT)	COMPONENT WEIGHT (LBS)	EQUIVALENT UNIFORM AREA LOAD (PSF)
CHARGER	2.40x7.34x2.80	1,841	273.81
SWITCHBOARD (3 BAY)	11.17x8.00x4.17	3,269	70.18
SWITCHBOARD (4 BAY)	14.50x8.00x4.00	5,000	86.21

2. EQUIPMENT YIELDING MAXIMUM EQUIVALENT UNIFORM AREA LOAD WAS USED IN DESIGN OF EQUIPMENT PADS.
3. FOUNDATION DESIGN IS BASED ON THE DESIGN CRITERIA.
4. IF THE PROJECT IS LOCATED IN AN AREA CLASSIFIED AS SITE CLASS E OR F, A SITE-SPECIFIC GEOTECHNICAL ANALYSIS IS REQUIRED AND THE ENGINEER OF RECORD SHOULD BE CONTACTED IMMEDIATELY.
5. THE CONTRACTOR'S SCOPE OF WORK FOR THIS PROJECT SHOULD INCLUDE ALL COORDINATION, MATERIALS, LABOR, AND OVERHEAD NECESSARY FOR COMPLETION OF THE FOLLOWING:
   - A. ALL STRUCTURES ARE DESIGNED TO ACT AS A STRUCTURAL UNIT UPON COMPLETION. CONTRACTOR SHOULD DESIGN AND PROVIDE NECESSARY BRACING, TEMPORARY SUPPORTS, AND SHORING TO RESIST FORCES ON THE STRUCTURE DURING CONSTRUCTION.
   - B. VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
   - C. VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO STARTING WORK.
   - D. CONTRACTOR MUST EXERCISE EXTREME CARE DURING THE EXCAVATION AND CONSTRUCTION FOR NEW STRUCTURE TO AVOID DAMAGE TO EXISTING STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MEANS AND METHODS REQUIRED TO FACILITATE CONSTRUCTION OF THE WORK AND ENSURING THE SAFETY, STABILITY AND INTEGRITY OF ADJACENT STRUCTURES AND FACILITIES.
   - E. CONTRACTOR MUST ENGAGE A GEOTECHNICAL ENGINEER TO FIELD VERIFY SOIL PARAMETERS NOTED IN THE FOUNDATION NOTES AND CONCRETE CLASS NOTED UNDER CONCRETE NOTES.

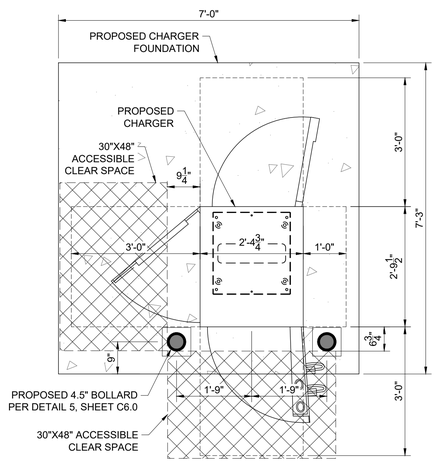
DESIGN CRITERIA:

1. DESIGN CRITERIA IS BASED ON THE CONTROLLING GEOGRAPHICAL LOADINGS CONSIDERING CLIENT-PROVIDED PROJECT LOCATIONS IN THE UNITED STATES.
2. THE DESIGN CRITERIA PERTAINING TO EACH SPECIFIC SITE WILL DIFFER FROM THE DESIGN CRITERIA LISTED BELOW. THE DESIGN CRITERIA LISTED BELOW IS CONSERVATIVE RELATIVE TO THE SITE SPECIFIC DESIGN WITH THE CONSIDERATION OF PROJECT GENERAL NARRATIVE AND REQUIREMENTS OF NOTE 4, ABOVE.
3. DESIGN LOADS
   - RISK CATEGORY = II
   - DEAD LOAD:
     - SELF WEIGHT OF MATERIAL
   - WIND:
     - DESIGN WIND SPEED (3 SEC. GUST) = #200 MPH (ULTIMATE)
     - WIND EXPOSURE = C
   - SEISMIC:
     - SEISMIC IMPORTANCE FACTOR, IE = 1.0
     - MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:
       - S_S = #211
       - S_1 = #212
     - SITE CLASS = D, DEFAULT
     - DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:
       - S_{DS} = #213
       - S_{D1} = #214
     - SEISMIC DESIGN CATEGORY = #210
     - RESPONSE MODIFICATION COEFFICIENT (Ra) = 3.0
   - FROST DEPTH = #201

**NOTE: PRIOR TO CONSTRUCTION, SITE-SPECIFIC VALUES SHOULD BE DETERMINED FOR EACH PROPOSED PROJECT LOCATION. SHOULD SITE-SPECIFIC VALUES EXCEED THOSE NOTED ABOVE, THE ENGINEER OF RECORD SHOULD BE CONTACTED IMMEDIATELY.

STRUCTURAL NOTES

SCALE N.T.S. | 1



NOTE:
CONTRACTOR TO VERIFY DIMENSIONS WITH EQUIPMENT SUPPLIER PRIOR TO CONSTRUCTION.

EV CHARGER CLEARANCE DETAIL

SCALE N.T.S. | 2



More Images & Video

SAFETY BOLLARDS

Protect equipment from damage caused by forklifts and pallet trucks.

- Sturdy steel bollard posts have removable black caps. Fill with concrete for extra strength.
- **Fixed Bollards -** Permanent installation.
- **Removable Bollards -** Mounting plate slides out of removable base for temporary access to equipment or machinery. Padlockable.
- **Base Cover -** Cover up rusty bolts. Keep your facility looking fresh. Compatible with Fixed Bollards.
- **Chain -** Creates a chain link barricade between bollards. Hardware included.

STANDARD SAFETY BOLLARDS – 11 Gauge

MODEL NO.	DIAM.	HEIGHT	MOUNTING PLATE DIM.	WT. (LBS.)	FIXED PRICE EACH 1	FIXED PRICE EACH 4+	FIXED ADD TO CART	REMOVABLE PRICE EACH 1	REMOVABLE PRICE EACH 4+	REMOVABLE ADD TO CART
H-5555		24"		18	$90	$85	1 ADD	$110	$105	1 ADD
H-2118		36"		22	95	90	1 ADD	115	110	1 ADD
H-2119	4.5"	42"	8 x 8"	24	110	105	1 ADD	130	125	1 ADD
H-5556		48"		26	120	115	1 ADD	140	135	1 ADD
H-6290		60"		34	140	135	1 ADD	160	150	1 ADD

SHIPS VIA UPS (FIXED) | SHIPS VIA UPS (REMOVABLE)

HEAVY DUTY SAFETY BOLLARDS – 9 Gauge

MODEL NO.	DIAM.	HEIGHT	MOUNTING PLATE DIM.	WT. (LBS.)	FIXED PRICE EACH 1	FIXED PRICE EACH 4+	FIXED ADD TO CART	REMOVABLE PRICE EACH 1	REMOVABLE PRICE EACH 4+	REMOVABLE ADD TO CART
H-4970	5.5"	30"	8 x 8"	27	$110	$105	1 ADD	$130	$125	1 ADD
H-4971		42"		43	125	120	1 ADD	145	140	1 ADD
H-6291		48"		51	140	135	1 ADD	165	155	1 ADD
H-6292		60"		67	170	160	1 ADD	190	180	1 ADD
H-11153*	6.5"	42"	8 x 8"	52	155	145	1 ADD	180	170	1 ADD
H-11154*		48"		59	175	165	1 ADD	200	190	1 ADD

* 7 Gauge

SHIPS VIA UPS (FIXED) | SHIPS VIA UPS (REMOVABLE)

BOLLARD BASE COVERS – Compatible with Fixed Bollards

MODEL NO.	DIMENSIONS DIAM. x H	FITS BOLLARD DIAMETER	WT. (LBS.)	PRICE EACH 1	PRICE EACH 4+	ADD TO CART
H-10463	14 x 3"	4.5"				1 ADD
H-10464	14 x 3"	5.5"	9	$45	$42	1 ADD
H-11155	14 x 3"	6.5"				1 ADD

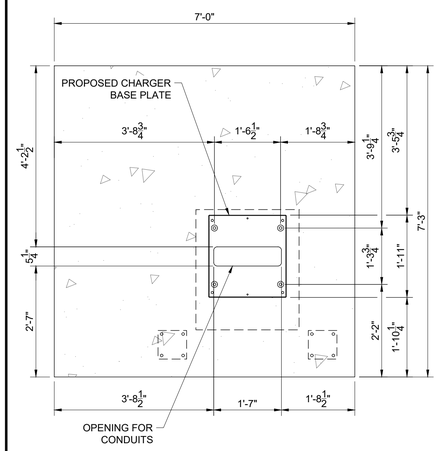
SAFETY BOLLARD ACCESSORIES

MODEL NO.	DESCRIPTION	WT. (LBS.)	PRICE EACH 1	PRICE EACH 4+	ADD TO CART
H-2121	Concrete Installation Kit (4 Anchors/Kit)	3	$23	$21	1 ADD
H-6289	10' Steel Chain	5	18	17	1 ADD

SHIPS VIA UPS

SURFACE MOUNTED BOLLARD DETAIL

SCALE N.T.S. | 5



NOTE:
CONTRACTOR TO VERIFY DIMENSIONS WITH EQUIPMENT SUPPLIER PRIOR TO CONSTRUCTION.

EV CHARGER OPENINGS DETAIL

SCALE N.T.S. | 3

Bollard Base Cover - 4.5"



More Images

Cover up rusty bolts. Keep your facility looking fresh.

- Prevent injury and damage from tripping or driving on raised bolts.
- Easily slide over 4.5" Diameter Fixed Safety Bollards. No hardware required.
- 9-gauge steel construction.

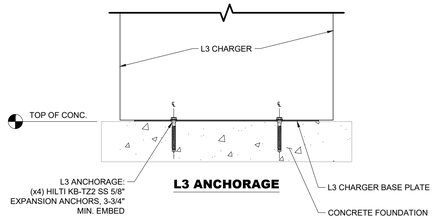
MODEL NO.	DIMENSIONS DIAM. x H	FITS BOLLARD DIAMETER	WT. (LBS.)	PRICE EACH 1	PRICE EACH 4+	IN STOCK SHIPS TODAY
H-10463	14 x 3"	4.5"	9	$45	$42	1 ADD

Compatible with Fixed Bollards.

Additional Info | Shopping Lists | Request a Catalog

BOLLARD BASE COVER DETAIL

SCALE N.T.S. | 6



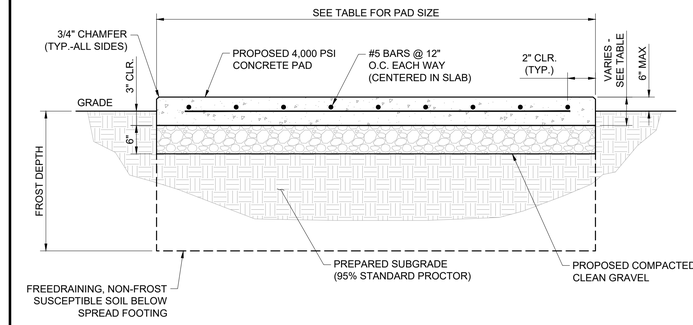
L3 ANCHORAGE

NOTE:

1. L3 ANCHORS MUST BE A MINIMUM OF 6" FROM EDGE OF EXISTING CONCRETE.
2. SEE DETAIL 4, SHEET C6.0 FOR CONCRETE FOUNDATION DIMENSIONS.

L3 CHARGER ANCHORAGE

SCALE N.T.S. | 7



CONCRETE PAD DIMENSIONS				
PAD TYPE	L	W	t (THICKNESS)	AREA
CHARGER (5x5)	5'-0"	5'-0"	12"	25.00 S.F.
CHARGER (7x7.25)	7'-0"	7'-3"	8"	50.75 S.F.
SWITCHBOARD (3 BAY)	12'-6"	5'-6"	10"	68.75 S.F.
SWITCHBOARD (4 BAY)	15'-6"	5'-0"	12"	77.50 S.F.

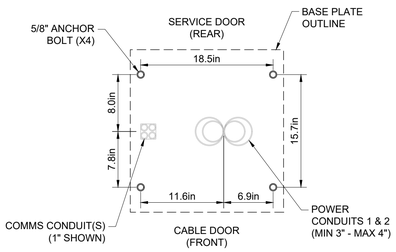
NOTE:

1. SEE CONCRETE NOTES ON SHEET G1.0
2. TOP OF EQUIPMENT PAD IS INTENDED TO BE LEVEL. GC TO COORDINATE PAD EMBEDMENT DEPTH WITH ACTUAL SITE GRADING PLANS.
3. CONTRACTOR SHALL VERIFY FROST DEPTH PRIOR TO CONSTRUCTION.

EQUIPMENT PAD

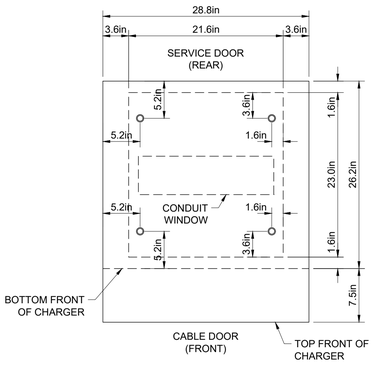
SCALE N.T.S. | 4

HYC400 BASEPLATE DIMENSION AND CONDUIT ENTRY LOCATION

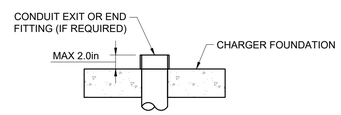


NOTE: TO MEET EQUIPMENT SPACE AND WIRE REQUIREMENTS, POWER CONDUITS MUST BE CENTERED EXACTLY TO THE B-PHASE AS SHOWN.

HYC400 BASEPLATE DIMENSION INSIDE CHARGER HOUSING



CONDUIT HEIGHT REQUIREMENT



NOTE: TO MEET BEND RADIUS REQUIREMENTS, TOP OF CONDUIT SHALL BE LESS THAN 2" ABOVE CHARGER FOUNDATION. IF REQUIRED, CONDUIT END FITTING SHOULD BE FLUSH WITH CONCRETE

HYC400 BASEPLATE DIMENSIONS & CONDUIT WINDOW DETAILS

SCALE N.T.S. | 8

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ISSUE BLOCK

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PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT	296087118		
DATE	3/11/2026		
SCALE	AS SHOWN	DESIGNED BY	MCS
		DRAWN BY	JG
		CHECKED BY	MCS

IONNA™

15 W MAIN STREET
GREEN RIVER, UT 84525
SITE NO.: GREEN RIVER/15 W MAIN ST

CIVIL DETAILS

SHEET NUMBER
C6.0

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GENERAL NOTES

SCALE N.T.S. | 1

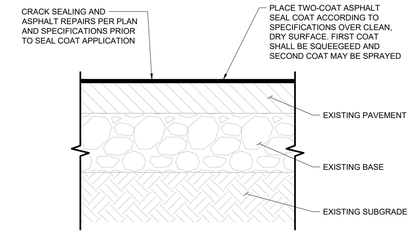
UNLESS NOTED OTHERWISE, THE FOLLOWING NOTES RELATING TO THE "SITE DETAILS" SHEETS SHALL GOVERN.

1. COMPRESSIVE STRENGTH OF CONCRETE FOUNDATION SHALL BE A MINIMUM OF 4,000 PSI AT 28 DAYS WITH MAXIMUM W/CM RATIO OF 0.45 AND AIR-CONTENT OF 6% +/- 1.5%.
2. MINIMUM YIELD STRENGTH OF REINFORCEMENT TO BE 60,000 PSI (ASTM-A615).
3. REFERENCE CIVIL AND ELEC. DRAWING FOR EQUIPMENT LAYOUT, LOCATION OF CONDUIT, ETC.
4. FINAL ANCHOR BOLT AND POLE DESIGN INCLUDING SIZE AND CONFIGURATION ARE BY MFR.
5. BEFORE STARTING ANY WORK, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE SITE AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
6. NO GEOTECHNICAL ENGINEERING REPORT WAS PROVIDED BY THE OWNER. FOUNDATION DESIGN IS BASED ON A MINIMUM OF 1,500 PSF NET ALLOWABLE BEARING PRESSURE ON UNDISTURBED NATURAL SOIL OR COMPACTED FILL UNLESS OTHERWISE NOTED.
7. UNLESS OTHERWISE DIRECTED BY THE OWNER, ALL FOUNDATION WORK RELATED TO INSTALLATION OF REBAR SHALL BE INSPECTED BY OTHERS.
8. KIMLEY-HORN AND ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE DESIGN OF THE EQUIPMENT OR ANCHORAGE TO THE FOUNDATION. MANUFACTURER SHALL SUBMIT LOADS TO ENGINEER FOR RECORD KEEPING PURPOSES ONLY.
9. DESIGN IS BASED ON THE SPECIFIC EQUIPMENT SHOWN IN THESE DRAWINGS AND ILLUSTRATED ON THE CUT SHEETS.
10. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LOCAL DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
11. ALL FOUNDATIONS ARE TO INCLUDE COMPACTED SUBGRADE AND MINIMUM 6" COMPACTED STONE BASE UNLESS OTHERWISE SPECIFIED.

NOTE: BOLLARDS ARE NOT DESIGNED FOR FULL 6 KIP IMPACT LOADS UNLESS OTHERWISE NOTED AS "VEHICULAR RATED".

ASPHALT - SEAL COAT

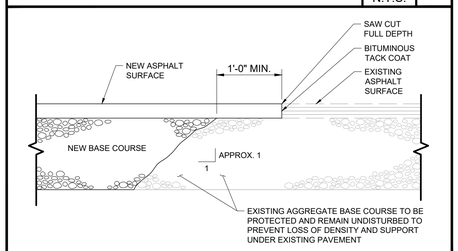
SCALE N.T.S. | 2



SECTION VIEW

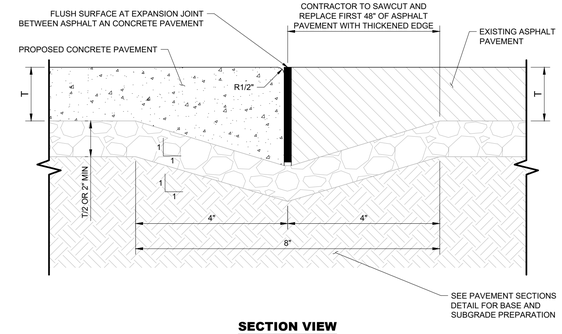
ASPHALT PAVEMENT JOINT

SCALE N.T.S. | 3



THICKENED EDGE AT ASPHALT & CONCRETE

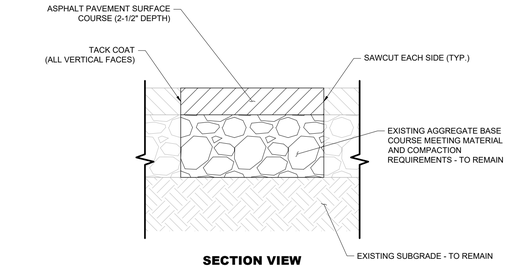
SCALE N.T.S. | 4



SECTION VIEW

NOTES:

1. SEE PREVIOUS DESIGN OR GEOTECH REPORTS FOR PAVEMENT SECTION AND THICKNESS (T). IF NOT AVAILABLE CONTRACTOR TO FIELD VERIFY.
2. DETAIL APPLIES AT ALL PAVEMENT EDGE CONDITIONS AND PAVEMENT TRANSITIONS FROM ASPHALT TO CONCRETE.



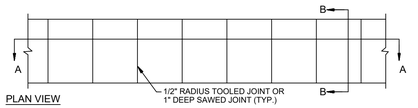
SECTION VIEW

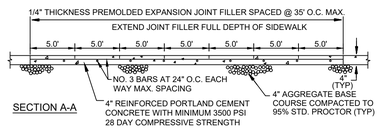
NOTES:

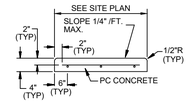
1. CUT AND PATCH AREAS SHOWN ON THE PLANS ARE APPROXIMATE IN SIZE AND LOCATION AND MAY BE ADJUSTED AT THE TIME OF CONSTRUCTION.
2. SURFACE COURSE SHALL BE INSTALLED AT THE SAME TIME AS ADJACENT PAVEMENT REPAIR SURFACE COURSES.
2. IF AGGREGATE BASE COURSE IS NOT PRESENT CONTRACTOR TO NOTIFY ENGINEER OF RECORD IMMEDIATELY.
3. THE AGGREGATE BASE COURSE SHALL BE INSPECTED BY THE TESTING AGENCY, OWNER, OR DESIGN CONSULTANT AFTER ASPHALT REMOVAL AND BASE PREPARATION, PRIOR TO ASPHALT REPLACEMENT.

ASPHALT PAVEMENT - CUT & PATCH

SCALE N.T.S. | 5





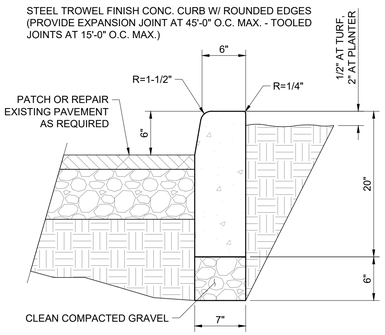


CONCRETE SIDEWALK

SCALE N.T.S. | 9

CONCRETE CURB DETAIL

SCALE N.T.S. | 6

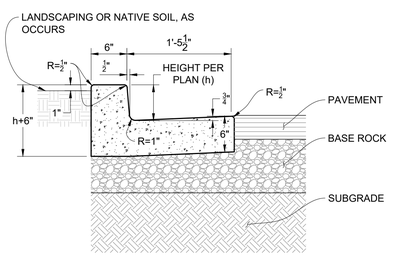


NOTES:

1. SAW CUT AREA TO BE REPAIRED/REPLACED. DISPOSE OF DEBRIS PROPERLY OFF SITE.
2. INSTALL FORMS AS NECESSARY.
3. COMPACT EXISTING SUBGRADE MATERIAL TO ACHIEVE COMPACTION 95% MAX STANDARD PROCTOR.
4. CONCRETE TO BE 4000 PSI AIR ENTRAINED CONCRETE.
5. INSTALL CONTROL JOINTS EVERY 10 LINEAR FEET.

6" CONCRETE CURB AND GUTTER

SCALE N.T.S. | 7

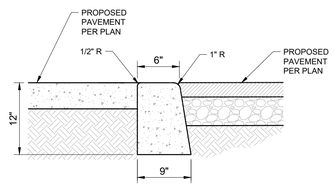


NOTES:

1. CONCRETE SHALL BE MINIMUM 4000 PSI AND SHALL NOT CONTAIN LESS THAN FIVE SACKS OF CEMENT PER CUBIC YARD (470 LBS/CY).
2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED.
3. CONTRACTION JOINTS CONSISTING OF 1" DEEP SCORES SHALL BE PLACED AT MAXIMUM 20' INTERVALS O.C..
4. WHERE CONCRETE PAVEMENT IS ADJACENT TO THE CURB & GUTTER THE JOINTS SHALL ALIGN WITH JOINTS IN THE PAVEMENT.
4. BASE ROCK AND SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT.

0" CONCRETE CURB

SCALE N.T.S. | 8

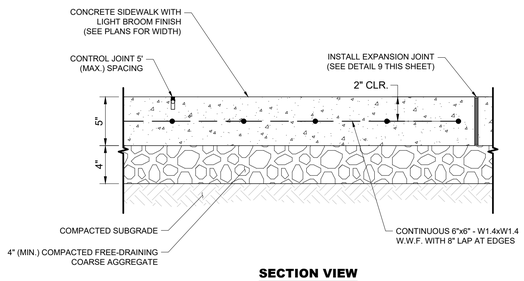


NOTES:

1. CONCRETE SHALL BE 4000 PSI.
2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED
3. CONTRACTION JOINTS CONSISTING OF 1" DEEP SCORES SHALL BE PLACED AT 15' INTERVALS O.C.
4. WHERE A WALK IS ADJACENT TO THE CURB THE JOINTS SHALL ALIGN WITH JOINTS IN THE WALK.

CONCRETE SIDEWALK SECTION

SCALE N.T.S. | 10



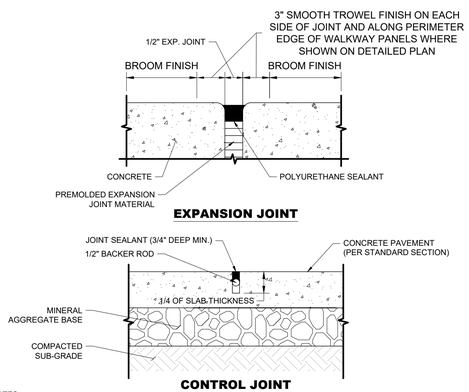
SECTION VIEW

NOTES:

1. ALL SIDEWALK SHALL BE CONSTRUCTED WITH CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
2. PROVIDE 1/2" EXPANSION JOINTS AT 20', MAXIMUM, SPACING AND FILLED WITH PREMOLDED BITUMINOUS EXPANSION JOINT FILLER MATERIAL OR REDWOOD. EXPANSION JOINTS SHALL HAVE #4 DOWELS, LUBRICATED, 18" LONG, AT 12" CENTERS, 6" FROM EDGE.
3. PROVIDE 3/8" GROOVED CONTROL JOINTS AT 5' CENTERS.
4. WELDED WIRE FABRIC (6X6-6X6) SHALL BE INSTALLED THROUGH DRIVEWAYS AT 2" ABOVE SLAB BOTTOM.
5. PROVIDE 1/2" BITUMINOUS EXPANSION JOINT FILLER MATERIAL WHERE WALK ABUTS EXISTING IMPROVEMENTS AND AT ALL CHANGES IN GRADE.
6. USE 2-#4 REINFORCING BARS, 10' LONG OVER ALL UTILITY TRENCHES FOR NEW SIDEWALK AND CONNECTIONS TO EXISTING SIDEWALK.
7. AT DRIVE APPROACHES, SIDEWALK PCC AND BASE THICKNESS SHALL MATCH THAT OF THE DRIVE.

CONCRETE JOINTS

SCALE N.T.S. | 11

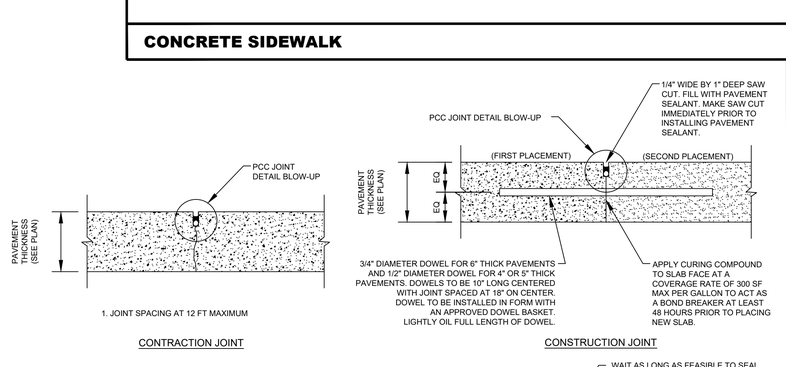


NOTES:

1. INSTALL SAWCUT JOINTS WITHIN 24 HOURS OF FINISHING CONCRETE.
2. INSTALL CONSTRUCTION JOINTS WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES.
3. INSTALL EXPANSION JOINTS @ 15' O.C. (225 S.F.) IN EACH DIRECTION AND AGAINST ASPHALT PAVEMENT AND STRUCTURES.

CONCRETE JOINT DETAILS

SCALE N.T.S. | 12



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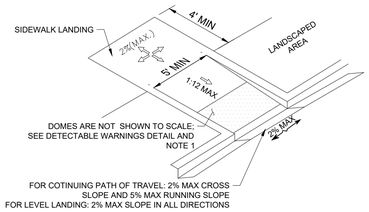
KHA PROJECT 296087118
DATE 3/11/2026
SCALE AS SHOWN
DESIGNED BY MCS
DRAWN BY JG
CHECKED BY MCS

iONNA™
15 W MAIN STREET
GREEN RIVER, UT 84525
SITE NO.: GREEN RIVER/15 W MAIN ST

CIVIL DETAILS

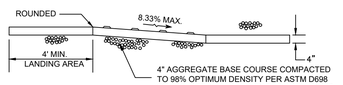
SHEET NUMBER
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NOTES:

1. ALL ACCESSIBLE COMPONENTS CONSTRUCTED AS PART OF THESE PLANS SHALL COMPLY WITH THE LOCAL, STATE, AND FEDERAL REGULATIONS WHICHEVER ARE MORE STRINGENT.
2. CURB RAMPS SHALL HAVE A DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE CURB RAMP AND 3' DEEP OR AS REQUIRED BY THE LOCAL JURISDICTION/ GOVERNING AUTHORITIES
3. PUBLIC SIDEWALK CURB RAMPS CONSTRUCTED WITHIN A PUBLIC RIGHT- OF -WAY, IN ABSENCE OF LOCAL ROADWAY GUIDELINES, SHALL MEET OR EXCEED LOCAL REGULATIONS.
4. INSTALL 1/4" EXPANSION JOINT FILLER MATERIAL BETWEEN A NEW CURB RAMP AND THE EXISTING SIDEWALKS.
5. WATER PONDING WITHIN THE CURB RAMP LIMITS IS NOT ALLOWED.
6. NO GRADE BREAK IS ALLOWED ALONG THE RAMP SURFACE.
7. CROSS SLOPE OF THE CURB RAMP SURFACE SHALL BE LESS THAN 2%.
8. TRANSITION CHANGE IN ELEVATION IS NOT TO EXCEED 1/2" WITHIN AN ACCESSIBLE ROUTE.



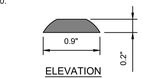
SECTION A-A'

ACCESSIBLE RAMP

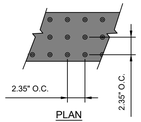
SCALE	
N.T.S.	1

NOTES:

1. THE SURFACE OF RAMP SHALL HAVE DETECTABLE WARNINGS AS SHOWN. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES. SEE DETECTABLE WARNINGS DETAIL.
2. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
3. CONSTRUCT PER A.D.A. STANDARDS.
4. REFER TO PLANS FOR ADJACENT SLOPES.
5. THE CROSS SLOPE OF THE RAMP SURFACE SHALL BE NO GREATER THAN 1:50.



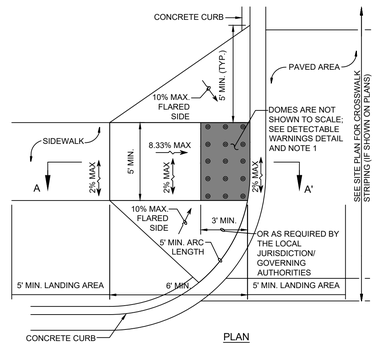
ELEVATION



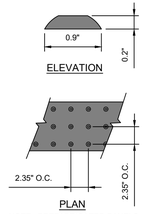
PLAN

NOTE: PREFABRICATED PANELS PER A.D.A. ACCESSIBILITY GUIDELINES SECTION 4.29.2 & A4.29.2 SHALL BE USED.

DETECTABLE WARNINGS DETAIL



PLAN



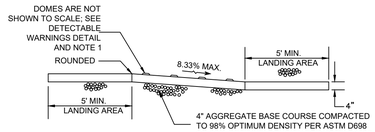
ELEVATION

PLAN

NOTE: PREFABRICATED PANELS PER A.D.A. ACCESSIBILITY GUIDELINES SECTION 4.29.2 & A4.29.2 SHALL BE USED.

DETECTABLE WARNINGS DETAIL

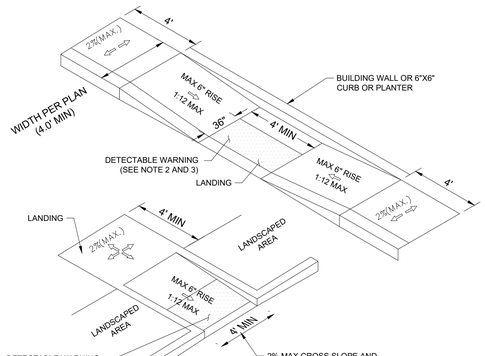
1. THE SURFACE OF RAMP SHALL HAVE DETECTABLE WARNINGS AS SHOWN. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES. SEE DETECTABLE WARNINGS DETAIL.
2. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
3. CONSTRUCT PER A.D.A. STANDARDS.
4. REFER TO PLANS FOR ADJACENT SLOPES.
5. THE CROSS SLOPE OF THE RAMP SURFACE SHALL BE NO GREATER THAN 1:50.



SECTION A-A'

ADA RAMP IN SIDEWALK

SCALE	
N.T.S.	2

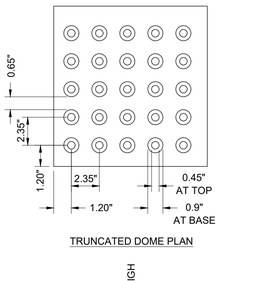


NOTES:

1. ALL ACCESSIBLE COMPONENTS CONSTRUCTED AS PART OF THESE PLANS SHALL COMPLY WITH THE LOCAL, STATE, AND FEDERAL REGULATIONS WHICHEVER ARE MORE STRINGENT.
2. CURB RAMPS SHALL HAVE A DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE CURB RAMP AND 3' DEEP. GROOVED SURFACES ON OUTDOOR CURB RAMPS ARE NOT PERMITTED. VERIFY LOCAL REQUIREMENTS WITH THE BUILDING DEPARTMENT. REFER TO TRUNCATED DOMES DETAIL AND REQUIREMENTS IN THE CALIFORNIA BUILDING CODE.
3. PARALLEL CURB RAMPS SHALL HAVE A DETECTABLE WARNING EXTENDING 36" DEEP ALONG THE FLUSH TRANSITION BETWEEN STREET AND SIDEWALK. REFER TO TRUNCATED DOMES DETAIL.
4. PUBLIC SIDEWALK CURB RAMPS CONSTRUCTED WITHIN A PUBLIC RIGHT- OF -WAY, IN ABSENCE OF LOCAL ROADWAY GUIDELINES, SHALL MEET OR EXCEED LOCAL REGULATIONS.
5. CURB RAMP SURFACES (FLARES AND RAMP) SHALL HAVE A DIFFERENT TEXTURE FROM THE SURROUNDING PAVEMENT.
6. CURB RAMPS SHALL BE CONCRETE WITH STRENGTH OF 4000 PSI.
7. INSTALL 1/4" EXPANSION JOINT FILLER MATERIAL BETWEEN A NEW CURB RAMP AND THE EXISTING SIDEWALKS.
8. WATER PONDING WITHIN THE CURB RAMP LIMITS IS NOT ALLOWED.
9. NO GRADE BREAK IS ALLOWED ALONG THE RAMP SURFACE.
10. CROSS SLOPE OF THE CURB RAMP SURFACE SHALL BE LESS THAN 2%.
11. TRANSITION CHANGE IN ELEVATION IS NOT TO EXCEED 1/2" WITHIN AN ACCESSIBLE ROUTE.

ACCESSIBLE CURB RAMP

SCALE	
N.T.S.	3



TRUNCATED DOME PLAN



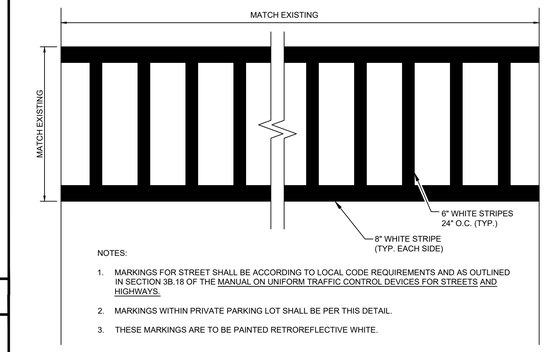
TRUNCATED DOME SECTION

NOTES:

1. CONTRACTOR TO REFERENCE MANUFACTURERS GUIDELINES FOR INSTALLATION OF TRUNCATED DOMES.
2. COLOR TO BE YELLOW UNLESS NOTED OTHERWISE

DETECTABLE WARNING

SCALE	
N.T.S.	4



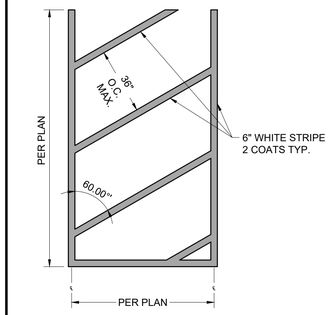
NOTES:

1. MARKINGS FOR STREET SHALL BE ACCORDING TO LOCAL CODE REQUIREMENTS AND AS OUTLINED IN SECTION 3B.18 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. MARKINGS WITHIN PRIVATE PARKING LOT SHALL BE PER THIS DETAIL.
3. THESE MARKINGS ARE TO BE PAINTED RETROREFLECTIVE WHITE.

