

Agenda
Planning Commission
City Of Edina, Minnesota
City Hall, Council Chambers

Wednesday, July 28, 2021
7:00 PM

Watch the meeting on cable TV or at EdinaMN.gov/LiveMeetings or Facebook.com/EdinaMN.

To participate in Public Hearings:

Call 800-374-0221.

Enter Conference ID 6848907.

Give the operator your name, street address and telephone number.

Press *1 on your telephone keypad when you would like to get in the queue to speak.

A City staff member will introduce you when it is your turn.

**Or attend the meeting to provide testimony, City Hall Council Chambers, 4801 W.
50th St.**

- I. Call To Order
- II. Roll Call
- III. Approval Of Meeting Agenda
- IV. Approval Of Meeting Minutes
 - A. Minutes: Planning Commission July 14, 2021
- V. Special Recognitions And Presentations
 - A. Sustainable Buildings Policy
- VI. Community Comment

During "Community Comment," the Board/Commission will invite residents to share relevant issues or concerns. 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. Generally speaking, items that are elsewhere on tonight's agenda may not be addressed during Community Comment. 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.

- VII. Public Hearings
 - A. B-21- 23, 4904 Bywood West, A variance for the relief from

requirement to have a 50% full depth basement under the main floor

VIII. Reports/Recommendations

- A. Finding that the Plan for 4040 W. 70th St. are consistent with the Comprehensive Plan - Tax Increment Financing

IX. Chair And Member Comments

X. Staff Comments

XI. Adjournment

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 72 hours in advance of the meeting.



CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

www.edinamn.gov

Date: July 28, 2021

Agenda Item #: IV.A.

To: Planning Commission

Item Type:

Minutes

From: Liz Olson, Administrative Support Specialist

Item Activity:

Subject: Minutes: Planning Commission July 14, 2021

Action

ACTION REQUESTED:

Approve the minutes from the July 14, 2021 Planning Commission.

INTRODUCTION:

ATTACHMENTS:

July 14, 2021 Draft Meeting Minutes



Minutes
City Of Edina, Minnesota
Planning Commission
Edina City Hall Council Chambers
July 14, 2021

I. Call To Order

Chair Nemerov called the meeting to order at 7:00 PM.

II. Roll Call

Answering the roll call were: Commissioners Miranda, Strauss, Olsen, Bennett, Agnew (remote), Bartling, Alkire and Chair Nemerov. Staff Present: Cary Teague, Community Development Director, Kris Aaker, Assistant Planner Emily Bodeker, Assistant Planner, and Liz Olsen, Administrative Support Specialist.

Absent from the roll call: Commissioners Berube and Cullen.

III. Approval Of Meeting Agenda

Commissioner Strauss moved to approve the July 14, 2021, agenda. Commissioner Alkire seconded the motion. Motion carried.

IV. Approval Of Meeting Minutes

A. Minutes: Planning Commission, June 23, 2021

Commissioner Alkire moved to approve the June 23, 2021, meeting minutes. Commissioner Strauss seconded the motion. Commissioner Alkire offered up the amendment to change wording on page 1 to read, "July 14." As well as an amendment to replace wording on page 2 that reads "2.66-foot" with "2.33-foot." Motion carried as amended.

V. Community Comment

Ms. Janie Weston, 6136 Brookview Avenue, Edina, addressed the Commission regarding a number of proposals for 4404 Valleyview Road for redevelopment. She expressed her concerns about the possibility of a three-story residential home being built on the lot. She requested the Planning Commission follow the Wooddale/Valleyview Small Area Plan which indicates no higher than a two-story home can be built there.

VI. Public Hearings

A. B-21-17, A 36-Foot Front Yard Setback Variance for New Home Construction – 5404 Stauder Circle

Assistant Planner Aaker presented the request for a 36-foot front yard setback variance for new home construction. Staff recommends approval of the variance, as requested subject to the findings and conditions listed in the staff report.

Staff answered Commission questions.

Appearing for the Applicant

Mr. Ryan Fish, PK Architecture, 4329 29th Avenue S., Minneapolis introduced himself and addressed the Commission. He answered questions of the Commission.

Public Hearing

None.

Commissioner Bennett moved to close the public hearing. Commissioner Bartling seconded the motion. Motion carried.

The Commission discussed the front yard setback variance.

Motion

Commissioner Bartling moved that the Planning Commission approve the 36-foot front yard setback variance for new home construction as outlined in the staff memo subject to the conditions and findings therein. Commissioner Olsen seconded the motion. Motion carried.

Video of the meeting is available on the City website for review of detailed comments.

B. B-21-20, Rear Yard and Lot Coverage Variance Request – 6601 Biscayne Blvd

Assistant Planner Aaker presented the request for a rear yard and lot coverage variance. Staff recommends denial of the variance, subject to the findings and conditions listed in the staff report.

The Commission asked questions of staff.

Appearing for the Applicant

Mr. Christopher Strohm, architect, 4901 Abbott Ave So, Minneapolis, introduced himself and addressed the Commission.

Mr. Russ Rubin, applicant, 6601 Biscayne Blvd, introduced himself and addressed the Commission.

The Commission asked questions of the applicant.

Public Hearing

Mr. Jim Vandervelde, 6605 Biscayne Blvd, addressed the Commission and indicated he was in favor of the variance.

It was noted there were two other comments via Better Together Edina in favor of the variance request.

Commissioner Miranda moved to close the public hearing. Commissioner Strauss seconded the motion. Motion carried.

The Commission discussed the variance request. Some of the Commissioners supported the building coverage and thought the addition would improve the property with the rain garden addition and other improvements. As well as some of the Commissioners thought the addition could be redesigned to fit within the current setback area to meet the goals without a variance.

Motion

Commissioner Agnew moved that the Planning Commission approve the rear yard and lot coverage variance request given that this aligns with the goals that City set out within the Comprehensive Plan of being able to age in place as well as this is reducing the overall footprint of their coverage area. Commissioner Bartling seconded the motion.

Additional Commission discussion ensued.

Director Teague indicated he could provide some additional findings for approval for the Commission to consider in the motion and/or the Commission could ask the applicants if they would be willing to revise their plans and come back.

Chair Nemerov asked the applicants if they would like to amend their plans. Mr. Rubin indicated he would like to amend the plans and come back to the Commission.

Chair Nemerov asked Commissioner Agnew if she would like to remove her motion. Commissioner Agnew agreed to remove her motion if the applicant was willing to come back.

Commissioner Miranda moved to continue this item to the August 11, 2021 Planning Commission meeting. Commissioner Alkire seconded the motion. Motion carried.

Video of the meeting is available on the City website for review of detailed comments.

C. B-21-21, 2.1-Foot Side Yard Setback Variance – 5615 Sherwood Drive

Assistant Planner Bodeker presented the request for a 2.1-foot side yard setback variance. Staff cannot support a side yard setback variance for a structure that can be designed or placed on the lot so that it meets the 10-foot setback requirements. Staff does not believe there are unique circumstances to the subject property.

The Commission asked questions of staff.

Appearing for the Applicant

Mr. Matt Kirshner and Ms. Margaret Kirshner, introduced themselves and addressed the Commission. Mr. Sonnek, architect for the applicants, was also at the meeting and answered Commission questions.

Public Hearing

No one wished to address the Commission.

It was noted there were two comments from Better Together Edina in support of the variance.

Commissioner Bennett moved to close the public hearing. Commissioner Alkire seconded the motion. Motion carried.

The Commission discussed the variance.

Motion

Commissioner Miranda moved that the Planning Commission recommend denial of the 2.1-foot side yard setback variance as outlined in the staff memo subject to the conditions and findings therein. Commissioner Bennett seconded the motion. Motion carried with 8 ayes, 0 nays.

Video of the meeting is available on the City website for review of detailed comments.

D. Zoning Ordinance Amendment, Revised Overall Development Plan, Site Plan Review – 4911 77th Street West

Director Teague presented the request for a zoning ordinance amendment. Staff recommends approval of the zoning ordinance amendment, as requested subject to the findings and conditions listed in the staff report.

Staff answered Commission questions.

Appearing for the Applicant

Mr. Jay Scott, Solomon Real Estate Group, introduced himself and addressed the Commission. Mr. Davis Stahl, Cutting Nail Architect was also at the meeting and reviewed the plans with the Commission. The Commission asked the applicants questions.

Public Hearing

Mr. Steve Brown, 5528 Halifax Lane, addressed the Commission and indicated he was in favor of the project.

Ms. Lori Grotz, 5513 Park Place, addressed the Commission and indicated she was not in favor of the project.

Commissioner Bennett moved to close the public hearing. Commissioner Bartling seconded the motion. Motion carried.

Resident comments were addressed by City Staff and the applicants.

The Commission discussed the Zoning Ordinance Amendment. The Commission was divided on approval of the project.

Motion

Commissioner Strauss moved that the Planning Commission recommend approval to the City Council of the Zoning Ordinance Amendment, revised overall development plan, site plan review at 4911 77th Street West as outlined in the staff memo subject to the conditions and findings therein. Commissioner Alkie seconded the motion. Motion failed due to a tie vote.

Commissioner Bennett moved that the Planning Commission recommend denial to the City Council of the Zoning Ordinance Amendment, revised overall development plan, site plan review at 4911 77th Street West as outlined in the staff memo subject to the conditions and findings therein. Commissioner Bartling seconded the motion. Motion failed due to a tie vote.

The Commission continued to debate possible alternatives to a motion. The applicant preferred to move this forward to the City Council as presented.

Video of the meeting is available on the City website for review of detailed comments.

VII. Reports/Recommendations

None.

VIII. Correspondence and Petitions

None.

IX. Chair and Member Comments

Received.

X. Staff Comments

Received.

XI. Adjournment

Commissioner Strauss moved to adjourn the July 14, 2020, Meeting of the Edina Planning Commission at 10:50 PM. Commissioner Bartling seconded the motion. Motion carried.



CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

www.edinamn.gov

Date: July 28, 2021

Agenda Item #: V.A.

To: Planning Commission

Item Type:

Report and Recommendation

From: Grace Hancock, Sustainability Coordinator

Item Activity:

Subject: Sustainable Buildings Policy

Information

ACTION REQUESTED:

No action is required.

INTRODUCTION:

Grace Hancock, Sustainability Coordinator, and Marisa Bayer, CEE, will give a joint presentation on a proposed sustainable buildings policy.

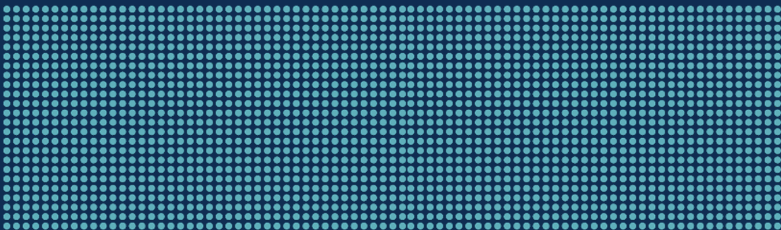
ATTACHMENTS:

Presentation

Report

Handout

FAQ Document



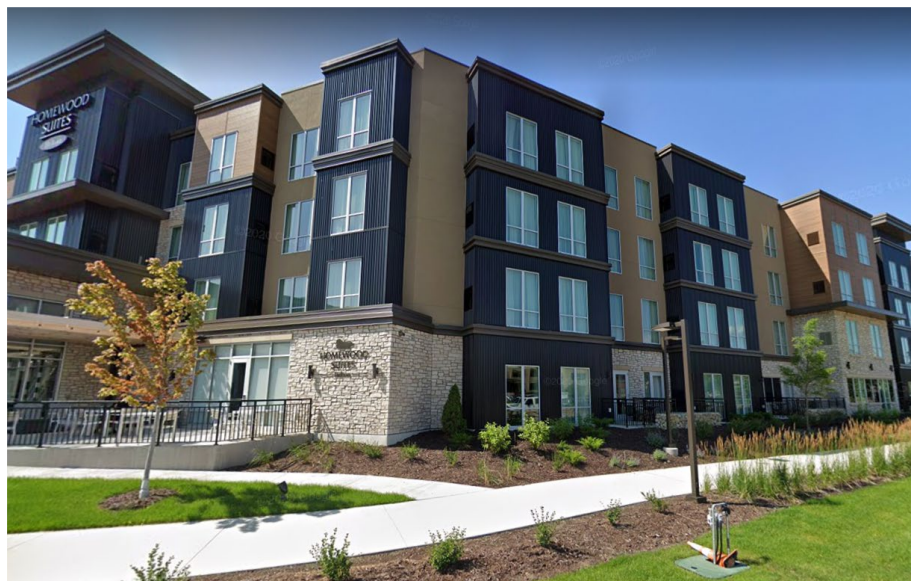
Edina Sustainable Building Policy Development

A part of the Hennepin County Efficient Buildings Collaborative

Katie Jones, Marisa Bayer

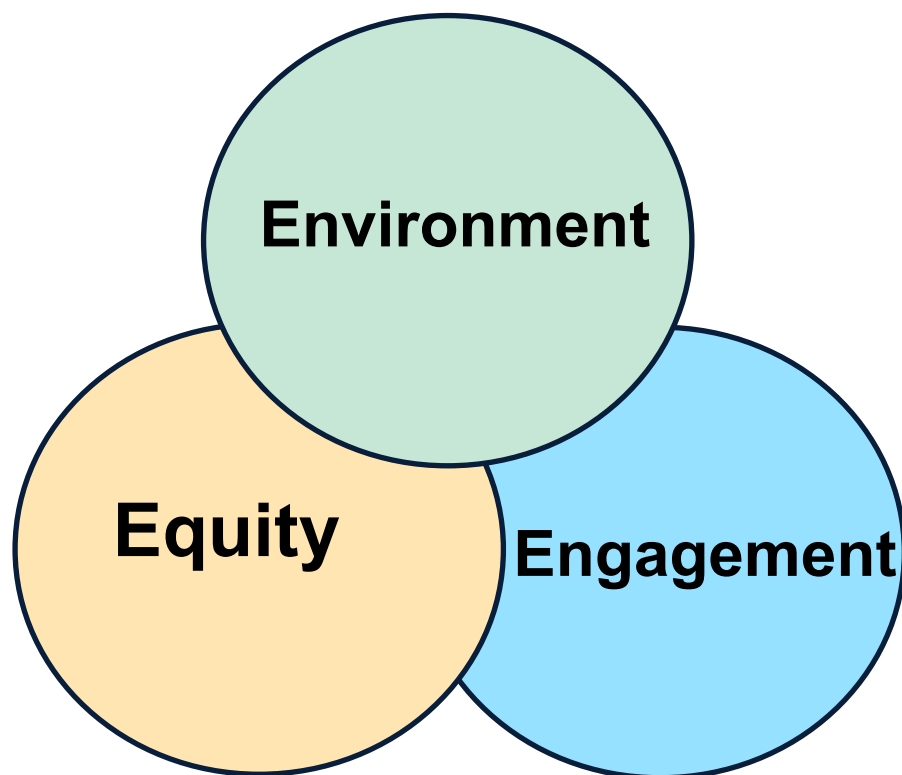
•• Agenda

- How we got here
- Proposed policy
- Feedback to-date
- Proposed resources
- Q&A



•• How we got here

- **City Council Values**

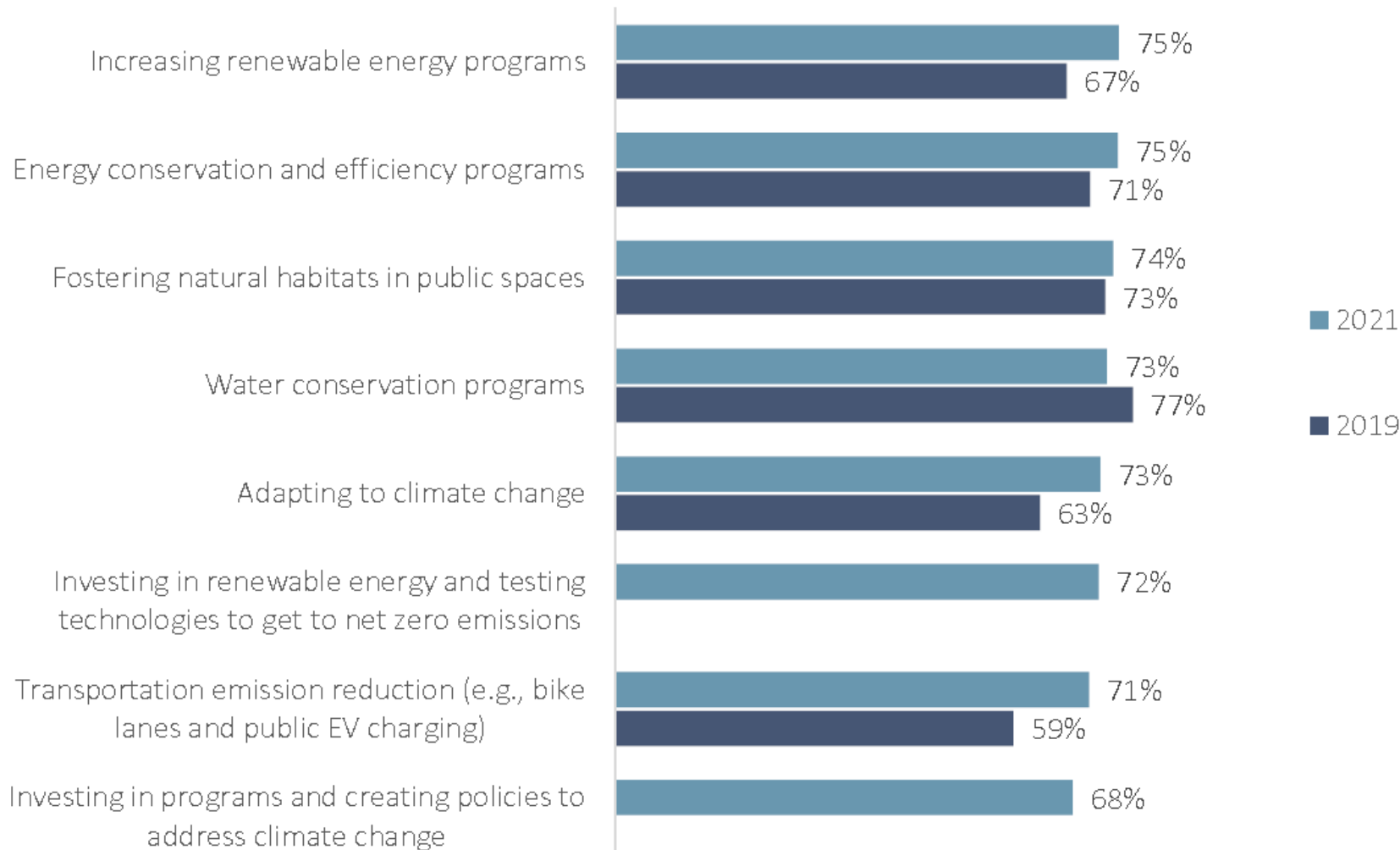


- **Existing Practices**

- Reduce Greenhouse Gas Emissions 30% by 2025
- 2016 Electricity Action Plan
- 2019 Efficient Building Benchmarking Ordinance

• Sustainability is important in Edina

Rate how important, if at all, each service is to the Edina community.



Definition: What is a sustainable building policy?



Where triggered by funding or land use incentives, SBPs establish minimum sustainability criteria that go beyond existing state code for new construction or significantly renovated developments.



Included criteria typically target areas for pollution reduction and resource conservation.



Also known as: green building policies, green building standards,

Policy History

2001

Minnesota State
Legislature directs the
establishment of
Sustainable Building
Guidelines (B3)



2006
Minneapolis
adopts LEED
Building
Policy



2010
Saint Paul and
St. Louis Park
adopt
Sustainable /
Green Building
Policies



2013
Maplewood
adopts Green
Building
Program
Ordinance



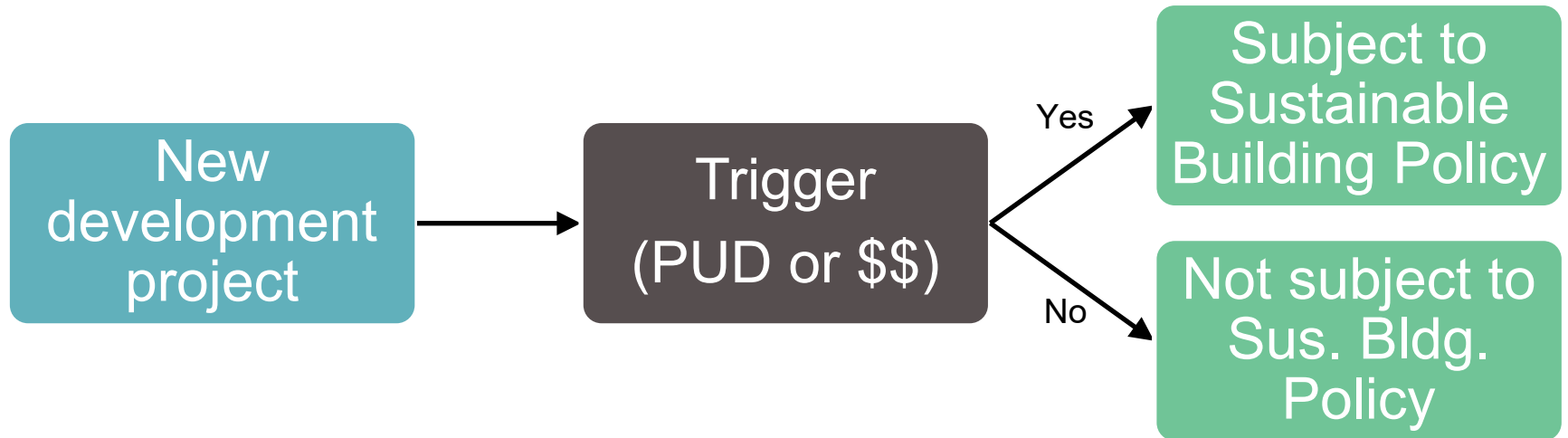
2018
Rochester and
DMC adopt
New
Construction
Sustainable
Guidelines



Proposed Sustainable Building Policy



•• Terms



•• Policy Triggers

- Land use incentives
 - Planned unit development (PUD)
- Financial incentive
 - Housing & Redevelopment Funds
 - Tax Increment Financing (TIF)
 - Metropolitan Council Livable Communities Act
 - Housing Improvement Area and Affordable Housing Trust Fund
 - Conduit Bonds

Terms



• Rating Systems – Things to Note



Provide third-party verification



Some certifications cannot be given until 12 months *after* a development is constructed



Third party verification is relatively easy to operationalize for a city

Rating System Options

Commercial/ Mixed-Use

LEED

B3 Guidelines

Multi-family

LEED

B3 Guidelines

Green Star
Homes

Green
Communities

Single- family

LEED

Green Star

Green
Communities

Parking

Park Smart
Silver

Other rating systems as approved.

•• What about single-family homes?

- The policy does not apply, unless:
 - The development requests a PUD
 - The development requests public \$\$
- Most likely scenarios:
 - Affordable townhome development
 - Subdivision development requiring a PUD
- Takeaway – the policy will not have a large effect on single-family development

Rare for single-family homes

Overlay

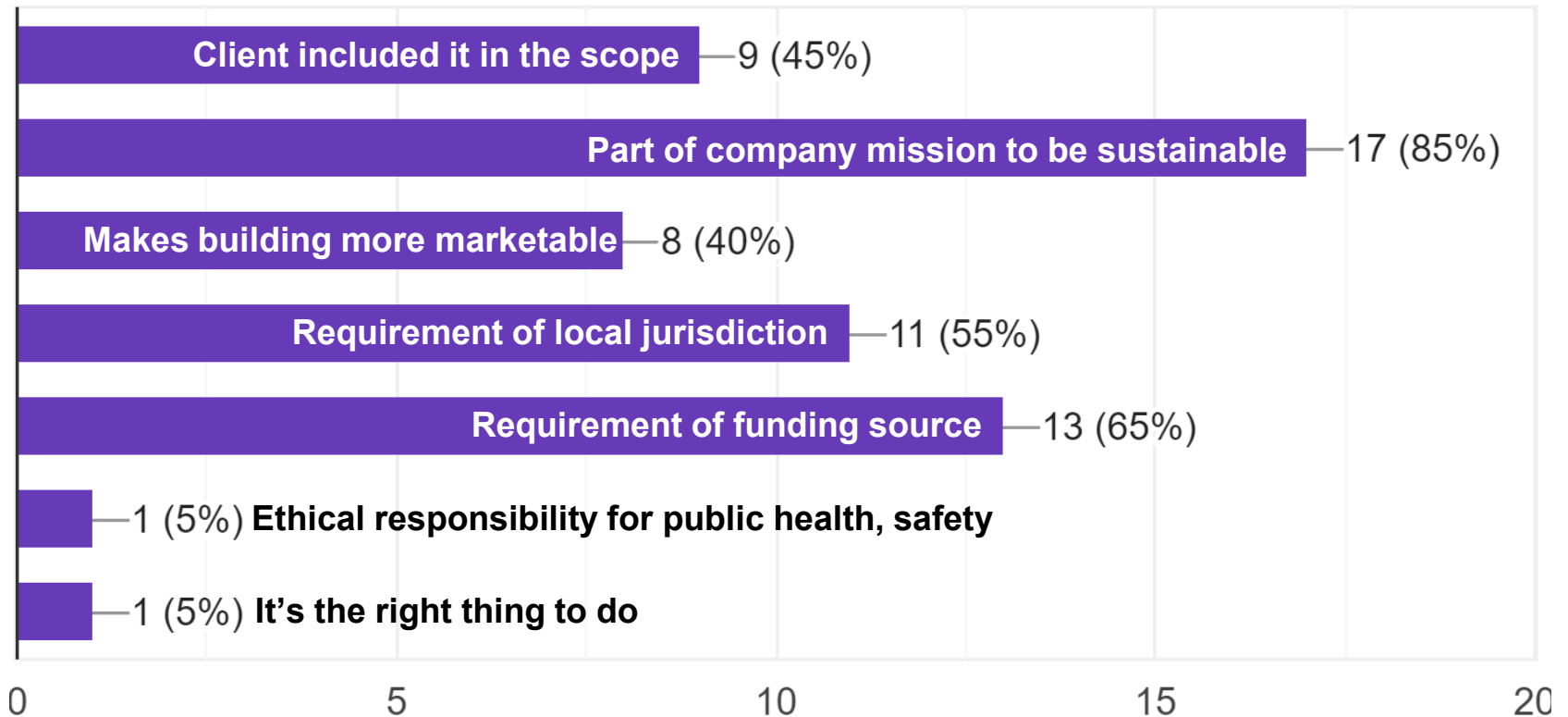
Criteria	Rule
Predicted greenhouse gas emissions	Must be calculated and reported
Electric vehicle charging capability (if parking is included at all)	i) Install conduit that allows 10% charging stations to be installed at a future date ii) 5% of parking spaces must be dedicated to charging stations
Electric Appliance Capability	Install electric sources for space heating, hot water heating, and cooking where cost-effective (simple payback periods should align with SB 2030 Guidelines)



Feedback to date



Many developers/architects already incorporate sustainable elements



Common themes in barriers and concerns

Compliance	Expertise
• Setbacks, design guidelines, zoning • Evolving policies • Who is confirming compliance?	• Lack of technical expertise at different points in process (design, approvals, construction, certification) • Only so many contractors who can do this work
Cost implications	Consistency
• Higher standards result in more costs • Additional review can delay construction • Most funding sources don't identify additional expense as "eligible"	• Some funding sources have their own requirements • Differences between jurisdictions on overlays



Common themes for solutions and benefits

Compliance	Expertise
• Single point of contact on who to ask questions • Clear decision maker on adherence to policy • Updated website, development review	• Technical expertise for guidelines and overlays early on in process • Different points in process (design, approvals, construction, certification)
Cost implications	Consistency
• Grants or incentives to help achieve goal • Streamlining process to avoid construction and permit delays	• Uniform policies across jurisdictions to avoid confusion • Developer agreement listing requirements to avoid changes in standards

•• Edina Stakeholder Takeaways Part 1

- Building owners should be able to choose their rating system based on goals and cost
 - Bringing in third party rating requirements takes risk/liability off design team
 - Need for technical expert for questions
- It's important to be able to tell the story of SBP through case studies, both to demonstrate best practices and to sell to financiers
 - Currently, there is a market for sustainability in commercial buildings
 - There is less of a market demand for sustainability in MF buildings.
 - In both cases, SBP can help move the market.