(MODIFIED)

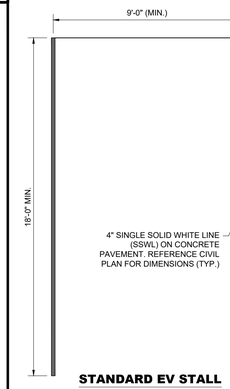
CROSSWALK MARKING W/ LONGITUDINAL STRIPES

SCALE	
N.T.S.	6



ACCESS AISLE STRIPING

SCALE	
N.T.S.	7



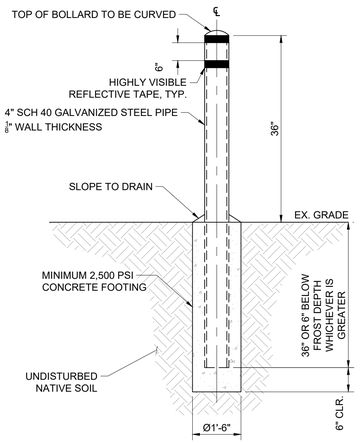
STANDARD EV STALL

EV PARKING STRIPING

SCALE	
N.T.S.	8

NOT USED

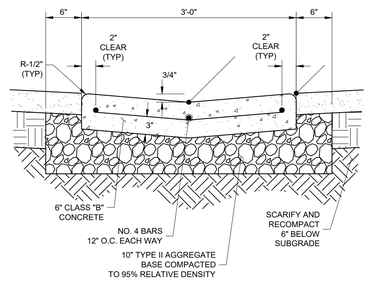
SCALE	
N.T.S.	5



NOTES:
1. THIS BOLLARD IS NOT RATED FOR VEHICULAR IMPACT.

4" FIXED BOLLARD

SCALE	
N.T.S.	9



CONCRETE VALLEY GUTTER

SCALE	
N.T.S.	10

NOT USED

SCALE	
N.T.S.	11

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6671 S LAS VEGAS BLVD SUITE 320, LAS VEGAS, NV 89119
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KHA PROJECT	296087118
DATE	3/11/2026
SCALE	AS SHOWN
DESIGNED BY	MCS
DRAWN BY	JG
CHECKED BY	MCS

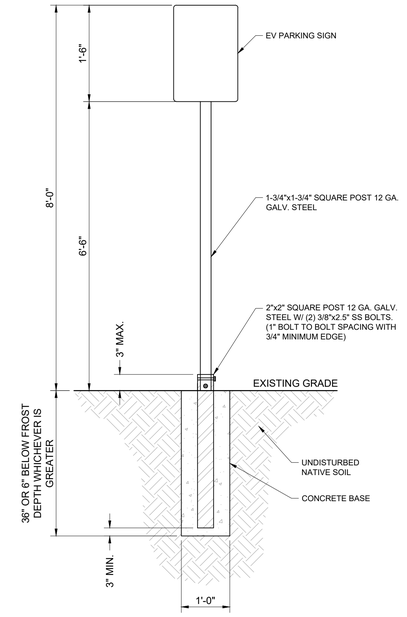
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15 W MAIN STREET
GREEN RIVER, UT 84525
SITE NO.: GREEN RIVER/15 W MAIN ST

CIVIL DETAILS

SHEET NUMBER
C6.2

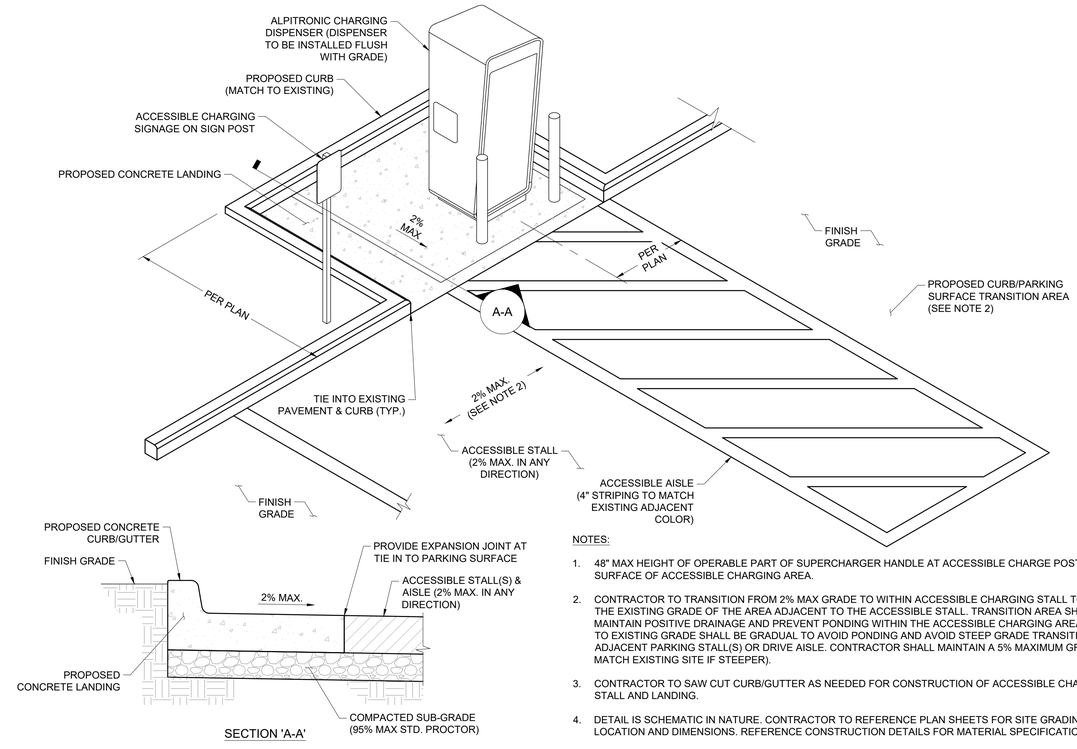
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NOTES:
1. TO BE PLACED AT HEAD OF PARKING STALL.
2. POST MOUNTED OBJECTS PER ADA CODE SECTION 11B-307.3.
3. THIS DETAIL SHALL ONLY BE USED WHEN SIGN POST IS LOCATED OUTSIDE OF PARKING LOT PAVEMENT AND 2' MIN. CAR OVERHANG ZONE.

SIGN POST | SCALE N.T.S. | 1

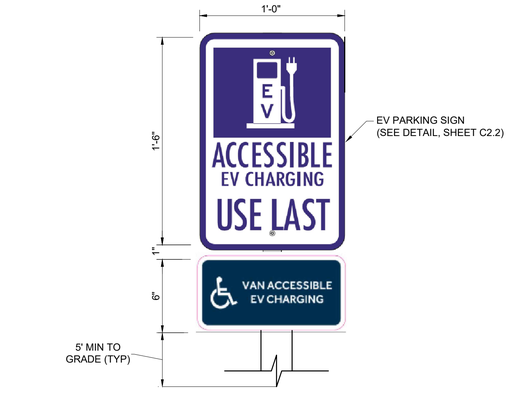
NOT USED | SCALE N.T.S. | 2



SECTION 'A-A'

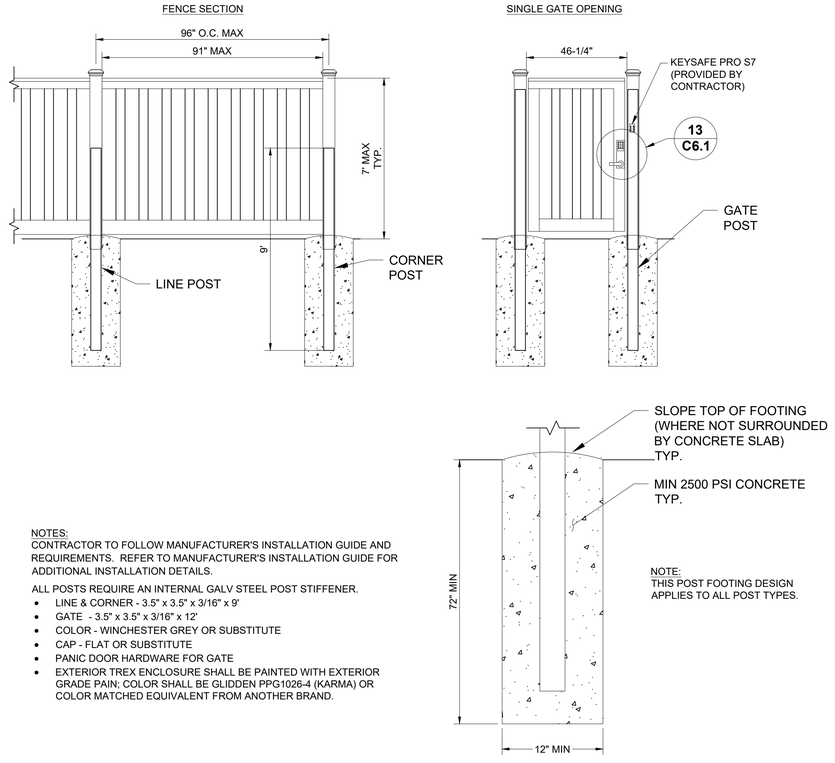
NOTES:
1. 48" MAX HEIGHT OF OPERABLE PART OF SUPERCHARGER HANDLE AT ACCESSIBLE CHARGE POSTS FROM SURFACE OF ACCESSIBLE CHARGING AREA.
2. CONTRACTOR TO TRANSITION FROM 2% MAX GRADE TO WITHIN ACCESSIBLE CHARGING STALL TO TIE INTO THE EXISTING GRADE OF THE AREA ADJACENT TO THE ACCESSIBLE STALL. TRANSITION AREA SHALL MAINTAIN POSITIVE DRAINAGE AND PREVENT PONDING WITHIN THE ACCESSIBLE CHARGING AREA. THE TIE TO EXISTING GRADE SHALL BE GRADUAL TO AVOID PONDING AND AVOID STEEP GRADE TRANSITIONS IN THE ADJACENT PARKING STALL(S) OR DRIVE AISLE. CONTRACTOR SHALL MAINTAIN A 5% MAXIMUM GRADE (OR MATCH EXISTING SITE IF STEEPER).
3. CONTRACTOR TO SAW CUT CURB/GUTTER AS NEEDED FOR CONSTRUCTION OF ACCESSIBLE CHARGING STALL AND LANDING.
4. DETAIL IS SCHEMATIC IN NATURE. CONTRACTOR TO REFERENCE PLAN SHEETS FOR SITE GRADING, CURB LOCATION AND DIMENSIONS. REFERENCE CONSTRUCTION DETAILS FOR MATERIAL SPECIFICATIONS.

ADA LANDING DETAIL | SCALE N.T.S. | 3



NOTES:
1. STALL SIGNAGE SHALL BE RETROFLECTORIZED WITH A MINIMUM AREA OF 70 SQ. INCHES.
2. SIGN SHALL BE VISIBLE FROM THE EVCS IT SERVES.
3. SIGN SHALL BE PERMANENTLY POSTED EITHER IMMEDIATELY ADJACENT OR WITHIN THE PROJECTED VEHICLE SPACE.
4. SIGN SHALL BE LOCATED AT THE END OF THE VEHICLE SPACE.
5. SIGN SHALL BE 60 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.
6. SIGNS LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE 80 INCHES MINIMUM ABOVE THE FINISHED FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.
7. SIGNS MAY ALSO BE PERMANENTLY POSTED ON WALL AT THE INTERIOR END OF THE VEHICLE SPACE.
8. IONNA SHALL SUPPLY THE VEHICLE STALL SIGNAGE.

ACCESSIBLE VAN STALL SIGNAGE DETAIL | SCALE N.T.S. | 4

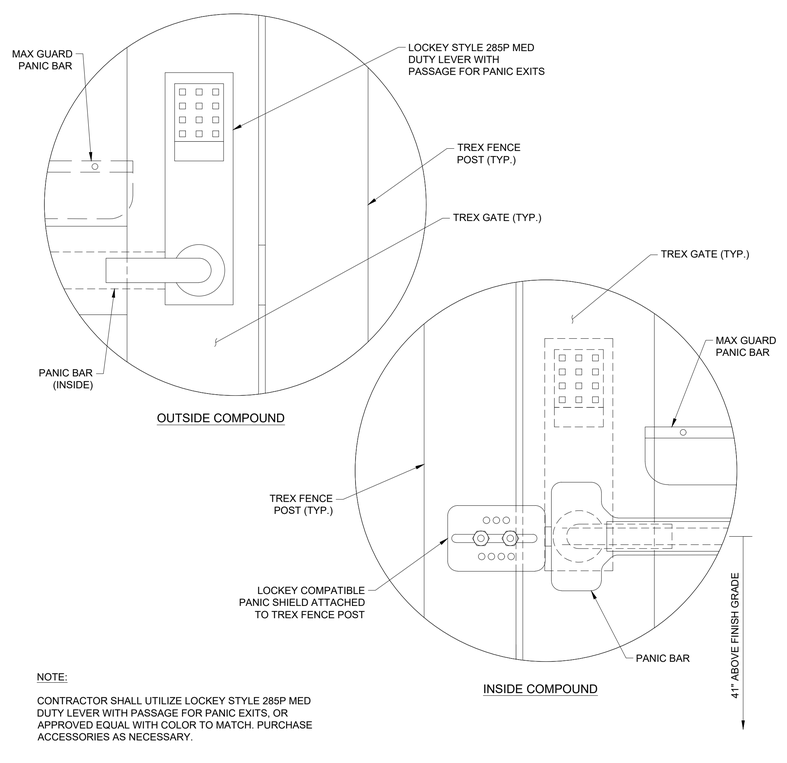


NOTES:
CONTRACTOR TO FOLLOW MANUFACTURER'S INSTALLATION GUIDE AND REQUIREMENTS. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INSTALLATION DETAILS.

ALL POSTS REQUIRE AN INTERNAL GALV STEEL POST STIFFENER.
- LINE & CORNER - 3.5" x 3.5" x 3/16" x 9'
- GATE - 3.5" x 3.5" x 3/16" x 12'
- COLOR - WINCHESTER GREY OR SUBSTITUTE
- CAP - FLAT OR SUBSTITUTE
- PANIC DOOR HARDWARE FOR GATE
- EXTERIOR TREX ENCLOSURE SHALL BE PAINTED WITH EXTERIOR GRADE PAIN; COLOR SHALL BE GLIDDEN PPG1026-4 (KARMA) OR COLOR MATCHED EQUIVALENT FROM ANOTHER BRAND.

NOTE:
THIS POST FOOTING DESIGN APPLIES TO ALL POST TYPES.

TREX SECLUSION FENCE DETAIL | SCALE N.T.S. | 5



NOTE:
CONTRACTOR SHALL UTILIZE LOCKEY STYLE 285P MED DUTY LEVER WITH PASSAGE FOR PANIC EXITS, OR APPROVED EQUAL WITH COLOR TO MATCH. PURCHASE ACCESSORIES AS NECESSARY.

LOCK WITH KEYPAD DETAIL | SCALE N.T.S. | 6

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DATE	3/11/2026
SCALE	AS SHOWN
DESIGNED BY	MCS
DRAWN BY	JG
CHECKED BY	MCS

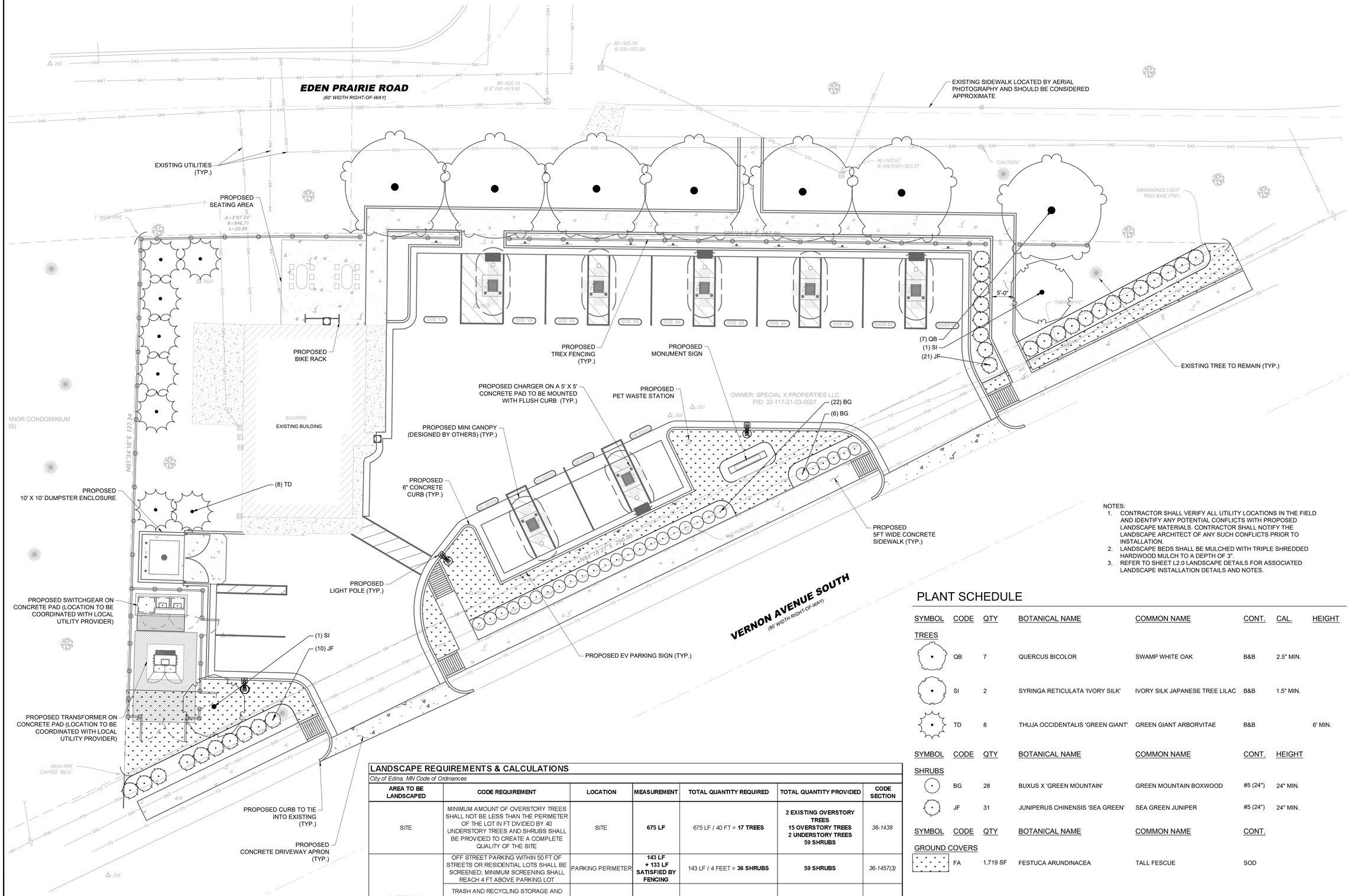
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15 W MAIN STREET
GREEN RIVER, UT 84525
SITE NO.: GREEN RIVER/15 W MAIN ST

CIVIL DETAILS

SHEET NUMBER
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LANDSCAPE REQUIREMENTS & CALCULATIONS

City of Edina, MN Code of Ordinances

AREA TO BE LANDSCAPED	CODE REQUIREMENT	LOCATION	MEASUREMENT	TOTAL QUANTITY REQUIRED	TOTAL QUANTITY PROVIDED	CODE SECTION
SITE	MINIMUM AMOUNT OF OVERSTORY TREES SHALL NOT BE LESS THAN THE PERIMETER OF THE LOT IN FT DIVIDED BY 40 UNDERSTORY TREES AND SHRUBS SHALL BE PROVIDED TO CREATE A COMPLETE QUALITY OF THE SITE	SITE	**675 LF**	675 LF / 40 FT = **17 TREES**	**2 EXISTING OVERSTORY TREES 15 OVERSTORY TREES 2 UNDERSTORY TREES 59 SHRUBS**	*36-1438*
SCREENING	OFF STREET PARKING WITHIN 50 FT OF STREETS OR RESIDENTIAL LOTS SHALL BE SCREENED; MINIMUM SCREENING SHALL REACH 4 FT ABOVE PARKING LOT	PARKING PERIMETER	**143 LF + 133 LF SATISFIED BY FENCING**	143 LF / 4 FEET = **36 SHRUBS**	**59 SHRUBS**	*36-1457(3)*
	TRASH AND RECYCLING STORAGE AND MECHANICAL EQUIPMENT SHALL BE SCREENED FROM LOTS AND PUBLIC ROWS; MINIMUM HEIGHT SHALL BE HIGH ENOUGH TO COMPLETELY SCREEN FROM PROPERTY LINES, BUT SHALL BE NO LESS THAN 5 FT OR GREATER THAN 10 FT IN HEIGHT	TRASH AND MECHANICAL EQUIPMENT	**54 LF**	54 LF SATISFIED BY FENCING	**54 LF SATISFIED BY FENCING**	*36-1457(4)(5)*

NOTES:
1. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AND IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED LANDSCAPE MATERIALS. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY SUCH CONFLICTS PRIOR TO INSTALLATION.
2. LANDSCAPE BEDS SHALL BE MULCHED WITH TRIPLE SHREDDED HARDWOOD MULCH TO A DEPTH OF 3".
3. REFER TO SHEET L2.0 LANDSCAPE DETAILS FOR ASSOCIATED LANDSCAPE INSTALLATION DETAILS AND NOTES.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	HEIGHT
TREES							
	QB	7	QUERCUS BICOLOR	SWAMP WHITE OAK	B&B	2.5" MIN.	
	SI	2	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	B&B	1.5" MIN.	
	TD	8	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	B&B		6' MIN.
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT	
SHRUBS							
	BG	28	BUXUS X 'GREEN MOUNTAIN'	GREEN MOUNTAIN BOXWOOD	#5 (24")	24" MIN.	
	JF	31	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	#5 (24")	24" MIN.	
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.		
GROUND COVERS							
	FA	1,719 SF	FESTUCA ARUNDINACEA	TALL FESCUE	SOD		

GRAPHIC SCALE IN FEET
0 5 10 20
1" = 10'
WHEN PRINTED AT FULL SIZE (24"x36")

NORTH

Kimley»Horn
11995 SINGLETREE LANE, SUITE 225.
EDEN PRAIRIE, MN 55344
Main: (612) 315-1272 | www.kimley-horn.com

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SCALE	AS SHOWN
DESIGNED BY	KAR
DRAWN BY	KAR
CHECKED BY	EGS

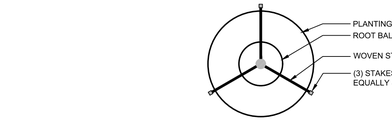
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EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

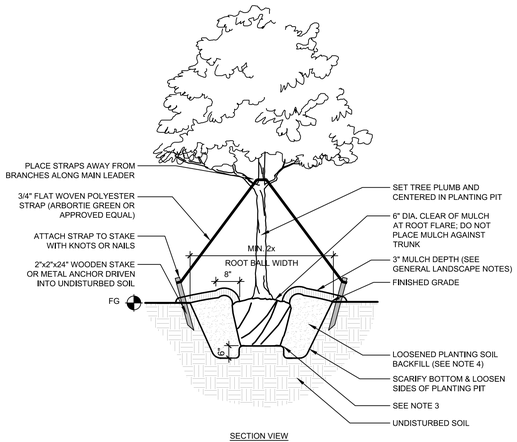
LANDSCAPE PLAN

SHEET NUMBER
L1.0

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PLAN VIEW

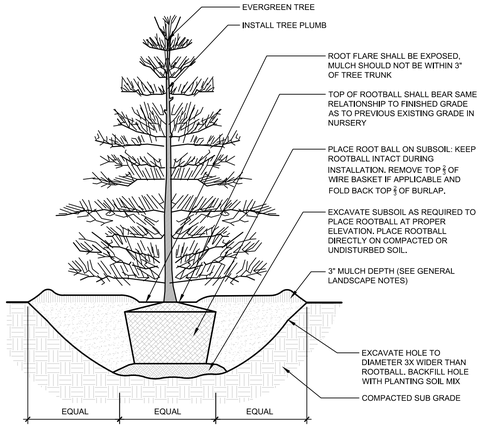


SECTION VIEW

TREE PLANTING NOTES:
1. FOR CONTAINER PLANTS, REMOVE CONTAINER & SCARIFY ROOT MASS PRIOR TO PLANTING.
2. FOR B&B PLANTS, COMPLETELY REMOVE TOP HALF OF WIRE BASKET AND BURLAP MATERIAL; REMOVE ALL TWINE, ROPE AND WIRE FROM ROOT BALL.
3. SET ROOT BALL ON UNDISTURBED STABLE SUBSOIL SO THAT TOP OF ROOT BALL IS 2-3" ABOVE FINISHED GRADE. TAMP SOIL FIRMLY AROUND BOTTOM OF ROOT BALL TO SET TREE PLUMB.
4. DIG & TURN PLANTING SOIL TO REDUCE COMPACTION. LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE THE TREE. DO NOT OVER-COMPACT. MIX COMPOST INTO EACH LIFT OF BACKFILL AS RECOMMENDED IN SOIL REPORT. POUR WATER AROUND ROOT BALL TO SETTLE SOIL, AND BACKFILL AS REQUIRED TO MEET REQUIRED FINISHED GRADE.
5. A 3" HIGH x 8" WIDE BERM SHALL BE MADE AROUND THE ROOT BALL EDGE.
6. PRUNE TREES ONLY AS NEEDED TO REMOVE DEAD OR BROKEN BRANCHES.

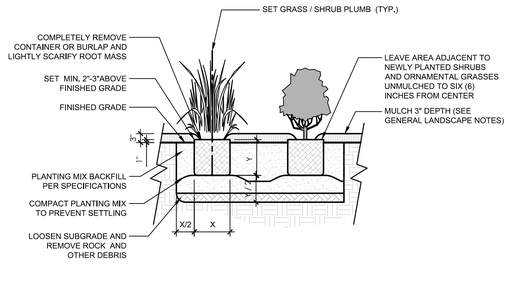
1 C2.1 STANDARD TREE PLANTING

1/2" = 1'-0"



2 C2.1 EVERGREEN TREE PLANTING

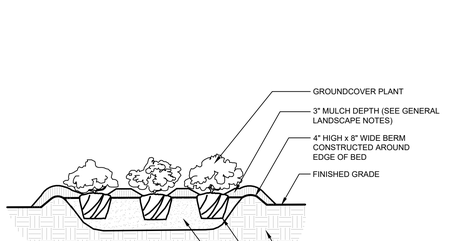
1/2" = 1'-0"



SHRUB AND ORNAMENTAL GRASS PLANTING NOTES:
1. ALL PLANT MATERIAL PRICING SHALL INCLUDE MULCH, BED PREPARATION, AND STAKING.
2. ALL PLANTING BEDS SHALL RECEIVE 3" (THREE INCHES) OF MULCH.
3. PLANT MATERIAL SPACING SHOWN ON LANDSCAPE PLANS SHALL OVERRIDE TYPICAL PLANT SPACING INDICATED ON PLANT SCHEDULE. LANDSCAPE CONTRACTOR RESPONSIBLE FOR VERIFYING ALL PLANT SPACING AND MAKING MINOR FIELD ADJUSTMENTS DUE TO UTILITY CONFLICTS.
4. ALL SHRUBS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MOST RECENT 'AMERICAN STANDARDS FOR NURSERY STOCK' PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (A.A.N.)
5. SOIL ANALYSIS SHALL BE OBTAINED PRIOR TO PLANTING. SOIL SHALL BE AMENDED AS RECOMMENDED BY CERTIFIED TESTING AGENCY.
6. SEE PLAN FOR SPACING.

3 C2.1 SHRUB AND ORNAMENTAL GRASS PLANTING

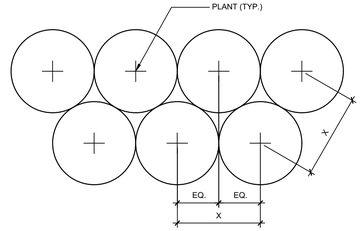
1/2" = 1'-0" SECTION



GROUNDCOVER NOTES:
1. SPLIT PLANT ROOTS WITH 2-3 EQUALLY SPACED VERTICAL CUTS

4 C2.1 GROUNDCOVER PLANTING

1/2" = 1'-0"



PLANT SPACING NOTES:
1. SEE PLANTING PLAN FOR GROUNDCOVER PLANTING AREAS.
2. PLANTS SHALL BE INSTALLED IN STRAIGHT AND PARALLEL ROWS UNLESS OTHERWISE SHOWN ON DRAWINGS.
3. SEE PLANT SCHEDULE FOR PLANT SPACING REQUIREMENTS ("X" DIMENSION IN THIS DETAIL).

5 C2.1 PLANT SPACING

1/2" = 1'-0"

GENERAL LANDSCAPE NOTES:
1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.
2. ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
3. ALL TREES MUST HAVE A STRAIGHT TRUNK AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
4. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
5. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
6. ALL TREES LOCATED WITHIN VEHICLE SIGHT TRIANGLES SHALL BE BRANCHED MIN. 8' (MEASURED FROM ADJACENT PROJECTED CURB LINE ELEVATION) PER ANSI Z60.1 STANDARDS FOR HEIGHT OF BRANCHING - STREET TREES.
7. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED. ANY EXISTING LANDSCAPE AREAS THAT ARE DISTURBED MUST BE MULCHED TO MATCH EXISTING MULCH FOUND WITHIN LANDSCAPE AREA. MULCH TO BE THREE(3) INCHES OF DOUBLE SHREDDED HARDWOOD DESIGNER MULCH IN DARK BROWN.
8. LOCATION OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASE UPON THE BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION. CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATING ALL UTILITY ADJUSTMENTS WITH FINAL FINISHED GRADE. ALL UTILITIES SHALL SIT FLUSH WITH FINISHED GRADES (BOTH PAVED AND LANDSCAPED SURFACES).
9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THE LANDSCAPE PLANS BEFORE PRICING THE WORK. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT LANDSCAPE ARCHITECT AND ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO ORDERING AND PLANTING.
10. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, WEEDING, FERTILIZING, ETC.) OF THE PLANTING AREAS AND LAWN UNTIL SUBSTANTIAL COMPLETION.
11. THE CONTRACTOR SHALL COMPLETELY WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE WARRANTEE PERIOD.
12. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION. CONTRACTOR SHALL CONTACT THE PROJECT LANDSCAPE ARCHITECT A MINIMUM OF ONE (1) WEEK IN ADVANCE TO SCHEDULE STAKING.
13. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE MEETING ALL PLANT SCHEDULE SPECIFICATIONS.
14. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
15. SAFE, CLEARLY MARKED PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
16. ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
17. THE TOP OF ALL ROOT BALLS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE, AS BORN TO PREVIOUS GRADE AND GROWING CONDITIONS.
18. ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TREES AND SHRUBS THAT WILL MEET BOTH MINIMUM SIZE AND SPACING FOR TREE AND THE EDINA CODE OF ORDINANCES. FAILURE TO INSTALL PLANT MATERIAL PER THIS PLAN WILL JEOPARDIZE ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING INSPECTIONS OF PLANT MATERIAL.
20. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES & ORDINANCES REGARDING LANDSCAPING. GENERAL CONTRACTOR IS TO CLEAN THE ENTIRE SITE OF ALL CONSTRUCTION DEBRIS PRIOR TO FINAL INSPECTION.
21. THE CONTRACTOR SHALL INSTALL PERMEABLE NON-WOVEN GE0TEXTILE UNDER PLANTING BED MULCH IN ALL LANDSCAPE BEDS TO PREVENT WEED GROWTH.

SOIL AMENDMENT NOTES:
1. SOIL INSTRUCTIONS FOR ALL NEW PLANTING AREAS (INCLUDING SEED AREAS) AT PREVIOUSLY PAVED LOCATIONS: REMOVE ALL PAVEMENT, GRAVEL SUB-BASE, AND CONSTRUCTION DEBRIS. FOR ALL AREAS TO RECEIVE TREES, SHRUBS, GROUNDCOVERS, AND / OR ORNAMENTAL GRASSES; THE CONTRACTOR SHALL REMOVE EXISTING SOIL AND ADD 24" OF NEW TOPSOIL TO MEET THE PLANTING MIX STANDARDS. TOPSOIL SHALL BE TESTED BY A CERTIFIED SOIL TESTING AGENCY AND SHALL BE AMENDED PER THE RECOMMENDATIONS FOUND WITHIN THE SOILS ANALYSIS. FOR ALL AREAS TO RECEIVE SOD AND / OR SEED; THE CONTRACTOR SHALL REMOVE EXISTING SOIL AND ADD 3" OF NEW TOPSOIL TO MEET THE PLANTING MIX STANDARDS. TOPSOIL SHALL BE TESTED BY A CERTIFIED SOIL TESTING AGENCY AND SHALL BE AMENDED PER THE RECOMMENDATIONS FOUND WITHIN THE SOILS ANALYSIS.
2. SOIL INSTRUCTIONS FOR ALL EXISTING PLANTING AREAS (NOT PREVIOUSLY PAVED LOCATIONS): THE CONTRACTOR SHALL TAKE A MINIMUM OF FOUR (4) SAMPLES THROUGHOUT THE PROJECT SITE AND SHALL SUBMIT THEM TO BE TESTED TO A CERTIFIED SOIL TESTING AGENCY. THE CONTRACTOR SHALL AMEND ALL EXISTING SOIL WITHIN EXISTING DISTURBED PLANTING AREAS PER THE RECOMMENDATIONS FOUND WITHIN THE SOILS ANALYSIS. AREAS TO RECEIVE TREES, SHRUBS, GROUNDCOVERS, AND / OR ORNAMENTAL GRASSES SHALL BE AMENDED TO A DEPTH OF 6" MINIMUM. AREAS TO RECEIVE SOD SHALL BE AMENDED TO A DEPTH OF 3" MINIMUM.

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KHA PROJECT	016695119
DATE	3/11/2026
SCALE	AS SHOWN
DESIGNED BY	KAR
DRAWN BY	KAR
CHECKED BY	EGS

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6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

LANDSCAPE DETAILS

SHEET NUMBER
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GENERAL NOTES

1. AT ALL TIMES THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITION OF JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS. THE ENGINEERS JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTORS SAFETY MEASURES.
2. THE CONTRACTOR SHALL MAKE AN EXAMINATION OF THE SITE AND COMPARE THE SITE WITH THE DRAWINGS AND SPECIFICATIONS AND SATISFY HIMSELF AS TO CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL ASCERTAIN AND CHECK THE LOCATIONS OF ANY EXISTING STRUCTURES OR EQUIPMENT WHICH MAY AFFECT WORK THAT HAS TO BE PERFORMED, NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE IN CONTRACTOR'S BEHALF FOR ANY EXPENSE TO WHICH THE CONTRACTOR MAY BE PUT DUE TO FAILURE OR NEGLECT BY CONTRACTOR TO MAKE SUCH EXAMINATION.
3. ALL WORK SHALL BE COORDINATED WITH THE OWNER TO MAINTAIN CONTINUITY OF SERVICE AND MAXIMUM UTILIZATION OF THE OWNERS FACILITY.
4. ELECTRICAL WORK SHALL CONFORM TO THE NEC AND CURRENT ISSUES OF ALL NFPA, IBC, IFC, ANSI, OSHA, ASTM, NEMA, AND OTHER NATIONALLY PUBLISHED CODES OR STANDARDS SHALL APPLY TO THIS WORK UNLESS LOCAL JURISDICTION SUPERSEDES. THE MOST STRINGENT CODES SHALL APPLY.
5. NOTHING IN THE DRAWINGS OR SPECIFICATIONS IS INTENDED TO ALLOW A VIOLATION OF ELECTRICAL WORKING SPACE AROUND ELECTRICAL EQUIPMENT REQUIREMENT. ANY DEVIATION FROM THIS REQUIREMENT SHALL BE APPROVED IN WRITING, BY THE ENGINEER. THE CONTRACTOR SHALL RELOCATE ANY EQUIPMENT IN VIOLATION OF THE ELECTRICAL CODE AT HIS OWN COST.
6. PROVIDE PHENOLIC NAMEPLATE WITH WHITE LETTERING ON BLACK BACKGROUND FOR EACH ELECTRICAL EQUIPMENT. PROVIDE PERMANENT MEANS OF ATTACHMENT THAT WILL NOT VIOLATE NEMA RATING OR EQUIPMENT WARRANTY.
7. REFER TO THE DRAWINGS FOR LOCATIONS AND SPACE REQUIREMENTS OF ELECTRICAL EQUIPMENT. COORDINATE THE INSTALLATION OF ELECTRICAL EQUIPMENT WITH OTHER TRADES.
8. CONTRACTOR SHALL SECURE AND PAY FOR ELECTRICAL TRADE SPECIFIC CONSTRUCTION PERMITS, LICENSES, GOVERNMENTAL AND INSPECTION FEES NECESSARY FOR THE EXECUTION OF THE WORK, UNLESS OTHERWISE DIRECTED.
9. ELECTRICAL CONTRACTOR SHALL PROVIDE COMPLETE ELECTRICAL INSTALLATION IN ACCORDANCE WITH ESTABLISHED TECHNIQUES AND ACCEPTED PRACTICES AND ALL LOCAL, STATE, AND NATIONAL CODES HAVING JURISDICTION.
10. ELECTRICAL REQUIREMENTS SUCH AS CONDUIT ROUTING AND LOCATIONS OF ELECTRICAL DEVICES (RECEPTACLES, SWITCHES, FLOOR OUTLETS, CONDUIT STUBS, ETC.) SHOWN ON THESE PLANS ARE DIAGRAMMATIC AND SUBJECT TO VERIFICATION BY ELECTRICAL CONTRACTOR FOR THE INTERFACING OF THE ELECTRICAL WORK WITH THE INSTALLATION. CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO CLEAR THE OTHER FACILITIES EXCEPT AS SHOWN DIMENSIONED ON THE ARCHITECTURAL DRAWINGS OR AS APPROVED BY THE ARCHITECT.
11. ELECTRICAL EQUIPMENT SHOWN OR SPECIFIED FOR THIS PROJECT HAS BEEN GENERALLY SELECTED BASED ON DIMENSIONS TO FIT THE SPACE. THE CONTRACTOR SHALL VERIFY EQUIPMENT DIMENSIONS AND/OR ANY INTERFERENCES PRIOR TO ORDERING THE EQUIPMENT.
12. MANUFACTURER'S RECOMMENDATIONS FOR CONDUCTOR SIZING, CIRCUIT BREAKER OR FUSE RATING OF ELECTRICALLY OPERATED EQUIPMENT MAY DIFFER FROM THOSE INDICATED ON DRAWINGS. CONTRACTOR SHALL CONFIRM RATINGS PRIOR TO ORDERING EQUIPMENT.
13. ALL EMPTY OR SPARE CONDUIT NOTED SHALL HAVE PULL ROPES OR WIRES INSTALLED, TENSILE STRENGTH MINIMUM OF 200 FT/LBS.
14. CONTRACTOR SHALL PROVIDE PULL BOX(S) AS REQUIRED TO COMPLY WITH NEC ARTICLE 314.
15. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES OR OTHER APPROVED NRTL, AND SHALL BEAR THEIR LABEL. ALL CONTROL PANELS SHALL BE SO LISTED AS AN ASSEMBLY.
16. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, FEES AND EQUIPMENT SPECIFIED. INDICATED OR IMPLIED IN THESE DOCUMENTS TO ACCOMPLISH THE CONSTRUCTION IN A PROFESSIONAL, WORKMANLIKE MANNER. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION TASKS INDICATED AND LOCAL CODES AND/OR ORDINANCES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR AND/OR OWNER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK AT ISSUE.
17. ANY WORK INSTALLED INCORRECTLY, OR BEFORE APPROVAL HAS BEEN OFFICIALLY GRANTED FOR THOSE ITEMS AT ISSUE, SHALL BE CORRECTED BY THE ELECTRICAL CONTRACTOR AT NO CHARGE TO OWNER/ARCHITECT/CLIENT.
18. ALL MATERIALS AND EQUIPMENT FURNISHED BY THE CONTRACTOR SHALL BE NEW AND COMPLETELY SERVICEABLE UNLESS OTHERWISE SPECIFIED.
19. CONTRACTOR SHALL COORDINATE ROUGH-IN AND FINAL CONNECTION REQUIREMENTS WITH THE OWNER, EQUIPMENT SUPPLIERS, GENERAL CONTRACTOR AND OTHER BUILDING TRADES BEFORE PROCEEDING WITH ANY FURTHER RELATED WORK. INSTALLATIONS SHALL BE IN FULL ACCORDANCE WITH EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND REQUIRED CODES. CONFLICTS AND INTERFERENCES SHALL BE RESOLVED IMMEDIATELY, BEFORE ANY INSTALLATION BEGINS.
20. FINAL ACCEPTANCE OF WORK IN PLACE SHALL BE SUBJECT TO APPROVAL BY OWNER'S REPRESENTATIVE AND ARCHITECT/ENGINEER. INSTALLATION APPROVAL SHALL BE BASED ON APPROVED SUBMITTALS, SHOP DRAWINGS AND LOCAL INSPECTION.
21. CONTRACTOR SHALL SUBMIT "FOR RECORD" MARKUP DRAWINGS WITHIN TWO (2) WEEKS AFTER DATE OF NOTIFICATION OF FINAL APPROVAL OF WORK-IN-PLACE. CONTRACTOR'S FINAL INVOICE WILL NOT BE PAID WITHOUT COMPLETE DOCUMENTATION.
22. CONTRACTOR SHALL WARRANT ALL WORKS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE OF WORK-IN-PLACE. CONTRACTOR SHALL REPAIR OR REPLACE ANY DEFECTIVE WORK INCLUDING MATERIALS AND EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER WITHIN WARRANTY PERIOD.
23. THE CONTRACTOR SHALL PROVIDE ALL FUSES AND OVERLOAD HEATER ELEMENTS REQUIRED FOR THIS CONTRACT INSTALLATION INCLUDING ANY FUSES BLOWN DURING INITIAL TESTING.
24. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO ALL PAVING. IF DAMAGE OCCURS DURING CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER TO PATCH, PAINT AND REPAIR TO MATCH EXISTING CONDITIONS.
25. CONDUIT AND WIRE SCHEDULE FOR NEW EQUIPMENT ARE GENERALLY INDICATIVE. CONTRACTOR SHALL REFER TO MANUFACTURER AND SUPPLIER OF EQUIPMENT FOR DETAILED WIRING DIAGRAM AND VERIFY THE EXACT ROUTING AND CONDUCTOR SIZE.
26. THE CONTRACTOR SHALL REFER TO MANUFACTURER AND SUPPLIER OF ELECTRICAL CONTROL EQUIPMENT FOR EXACT WIRING INTERCONNECTION.
27. ALL CONDUCTORS SHALL BE ALUMINUM OR COPPER STRANDED, AND HAVE INSULATION TEMPERATURE RATING 90°C, UNLESS OTHERWISE NOTED.
28. IDENTIFICATION OF GROUNDED CONDUCTORS SHALL BE IN ACCORDANCE WITH NEC 200.6. IDENTIFICATION OF EQUIPMENT GROUNDING CONDUCTORS SHALL BE IN ACCORDANCE WITH NEC 250.19. IDENTIFICATION OF UNGROUNDED CONDUCTORS IS REQUIRED FOR MULTIWIRE CIRCUITS AND SHALL BE AS FOLLOWS:

SYSTEM	480Y/277V	208Y/120V	120/240V 1-PHASE
PHASE A	BROWN	BLACK	BLACK (LINE 1)
PHASE B	ORANGE	RED	RED (LINE 2)
PHASE C	YELLOW	BLUE	
NEUTRAL	GRAY	WHITE	

29. USE WIRE IDENTIFICATION COLOR CODE PER SPECIFICATIONS BELOW.

COLOR	DESCRIPTION
LT. BLUE	INTRINSICALLY SAFE CIRCUITS
GREEN	EQUIPMENT GROUNDING CONDUCTOR
YELLOW	CONTROL CIRCUITS SUPPLIED FROM EXTERNAL POWER SOURCE, INTERLOCKS

30. THE ELECTRICAL DESIGN AND EQUIPMENT RATINGS ARE BASED ON ELECTRICAL SYSTEM STUDIES WHICH MAY INCLUDE: LOAD FLOW, SHORT CIRCUIT, ARC FLASH, RELAY COORDINATION, GROUNDING, AND CABLE SIZING.

ACCEPTANCE TESTING

THE FOLLOWING TESTS SHALL BE PERFORMED PRIOR TO ENERGIZATION OF THE SYSTEM WHEN APPLICABLE:
TEST RESULTS SHALL BE MADE AVAILABLE TO THE ENGINEER OF RECORD OR BUILDING OFFICIAL UPON REQUEST.

1. GROUND-FAULT PROTECTION EQUIPMENT
   - 1.1. VERIFY PICKUP AND TIME DELAY SETTINGS ARE IN ACCORDANCE WITH SETTINGS PROVIDED BY THE ENGINEER OR EQUIPMENT MANUFACTURER.
2. ELECTRICAL TESTS SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS AND OTHER EQUIPMENT RATED 1000 AMPERES OR MORE, OR OVER 1000 VOLTS.
   - 2.1. RELAY PICKUP CURRENT BY CURRENT INJECTION AT THE SENSOR AND OPERATION OF THE CIRCUIT INTERRUPTING DEVICE
   - 2.2. TEST RELAY TIMING.
   - 2.3. TEST PRIMARY CONTROL VOLTAGE AT NOT MORE THAN 57 PERCENT OF ITS RATED VOLTGROUNDED CONDUCTOR INSULATION RESISTANCE
   - 2.4. VERIFICATION OF CONTINUITY OF EQUIPMENT GROUNDING SYSTEM.
   - 2.5. INSULATION RESISTANCE TEST ON EACH BUS AND PROTECTIVE DEVICE, PHASE-TO-PHASE AND PHASE-TO-GROUND.
   - 2.6. DIELECTRIC VOLTAGE-WITHSTAND TEST ON EACH BUS AND PROTECTIVE DEVICE, PHASE-TO-PHASE AND PHASE-TO-GROUND.
   - 2.7. CONTROL POWER TRANSFORMER, CONTROL POWER CIRCUITS AND POTENTIAL CIRCUITS.
   - 2.8. CONTROL AND PROTECTIVE DEVICES FOR PROPER OPERATION.
3. ELECTRICAL TESTS ON TRANSFORMERS RATED 100 KVA OR MORE SINGLE PHASE AND 300 KVA OR MORE THREE PHASE.
   - 3.1. INSULATION RESISTANCE TEST ON EACH WINDING. TEST WINDING-TO-WINDING AND WINDINGS-TO-GROUND.
   - 3.2. TURNS-RATIO TEST FOR EACH WINDING AT ALL TAP SETTINGS.
   - 3.3. CONTROL POWER TRANSFORMER, CONTROL POWER CIRCUITS AND POTENTIAL CIRCUITS.
   - 3.4. CONTROL AND PROTECTIVE DEVICES FOR PROPER OPERATION.
4. CONDUCTORS THAT SUPPLY EQUIPMENT RATED AT 1000 AMPERES OR MORE, OR OVER 1000 VOLTS
   - 4.1. INSULATION RESISTANCE TEST ON EACH CONDUCTOR, PHASE-TO-PHASE AND PHASE-TO-GROUND.
   - 4.2. DC HIGH-POTENTIAL TEST ON EACH CONDUCTOR, PHASE-TO-PHASE AND PHASE-TO-GROUND.
   - 4.3. ELECTRICAL TESTS ON EMERGENCY AND STANDBY POWER SYSTEMS: SWITCHBOARDS, PANELBOARDS, DISTRIBUTION BOARDS, POWER SOURCE, CONDUCTORS, CONTROL AND PROTECTIVE DEVICES FOR PROPER OPERATION.
   - 4.4. PHASE ROTATION TEST
   - 4.5. INSULATION RESISTANCE TEST ON FEEDER CONDUCTORS AND EQUIPMENT, PHASE-TO-PHASE AND PHASE-TO-GROUND
   - 4.6. CONDUCT OPERATIONAL TEST ON SYSTEM UNDER LOAD CONDITIONS.

QUALITY ASSURANCE NOTES

1. FOLLOW AND ADHERE TO ALL MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. ALL BACKFILL AND COMPACTION SHALL COMPLY WITH GEOTECH REPORT.
3. ALL ELECTRICAL TERMINATIONS SHALL BE TORQUED TO MANUFACTURERS' SPECIFICATIONS. WHERE THEY ARE NOT SPECIFIED, REFER TO UL STANDARDS 486A AND 486B. FINAL TORQUE TEST DOCUMENTATION SHALL BE PROVIDED TO OWNER OR HIS REPRESENTATIVE, WITH ONE OR THE OTHER IN WITNESS AT RANDOM TIMES.
4. LINE AND LOAD CONDUCTORS SHALL BE BRACED AND SUPPORTED (LASHED, HELD FIRMLY IN PLACE) IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND NECA/IBEW APPROVED INSTALLATION PRACTICES.

EQUIPMENT SPECIFICATIONS

THE FOLLOWING EQUIPMENT SPECIFICATION AND SUBMITTALS SHALL BE PROVIDED TO AND APPROVED BY THE ENGINEER OF RECORD PRIOR TO INSTALLATION:

- ELECTRICAL EQUIPMENT INCLUDING: SWITCHGEAR, PANELBOARDS, AND SAFETY SWITCHES.
- CONDUCTORS AND CABLES INCLUDING: LOW VOLTAGE CABLES, AND CONTROL CABLES
- PROTECTIVE DEVICES INCLUDING: CIRCUIT BREAKERS, FUSES, RELAYS, AND PROTECTION SETTINGS.
- ELECTRIC VEHICLE CHARGING STATIONS
- LIGHTING (IF APPLICABLE)

ABBREVIATIONS

A, AMPS	AMPERES
AB	ANCHOR BOLT
A/C	AIR CONDITIONER
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
AS	AMPERE SWITCH
AT	AMPERES TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CB	CIRCUIT BREAKER
CC	CENTER TO CENTER
CCS1/CCS2	COMBINED CHARGING SYSTEM TYPE 1/2
CEC	CALIFORNIA ELECTRICAL CODE
CHAdeMO	CHArge de MOve (EV CHARGING STANDARD)
CKT	CIRCUIT
℄	CENTER LINE
CLG	CEILING
CLR	CLEAR
CO	CONDUIT ONLY WITH PULL ROPE
CONC	CONCRETE
CU	COPPER
DB	DIRECT BURIAL
DC	DIRECT CURRENT
DIA	DIAMETER
DN	DOWN
DP	DISTRIBUTION PANEL
DWG	DRAWING
EM	EMERGENCY
EGC	EQUIPMENT GROUNDING CONDUCTOR
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EQ	EQUAL
EQUIP	EQUIPMENT
EV	ELECTRIC VEHICLE
(E)	EXISTING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPERES
(F)	FUTURE
GEC	GROUNDING ELECTRODE CONDUCTOR
GND	GROUND
GALV	GALVANIZED
GRS	GALVANIZED RIGID STEEL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HH	HANDHOLE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
ISC	INTERRUPTING SHORT CIRCUIT
IG	ISOLATED GROUND
INST	INSTANTANEOUS
JB	JUNCTION BOX
KAIC	KILO AMPERES INTERRUPTION CAPACITY
KCMIL	KILO CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT-AMPERES KW KILO WATTS
KWH	KILO WATT-HOURS
LCP	LIGHTING CONTROL PANEL
LTG	LIGHTING
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCB	MAIN CIRCUIT BREAKER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MSB	MAIN SWITCHBOARD
MSG	MAIN SWITCHGEAR
MV	MEDIUM VOLTAGE
MVA	MEGA VOLT AMPERES
(N)	NEW
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NRTL	NATIONAL RECOGNIZED TESTING LABORATORY
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OH	OVERHEAD
PH, Ø	PHASE
PB	PUSHBUTTON
PDU	POWER DISTRIBUTION UNIT
PNL	PANEL
POCC	POINT OF COMMON CONNECTION
PV	PHOTOVOLTAIC
PVC	POLYVINYL CHLORIDE
RELT	REDUCED ENERGY LET THROUGH
(R)	EXISTING TO BE REMOVED
(RE)	NEW LOCATION OF RELOCATED DEVICE
(RL)	EXISTING TO BE RELOCATED
SCA	SHORT CIRCUIT AVAILABLE
SEC	SECONDARY
SPECS	SPECIFICATIONS
STD	STANDARD
STP	SHIELDED TWISTED PAIR
SWBD	SWITCHBOARD
SYM	SYMMETRICAL
TBD	TO BE DETERMINED
TD	TIME DELAY
TEL	TELEPHONE
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPB	UNDERGROUND PULLBOX
UTP	UNSHIELDED TWISTED PAIR
V	VOLTS
VA	VOLT-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
VFI	VACUUM FUSED INTERRUPTER
VP	VAPORPROOF
W	WATTS, WIRE
WH	WATER HEATER
WP	WEATHERPROOF
WT	WATERTIGHT
XFMR	TRANSFORMER
XLPE	CROSS-LINKED POLYETHYLENE
XP	EXPLOSION PROOF

SYMBOLS

(M)	METER
	GROUND
	TRANSFORMER
	LOW VOLTAGE CIRCUIT BREAKER
	LOW VOLTAGE DRAW OUT CIRCUIT BREAKER
	CURRENT TRANSFORMER (CT)
	POTENTIAL TRANSFORMER (PT)
	FUSE
	SWITCH

ELECTRICAL SCOPE OF WORK RESPONSIBILITIES

	SCOPE	BY UTILITY	BY CUSTOMER
PRIMARY	PRIMARY TRENCHING		X
	INSTALL PRIMARY CONDUIT		X
	INSTALL PULL ROPE		X
	INSTALL PRIMARY FEEDERS	X	
	PROVIDE ROAD CUTS/ROAD BORES		X
	PAVEMENT REPLACEMENT		X
TRANSFORMER	INSTALL TRANSFORMER PAD		X
	PROVIDE TRANSFORMER	X	
	INSTALL TRANSFORMER	X	
	INSTALL CONNECTIONS - PRIMARY	X	
	INSTALL CONNECTIONS - SECD		X
SWITCHBOARD	PROVIDE METER	X	
	INSTALL METER		X
	LAND SECONDARY FEEDERS		X
SECONDARY	SECONDARY TRENCHING		X
	INSTALL SECONDARY CONDUIT		X
	INSTALL PULL ROPE		X
	INSTALL SECONDARY FEEDERS		X
	PROVIDE SECONDARY FEEDERS		X
	PROVIDE ROAD CUTS/ROAD BORES		X
	PAVEMENT REPLACEMENT		X

PENDING UTILITY CONFIRMATION

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KHA PROJECT 016895119
DATE 3/11/2026
SCALE AS SHOWN
DESIGNED BY JCS
DRAWN BY EJB
CHECKED BY JCS

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6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

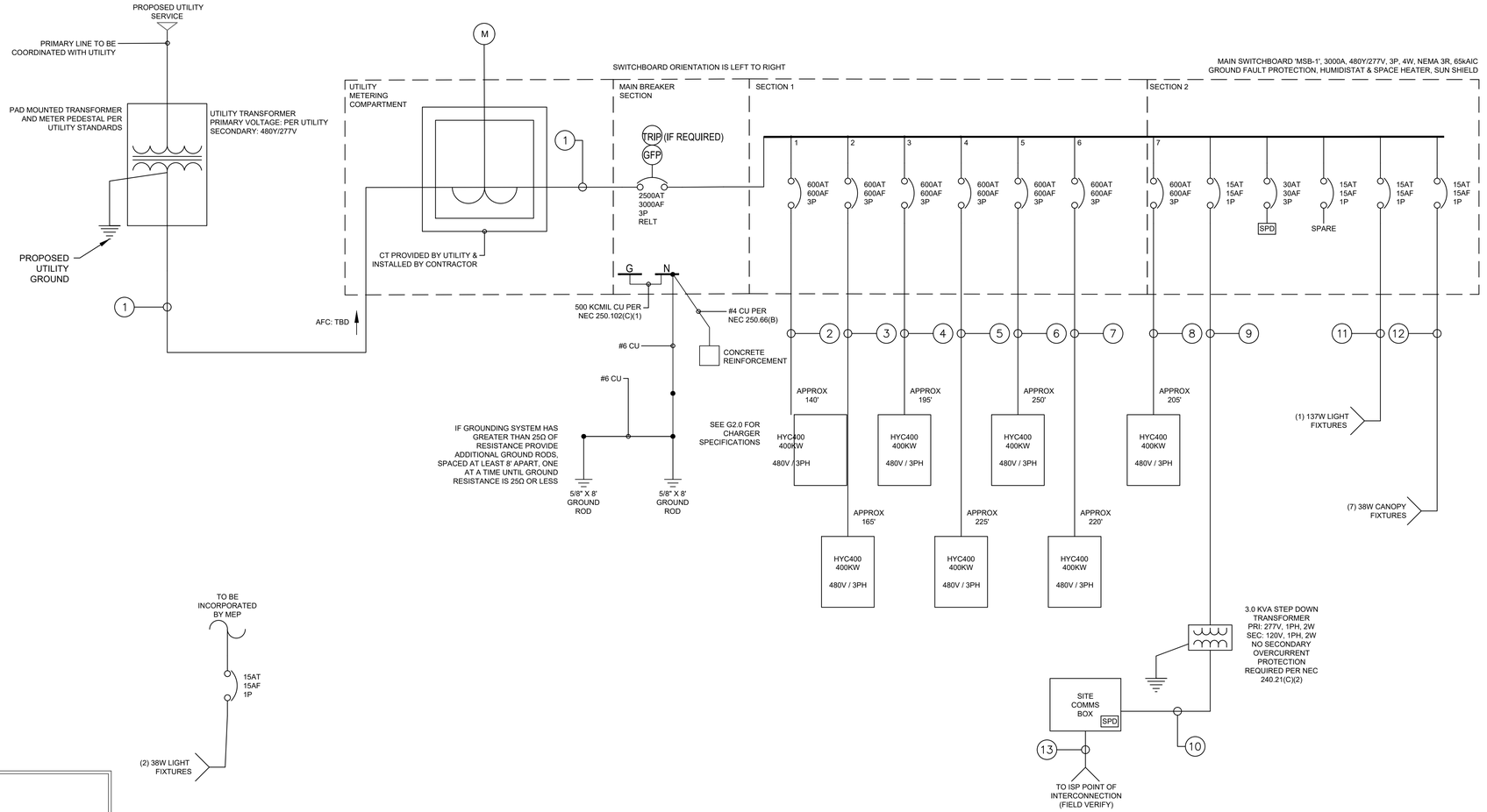
ELECTRICAL NOTES

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SINGLE LINE DIAGRAM NOTES

1. METER PLACEMENT, CT CABINET, AND FINAL SWITCH BOARD/DISTRIBUTION DESIGN TO BE COORDINATED ACCORDING TO UTILITY REQUIREMENTS. CONTRACTOR TO PROVIDE METER SOCKET (METER ENCLOSURE) PER LISTED ON THE UTILITY'S APPROVED METER ENCLOSURE LIST.
2. THE MAIN CIRCUIT BREAKER IN THIS SWITCHBOARD SHALL BE 100% RATED.
3. PROVIDE GROUND FAULT PROTECTION (GFP) FOR EQUIPMENT PER NEC ARTICLE 230.95.
4. SEE UTILITY POWER MANUAL FOR ADDITIONAL INFORMATION.
5. THIS SERVICE EQUIPMENT SHALL BE FIELD MARKED IN COMPLIANCE WITH ALL REQUIREMENTS STATED IN NEC ARTICLES 110.24(A) AND 230.70(B).
6. WHEN REQUIRED BY LOCAL AHJ "BREAK GLASS IN CASE OF FIRE" SWITCH IS TO BEPROVIDED BY EC. SWITCH SHALL BE EQUIVALENT TO PILLA ST120SN3RSL-EMERGENCY SHUT DOWN: EMERGENCY BREAK GLASS STATION, LEGEND: "EMERGENCY SHUT-DOWN", NO PUSH BUTTON, AUTO-RELEASE WHEN GLASS BROKEN, SURFACE MOUNT NEMA 3R ENCLOSURE, FITS 1-6 CONTACT BLOCKS OR EQUIVALENT.
7. PER NEC 625.42 IONNA IS SUPPLYING AUTOMATIC LOAD MANAGEMENT SYSTEM FOR THIS SITE.
8. ALL CONDUITS ABOVE GROUND OR SUBJECT TO DAMAGE SHALL BE RIGID GALVANIZED STEEL. ALL CONDUITS UNDERGROUND SHALL BE PVC SCHEDULE 40.
9. INSTALLATION SHALL BE IN ACCORDANCE WITH LATEST ADOPTED NATIONAL ELECTRICAL CODE AND BUILDING CODE, CHAPTER 27. THE AHJ HAS FINAL JURISDICTIONAL AUTHORITY ON CODE APPLICATION AND COMPLIANCE.
10. ALL EQUIPMENT SHALL BE INSTALLED BY CONTRACTOR UNLESS OTHERWISE NOTED. ALL MATERIAL SHALL BE IN NEW CONDITION AND APPROVED BY THE ENGINEER.
11. ALL EQUIPMENT SHALL BE UL LISTED.
12. ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE ARC FLASH WARNING LABELS WITH APPLICABLE INCIDENT ENERGY LEVELS, WORKING DISTANCES, AND REQUIRED PPE IN ACCORDANCE WITH NFPA 70E.
13. EXPOSED NON-CURRENT CARRYING METAL PARTS OF EQUIPMENT AND ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC 250.134 AND 250.136.



CONDUIT AND WIRING SCHEDULE

ID	FROM	TO	CONDUCTORS
①	PROPOSED UTILITY TRANSFORMER (BY OTHERS)	PROPOSED 480V SWITCHBOARD	(3) 700 KCMIL AL (THWN-2) + (1) #1/0 AWG NEUTRAL AL (THWN-2) IN EACH OF (8) 4" SCH 40 PVC CONDUITS APPROX 45'
②	PROPOSED 480V SWITCHBOARD	PROPOSED HYC400 POWER CABINET	(3) 500 KCMIL AL (THWN-2) + (1) #2/0 AWG AL (THWN-2) GROUNDING IN EACH OF (2) 3" SCH 40 PVC CONDUITS APPROX 140'
③	PROPOSED 480V SWITCHBOARD	PROPOSED HYC400 POWER CABINET	(3) 500 KCMIL AL (THWN-2) + (1) #2/0 AWG AL (THWN-2) GROUNDING IN EACH OF (2) 3" SCH 40 PVC CONDUITS APPROX 165'
④	PROPOSED 480V SWITCHBOARD	PROPOSED HYC400 POWER CABINET	(3) 500 KCMIL AL (THWN-2) + (1) #2/0 AWG AL (THWN-2) GROUNDING IN EACH OF (2) 3" SCH 40 PVC CONDUITS APPROX 195'
⑤	PROPOSED 480V SWITCHBOARD	PROPOSED HYC400 POWER CABINET	(3) 500 KCMIL AL (THWN-2) + (1) #2/0 AWG AL (THWN-2) GROUNDING IN EACH OF (2) 3" SCH 40 PVC CONDUITS APPROX 225'
⑥	PROPOSED 480V SWITCHBOARD	PROPOSED HYC400 POWER CABINET	(3) 500 KCMIL AL (THWN-2) + (1) #2/0 AWG AL (THWN-2) GROUNDING IN EACH OF (2) 3" SCH 40 PVC CONDUITS APPROX 250'
⑦	PROPOSED 480V SWITCHBOARD	PROPOSED HYC400 POWER CABINET	(3) 500 KCMIL AL (THWN-2) + (1) #2/0 AWG AL (THWN-2) GROUNDING IN EACH OF (2) 3" SCH 40 PVC CONDUITS APPROX 220'
⑧	PROPOSED 480V SWITCHBOARD	PROPOSED HYC400 POWER CABINET	(3) 500 KCMIL AL (THWN-2) + (1) #2/0 AWG AL (THWN-2) GROUNDING IN EACH OF (2) 3" SCH 40 PVC CONDUITS APPROX 205'
⑨	PROPOSED 480V SWITCHBOARD	3.0 KVA STEP DOWN TRANSFORMER	(2) #12 AWG CU (THWN-2) + (1) #12 AWG CU (THWN-2) GROUNDING IN (1) 3/4" SCH 40 PVC CONDUIT
⑩	3.0 KVA STEP DOWN TRANSFORMER	SITE COMMS BOX	(2) #10 AWG CU (THWN-2) + (1) #10 AWG CU (THWN-2) JUMPER IN (1) 3/4" SCH 40 PVC CONDUIT
⑪	PROPOSED 480V SWITCHBOARD	SITE LIGHTING	(2) #12 AWG CU (THWN-2) + (1) #12 AWG CU (THWN-2) GROUNDING IN (1) 1" SCH 40 PVC CONDUIT
⑫	PROPOSED 480V SWITCHBOARD	CANOPY LIGHTING	(2) #12 AWG CU (THWN-2) + (1) #12 AWG CU (THWN-2) GROUNDING IN (1) 1" SCH 40 PVC CONDUIT
⑬	ISP POINT OF CONNECTION (FIELD LOCATE)	SITE COMMS BOX	(1) 1" SCH 40 PVC CONDUIT FOR ISP FIBER OPTIC CABLE

WIRE AND CONDUIT SCHEDULE NOTES

1. CONDUIT SIZE INDICATED ON SCHEDULE ARE MINIMUM REQUIRED SIZES. LARGER SIZES MAY BE INSTALLED AS NEEDED.

2 WIRE AND CONDUIT SCHEDULE

IONNA SITE ELECTRICAL INFORMATION		
SITE ZIP CODE:	55436	
UTILITY NAME:	XCEL ENERGY	
UTILITY CONTACT:	KIERAN SCHWARTZ	
UTILITY CONTACT (PN):	612-494-4271	
UTILITY CONTACT (EM):	KIERAN.E.SCHWARTZ@XCELENERGY.COM	
IONNA QUANTITY OF CHARGERS:	7	
IONNA LOAD FLA (A):	3360	
IONNA LOAD (60% MANAGED) (A):	2016	
UTILITY XFMR SIZING (KVA):	2000	
UTILITY XFMR CONFIGURATION	DELTA-WYE	
UTILITY SCA:	ESTIMATED @ 5% Z= 48,112	
UTILITY METERING SEQUENCE:	HOT	
UTILITY XFMR SEC CONDUCTOR:	9 SETS OF 600 KCMIL AL	
UTILITY XFMR SEC CONDUIT:	4"	
CHARGER FEEDER CONDUCTOR:	2 SETS OF 500 KCMIL AL	
CHARGER FEEDER CONDUIT:	3"	

3 UTILITY INFORMATION

Panel Schedule												
Panel 'MSB-1', Location: Minneapolis, Voltage: 480Y/277, Phase: 3, Wire: 4, Hertz: 60												
Main AIC: 65K, Branch AIC: 65K, Enclosure: (NEMA 3R)												
3000 Amp Frame, Ground Fault Protection, Humidstat, Space Heater, Sun Shield												
Description of Load Served	Breaker		A/Phase			CKT No.	CKT No.	A/Phase			Breaker		Description of Load Served
	Amp	Pole	A	B	C			A	B	C	Amp	Pole	
EVCS DUAL PORT DISPENSER #1	600	3	480.0			1	2	480.0			600	3	EVCS DUAL PORT DISPENSER #2
				480.0		3	4		480.0				
					480.0	5	6			480.0			
EVCS DUAL PORT DISPENSER #3	600	3	480.0			7	8	480.0			600	3	EVCS DUAL PORT DISPENSER #4
				480.0		9	10		480.0				
					480.0	11	12			480.0			
EVCS DUAL PORT DISPENSER #5	600	3	480.0			13	14	480.0			600	3	EVCS DUAL PORT DISPENSER #6
				480.0		15	16		480.0				
					480.0	17	18			480.0			
EVCS DUAL PORT DISPENSER #7	600	3	480.0			19	20	10.8			15	1	3.0 KVA XFMR
				480.0		21	22		-				
					480.0	23	24			-	30	3	SPD
						25	26	-					
CANOPY LIGHTING	15	1		1.0		27	28		-		15	1	SPARE
						29	30			0.5	15	1	SITE LIGHTING
	Total A/Phase:		3370.8	3361.0	3360.5								
NOTES:	1. CONNECTED KVA (NEW):		2802.4										
	2. DEMAND KVA (NEW):		1685.0	SEE NOTE 1 BELOW									

LOAD SUMMARY NOTE

1. ELECTRIC VEHICLE CHARGING LOADS ARE PART OF AUTOMATIC LOAD MANAGEMENT SYSTEM PER NEC 625.42. CHARGING LOADS WILL BE LIMITED TO THE VALUES SHOWN IN THE PANEL SCHEDULE AND THE TOTAL LOAD SHALL NOT EXCEED MAIN CIRCUIT BREAKER LONG TIME SETTING RATING OF SWITCHBOARD 'EV' NOR THE UTILITY TRANSFORMER.

4 SWITCHBOARD LOAD SCHEDULE

PENDING UTILITY DESIGN

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DATE	3/11/2026
SCALE	AS SHOWN
DESIGNED BY	JCS
DRAWN BY	EJB
CHECKED BY	JCS

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SINGLE LINE DIAGRAM

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GENERAL NOTES

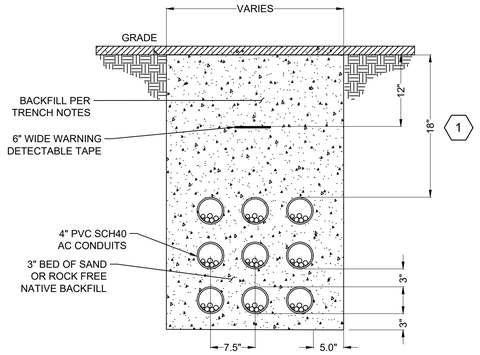
1. INSTALL 4 MIL. THICK, NON-METALLIC, RED COLORED, 6" WIDE WARNING TAPE OVER CENTERLINE OF THE DUCT AND BELOW THE BASE COURSE ALONG THE ENTIRE LENGTH OF TRENCH. TAPE SHOULD BE MARKED WITH "CAUTION BURIED ELECTRIC LINE BELOW". PAYMENT FOR THE FURNISHING AND INSTALLATION OF THE WARNING TAPE SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE PIPE. PROVIDE DETECTABLE DUCT WARNING TAPE 12" BELOW FINISH GRADE OR PAVEMENT DIRECTLY ABOVE DUCTS.
2. INSTALL ELECTRONIC MARKER AT A MINIMUM CLEARANCE OF 6-INCHES, WHERE POSSIBLE. INSTALL MARKER ON OR ABOVE CONCRETE JACKETS, IF APPLICABLE.
3. ALL DUCTS SHALL BE PVC SCHEDULE 40, UNLESS OTHERWISE NOTED.

TRENCH NOTES

1. TRENCH BACKFILL SHOULD BE CONTROLLED LOW STRENGTH MATERIAL (SLURRY) WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 150 PSI OR NATIVE BACKILL TESTED TO CONFIRM A MAXIMUM RHO VALUE OF 90.
2. COMPACTION MEANS AND METHODS SHALL BE DETERMINED BY TRENCHING CONTRACTOR. SLURRY TO HAVE A COMPACTION OF 100% AND NATIVE BACKFILL TO HAVE A MINIMUM COMPACTION OF 80% IN LANDSCAPED AREAS AND 90% FOR DRIVE AREAS.
3. TRENCH CONSTRUCTION SHALL COMPLY WITH OSHA REQUIREMENTS.
4. PROVIDE MIN 12" SEPARATION FROM ANY EXISTING UTILITIES, IF APPLICABLE.
5. SOILS CONSISTING OF ROCKS NO LONGER THAN 0.5" IN DIAMETER SHALL BE CONSIDERED ROCK FREE.
6. CONTRACTOR SHALL HAND DIG AROUND ALL UTILITIES.

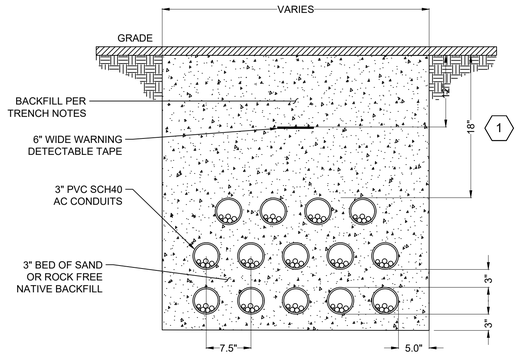
(1) MINIMUM BURIAL DEPTH IS 24" UNDER STREETS, DRIVEWAYS AND PARKING LOTS AND 18" MINIMUM DEPTH UNDER LANDSCAPING AREA PER NEC TABLE 300.5.