•• Edina Stakeholder Takeaways Part 2

- This policy takes a different approach than Edina's development questionnaire
 - Rather than guided questions, it requires a third-party certification and compliance with an overlay
- Be very clear about rating system version requirements and the policy's relationship to code
 - Requirement will be for whichever is most stringent between chosen rating system and code
- There was interest:
 - In addressing sustainability in existing buildings
 - To accelerate this policy's adoption

•• EEC Stakeholder Feedback

- Overlay requirements for electrification and electric vehicles should be stronger
 - Electrification has greenhouse gas emission impacts and is important component of Climate Action Plan under development
 - Electric vehicle requirements seem low, especially with even more new vehicles on the road
- Timeline for implementation should be moved up
 - Education period should be shorter to avoid missing 2022 projects
- Renovations and remodels should be included in the policy at 10,000 sq ft
- Sustainability rating systems should included LEED Silver as a minimum
- Where possible, integrate this into our business recognition program



Proposed Resources



• Efficient Buildings Collaborative



Standardized process for benchmarking policies



Shared resources



Tools for implementation



Economically feasible



Basic uniformity across cities benefits building owners



Hennepin County Efficient Buildings Collaborative

- Recognition that small- to mid-sized cities often lack
 - Capacity
 - Technical expertise
 - Funding
- Purpose: expand resources for cities to be able to develop and implement sustainability policies and programs
- Open-source resources inside and outside of the county through use of JPAs

• Efficient Buildings Collaborative Phase 2



WHAT: POLICY GUIDE



HOW:
IMPLEMENTATION
RESOURCES

• Sustainable Building Policy Activities



POLICY
REQUIREMENT
EDUCATION



TECHNICAL
ASSISTANCE FOR
DEVELOPER

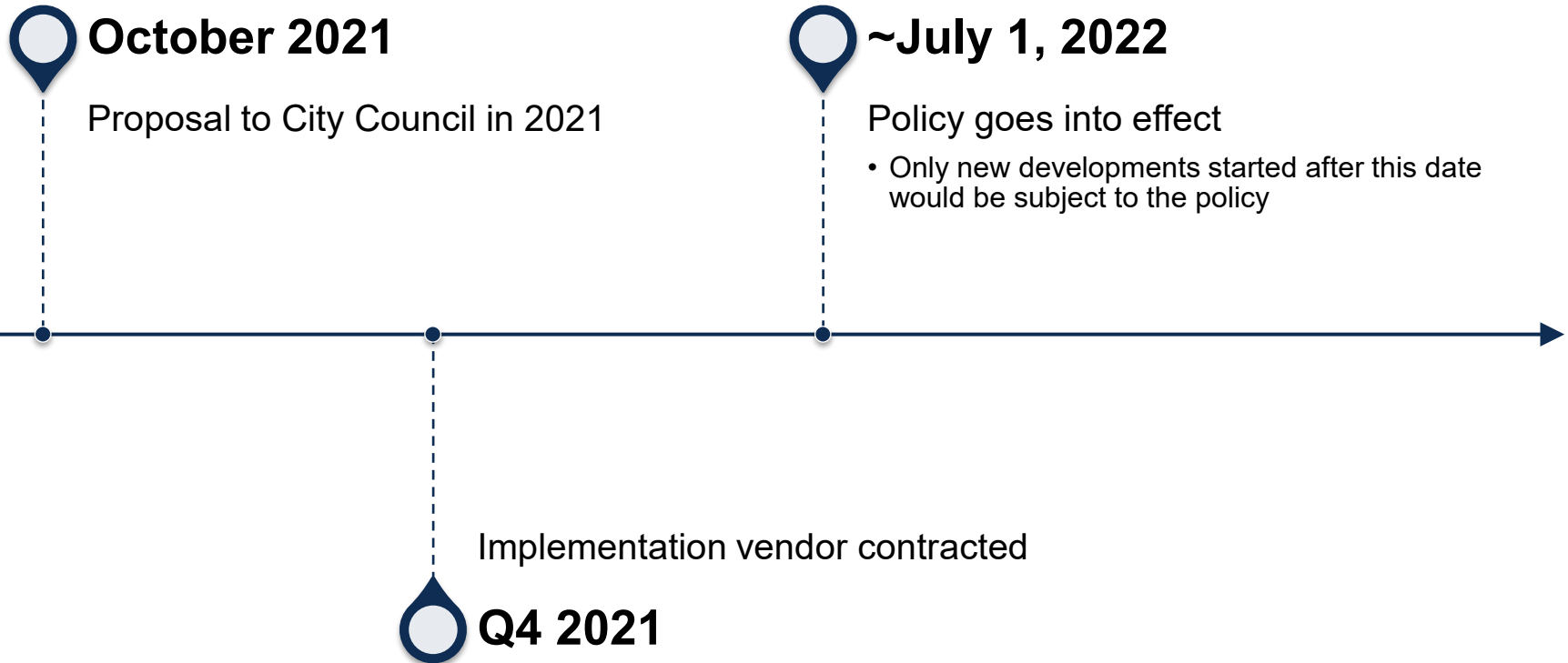


COMPLIANCE
TRACKING AND
CERTIFICATION



REPORTING

Timeline





Q&A





THANK
you



FAQs





FAQs

How is this Sustainable Building Policy different from previous policy? From current sustainable design questionnaires?

The City of Edina currently has a voluntary development questionnaire that asks developers and architects to design for sustainability early in the design process. While the previous questionnaire used guided questions on a limited number of topic areas to encourage sustainable development, the new policy requires developers select one third-party green rating systems from a list and become certified. In addition, there are two requirements, one for measuring predicted greenhouse gas emissions and one for EV readiness, that apply regardless of green rating system selected.



FAQs

What developments will this policy apply to?

This policy will only apply to developments seeking a PUD (planned unit development) or financial assistance in the form of:

- Housing & Redevelopment Funds
- Tax Increment Financing (TIF)
- Metropolitan Council Livable Communities Act
- Housing Improvement Area and Affordable Housing Trust Fund
- Conduit Bonds



FAQs

Why use a third-party rating system? Will this increase the cost of development?

Using a third-party rating system, such as LEED or MN Green Communities, ensures that buildings are meeting sustainability requirements that are widely recognized as best practices. Doing so also clarifies liability and also allows for more certainty for the design team in knowing the policy requirements will be met. The cost for engaging the third-party rater is typically less than one percent of the cost of a project and when examined early in the design process, studies show that utilizing sustainability practices contributes 1-2% to total costs.



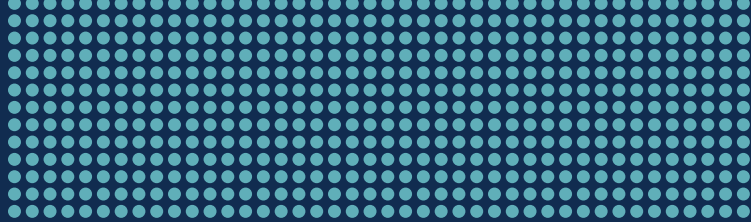
FAQs

What is the implementation timeline?

The policy is anticipated to go into effect beginning July 1, 2022, meaning any new building applications submitted after that day will be affected. This policy will not apply to any building applications that were submitted before the policy goes into effect.

How will this policy relate to the ever-evolving rating system versions and energy code?

The policy will require compliance with the most recent rating system version in existence at the time of development application. Where elements of the selected rating system and energy code differ, the policy will require adherence to the most stringent.



MINNESOTA MUNICIPAL SUSTAINABLE BUILDING POLICIES GUIDE

Policy Framework and Implementation Recommendations

January, 2021

Prepared by
Katie Jones, Marisa Bayer
Center for Energy and Environment

In collaboration with
Hennepin County

OVERVIEW

Cities throughout Minnesota seek to improve public health, environmental justice, and environmental and economic sustainability. As cities set targets to reduce carbon emissions, reduce waste, protect natural areas, and mitigate stormwater runoff, many are turning to building-related strategies to help achieve these goals.

Generally, cities have three main levers to create change: mandatory requirements, process incentives, and financial incentives. Because the State of Minnesota sets the building code, cities are unable to establish building requirements that are more strict than existing code; however, with financial levers and authority over land use, cities have tremendous potential to use sustainable building policies as a tool to make progress toward sustainability goals.

To date, Minnesota cities have taken three approaches in the application of sustainable building policies, listed below in order of impact:

1. **Mandatory approach (Recommended).** This policy approach identifies default sustainability requirements for funding programs and land use variances above certain thresholds. These requirements are in addition to other program and land use requirements.
2. **Scoring approach.** Buildings are scored on a set of criteria and those with the highest scores qualify for city program funding and approval.
3. **Suggestion approach.** Developers are strongly encouraged to consider sustainability in construction through a sustainability questionnaire.

Based on research of existing policies and interviews with Minnesota cities, we identified best practices and recommendations for creating a framework and implementing a mandatory sustainable building policy.

The intent of this guide is to provide a resource for cities considering sustainable building policies and to encourage standardization across cities. Standardization has many benefits including improving efficiency and cost-effectiveness across the region, facilitating the adoption of sustainable building practices, and reducing competition among cities for development.

Sustainable Building Policy Defined

Sustainable building policies establish minimum sustainability criteria that go beyond existing state code for new construction or significantly renovated developments. Included criteria typically target areas for pollution reduction and resource conservation. Also known as green building policies.

Existing Policies

As of 2020, seven Minnesota cities have some type of formal sustainable building approach: Duluth, Edina, Maplewood, Minneapolis, Rochester, St. Louis Park, and Saint Paul.

The affected building types, triggers, and criteria vary by policy, although some standardization is taking shape. See the *Appendix* for detailed comparison of the policies.

POLICY FRAMEWORK GUIDE

A policy framework addresses the fundamental questions of “what” and “who” — what does the policy cover, who does this apply to, who manages the policy, and what happens with non-compliance.

Identify City Overlay and Applicable Rating Systems

The first step is to understand the universe of existing third-party green building rating systems.¹ Such rating systems provide processes for developers to achieve the city’s aims. Rating systems are often similar but not identical. For that reason, the city should note the strengths and weaknesses of the rating systems relative to one another and make a list of priority impacts the city wants to target. That list, along with considerations of other city goals, becomes a city overlay — a set of specific measurable minimum requirements that go beyond the base construction code and may exceed a standard’s requirements.

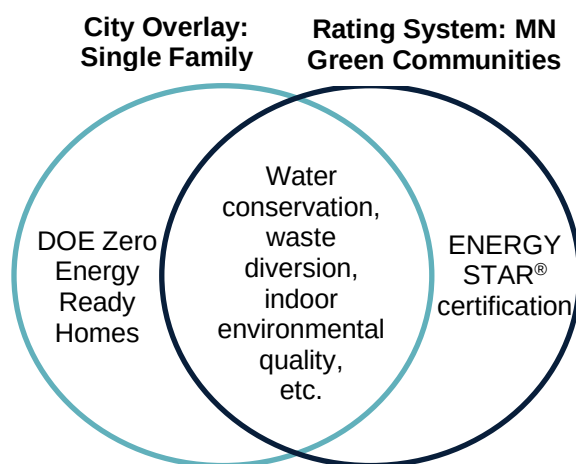


Figure 1: Example relationship between the city overlay and an existing rating system for a single-family home new construction. A development must comply with everything in the city overlay. For many components, the MN Green Communities rating system meets the city’s criteria. However, as this example shows the city is specifically targeting higher building performance with DOE Zero Energy Ready certification.

Applicable rating systems and the overlay should both be included in a policy. The two work in tandem, giving the city high-level policy customization, while giving developers flexibility in how to meet the targets. One benefit for the city is that using such rating systems lessens the need for specialized staff. In addition, leveraging existing rating systems that are well known in today’s construction industry allows for ease of communication and cost-effectiveness of implementation.

¹ Green building rating systems — sets of sustainability criteria with detailed and proscriptive pathways for meeting the criteria. They are generally broad covering many sustainability areas (e.g., water, energy, waste, materials) and can include topic focused standards (e.g., Sustainable Buildings 2030 energy standard).

Leverage existing third-party rating systems

Cities with existing sustainable building policies recognize the value of standardization across the region — the more ubiquitous the rules, the more practiced the industry becomes at complying with them and the more cost-effective implementation becomes. Because of the unique characteristics of different building types, policy requirements should specify the appropriate rating system for each building type. The table below shows the most common and recommended minimum rating systems and their associated levels by building type.

Municipal, Commercial, Mixed-Use, Industrial	• LEED for New Construction and Major Renovations; Certified Silver or higher • B3 Guidelines
Multifamily	• LEED for New Construction and Major Renovations; Certified Silver or higher • B3 Guidelines • GreenStar Homes; Certified Silver or higher • Green Communities *
Single-family	• LEED for Homes; Certified Silver or higher • MN GreenStar; Certified Silver or higher • Green Communities*
Parking	• Park Smart Silver

*For projects with MHFA funding, it is recommended that the MN Overlay version be used.

Establish City Overlay Criteria

Below we lay out the most common overlay criteria. Where possible, criteria are performance-based, which gives developers flexibility, and drives innovation and cost efficiencies. Cities should prioritize criteria for adoption that balance needs for implementation with city goals to ensure policy success.

It is also important to note that as environmental and economic conditions change, flexibility within each criterium is valuable. For that reason, it is recommended that a department director be charged with promulgating the detailed overlay requirements. It is also critical to include a third-party verification component in the policy. Verifiers should be proposed by the developer and acceptable to the city.

Recommended Overlay Criteria	Recommended Rule
Predicted and actual energy use	Meet SB 2030 Energy Standard through design and operation; for 1-3-unit buildings, meet DOE's Zero Energy Ready Homes standard.
Predicted greenhouse gas emissions	Calculate and report.
Predicted and actual use of potable water	Achieve 30% below the water efficiency standards of the Energy Policy Act of 1992.
Predicted use of water for landscaping	Achieve 50% reduction from consumption of traditionally irrigated site.
Utilization of renewable energy	Evaluate 2% of on-site renewables; install if cost-effective using SB 2030 guidance.
Electric vehicle charging capability (if parking is included)	Install conduit that allows charging stations to be installed at a future date.
Diversion of construction waste from landfills and incinerators	Achieve 75% diversion rate
Indoor environmental quality	Use low-VOC (volatile organic compounds) materials including paints, adhesives, sealants, flooring, carpet, as well as ASHRAE thermal and ventilation minimums.
Stormwater management	Adhere to quantity and quality requirements, including infiltration rate, suspended solid, and phosphorous reductions.
Resilient design	Document a design response to several identified potential shocks and stressors such as utility interruption, extreme rainfall and transportation interruption. Design Team shall integrate the identified strategies into the design of the project.
Ongoing monitoring of actual energy and water use	Benchmark using ENERGY STAR® Portfolio Manager annually.

Policy Triggers

Given the regional competition for development, cities often balance priorities of encouraging development while achieving community-wide goals, such as sustainability targets. For this reason, we 1) encourage the greatest number of cities to adopt similar sustainable building policies to standardize the practice across a region, and 2) recommend cities consider their unique leverage points for the greatest impact. Cities can use the following triggers to activate a sustainable building policy:

1. **Funding incentives.** The most straightforward trigger is a developer's request for public funding. To date, several cities have successfully used a minimum trigger of \$200,000 in cumulative public funding. The types of qualifying funding sources vary. We recommend maximizing public funding sources for the greatest impact. (See examples below.)
2. **Land use incentives.** Though there is little track record of this approach for sustainability in Minnesota, it is used in other areas of the country. For cities with established zoning rules, we recommend cities consider three types of land use triggers:
 - a. **Planned unit development (PUD).** Where a city has a large tract of land for development, it can set high-level density and other rules, such as a sustainable building policy, for the site, while giving the developer flexibility in how that is accomplished.
 - b. **Premiums.** Setting clear expectations for developers can reduce costs and encourage specific types of development. We recommend cities consider codifying sustainability premiums as an incentive for density and height bonuses.
 - c. **Variance.** Where not codified as premiums, cities should consider applying a policy when more intense variances are requested.
3. **Process incentives.** Cities can create faster approval processes and higher prioritization in permit and inspection reviews for developments that adhere to the sustainable building policy. This has not yet been tried in Minnesota but has been done elsewhere.
4. **Building size.** Because larger building developments have the greatest environmental impact and more sophisticated design teams, we recommend that a policy apply to buildings that meet the following size thresholds. This trigger is only activated when a project receives a funding, land use, or process incentive.
 - a. New construction of 10,000 square feet and greater.
 - b. Significant renovation of buildings 10,000 square feet and greater that include a new heating, ventilation, and air conditioning (HVAC) system.

Funding Sources

Comprehensive policies count all public dollars toward the threshold that triggers compliance including:

1. Community Development Block Grants (CDBG)
2. Bonds
3. Tax Increment Financing (TIF)
4. HOME Investment Partnership Program
5. Housing Redevelopment Authority funds
6. Land write-downs
7. Low-Income Housing Tax Credits (LIHTC)
8. A dedicated Sustainable Building Policy fund
9. Any other Federal, State, Regional (e.g., Met Council), or City funding source

Enforcement

Enforcement can be approached from two angles — either for financially incentivized projects or for those triggered by land use and process incentives.

The financial incentive is often needed to encourage and make such developments viable in the first place, making a financial penalty for non-compliance challenging to employ. For that reason, the best practice is to be proactive on the front end, providing sufficient resources and check-ins during the design development process to ensure compliance along the way.

For projects triggered by land use and process incentives, the city could enact a fine for violation, which has been done in other American cities with some as high as \$500 per day for non-compliance. In either case, compliance with the sustainable building policy should be included in the development agreement and loan documents.

Evaluation

Cities should evaluate a policy's impact and adjust over time in order to meet stated goals. A best practice is to build a framework for these components within the policy itself by requiring an annual progress and impact report and setting a reassessment timeline (e.g., every 3-5 years) for overlay criteria and the approved third-party rating systems.

Codify the Policy

After the city council or board adopts the sustainability building policy, it is important to codify the policy within or near zoning- and planning-related chapters in city code because a sustainable building policy concerns land development.

IMPLEMENTATION GUIDE

Before approval, it is important to have a plan to address questions of “how” — namely, how to operationalize the policy. Policy adoption alone will not ensure a sustainable building policy will be successful. Additional steps are needed to create structure, ownership, and awareness of the policy.

Identify Leaders and Collaborators

Policies are often managed by departments that are responsible for education, awareness, and enforcement. In some cases, these responsibilities may fall across departments, so it is important early on to identify the department and individual who will take primary ownership for the policy. Below is a list of key stakeholders to involve:

Sustainability Staff

As topic specialists, sustainability staff should either lead or play a significant part in policy development and assist in policy implementation. Such staff can advocate for the policy internally and educate external stakeholders. In addition, any initial meetings with

a project's development team should include sustainability staff or other designated, qualified individuals who can speak to the technical nature of sustainability requirements.

Planning Department

City planning departments should be involved in the management of the sustainable building policy. City planners are responsible for reviewing project applications, engaging with developers, and ultimately drafting the developer's agreement, which is the document holding a project developer accountable for following policies and codes.

External Collaborators

External partners can provide technical assistance to project teams to meet policy rating systems. These generally fall into two categories:

- **Specific:** A partner that develops and manages an individual rating system is best equipped to answer questions regarding pathways for compliance for their rating system (e.g., USGBC for LEED).
- **Broad:** A partner that can answer questions across multiple rating systems.

Community Highlight: St. Louis Park, MN

Because the City's Community Development Department oversees project and land use applications as well as financial incentives for development, it is a natural fit for the sustainable building policy to be managed by that department. Sustainability staff, who are in a different department, remain engaged by attending project meetings with developers to educate them about the City's climate goals and aspects of the policy. The City also keeps an architecture and engineering firm on retainer for more detailed review beyond sustainability staff's abilities and to help developers meet the goals of the policy.

Increase Awareness of the Policy

A key question to ask is: how do developers, architects, and contractors know the policy exists?

If the policy is new, or if major changes have been made to an existing policy, cities should take proactive steps to inform their development community about how this policy will impact future projects. At minimum, cities should post the policy clearly on the city's website for easy access. Additional engagement would build support and acceptance of the policy. We recommend cities offer trainings, networking events, and building tours, as well as engage building associations to spread the word about the policies. Cities could also partner on outreach initiatives to increase reach and minimize cost.

Community Highlight: Rochester, MN

The City of Rochester hosts green building tours to showcase successful implementation of their policy in new development. Developers and architects can tour new buildings, ask questions, and learn how their peers are following Rochester's sustainable building policy.

Identify Projects Subject to the Policy

Although a policy itself specifies minimum requirements for subject developments, the city must create a process to easily identify incoming projects that meet those requirements. This is accomplished by leveraging existing development review processes. Planners also often use checklists and review guides to ensure projects meet required development policies and codes.

For that reason, we recommend cities use this process to integrate a review for the sustainable building policy. Cities should make sure someone with sustainability expertise, either sustainability staff or other designated reviewers, attend development review meetings.

Educate Project Teams

Once the city has identified an eligible project, the policy should be reviewed with the project's development team to ensure they understand all the components of the policy. This is a great opportunity for development teams to ask questions and for city staff to champion their policy.

Community Highlight: Saint Paul, MN

The City of Saint Paul uses funding and size minimums to determine the projects subject to their sustainable building policy. After public project funding is requested and before it is approved, the staff member responsible for managing the policy is notified of the project. Staff send a letter to the project team detailing compliance requirements for the project, and soon after they hold a meeting involving the project team to review these requirements. Sustainability staff leverage this opportunity to walk through the policy step by step to make sure there are no surprises for the project team.

This meeting should be scheduled after a project application or funding application is received to ensure policy criteria can be incorporated as early as possible in the design process. Having the right people at the meeting will ensure that the policy expectations are clearly communicated, and any questions are addressed. On the city's side, this meeting should include those involved in managing the policy, such as sustainability and planning staff. If the city is working with an external collaborator to help with technical assistance, including them in this meeting would be advantageous. From the project team, the architect and owner's representative should be invited so that the team responsible for designing and funding the project understand the expectations.

Ensure Compliance

A best practice for compliance is for cities to connect project teams with external collaborators who are technical experts in both the development process and sustainability requirements. Cities then track compliance with the list of requirements. Because most projects that have been subject to sustainable building policies in Minnesota have been commercial, mixed use, or large multifamily, city staff have relied on the B3 Tracking Tool to monitor compliance for most recommended overlay criteria and then have separate manual tracking mechanisms to track any remaining criteria.

Another best practice is to leverage other existing processes for front end-confirmation of sustainable design, such as Xcel Energy's Energy Design Assistance program and other similar utility programs that incentivize energy modeling to meet building performance criteria.

Enforce the Policy

Enforcement comes into play once a project receives the necessary approvals to start construction. In most cases, following the previous steps will ensure that a project adheres to the policy; however, if the project does not meet minimum standards, enforcement may be necessary. Formal enforcement should be codified in the policy, so developers understand the implications of not complying. Informally, city staff can communicate with project teams about the negative impact to their relationship and concerns over future projects following city policies.

Community Highlight: Rochester, MN

The City of Rochester structures their Tax Increment Financing (TIF) agreements as pay-as-you-go disbursements, giving the city the opportunity to withhold future disbursements if a project does not adhere to certain policies or codes. The city has used this approach for projects in the Destination Medical Center and throughout the municipality.

Evaluate Impact

Evaluating the policy's impact helps city staff and city decision-makers understand if the policy achieved the intended goals. Project reports should detail the size, cost, and anticipated savings compared to actual performance. A summary of these along with the collective environmental benefits (e.g., gallons of water and greenhouse gas emissions saved compared to code) should be shared with city council, staff, and the public. In addition, annual or biennial reviews with project teams, city staff, and external collaborators give valuable input into the effectiveness of the policy. Cities should talk to project teams about what worked and what could be improved about the sustainable building policy's implementation process. They should also talk to external collaborators and sustainability experts about the latest trends and best practices for sustainable buildings. Having both quantitative and qualitative data on the policy's success will be useful during future policy updates to strengthen its impact.

FUTURE CONSIDERATIONS

Going forward, these policies should evolve as new sustainability standards become available and as city goals around reducing structural racism and ensuring equity become clearer and more focused. As cities find alignment on these issues, they should continue to exchange best practices and evolve together. We recommend cities check in on at least a biannual if not quarterly basis. This could be led by cities themselves or by an external coordinator.

Areas that may warrant further exploration include:

- **Compliance tracking tool.** Cities currently lack a holistic method for tracking compliance for all property types and may benefit from the development of one.

- **Additional compliance strategies.** Another possible route to ensure compliance is by leveraging permitting and inspections processes. However, because construction code is prescriptive and most sustainability criteria is performance-based, there has been no attempt in Minnesota thus far to take either of these two routes:
 - **During permit approval.** Because cities approve permits that give the green light for construction, they could explore issuing permits only once design models adequately indicate that sustainability requirements will be met. Incorporating permit approvals that are based on modeled designs of performance would necessitate thorough consideration of expertise and permitting staff needs.
 - **During inspections.** Building inspectors could take a bigger role in ensuring sustainability criteria are incorporated during construction. Similar to design review for permits, inspectors evaluate a building based on prescriptive code. For that reason, inspector scope would need to expand to include evaluation against a performance-based model design.
- **A one-stop-shop for expertise on sustainable building policies.** An external collaborator would not only consult on multiple rating systems, but also serve as a single point of communication for technical questions and compliance monitoring for project teams and cities, respectively. This type of group has not yet been established to serve Minnesota cities. However, such a partner with broad expertise, design review experience, and implementation support ability could serve multiple cities while reducing sustainability staff needs.

Although sustainable building policies have been around more than a decade in Minnesota, there remain great opportunities for more cities to leverage such policy tools and for better standardization among cities to ease implementation. As cities actively invest in new developments or receive developer requests outside existing zoning rules, they can use these policies to achieve sustainability goals. In the end, the built environment has strong impacts on environmental health and livability, and sustainable building policies are an important tool to build the physical environment that cities want and need.

Edina Sustainable Buildings



Achieving Sustainability in the Built Environment

Cities throughout Minnesota seek to improve public health, environmental justice, and environmental and economic sustainability. Many cities are taking advantage of building-related strategies to reduce carbon emissions and waste, protect natural resources, and mitigate stormwater runoff. With a sustainable building policy, cities can use public financing and their authority over land use to make meaningful progress toward achieving their sustainability goals.

To support our sustainability goals and building investment, the City of Edina is proposing a sustainable building policy.

Leveraging financial incentives and authority over land use, a sustainable building policy establishes minimum sustainability criteria that go beyond existing state code for new construction and redevelopment. Included sustainability criteria typically target reducing pollution and conserving resources. This policy would be voluntary for developments not seeking financial incentives or land use changes.

What are the Benefits?

- Ensures new construction is on the forefront of efficient building construction.
- Improves Edina's building stock with healthy and sustainable buildings.
- Creates demand for sustainability in the property market.
- Supports Edina's goal to reduce carbon emissions 80 percent by 2050.

Proposed Policy Details

Policy Triggers

Projects that receive the following incentives would “trigger” or necessitate compliance of the policy:

- Planned Unit Developments (PUD)
- Housing & Redevelopment Funds
- Tax Increment Financing (TIF)
- Metropolitan Council Livable Communities Act
- Housing Improvement Area and Affordable Housing Trust Fund
- Conduit Bonds

Sustainable Rating Systems

Developers would select from the following third-party rating systems to adhere to the policy:

- LEED
- B3 Guidelines
- Green Star Homes
- Green Communities
- Park Smart

Edina Overlay

Developers would also be subject to an Edina-specific Overlay, which aligns with established goals.

- Electric vehicle charging
- Predicted greenhouse gas emissions



Proposed Framework

The proposed sustainable building policy would apply to new construction and redevelopment projects that receive public financing and planned unit development approval. The policy would be structured to give developers the power to choose their preferred third-party rating system based on building type as well as their expertise and experience. The policy would also include additional sustainability requirements for electric vehicle charging and predicted greenhouse gas emissions to help the City meet its carbon reduction goals.

Resources through Hennepin County

Hennepin County Efficient Buildings Collaborative provides cities with a platform of shared resources to lower costs and exchange best practices. The County is currently undergoing a competitive RFP process to hire a vendor to provide education, technical resources, and compliance assistance. Upon policy passage and joint powers agreement approval, the City of Edina and developers will have access to the selected vendor. It is important to the City that the appropriate technical resources are available for successful sustainable building construction.

Joining Sustainability and Climate Leaders

Edina will be joining six cities with a formal sustainable building policy, along with another that is in the process of creating its own policy. The Cities of Saint Paul and St. Louis Park have been implementing their policies for more than 10 years, providing multiple local examples of successful policy implementation.

For questions, contact Sustainability Coordinator
Grace Hancock at ghancock@edinamn.gov.

Edina Proposed Sustainable Building Policy

FAQ

How is this Sustainable Building Policy different from previous policy? From current sustainable design questionnaires?

The City of Edina currently has a voluntary development questionnaire that asks developers and architects to design for sustainability early in the design process. While the previous questionnaire used guided questions on a limited number of topic areas to encourage sustainable development, the new policy requires developers select one third-party green rating systems from a list and become certified. In addition, there are two requirements, one for measuring predicted greenhouse gas emissions and one for EV readiness, that apply regardless of green rating system selected.

What developments will this policy apply to?

This policy will only apply to developments seeking a PUD (planned unit development) or financial assistance in the form of:

- Housing & Redevelopment Funds
- Tax Increment Financing (TIF)
- Metropolitan Council Livable Communities Act
- Housing Improvement Area and Affordable Housing Trust Fund
- Conduit Bonds

Why use a third-party rating system? Will this increase the cost of development?

Using a third-party rating system, such as LEED or MN Green Communities, ensures that buildings are meeting sustainability requirements that are widely recognized as best practices. Doing so also clarifies liability and also allows for more certainty for the design team in knowing the policy requirements will be met. The cost for engaging the third-party rater is typically less than one percent of the cost of a project and when examined early in the design process, studies show that utilizing sustainability practices contributes 1-2% to total costs.

What is the implementation timeline?

The policy is anticipated to go into effect beginning July 1, 2022, meaning any new building applications submitted after that day will be affected. This policy will not apply to any building applications that were submitted before the policy goes into effect.

How will this policy relate to the ever-evolving rating system versions and energy code?

The policy will require compliance with the most recent rating system version in existence at the time of development application. Where elements of the selected rating system and energy code differ, the policy will require adherence to the most stringent.

How many projects would this apply to?

Approximately forty-five projects in the past 10 years have requested a PUD or financial incentives. If historical development patterns continue, we'd anticipate about two-thirds of projects to follow the sustainable building policy.

What happens if a developer chooses not to follow the policy? What happens if the project doesn't certify under the chosen requirements?

Projects that request a PUD or funding from the City of Edina will be notified of the sustainable building policy. If the developer chooses not to follow the policy, the City can withhold granting the PUD or funding request, or choose not to recommend the project for approval. Once the project is complete, if it chooses not to certify under the chosen sustainability standard then the City has the option to rescind the funding incentives provided.



CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

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Date: July 28, 2021

Agenda Item #: VII.A.

To: Planning Commission

Item Type:

Report and Recommendation

From: Kris Aaker, Assistant Planner

Item Activity:

Subject: B-21- 23, 4904 Bywood West, A variance for the relief from requirement to have a 50% full depth basement under the main floor

Action

ACTION REQUESTED:

Approve the variance request as submitted

INTRODUCTION:

The applicant is requesting a 15.5%, (640.3 square foot), variance from the minimum 50% basement requirement for an addition on crawl space to the existing home at 4904 Bywood West. The current code requires 50% of the home's first floor to have a full basement.

ATTACHMENTS:

Staff Report

Engineering Memo

Narrative

Site Location

Survey

Plans

Better Together Public Hearing Comment Report 7-22-21 Noon

Presentation



Date: July 28, 2021

To: PLANNING COMMISSION

From: Kris Aaker, Assistant City Planner

Subject: B-21-23, a variance for the relief from requirement to have a 50% full depth basement under the main floor of a remodeled home with additions on crawl space at 4904 Bywood West.

Information / Background:

The subject property consists of two lots, is 78,154 square feet in area and is located on the west side of Bywood West in the Rolling Green neighborhood. The current site has a two-story home with an inground pool built in 1960. The property includes a vacant lot located directly behind 4904 Bywood West that fronts Interlachen Boulevard. The applicant is requesting a 15.5%, (640.3 square foot), variance from the minimum 50% basement requirement for additions on crawl space to the existing home at 4904 Bywood West. The current code requires 50% of the home's first floor to have a full basement.

The property also includes a vacant lot, (Lot 5), that abuts to the rear of the Bywood West property with access gained from Interlachen Boulevard. The home additions include a master bedroom, garage addition and expansion off the back of the home. There is a new in ground swimming pool and screened pool house on the Bywood West lot, (on Lot 2), and a detached garage and sport court proposed on the vacant lot, (Lot 5), fronting and accessing from Interlachen Blvd. The proposal is to add onto the existing home that will maintain a smaller than required basement area. The applicant also intends to combine the properties into one parcel. Except for the proposed basement area, all other portions of the plan comply with zoning ordinance requirements.

The City of Edina requires the following:

Basements: All single dwelling unit buildings shall be constructed with a basement having a gross floor area equal to at least 50 percent of the gross floor area of the story next above.

Variance: - Relief from requirement to have full depth basement under main floor of the existing home with additions on crawl space. The current code requires 50% of the new home first floor to have full basement below. Due to the proposed structure's proximity outside the flood zone sub-basin, but still adjacent to a pond and flood plain, the City Engineer would require any new basement area to be elevated. An addition to the home requires a variance from the 50% basement rule or low floor elevated above the flood zone.

Surrounding Land Uses

- Northerly: Single Unit residential homes zoned R-I and guided low-density residential
- Easterly: Single Unit residential homes; zoned R-I and guided low-density residential.
- Southerly: Single Unit residential homes; zoned R-I and guided low-density residential.
- Westerly: Single Unit residential homes; zoned R-I and guided low-density residential.

Existing Site Features

The existing 78,154 square foot parcel was developed in 1960 with a two-story home and is located on the west side of Bywood West. The property consists of two lots, one fronting Bywood Way and the other fronting Interlachen Boulevard.

Planning

- Guide Plan designation: Low-Density Residential
- Zoning: R-I, Single-Dwelling District

Grading & Drainage

The Environmental Engineer has reviewed the application and submitted comments as attached in their memorandum.

Stormwater Mitigation

Stormwater was reviewed and is consistent with City of Edina Building Policy SP-003 standards. Volume control and rate control for the additional impervious surface is provided via the underground stormwater storage system. A final grade as-built survey, inspection, and as-built cut/fill analysis will be required to verify compliance with the approved stormwater plan.

Floodplain Development

The proposed basement floorplans indicate that the existing basement is to remain, and two areas of new crawl space are proposed (under the southern home addition and near the covered entry, totaling just under 1,000 SF). The LFE requirement applies to the new crawl space areas, not the existing basement. The proposed LFE conforms with FEMA Technical Bulletin 10-01. Staff is amenable to a site-specific standard that uses FEMA-recommended elevations and precautions for basement areas outside of the HI_22 subwatershed. Compliance with the final site-specific standard requirements will also be verified at final permit closeout.

Compliance Table

	City Standard	Proposed
North Side –	10 feet	10 feet
West Rear -	25 feet/50 feet/pond	68.5 feet
South Side –	10 feet	10.7 feet
East Front –	76.4 feet	76.6 feet
Building Coverage	25%	13%
Basement	50%	42.5%*
First Floor Elevation	906.8 ex/907.8 max	906.8
Building Height	40 feet	26 feet

***Requires a variance**

PRIMARY ISSUES & STAFF RECOMENDATION

Primary Issues

- **Does the proposed new home meet the criteria for approval of variances with a with a new home without a basement?**

Staff believes the proposal meets the criteria for variances to allow the additions to be built without a basement having a gross floor area equal to at least 50 percent of the gross floor area of the story next above.

Minnesota Statutes and Section 36-98 of the Edina Zoning Ordinance require that the following conditions must be satisfied affirmatively. The proposed variance will:

- 1) Relieve practical difficulties that prevent a reasonable use from complying with ordinance requirements.***

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.

The proposed use is permitted in the R-1 Single Dwelling Unit District and complies with zoning standards, with exception of the basement size. The additions can accommodate the needs of the

applicant without having new construction exposed to potential flood risk. The current code requires 50% of the home's first floor to have full basement below. Due to the proximity to a pond and flood plain, the City Engineer requires elevated basement/low openings. The City Engineering findings include a 100 year back to back flood risk criteria, it is acceptable in this situation to elevate or eliminate new basement area.

2) *There are circumstances that are unique to the property, not common to every similarly zoned property, and that are not self-created?*

The applicant has indicated that the existing home on site currently has a full basement that has never had ground water problems. The current sump pump does not run. Professional soil borings have shown no ground water until reaching much lower depths than the proposed crawl spaces. Nevertheless, given Engineering standards, basement area cannot be constructed at the existing basement elevation.

3) *Will the variance alter the essential character of the neighborhood?*

Owners have indicated they would comply with the full basement ordinance if flood plain conditions allowed. After discussions and consideration of City Engineer requirements, the owner has agreed to crawl space. This brings the property more into conformity with zoning ordinance flood plain requirements than existing conditions. The variance will not have a negative impact on the neighborhood.

All aspects of the home will conform to the ordinance requirements with exception of the proposed crawl space. The variance is in keeping with the intent of city ordinances and policies and flood protection goals of the city. The proposed home additions reflect the character of the neighborhood in height, scale, and mass. The home is appropriate and similar to surrounding properties.

Staff Recommendation

Staff recommends approval of the variance, subject to the findings listed in the staff report above, and subject to the following conditions:

I. The site must be developed and maintained in conformance with the following plans:

- Survey: Date stamped: June 28, 2021.
- Building plans and elevations dated: June 28, 2021.

2. Compliance with the conditions and comments listed in the Environmental Engineer's memo.

3. Combine the two lots into one parcel with one Property Identification Number.



DATE: 7/23/2021
TO: Cary Teague – Planning Director
FROM: Ross Bintner, PE – Engineering Services Manager
Zuleyka Marquez, PE – Graduate Engineer
RE: **4904 Bywood West - Variance Review**

The Engineering Department has reviewed the subject property for street and utility concerns, grading, stormwater, flood risk, erosion and sediment control, and general adherence to relevant ordinance sections.

This review was performed at the request of the Planning Department; a more detailed review will be performed at the time of building permit application. Plans reviewed included grading and drainage plan, erosion and sediment control plan, cut and fill analysis, stormwater management memo, and a geotechnical report stamped July 15, 2021.

Summary of Work

The applicant proposes additions to the homes, new pool, outbuilding, and sport court. The request is for a variance to a full basement requirement and to the lowest floor requirement.

Easements

A utility easement is shown on Lot 2. Given the lot consolidation, the easement should be vacated. The easement vacation application has been submitted and is being processed.

Grading and Drainage

Lot 2 consists of subwatersheds HI_6 and HI_22. Lot 5 consists of subwatersheds HI_20, 21, and 22. Subwatershed HI_22 is landlocked and contains a structural flooding issue. The grading of the lot removes the natural overflow from HI_22 to the east. The applicant plans an alternative overflow above the 1%-annual-chance flood elevation of the basin at 903.99', but lower than the current overflow elevation of 905.0'.

- Sheet C400 indicates net cut below the local 1%-annual-chance flood elevation in subwatershed HI_22. No work is proposed in the local 1%-annual-chance flood elevation in subwatershed HI_6.
- Two feet of freeboard is suggested for the outbuilding from the overflow path to the south from the underground system (903.7'). Currently, the accessory structure is set at 904.5'.

Stormwater Mitigation

Stormwater was reviewed and is consistent with City of Edina Building Policy SP-003 standards. Volume control and rate control for the additional impervious surface is provided via the underground stormwater storage system. A final grade as-built survey, inspection, and as-built cut/fill analysis will be required to verify compliance with the approved stormwater plan.

Floodplain Development

The City previously reported a local 1%-annual-chance flood elevation of 903.4' in subwatershed HI_22. Staff requested a review of the model by Barr Engineering and found this elevation assumed a 12" CMP outfall. Staff reviewed the site and found no outlet. The applicant may provide further information from any site investigation it conducts on the outlet elevation or starting water elevation. The attached technical review (Barr Engineering Co., September 28, 2020) set the 1%-annual-chance flood elevation at 903.7'.

ENGINEERING DEPARTMENT

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Comprehensive Water Resources Management Plan (CWRMP) section 3.1.2.1(5) requires the lowest floor elevation (LFE) at no less than 2' above the back-to-back 1%-annual-chance flood elevation, with the elevation of the waterbody established by one of a variety of methods.

- a. The elevation of the back-to-back 1%-annual-chance flood elevation of 905.0' (LFE 907.0')
- b. The starting water elevation of 900.5', as determined by Barr Engineering.
- c. In conversation, the applicant's engineer relayed that the water elevation may be currently set by pumping by private parties.

The proposed basement floorplans indicate that the existing basement is to remain, and two areas of new crawl space are proposed (under the southern home addition and near the covered entry, totaling just under 1,000 SF). The LFE requirement applies to the new crawl space areas, not the existing basement.

The applicant proposes to use the attached FEMA Technical Bulletin 10-01 to set the LFE for the additions. The FEMA Technical Bulletin 10-01 allows the LFE to be 5' below the back-to-back 1%-annual chance flood elevation. With a back-to-back 1%-annual chance flood elevation of 905.0' in this case, the required LFE is 900.0'. Based on the FEMA Floodplain Construction Guidelines Memo Response document, the proposed LFE is 900'. This proposed LFE conforms with FEMA Technical Bulletin 10-01.

Staff is amenable to a site-specific standard that uses FEMA-recommended elevations and precautions for basement areas outside of the HI_22 subwatershed. Considerations for a site-specific proposal are listed below and can be verified during the permit review. Compliance with the final site-specific standard requirements will also be verified at final permit closeout.

- Reduction in the freeboard, a deeper basement, may have the effect to increase the exposure to flood risk through groundwater. The complete proposal for a site-specific standard shall describe engineered systems to reduce the foundation system vulnerability to that increased groundwater flood risk. The offset of increased exposure by creating an engineered foundation system and reducing the system vulnerability could create the basis for City approval of a site-specific standard for this constrained site.
- The complete proposal shall identify ways to eliminate or minimize public risks such as removing sanitary connected floor drains and creating an overhead sanitary sewer connection.
- The complete proposal shall demonstrate compliance with the Simplified Approach design requirements listed in the attached FEMA Technical Bulletin 10-01 on page 15 and 16 of the document and the conditions listed on page 17 of the document. The engineer prepared a response and shall confirm it has been updated for the change in scope.

The front yard draining to HI_6, has a local 1%-annual-chance flood elevation of 902.7'. The lowest opening elevation at the front of the structure is required at no less than 904.7'. Based on the grade adjacent to the proposed home of 904.96', the lowest opening elevation requirement is met. The applicant should include the proposed lowest opening elevation on the revised survey.

Note, a more detailed review was provided in the Engineering Variance Memo, Rev. 2, dated 10/22/20, which was in response to a different project scope (teardown/rebuild).

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Erosion and Sediment Control

An erosion and sediment control plan was reviewed and is consistent with City of Edina Building Policy SP-002. The applicant proposes to use the driveway entrance at Interlachen Blvd as a construction entrance, along with the north entrance on Bywood W. Pictures of the existing apron shall be taken prior to demo and construction, as replacement at project closeout may be required if damaged.

Street and Driveway Entrance

Driveway entrances on Interlachen Blvd and Bywood W are to remain undisturbed. Driveway entrance is not required. Bywood W was milled and overlaid in 2005 and is planned for reconstructed in 2026. Refer to standard plates 540 and 543 for patching requirements on Bywood W. Interlachen Blvd was milled and overlaid in 2019. Refer to standard plates 540 and 541 for patching requirements on Interlachen Blvd.

Public Utilities

Water and sanitary is served to Lot 2 from Bywood W. A one-inch water service line from the curb stop to the dwelling is required per the City's policy SP-024.

Miscellaneous

A Minnehaha Creek Watershed District permit may be required, applicant will need to verify with the district.

A sealed well is located on Lot 2 and an unsealed well is located on Lot 5. Thus, coordination with Minnesota Department of Health will be required for the well on Lot 5.

ENGINEERING DEPARTMENT

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Technical Memorandum

To: Ross Bintner and Kris Aaker – City of Edina (City)
From: Michael McKinney, PE – Barr Engineering Co. (Barr)
Subject: XPSWMM evaluation of 4904 Bywood West redevelopment project
Date: September 28, 2020
Project: 23270354.00 Stormwater Management General Engineering

The following technical memorandum summarizes hydrologic and hydraulic evaluation of the proposed 4904 Bywood West grading and redevelopment project. The memorandum summarizes existing local flooding in the vicinity of 4904 Bywood West and evaluates the impact of proposed redevelopment on flooding within the HI_22 landlocked basin (see Figure 1) and neighboring drainage areas.

Executive Summary

The 4904 Bywood West property is located near the intersection of Bywood West and Interlachen Boulevard. The northeast portion of the lot drains east towards Bywood West, and the southwest portion of the lot drains to the landlocked HI_22 basin as shown on Figure 1. Under existing conditions, the 1% annal exceedance probability event (1% AEP event) results in a maximum water surface elevation (MWSE) of 903.7-feet, potentially impacting one structure within the basin (5904 Interlachen Boulevard).

Barr Engineering Co. (Barr) reviewed and evaluated potential impacts of proposed grading and redevelopment outlined in the 4904 Bywood West Stormwater Management Memo (Solution Blue, Inc., 2020; revised August 27, 2020) using the City of Edina's (City) Nine Mile Creek XPSWMM model. The proposed grading and redevelopment plan outlined in the Stormwater Management memo includes (a) regrading of portions of the lot within both the HI_22 and HI_6 subwatersheds, (b) addition of approximately 12,623 sf of new impervious surfaces, (c) modification of the overflow drainage direction of the HI_22 landlocked basin, (d) installation of a 1,360 cf underground infiltration BMP, and (e) construction of a small detention basin in the backlot portion of 4904 Bywood West. The impact of proposed grading and redevelopment during the 1% AEP event (i.e., the 100-year, 24-hour Atlas 14 event, MSE3 distribution) was evaluated to determine if the proposed stormwater management plan is protective of nearby structures. The [City of Edina Comprehensive Water Resources Management Plan](#) (CWRMP; Edina, 2018) stipulates that structures that are within or adjacent to a landlocked basin must have a lowest floor elevation that is at least two feet above the water level resulting from two concurrent 1% AEP events. For this reason, the back-to-back 1% AEP event was also evaluated for existing and proposed conditions.

Existing and proposed condition MWSEs for the HI_22 and HI_6 subwatersheds for modeled design events are summarized below in Table 1. In the proposed condition, HI_22 is split into two subwatersheds (HI_22 and HI_22a) to model the drainage area to the proposed detention basin in the backyard of 4904 Bywood

West. HI_22a and HI_22 in the proposed condition are directly comparable to HI_22 in the existing condition. Table 1 shows that proposed conditions result in a 0.32 ft increase in the HI_22a subwatershed (the subwatershed to the proposed detention basin in the backlot portion of 4904 Bywood West) and a 0.06 ft increase in the HI_22 subwatershed 1% AEP event flood elevation (see Figure 2). The increase in flood elevation is caused by the reduction in available stormwater storage volume due to site grading and proposed fill and the proposed increase in impervious surface area. Despite the redevelopment plan providing an underground infiltration BMP that meets watershed district requirements (> 1.1 inches of runoff from new impervious area), proposed grading results in net fill within the flood inundation area, reducing total available storage volume.

The increase in the 1% AEP MWSE has the potential to impact one (1) structure within the HI_22 subwatershed (5904 Interlachen Boulevard) but does not appear to impact structures within the HI_22a subwatershed. Table 1 also shows that proposed conditions result in a minimal increase in the HI_22a and HI_22 flood elevations for the back-to-back 1% AEP event (increase of 0.01 ft), and no impacts to flood elevations in the neighboring HI_6 subwatershed for design events evaluated. It is recommended that proposed grading be reviewed and adjusted to provide more storage within the HI_22a and/or HI_22 subwatershed to minimize or eliminate increase in flood risk within the HI_22 basin.

The following technical memorandum outlines development of modeling inputs for existing and proposed conditions, presents key results related to evaluation of the impact of proposed conditions on flood risk, and provides conclusions and recommendations related to proposed redevelopment plan for 4904 Bywood West.

Table 1 Comparison of flood elevations in the vicinity of 4904 Bywood West

Subwatershed ID		Design Event MWSE (NGVD29, feet) ¹					
		1% AEP			Back-to-Back 1% AEP		
Existing Conditions	Proposed Conditions	Existing Conditions	Proposed Conditions	Increase (ft)	Existing Conditions	Proposed Conditions	Increase (ft)
HI_22	HI_22a	903.66	903.98	0.32	905.01	905.02	0.01
	HI_22		903.72	0.06		905.02	0.01
HI_6	HI_6	902.73	902.73	0.00	902.74	902.74	0.00

¹ Edina XPSWMM flood elevations are typically reported to one tenth foot accuracy. Additional accuracy provided in this table to highlight impact of proposed conditions.



Figure 1 4904 Bywood West study area location and existing condition 1% AEP flooding elevation.



Figure 2 Increase in 1% AEP flood elevation (proposed flooding elevations minus existing flooding elevation)

1.0 Hydrologic and Hydraulic Modeling: XPSWMM

The City's Nine Mile Creek XPSWMM model was updated and used to evaluate existing conditions and proposed conditions described in the 4904 Bywood West Stormwater Management Memo (Solution Blue, Inc., 2020; revised August 27, 2020). Model updates were incorporated using methodology and source data outlined in the 2018 Edina CRWMP (Edina, 2018).

The following subsections describe updates made to the existing conditions XPSWMM model and all updates associated with the proposed grading and redevelopment plan (proposed conditions).

1.1 Existing Conditions

The following updates were incorporated into the City's existing Nine Mile Creek XPSWMM model. The cumulative result of all updates described below was an increase in the 1% AEP flood elevation of HI_22 from 903.4-feet to 903.7-feet (see Figure 1).

1.1.1 Removal of modeled outlet from HI_22 (landlocked)

A 12-inch outlet from HI_22 to HI_6 was originally included in the XPSWMM model. Upon field review conducted by City staff, it was determined that no outlet from HI_22 exists, and that the basin is a landlocked feature. The applicant's engineer described in conversation with the City that the HI_22 wet pond water elevation may currently be controlled by pumping conducted by private parties.

1.1.2 Update to modeled pond normal water level

The HI_22 wet pond normal water level (NWL) elevation was originally established by the assumed 12-inch outlet elevation from the HI_22 basin (901-feet). After determining the pond does not have an outlet (Section 1.1.1), the City requested a new starting NWL be established based on review of historic aerial imagery and available digital elevation data.

Best available digital elevation data (2011 LiDAR, Hennepin County) shows a minimum elevation within the HI_22 basin of 899.3-feet. Aerial imagery from 1992 to August of 2020 (Appendix A) was reviewed. Review of historic imagery shows that the water surface elevations is typically contained within the 900.5-foot contour. For this reason, a starting water surface elevation of 900.5-feet was selected as the revised NWL for HI_22.

1.1.3 Other hydrologic and hydraulic updates

The HI_22 subwatershed divide was reviewed and updated to better reflect the drainage area to the HI_22 basin. The corrected subwatershed to HI_22 is 1.937 acres (previously 2.168 acres). The original and updated subwatershed divides in the vicinity of 4904 Bywood Ave are shown in Figure 3. The subwatershed storage stage-area data for HI_22 was updated based on the revised subwatershed divide.