STANDARD TRENCH NOTES | SCALE N.T.S. | 1



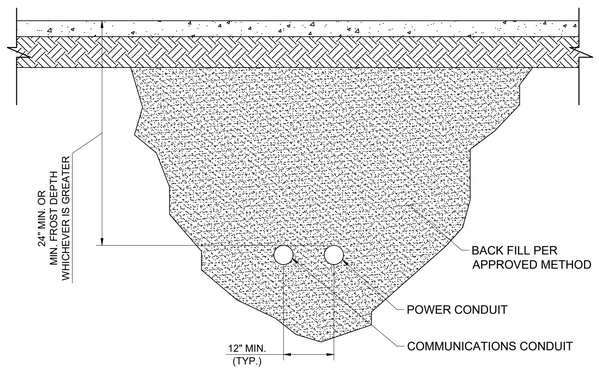
SEE SINGLE-LINE DIAGRAM FOR CONDUIT QUANTITIES AND CONDUCTOR SIZES

TRENCH DETAIL - TRANSFORMER TO SWITCHBOARD | SCALE N.T.S. | 2



EACH CHARGING STATION RECEIVES (2) 3" CONDUITS - SEE SINGLE-LINE DIAGRAM FOR CONDUIT QUANTITIES AND CONDUCTOR SIZES

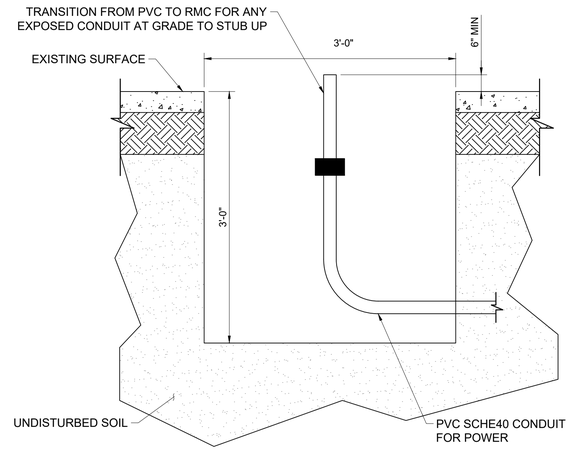
TRENCH DETAIL - SWITCHBOARD TO CHARGER | SCALE N.T.S. | 3



NOTES:

1. EXACT CONDUIT DIAMETERS MAY VARY UPON INSTALLATION. CONDUIT SIZES PER CONDUIT SCHEDULE.
2. SEE ELECTRICAL ONE LINE FOR CONDUIT QUANTITIES.

BORE SECTION DETAIL | SCALE N.T.S. | 4



NOTE:

1. EXACT CONDUIT DIAMETERS MAY VARY UPON INSTALLATION. CONDUIT SIZES PER CONDUIT SCHEDULE.

BORE PIT DETAIL | SCALE N.T.S. | 5

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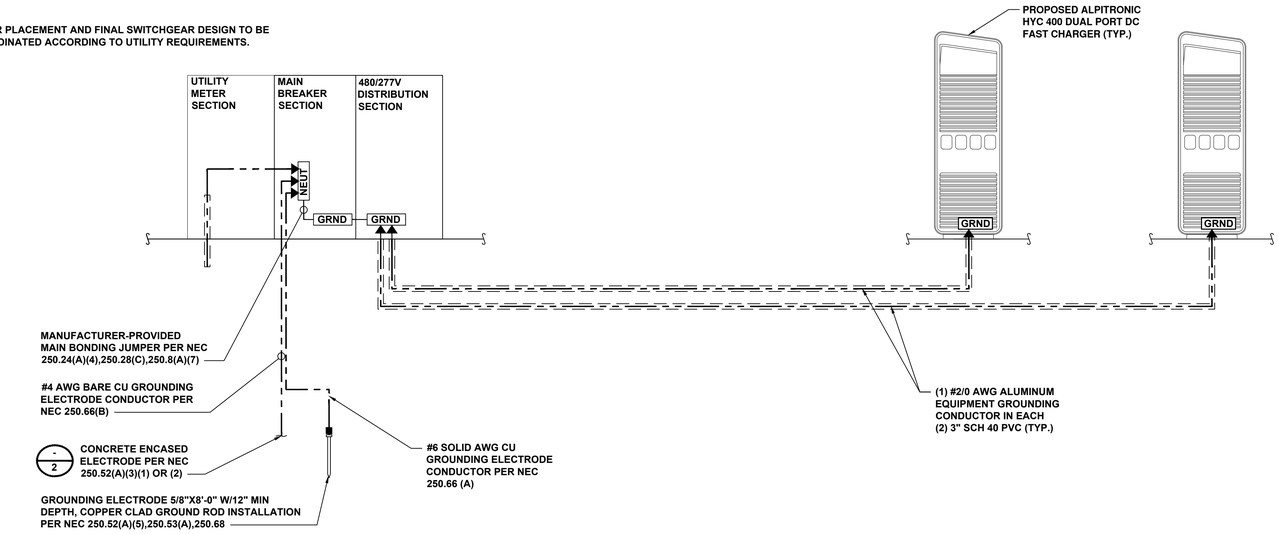
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NOTE:
1. METER PLACEMENT AND FINAL SWITCHGEAR DESIGN TO BE COORDINATED ACCORDING TO UTILITY REQUIREMENTS.

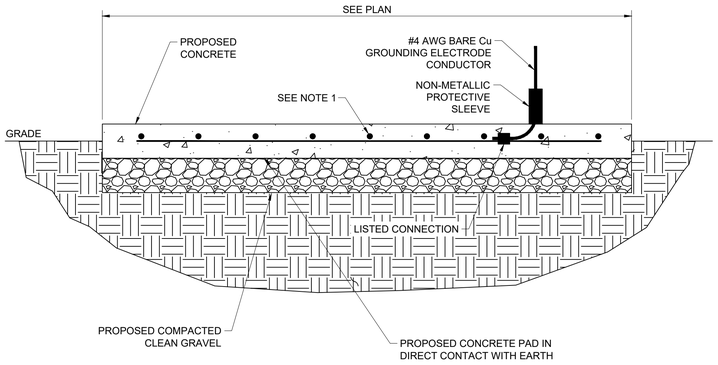


GROUNDING SCHEMATIC

SCALE N.T.S. | 1

NOTE:

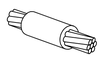
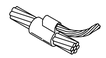
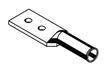
REBAR BONDED TOGETHER WITH STEEL TIE WIRES OR EXOTHERMIC WELDING.



CONCRETE ENCASED ELECTRODE DETAIL

SCALE N.T.S. | 2

CADWELD CONNECTIONS
OR ENGINEER APPROVED EQUAL

 **CABLE TO REBAR** TEE CONNECTION HORIZONTAL CABLE TAP TO VERTICAL REBAR TYPE RJ	 **HORIZONTAL SPLICE** SPLICE OF HORIZONTAL CABLES TYPE SS	 **PARALLEL HORIZONTAL CONDUCTORS** PARALLEL THROUGH CONNECTION OF HORIZONTAL CABLES TYPE PT
BURNDY CONNECTIONS OR ENGINEER APPROVED EQUAL	 **HORIZONTAL STEEL SURFACE** TO FLAT STEEL SURFACE OR HORIZONTAL PIPE TYPE HS	 **PARALLEL HORIZONTAL CONDUCTORS** PARALLEL DEAD END TAP OR HORIZONTAL THRU CONDUCTOR TYPE PC
 **BOND JUMPER** FIELD FABRICATED GREEN STRANDED INSULATED TYPE 2-YA-2	 **VERTICAL PIPE** CABLE DOWN AT 45° TO RANGE OF VERTICAL PIPES TYPE VS	 **VERTICAL STEEL SURFACE** CABLE DOWN AT 45° TO VERTICAL STEEL SURFACE INCLUDING PIPE TYPE VS
 **COPPER LUGS** TWO HOLE - LONG BARREL LENGTH TYPE YA-2	 **HORIZONTAL TEE** TEE OF HORIZONTAL RUN AND TAP CABLES TYPE TA	 **THROUGH CABLE TO GROUND ROD** THROUGH CABLE TO TOP OF GROUND ROD TYPE GT

CADWELD CONNECTION DETAIL

SCALE N.T.S. | 3

NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. 2023 NEC 250.121(A) EXCEPTION: A WIRE-TYPE EQUIPMENT GROUNDING CONDUCTOR INSTALLED IN COMPLIANCE WITH 250.6(A) AND THE APPLICABLE REQUIREMENTS FOR BOTH THE EQUIPMENT GROUNDING CONDUCTOR AND THE GROUNDING ELECTRODE CONDUCTOR IN PARTS II, III, AND VI OF THIS ARTICLE SHALL BE PERMITTED TO SERVE AS BOTH AN EQUIPMENT GROUNDING CONDUCTOR AND A GROUNDING ELECTRODE CONDUCTOR.

GROUNDING NOTES

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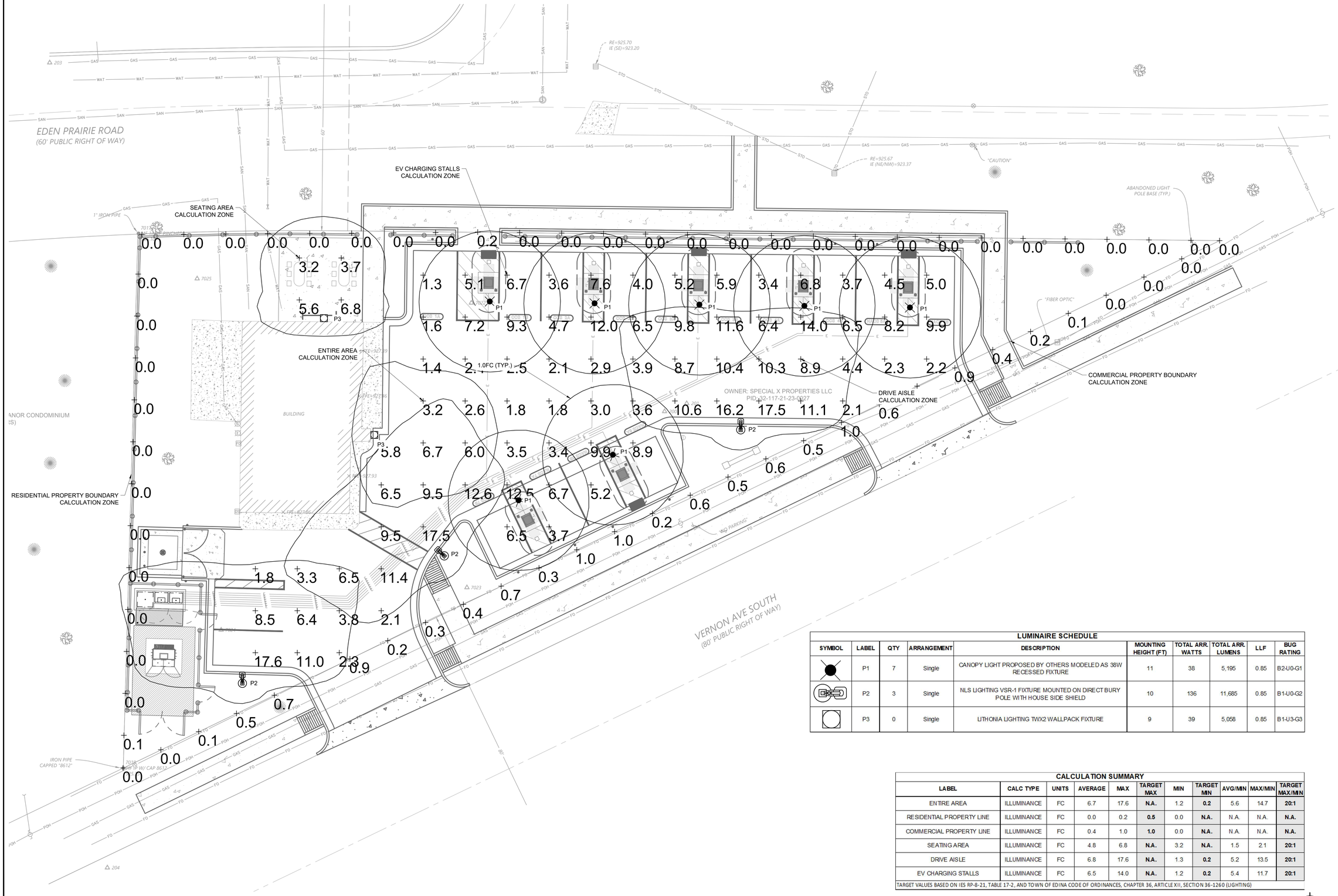
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LUMINAIRE SCHEDULE								
SYMBOL	LABEL	QTY	ARRANGEMENT	DESCRIPTION	MOUNTING HEIGHT (FT)	TOTAL ARR. WATTS	TOTAL ARR. LUMENS	LLF	BUG RATING
	P1	7	Single	CANOPY LIGHT PROPOSED BY OTHERS MODELED AS 38W RECESSED FIXTURE	11	38	5,195	0.85	B2-U0-G1
	P2	3	Single	NLS LIGHTING VSR-1 FIXTURE MOUNTED ON DIRECT BURY POLE WITH HOUSE SIDE SHIELD	10	136	11,685	0.85	B1-U0-G2
	P3	0	Single	LITHONIA LIGHTING TWX2 WALLPACK FIXTURE	9	39	5,058	0.85	B1-U3-G3

CALCULATION SUMMARY										
LABEL	CALC TYPE	UNITS	AVERAGE	MAX	TARGET MAX	MIN	TARGET MIN	AVG/MIN	MAX/MIN	TARGET MAX/MIN
ENTIRE AREA	ILLUMINANCE	FC	6.7	17.6	N.A.	1.2	0.2	5.6	14.7	20:1
RESIDENTIAL PROPERTY LINE	ILLUMINANCE	FC	0.0	0.2	0.5	0.0	N.A.	N.A.	N.A.	N.A.
COMMERCIAL PROPERTY LINE	ILLUMINANCE	FC	0.4	1.0	1.0	0.0	N.A.	N.A.	N.A.	N.A.
SEATING AREA	ILLUMINANCE	FC	4.8	6.8	N.A.	3.2	N.A.	1.5	2.1	20:1
DRIVE AISLE	ILLUMINANCE	FC	6.8	17.6	N.A.	1.3	0.2	5.2	13.5	20:1
EV CHARGING STALLS	ILLUMINANCE	FC	6.5	14.0	N.A.	1.2	0.2	5.4	11.7	20:1

TARGET VALUES BASED ON IES RP-8-21, TABLE 17-2, AND TOWN OF EDINA CODE OF ORDINANCES, CHAPTER 36, ARTICLE XII, SECTION 36-1260 (LIGHTING)

GRAPHIC SCALE IN FEET
0 5 10 20
1" = 10'
WHEN PRINTED AT FULL SIZE (30"x42")

NORTH

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SITE NO.: MN-0008 EDINA, MN

PHOTOMETRIC PLAN

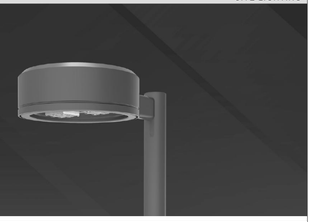
SHEET NUMBER
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NLS LIGHTING

VSR-1

SITE LIGHTING



LED WATTAGE CHART

Drive Current	320.	480.	640.
700 milliamps	71W	104W	136W
1050 milliamps	106W	156W	206W

FORM AND FUNCTION

- Sleek, low profile housing
- Engineered for optimum thermal management
- Low depreciation rate
- Optical system designed for:
  - Parking Lots
  - Commercial Applications

CONSTRUCTION

- Die Formed heavy duty Aluminum
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB

BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).

REV. 06.16.25

Project Name: | Type:

VSR-1 ORDERING GUIDE

Cat#

Value Series Round 1
(VSR-1)

Light Dist.

Standard Silicone Micro Optics

Type 2
(T2)

Type 3
(T3)

Type 4
(T4)

Type 5
(T5)

Performance Silicone Micro Optics

Type 4 Forward Throw Wide (For Perimeters)
(T4FTW)

Type 5 Wide (for brightness uniformity & wider pole spacing)
(T5W)

# of LEDs

Standard Configurations

32 LED
(32L)

48 LED
(48L)

64 LED
(64L)

Standard Configurations

32 LED
(32L)

48 LED
(48L)

64 LED
(64L)

Performance Plus Configurations*

64 LED
(64L)

Drive Current

700 mA
(7)

1050 mA
(1)

700 mA
(7)

1050 mA
(1)

350 mA
(35) †

530 mA
(53) †

Color Temp./CRI

Amber LED 591nm Dominant Wavelength Standard Turtle Friendly
(AMBER) 1,4,7, 19

Amber LED Phosphor Converted
(AMBERPC) 1,4,7, 19

2700K, 70 CRI
(27K7) †

2700K, 80 CRI
(27K8) †

3000K, 70 CRI
(30K7) †

3000K, 80 CRI
(30K8) †

3500K, 80 CRI
(35K8) †

4000K, 70 CRI
(40K7) †

4000K, 80 CRI
(40K8) †

5000K, 70 CRI
(50K7) †

5000K, 80 CRI
(50K8) †

Voltage

120-277V
(UNV)

347V -480V
(HV)

Mounting

Direct Pole 8' Arm DM28
(DP8S) 14

Direct Pole 10' Arm DM2, TM2, T1DS, Quad
(DP10S) 14

Wall Mount
(WM)

* For Round Poles Please order RPA Adaptor

Color

RAL 2008

Bronze Textured
(BRZ)

White Textured
(WHT)

Smooth White Gloss
(SWT)

Silver Metallic
(SVR)

Black Textured
(BLK)

Smooth Black Gloss
(SBK)

Graphite Textured
(GPH)

Grey Textured
(GRY)

Green Textured
(GRN)

Hunter Green Textured
(HGN)

Custom
(CS)

Controls Options

Nema 7-Pin Receptacle
(P7)

Photocell + Receptacle
(PCR)

Receptacle + Shorting Cap
(PER)

FSP-211 w/Motion Sensor/Photocell (120/277VAC,230-240VAC)

9' Height
(FSP211-9) 4,19

9'-20' Heights
(FSP211-20) 4,19

21'-40' Heights
(FSP211-40) 4,19

FSP-221 w/Motion Sensor/Photocell (100-347VAC, 208/230/480VAC)

9' Height
(FSP-HV-9)11

9'-20' Heights
(FSP-HV-20)11

21'-40' Heights
(FSP-HV-40) 11

Custom Controls Integration
(CCI) 5

Button Type Photocell
(PC) 6

FSP Remote
(FSRB) 19

DALI-2
(D2) 6

Options

Bird Spikes
(BS)

Marine Grade Finish
(MGF)

Quick Mount Bracket
(QMB)

Retrofit Mount Bracket
(RQMB)

Round Pole Adaptor 3"-4" Pole
(RPA4)

Round Pole Adaptor 5"-6" Pole
(RPA5)

Rotated Optic Left
(ROL)

Rotated Optic Right
(ROR)

Single Fuse
(SF)

Double Fuse
(DF)

Black Optical Frame
(BOF) 3

House Side Shield
(HSS) 3,20

Buy American Act
(BAA) 3

Trade Agreement Act
(TAA) 3

Build America Buy American
(BABA) 3

NOTES:
1. Consult Factory for Lead Time
2. Consult Factory for 90 CRI Requests
3. Consult Factory for Options not TAA/BAA requests
4. Universal Voltage 120-277V
5. 3000K or lower, w/fixed mounting options only. Must be selected to meet International Dark-Sky Association certification
6. Turtle Safe
7. Not available above 530mA
8. 525, & 640, Only with T4FTW & T5W Performance Silicone Micro Optics
9. Please contact Factory for Custom Control integration requests (NLight,NX, WaveLinx, Crestron, DMX/RDM, Synapse,Casambi, Dali-2, Avi-On, or other control systems)
10. FSP-211, 120V/277V, 230-240VAC (single phase), 50/60Hz
11. FSP-221, 100-347VAC, 208/230/480VAC (three phase) or 190/230/480VAC (phase-to-phase)
12. Projects with sensors require Qty. 1 FSRB per project.
13. See estimated scaling chart for multiplier values to estimate lumen output Please contact Factory to verify the estimated performance data
14. For Round Pole "Specify" RPA4 or RPA5 adaptor

* Performance Plus configurations with our new Performance Silicone Optics. (For the ultimate performance of the new Performance Silicone Optics combine highest chip count with highest drive current).

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PRODUCT SPECIFICATIONS

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is ≥ 95, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 30°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP-65 compartment
- CRI 70, 80 or 90
- Color temperatures: Amber, Amber/PC, 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KA supplies as standard

OPTIONS

- BIRD SPIKES (BS)—Offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.
- MARINE GRADE FINISH (MGF)—A multi-step process creating protective finishing coat against harsh environments.
  - Chemically washed in a 5 stage cleaning system.
  - Pre-baked
  - Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer.
  - 1-2 feet inside pole coverage top and bottom.
  - Oven Baked.
  - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- HOUSE SIDE SHIELD—House Side Shield (HSS) is designed for full property line cut-off.
- ROUND POLE ADAPTER (RPA)– When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.
- ROTATED OPTICS (ROL) (ROR) - Rotated optics are designed for perimeter lighting for auto dealerships
- BLACK OPTIC FRAME (BOF) - Optional black optic frame. (Includes black hardware) Standard is white

CONTROLS

- **FSP-211 w/Motion Sensor/Photocell (120/277VAC, 230-240VAC)** (FSP-XX) - Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- **FSP-221 w/Motion Sensor/Photocell (100-347VAC, 208/230/480VAC)** (FSP-HV-X) - Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
  - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
  - FSP-8 mounting heights 8 feet and below
  - FSP-20 mounting heights 9-20 feet.
  - FSP-40 mounting heights 21-40 feet.
  - Can maintain constant foot candles over time. Consult Factory
  - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.
  - FSIR-100 commissioning remote is required to change sensor settings. Please contact factory for ordering.
- NEMA 7-PIN RECEPTACLE (P7)– An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo-control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.
- Controls Agnostic: Please contact factory for your preferred controls option. (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, DALI 8, Avi-On, or other control systems)

OPTICS

Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.

- IES Types



TYPE II (T2) TYPE III (T3) TYPE IV (T4) TYPE IV FORWARD (T4FTW) TYPE V (T5) TYPE V WIDE (T5W)

FINISH

- 5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.

LISTINGS

- UL Listed in compliance with UL 1598, the Standard for Safety of Luminaires, including the applicable wet location requirements
- CSA C22.2 No. 250.0
- IP65/ IP67 Rated
- Dark Sky Approved
- IK10 Rated

BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

https://nlslighting.com/buy-american/

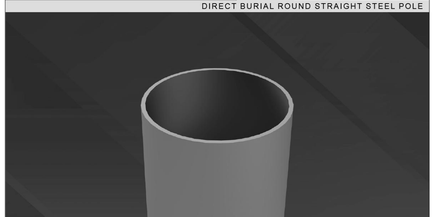
The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.

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DBRSSP

DIRECT BURIAL ROUND STRAIGHT STEEL POLE



HEIGHT ABOVE GRADE

10' - 24'

POLE SHAFT

The pole shaft material is a weldable grade hot rolled commercial quality steel tubing with a minimum yield of 46,000 psi. Conforms to ASTM A500 Grade B Standards. Poles have ground lug welded inside hand-hole opposite side of the hand hole.

Direct Burial poles can be ordered with optional coupling (specify height), optional hand hole (specify height), or optional Slot for conduit ingress and egress (specify height). When poles are ordered with a three way combination of Coupling, Hand Hole and Ground Lug, then the Ground Lug is positioned at 90 degrees to the Hand Hole and the Coupling is opposite the Hand Hole. When the pole is ordered with Hand Hole only, the Ground Lug is at 180 to the Hand Hole.

POLE CAP

All poles come with a removable polymer pole cap installed. All pole caps are black finish. Aluminum Pole Cap option is painted to match pole.

FINISH

All poles are treated with shot blast media for a near white finish, power blasted with 100 psi prior to powder coat application. Electrostatically applied AAMA 2604 polyester powder coat with a 3 to 5 mil thickness for maximum adherence.

MARINE GRADE FINISH

All poles are washed through a 5-stage cleaning system with a deionized rinse, a 3 to 5 mils zinc rich durable polyester primer powder coat, followed by a 3 to 5 mils super durable AAMA 2604 polyester powder coat finish.

Recommended for applications near the coastline or in demanding environments.

GALVANIZED FINISH

All poles are Hot Dipped Galvanized in a multi stage process. Galvanizing Specification, Zinc (Hot Dipped Galvanized) per ASTM A 123/A 123M – 02

Zinc coatings on threaded materials shall conform to specification A 153 /A 153M. The coating shall be continuous and reasonably smooth and uniform in thickness and in weight.

Galvanizing Adherence - The Zinc coating shall withstand handling consistent with the nature and thickness of the coating and normal use of the article without peeling or flaking.

Provides the most protection against the elements in coastal and harsh environments.

GALVANIZED UNDER POWDER

Galvanized Under Powder (GUP) adheres to above galvanized specification, and the second stage is a light sand blast on the outside of the pole; third stage is a 3-5 mils AAMA 2604 polyester powder coat finish for maximum adherence.

VIBRATION DAMPENER

The Vibration Dampener is factory installed and consists of a rugged galvanized chain coated with heavy duty polyester tubing that is factory secured at the bottom 2-3rds of the pole and can optionally be secured in the field by a contractor at the base during installation.

BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).

4" 5"

REV. 06.20.25

Project Name: | Type:

DBRSSP ORDERING GUIDE

Cat#

Direct Burial Round Straight Steel Pole
(DBRSSP)

Height Above Grade

10'
(10)

12'
(12)

14'
(14)

16'
(16)

18'
(18)

20'
(20)

22'
(22)

24'
(24)

Pole Dimension

4" Round
(4R)

5" Round
(5R)

Gauge

.120 Wall Thickness
(.110)

.188 Wall Thickness
(.70)

Mounting

Single
(SGL)

Double
(D-180)
(D-120)

Triple
(T-90)
(T-120)

Quad
(QD)

No Drill
(ND)
*Specify Location

Tenon

2-3/8" Round
(T2B)

3" Round
(T3B)

3-1/2" Round
(T3120)

4-1/2" Round
(T4120)

Color

RAL 2008

Bronze Textured
(BRZ)

White Textured
(WHT)

Smooth White Gloss
(SWT)

Silver Metallic
(SVR)

Black Textured
(BLK)

Smooth Black Gloss
(SBK)

Graphite Textured
(GPH)

Grey Textured
(GRY)

Green Textured
(GRN)

Hunter Green Textured
(HGN)

Custom
(CS)

Options

GFI Kit
(GFI120A) 4, 4, 5
*20 Amp Weather Proof Receptacle

GFI Provision Only
(PROV) 4, 5

Galvanized
(GLV)

Galvanized Under Powder
(GUP)

1.0T Coupling
(COUP) 4
* Specify Location

Vibration Dampener
(VD)

Anti-Rotation Rod
(ARR)

Options

Hand Hole
(HH) 4
* Specify Location

Slot
(S)

Marine Grade Finish
(MGF)

Square Base Cover
(SBC)

Round Base Cover
(RBC)
*Consult Factory for Pricing

UL Certified with label
(UL) 1

Aluminum Pole Cap
(APC) 2

Buy American Act
(BAA) 3

Trade Agreement Act
(TAA) 3

Build America Buy American
(BABA) 3

NOTES:
1. Aluminum Pole Cap must be selected for UL Certified Pole Option
2. Consult Factory
3. Standard weatherproof cover comes standard with option. For lockable cover requests, please contact factory
4. Specify the Height (in feet) from ground level and degree orientation from wire access slot
5. 120V Only

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PRODUCT SPECIFICATIONS

Max. allowable EPA - DBRSSP poles (per AASHTO LRFD,STD 1)

Catalog Number	Above Grade Height (Feet)	Total Pole Length (Feet)	Dia. Base (Inches)	Shaft Gauge (Inches)	Shaft Wt. (Lbs)	BD Wt. (Lbs)	Max. 90 MPH	90 MPH Wt.	Max. 100 MPH	100 MPH Wt.	Max. 110 MPH	110 MPH Wt.	Max. 120 MPH	120 MPH Wt.	Max. 130 MPH	130 MPH Wt.	Max. 140 MPH	140 MPH Wt.	Max. 150 MPH	150 MPH Wt.	Max. 160 MPH	160 MPH Wt.	Max. 170 MPH	170 MPH Wt.	Max. 180 MPH	180 MPH Wt.
DBRSSP-10.4R-7.10	10	14	4	0.109	4	20.0	900	20.0	900	20.0	900	16.5	493	11.5	436	14.7	398	12.1	369	10.3	298	8.5	220	6.1	203	4.9	175
DBRSSP-12.4R-7.10	12	16	4	0.109	4	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	14.4	445	10.0	400	14.3	393	11.3	340
DBRSSP-14.5R-7.12	14	18	4	0.135	5	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	18.2	459	15.4	396	13.4	346
DBRSSP-16.5R-7.12	16	20	4	0.135	5	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	17.5	466	15.2	406
DBRSSP-18.5R-7.12	18	22	4	0.135	5	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	19.7	466
DBRSSP-20.5R-7.12	20	24	4	0.135	5	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900
DBRSSP-22.5R-7.12	22	26	4	0.135	5	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900
DBRSSP-24.5R-7.12	24	28	5	0.135	5	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900	20.0	900
DBRSSP-10.4R-7.13	10	14	4	0.134	4	25.0	900	25.0	900	25.0	900	19.0	475	17.2	430	14.2	355	11.8	295	9.8	245	8.2	205	7.0	175	5.8	145
DBRSSP-12.4R-7.13	12	16	4	0.134	4	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	19.4	485	14.4	360	11.9	298	9.9	248
DBRSSP-14.5R-7.13	14	18	4	0.134	5	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	23.6	590	19.6	490
DBRSSP-16.5R-7.13	16	20	4	0.134	5	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900
DBRSSP-18.5R-7.13	18	22	4	0.134	5	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900
DBRSSP-20.5R-7.13	20	24	5	0.134	5	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900
DBRSSP-22.5R-7.13	22	26	5	0.134	5	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900
DBRSSP-24.5R-7.13	24	28	5	0.134	5	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900	25.0	900

*Pole Assemblies With EPAs Require Specific Review

CAUTION: Installation of poles without luminaire(s) will compromise pole strength. Any accessories attached to the pole, or other modifications done in the field, will compromise the pole strength and may result in pole failure. Wind load evaluations and provisions for appendages such as banner arms, signage, cameras, etc., must be evaluated and approved by the factory prior to placing an order. Additional evaluation and approval should be performed by the customer's local structural engineer on the project.

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Kimley»Horn

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EDEN PRAIRIE, MN 55344
Main: (612) 315-1272 | www.kimley-horn.com

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No	ISSUE BLOCK	DATE	BY
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8			

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT 016895119

DATE 3/11/2026

SCALE AS SHOWN

DESIGNED BY JCS

DRAWN BY EJB

CHECKED BY JCS

iONNA™

6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

PHOTOMETRIC DETAILS

SHEET NUMBER

E4.1

P2 FIXTURE DETAILS

SCALE N.T.S. 1

P2 POLE DETAILS

SCALE N.T.S. 2

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TWX2 LED
LED Wall Luminaire

DLC LISTED

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

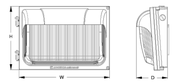
Introduction

TWX LED wall pack family, a ground-up design that has the low initial cost customers demand while providing superior performance and a traditional form. The TWX2 LED is energy efficient, saving up to 82% in energy costs when replacing a metal halide luminaire. Offering an expected service life of more than 20 years, the TWX2 LED eliminates frequent lamp and ballast replacements associated with traditional technologies.

The Adjustable Light Output (ALO) feature allows the contractor to set the light output during installation, to a level perfectly suited for the job site. The TWX2 LED ALO luminaires can replace anything from a 70W to 250W metal halide luminaire.

Specifications

Depth: 4.5"
Height: 9.0"
Width: 13.0"
Weight: (without options) 11 lbs



TWX LED Family Overview

Luminaire	Voltage	Photocell	Luminaire (4000K)			
			P1	P2	P3	P4
TWX1 LED	MVOLT (120-277V)	YES	1,600	2,950	--	--
TWX2 LED	MVOLT (120-277V), 347V, 480V	YES	3,250	4,400	5,250	6,850
TWX3 LED	MVOLT (120-277V), 347V	YES	8,800	10,650	12,900	13,850

Ordering Information

EXAMPLE: TWX2 LED ALO 40K MVOLT DDBXD

Series	Package	Color Temperature	Voltage	Options	Finish	
TWX2 LED	P1 3,250 lumens	30K 3000K	MVOLT (120-277V)	PE Photocell, Button Type	DDBXD Dark bronze	DDBTXD Textured dark bronze
	P2 4,400 lumens	40K 4000K	347		DBLXD Black	DBLBXD Textured black
	P3 5,250 lumens	50K 5000K	480		DWHXD White	DWHGXD Textured White
	P4 6,850 lumens				DNAXD Natural aluminum	DNATXD Textured natural aluminum
	ALO 1,450 - 6,850 lumens					

Accessories

*ACKIRE 001 PER SHEILD Button style photocell shield

FEATURES & SPECIFICATIONS

INTENDED USE
The TWX2 LED is an energy-efficient, low maintenance LED wall pack for replacing up to a 250W MH fixture, providing the same footprint on the wall. TWX2 is ideal for applications such as carports, loading areas, driveways and parking areas.

CONSTRUCTION
Two-piece die-cast aluminum housing to optimize thermal management through conduction and convection cooling. The LED driver is mounted to the housing and can be removed for easy installation. The housing is completely sealed against moisture and environmental contaminants (IP65) and is suitable for the hose-down applications.

FINISH
Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
The TWX2 advanced optical design uses both reflector and refractor technologies that work together to create superior illumination and further throw, getting the light where it is needed. The US-made borosilicate glass refractor is specifically designed to maximize light extraction and create a fully luminous luminaire for a better nighttime look.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to housing to maximize heat dissipation and promote long-life (up to L81/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%.

INSTALLATION
Designed for wall mounting above four feet from the ground. Housing is configured for mounting directly over a standard junction box (by others) or for surface wiring via any of three 1/2" threaded entry hubs.