In addition to the subwatershed area update, a zero percent detention (ZPD) value for HI_22 was added. The ZPD percentage value defines the fraction of directly connected impervious area which is open water and therefore has no depression storage. ZPD associated with the existing HI_22 wet pond was not captured in the original hydrologic inputs developed for HI_22. ZPD was calculated using the Edina 2016 land use data described in the Edina CWRMP (Edina, 2018).



Figure 3 Updated subwatershed divides (updated divide shown in yellow, original divide in orange)

1.2 Proposed Conditions

Proposed conditions outlined in the 4904 Bywood West Stormwater Management Memo (Solution Blue, Inc., 2020; revised August 27, 2020) were reviewed and incorporated into a proposed conditions XPSWMM model. Updates incorporated into the proposed condition XPSWMM model are summarized in the following subsections.

1.2.1 Proposed grading plan: subwatershed and drainage pattern update

The proposed grading plan and roof plan detail were georeferenced in ArcMap and used to update the subwatershed drainage divide to (a) the HI_22 wet pond and (b) the proposed detention basin located on the 4904 Bywood West property. The HI_22 subwatershed was subdivided to model the drainage area to the proposed detention basin (HI_22a, see Figure 4). Site grading near the 4904 Bywood west property results in a minor increase in the total drainage area to the HI_22 wet pond (1.960 acres proposed conditions compared to 1.937 acres in existing conditions). Hydrologic inputs for the proposed conditions model are discussed further in Section 1.2.3).

In addition to modifying the drainage area to the HI_22 basin, proposed grading alters the location of the emergency overflow (EOF) from HI_22 as shown in Figure 4. In existing conditions, during large rainfall events (e.g., the back-to-back 1% AEP event), overflow from the HI_22 drains along the south portion of the 4904 Bywood West lot east towards Bywood West at an elevation of 905.0-feet. In proposed conditions, the emergency overflow elevation remains the same (905.0-feet) but is shifted to the western edge of the property as shown in Figure 4 (i.e., the proposed grading blocks the existing overflow near the structure and creates a new overflow along the western edge of the property). As discussed in Section 2.0, the 1% AEP event does not access the emergency overflow elevation during existing or proposed conditions, meaning shifting the location of the emergency overflow does not alter drainage patterns during the 1% AEP design event.

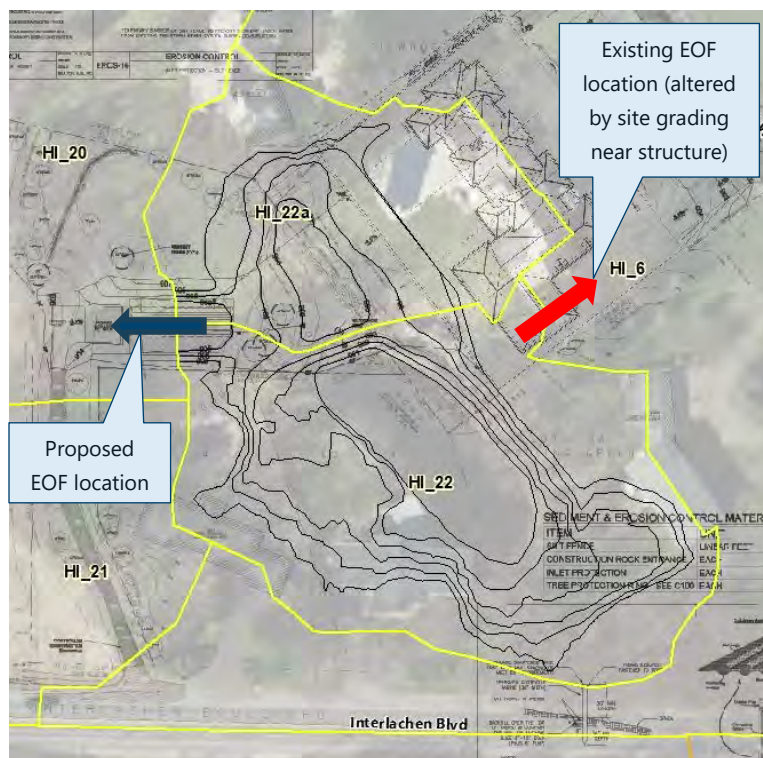


Figure 4 Proposed condition subwatershed divides, proposed grading contours, and HI_22 basin emergency overflow drainage update.

1.2.2 Proposed grading plan: storage stage-area update

As shown in Figure 4, the proposed grading plan was georeferenced in ArcMap and used to define the storage stage-area data for the HI_22a and HI_22 subwatersheds. The grading plan proposes fill to create a berm between the backyard detention basin and the HI_22a, a fill within the backyard detention basin footprint, and cut along the western edge of the property to construct the sport court and outbuilding (establishing the new EOF location as described in Section 1.2.3 and shown in Figure 4). The result of the proposed grading plan is a reduction in stage-area and cumulative surface storage volume beginning at the 902-foot contour as shown below in Table 2 and Figure 5.

Table 2 Comparison of existing and proposed cumulative storage (combined HI_22a and HI_22)

Elevation (ft, NGVD29)	Storage Area (sf)		Cumulative Storage (cf)		
	Existing	Proposed	Existing	Proposed	Diff. (cf) ¹
899.3	4	4	0	0	0
900.0	6,587	6,587	2,340	2,340	0
900.2	6,972	6,972	3,696	3,696	0
900.4	7,307	7,307	5,124	5,124	0
900.6	7,628	7,628	6,617	6,617	0
900.8	7,943	7,943	8,174	8,174	0
901.0	8,277	8,350	9,796	9,804	7
902.0	13,769	11,726	20,820	19,842	-978
903.0	20,641	19,844	38,025	35,626	-2,398
904.0	32,371	31,112	64,531	61,104	-3,426
905.0	42,676	41,465	102,054	97,393	-4,661
906.0	57,896	49,555	152,340	142,903	-9,437

¹ Difference in cumulative storage (proposed storage minus existing storage).

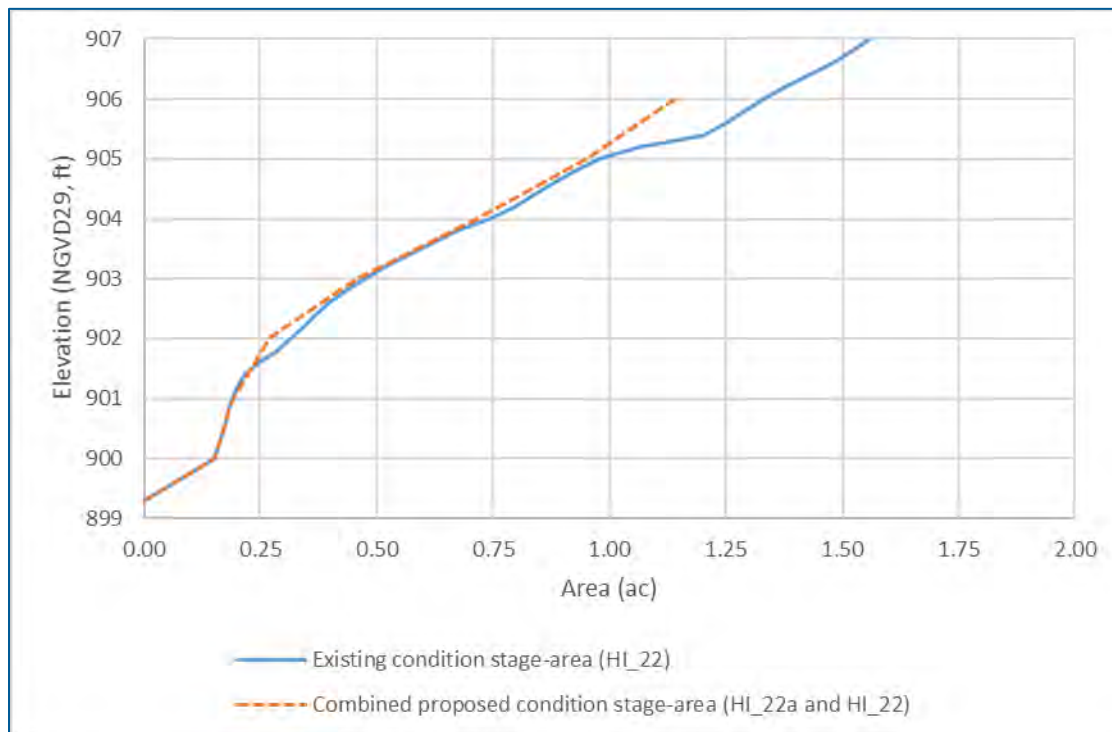


Figure 5 Comparison of existing and proposed stage area (combined HI_22a and HI_22)

1.2.3 Proposed redevelopment plan: hydrologic update

Hydrologic parameters were generated for the HI_22a subwatershed and the updated (i.e., subdivided) HI_22 subwatershed (see Figure 4). Hydrologic parameters were developed based on review of HydroCAD model results included in the 4904 Bywood West Stormwater Management Memo (Solution Blue, Inc., 2020; revised August 27, 2020) using methodology and supplementary data sources outlined in the Edina CWRMP (Edina, 2018).

The 4904 Bywood West HydroCAD model was reviewed to determine the new impervious surface area in each subwatershed within the study area (of the total 12,623 sf of new impervious area, 6,522 sf is directed towards the HI_22a basin). Using methodology outlined in the Edina CWRMP (Edina, 2018), the proposed increase in directly connected impervious area and all other impacted hydrologic parameters (e.g., watershed width, ZPD, etc.) were calculated. Existing condition and proposed condition hydrologic parameters are summarized in Table 3. Hydrologic parameters not included in Table 3 were not updated (e.g., Horton infiltration parameters).

Table 3 Comparison of existing and proposed hydrologic parameters

Parameter	Existing	Proposed	
	HI_22	HI_22a	HI_22
Total Area (ac)	1.937	0.695	1.265
DC Imp. (%) ¹	29.6%	36.0%	33.0%
Width (ft)	690	254	755
ZPD (%)	23%	0%	32%
Pervious Ds (in) ²	0.17	0.709 ³	0.17
Impervious Ds (in) ²	0.06	0.599 ³	0.06

1 DC imp. = directly connected impervious fraction (%)

2 Ds = depression storage

3 Depression storage of HI_22a increased to model 1,360 cf of abstraction volume associated with underground infiltration BMP (see Section 1.2.4).

1.2.4 Proposed redevelopment plan: detention basin and underground storage

The backyard detention basin in HI_22a and underground infiltration BMPs outlined in the 4904 Bywood West Stormwater Management Memo (Solution Blue, Inc., 2020; revised August 27, 2020) were incorporated into the proposed condition model. The backyard detention basin was modeled based on the proposed grading plan (see Figure 4) and outlet details included in the Stormwater Management Memo (i.e., 12-inch HDPE equalizer pipe at 903.4 feet and EOF berm at 903.8 feet). The underground infiltration BMP was modeled as an abstraction volume from the HI_22a subwatershed. Specifically, the pervious and impervious depression storage (Ds) values of the HI_22a subwatershed were increased to create 1,360 cf of abstraction volume (1,360 cf is the total storage volume of the proposed underground infiltration BMP). The infiltration rates assumed in the Stormwater Management Memo were not modeled as a conservative modeling assumption to account for soil saturation during large rainfall events.

2.0 Model Results

The City requested that Barr update the City Nine Mile Creek XPSWMM model and develop a proposed conditions XPSWMM model to evaluate the following:

- 1) Create a plausible starting elevation for this landlocked basin and confirm the 1% AEP and back-to-back 1% AEP design event flood elevations (existing conditions);
- 2) Review the 4904 Bywood West Stormwater Management Memo to confirm that it is protective of nearby private properties; and
- 3) Model the proposed emergency outlet elevation to the west and confirm that there is no impact to nearby private properties for the 1% AEP event. Suggest a minimum EOF outlet elevation.

Questions originally posed by the City are answered in order in the following subsections. Results from the existing and proposed conditions XPSWMM model included in the executive summary (Table 1) are also referenced within the following subsections. For this reason, results from Table 1 are repeated within this section in Table 4, below.

Table 4 Comparison of flood elevations in the vicinity of 4904 Bywood West [duplicate of Table 1]

Subwatershed ID		Design Event MWSE (NGVD29, feet) ¹					
		1% AEP			Back-to-Back 1% AEP		
Existing Conditions	Proposed Conditions	Existing Conditions	Proposed Conditions	Increase (ft)	Existing Conditions	Proposed Conditions	Increase (ft)
HI_22	HI_22a	903.66	903.98	0.32	905.01	905.02	0.01
	HI_22		903.72	0.06		905.02	0.01
HI_6	HI_6	902.73	902.73	0.00	902.74	902.74	0.00

² Edina XPSWMM flood elevations are typically reported to one tenth foot accuracy. Additional accuracy provided in this table to highlight impact of proposed conditions.

2.1 HI_22 starting water surface elevation and flood elevations: existing conditions

As outlined in Section 1.1.2, the HI_22 starting water surface elevations (i.e., the modeled NWL) was updated based on review of best available digital elevation data (2011 LiDAR, Hennepin County) and review of historic aerial imagery (Appendix A). Review of historic imagery shows that the water surface elevation is typically contained within the 900.5-foot contour. For this reason, a starting water surface elevation of 900.5-feet was selected as the revised NWL for the HI_22 wet pond.

2.2 Determine if 4904 Bywood West stormwater management plan is protective of nearby properties

As outlined in Table 4, proposed conditions outlined in the 4904 Bywood West Stormwater Management Memo (Solution Blue, Inc., 2020; revised August 27, 2020) result in a 0.32 ft increase in the HI_22a subwatershed (the subwatershed to the proposed detention area in the backlot portion of 4904 Bywood West) and a 0.06 ft increase in the HI_22 subwatershed 1% AEP event MWSE (see Figure 2). The increase in

1% AEP flooding has the potential to impact one (1) structure within the HI_22 subwatershed (5904 Interlachen Boulevard) but does not appear to impact structures within the HI_22a subwatershed.

2.3 Model the proposed EOF and suggest minimum EOF elevation

The proposed grading plan shifts the location of the EOF from the east side of the HI_22 basin to the west side, but does not alter the EOF elevation of 905.0-feet (see Figure 4 and discussion in Section 1.2.1). The 1% AEP flood elevations for both existing conditions (903.7-feet) and proposed conditions (HI_22: 903.7-feet; HI_22a: 904.0-feet) are below the EOF (905.0-feet), meaning that shifting the EOF locations does not impact nearby subwatersheds during the 1% AEP event.

To avoid impacting the neighboring HI_20 and HI_21 subwatersheds to the west, the EOF from the HI_22 basin should be maintained above the 1% AEP flood elevation (i.e., the EOF elevations should be high enough to prevent overflow from HI_22 to HI_20 during the 1% AEP event). Based on proposed conditions, the minimum EOF should be maintained above 904.0-feet (see 1% AEP MWSEs outlined in Table 4). It is recommended that the EOF be maintained at the existing elevation of 905.0-feet to provide 1-foot of freeboard and to provide resiliency for future climate conditions.

3.0 Conclusions and Recommendations

Proposed conditions outlined in the 4904 Bywood West Stormwater Management Memo (Solution Blue, Inc., 2020; revised August 27, 2020) were evaluated using the City's Nine Mile Creek XPSWMM model. Based on this evaluation, it was determined that proposed conditions outlined in the Stormwater Management Memo result in a minor increase in 1% AEP flood elevations in the HI_22a and HI_22 basins, potentially impacting one structure in the HI_22 basin (5904 Interlachen Boulevard). For this reason, Barr recommends that the proposed grading plan be reviewed to determine if more storage can be provided within the HI_22a and/or HI_22 basin (i.e., balance cut/fill within the 1% AEP (903.7-feet) flood inundation area). In addition to the recommendation related to grading (above), Barr proposes the following recommendations to minimize risk to structures within the HI_22 basin and within neighboring subwatersheds:

- Verify the low-entry elevation of structures within the HI_22a and HI_22 basins (in particular, 5904 Interlachen Boulevard which is potentially impacted during the 1% AEP design event).
- The minimum EOF should be maintained above 904.0-feet (see 1% AEP MWSEs outlined in Table 4). It is recommended that the EOF be maintained at the existing elevation of 905.0-feet to provide 1-foot of freeboard and to provide resiliency for future climate conditions.
- Coordinate with private entities performing pumping of the HI_22 basin to establish a pumping operation protocol (e.g., pump the basin to an elevation of 900.5-feet within 24-hours of a rainfall event).
- Provide a designed and protected overflow connection between the HI_22a detention basin and HI_22 wet pond (note: may already be considered in proposed design).

To: Ross Bintner and Kris Aaker – City of Edina (City)
From: Michael McKinney, PE – Barr Engineering Co. (Barr)
Subject: XPSWMM evaluation of 4904 Bywood West redevelopment project
Date: September 28, 2020
Page: 11

- Provide a designed and protected EOF from the HI_22 basin to the west (consider routing the EOF around the proposed sport court and outbuilding).

References

Barr Engineering Co. (Barr). 2018. 2018 Comprehensive Water Resources Management Plan. Prepared for the City of Edina.

Solution Blue, Inc. 2020. 4904 Bywood West Stormwater Management Memo. Revised August 27, 2020. Prepared on behalf of Boyer Builders.

To: Ross Bintner and Kris Aaker – City of Edina (City)
From: Michael McKinney, PE – Barr Engineering Co. (Barr)
Subject: XPSWMM evaluation of 4904 Bywood West redevelopment project
Date: September 28, 2020
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Appendix A

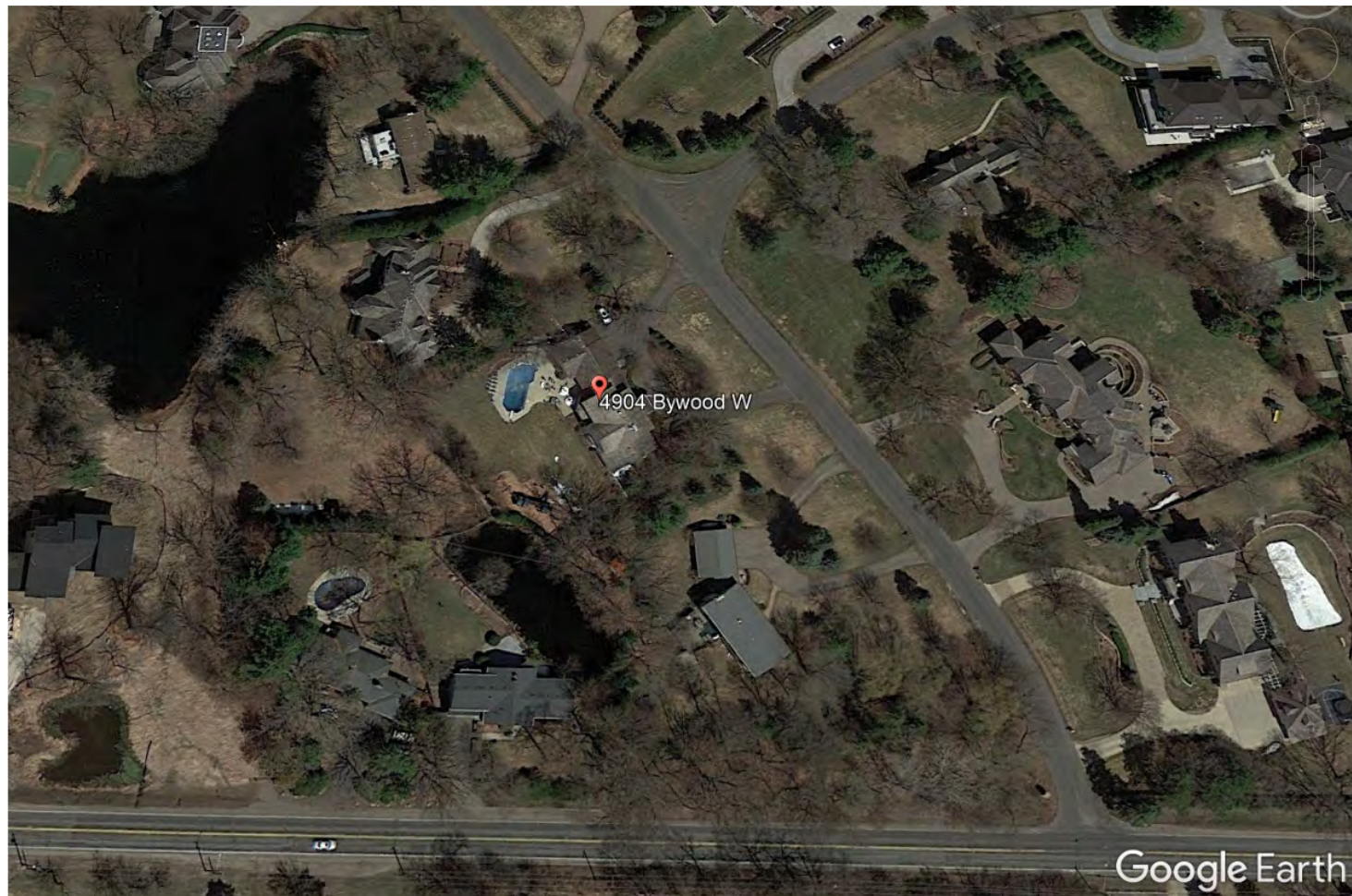
Historic Imagery of HI_22 Wet Pond



Google Earth

Date:
4/21/2020

Source: 2020 Maxar Technologies



Google Earth

Date:
4/28/2018

Source: not specified



Google Earth

Date:
4/3/2018

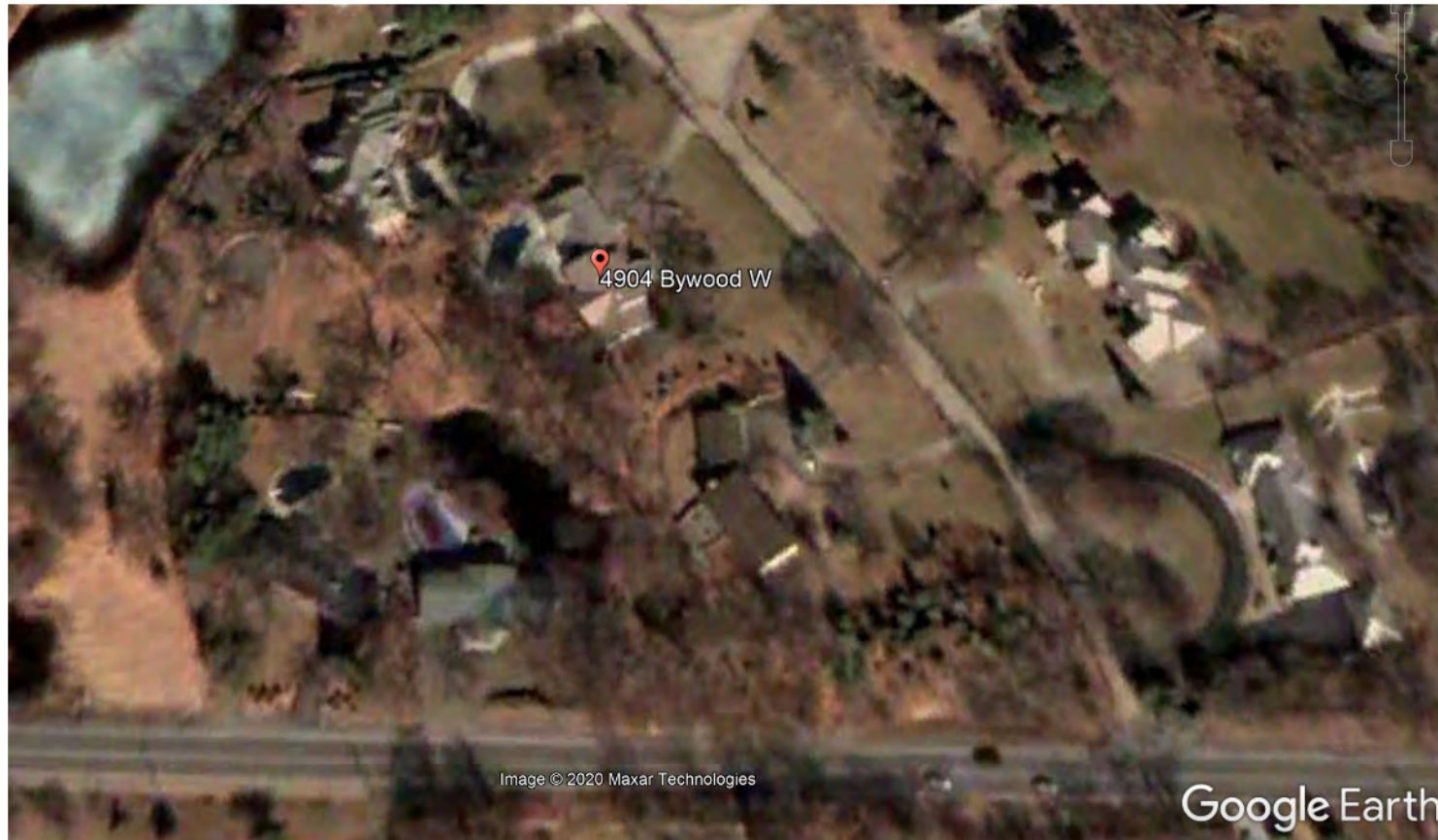
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Source: U.S. Geological Service



Google Earth

Date:
4/21/2003

Source: 2020 Maxar Technologies



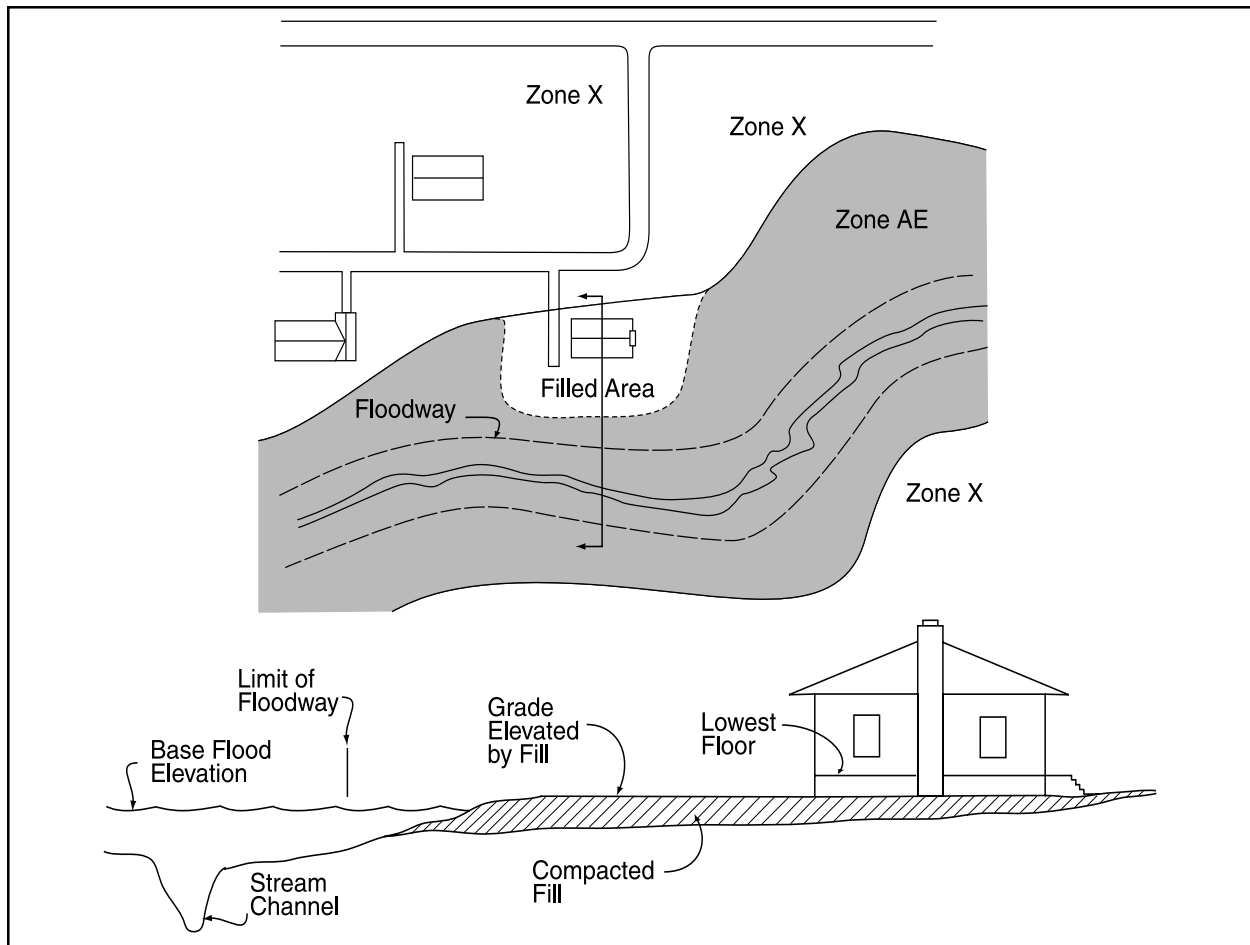
Google Earth

Date:
4/26/1992

Source: U.S. Geological Service

Ensuring That Structures Built on Fill In or Near Special Flood Hazard Areas Are Reasonably Safe From Flooding

in accordance with the
National Flood Insurance Program



FEDERAL EMERGENCY MANAGEMENT AGENCY
MITIGATION DIRECTORATE

FIA-TB-10
(5/01)

Key Word/Subject Index

This index allows the user to locate key words and subjects in this Technical Bulletin. The Technical Bulletin User's Guide (printed separately) provides references to key words and subjects throughout the Technical Bulletins. For definitions of selected terms, refer to the Glossary at the end of this bulletin.

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Any comments on the Technical Bulletins should be directed to:

Federal Emergency Management Agency
Mitigation Directorate
Program Policy and Assessment Branch
500 C Street, SW.
Washington, DC 20472

Wave design on cover based on the Japanese print *The Great Wave Off Kanagawa*, by Katsuchika Hokussai (1760–1849), Asiatic Museum of Fine Arts, Boston.

TECHNICAL BULLETIN 10-01

Ensuring That Structures Built on Fill In or Near Special Flood Hazard Areas Are Reasonably Safe From Flooding in accordance with the National Flood Insurance Program

Introduction

For the purpose of administering the National Flood Insurance Program (NFIP), FEMA identifies and maps flood hazard areas nationwide by conducting flood hazard studies and publishing Flood Insurance Rate Maps (FIRMs). These flood hazard areas, referred to as Special Flood Hazard Areas (SFHAs), are based on a flood having a 1-percent probability of being equaled or exceeded in any given year (also referred to as the 100-year flood or Base Flood).

Structures within the SFHA in a community participating in the NFIP are subject to floodplain management regulations that impact building standards and are designed to minimize flood risk. For example, Title 44, Part 60, Section 3(c)(2) of the Code of Federal Regulations—abbreviated as 44 CFR 60.3(c)(2)—requires that the lowest floor of a residential structure, including basement, built within the SFHA be at or above the Base Flood Elevation (BFE). In addition, flood insurance must be purchased for these structures if they are used as collateral to secure a loan provided by a federally regulated lender. Flood insurance coverage may be purchased for all eligible structures within a participating community. Insurance rates for structures located within the SFHA differ from the rates for structures located outside the SFHA.

When permitted under applicable Federal, state, and local laws, ordinances, and regulations, earthen fill is sometimes placed in an SFHA to reduce flood risk to the filled area. Under certain conditions, when engineered earthen fill is placed within an SFHA to raise the surface of the ground to or above the BFE, a request may be submitted to FEMA to revise the FIRM to indicate that the filled land is outside of the SFHA. When such revisions are warranted, FEMA usually revises the FIRM by issuing a Letter of Map Revision based on fill (LOMR-F). After FEMA has revised the FIRM to show that the filled land is outside the SFHA, the community is no longer required to apply the minimum NFIP floodplain management standards to any structures built on the land and the mandatory flood insurance purchase requirements no longer apply. It is worth noting that states and local communities may have floodplain regulations that are more restrictive than the minimum requirements of the NFIP and may continue to enforce some or all of their floodplain management requirements in areas outside the SFHA.

Although a structure built on a site that has been elevated by the placement of fill may be removed by FEMA from the SFHA, the structure may still be subject to damage during the Base Flood and higher-magnitude floods. Constructing the entire structure at or above the level of the BFE will minimize the flood risk from the Base Flood and is therefore the most prudent approach to constructing on fill. Conversely, a structure with a basement (subgrade area) adjacent to or near the floodplain may well be impacted by subsurface flooding brought on by surface flooding.

This bulletin provides guidance on the construction of buildings on land elevated above the BFE through the placement of fill. Several methods of construction are discussed, and the most prudent—those that result in the entire building being above the BFE—are recommended.

In some areas of the country, basements are a standard construction feature. Individuals may wish to construct basements on land after it has been removed from the floodplain by a FEMA revision. Buildings with basements built in filled areas are at an added risk of flooding when compared to buildings on other types of foundations. However, there are two major ways to minimize this additional risk from subsurface flooding. First, the building should be located farther back from the edge of the fill closest to the flooding source. Second, the higher the basement floor is elevated, the less the risk. This technical bulletin provides guidance on how to determine that these buildings will be reasonably safe from flooding during the occurrence of the Base Flood and larger floods. To be reasonably safe from flooding during the Base Flood condition, the basement must (1) be dry, not have any water in it, and (2) be structurally sound, not have loads that either exceed the structural capacity of walls or floors or cause unacceptable deflections. In practice, this means that soils around the basement must have low permeability to minimize or stop water infiltration to the basement wall and floors. Any water that does permeate to the basement must be removed by a drainage layer on the outside (soil side) of the basement. In addition, the foundation walls and floor slab must be designed and constructed for any increased loads that may occur during the Base Flood condition.

NFIP Regulations

Part of a community's application to participate in the NFIP must include "a commitment to recognize and duly evaluate flood hazards in all official actions in the areas having special flood hazards and to take other such official actions reasonably necessary to carry out the objectives of the program" [44 CFR 59.22 (a)(8)].

NFIP regulations at 44 CFR 60 include Subpart A: Requirements for Flood Plain Management Regulations. Each community participating in the NFIP adopts a floodplain management ordinance that meets or exceeds the minimum requirements listed in 44 CFR 60. Subpart A establishes specific criteria for determining the adequacy of a community's floodplain management regulations. The overriding purpose of the floodplain management regulations is to ensure that participating communities take into account flood hazards, to the extent that they are known, in all official actions relating to land management and use.

One of the minimum requirements established by the regulations is set forth at 44 CFR 60.3 (a)(3), which states that, for all proposed construction or other development within a participating community, the community must "Review all permit applications to determine whether the proposed building sites will be reasonably safe from flooding." 44 CFR 59.1 defines "development" as

"...any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operation or storage of equipment or materials,"

Warning

Construction of a residential building in an identified SFHA with a lowest floor below the BFE is a violation of the floodplain management requirements set forth at 44 CFR 60.3(c)(2), unless the community has obtained an exception to NFIP requirements from FEMA and has approved procedures in place.

By issuance of this Technical Bulletin, FEMA is noting that residual flood hazards may exist in areas elevated above the BFE by the placement of engineered earthen fill. Residual risks in these areas include subsurface flood conditions and flooding from events that exceed the base flood. This bulletin is intended to guide local floodplain management officials in determining whether structures placed in filled areas are reasonably safe from flooding. FEMA will require that the jurisdiction having authority for floodplain management determine that an area is reasonably safe from flooding before removing it from the SFHA.

Floodways, V Zones, and Alluvial Fan Flood Hazard Areas

This bulletin does **not** apply to the following:

- Construction in the floodway. The NFIP prohibits encroachments into the floodway that would cause increases in flood stage.
- Construction in SFHAs designated Zone V, VE, or V1-V30 on FIRMs. The NFIP prohibits the use of structural fill for support of buildings in V zones. Buildings constructed in a V zone must be constructed on an open foundation consisting of piles, piers, or posts and must be elevated so that the bottom of the lowest horizontal structural member is at or above the BFE. In addition, this bulletin strongly recommends that structural fill **not** be used to elevate buildings constructed in A zones in coastal areas. Detailed guidance concerning proper construction methods for buildings in coastal areas is presented in FEMA's *Coastal Construction Manual* (FEMA 55) and in NFIP Technical Bulletin 5, *Free-of-Obstruction Requirements*.
- Construction in SFHAs subject to alluvial fan flooding (designated Zone A0 with depths and velocities shown on FIRMs). The NFIP will not remove land from the floodplain based on the placement of fill in alluvial fan flood hazard areas.

More Restrictive State and Local Requirements

NFIP Technical Bulletins provide guidance on the **minimum** requirements of the NFIP regulations. **State or local requirements that exceed those of the NFIP take precedence.** Design professionals should contact community officials to determine whether more restrictive state or local regulations apply to the building or site in question. All applicable standards of the state or local building code must be met for any building in a flood hazard area.

Notes for Local Officials

Professional Certification

As required by state and local floodplain management ordinances, a proposed development must be determined to be reasonably safe from flooding. The official having the authority to make this determination should require all appropriate information for making the determination. This may include a certification by a qualified design professional that indicates the land or structures to be removed from the SFHA are reasonably safe from flooding, according to the criteria described in this technical bulletin. Such a professional certification may come from a professional engineer, professional geologist, professional soil scientist, or other design professional qualified to make such evaluations. A sample of such a certification is shown in Figure 1.

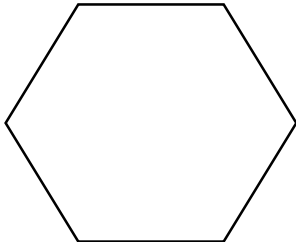
Project Name and Address	
I, _____ certify that the design for the aforementioned development is reasonably safe from flooding in accordance with the guidance provided within FEMA's Technical Bulletin 10-01 related to ensuring that structures are reasonably safe from flooding and in accordance with accepted professional practices.	
_____ Signature	_____ Date
_____ Title	
_____ Type of License	_____ License Number
Address and Phone	
Professional Seal	
_____ License Expiration Date	

Figure 1 Sample of professional certification form.

Administrative Options for Community Permitting

Communities may choose a variety of administrative procedures to assist them in gathering information that can be used to determine whether a proposed development is reasonably safe from flooding. Communities are encouraged to establish procedures that alert them to potential future development of a filled area. These procedures should allow for the evaluation of future development and a means to determine whether it will be reasonably safe from flooding. The following are examples of such procedures:

- Require building sites to be identified on final subdivision plats and evaluate those building sites against the standards described in this Technical Bulletin.
- Require grading plans as a condition of issuing fill permits and require that those grading plans include building sites, and evaluate those building sites based on this Technical Bulletin.
- Require buffer zones or setback zones around the perimeter of fill pads or at the edge of the floodplain and establish construction requirements within these buffer zones to ensure that buildings are safe from residual risk.
- Require as a condition of final subdivision plat approval that the developer agree that no basements will be built in any flood areas.
- Adopt or have regulations that control development of areas immediately adjacent to floodplains that would ensure that any construction is reasonably safe from flooding. For example, under the Minnesota State Building Code, communities designate areas outside of the floodplain as “Secondary Flood Hazard Areas” where building officials evaluate plans for basements and can require modifications to the basement if an official believes there is a residual risk.
- When issuing a permit for the placement of fill only in the SFHA, stipulate that no buildings will be built on the site without a subsequent building permit.

Placement of Fill

Properly placing fill requires an understanding of soil mechanics, local site conditions, the specific characteristics of the soils being placed, the methods used to place and compact the fill, and soil testing procedures. Standard engineering and soil mechanics texts cover these subjects in detail. The performance of these filled areas should consider, but is not limited to, the following:

- the consolidation of the fill layers and any underlying layers
- the effect of this consolidation on either excessive settlement or differential settlement
- how the permeability of the soils affects water infiltration on any structures built on the site

Loss of Storage and Conveyance

The placement of fill in the SFHA can result in an increase in the BFE by reducing the ability to convey and store flood waters. This can result in increased flood damage to both upstream and downstream properties. To prevent these possible results, some communities prohibit fill, require compensatory storage for filled areas, and/or identify a more restrictive floodway.

Risk of Flood Damage in Areas Adjacent to the SFHA

Areas adjacent to the SFHA may have residual risks of flood damage similar to those in areas removed from the SFHA through the placement of fill. Both areas are subject to residual risk from subsurface water related to flooding and from floods greater than the Base Flood. Methods of construction discussed in this bulletin should also be used in these areas.

Building on Land Removed From the SFHA by the Placement of Fill

The safest methods of constructing a building on filled land removed from the SFHA are those that result in the entire structure being above the BFE. Methods that place the lowest floor of the building at, rather than above, the BFE are at greater flood risk, and methods that result in the lowest floor (including a basement floor) below the BFE have the highest flood risk of all. Placement of the lowest floor of these structures below the BFE, even though they are outside the SFHA, will result in an increased threat from subsurface flooding and magnified damages from flooding that exceeds the BFE.

Freeboard

Freeboard is an additional height used as a factor of safety in determining the elevation of a structure, or floodproofing, to compensate for factors that may increase the flood height (ASCE 24-98, *Flood Resistant Design and Construction*). When fill is used to protect buildings from the Base Flood, the community should consider whether freeboard should be required. This consideration should include whether better information exists or conditions have changed (from when the BFE was originally established) that indicate that the BFE may be higher than originally expected. One example of when the BFE may be higher is when a culvert or bridge is blocked by debris. Flood modeling assumes an open channel or culvert. Even when the BFE is not expected to be higher, freeboard may be appropriate to provide increased protection from flood events less frequent than the Base Flood or to account for future changes that may increase the BFE.

The foundation types for buildings outside the SFHA described in the following sections are listed in order of their increasing risk of flood damage.

Non-Basement Foundations

Non-basement foundations consist primarily of stem wall, crawlspace, and slab-on-grade foundations.

Stem Wall Foundation

A stem wall foundation can be used to raise the lowest floor above the surrounding grade. After the stem walls have been constructed and extended to the desired elevation, the area enclosed by the stem walls is filled with engineered compacted fill and a slab is poured on top (see Figure 2). Through the placement of additional fill, the site may be elevated above the BFE. This approach provides freeboard—an additional amount of elevation that helps protect against subsurface flooding and floods that exceed the Base Flood. Constructing a stem wall foundation and placing this additional fill on the site provide the highest level of flood protection.

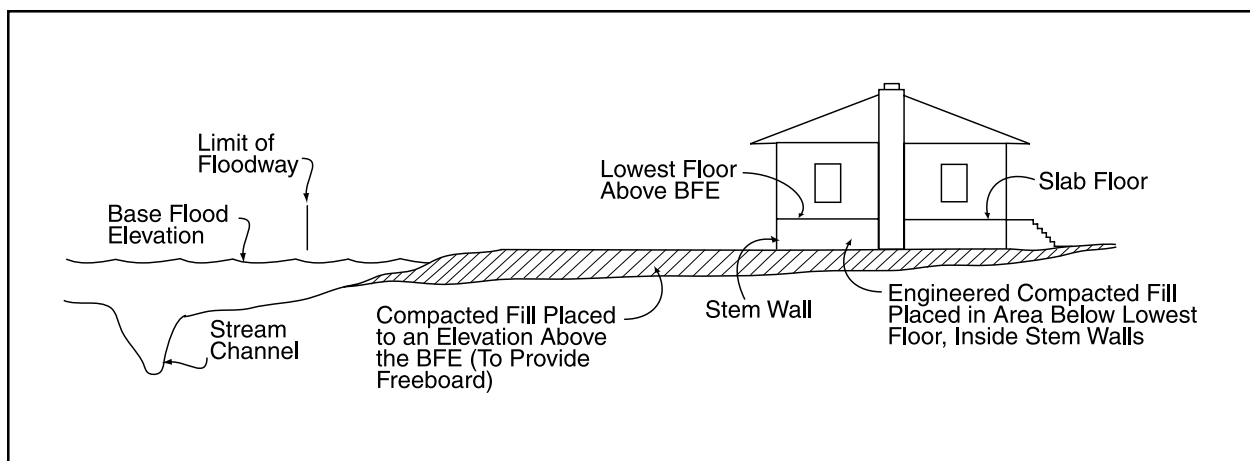


Figure 2 Structure on a stem wall foundation. The lowest floor is raised above the BFE. The space enclosed by the stem walls is filled with engineered compacted fill.

Crawlspace Foundation

Constructing a crawlspace beneath the first floor will raise the lowest floor of the structure above the surrounding grade (see Figure 3). Openings in the foundation walls are recommended. If flooding reaches the building, the openings allow flood waters to enter the area below the lowest floor and equalize the hydrostatic pressure on the foundation walls (see NFIP Technical Bulletin 1, *Openings In Foundation Walls*).

The crawlspace alternative is less preferable than stem wall construction, which does not result in an enclosed area under the first floor and therefore requires no flood openings. Placing additional fill to a level above the BFE provides freeboard that helps protect against subsurface flooding and floods that exceed the Base Flood. Constructing a crawlspace foundation and placing additional fill on the site provide increased flood protection.

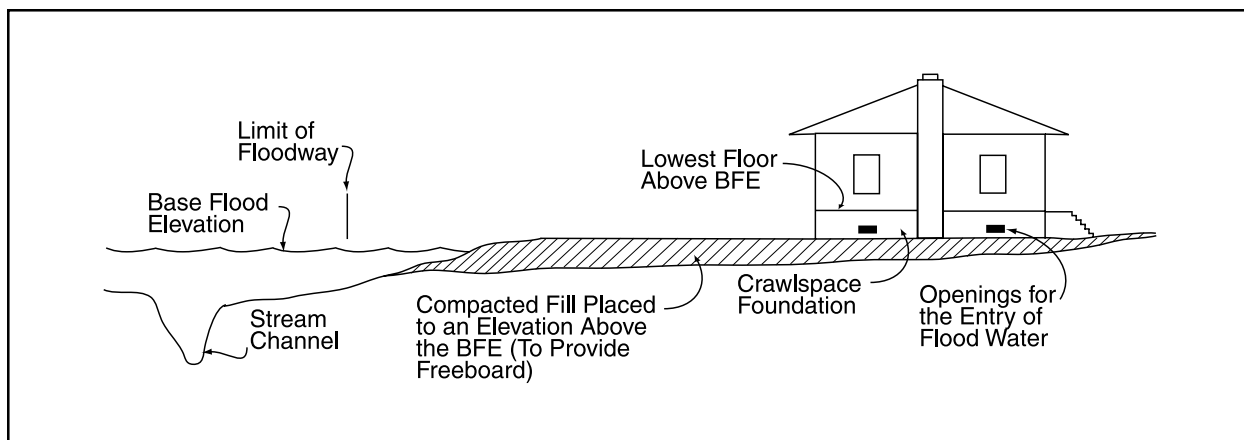


Figure 3 Structure on a crawlspace foundation. The lowest floor is raised above the BFE. Openings in the foundation walls allow water from floods higher than the fill elevation to enter the crawlspace and equalize the pressure on foundation walls.

Slab-On-Grade Foundation

This method normally provides less flood protection than crawlspace construction because it does not elevate the house above the adjacent grade (see Figure 4). As a result, the lowest floor of the house can be as low as the BFE and would be inundated by any flood greater than the BFE. Placing additional engineered fill beneath the building to a level above the BFE would provide freeboard and therefore increased flood protection.

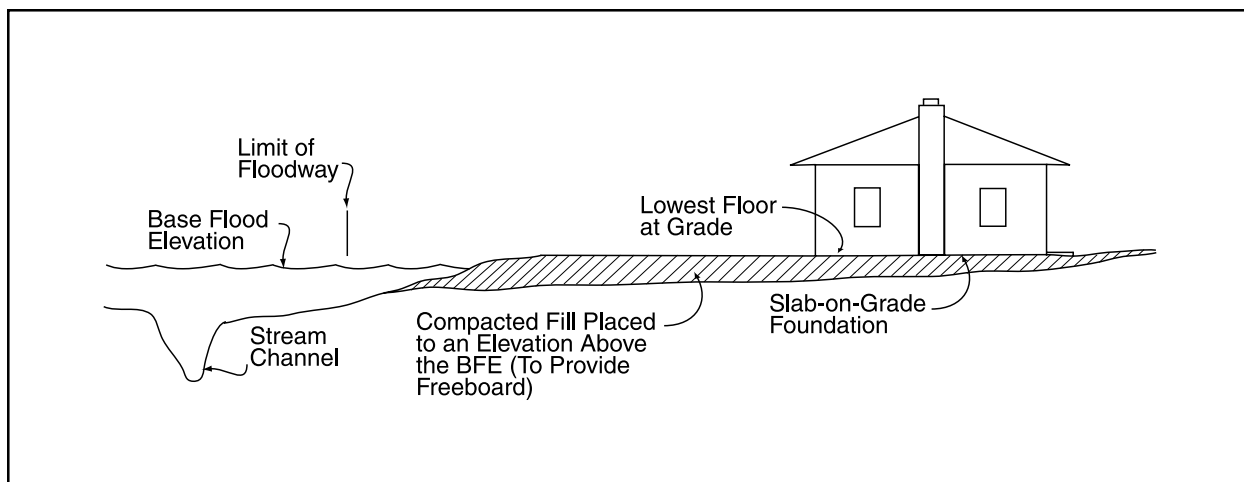


Figure 4 Structure on a slab-on-grade foundation. The lowest floor is typically slightly higher than the surrounding grade.

Basement Foundations

Although basements are a desired feature in some areas of the United States, NFIP minimum requirements generally do not allow their construction in the SFHA, because of the increased risk of flood damages. The only instances where this is not the case are buildings for which FEMA has granted a special exemption to allow floodproofed basements. However, once land is removed from the SFHA through a map revision, these NFIP minimum requirements no longer apply. As a result, builders and property owners who build on land removed from the SFHA sometimes elect to install basements, which are at a higher risk of flood damage than the foundation types described previously.

Constructing a basement on such land is **not** recommended, because the basement (i.e., lowest) floor and portions of the basement walls may well be subjected to subsurface flooding. The basement may therefore be subject to seepage and lateral hydrostatic and uplift pressure caused by high groundwater levels associated with flooding in surrounding areas. Additionally, when flooding exceeds the BFE, the basement area may be totally inundated with floodwater. When builders and homeowners decide to accept the additional risk associated with basement construction on filled land, they need to ensure that the basement and the rest of the house are reasonably safe from flooding.

Warning

In filled areas adjacent to floodplains, floods can still greatly influence the groundwater at the filled site. High groundwater at a site with a basement can result in water infiltrating the basement or greatly increased hydrostatic pressures on the walls and basement slab that can cause failure or permanent deformation. Even when floods have not reached houses with basements, FEMA has seen numerous examples of flooded basements, bowed basement floors, and collapsed basement walls that have resulted from the effects of high groundwater caused by flooding. In addition, the collapse of flooded basements has also occurred when water is rapidly pumped from basements surrounded by saturated soils whose pressure exceeds the capacity of the basement walls.

Flood Insurance Coverage for Basements

It is extremely important to note that the NFIP offers only limited coverage for basement flooding. First, in order for a claim to be paid, there must be a general condition of overland flooding where floodwaters come in contact with the structure. Secondly, the NFIP does not provide coverage for finished nonstructural elements such as paneling and linoleum in basement areas. Contents coverage is restricted to a limited number of items listed in the flood insurance policy. Contact a local insurance agent for more information.

Four basement construction methods are described below in increasing order of flood risk.

Basement Foundation With Lowest Floor At or Above BFE

Placing the lowest floor of the basement at or above the BFE has the effect of eliminating flood-induced damage up to the BFE (see Figure 5). In general, the higher the basement floor is above the BFE the lower the risk of damage from seepage and hydrostatic pressure caused by flood-related groundwater. Where possible, the basement should be built with its floor at or above the BFE. An added benefit is that floods that exceed the BFE will cause significantly less damage to a structure with this type of basement than to structures with basements whose floors are at greater depths.

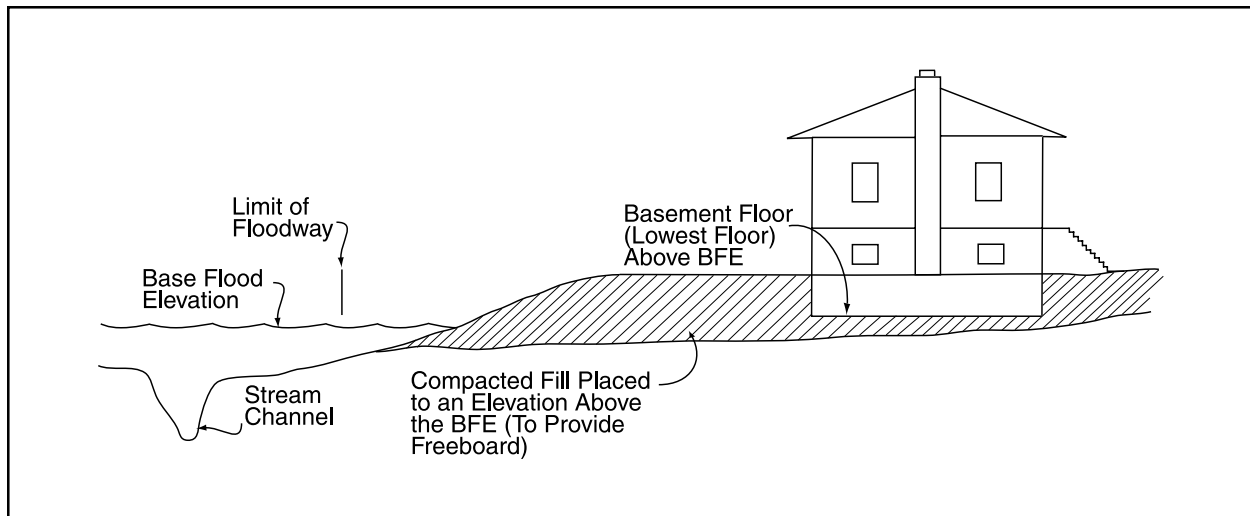


Figure 5 Basement foundation with lowest floor above the BFE. Damage from floods below the BFE is eliminated.