LISTINGS
CSA certified to U.S. and Canadian standards. IP65 rated for outdoor applications. Rated for -40°C minimum ambient.
DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	30K (3000K, 80 CRI)		40K (4000K, 80 CRI)		50K (5000K, 80 CRI)	
		Lumens	LPW	Lumens	LPW	Lumens	LPW
P1	23W	3,100	135	3,250	141	3,250	141
P2	32W	4,200	131	4,400	138	4,400	138
P3	39W	5,050	129	5,250	135	5,250	135
P4/ALO	54W	6,550	121	6,850	127	6,850	127

Electrical Load

Performance Package	System Watts	Current (A)					
		120V	208V	240V	277V	347V	480V
P1	23W	0.195	0.112	0.097	0.084	0.067	0.049
P2	32W	0.268	0.154	0.134	0.116	0.093	0.067
P3	39W	0.326	0.188	0.163	0.141	0.113	0.082
P4/ALO	54W	0.447	0.258	0.224	0.194	0.155	0.113

Adjustable Lumen Output (ALO) Table

Setting	System Watts	Lumen Output	Footprint Width / Wall QTY
8*	54W	6,850	250W
7	51W	6,550	
6	42W	5,650	150/175W
5	36W	4,900	
4	29W	4,050	
3	22W	3,200	100W
2	15W	2,200	70W
1	9W	1,450	

* Factory default setting is #8

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.05
10°C	50°F	1.03
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).
To calculate L/F, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

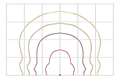
Operating Hours	0	25,000	50,000	60,000	100,000
Lumen Maintenance Factor	1.0	>0.95	>0.90	>0.88	>0.81

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting TWX LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards

LEGEND
0.25 fc
0.5 fc
1.0 fc
3.0 fc

Mtl = 15ft
Grid = 13ft x 15ft
ISO lines = 0.25fc, 0.5fc, 1.0fc, 3.0fc



TWX2 LED ALO

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P3 FIXTURE DETAILS

SCALE N.T.S. | 1

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EDEN PRAIRIE, MN 55344
Main: (612) 315-1272 | www.kimley-horn.com
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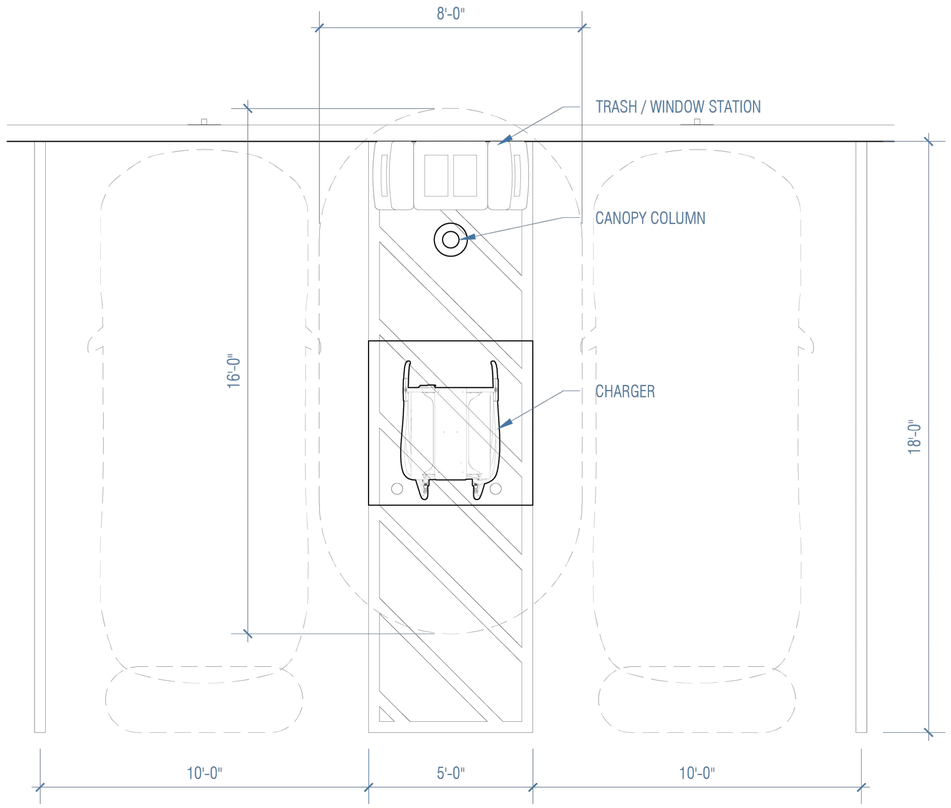
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DATE 3/11/2026
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DRAWN BY EJB
CHECKED BY JCS

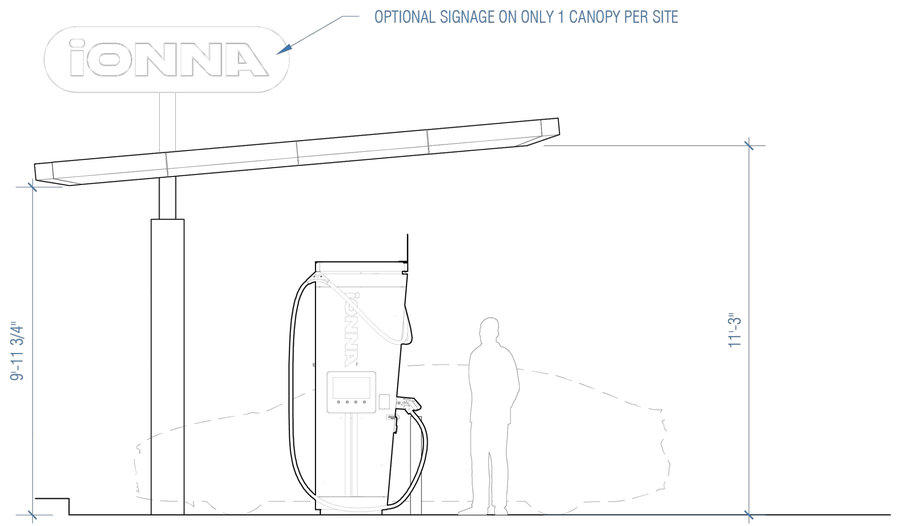
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SITE NO.: MN-0008 EDINA, MN

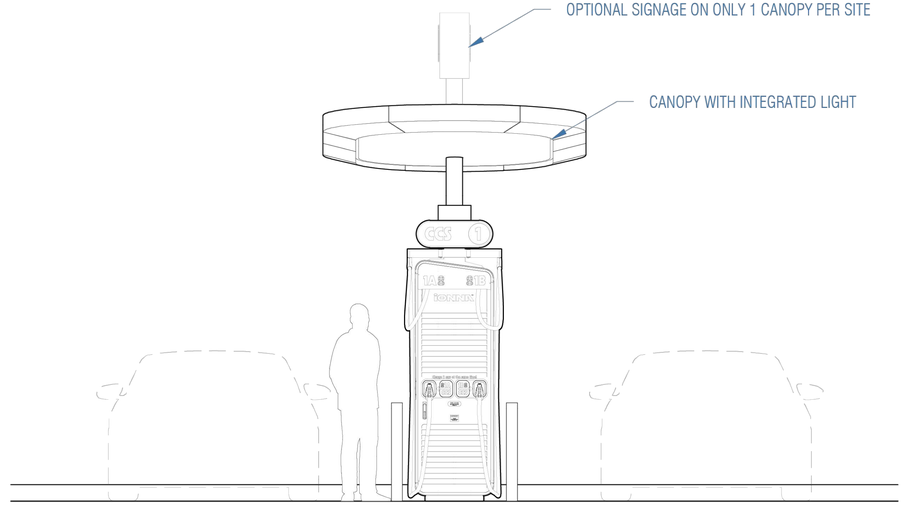
PHOTOMETRIC DETAILS II

SHEET NUMBER
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DESIGNED AND PROVIDED BY OTHERS

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CANOPY DETAILS

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CANOPY CONCEPT DETAILS | SCALE N.T.S. | 1

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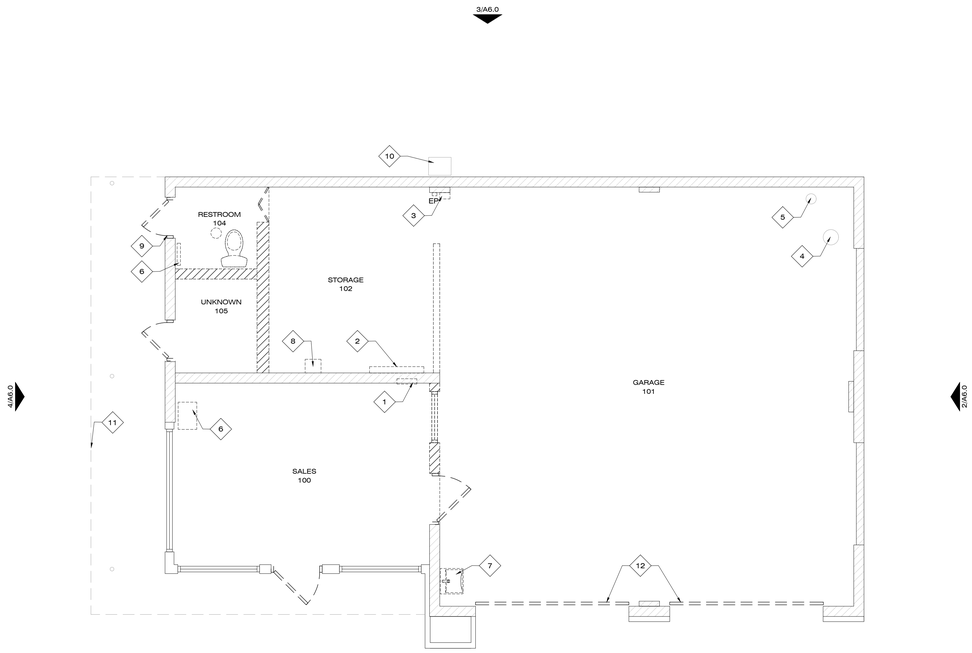
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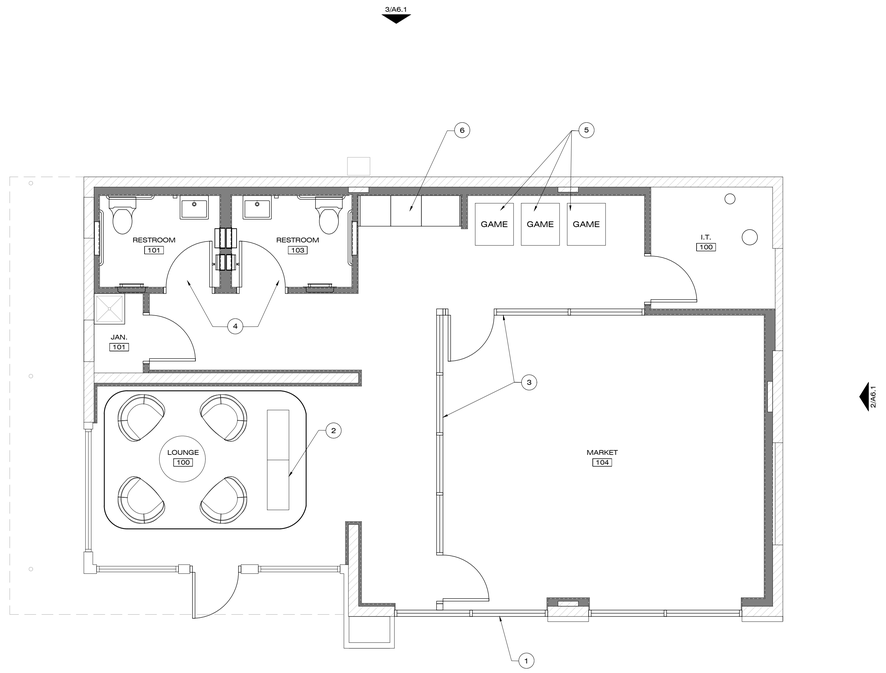

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1 DEMO FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH



2 PROPOSED FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

DEMOLITION FLOOR PLAN LEGEND

	EXISTING WALL TO BE DEMOLISHED - REMOVE ALL ASSOCIATED SHEATHING, BRACING, PLUMBING, ELECTRICAL AND DATA. CLEAN AND PATCH FLOOR AND ADJACENT WALLS W/ FINISH TO MATCH EXISTING.
STUD WALL / MASONRY WALL	EXISTING WALLS TO REMAIN.
	EXISTING DOOR TO BE DEMOLISHED (OR REUSED) - REMOVE ASSOCIATED FRAME, BLOCKING, ANCHORS. COORDINATE WITH OWNER ON REUSE/RELOCATION. WRAP/PROTECT DOORS/FRAMES TO BE REUSED. REFURBISH EXISTING HARDWARE AS REQUIRED.
	EXISTING DOOR AND FRAME TO REMAIN - PROTECT DOORS FROM DAMAGE DURING CONSTRUCTION. PATCH/REPAIR ANY DAMAGE. REFURBISH EXISTING DOOR AND HARDWARE TO LIKE-NEW CONDITION AS NOTED.
	EXISTING EXTERIOR OR INTERIOR STOREFRONT SYSTEM TO BE DEMOLISHED
	EXISTING EXTERIOR OR INTERIOR STOREFRONT SYSTEM TO REMAIN.

GENERAL DEMOLITION NOTES

1	GC SHALL GET FAMILIARIZED WITH THE PREMISES AS WELL AS THE CONTRACT DRAWINGS AND SHALL REPORT ANY UNKNOWN CONDITIONS IN THE FIELD TO THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
2	COORDINATE ALL DEMOLITION WITH BUILDING OWNER AND TENANT PRIOR TO START OF WORK.
3	G.C. SHALL ATTEMPT TO REUSE ALL EXISTING DOORS, FRAMES AND HARDWARE IN NEW LOCATIONS WHERE POSSIBLE. PATCH/REPAIR DOORS AS NECESSARY FOR REUSE.
4	G.C. SHALL PERFORM ALL DEMOLITION CAUSING EXTREME LEVELS OF NOISE AND VIBRATIONS BEFORE OR AFTER NORMAL BUSINESS HOURS OR AS ADVISED BY OWNER.
5	COORDINATE ALL UTILITY OUTAGES WITH BUILDING OWNER AND TENANT ONE WEEK IN ADVANCE.
6	ALL EXISTING CONSTRUCTION MATERIALS, FIXTURES, EQUIPMENT, ETC. ARE PROPERTY OF BUILDING OWNER - COORDINATE REMOVAL OR DISPOSAL OF ALL SUCH MATERIALS WITH OWNER PRIOR TO START OF DEMOLITION.
7	REMOVE ALL MATERIALS TO BE SALVAGED BY OWNER IN A MANNER SO AS TO NOT DAMAGE OR RENDER USELESS.
8	G.C. SHALL MAINTAIN ALL REQUIRED EXIT EGRESS PATHWAYS AND EXITS FOR TENANT SPACE AND ADJACENT TENANTS.
9	THE G.C. SHALL MAINTAIN INTEGRITY OF ALL EXISTING RATED WALLS AND FLOORS.
10	G.C. SHALL LOCATE DUMPSTERS PER OWNER DIRECTION SO AS TO NOT DISRUPT TRAFFIC OR ADJACENT PROPERTIES.
11	G.C. SHALL PROTECT EXISTING HVAC SYSTEM FROM DUST INFILTRATION.
12	COORDINATE DEMOLITION OR REUSE OF ALL HVAC, PLUMBING AND ELECTRICAL WITH MEP DRAWINGS AND DEMOLITION NOTES.
13	U.N.O., DASHED LINES ON DEMO PLAN INDICATE BUILDING ELEMENTS TO BE REMOVED AND/OR RELOCATED. SEE NEW FLOOR PLAN FOR COORDINATION.

DEMOLITION KEY NOTES

1	ELECTRICAL PANEL TO BE REMOVED.
2	GAS PUMP BACKFLOWS TO BE REMOVED.
3	ELECTRICAL DISCONNECT TO BE REMOVED.
4	MANHOLE LID
5	UNKNOWN PIPING, POSSIBLE TANK VENT
6	UNIT HEATER TO BE REMOVED.
7	SHOP HANDSINK TO BE REMOVED.
8	WATER SUB-METER AND SHUTOFF TO BE REMOVED.
9	EXISTING DOOR TO BE REMOVED.
10	ELECTRICAL METER SOCKET
11	OVERHANG ABOVE
12	OVERHEAD GARAGE DOORS TO BE REMOVED

FLOOR PLAN LEGEND

	NEW INTERIOR METAL STUD AND GWB WALL - SEE WALL TYPES FOR DETAILED INFORMATION REGARDING WALL CONSTRUCTION AND FRAMING HEIGHTS. GC SHALL RESPONSIBLE FOR SIZING LIGHT GAUGE STEEL STUD THICKNESS PER SPANS REQUIRED. PROVIDE GWB EXPANSION JOINTS EVERY 15' X 15'.
XXX	NEW OR EXISTING EXTERIOR OR INTERIOR STOREFRONT SYSTEM - SEE FLOOR PLANS, INTERIOR ELEVATIONS, EXTERIOR ELEVATIONS FOR DETAILS. SEE DOOR SCHEDULE FOR INTERIOR FRAME ELEVATIONS/GLAZING SPECS.
XXX	NEW DOOR/FRAME IN NEW WALL - SEE DOOR SCHEDULE FOR MORE INFORMATION REGARDING DOOR/FRAME/HARDWARE.
XXX XXX	NEW DOOR AND SIDELITE SYSTEM. SEE DOOR SCHEDULE FOR MORE INFORMATION REGARDING DOOR/FRAME/HARDWARE/GLAZING SPECS.
X	WALL TYPE SYMBOL - INDICATES TYPE OF WALL CONSTRUCTION, HEIGHT & ANY FIRE RATINGS. SEE GENERAL SHEETS FOR WALL TYPES.
ROOM NAME 100	ROOM NAME & NUMBER

GENERAL CONSTRUCTION NOTES

1	UNO, ALL WALLS WITH SOLID HATCHING ARE NEW. EXISTING WALLS HAVE NO HATCH. 90 DEGREE SWING DOORS ARE NEW OR RELOCATED EXISTING DOORS. 45 DEGREE SWINGS INDICATE EXISTING DOORS.
2	GC SHALL COMPLETELY CLEAN ENTIRE LEASED PREMISES IMMEDIATELY PRIOR TO OCCUPANCY.
3	GC SHALL FAMILIARIZE THEMSELF WITH THE PREMISES AND THE CONTRACT DRAWINGS AND SHALL REPORT ANY DISCREPANCIES IN THE FIELD TO THE ARCHITECT IMMEDIATELY UPON DISCOVERY.
4	GC SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL NOTIFY ARCH. OF ANY CONFLICTS BETWEEN THE CONTRACT DOCUMENTS AND THE EXISTING CONDITIONS. GC AND SUBS SHALL NOT SCALE DRAWINGS.
5	GC SHALL COORDINATE WITH THE BUILDING OWNER OR MGMT. ON ALL MATERIAL DELIVERY AND UNLOADING, DOOR ACCESS, AND ANY DISRUPTIONS IN THE NORMAL UTILITIES.
6	GC SHALL NOTIFY ARCH. OF ANY REQUIRED MATERIALS THAT ARE NOT READILY AVAILABLE AND THAT MAY DELAY COMPLETION. THIS NOTIFICATION SHALL HAPPEN WITHIN 48 HRS. OF RELEASE.
7	PAINTING SUBCONTRACTOR SHALL PROVIDE LOW-VOC PRIMERS AND FINISH-COAT MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH THE SUBSTRATES INDICATED.
8	GC SHALL INSTALL AND MAINTAIN REQD. PROTECTIVE COVERINGS, TEMPORARY DOORS AND WALLS, DUST BARRIERS, FLOOR PROTECTION, ETC. GC SHALL KEEP ALL COMMON AREAS FREE OF DUST AND DEBRIS.
9	GC SHALL MAINTAIN ALL LIFE SAFETY SYSTEMS IN GOOD WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT, INCLUDING EXIT LIGHTING, SPRINKLER SYSTEMS, SMOKE DETECTION, AND EMERGENCY LIGHTING.
10	GC SHALL PERFORM ALL WORK THAT CAUSES DISTURBANCES TO THE TENANT AFTER NORMAL BUSINESS HOURS - OR SHALL COORDINATE W/ OWNER W/IN 48 HRS OF SUCH WORK.
11	UNO, ON DRAWINGS, THERE SHALL BE NO SUBSTITUTIONS OF MATERIALS MADE WITHOUT WRITTEN PERMISSION FROM OWNER AND ARCHITECT.
12	UNO, ALL SURFACES TO BE PATCHED OR HOLES TO BE FILLED SHALL MATCH THE ADJACENT CONSTRUCTION AND FINISHES.
13	PROVIDE FIRE-RETARDANT WOOD BLOCKING AT ALL LOCATIONS OF NEW MILLWORK, TOILET ACCESSORIES, TV MOUNTING, ETC.

CONSTRUCTION KEY NOTES

1	(N) EXTERIOR ALUMINUM STOREFRONT INFILL WHERE GARAGE DOORS ARE REMOVED
2	(N) INTERIOR FURNISHINGS BY IONNA
3	(N) INTERIOR ALUMINUM STOREFRONT AT MARKET
4	(N) ACCESSIBLE RESTROOMS
5	(N) ARCADE GAMES PROVIDED BY IONNA
6	(N) COFFEE NICHE MILLWORK

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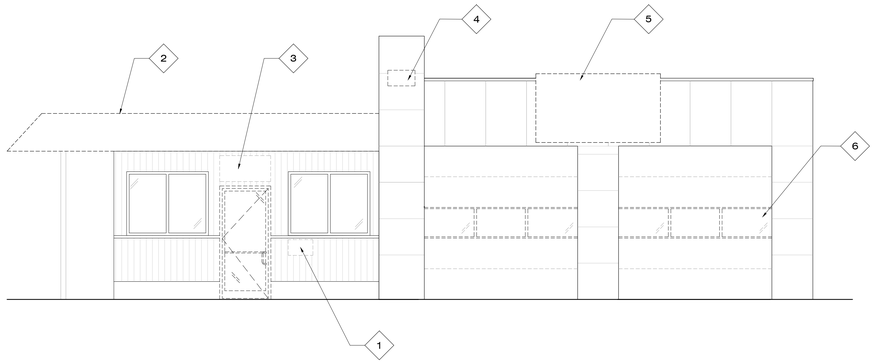
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OWNER PROJECT # MN-0008
ARCH PROJECT # RDU 25-171

DEMOLITION AND PROPOSED FLOOR PLANS

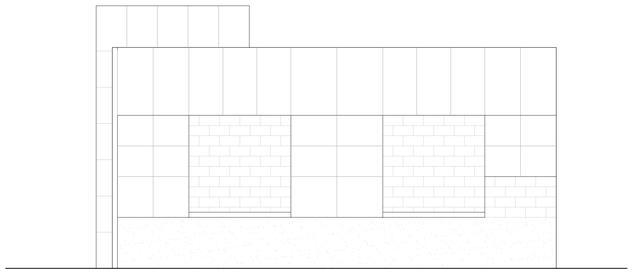
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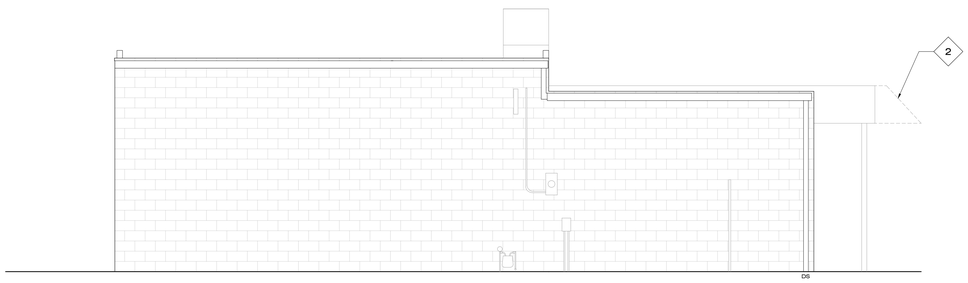
1 DEMOLITION ELEVATION (FRONT) FACING VERNON AVE.

SCALE: 1/4" = 1'-0"



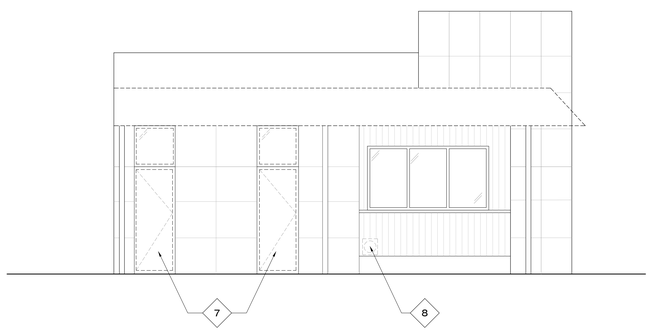
2 DEMOLITION ELEVATION (RIGHT) FACING EDEN PRARIE RD.

SCALE: 1/4" = 1'-0"



3 DEMOLITION ELEVATION (REAR)

SCALE: 1/4" = 1'-0"



4 DEMOLITION ELEVATION (LEFT)

SCALE: 1/4" = 1'-0"

DEMO EXT. ELEVATION KEY NOTES

1	EXISTING MAILBOX TO BE REMOVED
2	(E) FABRIC CANOPY TO BE REMOVED
3	(E) METAL COVER TO BE REMOVED. PATCH SIDING TO MATCH ADJACENT
4	(E) WALL PACK LIGHTING TO BE REMOVED
5	(E) BUILDING MOUNTED SIGNAGE BOX TO BE REMOVED.
6	(E) OVERHEAD DOORS TO BE REMOVED
7	(E) DOOR FRAME AND TRANSOM TO BE REMOVED. PREP OPENING TO RECEIVE NEW FINISHES
8	(E) EXHAUST VENT TO BE REMOVED. PATCH SIDING TO MATCH ADJACENT

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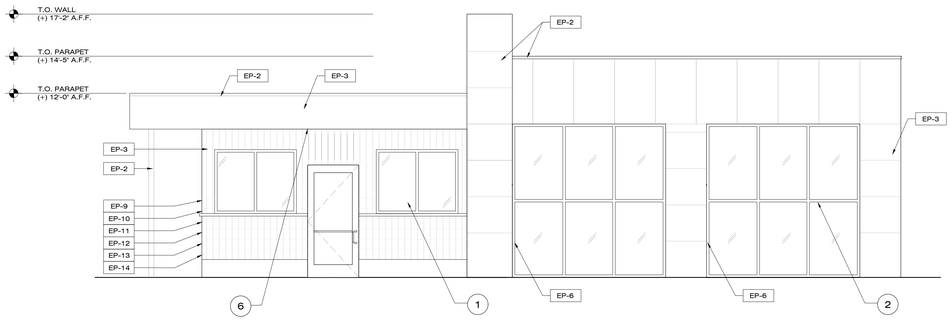
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DEMOLITION EXTERIOR ELEVATIONS

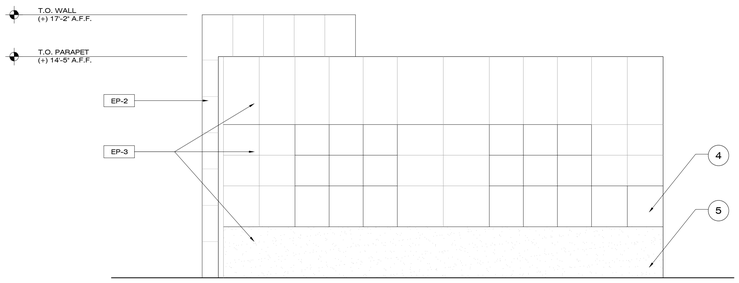
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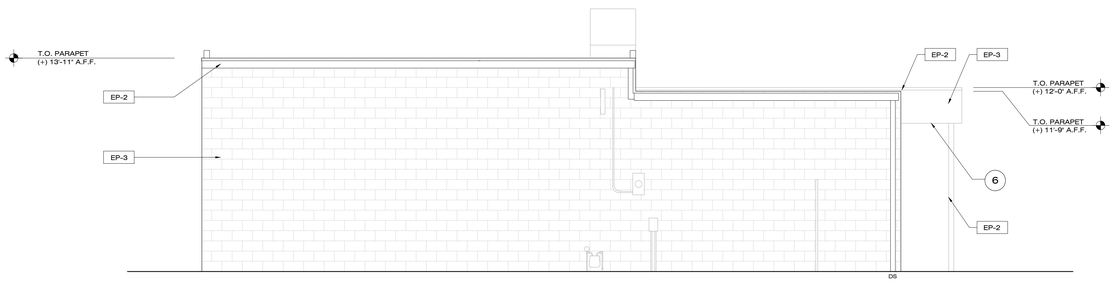
1 PROPOSED ELEVATION (FRONT) FACING VERNON AVE.

SCALE: 1/4" = 1'-0"



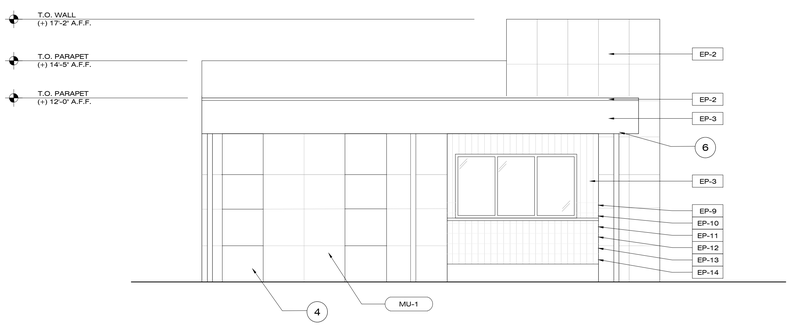
2 PROPOSED ELEVATION (RIGHT) FACING EDEN PRARIE RD.

SCALE: 1/4" = 1'-0"



3 PROPOSED ELEVATION (REAR)

SCALE: 1/4" = 1'-0"



4 PROPOSED ELEVATION (LEFT)

SCALE: 1/4" = 1'-0"

EXTERIOR FINISH SPECIFICATIONS

ID	NAME	MFGR.	COLOR
EP-1	PAINT-ION ORANGE	SHERWIN WILLIAMS	SW 6886 INVIGORATE
EP-2	PAINT-SOFT DARK	SHERWIN WILLIAMS	SW 7605 GALE FORCE
EP-3	PAINT-SOFT LIGHT	SHERWIN WILLIAMS	SW 7563 RESTFUL WHITE
EP-6	PAINT-BLACK	SHERWIN WILLIAMS	SW 6258 TRICORN BLACK
EP-9	PAINT-I02	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 7630 C
EP-10	PAINT-I03	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 484 C
EP-11	PAINT-I04	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 2349 C
EP-12	PAINT-I05	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 165 C
EP-13	PAINT-I06	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 148 C
EP-14	PAINT-I07	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 475 C

EXT. ELEVATION KEY NOTES

1	(E) WINDOWS TO REMAIN. PAINT TO MATCH NEW STOREFRONT
2	(N) ALUMINUM STOREFRONT - BLACK
3	(N) SIGNAGE FACE, RE-USE EXISTING SIGNAGE FRAME
4	(N) METAL PANEL CLADDING TO MATCH EXISTING ADJACENT PANELING
5	G.C. TO INSPECT AND REPAIR CONCRETE PARGING WAINSCOT TO PROVIDE SMOOTH SURFACE IN 'LIKE-NEW' CONDITION
6	UNDERSIDE OF SOFFIT TO BE PAINTED (EP-1)

EXTERIOR GRAPHICS SCHEDULE

ION-CL	NAME: CHANNEL LETTER - SOFT LIGHT FURNISHED BY: IONNA VENDOR INSTALLED BY: IONNA VENDOR
MU-1	NAME: TOMBSTONE GRAPHIC FURNISHED BY: IONNA VENDOR INSTALLED BY: IONNA VENDOR

EXTERIOR ELEVATIONS LEGEND

	EXISTING SIDING
	EXISTING METAL PANELS
	NEW METAL PANELS
	EXISTING CMU
	CONCRETE PARGING OVER CMU

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#	△	DESCRIPTION	DATE
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OWNER PROJECT # MN-0008
ARCH PROJECT # RDU 25-171

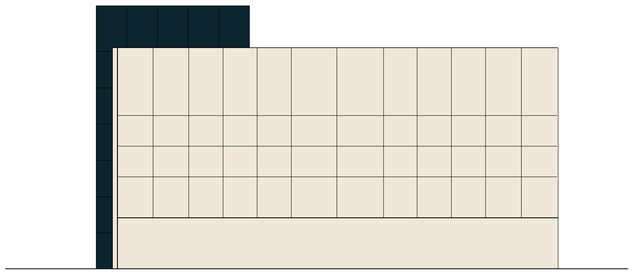
PROPOSED EXTERIOR ELEVATIONS

SCALE: AS NOTED

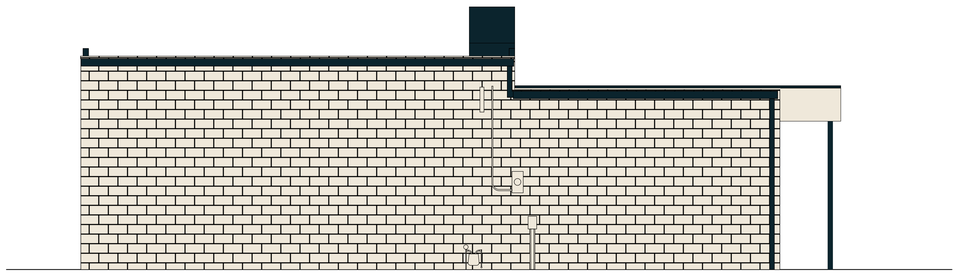
SHEET # **A6.1**



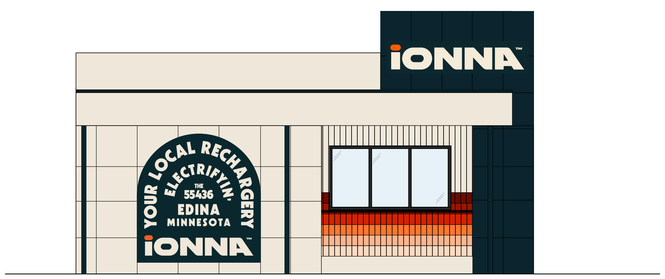
1 PROPOSED ELEVATION (FRONT) FACING VERNON AVE.
SCALE: 1/4" = 1'-0"



2 PROPOSED ELEVATION (RIGHT) FACING EDEN PRARIE RD.
SCALE: 1/4" = 1'-0"



3 PROPOSED ELEVATION (REAR)
SCALE: 1/4" = 1'-0"



4 PROPOSED ELEVATION (LEFT)
SCALE: 1/4" = 1'-0"

EXTERIOR FINISH SPECIFICATIONS

ID	NAME	MFGR.	COLOR
EP-1	PAINT-ION ORANGE	SHERWIN WILLIAMS	SW 6886 INVIGORATE
EP-2	PAINT-SOFT DARK	SHERWIN WILLIAMS	SW 7605 GALE FORCE
EP-3	PAINT-SOFT LIGHT	SHERWIN WILLIAMS	SW 7563 RESTFUL WHITE
EP-6	PAINT-BLACK	SHERWIN WILLIAMS	SW 6258 TRICORN BLACK
EP-9	PAINT-I02	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 7630 C
EP-10	PAINT-I03	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 484 C
EP-11	PAINT-I04	SHERWIN WILLIAMS	CLOSEST MATCH TO PMS 2349 C
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EXTERIOR ELEVATIONS LEGEND

	EXISTING SIDING
	EXISTING METAL PANELS
	NEW METAL PANELS
	EXISTING CMU
	CONCRETE PARGING OVER CMU

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ARCH PROJECT # RDU 25-171

PROPOSED EXTERIOR ELEVATIONS

SCALE: AS NOTED

SHEET # **A6.1**

Appendix A: The pyramid of discretion

The pyramid framework illustrates how much discretion the city has to make land use decisions based on the role it is playing.



The CITY of EDINA

File #193807644
April 21, 2026

Traffic and Parking Study for 6016 Vernon Avenue in Edina, MN

Prepared for:
City of Edina

4801 W. 50th Street
Edina, MN 55424



Prepared by:

Stantec Consulting Services Inc.
One Carlson Parkway
Plymouth, MN 55447
Phone: 763-479-4200
Fax: 763-479-4242

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I hereby certify that this 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.



_____ DATE: April 21, 2026

Edward F. Terhaar
License No. 24441

1.0 Executive Summary

The purpose of this Traffic and Parking Study is to evaluate the impacts of the proposed IONNA electric vehicle charging station to be located at 6016 Vernon Avenue in Edina, MN. The proposed project location currently contains a vacant auto repair shop.

This study examined weekday a.m. and p.m. peak hour traffic impacts of the proposed development at the following intersections:

- Vernon Avenue/Blake Road/Olinger Boulevard
- Vernon Avenue/Highwood Drive/Olinger Road
- Vernon Avenue/Tracy Avenue
- Vernon Avenue/west development access
- Vernon Avenue/east development access

The proposed project involves installing seven level 3 DC fast chargers and remodeling the existing 1,200 square foot building to include restrooms, seating area, and an unmanned convenience store. The site plan shows 16 total parking spaces. As shown in the site plan, the project includes two access points on Vernon Avenue. The project is expected to be completed in 2027.

The conclusions drawn from the information and analyses presented in this report are as follows:

- The proposed development is expected to add 4 trips during the a.m. peak hour, 7 trips during the p.m. peak hour and 86 trips daily.

- The trips added to the roadway system by the proposed development are expected to have minimal impact on traffic operations on the surrounding street system. No improvements are needed at the subject intersections to accommodate the proposed project.

- Information from the owner indicates an average usage of 4 stalls during the a.m. peak hour and 7 stalls during the p.m. peak hour. The peak number of stalls used is also estimated at 7 stalls. The 16 total spaces provided are 9 spaces greater than the peak usage.

- Edina City code requires one space per 300 square feet of building space plus one space per employee, which equates to 5 spaces. The 16 total spaces provided are 11 spaces greater than the City code requirement.

- Future plans for this area include upgrading to buffered bike lanes on Vernon Avenue, Blake Road, and Olinger Boulevard and new secondary sidewalk on Olinger Boulevard. The proposed project will benefit from the existing and proposed sidewalk and bicycle facilities in this area.

- The proposed project includes the construction of sidewalk along the Vernon Avenue property frontage.

- As shown in the site plan, the project includes two access points on Vernon Avenue. The proposed access points are located in the same location as the two existing access points. Based on the expected number of trip generated by the site, the access point are expected to operate adequately.

- All traffic to and from the site will directly access Vernon Avenue with no access to the neighborhood to the north. The plan also includes tree plantings on the north side of the site for screening. Impacts to the neighborhood are expected to be minimal.

- Per City requirements, a Travel Demand Management (TDM) plan is required for this project. The goal of the TDM plan is to reduce vehicular trips during peak hours and carbon emissions from vehicles. TDM strategies for this site include:

    - Providing maps that show the area bus routes and schedules.
    - Providing maps of bicycle and pedestrian facilities.
    - Providing information on starting and joining commuter programs.

    The goal of the TDM plan is a 10 percent reduction in single occupant vehicle trips. The TDM plan strategies should be implemented at the time the project is complete and fully operational.

2.0 Purpose and Background

The purpose of this Traffic and Parking Study is to evaluate the impacts of the proposed IONNA electric vehicle charging station to be located at 6016 Vernon Avenue in Edina, MN. The proposed project location currently contains a vacant auto repair shop. The project location is shown in **Figure 1**.