Basement Foundation in Fill Placed Above BFE

Placing fill to a level higher than the BFE has the effect of reducing the depth of the basement floor below the BFE (see Figure 6). It is recommended that fill be placed to a level at least 1 foot above the BFE. In general, the higher the basement floor the lower the risk of damage from seepage and hydrostatic pressure caused by flood-related groundwater. Where possible, enough fill should be properly placed so that the lowest grade adjacent to the structure is raised to an elevation greater than the BFE. An added benefit of fill placed above the BFE is that it helps protect the building from floods greater than the Base Flood. These floods are less likely to reach the structure.

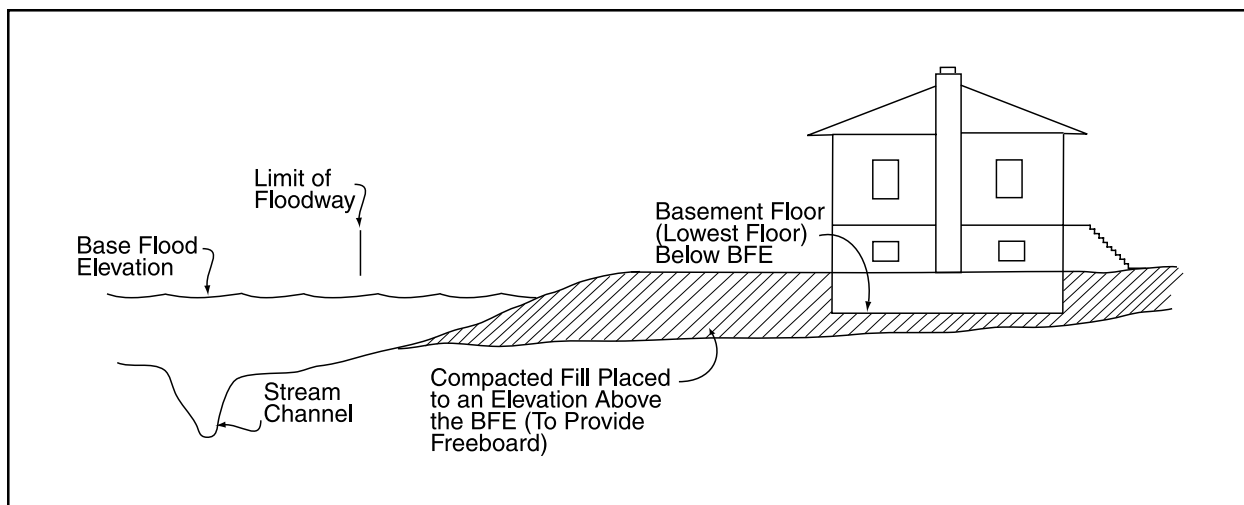


Figure 6 Basement foundation in fill placed above the BFE. The depth of the basement floor below the BFE is less than when no fill is placed.

Basement Foundation With Lowest Opening Above BFE

In the event that the lowest floor is not elevated to or above the BFE and fill is not placed to a level above the BFE, the next best method of reducing flood risk is to place the lowest opening into the basement (e.g., window well) at a level higher than the BFE (see Figure 7). This will reduce the chances that surface flooding will enter and inundate the basement. However, the basement walls and floor slab will still be subjected to hydrostatic pressure with the potential for damage and seepage into the basement. In addition, the above-grade basement walls will be exposed to water from floods greater than the Base Flood. For this reason, the lowest opening in the basement walls should be above the BFE, as shown in Figure 7.

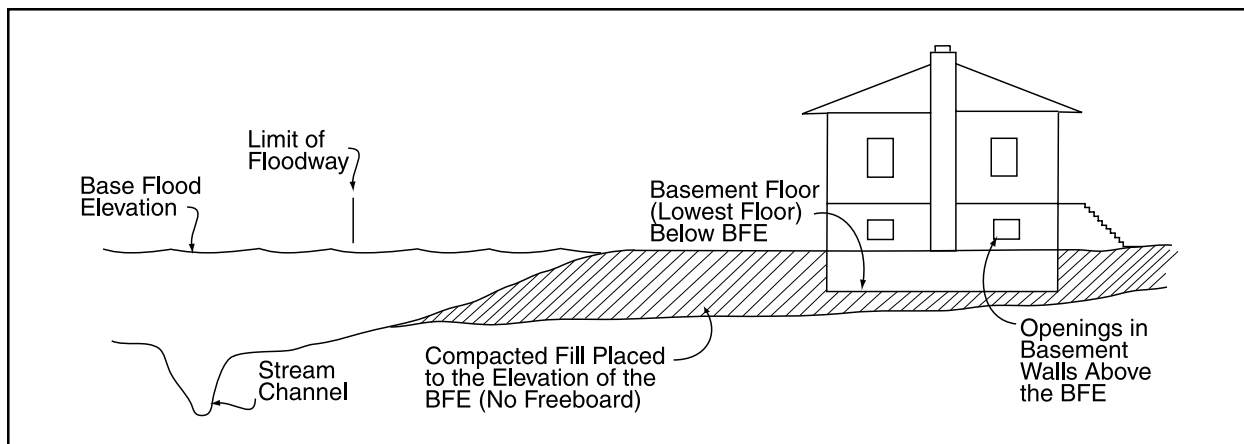


Figure 7 Basement foundation with lowest opening above the BFE. Surface flooding is less likely to enter and inundate the basement.

Basement Foundation With Lowest Opening at BFE

This is the least preferable condition of all because it results in the highest flood risk and is not recommended (see Figure 8). The lack of fill above the BFE, coupled with the lowest floor being below BFE and lowest opening at the BFE, exposes the basement to flooding from both subsurface flooding and any flood greater than the Base Flood.

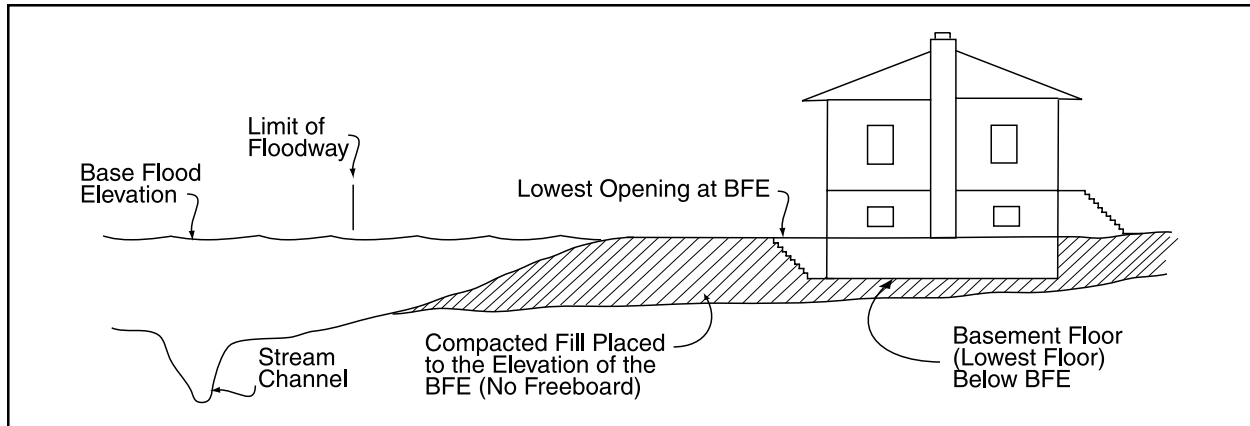


Figure 8 Basement foundation with lowest opening at the BFE. The basement is exposed to flooding from any flood greater than the Base Flood.

Flood Risk by Foundation Type

Table 1 summarizes the foundation construction methods described in this bulletin and ranks them in order of increasing flood risk—the safest foundation types appear near the top; the less safe foundation types appear near the bottom. The foundation construction methods that result in a building that is reasonably safe from flooding are shown in the dark gray area of the table. If the basement construction methods shown in the light gray area are used, the requirements described in the following sections of this bulletin must be met in order for the building to be considered reasonably safe from flooding.

Table 1 Flood Risk by Foundation Construction Method

Foundation Flood Risk													
Flood Risk During the Base Flood	Fill		Foundation Construction Method										
			Stem Walls		Crawlspace		Slab-On-Grade		Basement				
	Above BFE	At BFE	Above BFE	At BFE	Above BFE	At BFE	Above BFE	At BFE	Above BFE	At BFE	Below BFE	Above BFE	At BFE
Increasing Level of Flood Risk ↓	■		■										
	■				■								
	■						■						
		■		■									
		■				■							
		■						■					
	■								■			■	
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Reasonably Safe From Flooding

Follow Guidance in This Bulletin To Ensure That Building Is Reasonably Safe From Flooding

Basement Construction Guidance

For those who have chosen to accept the additional risk associated with basement construction below the Base Flood on filled land that has been removed from the SFHA, this bulletin provides technical guidance about measures that can be taken to protect basements and meet the requirement that buildings be made reasonably safe from flooding. A simplified approach, including the requirements that must be met for its use, is presented first. For buildings that do not meet the criteria for the simplified approach, this bulletin provides technical guidance for the development of an engineering design tailored to the site conditions.

Structural Design

Design of foundation elements is addressed in model building codes. This technical bulletin does not address the structural design of basement walls or foundations. Floors and slabs should be designed for the hydrostatic pressures that can occur from the Base Flood. For the structural design, it is recommended that the full hydrostatic pressures be assumed unrelieved by the drainage system. Foundation walls that have not been designed for hydrostatic pressures, such as unreinforced masonry or pressure-treated wood wall systems, should not be used (see Figure 9).



Figure 9 Failure of this unreinforced masonry basement during flooding in East Grand Forks, MN, in 1997 caused approximately \$32,000 in damage.

Simplified Approach

Design Requirements

If, for a building and building site, **all** the requirements listed below are met (see Figure 10), the building is reasonably safe from flooding. If all of these requirements are not met, the more detailed analysis described under Engineered Basement Option, on page 19 of this bulletin, should be performed to determine whether the building is reasonably safe from flooding.



The ground surface around the building and within a defined setback distance from the edge of the SFHA (see next item) must be at or above the BFE.



The setback is the distance from the edge of the SFHA to the nearest wall of the basement. The minimum allowable setback distance is 20 feet.



The ground around the building must be compacted fill; the fill material—or soil of similar classification and degree of permeability—must extend to at least 5 feet below the bottom of the basement floor slab.



The fill material must be compacted to at least 95 percent of Standard Laboratory Maximum Dry Density (Standard Proctor), according to ASTM Standard D-698. Fill soils must be fine-grained soils of low permeability, such as those classified as CH, CL, SC, or ML according to ASTM Standard D-2487, *Classification of Soils for Engineering Purposes*. See Table 1804.2 in the 2000 *International Building Code* (IBC) for descriptions of these soil types.



The fill material must be homogeneous and isotropic; that is, the soil must be all of one material, and the engineering properties must be the same in all directions.



The elevation of the basement floor should be no more than 5 feet below the BFE.



There must be a granular drainage layer beneath the floor slab, and a ¼-horsepower sump pump with a backup power supply must be provided to remove the seepage flow. The pump must be rated at four times the estimated seepage rate and must discharge above the BFE and away from the building. This arrangement is essential to prevent flooding of the basement or uplift of the floor under the effect of the seepage pressure.



The drainage system must be equipped with a positive means of preventing backflow.



Model building codes (such as the 2000 International Residential Code) also address foundation drainage (IRC Section R405) and foundation walls (IRC Section R404). Model building codes generally allow foundation drains to discharge through either mechanical means or gravity drains. In addition, there is often an exception to the requirement for drainage systems in well-drained soils. However, in or near floodplains, well-drained soils can, in fact, help convey groundwater towards the building foundation. Therefore, this exception should not apply in or near floodplains.



In some cases in or near floodplains, even with standard drainage systems, hydrostatic pressures from groundwater against the basement can result. When a standard drainage system is unable to eliminate hydrostatic pressure on the foundation, model building codes, including the 2000 International Residential Code (IRC Section R404.1.3), require that the foundation be designed in accordance with accepted engineering practice. **The simplified approach contained in this Technical Bulletin assumes no hydrostatic pressure on the foundation and should be used only when a standard drainage system, discharged by a sump pump that is equipped with backup power and that discharges above BFE, is employed.** For other drainage systems, the designer should use the engineered basement option presented on page 19 of this bulletin and other appropriate building code requirements.

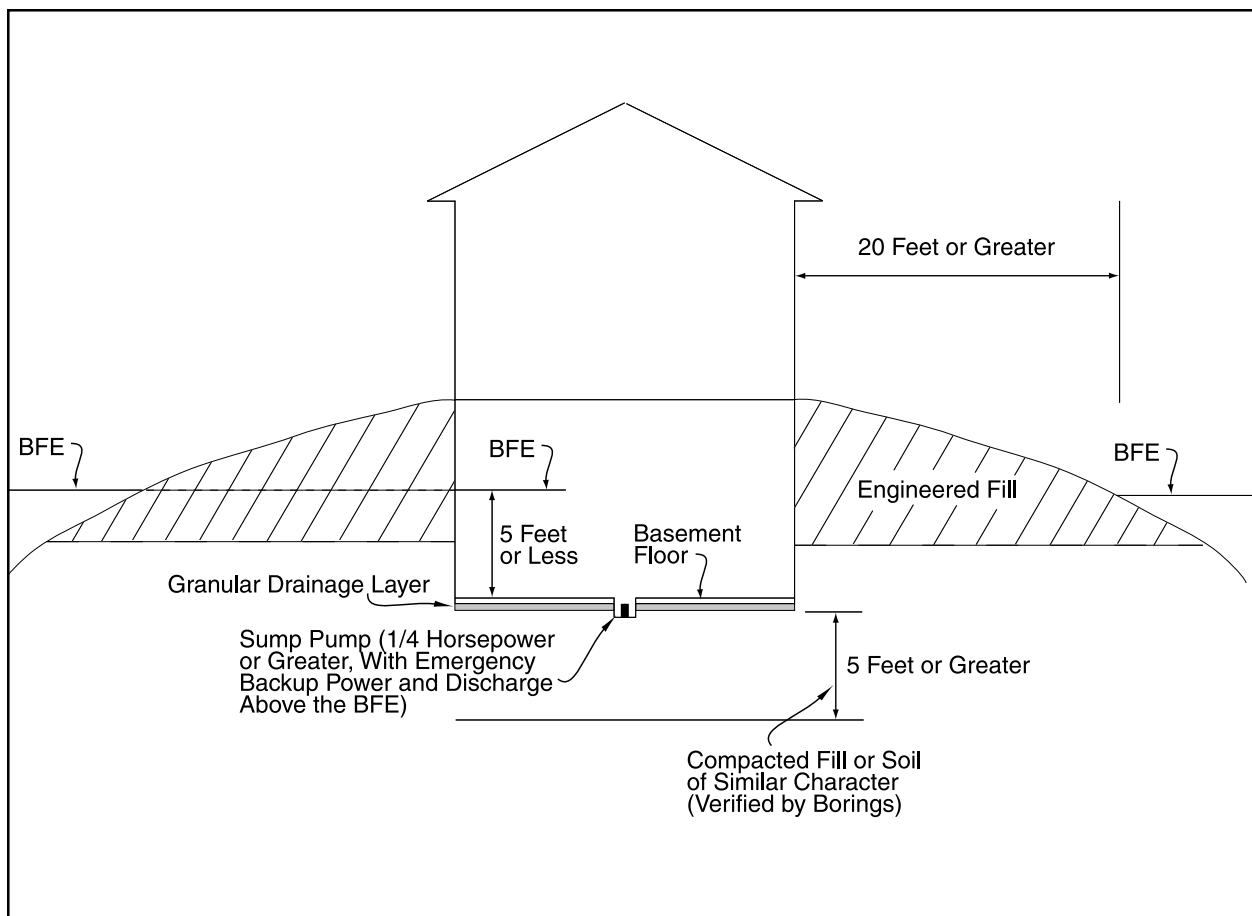


Figure 10 Requirements for use of the simplified approach to basement construction.

Technical Background for the Simplified Approach

The simplified approach is based on the following conditions:

- ✓. The area of the footprint of the basement is less than or equal to 1,200 square feet.
- ? The soil is saturated; therefore, there is no time lag in the development of the seepage pattern with a change in flood water level. The groundwater table in floodplains is typically very shallow, and fine-grained soils have a substantial potential for maintaining saturation above the water table by capillary rise.
- ? The tailwater level is at the elevation of the BFE. For this bulletin, “tailwater” is defined as the groundwater level beyond the structure, on the side away from the flood water surface. This is a reasonably conservative assumption because the flood would raise the groundwater level in the general area. In some cases, the tailwater level can be higher than the flood level because there is higher ground, as a valley wall, that feeds the groundwater into the floodplain soils.
- ? The effective elevation of the base of the seepage flow zone can be defined (see Figure 11). This elevation is needed to permit calculation of the quantity of seepage flow. If the base elevation is not known, its depth below the base of the floor slab can be conservatively approximated as one-half of the building width most nearly perpendicular to the shoreline of the flood water. This would approximate the boundary effects of the three-dimensional seepage flow, in that it would represent the flow coming in from all sides and meeting in the center beneath the floor slab. This approach assumes a constant soil type and density over the flow zone. If the site has stratified soil layers, the engineered basement option should be used (see page 19 of this bulletin).
- ? The quantity of seepage flow can be calculated by a simplified method based on Dupuit’s assumption that equipotential lines are vertical. (The Dupuit method uses Darcy’s law with specific physical characteristics. A more detailed description can be found in the first two references listed under “Further Information,” on page 23 of this bulletin.) The elements of the method are presented in Figure 11. The entry surface, with hydraulic head “a,” is a vertical line extending downward from the edge of the flood surface. The exit surface, with hydraulic head “b,” is a vertical line extending downward from the side of the structure closest to the flood water’s edge. The length of the flow path, “L,” is the setback distance. Flow is assumed to be horizontal, and the horizontal coefficient of permeability is the effective permeability. For simplicity, the small inclined entry zone at the river bank and the exit zone below the basement floor are ignored. This is a reasonably conservative measure. The phreatic line, or the line below which the seepage flow occurs under positive pressure, extends from the edge of the flood water to the elevation of the bottom of the basement floor slab. If the exit zone below the basement floor were included, the hydraulic head at “b” would be higher. As shown in Figure 11, the phreatic line is not a straight line, but within the limits of the assumed boundary values, it is close to a straight line.

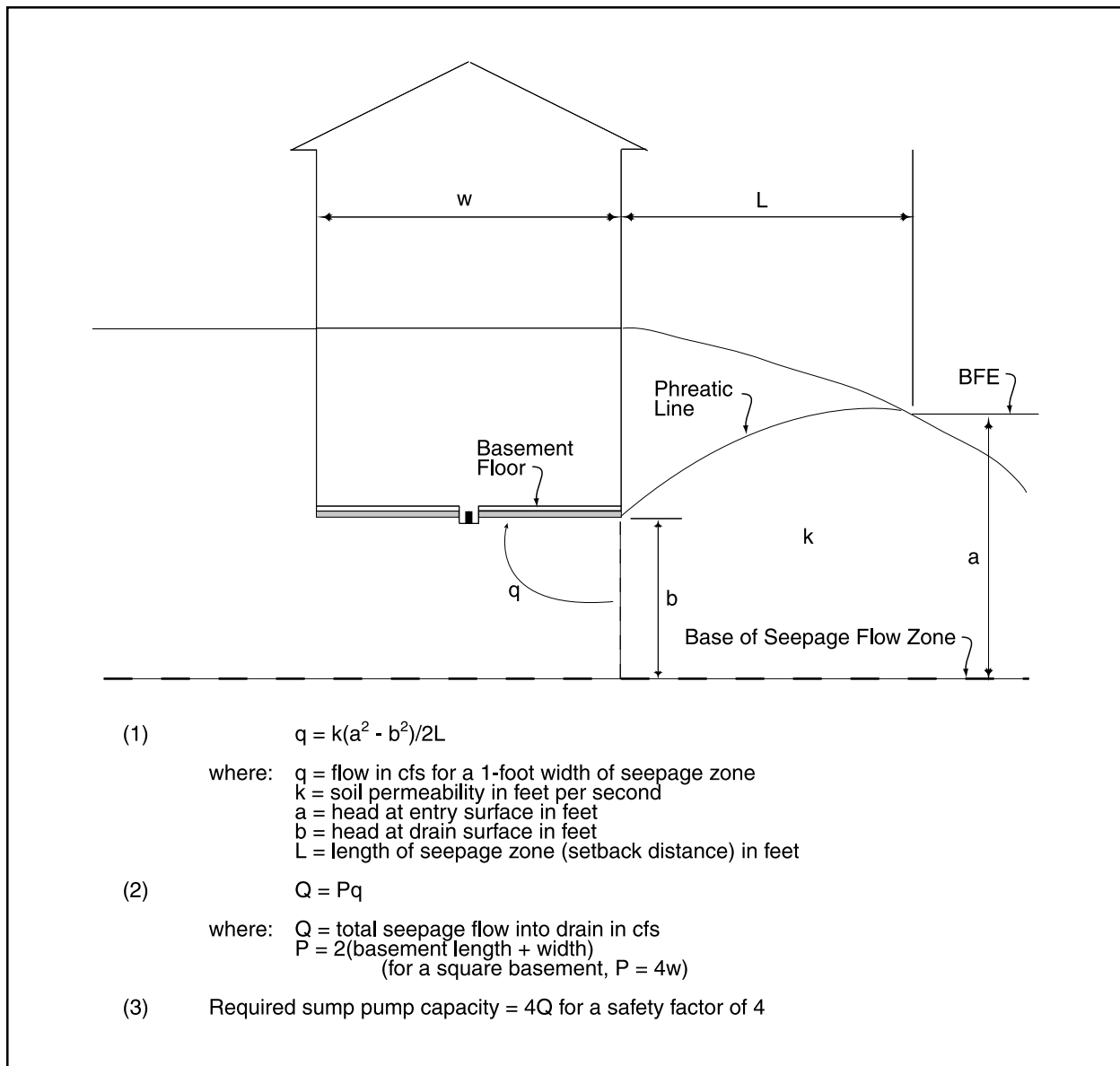


Figure 11 Method for calculation of seepage flow.

The Dupuit equation for the quantity of seepage flow is:

$$q = k(a^2 - b^2)/2L$$

where: q is the flow in cubic feet per second for a 1-foot width of seepage zone

k is the soil permeability in feet per second (fps) (maximum value of k is 1×10^{-3} fps)

a and b are hydraulic heads in feet ($a < b + 5$)

L is the length of the flow zone in feet ($L > 20$ feet)

To obtain Q , the total seepage flow, in cubic feet per second, q must be multiplied by the length around the periphery of the four sides of the structure. This is a simplifying approach that obviates the need for a three-dimensional flow net calculation and is reasonably conservative.

It should be noted that the soil permeability does not affect the geometry of the seepage zone or the geometry of the phreatic line. The permeability does have a significant effect on the quantity of seepage that must be collected and discharged by the drainage layer and the sump pump. The calculation of the quantity Q provides a basis for the selection of a sump pump of adequate capacity. To allow for possible errors in the estimation of the soil permeability, the pump should have a capacity of at least four times the calculated value of Q . As noted in the requirements section, a standard sump pump of 1/4 horsepower or greater will generally satisfy the requirements of seepage removal for the conditions described above.

Engineered Basement Option

If the requirements specified for the simplified approach are not met, a licensed soils engineer or geologist should perform a detailed engineering analysis to determine whether the structure will be reasonably safe from flooding. The analysis should consider, but is not limited to, the issues described in the following sections.

Depth, Soil Type, and Stratification of Subsurface Soils

The depth, soil type, and stratification of the subsurface soils may be complex. Four potential generalized scenarios are shown in Figures 12 and 13. Figure 12 shows two cases of homogeneous soil. The depth of penetration of the basement and the depth of the flow zone are not limited to the assumptions on which the simplified approach is based. Case I represents a foundation consisting of clayey soils, either fill or natural deposits or a combination, which are more or less homogeneous because they have similar engineering properties. If an adequate setback distance is provided, the seepage quantity would be relatively low, and uplift pressure beneath the slab could be controlled by an appropriately sized sump pump because of low permeability.

Case II represents a foundation consisting of sandy soils, either fill or natural soil deposits or a combination, which are more or less homogeneous because they have similar engineering properties. The seepage quantity would be fairly large, and more attention would have to be given to the setback distance and to the provision of an adequately sized sump pump to prevent excessive uplift pressure beneath the floor slab because of high permeability.

Figure 13 shows two simple cases of stratified soils, with impervious clays overlying pervious sands. This is a common occurrence in natural floodplain deposits. In Case III, the contact between the two soil strata is at some distance **below** the basement floor. This case would involve a moderate quantity of seepage, depending on the thickness, d , of the impervious stratum below the basement floor. There is also a potential for excessive uplift pressure beneath the floor, at the level of the bottom of the clay stratum. If d is equal to h , the net hydraulic head between the flood level and the floor level, the safety factor against uplift would be approximately 1.0. If d is less than h , there would be excessive uplift, with a safety factor equal to less than 1.0.

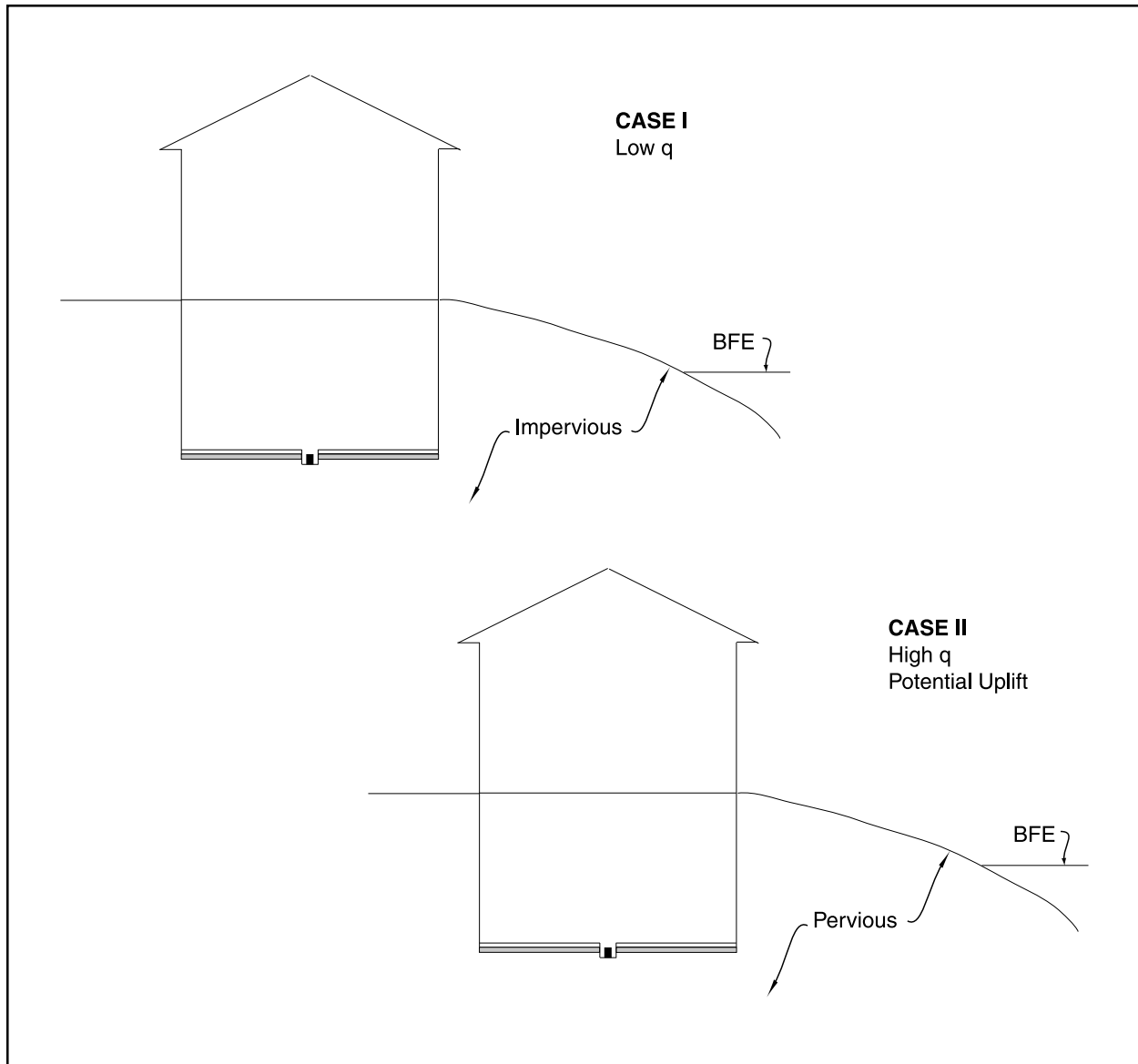


Figure 12 Case I and Case II – homogeneous soil.

Case IV shows impervious soils overlying pervious soils, with the contact between the soil strata at some distance **above** the basement floor. This case would involve a large quantity of seepage and potential for excessive uplift beneath the basement floor.

Geotechnical Investigations

Geotechnical investigations must be made for cases that do not conform with the assumptions on which the simplified approach is based. Information that is needed to permit an adequate engineering analysis includes the following:

- The BFE, which is to be used as the design flood water surface for calculating expected seepage.

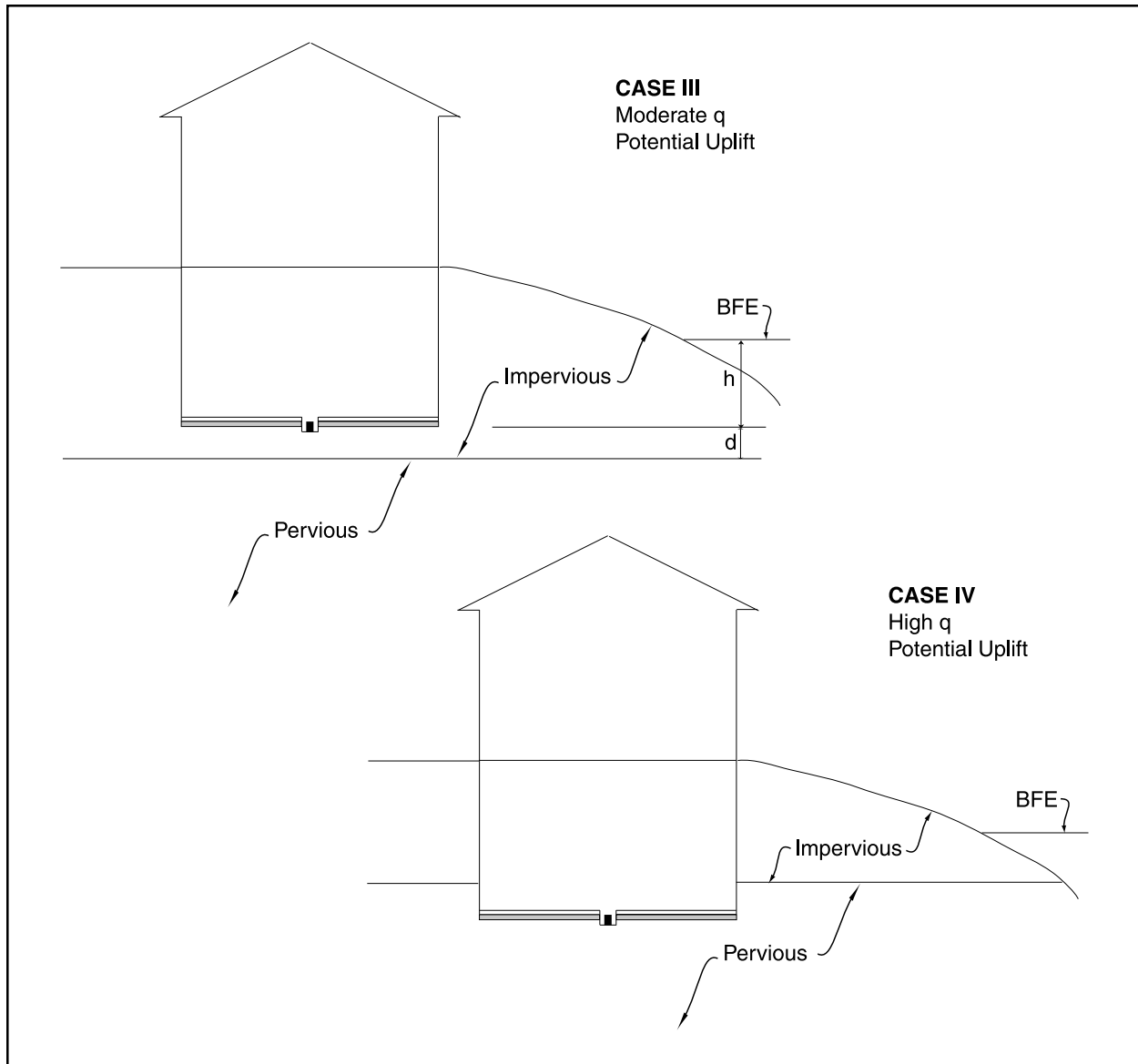


Figure 13 Case III and Case IV – stratified soils.

- The elevation of the **bottom** of the basement floor. This can be adjusted as needed to achieve more suitable conditions.
- The setback distance of the basement wall from the edge of the flood water. This can be adjusted to achieve more suitable seepage control or to accommodate available space restraints.
- The elevation of the groundwater table and its seasonal variations. A high water table would cause problems with groundwater control during construction of a basement, even without a flood event.
- The stratification of the subsurface materials, for both natural and fill soils. In general, borings should be drilled to a depth below the bottom of the floor slab that is at least two times as great as the depth of the bottom of the floor slab below the BFE.

- The engineering classification of the soils, for both natural and fill soils. This must be done in accordance with ASTM D2487, *Classification of Soils for Engineering Purposes*. This is the Unified Soil Classification System that is universally used throughout the United States. Local or county agricultural soil survey maps should not be used, because they do not give specific information about location and depth of soils, and their designations are not pertinent to civil engineering use.
- Subsurface conditions landward from the structure. This includes information about the location of the water table, whether it is higher or lower than the flood level, and information about any penetrations of the soil, such as ponds. Attention should be given to the possibility that higher ground, such as valley walls, could contribute to the groundwater level in the floodplain, either perennially or during periods of heavy rain.
- Information about any penetrations through the basement walls below the BFE, such as utility lines and other openings.
- Analysis of seepage quantity. The analysis can be made by the conservative simplified method described in Item 5 in the section titled Technical Background for the Simplified Approach (illustrated in Figure 11), or by the construction of a flow net that takes into account all of the boundary conditions more rigorously. A flow net may be required to permit analysis of uplift pressures. Uplift pressures may be more significant in laminated or stratified soil deposits.

Buildings in Existing Filled Areas

In evaluating buildings in existing filled areas, the two approaches already described—the simplified approach or the engineered basement option—can be used. If the simplified approach is used, all the requirements for the use of this approach must be met. Some possible means for evaluating whether these requirements are met include soil tests and investigations, including soil borings and hand augers; field records from the time the fill was placed; and soil surveys. If the requirements for the simplified approach are not met, a licensed soils engineer or geologist should perform a more detailed engineering analysis as described under Engineered Basement Option on page 19. More extensive soil investigations and testing may be required to complete the analysis.

The NFIP

The NFIP was created by Congress in 1968 to provide federally backed flood insurance coverage, because flood coverage was generally unavailable from private insurance companies. The NFIP is also intended to reduce future flood losses by identifying floodprone areas and ensuring that new development in these areas is adequately protected from flood damage. The NFIP is based on an agreement between the Federal government and participating communities that have been identified as floodprone. FEMA, through the Federal Insurance Administration (FIA), makes flood insurance available to the residents of a participating community, provided the community adopts and enforces adequate floodplain management regulations that meet the minimum NFIP requirements. The NFIP encourages communities to adopt floodplain management ordinances that exceed the minimum NFIP criteria set forth in Part 60 of the NFIP Floodplain Management Regulations (44 CFR 60). Included in the NFIP requirements, found under Title 44 of the U.S. Code of Federal Regulations, are minimum building design and construction standards for buildings located in SFHAs. Through their floodplain management

ordinances or laws, communities adopt the NFIP performance standards for new, substantially improved, and substantially damaged buildings in floodprone areas identified on FEMA's FIRMs.

Technical Bulletins

This publication is one of a series of Technical Bulletins that FEMA has produced to provide guidance concerning the building performance standards of the NFIP. These standards are contained in 44 CFR 60.3. The bulletins are intended for use primarily by state and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically, as necessary. The bulletins do not create regulations; rather they provide specific guidance for conforming with the minimum requirements of existing NFIP regulations. Users of the Technical Bulletins who need additional guidance concerning NFIP regulatory requirements should contact the Mitigation Division of the appropriate FEMA regional office or the local floodplain administrator. NFIP Technical Bulletin 0, the *User's Guide to Technical Bulletins*, lists the bulletins issued to date, provides a key word/subject index for the entire series, and lists addresses and telephone numbers for FEMA's 10 Regional Offices.

Ordering Information

Copies of FEMA Technical Bulletins can be obtained from the FEMA Regional Office that serves your area. In addition, Technical Bulletins and other FEMA publications can be ordered from the FEMA Publications Distribution Facility at 1-800-480-2520. The Technical Bulletins are also available at the FEMA web site at www.fema.gov.

Further Information

The following publications contain information related to the guidance presented in this bulletin:

American Society of Civil Engineers. 1998. SEI/ASCE 24-98, *Flood Resistant Design and Construction*.

Cedergren, H. R. 1977. *Seepage, Drainage and Flow Nets*. Wiley. New York.

Harr, M. E. 1977. *Mechanics of Particulate Media*. McGraw Hill. New York.

International Code Council. 2000. *International Building Code*. Birmingham, AL.

International Code Council. 2000. *International Residential Code*. Birmingham, AL.

U.S. Department of the Army, Corps of Engineers. 1986. EM 1110-2-1901, *Seepage Analysis and Control for Dams*. Washington, DC.

U.S. Department of the Army, Corps of Engineers. 1978. EM 1110-2-1913, *Design and Construction of Levees*. Washington, DC.

Glossary

Base Flood – The flood that has a 1-percent probability of being equaled or exceeded in any given year (also referred to as the 100-year flood).

Basement – Any area of a building having its floor subgrade (below ground level) on all sides.

Community – Any state or area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has the authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

Federal Emergency Management Agency (FEMA) – The independent Federal agency that, in addition to carrying out other activities, administers the NFIP.

Federal Insurance Administration (FIA) – The component of FEMA directly responsible for administering the flood insurance aspects of the NFIP.

Flood Insurance Rate Map (FIRM) – The insurance and floodplain management map issued by FEMA that identifies, on the basis of detailed or approximate analysis, areas of 100-year flood hazard in a community.

Floodprone area – Any land area susceptible to being inundated by flood water from any source.

Mitigation Directorate – The component of FEMA directly responsible for administering the flood hazard identification and floodplain management aspects of the NFIP.

New construction/structure – For floodplain management purposes, new construction means structures for which the start of construction commences on or after the effective date of a floodplain management regulation adopted by a community and includes subsequent improvements to the structure. For flood insurance purposes, these structures are often referred to as “post-FIRM” structures.

Special Flood Hazard Area (SFHA) – Area subject to inundation by the base flood, designated Zone A, A1-30, AE, AH, AO, V, V1-V30, or VE.

Variance Application Introduction
Property: Jeffrey and Molly Engelsma
4904 Bywood West, Edina, Mn

Mr. and Mrs. Engelsma own and live in a home located on the property at 4904 Bywood West, Edina, MN

They have lived in this home for several years and now have decided to remodel and add on to the existing home.

There is 1 variance request.

Variance 1: Relief from the ordinance requiring 50% first floor area of new home to have full basement.

Attached is the proposed site plan, the renovation building plans, and variance application.

Thank you for considering our requests.

Dan Schultz

Builders by Design, Inc.

On behalf of the owners Jeffrey and Molly Engelsma.

CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT

Attachment to Page 2 of Variance Application.

The proposed variance will:

1. Relieve practical difficulties in complying with the zoning ordinance and that the use is reasonable.

Variance 1: The current code requires 50% of the home first floor to have full basement below. Due to the proximity to a pond and flood plain although outside the flood zone sub basin the city engineer requires minimal basement size.

2. Correct extraordinary circumstances applicable to this property but not applicable to other properties in the zoning district.

Variance 1: The existing home on site currently has a full basement that has never had ground water problems. The current sump pump does not run. Professional soil borings done show no ground water until reaching depths of close to 10' below the basement. Due to proximity to flood risk, city engineers are requiring crawl space only and special considerations in the construction of the basement to adequately protected from water penetration by installing foundation waterproofing coatings along with under floor drainage and sump pump with back up electrical.

3. Be in harmony with the general purposes and intent of the zoning ordinance.

Variance 1: Owners would be happy to comply with the full basement ordinance if conflicting flood plain conditions allowed. After discussions and consideration of city engineer requests, Mr. Engelsma has agreed to a reduced to crawl space only. This brings the property more into conformity with zoning ordinance than existing conditions.

4. The variance would not alter the essential character of the neighborhood.

Variance 1: This variances will not alter the exterior look of the building in any way. The variance will not have any impact on the neighborhood.

CITY OF EDINA

JUN 28 2021

PLANNING DEPARTMENT

4904 Bywood



1 in = 188 ft



The CITY of
EDINA



July 15, 2021

PROPOSED SITE PLAN FOR:
JEFF & MOLLY ENGELSMA

LEGEND

- Legend symbols and descriptions:
- Fence
 - Telephone Pedestal
 - Sanitary Manhole
 - Gas Meter
 - Light Pole
 - Power Pole
 - Retaining Wall
 - Existing Elevation
 - Top of Curb Elevation
 - Top of Wall Elevation
 - Existing Contour
 - Found Iron Monument
 - Set Iron Monument
 - Inscribed R.L.S. 15230

DISTING BLOCK FRONT YARD SETBACKS:

HOUSE	FRONT YARD SETBACK
#4800	54.0'
#4808	32.0'
#4810	36.7'
#4812	102.7'
#4820	89.2'
#4900	137.0'
#4904	78.2'
#4908	99.6'

Average Block Front Yard Setback = 76.4'

NOTE:
Additional front yard setbacks per survey work performed by Frank R. Cordaro dated August 13, 2018 and provided by client.

EXISTING AREAS:

#5920 INTERLACHEN BLVD.
Lot Area (Vacant) = 36,200 SF

#4904 BYWOOD WEST
Lot Area = 41,987 SF

EXISTING LOT COVERAGE:
House = 4,203 SF
Covered Porches = 343 SF
Pool Patio = 2,006 SF

ALLOWANCES:
Porch = -50 SF
Patio = -150 SF
4" Pool Perimeter = -528 SF
Total = 5,824 SF
= 13.9%

25% Maximum Allowable Lot Coverage

EXISTING IMPERVIOUS SURFACE:

House = 4,203 SF
Covered Porches = 343 SF
Pool Patio = 2,006 SF
Driveway = 3,387 SF
Total = 9,939 SF
= 23.6%

50% Maximum Allowable Impervious Surface

PROPOSED CONSOLIDATED LOT AREA:

EXISTING PROPERTY AREAS

4904 Bywood West = 41,955 SF or 0.98 Acres
5920 Interlachen Blvd. = 36,199 SF or 0.83 Acres

CONSOLIDATED PROPERTY AREA = 78,154 or 1.79 Acres

PROPOSED AREAS:

Consolidated Lot Area = 78,154 SF or 1.79 Acres

PROPOSED LOT COVERAGE:

House w/ Proposed Additions = 5,952 SF
Existing/Proposed Covered Porches = 372 SF
Proposed 8'x25' Patio = 200 SF
Proposed Screen Porch = 411 SF
Proposed 22'x52' Pool = 1,144 SF
Proposed Pool Patio = 2,485 SF
Proposed Outbuilding = 454 SF

ALLOWANCES:
Porch = -50 SF
Patio = -150 SF
4" Pool Perimeter Deck = -658 SF
Total = 10,172 SF
= 13.0%

25% Maximum Allowable Lot Coverage

PROPOSED IMPERVIOUS SURFACE:

House w/ Proposed Additions = 5,952 SF
Existing/Proposed Covered Porches = 372 SF
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Proposed/Existing Driveway at Outbuilding = 2,520 SF
Proposed Spill Court = 2,078 SF
Total = 17,968 SF
= 23.0%

50% Maximum Allowable Impervious Surface

* PROPOSED LOT COVERAGE AND IMPERVIOUS SURFACE BASED ON THE COMPLETION OF THE LOT CONSOLIDATION SURVEY

* REFER TO THE EROSION AND SEDIMENT CONTROL PLAN PERFORMED BY SOLUTION BLUE FOR THE PROPOSED SITE ELEVATIONS AND GRADES.

BENCHMARK:

T.N.H. at the northeast corner of Bywood West and Crescent Terrace.
Elevation = 908.28.

NOTES:

- All existing building dimensions are measured to the finished siding and not the building foundation.
- No search was made for any easements.
- The location of all utilities shown are from either observed evidence in the field and/or from plans furnished by the utility companies and are approximate. Utility companies should be notified for exact location before doing any excavation.

JOB NO.	SCALE	DATE	REVISIONS	REMARKS
264-21	1" = 20'	06-15-2021		
BOOK/PAGE	SHEET SIZE	06-15-2021		
173/19	30" x 42"	06-15-2021		
DRAWN				
REFERENCE				
1 of 1	186-19 151/20			

SITE ADDRESS	PROPERTY DESCRIPTION
4904 Bywood West Edina, MN 55436	Lot 2, Block 1, GILWOOD ADDITION, Hennepin County, Minnesota

SITE ADDRESS	PROPERTY DESCRIPTION
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5920 Interlachen Blvd. Edina, MN 55436	Lot 5, Block 1, GILWOOD ADDITION, Hennepin County, Minnesota

CITY OF EDINA

JUL 15 2021

PLANNING DEPARTMENT



I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly registered Land Surveyor under the laws of the State of Minnesota.
W. BROWN LAND SURVEYING, INC.
WOODROW A. BROWN, R.L.S. MN REG 15230



W. BROWN LAND SURVEYING, INC.
8000 CEDAR AVENUE SO., SUITE 228
BLOOMINGTON, MN 55425
PHONE: (952) 854-4055
FAX: (952) 854-4058
EMAIL: INFO@WBROWNSURVEYING.COM

SCALE: 1/8" = 1'0"