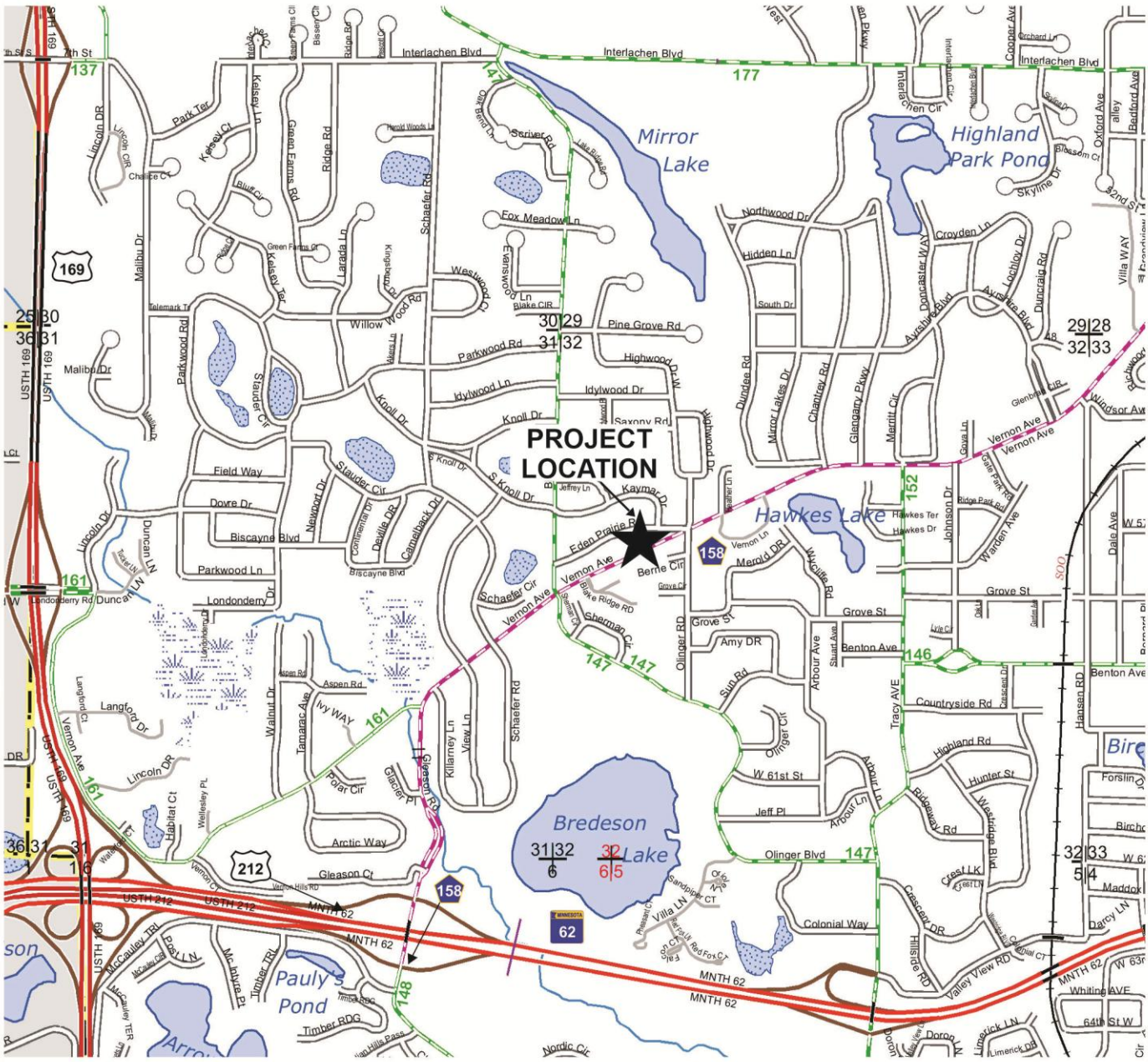
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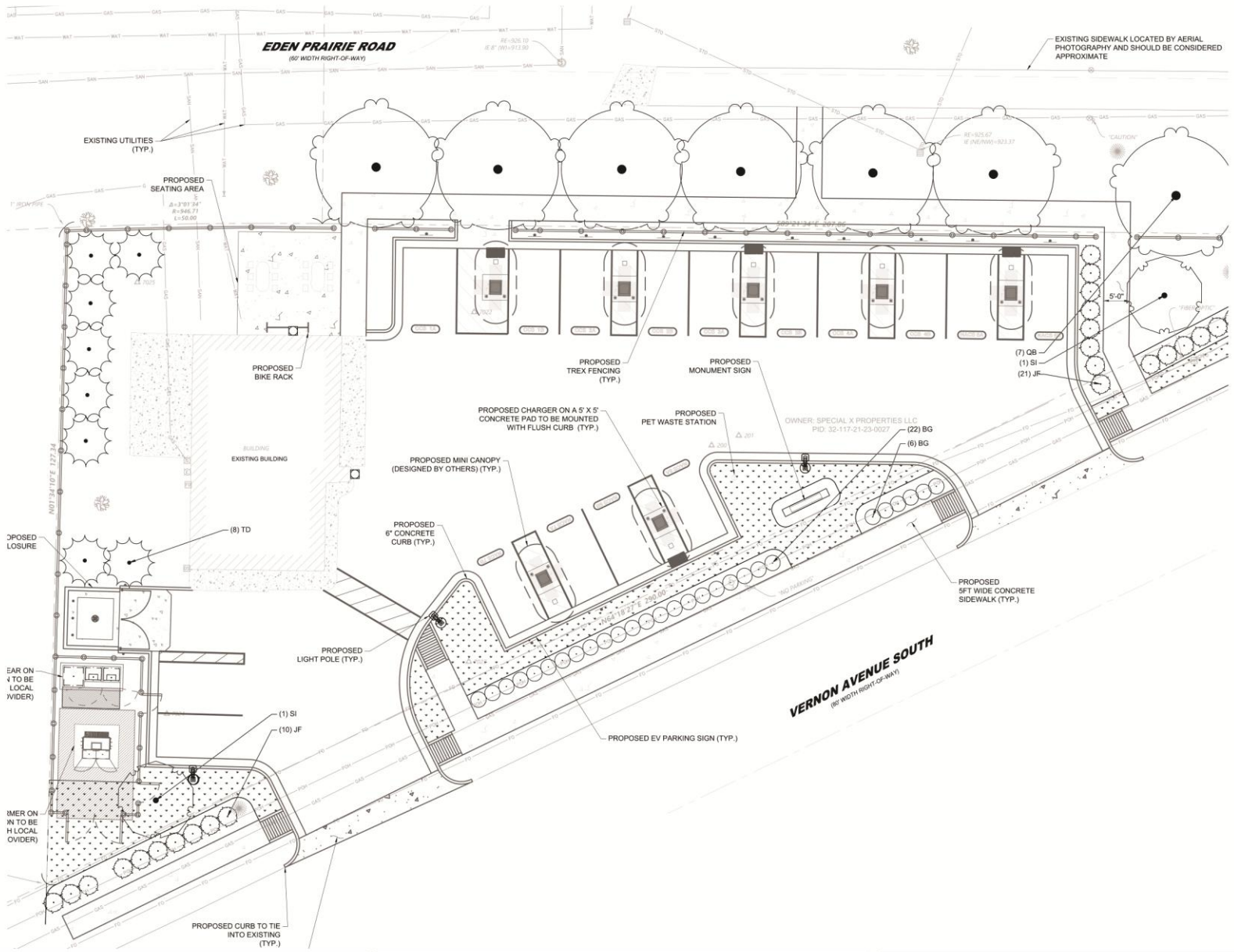
- Vernon Avenue/Blake Road/Olinger Boulevard
- Vernon Avenue/Highwood Drive/Olinger Road
- Vernon Avenue/Tracy Avenue
- Vernon Avenue/west development access
- Vernon Avenue/east development access

Proposed Development Characteristics

The proposed project involves installing seven level 3 DC fast chargers and remodeling the existing 1,200 square foot building to include restrooms, seating area, and unmanned convenience store. The site plan shows 16 total parking spaces. As shown in the site plan, the project includes two access points on Vernon Avenue.

The project is expected to be completed in 2027. The current site plan is shown in **Figure 2**.


PROJECT LOCATION
Mirror Lake
Highland Park Pond
Hawkes Lake
Bredeson Lake
Pauly's Pond
Interlachen Blvd
Vernon Ave
Schaefer Rd
Olinger Blvd
Grove St
Benton Ave
Countryside Rd
Highland Rd
Valley View RD
Colonial Way
Arctic Way
Gleason Ct
Parkwood Rd
Pine Grove Rd
Idylwood Dr
Knoll Dr
Field Way
Dove Dr
Biscayne Blvd
Parkwood Ln
Londonderry Dr
Langford Dr
Aspen Rd
Ivy WAY
Willow Wood Rd
Fox Meadow Ln
Northwood Dr
Hidden Ln
Croyden Ln
Merrit Cir
Glengarry Pkwy
Chantrey Rd
Dundee Rd
Mirror Lakes Dr
Eden Prairie Rd
Kayman Dr
Bernie Cir
Merold DR
Amy DR
Sun Rd
Arbour Ave
Tracy AVE
Hansen RD
Johnson Dr
Warden Ave
Dale Ave
Olinger Cir
Olinger Ln
Jeff Pl
W 61st St
Hunter St
Ridgeway Rd
Westridge Blvd
Crescent DR
Hillside RD
Darcy LN
Whiting AVE
64th St W
Limerick LN
Limerick DR
Doroo LN
Nordic Cir
Timber RDG
Timber TRL
McCauley TRL
McCauley TER
Post LN
McIntyre Pl
Habitat Ct
Wellesley PL
Lincoln DR
Duncan LN
Malibu Dr
Park Ter
Kelsey Ln
Kelsey Ct
Green Farms Rd
Ridge Rd
Larada Ln
Laura Ln
Westwood Ct
Westwood Ln
Blake CIR
Stauder Cir
Newport Dr
Deville DR
Camelback Rd
Continental Dr
Jeffrey Ln
S Knoll Dr
Highwood Dr W
Saxony Rd
Glenhurst CIR
Windsor Ave
Grove Ln
Ridge Park Rd
Hawkes Ter
Hawkes Dr
Sherman Cir
Blake Ridge RD
Walnut Dr
Tamarac Ave
Killarney Ln
View Ln
Glacier Pl
Polar Cir
Langford Ln
Longford Ct
Londonderry Rd
Duncan LN
Vernon Hills RD
Vernon Ct
Vernon Cir
Sandpiper CT
Villa LN
Pheasant Ct
Red Fox Ct
Orchard Ln
Cooper Ave
Oxford Ave
Bedford Ave
Skyline Dr
Blossom Ct
Loch Ivy Dr
Duncraig Rd
Ayrshire Blvd
Doncaster WAY
Villa WAY
Broadview Ln
Glenhurst Cir
Windsor Ave
Thorpe Cir
Interlachen Cir
Interlachen Pkwy
Chesterton Cir
Chesterton Rd
Orchard Ln
Oxford Ave
Bedford Ave
Skyline Dr
Blossom Ct
Loch Ivy Dr
Duncraig Rd
Ayrshire Blvd
Doncaster WAY
Villa WAY
Broadview Ln
Glenhurst Cir
Windsor Ave
Thorpe Cir
Interlachen Cir
Interlachen Pkwy
Chesterton Cir
Chesterton Rd
Orchard Ln
Cooper Ave



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FOR 6016 VERNON AVENUE
IN EDINA, MN

FIGURE 2

SITE PLAN

3.0 Existing Conditions

The proposed project location currently contains a vacant auto repair building and parking area. The site is bounded by Vernon Avenue on the south, Eden Prairie Road on the north, and residential uses on the east and west.

Near the site location, Vernon Avenue, Blake Road, Olinger Boulevard, Highwood Drive, and Olinger Road are two lane undivided roadways. Existing conditions at the proposed project location are shown in **Figure 3** and described below.

Vernon Avenue/Blake Road/Olinger Boulevard

This four-way intersection is controlled with a traffic signal. The eastbound and westbound approaches provide a left turn lane and a through/right turn lane. The northbound and southbound approaches provide a left turn/through/right turn lane.

Vernon Avenue/Highwood Drive/Olinger Road

This four-way intersection is controlled with stop signs on the northbound and southbound approaches. All approaches provide one left turn/through/right turn lane.

Vernon Avenue/Tracy Avenue

This four-way intersection is controlled with a traffic signal. The eastbound and westbound approaches provide a left turn lane and a through/right turn lane. The northbound approach provides a left turn/through lane and a right turn lane. The southbound approach provides a left turn/through/right turn lane.

Traffic Volume Data

Weekday traffic volume data at Vernon Avenue/Tracy Avenue was recorded in September, 2024 for a previous study. Traffic volume data at Vernon Avenue/Blake Road/Olinger Boulevard and Vernon Avenue/Highwood Drive/Olinger Road was recorded in April, 2022 for a previous study. Traffic volume data is presented later in this report.



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IN EDINA, MN

FIGURE 3

EXISTING CONDITIONS

4.0 Traffic Forecasts

Traffic Forecast Scenarios

To adequately address the impacts of the proposed project, forecasts and analyses were completed for the year 2027. Specifically, weekday a.m. and p.m. peak hour traffic forecasts were completed for the following scenarios:

- *2026 Existing*. Existing volumes were determined through traffic counts at the subject intersections. The existing volume information includes trips generated by the uses near the project site.

- *2027 No-Build*. Existing volumes at the subject intersections were increased by 1.0 percent per year to determine 2026 No-Build volumes. The 1.0 percent per year growth rate was calculated based on both recent growth experienced near the site and projected growth due to additional development in the area.

- *2027 Build*. Trips generated by the proposed development were added to the 2026 No-Build volumes to determine 2026 Build volumes.

Trip Generation for Proposed Project

Weekday a.m. and p.m. peak hour trip generation estimates for the proposed project were calculated based on detailed facility user information for six similar sites located across the country. The resultant trip generation estimates are shown in **Table 4-1**.

Table 4-1
Trip Generation for Proposed Project

Use	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
	In	Out	Total	In	Out	Total	Total
Vehicle chargers	2	2	4	4	3	7	86

As shown, the project add 4 trips during the a.m. peak hour, 7 trips during the p.m. peak hour, and 86 trips daily.

Trip Distribution Percentages

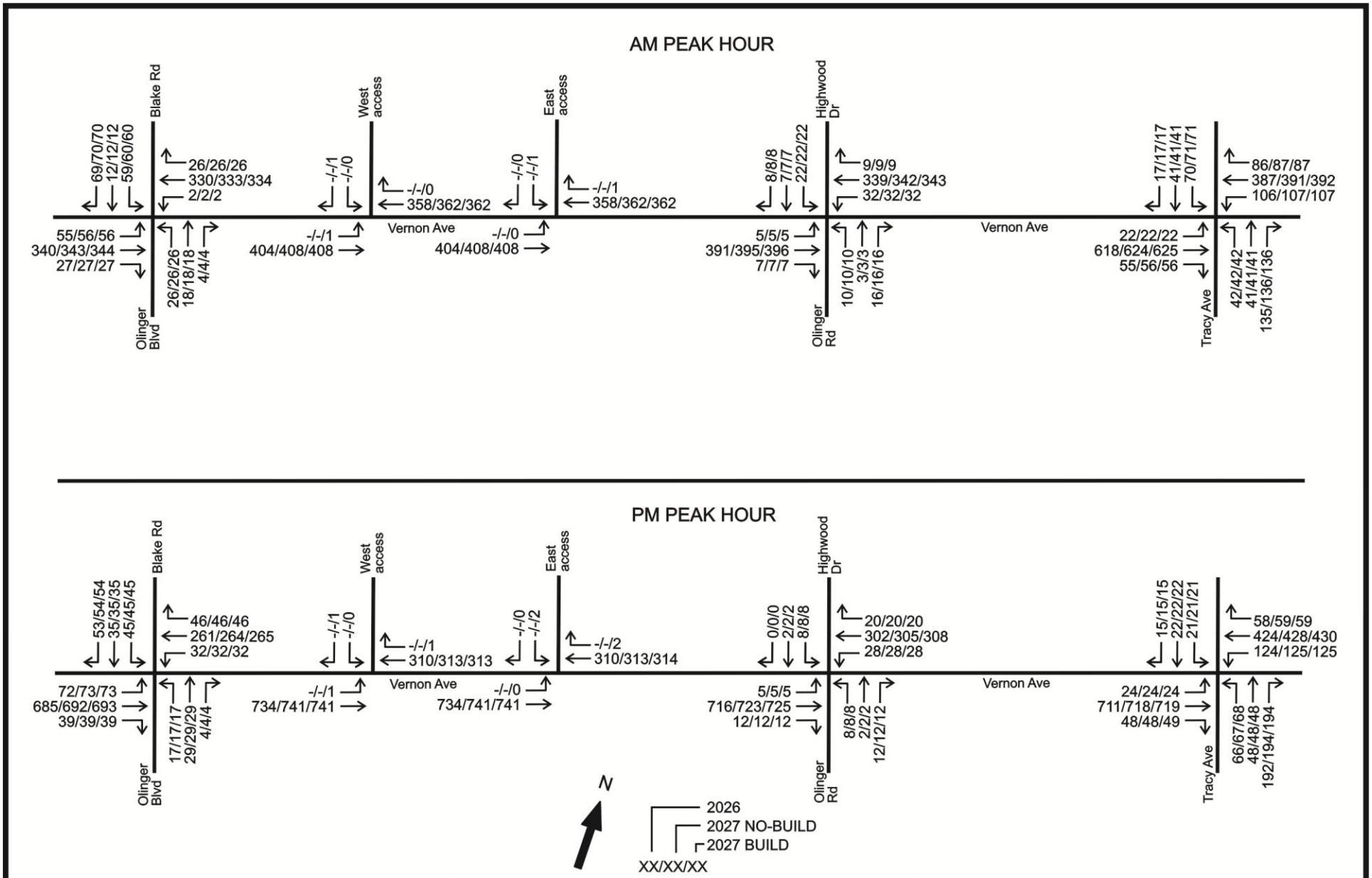
Trip distribution percentages for the subject development trips were established based on the nearby roadway network, existing and expected future traffic patterns, and location of the subject development in relation to major attractions and population concentrations.

The distribution percentages for trips generated by the proposed development are as follows:

- 45 percent to/from the east on Vernon Avenue
- 10 percent to/from the south on Tracy Avenue
- 35 percent to/from the west on Vernon Avenue
- 5 percent to/from the north on Blake Road
- 3 percent to/from the south on Olinger Boulevard
- 2 percent to/from the south on Olinger Road

Traffic Volumes

Development trips were assigned to the surrounding roadway network using the preceding trip distribution percentages. Traffic volumes were established for all the forecasting scenarios described earlier during the weekday a.m. and p.m. peak hours. The resultant traffic volumes are presented in **Figure 4.**



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IN EDINA, MN

FIGURE 4

WEEKDAY PEAK HOUR VOLUMES

5.0 Traffic Analysis

Intersection Level of Service Analysis

Traffic analyses were completed for the subject intersections for all scenarios described earlier during the weekday a.m. and p.m. peak hours using Synchro/SimTraffic software. Initial analysis was completed using existing geometrics and intersection control.

Capacity analysis results are presented in terms of level of service (LOS), which is defined in terms of traffic delay at the intersection. LOS ranges from A to F. LOS A represents the best intersection operation, with little delay for each vehicle using the intersection. LOS F represents the worst intersection operation with excessive delay. In accordance with MnDOT traffic study guidelines, this analysis used the LOS D/E boundary as an indicator of acceptable traffic operations. The following is a detailed description of the conditions described by each LOS designation:

- Level of service A corresponds to a free flow condition with motorists virtually unaffected by the intersection control mechanism. For a signalized or an unsignalized intersection, the average delay per vehicle would be approximately 10 seconds or less.

- Level of service B represents stable flow with a high degree of freedom, but with some influence from the intersection control device and the traffic volumes. For a signalized intersection, the average delay ranges from 10 to 20 seconds. An unsignalized intersection would have delays ranging from 10 to 15 seconds for this level.

- Level of service C depicts a restricted flow which remains stable, but with significant influence from the intersection control device and the traffic volumes. The general level of comfort and convenience changes noticeably at this level. The delay ranges from 20 to 35 seconds for a signalized intersection and from 15 to 25 seconds for an unsignalized intersection at this level.

- Level of service D corresponds to high-density flow in which speed and freedom are significantly restricted. Though traffic flow remains stable, reductions in comfort and convenience are experienced. The control delay for this level is 35 to 55 seconds for a signalized intersection and 25 to 35 seconds for an unsignalized intersection.

- Level of service E represents unstable flow of traffic at or near the capacity of the intersection with poor levels of comfort and convenience. The delay ranges from 55 to 80 seconds for a signalized intersection and from 35 to 50 seconds for an unsignalized intersection at this level.

- Level of service F represents forced flow in which the volume of traffic approaching the intersection exceeds the volume that can be served. Characteristics often experienced include long queues, stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure. Delays over 80 seconds for a signalized intersection and over 50 seconds for an unsignalized intersection correspond to this level of service.

The LOS results for the study intersections are discussed below.

2026 Existing

Weekday A.M. and P.M. Peak Hour LOS Results

Intersection	Traffic Control	AM Peak Hour LOS	PM Peak Hour LOS
Vernon Ave/Blake Rd/Olinger Blvd	Signal	A/B	A/C
Vernon Ave/Highwood Dr/Olinger Rd	NB/SB stop	A/C	A/D
Vernon Ave/Tracy Ave	Signal	B/C	B/C

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

During the a.m. peak hour, all intersections operate at LOS B or better and movements operate at LOS C or better. During the p.m. peak hour, all intersections operate at LOS B or better and movements operate at LOS D or better.

2027 No Build

Weekday A.M. and P.M. Peak Hour LOS Results

Intersection	Traffic Control	AM Peak Hour LOS	PM Peak Hour LOS
Vernon Ave/Blake Rd/Olinger Blvd	Signal	A/B	A/C
Vernon Ave/Highwood Dr/Olinger Rd	NB/SB stop	A/C	A/D
Vernon Ave/Tracy Ave	Signal	B/C	B/C

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

During the a.m. peak hour, all intersections operate at LOS B or better and movements operate at LOS C or better. During the p.m. peak hour, all intersections operate at LOS B or better and movements operate at LOS D or better.

2027 Build

Weekday A.M. and P.M. Peak Hour LOS Results

Intersection	Traffic Control	AM Peak Hour LOS	PM Peak Hour LOS
Vernon Ave/Blake Rd/Olinger Blvd	Signal	A/B	A/C
Vernon Ave/Highwood Dr/Olinger Rd	NB/SB stop	A/C	A/D
Vernon Ave/Tracy Ave	Signal	B/C	B/C
Vernon Ave/west access	SB stop	A/A	A/C
Vernon Ave/east access	SB stop	A/A	A/B

Note: Level of service results presented with overall intersection LOS followed by worst movement LOS.

During the a.m. peak hour, all intersections operate at LOS B or better and movements operate at LOS C or better. During the p.m. peak hour, all intersections operate at LOS B or better and movements operate at LOS D or better.

Overall Traffic Impact

The trips added to the roadway system by the proposed development are expected to have minimal impact on traffic operations on the surrounding street system. No improvements are needed at the subject intersections to accommodate the proposed project.

Access Locations

As shown in the site plan, the project includes two access points on Vernon Avenue. The proposed access points are located in the same location as the two existing access points. Based on the expected number of trip generated by the site, the access point are expected to operate adequately.

Neighborhood Impacts

All traffic to and from the site will directly access Vernon Avenue with no access to the neighborhood to the north. The plan also includes tree plantings on the north side of the site for screening. Impacts to the neighborhood are expected to be minimal.

Bicycle and Pedestrian Facilities

Under existing conditions, sidewalk is provided on the west side of Blake Road, the south side of Vernon Avenue, and the west side of Olinger Road. A two-way off street trail is provided on the west side of Olinger Boulevard. No sidewalk is provided on Highwood Drive. Striped bike lanes are provided on Vernon Avenue, Blake Road, and Olinger Boulevard. Bicycles are allowed on all the surrounding streets.

Future plans for this area include upgrading to buffered bike lanes on Vernon Avenue, Blake Road, and Olinger Boulevard and new secondary sidewalk on Olinger Boulevard. The proposed project will benefit from the existing and proposed sidewalk and bicycle facilities in this area.

The proposed project includes the construction of sidewalk along the Vernon Avenue property frontage.

Transit Facilities

The subject site presently is not directly served by transit. The closest bus stop is on Vernon Avenue at Eden Avenue for Metro Transit bus route 46.

Travel Demand Management Plan (TDM)

Per City requirements, a Travel Demand Management (TDM) plan is required for this project. The goal of the TDM plan is to reduce vehicular trips during peak hours and carbon emissions from vehicles. TDM strategies for this site include:

- Providing maps that show the area bus routes and schedules.
- Providing maps of bicycle and pedestrian facilities.
- Providing information on starting and joining commuter programs.

The goal of the TDM plan is a 10 percent reduction in single occupant vehicle trips. The TDM plan strategies should be implemented at the time the project is complete and fully operational.

6.0 Parking Analysis

As described earlier, the site plan shows 16 total parking spaces, with 14 spaces used for vehicle charging and 2 general spaces near the building.

Information from the owner indicates an average usage of 4 stalls during the a.m. peak hour and 7 stalls during the p.m. peak hour. The peak number of stalls used is also estimated at 7 stalls. The 16 total spaces provided are 9 spaces greater than the peak usage.

Edina City code requires one space per 300 square feet of building space plus one space per employee, which equates to 5 spaces. The 16 total spaces provided are 11 spaces greater than the City code requirement.

Overall, parking is expected to be adequate for this site.

7.0 Conclusions and Recommendations

The conclusions drawn from the information and analyses presented in this report are as follows:

- The proposed development is expected to add 4 trips during the a.m. peak hour, 7 trips during the p.m. peak hour and 86 trips daily.

- The trips added to the roadway system by the proposed development are expected to have minimal impact on traffic operations on the surrounding street system. No improvements are needed at the subject intersections to accommodate the proposed project.

- Information from the owner indicates an average usage of 4 stalls during the a.m. peak hour and 7 stalls during the p.m. peak hour. The peak number of stalls used is also estimated at 7 stalls. The 16 total spaces provided are 9 spaces greater than the peak usage.

- Edina City code requires one space per 300 square feet of building space plus one space per employee, which equates to 5 spaces. The 16 total spaces provided are 11 spaces greater than the City code requirement.

- Future plans for this area include upgrading to buffered bike lanes on Vernon Avenue, Blake Road, and Olinger Boulevard and new secondary sidewalk on Olinger Boulevard. The proposed project will benefit from the existing and proposed sidewalk and bicycle facilities in this area.

- The proposed project includes the construction of sidewalk along the Vernon Avenue property frontage.

- As shown in the site plan, the project includes two access points on Vernon Avenue. The proposed access points are located in the same location as the two existing access points. Based on the expected number of trip generated by the site, the access point are expected to operate adequately.

- All traffic to and from the site will directly access Vernon Avenue with no access to the neighborhood to the north. The plan also includes tree plantings on the north side of the site for screening. Impacts to the neighborhood are expected to be minimal.

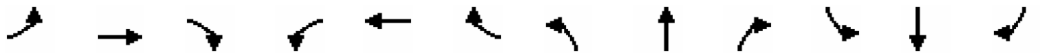
- Per City requirements, a Travel Demand Management (TDM) plan is required for this project. The goal of the TDM plan is to reduce vehicular trips during peak hours and carbon emissions from vehicles. TDM strategies for this site include:

    - Providing maps that show the area bus routes and schedules.
    - Providing maps of bicycle and pedestrian facilities.
    - Providing information on starting and joining commuter programs.

The goal of the TDM plan is a 10 percent reduction in single occupant vehicle trips. The TDM plan strategies should be implemented at the time the project is complete and fully operational.

8.0 Appendix

- Level of Service Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	340	27	2	330	26	26	18	4	59	12	69
Future Volume (veh/h)	55	340	27	2	330	26	26	18	4	59	12	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	370	29	2	359	28	28	20	4	64	13	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	720	1107	87	710	1107	86	225	130	19	197	35	109
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	997	1712	134	986	1713	134	669	914	132	541	245	766
Grp Volume(v), veh/h	60	0	399	2	0	387	52	0	0	152	0	0
Grp Sat Flow(s),veh/h/ln	997	0	1846	986	0	1846	1715	0	0	1552	0	0
Q Serve(g_s), s	1.2	0.0	4.1	0.0	0.0	4.0	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	4.1	4.2	0.0	4.0	1.1	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.07	0.54		0.08	0.42		0.49
Lane Grp Cap(c), veh/h	720	0	1193	710	0	1193	374	0	0	341	0	0
V/C Ratio(X)	0.08	0.00	0.33	0.00	0.00	0.32	0.14	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	720	0	1193	710	0	1193	990	0	0	962	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.5	0.0	3.4	4.3	0.0	3.4	16.1	0.0	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.0	0.0	0.7	0.2	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.9	0.0	0.0	0.9	0.4	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.8	0.0	4.1	4.3	0.0	4.1	16.3	0.0	0.0	18.2	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		459			389			52			152	
Approach Delay, s/veh		4.2			4.1			16.3			18.2	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.5		32.0		10.5		32.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.5		27.5		23.5		27.5				
Max Q Clear Time (g_c+I1), s		3.1		7.2		5.9		6.2				
Green Ext Time (p_c), s		0.2		2.7		0.7		2.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			6.8									
HCM 7th LOS			A									

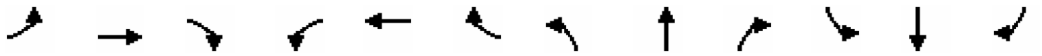
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	391	7	32	339	9	10	3	15	22	7	8
Future Vol, veh/h	5	391	7	32	339	9	10	3	15	22	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	425	8	35	368	10	11	3	16	24	8	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	378	0	0	433	0	0	882	888	429	880	886	373
Stage 1	-	-	-	-	-	-	440	440	-	443	443	-
Stage 2	-	-	-	-	-	-	442	448	-	438	443	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1180	-	-	1127	-	-	267	283	626	267	283	673
Stage 1	-	-	-	-	-	-	596	578	-	594	576	-
Stage 2	-	-	-	-	-	-	595	573	-	598	575	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1180	-	-	1127	-	-	245	270	626	246	271	673
Mov Cap-2 Maneuver	-	-	-	-	-	-	245	270	-	246	271	-
Stage 1	-	-	-	-	-	-	593	574	-	571	553	-
Stage 2	-	-	-	-	-	-	556	551	-	575	572	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	0.7	15.63	19.35
HCM LOS			C	C

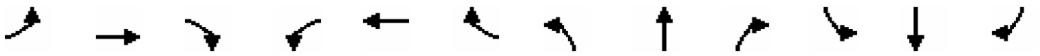
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	369	22	-	-	151	-	-	291
HCM Lane V/C Ratio	0.082	0.005	-	-	0.031	-	-	0.138
HCM Ctrl Dly (s/v)	15.6	8.1	0	-	8.3	0	-	19.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	618	55	106	387	86	42	41	135	70	41	17
Future Volume (veh/h)	22	618	55	106	387	86	42	41	135	70	41	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	710	63	122	445	99	48	47	155	80	47	20
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	557	842	75	430	795	177	194	161	252	176	87	27
Arrive On Green	0.08	0.50	0.50	0.12	0.54	0.54	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	1693	150	1781	1481	330	660	1011	1585	535	546	170
Grp Volume(v), veh/h	25	0	773	122	0	544	95	0	155	147	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1843	1781	0	1811	1671	0	1585	1251	0	0
Q Serve(g_s), s	0.4	0.0	22.2	1.7	0.0	12.2	0.0	0.0	5.6	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	22.2	1.7	0.0	12.2	2.9	0.0	5.6	7.2	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.18	0.51		1.00	0.54		0.14
Lane Grp Cap(c), veh/h	557	0	916	430	0	971	355	0	252	290	0	0
V/C Ratio(X)	0.04	0.00	0.84	0.28	0.00	0.56	0.27	0.00	0.61	0.51	0.00	0.00
Avail Cap(c_a), veh/h	557	0	1463	430	0	1509	629	0	532	536	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.3	0.0	13.3	9.6	0.0	9.4	22.8	0.0	23.9	24.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	2.7	1.7	0.0	0.5	0.4	0.0	2.4	1.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.2	0.7	0.0	4.0	1.2	0.0	2.1	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.4	0.0	16.0	11.3	0.0	9.9	23.2	0.0	26.4	26.1	0.0	0.0
LnGrp LOS	A		B	B		A	C		C	C		
Approach Vol, veh/h		798			666			250			147	
Approach Delay, s/veh		15.7			10.1			25.1			26.1	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	14.2	12.0	34.9	14.2	9.6	37.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	7.5	48.5	20.5	5.1	50.9
Max Q Clear Time (g_c+I1), s	7.6	3.7	24.2	9.2	2.4	14.2
Green Ext Time (p_c), s	0.8	0.1	6.2	0.6	0.0	4.1

Intersection Summary	
HCM 7th Control Delay, s/veh	15.8
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	343	27	2	333	26	26	18	4	60	12	70
Future Volume (veh/h)	56	343	27	2	333	26	26	18	4	60	12	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	373	29	2	362	28	28	20	4	65	13	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	716	1105	86	706	1106	86	226	131	19	198	35	110
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	994	1713	133	983	1714	133	671	911	132	542	244	765
Grp Volume(v), veh/h	61	0	402	2	0	390	52	0	0	154	0	0
Grp Sat Flow(s),veh/h/ln	994	0	1846	983	0	1846	1715	0	0	1551	0	0
Q Serve(g_s), s	1.3	0.0	4.2	0.0	0.0	4.1	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	4.2	4.2	0.0	4.1	1.1	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.07	0.54		0.08	0.42		0.49
Lane Grp Cap(c), veh/h	716	0	1191	706	0	1191	376	0	0	343	0	0
V/C Ratio(X)	0.09	0.00	0.34	0.00	0.00	0.33	0.14	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	716	0	1191	706	0	1191	988	0	0	960	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.6	0.0	3.4	4.4	0.0	3.4	16.1	0.0	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.0	0.0	0.7	0.2	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.9	0.0	0.0	0.9	0.4	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.8	0.0	4.2	4.4	0.0	4.1	16.2	0.0	0.0	18.2	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		463			392			52			154	
Approach Delay, s/veh		4.3			4.1			16.2			18.2	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.6		32.0		10.6		32.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.5		27.5		23.5		27.5				
Max Q Clear Time (g_c+I1), s		3.1		7.3		6.0		6.2				
Green Ext Time (p_c), s		0.2		2.7		0.7		2.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			6.8									
HCM 7th LOS			A									

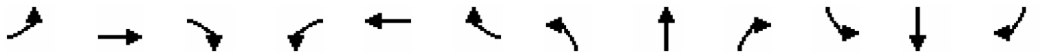
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	395	7	32	342	9	10	3	16	22	7	8
Future Vol, veh/h	5	395	7	32	342	9	10	3	16	22	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	429	8	35	372	10	11	3	17	24	8	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	382	0	0	437	0	0	889	895	433	888	894	377
Stage 1	-	-	-	-	-	-	444	444	-	446	446	-
Stage 2	-	-	-	-	-	-	445	451	-	442	448	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1177	-	-	1123	-	-	264	280	623	264	280	670
Stage 1	-	-	-	-	-	-	593	575	-	591	574	-
Stage 2	-	-	-	-	-	-	592	571	-	595	573	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1177	-	-	1123	-	-	242	267	623	242	268	670
Mov Cap-2 Maneuver	-	-	-	-	-	-	242	267	-	242	268	-
Stage 1	-	-	-	-	-	-	589	572	-	568	551	-
Stage 2	-	-	-	-	-	-	554	549	-	571	569	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	0.69	15.62	19.56
HCM LOS			C	C

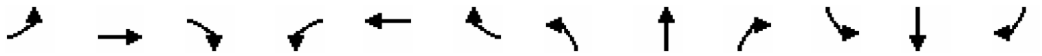
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	371	22	-	-	150	-	-	287
HCM Lane V/C Ratio	0.085	0.005	-	-	0.031	-	-	0.14
HCM Ctrl Dly (s/v)	15.6	8.1	0	-	8.3	0	-	19.6
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	624	56	107	391	87	42	41	136	71	41	17
Future Volume (veh/h)	22	624	56	107	391	87	42	41	136	71	41	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	717	64	123	449	100	48	47	156	82	47	20
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	553	846	76	424	798	178	193	161	255	177	86	27
Arrive On Green	0.08	0.50	0.50	0.12	0.54	0.54	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	1692	151	1781	1481	330	659	1001	1585	541	536	167
Grp Volume(v), veh/h	25	0	781	123	0	549	95	0	156	149	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1843	1781	0	1811	1660	0	1585	1244	0	0
Q Serve(g_s), s	0.4	0.0	22.8	1.7	0.0	12.4	0.0	0.0	5.7	4.5	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	22.8	1.7	0.0	12.4	2.9	0.0	5.7	7.4	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.18	0.51		1.00	0.55		0.13
Lane Grp Cap(c), veh/h	553	0	922	424	0	976	355	0	255	290	0	0
V/C Ratio(X)	0.05	0.00	0.85	0.29	0.00	0.56	0.27	0.00	0.61	0.51	0.00	0.00
Avail Cap(c_a), veh/h	553	0	1443	424	0	1487	619	0	524	526	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.3	0.0	13.4	9.9	0.0	9.5	23.0	0.0	24.2	25.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	2.9	1.7	0.0	0.5	0.4	0.0	2.4	1.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.5	0.7	0.0	4.1	1.2	0.0	2.2	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.5	0.0	16.3	11.6	0.0	10.0	23.4	0.0	26.6	26.5	0.0	0.0
LnGrp LOS	A		B	B		A	C		C	C		
Approach Vol, veh/h		806			672			251			149	
Approach Delay, s/veh		16.0			10.3			25.4			26.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	14.5	12.0	35.5	14.5	9.6	37.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	7.5	48.5	20.5	5.1	50.9
Max Q Clear Time (g_c+I1), s	7.7	3.7	24.8	9.4	2.4	14.4
Green Ext Time (p_c), s	0.8	0.1	6.2	0.6	0.0	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	16.0
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	344	27	2	334	26	26	18	4	60	12	70
Future Volume (veh/h)	56	344	27	2	334	26	26	18	4	60	12	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	374	29	2	363	28	28	20	4	65	13	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	715	1105	86	705	1106	85	226	131	19	198	35	110
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	993	1714	133	982	1714	132	671	911	132	542	244	765
Grp Volume(v), veh/h	61	0	403	2	0	391	52	0	0	154	0	0
Grp Sat Flow(s),veh/h/ln	993	0	1846	982	0	1847	1715	0	0	1551	0	0
Q Serve(g_s), s	1.3	0.0	4.2	0.0	0.0	4.1	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	4.2	4.3	0.0	4.1	1.1	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.07	0.54		0.08	0.42		0.49
Lane Grp Cap(c), veh/h	715	0	1191	705	0	1191	376	0	0	343	0	0
V/C Ratio(X)	0.09	0.00	0.34	0.00	0.00	0.33	0.14	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	715	0	1191	705	0	1191	988	0	0	960	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.6	0.0	3.4	4.4	0.0	3.4	16.1	0.0	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.0	0.0	0.7	0.2	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.9	0.0	0.0	0.9	0.4	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.8	0.0	4.2	4.4	0.0	4.1	16.2	0.0	0.0	18.2	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		464			393			52			154	
Approach Delay, s/veh		4.3			4.1			16.2			18.2	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.6		32.0		10.6		32.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.5		27.5		23.5		27.5				
Max Q Clear Time (g_c+I1), s		3.1		7.3		6.0		6.3				
Green Ext Time (p_c), s		0.2		2.8		0.7		2.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			6.8									
HCM 7th LOS			A									

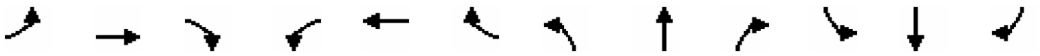
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	395	7	32	343	9	10	3	16	22	7	8
Future Vol, veh/h	6	395	7	32	343	9	10	3	16	22	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	429	8	35	373	10	11	3	17	24	8	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	383	0	0	437	0	0	892	898	433	891	897	378
Stage 1	-	-	-	-	-	-	446	446	-	447	447	-
Stage 2	-	-	-	-	-	-	446	452	-	444	450	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1176	-	-	1123	-	-	263	279	623	263	279	669
Stage 1	-	-	-	-	-	-	591	574	-	591	573	-
Stage 2	-	-	-	-	-	-	591	570	-	593	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1176	-	-	1123	-	-	240	266	623	241	266	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	240	266	-	241	266	-
Stage 1	-	-	-	-	-	-	587	570	-	567	551	-
Stage 2	-	-	-	-	-	-	553	548	-	569	567	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.12	0.69	15.66	19.66
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	369	26	-	-	149	-	-	286
HCM Lane V/C Ratio	0.085	0.006	-	-	0.031	-	-	0.141
HCM Ctrl Dly (s/v)	15.7	8.1	0	-	8.3	0	-	19.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	625	56	107	392	87	42	41	136	71	41	17
Future Volume (veh/h)	22	625	56	107	392	87	42	41	136	71	41	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	718	64	123	451	100	48	47	156	82	47	20
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	552	847	76	423	799	177	193	161	255	177	86	27
Arrive On Green	0.08	0.50	0.50	0.12	0.54	0.54	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	1692	151	1781	1482	329	659	1001	1585	541	536	167
Grp Volume(v), veh/h	25	0	782	123	0	551	95	0	156	149	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1843	1781	0	1811	1660	0	1585	1244	0	0
Q Serve(g_s), s	0.4	0.0	22.8	1.7	0.0	12.5	0.0	0.0	5.7	4.5	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	22.8	1.7	0.0	12.5	2.9	0.0	5.7	7.4	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.18	0.51		1.00	0.55		0.13
Lane Grp Cap(c), veh/h	552	0	923	423	0	977	354	0	255	290	0	0
V/C Ratio(X)	0.05	0.00	0.85	0.29	0.00	0.56	0.27	0.00	0.61	0.51	0.00	0.00
Avail Cap(c_a), veh/h	552	0	1441	423	0	1486	618	0	524	525	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.3	0.0	13.4	9.9	0.0	9.5	23.0	0.0	24.2	25.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	2.9	1.7	0.0	0.5	0.4	0.0	2.4	1.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.5	0.7	0.0	4.1	1.2	0.0	2.2	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.5	0.0	16.4	11.6	0.0	10.0	23.4	0.0	26.6	26.5	0.0	0.0
LnGrp LOS	A		B	B		A	C		C	C		
Approach Vol, veh/h		807			674			251			149	
Approach Delay, s/veh		16.1			10.3			25.4			26.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	14.5	12.0	35.6	14.5	9.6	38.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	7.5	48.5	20.5	5.1	50.9
Max Q Clear Time (g_c+I1), s	7.7	3.7	24.8	9.4	2.4	14.5
Green Ext Time (p_c), s	0.8	0.1	6.2	0.6	0.0	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	16.1
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	408	362	1	1	1
Future Vol, veh/h	1	408	362	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	443	393	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	395	0	-	0	840	394
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	446	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1164	-	-	-	336	655
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1164	-	-	-	335	655
Mov Cap-2 Maneuver	-	-	-	-	335	-
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	645	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.02	0	13.16
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	4	-	-	-	443
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Ctrl Dly (s/v)	8.1	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

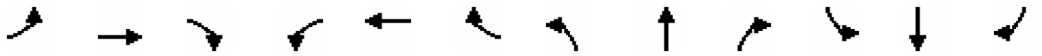
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	408	362	1	1	1
Future Vol, veh/h	1	408	362	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	443	393	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	395	0	-	0	840	394
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	446	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1164	-	-	-	336	655
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1164	-	-	-	335	655
Mov Cap-2 Maneuver	-	-	-	-	335	-
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	645	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.02	0	13.16
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	4	-	-	-	443
HCM Lane V/C Ratio	0.001	-	-	-	0.005
HCM Ctrl Dly (s/v)	8.1	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	685	39	32	261	46	17	29	4	45	35	53
Future Volume (veh/h)	72	685	39	32	261	46	17	29	4	45	35	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	745	42	35	284	50	18	32	4	49	38	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	786	1186	67	456	1048	184	149	167	17	159	70	84
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1046	1754	99	688	1549	273	354	1279	131	427	535	641
Grp Volume(v), veh/h	78	0	787	35	0	334	54	0	0	145	0	0
Grp Sat Flow(s),veh/h/ln	1046	0	1853	688	0	1821	1764	0	0	1602	0	0
Q Serve(g_s), s	1.5	0.0	11.1	1.4	0.0	3.4	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.0	11.1	12.5	0.0	3.4	1.2	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.15	0.33		0.07	0.34		0.40
Lane Grp Cap(c), veh/h	786	0	1253	456	0	1232	333	0	0	312	0	0
V/C Ratio(X)	0.10	0.00	0.63	0.08	0.00	0.27	0.16	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	786	0	1253	456	0	1232	798	0	0	764	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.0	0.0	4.2	7.8	0.0	3.0	18.1	0.0	0.0	19.3	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	2.4	0.3	0.0	0.5	0.2	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	2.6	0.2	0.0	0.7	0.5	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.2	0.0	6.6	8.1	0.0	3.5	18.4	0.0	0.0	20.4	0.0	0.0
LnGrp LOS	A		A	A		A	B			C		
Approach Vol, veh/h		865			369			54			145	
Approach Delay, s/veh		6.4			4.0			18.4			20.4	
Approach LOS		A			A			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.6		36.0		10.6		36.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		3.2		13.1		6.0		14.5				
Green Ext Time (p_c), s		0.2		6.0		0.6		2.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	7.6
HCM 7th LOS	A

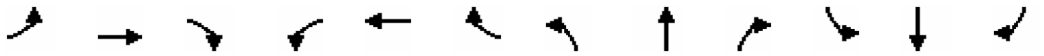
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	716	12	28	302	20	8	2	12	8	2	0
Future Vol, veh/h	5	716	12	28	302	20	8	2	12	8	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	778	13	30	328	22	9	2	13	9	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	350	0	0	791	0	0	1186	1207	785	1190	1202	339
Stage 1	-	-	-	-	-	-	796	796	-	400	400	-
Stage 2	-	-	-	-	-	-	390	411	-	790	802	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1209	-	-	829	-	-	166	183	393	164	184	703
Stage 1	-	-	-	-	-	-	381	399	-	626	602	-
Stage 2	-	-	-	-	-	-	634	595	-	383	396	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1209	-	-	829	-	-	155	174	393	149	175	703
Mov Cap-2 Maneuver	-	-	-	-	-	-	155	174	-	149	175	-
Stage 1	-	-	-	-	-	-	378	396	-	598	574	-
Stage 2	-	-	-	-	-	-	603	568	-	366	393	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.05	0.76	22.07	30.27
HCM LOS			C	D

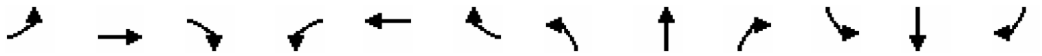
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	235	12	-	-	142	-	-	153
HCM Lane V/C Ratio	0.102	0.004	-	-	0.037	-	-	0.071
HCM Ctrl Dly (s/v)	22.1	8	0	-	9.5	0	-	30.3
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	711	48	124	424	58	66	48	192	21	22	15
Future Volume (veh/h)	24	711	48	124	424	58	66	48	192	21	22	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	726	49	127	433	59	67	49	196	21	22	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	583	852	58	407	831	113	229	143	265	142	132	67
Arrive On Green	0.09	0.49	0.49	0.11	0.52	0.52	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	1732	117	1781	1611	220	791	853	1585	352	792	399
Grp Volume(v), veh/h	24	0	775	127	0	492	116	0	196	58	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1781	0	1831	1644	0	1585	1542	0	0
Q Serve(g_s), s	0.3	0.0	21.5	1.8	0.0	10.4	0.0	0.0	6.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	21.5	1.8	0.0	10.4	3.3	0.0	6.9	3.3	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.12	0.58		1.00	0.36		0.26
Lane Grp Cap(c), veh/h	583	0	910	407	0	944	372	0	265	342	0	0
V/C Ratio(X)	0.04	0.00	0.85	0.31	0.00	0.52	0.31	0.00	0.74	0.17	0.00	0.00
Avail Cap(c_a), veh/h	583	0	1276	407	0	1307	627	0	527	582	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	13.0	9.8	0.0	9.4	21.7	0.0	23.2	21.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.1	2.0	0.0	0.4	0.5	0.0	4.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.3	0.7	0.0	3.5	1.4	0.0	2.7	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.1	0.0	17.2	11.8	0.0	9.9	22.2	0.0	27.2	21.3	0.0	0.0
LnGrp LOS	A		B	B		A	C		C	C		
Approach Vol, veh/h		799			619			312			58	
Approach Delay, s/veh		16.8			10.3			25.4			21.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	14.3	11.0	33.4	14.3	9.6	34.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	6.5	40.5	19.5	5.1	41.9
Max Q Clear Time (g_c+I1), s	8.9	3.8	23.5	5.3	2.3	12.4
Green Ext Time (p_c), s	0.9	0.1	5.4	0.2	0.0	3.5

Intersection Summary	
HCM 7th Control Delay, s/veh	16.2
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	692	39	32	264	46	17	29	4	45	35	54
Future Volume (veh/h)	73	692	39	32	264	46	17	29	4	45	35	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	752	42	35	287	50	18	32	4	49	38	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	783	1186	66	450	1048	183	149	168	17	159	70	85
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1043	1755	98	684	1551	270	353	1280	131	422	532	647
Grp Volume(v), veh/h	79	0	794	35	0	337	54	0	0	146	0	0
Grp Sat Flow(s),veh/h/ln	1043	0	1853	684	0	1822	1764	0	0	1601	0	0
Q Serve(g_s), s	1.5	0.0	11.3	1.4	0.0	3.4	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.0	11.3	12.8	0.0	3.4	1.2	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.15	0.33		0.07	0.34		0.40
Lane Grp Cap(c), veh/h	783	0	1252	450	0	1231	334	0	0	313	0	0
V/C Ratio(X)	0.10	0.00	0.63	0.08	0.00	0.27	0.16	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	783	0	1252	450	0	1231	797	0	0	763	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.0	0.0	4.3	7.9	0.0	3.0	18.1	0.0	0.0	19.3	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	2.5	0.3	0.0	0.6	0.2	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	2.7	0.2	0.0	0.7	0.5	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.2	0.0	6.7	8.2	0.0	3.6	18.3	0.0	0.0	20.4	0.0	0.0
LnGrp LOS	A		A	A		A	B			C		
Approach Vol, veh/h		873			372			54			146	
Approach Delay, s/veh		6.5			4.0			18.3			20.4	
Approach LOS		A			A			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.6		36.0		10.6		36.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		3.2		13.3		6.0		14.8				
Green Ext Time (p_c), s		0.2		6.1		0.6		2.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	7.7
HCM 7th LOS	A

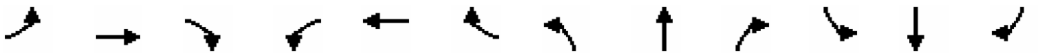
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	723	12	28	305	20	8	2	12	8	2	0
Future Vol, veh/h	5	723	12	28	305	20	8	2	12	8	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	786	13	30	332	22	9	2	13	9	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	353	0	0	799	0	0	1197	1217	792	1201	1213	342
Stage 1	-	-	-	-	-	-	803	803	-	403	403	-
Stage 2	-	-	-	-	-	-	393	414	-	798	810	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1205	-	-	824	-	-	163	181	389	162	182	700
Stage 1	-	-	-	-	-	-	377	396	-	624	600	-
Stage 2	-	-	-	-	-	-	631	593	-	380	393	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1205	-	-	824	-	-	152	171	389	146	172	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	171	-	146	172	-
Stage 1	-	-	-	-	-	-	374	393	-	595	572	-
Stage 2	-	-	-	-	-	-	600	566	-	362	390	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.05	0.76	22.36	30.76
HCM LOS			C	D

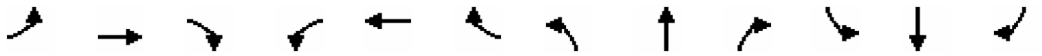
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	231	12	-	-	141	-	-	151
HCM Lane V/C Ratio	0.103	0.005	-	-	0.037	-	-	0.072
HCM Ctrl Dly (s/v)	22.4	8	0	-	9.5	0	-	30.8
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	718	48	125	428	59	67	48	194	21	22	15
Future Volume (veh/h)	24	718	48	125	428	59	67	48	194	21	22	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	733	49	128	437	60	68	49	198	21	22	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	579	857	57	403	834	114	231	142	267	142	132	67
Arrive On Green	0.09	0.49	0.49	0.11	0.52	0.52	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	1734	116	1781	1610	221	800	843	1585	351	786	397
Grp Volume(v), veh/h	24	0	782	128	0	497	117	0	198	58	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1781	0	1831	1643	0	1585	1533	0	0
Q Serve(g_s), s	0.3	0.0	22.0	1.8	0.0	10.6	0.0	0.0	7.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	22.0	1.8	0.0	10.6	3.3	0.0	7.0	3.4	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.12	0.58		1.00	0.36		0.26
Lane Grp Cap(c), veh/h	579	0	914	403	0	948	372	0	267	341	0	0
V/C Ratio(X)	0.04	0.00	0.86	0.32	0.00	0.52	0.31	0.00	0.74	0.17	0.00	0.00
Avail Cap(c_a), veh/h	579	0	1264	403	0	1294	621	0	521	575	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	13.1	10.0	0.0	9.5	21.9	0.0	23.4	21.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.4	2.1	0.0	0.5	0.5	0.0	4.1	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.5	0.7	0.0	3.6	1.4	0.0	2.7	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.2	0.0	17.5	12.1	0.0	9.9	22.4	0.0	27.5	21.4	0.0	0.0
LnGrp LOS	A		B	B		A	C		C	C		
Approach Vol, veh/h		806			625			315			58	
Approach Delay, s/veh		17.2			10.3			25.6			21.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.5	11.0	33.8		14.5	9.6	35.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	40.5		19.5	5.1	41.9				
Max Q Clear Time (g_c+I1), s		9.0	3.8	24.0		5.4	2.3	12.6				
Green Ext Time (p_c), s		1.0	0.1	5.4		0.2	0.0	3.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	16.4
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	693	39	32	365	46	17	29	4	45	35	54
Future Volume (veh/h)	73	693	39	32	365	46	17	29	4	45	35	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	753	42	35	397	50	18	32	4	49	38	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	693	1186	66	450	1100	139	149	168	17	159	70	85
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	943	1755	98	683	1628	205	353	1280	131	422	532	647
Grp Volume(v), veh/h	79	0	795	35	0	447	54	0	0	146	0	0
Grp Sat Flow(s),veh/h/ln	943	0	1853	683	0	1833	1764	0	0	1601	0	0
Q Serve(g_s), s	1.8	0.0	11.4	1.4	0.0	4.9	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	6.7	0.0	11.4	12.8	0.0	4.9	1.2	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.11	0.33		0.07	0.34		0.40
Lane Grp Cap(c), veh/h	693	0	1252	450	0	1239	334	0	0	313	0	0
V/C Ratio(X)	0.11	0.00	0.63	0.08	0.00	0.36	0.16	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	693	0	1252	450	0	1239	797	0	0	763	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.7	0.0	4.3	7.9	0.0	3.2	18.1	0.0	0.0	19.3	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	2.5	0.3	0.0	0.8	0.2	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.7	0.2	0.0	1.1	0.5	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	5.0	0.0	6.8	8.3	0.0	4.1	18.3	0.0	0.0	20.4	0.0	0.0
LnGrp LOS	A		A	A		A	B			C		
Approach Vol, veh/h		874			482			54			146	
Approach Delay, s/veh		6.6			4.4			18.3			20.4	
Approach LOS		A			A			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.6		36.0		10.6		36.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		3.2		13.4		6.0		14.8				
Green Ext Time (p_c), s		0.2		6.1		0.6		2.9				
Intersection Summary												
HCM 7th Control Delay, s/veh			7.6									
HCM 7th LOS			A									

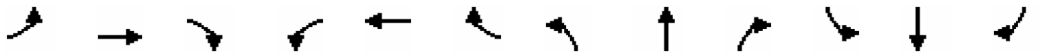
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	725	12	28	308	20	8	2	12	8	2	0
Future Vol, veh/h	5	725	12	28	308	20	8	2	12	8	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	788	13	30	335	22	9	2	13	9	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	357	0	0	801	0	0	1202	1223	795	1207	1218	346
Stage 1	-	-	-	-	-	-	805	805	-	407	407	-
Stage 2	-	-	-	-	-	-	397	417	-	800	812	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1202	-	-	822	-	-	161	179	388	160	180	697
Stage 1	-	-	-	-	-	-	376	395	-	621	598	-
Stage 2	-	-	-	-	-	-	629	591	-	379	392	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1202	-	-	822	-	-	151	170	388	145	171	697
Mov Cap-2 Maneuver	-	-	-	-	-	-	151	170	-	145	171	-
Stage 1	-	-	-	-	-	-	373	392	-	593	570	-
Stage 2	-	-	-	-	-	-	597	564	-	361	389	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.05	0.75	22.49	31.01
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	230	12	-	-	140	-	-	149
HCM Lane V/C Ratio	0.104	0.005	-	-	0.037	-	-	0.073
HCM Ctrl Dly (s/v)	22.5	8	0	-	9.5	0	-	31
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	719	49	125	430	59	68	48	194	21	22	15
Future Volume (veh/h)	24	719	49	125	430	59	68	48	194	21	22	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	734	50	128	439	60	69	49	198	21	22	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	578	857	58	401	836	114	232	141	267	141	132	66
Arrive On Green	0.09	0.50	0.50	0.11	0.52	0.52	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	1731	118	1781	1611	220	807	836	1585	349	783	395
Grp Volume(v), veh/h	24	0	784	128	0	499	118	0	198	58	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1781	0	1831	1643	0	1585	1528	0	0
Q Serve(g_s), s	0.3	0.0	22.1	1.8	0.0	10.7	0.0	0.0	7.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	22.1	1.8	0.0	10.7	3.4	0.0	7.1	3.4	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.12	0.58		1.00	0.36		0.26
Lane Grp Cap(c), veh/h	578	0	916	401	0	950	372	0	267	339	0	0
V/C Ratio(X)	0.04	0.00	0.86	0.32	0.00	0.53	0.32	0.00	0.74	0.17	0.00	0.00
Avail Cap(c_a), veh/h	578	0	1260	401	0	1291	619	0	520	573	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	13.1	10.0	0.0	9.5	22.0	0.0	23.5	21.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.5	2.1	0.0	0.5	0.5	0.0	4.1	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.5	0.7	0.0	3.6	1.4	0.0	2.7	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.2	0.0	17.6	12.1	0.0	9.9	22.4	0.0	27.6	21.5	0.0	0.0
LnGrp LOS	A		B	B		A	C		C	C		
Approach Vol, veh/h		808			627			316			58	
Approach Delay, s/veh		17.3			10.4			25.7			21.5	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	14.5	11.0	33.9	14.5	9.6	35.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	6.5	40.5	19.5	5.1	41.9
Max Q Clear Time (g_c+I1), s	9.1	3.8	24.1	5.4	2.3	12.7
Green Ext Time (p_c), s	1.0	0.1	5.4	0.2	0.0	3.5

Intersection Summary	
HCM 7th Control Delay, s/veh	16.5
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	741	313	1	1	1
Future Vol, veh/h	1	741	313	1	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	805	340	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	341	0	-	0	1148	341
Stage 1	-	-	-	-	341	-
Stage 2	-	-	-	-	808	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1218	-	-	-	220	702
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1218	-	-	-	219	702
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	439	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.01	0	15.84
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	2	-	-	-	334
HCM Lane V/C Ratio	0.001	-	-	-	0.007
HCM Ctrl Dly (s/v)	8	0	-	-	15.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	741	314	2	2	1
Future Vol, veh/h	1	741	314	2	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	805	341	2	2	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	343	0	-	0	1150	342
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	808	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1216	-	-	-	219	700
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1216	-	-	-	219	700
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	718	-
Stage 2	-	-	-	-	439	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.01	0	17.83
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	2	-	-	-	284
HCM Lane V/C Ratio	0.001	-	-	-	0.011
HCM Ctrl Dly (s/v)	8	0	-	-	17.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Minnesota Pollution Control Agency

February 8, 2002

Mr. Walter Kunz
Kunz Oil Company
7900 Excelsior Boulevard
Hopkins, MN 55343

RE: Petroleum Tank Release Site File Closure
Site: Former Peoples Plus, 6016 Vernon Avenue, Edina
Site ID#: LEAK00002247

Dear Mr. Kunz:

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) staff has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the MPCA staff has closed the release site file.

Closure of the file means that the MPCA staff does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the MPCA staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment under current conditions.

The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information, changing regulatory requirements or changed land use make additional work necessary. If you or other parties discover additional contamination (either petroleum or nonpetroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified.

You should understand that this letter does not release any party from liability for the petroleum contamination under Minn. Stat. ch. 115C (2000) or any other applicable state or federal law. In addition, this letter does not release any party from liability for nonpetroleum contamination, if present, under Minn. Stat. ch. 115B (2000), the Minnesota Superfund Law.

The monitoring wells for this site should be abandoned in accordance with the Minnesota Department of Health Well Code, Chapter 4725. If you choose to keep the monitoring wells, the Minnesota Department of Health will continue to assess a maintenance fee for each well.

Please note that as a result of performing the requested work you may be eligible to apply to the Petroleum Tank Release Compensation Fund (Petrofund) for partial reimbursement of the costs you have incurred in investigating and cleaning up this petroleum tank release. The Petrofund is administered by the Petroleum Tank Release Compensation Board (Petro Board) and the Minnesota Department of Commerce. To learn more about who is eligible for reimbursement, the type of work that is eligible for reimbursement, and the amount of reimbursement available, please contact Petrofund staff at 651-297-1119 or 1-800-638-0418.

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present. If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leak site, please call the Leaking Underground Storage Tank File Request Program at 651/297-8499. The MPCA fact sheet *Request to Bill for Services Performed* must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment. If you have any questions regarding this letter, please call me at 651/297-8580.

Sincerely,

Chris McLain
Project Manager
Petroleum Remediation Unit
Petroleum and Landfill Remediation Section
Majors and Remediation Division

CLM:tf

cc: Debra Mangen, Edina City Clerk
Marty Scheerer, Edina Fire Chief
Dave Jaeger, Hennepin County Solid Waste Officer
Jason Rauk, EPOCH Environmental
Mark Hoffman, Minnesota Department of Health
Minnesota Department of Commerce Petrofund Staff

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

March 1, 2022

VIA EMAIL

Marty Collins
Special X Properties LLC
6016 Vernon Ave S
Edina, MN 55436-1908

RE: No Association Determination
Kevin Kee's Auto Service, 6016 Vernon Ave, Edina
MPCA Site ID: BF0001999
Billing ID: 104880
PIN: 3211721230027

Dear Marty Collins:

This letter is in response to the request from Greg Browne of The Javelin Group, Inc. for a determination under Minn. Stat. § 115B.178 that certain actions proposed to be taken by Special X Properties LLC at the Kevin Kee's Auto Service site, located at the address referenced above (the Site), will not constitute conduct associating Special X Properties LLC with the release or threatened release of hazardous substances, pollutants, or contaminants at the Site for the purpose of Minn. Stat. § 115B.03, subd. 3(4).

The Minnesota Pollution Control Agency (MPCA) staff in the Voluntary Investigation and Cleanup (VIC) Program has reviewed the documents submitted for the Site. The 0.38-acre Site was undeveloped until construction of the current Site building in 1957. The building was occupied by a gas station until the early 1990s and has since operated as an auto repair shop. A petroleum release was discovered in November 1992 when underground storage tanks were being removed from the Site. The leak site (MPCA Site ID# LS0002247) was closed in February 2002. Special X Properties LLC intends to renovate the existing Site building for use as a restaurant.

An environmental investigation completed at the Site in September 2021 included three interior soil borings and one exterior soil boring. Four soil samples were collected and analyzed for volatile organic compounds (VOCs) and diesel range organics (DRO); two of the soil samples were also analyzed for Resource Conservation and Recovery Act (RCRA) metals and one sample for polynuclear aromatic hydrocarbons (PAHs). Tetrachloroethene (PCE) was detected in one sample collected near the flammable waste trap at a concentration of 0.24 milligrams per kilogram (mg/kg), which is greater than the MPCA's screening soil leaching value (SLV). Groundwater was not encountered during the investigation.

Five exterior soil vapor samples were collected at the Site in August 2018 and three sub-slab soil vapor samples were collected at the Site in September 2021 (non-heating season) and November 2021 (heating season). PCE was detected at a maximum concentration of 279 µg/m^3, which is less than the MPCA action level of thirty-three times (33X) its commercial intrusion screening value (ISV). Low concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) were also detected in soil vapor.

For the purpose of this letter, the identified release consists of PCE in soil, and PCE, cis-1,2-DCE and other non-petroleum-VOCs in soil vapor (Identified Release). This letter does not address petroleum-related contaminants. Petroleum contamination detected at the Site is under the oversight of the MPCA's Petroleum Brownfield Program.

Based upon a review of the information provided to the MPCA VIC Program, and subject to the conditions set forth in this letter, a determination is hereby made pursuant to Minn. Stat. § 115B.178, subd. 1 that the proposed actions (Proposed Actions) listed below will not associate Special X Properties LLC with the Identified Release for the purpose of Minn. Stat. § 115B.03, subd. 3(4). This determination applies only to the following Proposed Actions:

- Purchase of the Site;
- Renovation of the existing Site building for use as a restaurant; and
- Operation and maintenance of the Site building, grounds, and related infrastructure.

This determination is made in accordance with Minn. Stat. § 115B.178, subd. 1, and is subject to the following conditions:

1. The Proposed Actions shall be carried out as described herein.

2. Special X Properties LLC shall cooperate with the MPCA, its employees, contractors, and others acting at the MPCA's direction, in the event that the MPCA takes, or directs others to take, response actions at the Site to address the Identified Release or any other as yet unidentified release or threatened release of a hazardous substance, pollutant, or contaminant, including, but not limited to, granting access to the Site so that response actions can be taken.

3. Special X Properties LLC shall avoid actions that contribute to the Identified Release or that interfere with response actions required under any MPCA-approved response action plan to address the Identified Release.

Pursuant to Minn. Stat. § 115B.178, subd.1, when Special X Properties LLC takes the Proposed Actions in accordance with the determination in this letter, subject to the conditions stated herein, the Proposed Actions will not associate Special X Properties LLC with the Identified Release for the purpose of Minn. Stat. § 115B.03, subd. 3(4).

The determination made in this letter applies to Special X Properties LLC's successors and assigns if the successors and assigns: 1) are not otherwise responsible for the Identified Release at the Site; 2) do not engage in activities with respect to the Identified Release which are substantially different from the activities which Special X Properties LLC proposes to take, as described herein; and 3) comply with the conditions set forth in this letter.

Please be advised that the determination made in this letter is subject to the disclaimers found in Attachment A and is contingent on compliance with the terms and conditions set forth herein.

If you have any questions about the contents of this letter, please contact Amanda Guertin, Project Manager/Hydrologist, at 651-757-2369 or by email at amanda.guertin@state.mn.us.

Sincerely,

Amy K. Hadiaris

This document has been electronically signed.

Amy K. Hadiaris, P.G.
Supervisor
Redevelopment Unit
Remediation Division

AKH/AG:akh

Enclosure

cc: Greg Browne, The Javelin Group, Inc.
Sharon Allison, City of Edina
John Evans, Hennepin County

Disclaimers

Kevin Kee's Auto Service

MPCA Site ID: BF0001999

1. Reservation of authorities

   The Minnesota Pollution Control Agency (MPCA) Commissioner reserves the authority to take any appropriate actions with respect to any release, threatened release, or other conditions at the Site. The MPCA Commissioner also reserves the authority to take such actions if the voluntary party does not proceed in the manner described in this letter or if actions taken or omitted by the voluntary party with respect to the Site contribute to any release or threatened release, or create an imminent and substantial danger to public health and welfare.

2. No MPCA assumption of liability

   The MPCA, its Commissioner, and staff do not assume any liability for any release, threatened release or other conditions at the Site or for any actions taken or omitted by the voluntary party with regard to the release, threatened release, or other conditions at the Site, whether the actions taken or omitted are in accordance with this letter or otherwise.

3. Letter based on current information

   All statements, conclusions, and representations in this letter are based upon information known to the MPCA Commissioner and staff at the time this letter was issued. The MPCA Commissioner and staff reserve the authority to modify or rescind any such statement, conclusion or representation and to take any appropriate action under his authority if the MPCA Commissioner or staff acquires information after issuance of this letter that provides a basis for such modification or action.

4. Disclaimer regarding use or development of the property

   The MPCA, its Commissioner, and staff do not warrant that the Site is suitable or appropriate for any particular use.

5. Disclaimer regarding investigative or response action at the property

   Nothing in this letter is intended to authorize any response action under Minn. Stat. § 115B.17, subd. 12.

6. This approval does not supplant any applicable state or local stormwater permits, ordinances, or other regulatory documents.

DATE: **4/22/2026**

TO: 6016 Vernon Ave S, Owner and Development Team

CC: Cary Teague – Community Development Director

FROM: Andrew Reinisch – Engineering Technician

RE: **6016 Vernon Ave S – Development Review**

The Engineering Department has reviewed the subject property for pedestrian facilities, utility connections, grading, flood risk, and storm water. Plans reviewed included civil, landscape, and survey drawings dated 2/24/2026

	Review Comment	Required For
General		
1.	Existing easements held by the City require Council action to vacate if deemed appropriate and necessary for the project. Consideration of requests can require up to 60-days to process.	General Comment
2.	Deliver as-build records of public and private utility infrastructure post construction.	Certificate of Occupancy
3.	Maintenance of sidewalks internal to the site will be responsibility of property owner. Sidewalks along Vernon Avenue will be maintained by the City.	General Comment
Survey		
4.	An existing and proposed site condition survey is required.	Grading/Building Permit
4.1	Show all existing and proposed public and private easements.	Grading/Building Permit
Living Streets		
5.	Design sidewalks to meet ADA requirements.	Grading/Building Permit
6.	Saw cut concrete sidewalk joints on public sidewalks.	Grading/Building Permit
7.	Public sidewalk to be minimum 5’ in width with a 5’ boulevard. Extend the Vernon Avenue sidewalk east to the shared use path extended from Eden Prairie Road. Provide an off-ramp for the west end of the Vernon Avenue sidewalk onto the shoulder of Vernon Avenue.	Grading/Building Permit
8.	It is unclear how many bicycle parking stalls are proposed. The recommendation for this location given the proximity to bike lanes on Vernon Ave is 6.	Grading/Building Permit

9.	Bike rack style and spacing should confirm to the recommendations of the American Pedestrian and Bicycle Professionals.	Grading/Building Permit
10.	Applicant should consider including e-bike charging stations.	Grading/Building Permit
11.	It is recommended that this project be exempt from the TDM Policy requirements. Providing information on pedestrian transit facilities is not going to reduce the volume of vehicles traveling to the site.	Grading/Building Permit
Traffic and Street		
12.	Review fire access requirements with fire department. Fire truck turning template attached.	Grading/Building Permit
13.	Provide traffic study and implement City-approved recommendations.	Grading/Building Permit
14.	Driveway Entrance permit required for entrance reconstruction. Vernon Ave driveway permits will need to be obtained through Hennepin County.	Building Permit
15.	Road patching shall conform to Edina Standard Plates 540-545.	Certificate of Occupancy
Sanitary and Water Utilities		
16.	Verify fire demand and hydrant locations.	Grading/Building Permit
17.	Domestic water shall be sized by the developer's engineer.	Grading/Building Permit
18.	Domestic sanitary shall be sized by the developer's engineer.	Grading/Building Permit
19.	Apply for a sewer and water connection permit with Public Works if needed.	Prior to Starting Utility Work
19.1	Public Works to determine acceptable installation methods.	Grading/Building Permit
20.	If necessary, disconnected sanitary and water services to be capped at main.	
21.	A SAC determination will be required by the Metropolitan Council. The SAC determination will be used by the City to calculate sewer and water connection charges	Grading/Building Permit
22.	Single connection from main for fire and domestic, split after main connection.	Grading/Building Permit
23.	A sealed well is on the site. Additional wells not in use must be sealed by a licensed well contractor per MN Rules, Chapter 4725.	Certificate of Occupancy
Storm Water Utility		

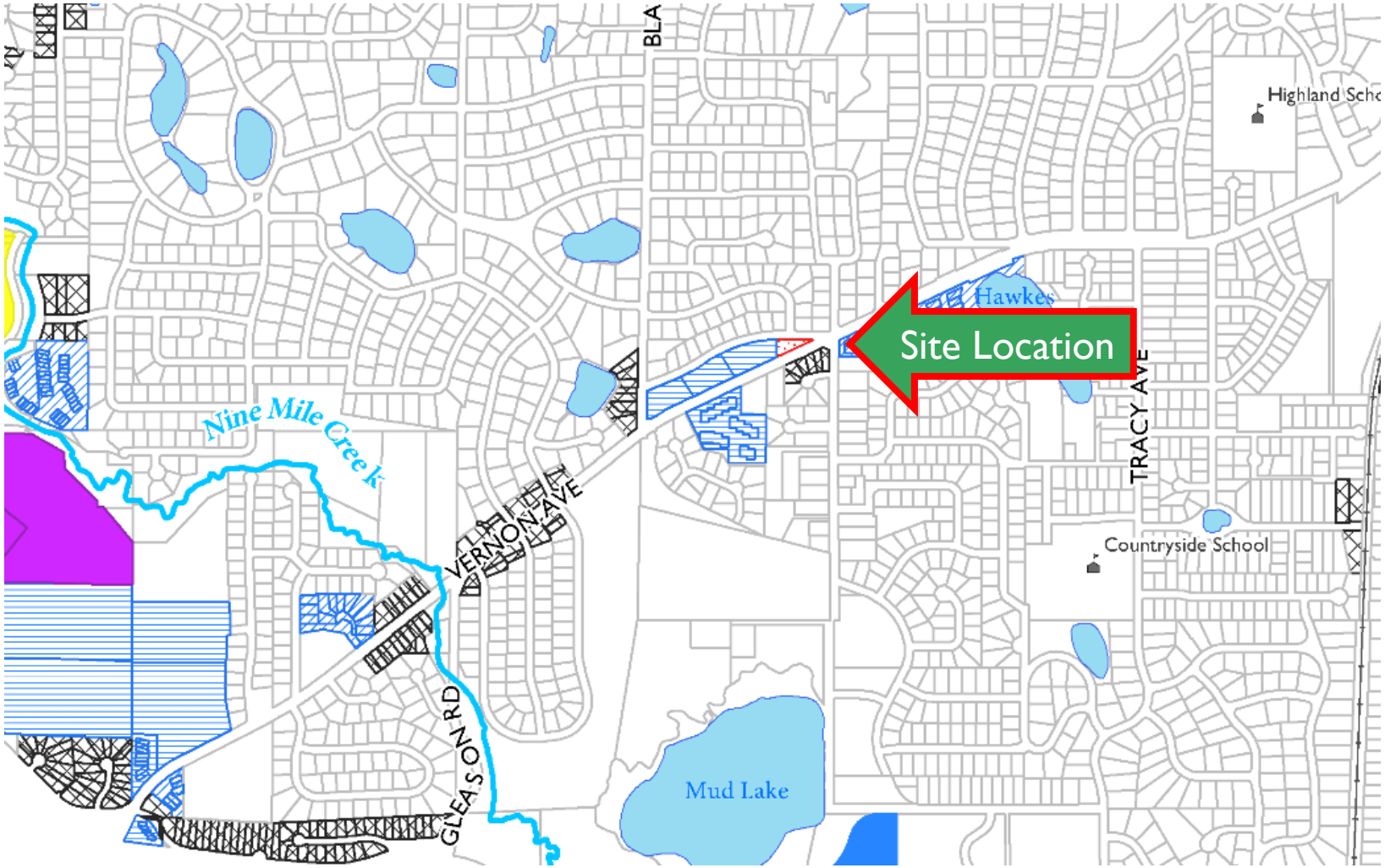
24.	Provide hydraulic and hydrologic report meeting watershed and state construction site permit requirements.	Grading/Building Permit
25.	Submit watershed district permit and copies of private maintenance agreement in favor of watershed.	Grading/Building Permit
Grading Erosion and Sediment Control		
26.	A SWPPP consistent with the State General Construction Site Stormwater Permit is required.	Grading/Building Permit
Constructability and Safety		
27.	Construction staging, traffic control, and pedestrian access plans will be required.	Grading/Building Permit
28.	Retaining walls over 4-ft in height require design by a structural engineer.	Grading/Building Permit
Sustainability		
29.	This project is not required to follow the Sustainable Building Policy. Applicant is encouraged to maximize energy efficiency during building renovation with LED lighting, optimized controls and upgrade HVAC systems. Applicant can either participate in Xcel Energy's Energy Efficient Buildings program for free design services, or participate in Xcel Energy and CenterPoint Energy's building assessment programs. Both programs will provide support for equipment identification, system sizing and access to rebate programs. The City of Edina will cover the co-pay for the building assessment programs, which should be coordinated with the Sustainability Division (MBayer@EdinaMN.gov).	General
Other Agency Coordination		
30.	MDH, MPCA and MCES permits required as needed.	Grading/Building Permit
31.	Nine Mile Creek Watershed District permit is required.	Grading/Building Permit
32.	Hennepin County is the LGU for Vernon Ave. Driveway entrance permit will need to be obtained through them.	Grading/Building Permit

The CITY of EDINA

6016 Vernon Avenue – EV Charging Station Sketch Plan

EdinaMN.gov

Zoning Map & Site Location

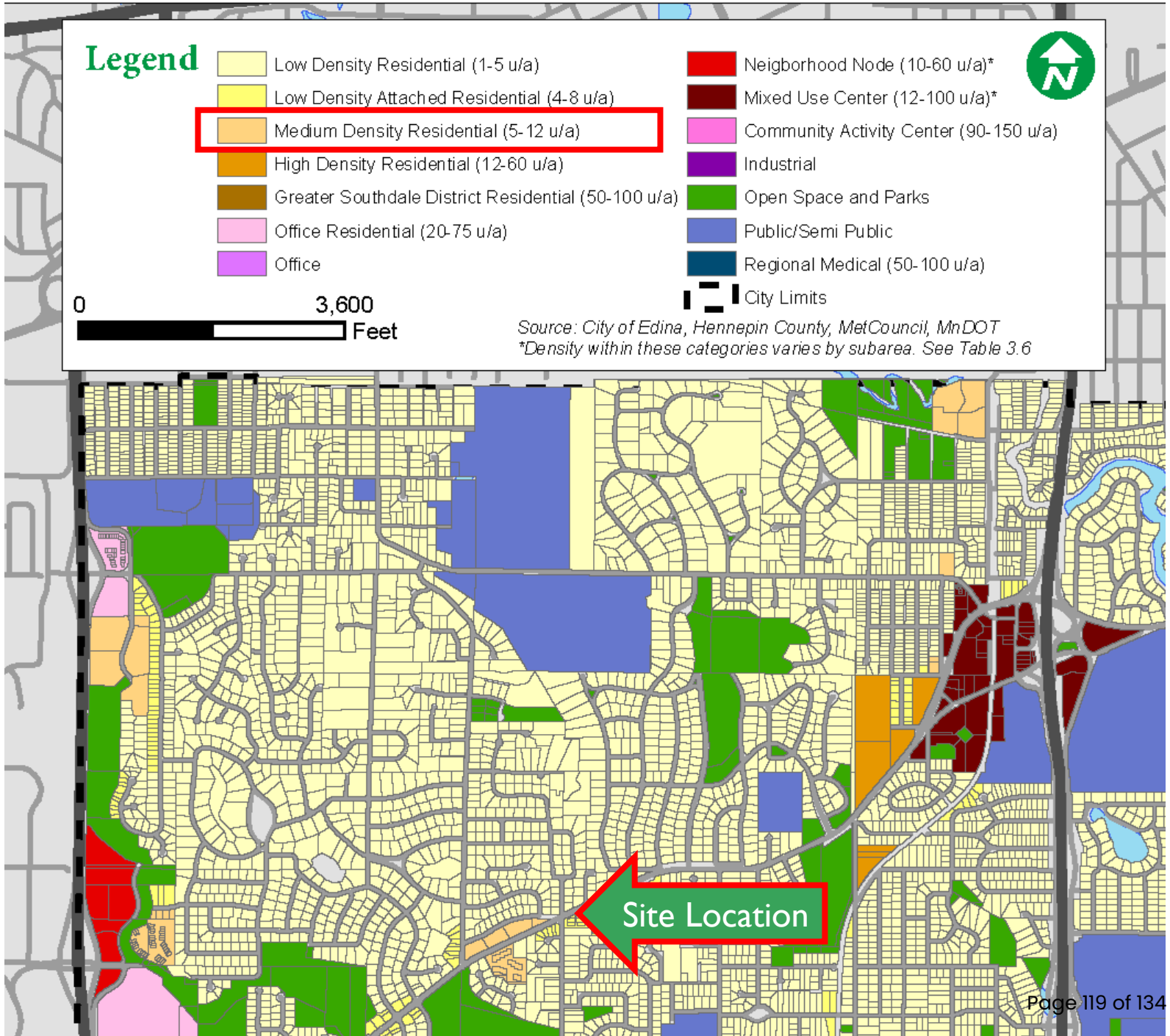


Zoning Map

Legend

- R-1 - Single Dwelling Unit
- R-2 - Double Dwelling Unit
- PRD-1 - Planned Residence
- PRD-2 - Planned Residence
- PRD-3 - Planned Residence
- PRD-4 - Planned Residence
- PRD-5 - Planned Residence
- PCD-1 - Planned Commercial
- PCD-2 - Planned Commercial
- PCD-3 - Planned Commercial
- PCD-4 - Planned Commercial
- POD-1 - Planned Office
- POD-2 - Planned Office
- RMD - Regional Medical
- PID - Planned Industrial
- PUD - Planned Unit Development
- APD - Automotive Parking
- PSR-4 - Planned Residence
- MDD-4 - Mixed Development
- MDD-5 - Mixed Development
- MDD-6 - Mixed Development
- Lakes
- Creeks
- Edina Boundary
- Railroad
- Public Building
- Public School

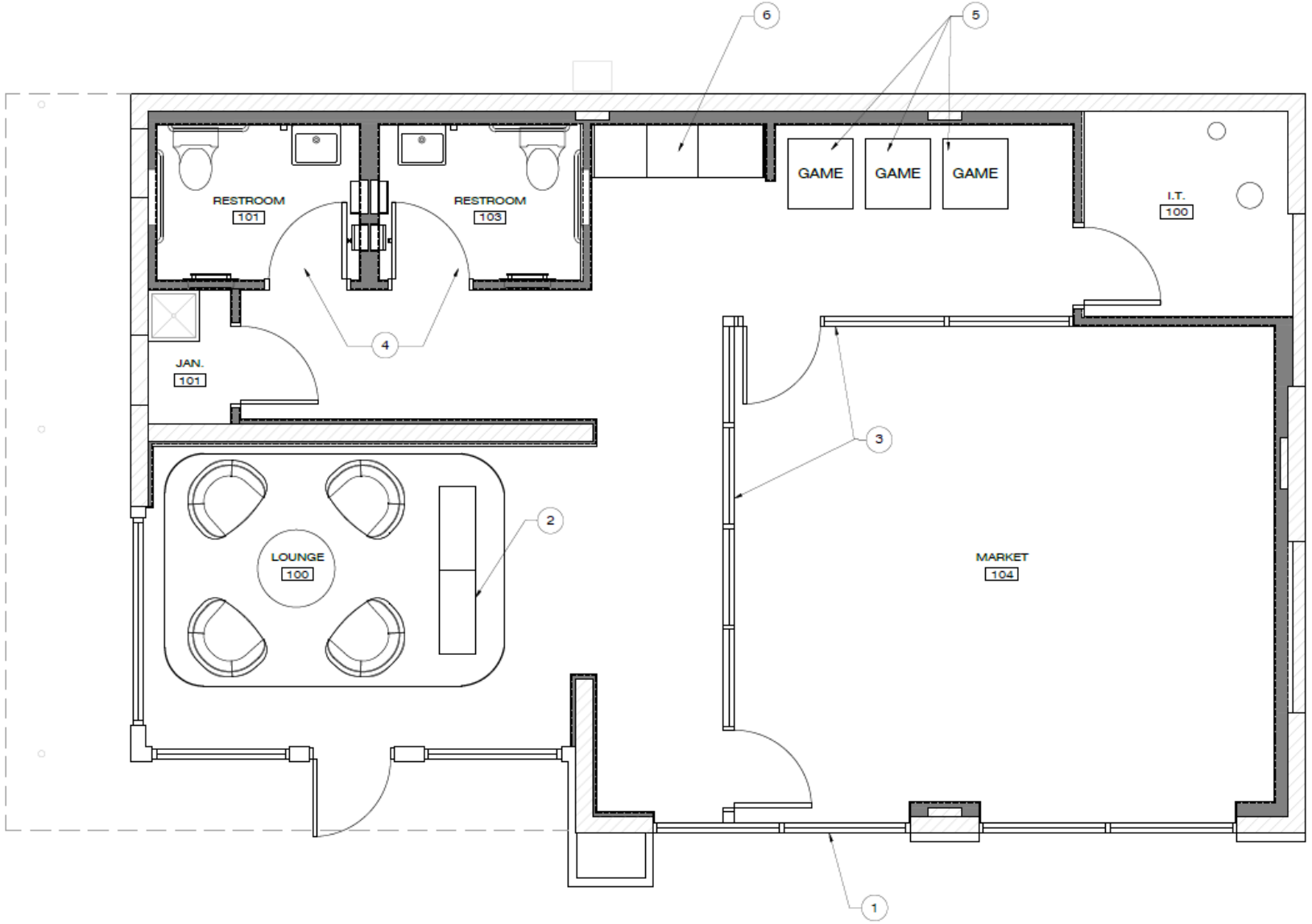
Land Use Map & Site Location



Proposed Charging Station



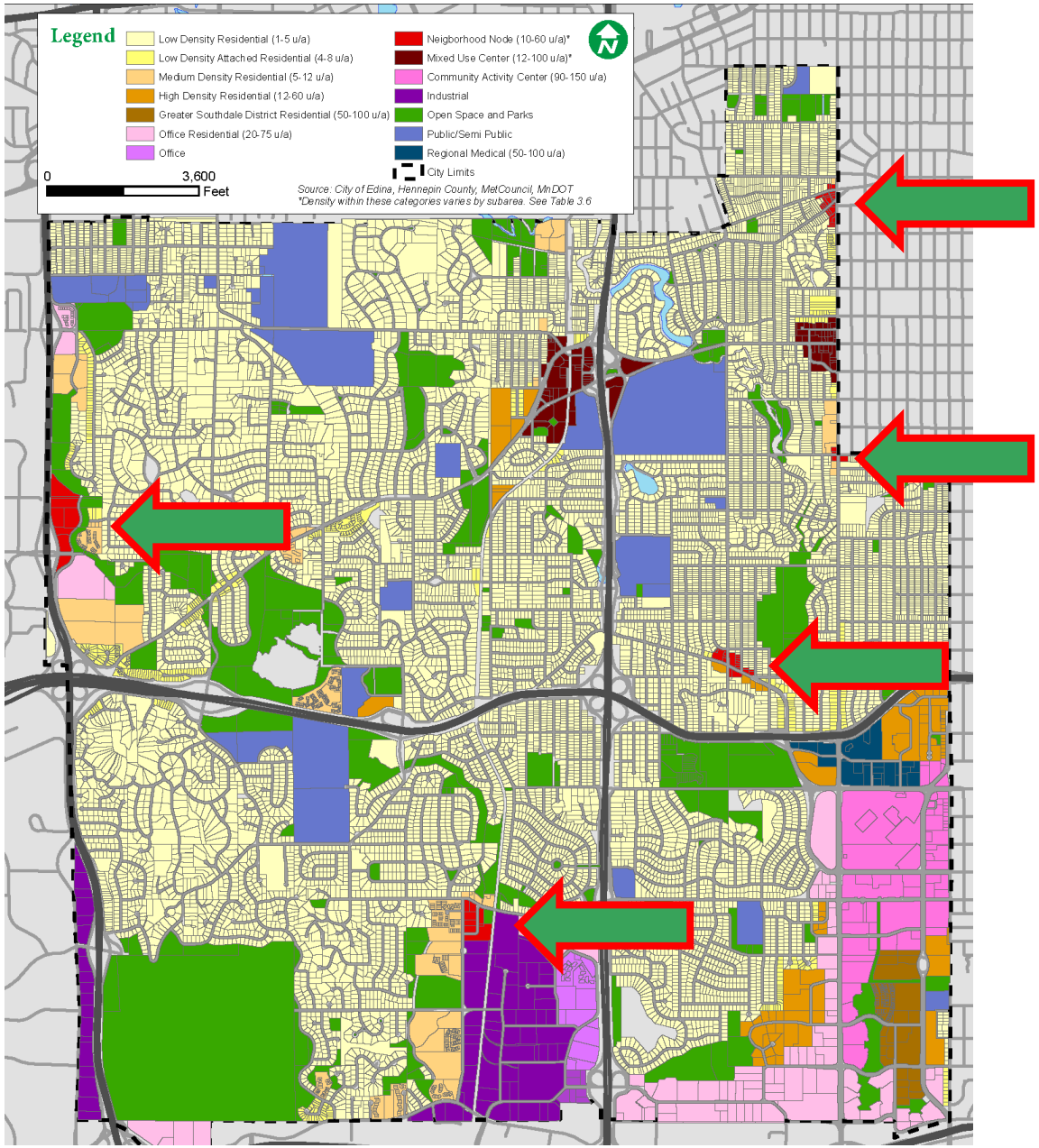
Floor Plan


6
5
RESTROOM
101
RESTROOM
103
GAME
GAME
GAME
I.T.
100
4
JAN.
101
3
2
LOUNGE
100
MARKET
104
1

Request Requires

- A Comprehensive Guide Plan Amendment to re-guide the site from MDR, Medium Density Residential to Neighborhood Node. The site is zoned PCD-4, in which a gas station is a permitted use. A gas station is defined as *"a principal building and its accessory structures used for the sale of **motor fuels** and oils, where automotive accessories and convenience goods may be sold, but where repair and servicing of motor vehicles does not occur; provided, however, that an accessory carwash is permitted."*
- Site Plan Review.
- Multiple Variances: Drive Aisle/Parking Space Setbacks from 20 to 2 feet, Setback to Residential Property from 50 and 110 feet to 12 and 60 feet, Canopy setbacks from 35 & 25 to 0 and 5 feet, Pump Island Setbacks from 20 to 10 and 0 feet, Patio setback from 20 to 2 feet, Mechanical Equipment Setback from 35 to 13 feet, and Parking Lot Setback from the Building from 10 to 2 and 6 feet. (See Compliance Table on page 9 of this staff report.)

Neighborhood Nodes



Appendix A: The pyramid of discretion

The pyramid framework illustrates how much discretion the city has to make land use decisions based on the role it is playing.



The CITY of EDINA

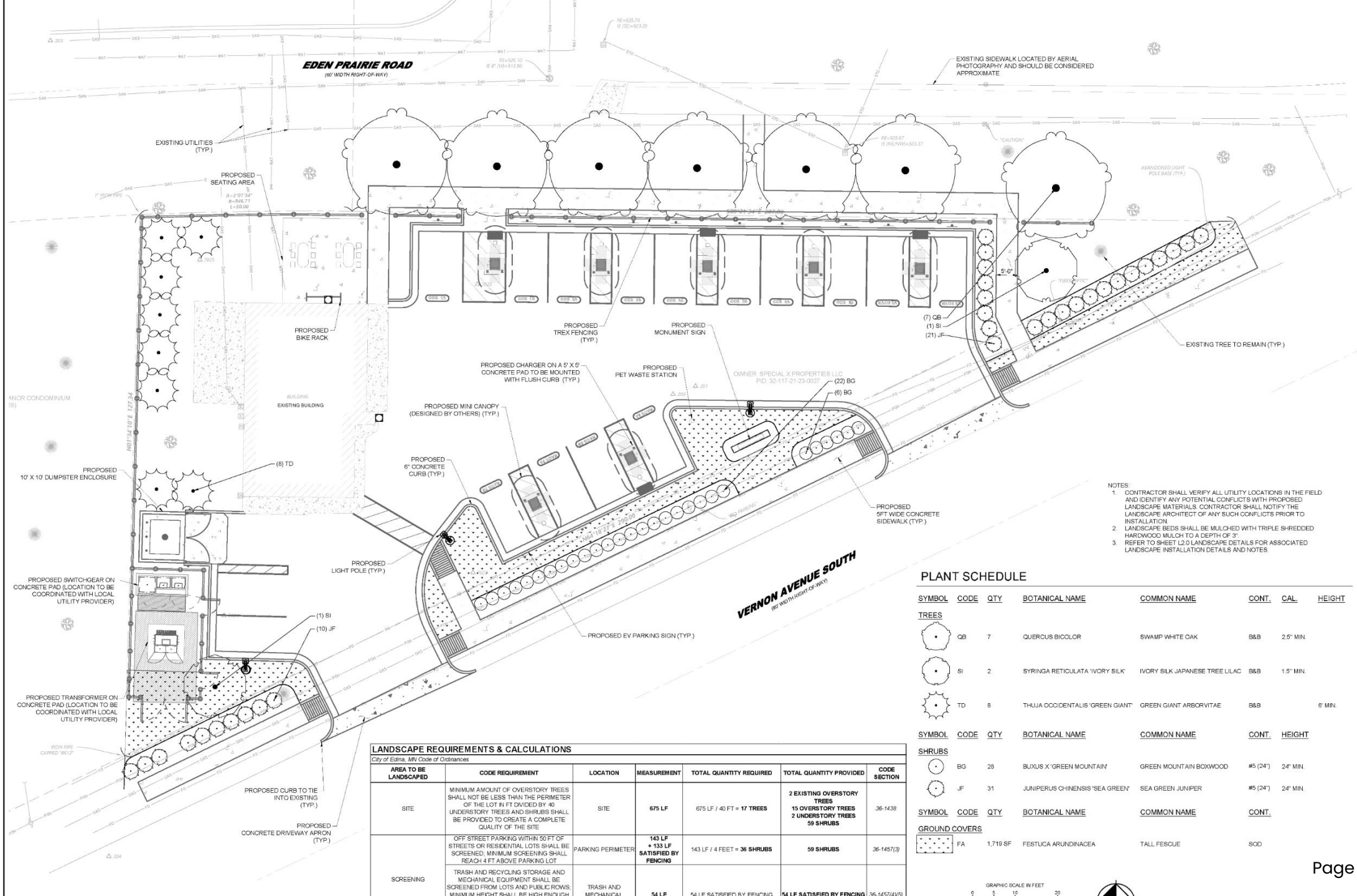

CCS 1A
CCS 1B
CCS 2A
CCS 2B
CCS 3A
CCS 3B
CCS 4A
CCS 4B
NACS 8A
NACS 8B
NACS 7A
NACS 7B


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YOUR LOCAL RECHARGERY
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MINNESOTA
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NOTES:
1. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AND IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED LANDSCAPE MATERIALS. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY SUCH CONFLICTS PRIOR TO INSTALLATION.
2. LANDSCAPE BEDS SHALL BE MULCHED WITH TRIPLE SHREDDED HARDWOOD MULCH TO A DEPTH OF 3".
3. REFER TO SHEET L2.0 LANDSCAPE DETAILS FOR ASSOCIATED LANDSCAPE INSTALLATION DETAILS AND NOTES.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	HEIGHT
TREES							
	QB	7	QUERCUS BICOLOR	SWAMP WHITE OAK	B&B	2.5" MIN.	
	SI	2	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	B&B	1.5" MIN.	
	TD	8	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	B&B		6' MIN.
SYMBOL	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT.**	**HEIGHT**	
SHRUBS							
	BG	28	BUXUS X 'GREEN MOUNTAIN'	GREEN MOUNTAIN BOXWOOD	#5 (24")	24" MIN.	
	JF	31	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	#5 (24")	24" MIN.	
SYMBOL	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT.**		
GROUND COVERS							
	FA	1,719 SF	FESTUCA ARUNDINACEA	TALL FESCUE	SOD		

LANDSCAPE REQUIREMENTS & CALCULATIONS

City of Edina, MN Code of Ordinances

AREA TO BE LANDSCAPED	CODE REQUIREMENT	LOCATION	MEASUREMENT	TOTAL QUANTITY REQUIRED	TOTAL QUANTITY PROVIDED	CODE SECTION
SITE	MINIMUM AMOUNT OF OVERSTORY TREES SHALL NOT BE LESS THAN THE PERIMETER OF THE LOT IN FT DIVIDED BY 40 UNDERSTORY TREES AND SHRUBS SHALL BE PROVIDED TO CREATE A COMPLETE QUALITY OF THE SITE	SITE	**675 LF**	675 LF / 40 FT = **17 TREES**	**2 EXISTING OVERSTORY TREES 15 OVERSTORY TREES 2 UNDERSTORY TREES 59 SHRUBS**	*36-1438*
SCREENING	OFF STREET PARKING WITHIN 50 FT OF STREETS OR RESIDENTIAL LOTS SHALL BE SCREENED. MINIMUM SCREENING SHALL REACH 4 FT ABOVE PARKING LOT	PARKING PERIMETER	**143 LF + 133 LF SATISFIED BY FENCING**	143 LF / 4 FEET = **36 SHRUBS**	**59 SHRUBS**	*36-1457(3)*
	TRASH AND RECYCLING STORAGE AND MECHANICAL EQUIPMENT SHALL BE SCREENED FROM LOTS AND PUBLIC ROWS; MINIMUM HEIGHT SHALL BE HIGH ENOUGH	TRASH AND MECHANICAL	**54 LF**	54 LF SATISFIED BY FENCING	**54 LF SATISFIED BY FENCING**	*36-1457(4)(5)*

GRAPHIC SCALE IN FEET
0 5 10 20

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT 016895119
DATE 2/24/2026
SCALE AS SHOWN
DESIGNED BY KAR
DRAWN BY KAR
CHECKED BY EGS

ISSUE BLOCK

No.	DATE	BY
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6		
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8		

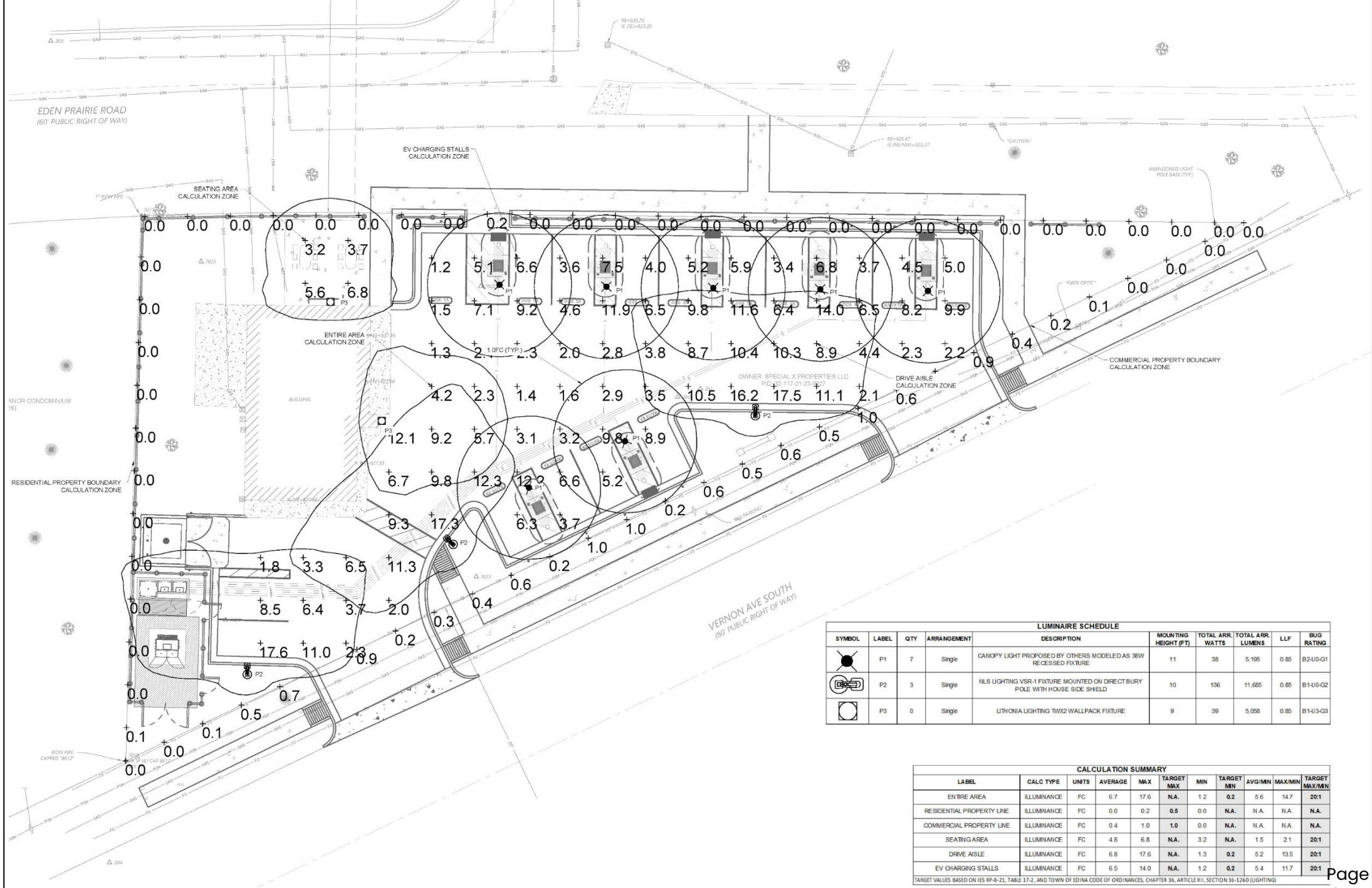
STIPULATION FOR REUSE

THIS PLAN WAS PREPARED FOR USE ON A SPECIFIC SITE: 6016 VERNON AVE. S., EDINA, MN, AND IS VALID ONLY AS OF ITS ISSUE DATE (2/24/2026). IT IS NOT SUITABLE FOR USE ON ANY OTHER PROJECT SITE OR AT A LATER TIME. ANY USE OF THIS PLAN AS A REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE INVOLVEMENT OF APPROPRIATELY LICENSED ENGINEERS. REPRODUCTION OR REUSE OF THIS PLAN FOR ANOTHER PROJECT IS UNAUTHORIZED AND MAY VIOLATE APPLICABLE LAWS.

Main: (612) 315-1272 | www.kimley-horn.com
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IONNA™
6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0008 EDINA, MN

LANDSCAPE PLAN



LUMINAIRE SCHEDULE

SYMBOL	LABEL	QTY	ARRANGEMENT	DESCRIPTION	MOUNTING HEIGHT (FT)	TOTAL ARR. WATTS	TOTAL ARR. LUMENS	LLF	BUG RATING
	P1	7	Single	CANOPY LIGHT PROPOSED BY OTHERS MODELED AS 38W RECESSED FIXTURE	11	38	5,195	0.85	B2-U0-G1
	P2	3	Single	NLS LIGHTING VSR-1 FIXTURE MOUNTED ON DIRECT BURY POLE WITH HOUSE SIDE SHIELD	10	136	11,685	0.85	B1-U0-G2
	P3	0	Single	LITHONIA LIGHTING TWX2 WALLPACK FIXTURE	9	39	5,058	0.85	B1-U3-G3

CALCULATION SUMMARY

LABEL	CALC TYPE	UNITS	AVERAGE	MAX	TARGET MAX	MIN	TARGET MIN	AVG/MIN	MAX/MIN	TARGET MAX/MIN
ENTIRE AREA	ILLUMINANCE	FC	6.7	17.6	N.A.	1.2	0.2	5.6	14.7	20:1
RESIDENTIAL PROPERTY LINE	ILLUMINANCE	FC	0.0	0.2	0.5	0.0	N.A.	N.A.	N.A.	N.A.
COMMERCIAL PROPERTY LINE	ILLUMINANCE	FC	0.4	1.0	1.0	0.0	N.A.	N.A.	N.A.	N.A.
SEATING AREA	ILLUMINANCE	FC	4.8	6.8	N.A.	3.2	N.A.	1.5	2.1	20:1
DRIVE AISLE	ILLUMINANCE	FC	6.8	17.6	N.A.	1.3	0.2	5.2	13.5	20:1
EV CHARGING STALLS	ILLUMINANCE	FC	6.5	14.0	N.A.	1.2	0.2	5.4	11.7	20:1

TARGET VALUES BASED ON IES RP-8-21, TABLE 17-2, AND TOWN OF EDINA CODE OF ORDINANCES, CHAPTER 36, ARTICLE XII, SECTION 36-1260 (LIGHTING)

GRAPHIC SCALE IN FEET

STIPULATION FOR REUSE

THIS PLAN WAS PREPARED FOR USE ON A SPECIFIC SITE: 6016 VERNON AVE. S., EDINA, MN, AND IS VALID ONLY AS OF ITS ISSUE DATE (2/24/2026). IT IS NOT SUITABLE FOR USE ON ANY OTHER PROJECT SITE OR AT A LATER TIME. ANY USE OF THIS PLAN AS A REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE INVOLVEMENT OF APPROPRIATELY LICENSED ENGINEERS. REPRODUCTION OR REUSE OF THIS PLAN FOR ANOTHER PROJECT IS UNAUTHORIZED AND MAY VIOLATE APPLICABLE LAWS.

ISSUE BLOCK

No.	DATE	BY
0		
1		
2		
3		
4		
5		
6		
7		
8		

PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT 016895119
DATE 2/24/2026
SCALE AS SHOWN
DESIGNED BY JCS
DRAWN BY EJB
CHECKED BY JCS

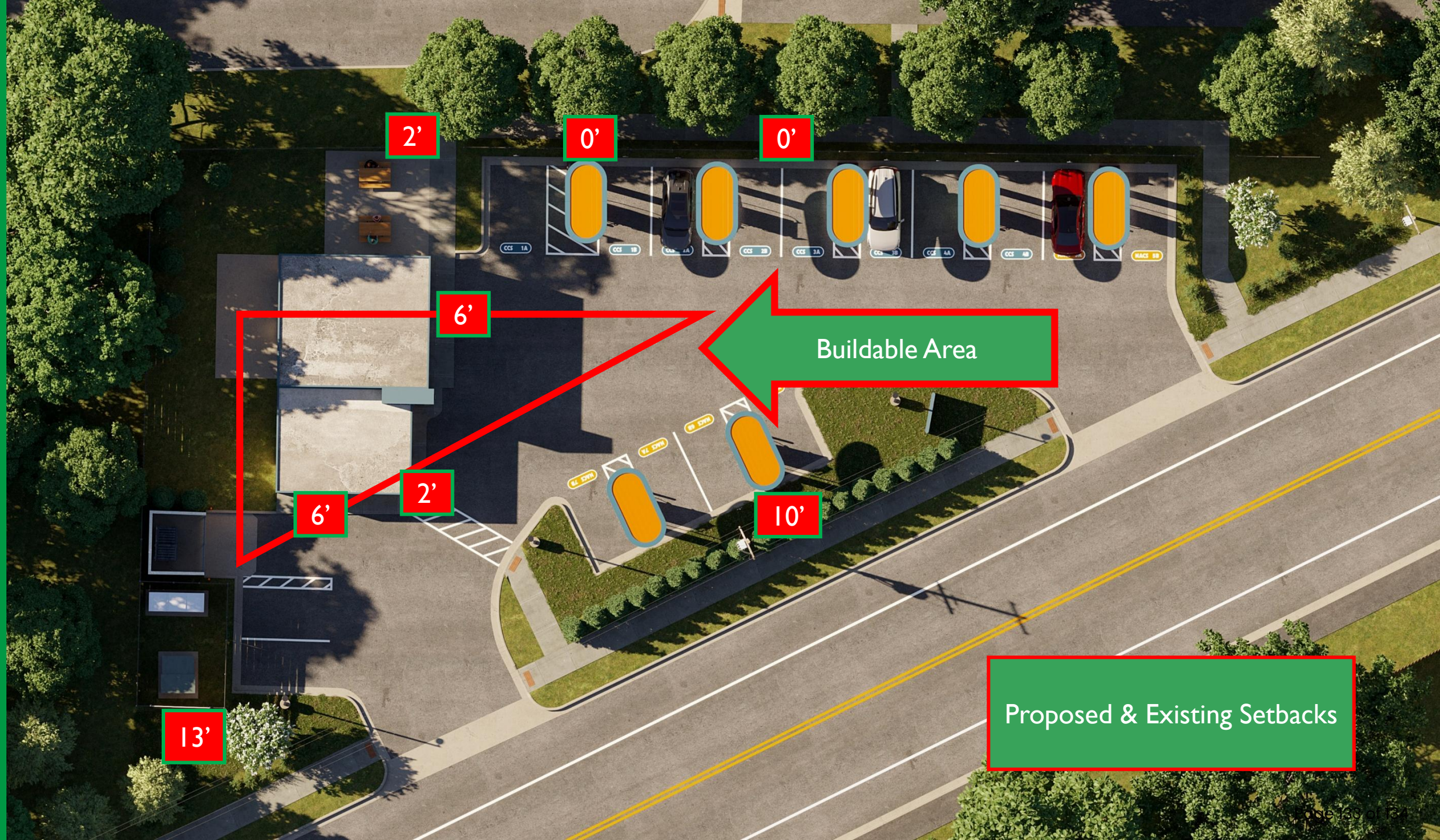
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6016 VERNON AVE. S.
EDINA, MN 55436
SITE NO.: MN-0006 EDINA, MN

PHOTOMETRIC PLAN

Zoning Ordinance Compliance Table

	City Standard (PCD-4)	Proposed
Setbacks (Structure)		
Front (Vernon)	35 feet	25 feet (existing)
Front (EP Road)	25 feet	20 feet (existing)
Side (West)	25 feet	25 feet (existing)
Setbacks (Canopy)		
Front (Vernon)	35 feet	***0 feet****
Front (EP Road)	25 feet	***10 feet****
Side (West)	25 feet	40+ feet
Setbacks (Pump Islands)		
Front (Vernon)	20 feet	***0 feet****
Front (EP Road)	20 feet	***10 feet****
Side (West)	25 feet	50+ feet
Setbacks (Parking lot)		
Drive aisle (Vernon)	20 feet	***0 feet****
Drive aisle (EP Road)	20 feet	***10 feet****
Side (West)	10 feet	12 feet
Setback from Residential Use		
From adjacent property	50 feet	***12 feet****
From property separated by a street	110 feet	***60 feet****
Parking Setback from Building	10 feet	***6 & 8 feet****
Maximum Lot Size	60,000 s.f.	16,373 s.f.
Minimum Lot Size	15,000 s.f.	16,373 s.f.
Parking Stalls	1 space per employee plus 1 space per 300 square feet 5 stalls required	16 stalls
FAR	30%	8%


2’
0’
0’
6’
Buildable Area
2’
6’
10’
13’
Proposed & Existing Setbacks

Primary Issues

- **Is the Comprehensive Plan Amendment reasonable?**

- **Are the proposed Variances justified?**