CITY OF EDINA

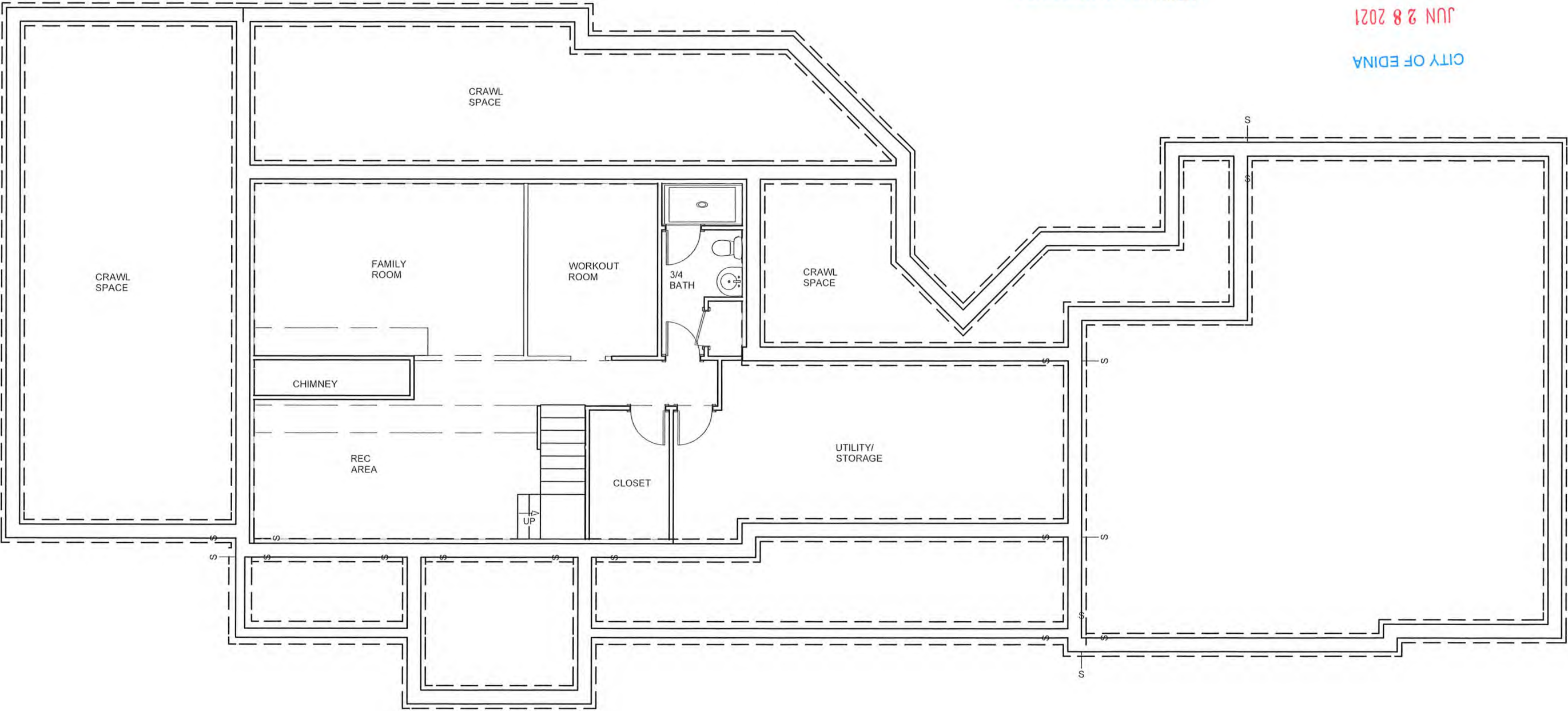
JUN 28 2021

PLANNING DEPARTMENT

PLANNING DEPARTMENT

JUN 28 2021

CITY OF EDINA



EXISTING HOUSE FOOTPRINT: 3260.67'
EXISTING BASEMENT FOOTPRINT: 1427.11'
EXISTING BASEMENT PERCENTAGE: 43.8%

EXISTING BASEMENT FLOORPLAN

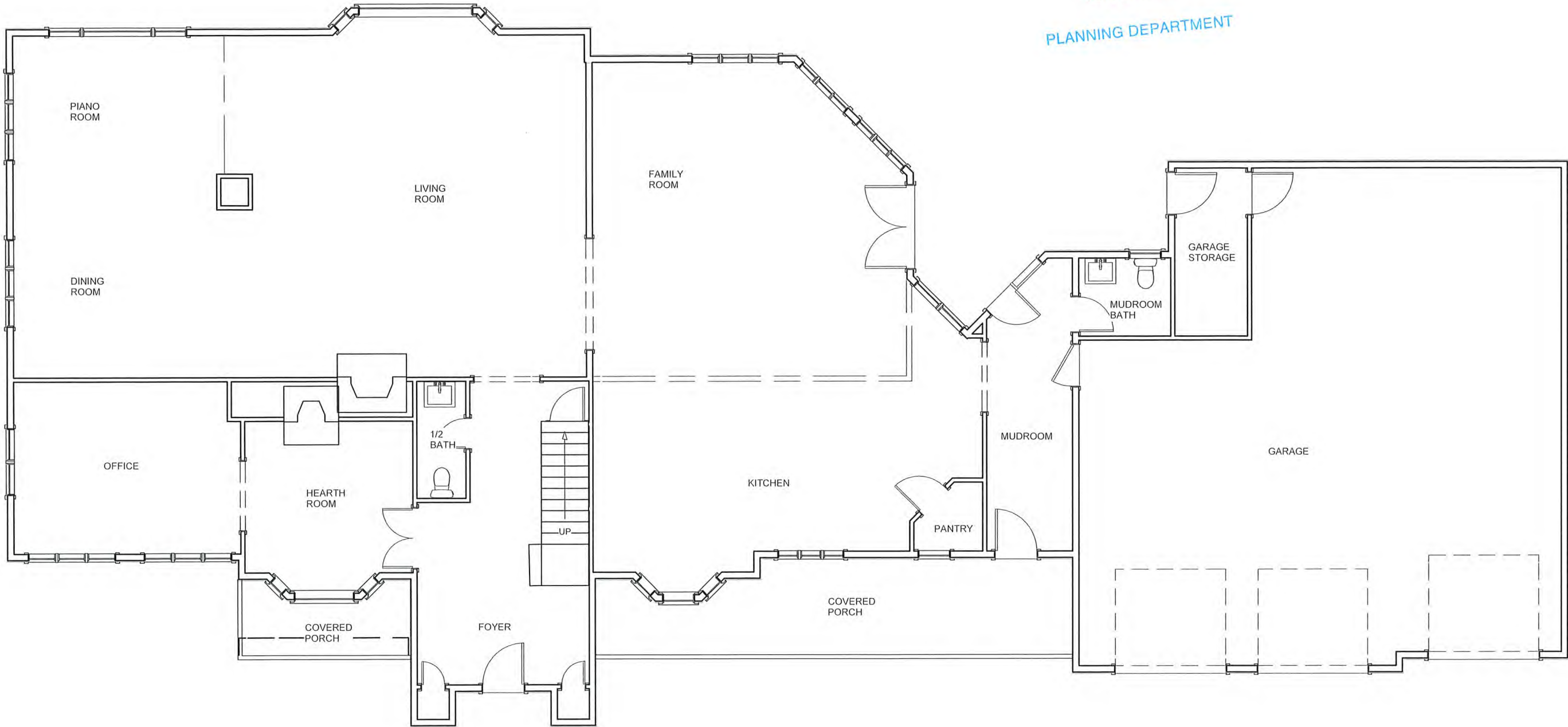
6/24/2021

Engelsma Residence

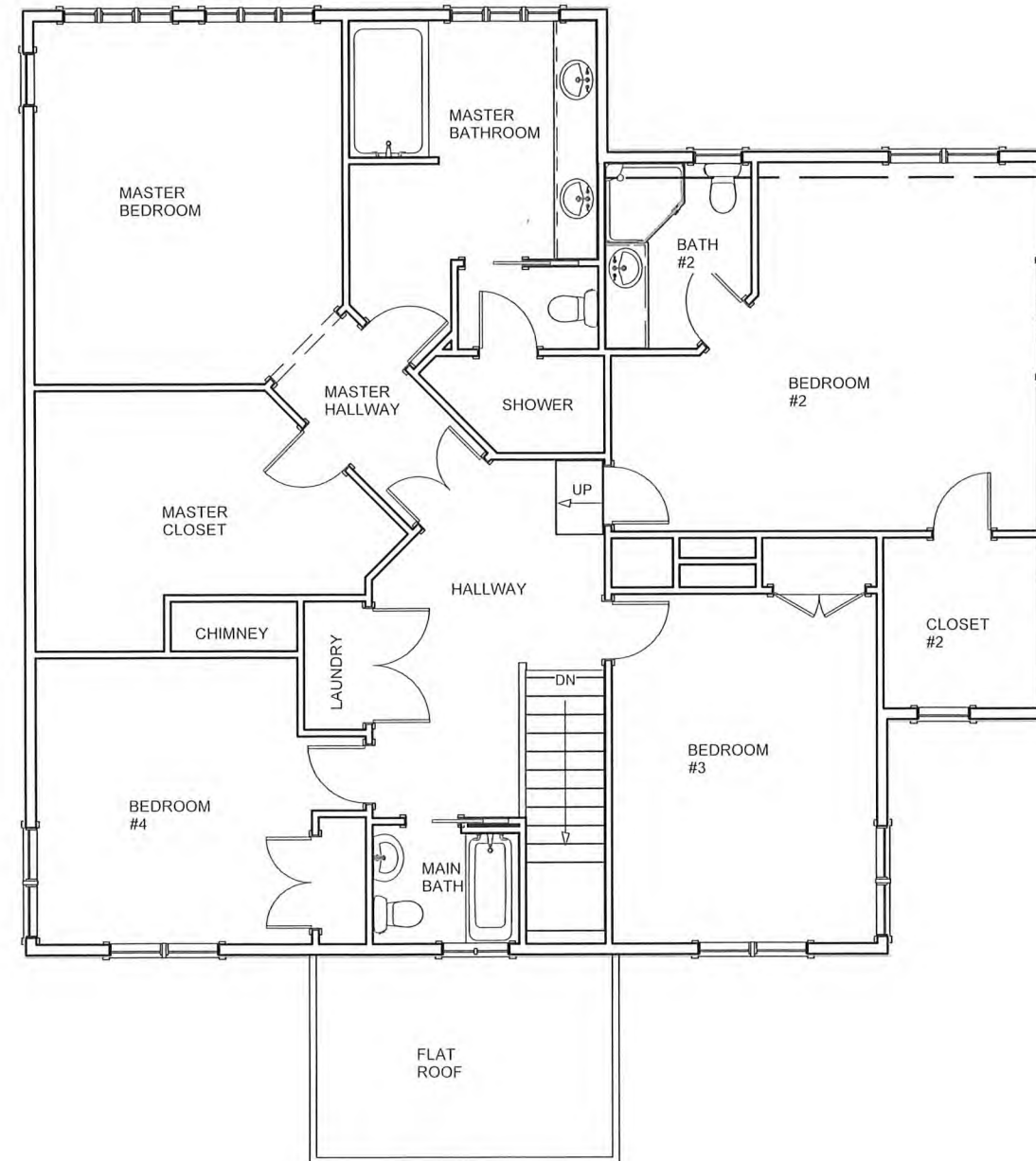


21185 Viking Blvd.
Wyoming, MN 55092
MN Lic#: BC026555

CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT

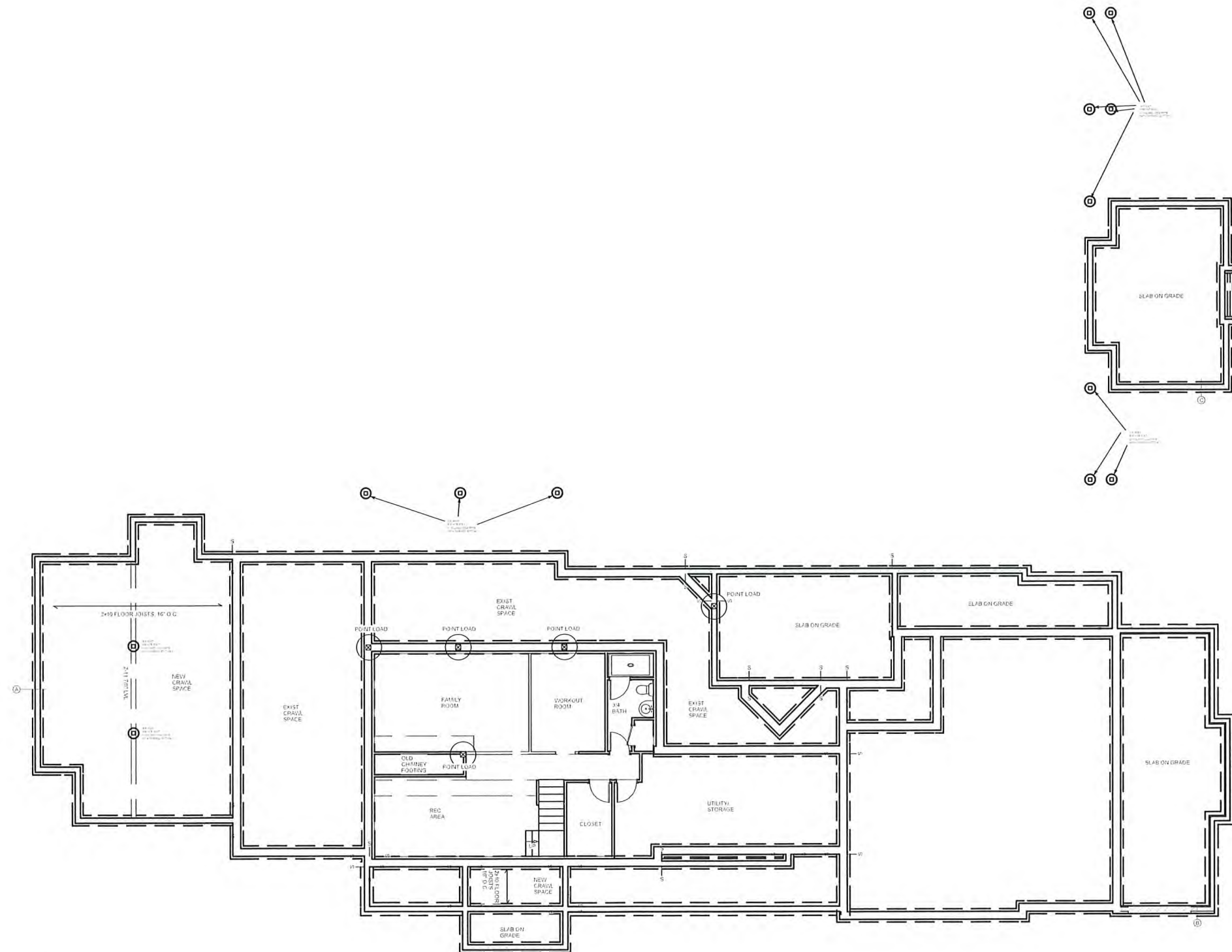


EXISTING MAIN LEVEL FLOORPLAN



EXISTING UPPER LEVEL FLOORPLAN

CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT



PROPOSED HOUSE FOOTPRINT: 4131.15'
EXISTING BASEMENT FOOTPRINT: 1427.11'
PROPOSED BASEMENT PERCENTAGE: 34.5%

PROPOSED BASEMENT FLOORPLAN

CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT

6/24/2021

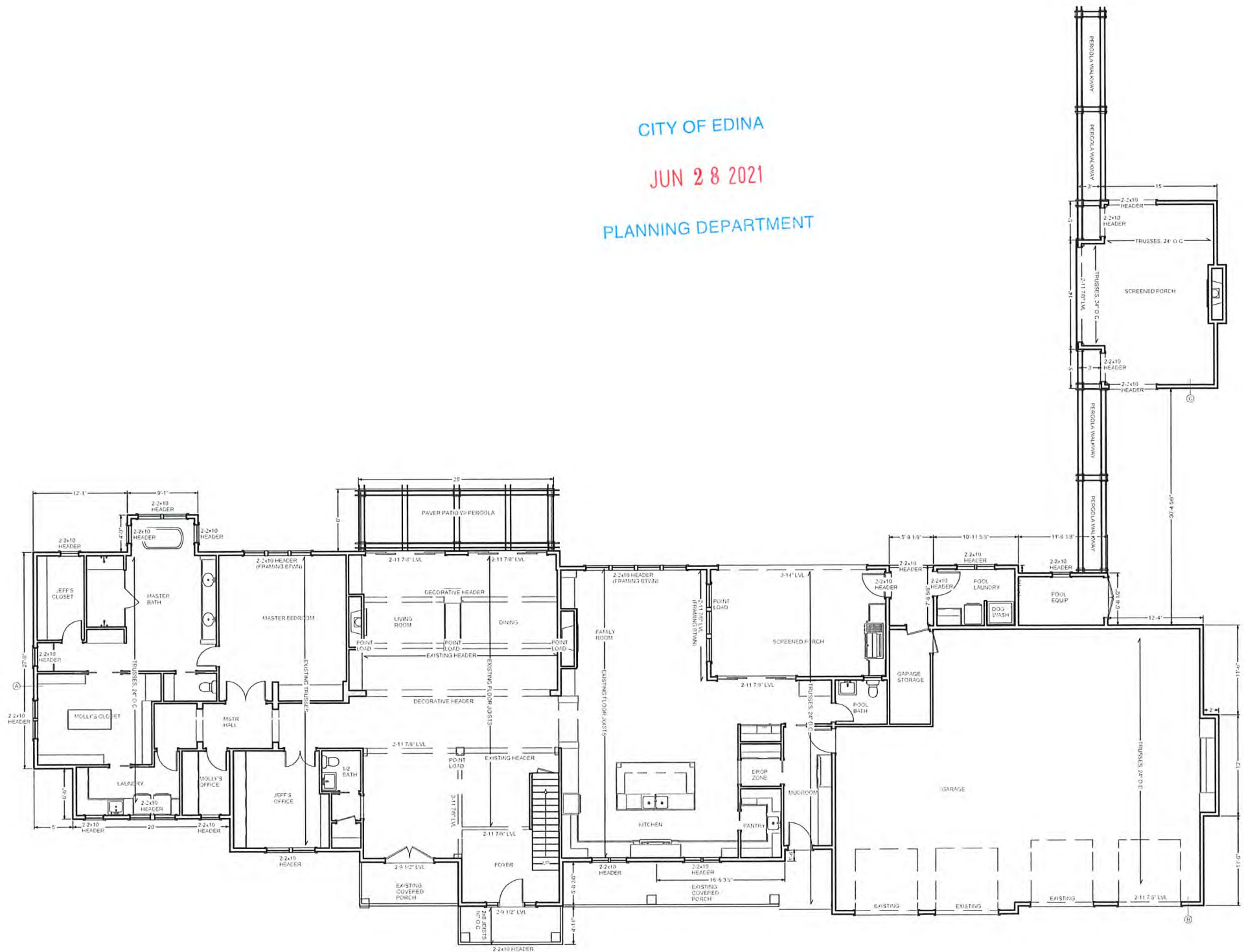
Engelsma Residence



BUILDERS
by DESIGN

21185 Viking Blvd.
Wyoming, MN 55092

MN Lic#: BC026555



CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT

PROPOSED MAIN LEVEL FLOORPLAN

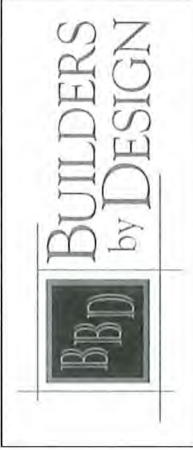


PROPOSED UPPER LEVEL FLOORPLAN

CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT

6/24/2021

Engelsma Residence



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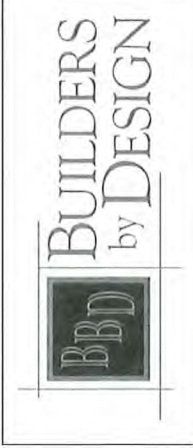


PROPOSED FRONT & REAR ELEVATIONS

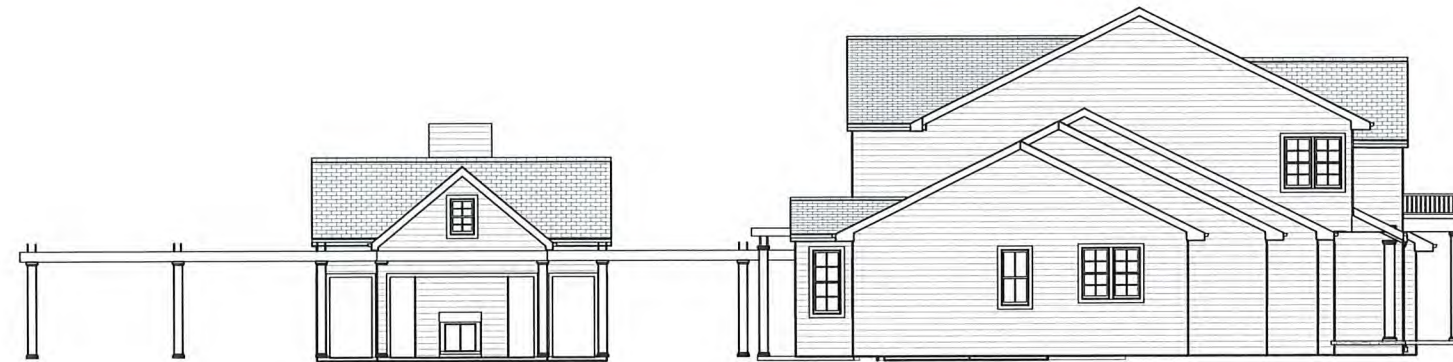
CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT

6/24/2021

Engelsma Residence



21185 Viking Blvd.
Wyoming, MN 55092
MN Lic#: BC026555



PROPOSED SIDE ELEVATIONS

CITY OF EDINA

JUN 28 2021

PLANNING DEPARTMENT

6/24/2021

Engelsma Residence



21185 Viking Blvd.
Wyoming, MN 55092

MN Lic#: BC026555



4908 BRICK EXT
WOOD ROOF

4904 BYWOOD WEST
CEDAR EXT
WOOD ROOF

4900 BRICK EXT
WOOD ROOF

CITY OF EDINA
JUN 28 2021
PLANNING DEPARTMENT

PROPOSED SITE PLAN FOR:
JEFF & MOLLY ENGELSMA

LEGEND

- Legend symbols and descriptions:
- Fence
 - Telephone Pedestal
 - Sanitary Manhole
 - Gas Meter
 - Light Pole
 - Power Pole
 - Retaining Wall
 - Existing Elevation
 - Top of Curb Elevation
 - Top of Wall Elevation
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 - Found Iron Monument
 - Set Iron Monument
 - Inscribed R.L.S. 15230

DISTING BLOCK FRONT YARD SETBACKS:

HOUSE	FRONT YARD SETBACK
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NOTE:
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Pool Patio = 2,006 SF

ALLOWANCES:

Porch = -50 SF

Patio = -150 SF

4" Pool Perimeter = -528 SF

Total = 5,824 SF

= 13.9%

25% Maximum Allowable Lot Coverage

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Covered Porches = 343 SF

Pool Patio = 2,006 SF

Driveway = 3,367 SF

Total = 9,919 SF

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50% Maximum Allowable Impervious Surface

PROPOSED AREAS:

Consolidated Lot Area = 78,154 SF or 1.79 Acres

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*REFER TO THE EROSION AND SEDIMENT CONTROL PLAN PERFORMED BY SOLUTION BLUE FOR THE PROPOSED SITE ELEVATIONS AND GRADES.

BENCHMARK:

T.N.H. at the northeast corner of Bywood West and Crescent Terrace. Elevation = 908.28.

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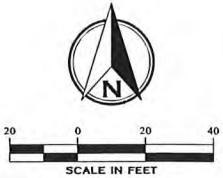
SITE ADDRESS	PROPERTY DESCRIPTION
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SITE ADDRESS	PROPERTY DESCRIPTION
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CITY OF EDINA

JUL 15 2021

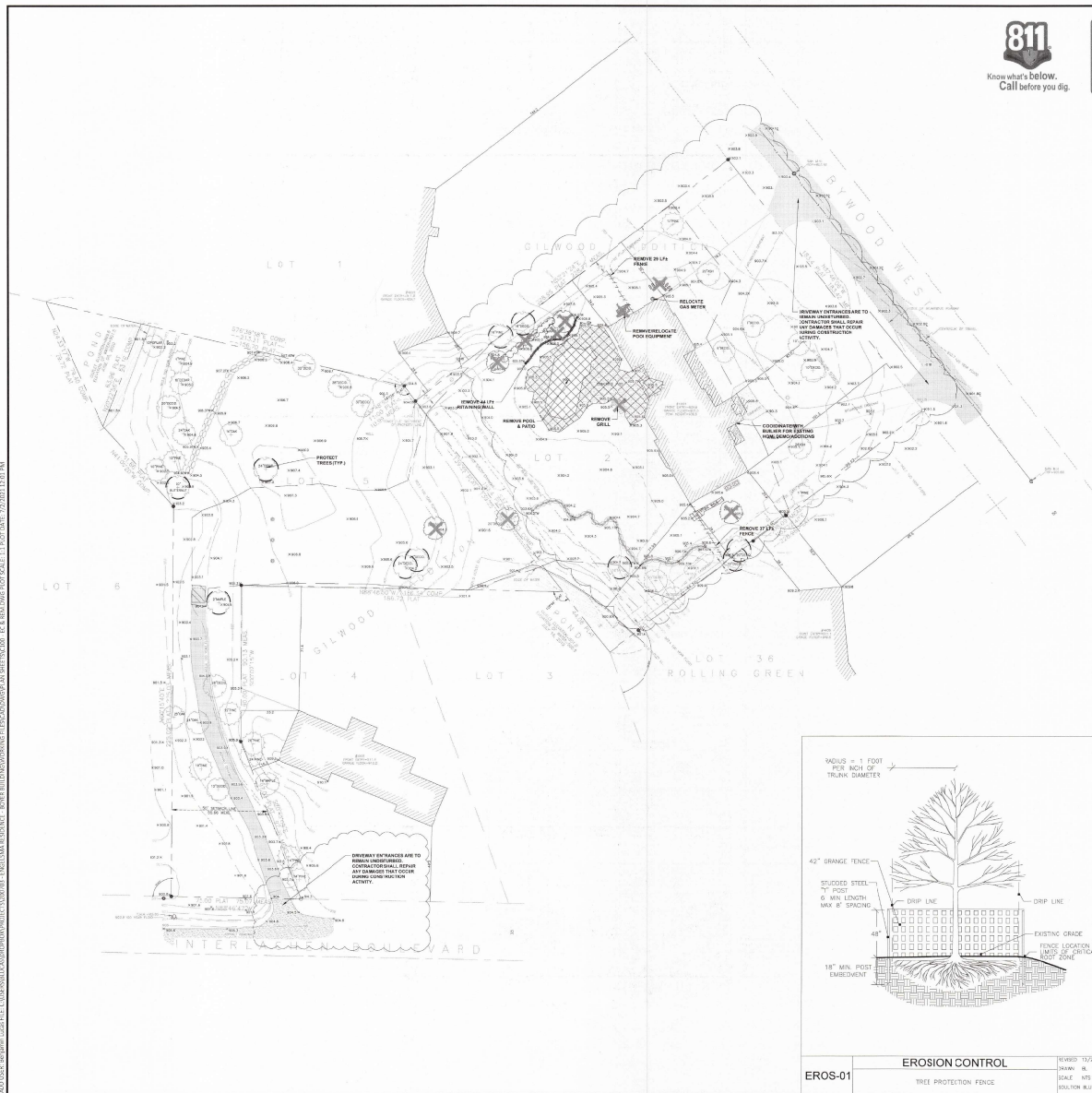
PLANNING DEPARTMENT



I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly registered Land Surveyor under the laws of the State of Minnesota.
W. BROWN LAND SURVEYING, INC.
WOODROW A. BROWN, R.L.S. MN REG 15230
DATE: 06-09-2021

W. BROWN LAND SURVEYING, INC.
8000 CEDAR AVENUE SO., SUITE 228
BLOOMINGTON, MN 55435
PHONE: (612) 854-4055
FAX: (612) 854-4056
EMAIL: INFO@WBROWNSURVEYING.COM

CADD USER: Benjamin Lucas PLS. C:\BENJAMIN\4904 BYWOOD WEST\4904 BYWOOD WEST.dwg DATE: 03/13/21 12:45 PM



LEGEND

EXISTING

REMOVALS

GENERAL SITE DEMOLITION AND CLEARING NOTES:

- DEMOLITION NOTES ARE NOT COMPREHENSIVE. CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION TO OBTAIN A CLEAR UNDERSTANDING OF THE INTENDED SCOPE OF WORK.
- THE DESIGN SHOWN IS BASED ON ENGINEER'S UNDERSTANDING OF EXISTING CONDITIONS BASED UPON THE FIELD SURVEY COMPLETED BY W. BROWN LAND SURVEYING, INC. ON 06/14/2020. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS WITHOUT EXCEPTION, CONTRACTOR SHALL HAVE MADE AT OWN EXPENSE A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
- CONTRACTOR SHALL COORDINATE LIMITS OF REMOVALS WITH PROPOSED IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR PROTECTING EXISTING SITE FEATURES (STRUCTURES, CURBS, WALKS, PAVEMENTS, UTILITIES, SIGNAGE, FENCES, ETC.) WHICH ARE TO REMAIN, RETAIN OR REPLACE, TO OWNER'S SATISFACTION. ANY DAMAGE TO EXISTING PROPERTY OR SITE FEATURES WHICH ARE TO REMAIN, AT NO ADDITIONAL COST.
- CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC. TO THE BEST PRACTICES.
- PRIOR TO START OF ANY WORK, ALL EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE IN PLACE. SEE EROSION CONTROL PLAN OR SWPPP FOR DETAILS.
- CONTRACTOR SHALL PRESERVE ALL VEGETATION NOT TO BE REMOVED BY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-SEEDING OR SOODING AREAS DISTURBED BY CONSTRUCTION.
- STOCKPILE TOPSOIL FOR REUSE ON SITE. VERIFY THE S'RIPPED TOPSOIL MEETS SPECIFICATIONS FOR THE PROPOSED USE. VERIFY THE AMOUNT OF TOPSOIL NEEDED AND REMOVE EXCESS FROM SITE.
- ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF-SITE AND IN A LEGAL MANNER.
- ON-SITE BROKERAGE OF MATERIALS SALVAGED BY CONTRACTOR FROM MATERIALS TO BE REMOVED IS NOT PERMITTED WITHOUT PRIOR OWNER APPROVAL.
- LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN THEIR MEASUREMENTS AND THESE PLANS. CONTRACTOR SHALL ALSO MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES. CONTRACTOR IS REQUIRED TO TAKE CAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

SUMMARY

DESIGNED BY: BENJAMIN LUCAS
REVIEWED BY: PHASE 1FC
DRAWN BY: JBL
INITIAL ISSUE: 08/18/20

REVISION HISTORY

#	DATE	DESCRIPTION
01	08/18/2020	REMOVED POOL, HOUSE & STORM REV.
02	10/01/2020	PAVED FINISHED FLOOR & STORM REV.
03	11/10/2020	3" BIAL DRAINAGE GUTTER W/ WATER ADDED
04	09/10/2021	RESIDENCE REMOVED REMOVED
05	07/03/2021	HOUSE ADDITION AND POOL DECK REV.

CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Benjamin Lucas
BENJAMIN LUCAS

DATE: 03/18/21 REG. NO. 54265

EXISTING CONDITIONS & REMOVALS PLAN

SOLUTION BLUE PROJECT NO. 200703

C100

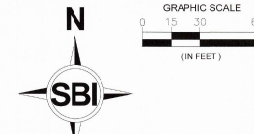
COPYRIGHT © 2021 BY SOLUTION BLUE INC. ALL RIGHTS RESERVED





STATE LAW: 48 HOURS BEFORE EXCAVATING OR UNDERGROUND UTILITY LINES, CALL 811 FOR FIELD LOCATION OF UNDERGROUND UTILITY LINES. THIS SERVICE LOCATES UTILITY OWNERS LINES BUT NOT PRIVATE LINES.

THE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN ON AN APPROPRIATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE EXACT LOCATION OF ALL UTILITIES (PUBLIC AND PRIVATE) MUST BE DETERMINED BEFORE COMMENCING WORK.



LEGEND

PROPERTY LINE
LIMITS OF CONSTRUCTION
BUILDING
TOPOGRAPHIC INDEX CONTOUR
TOPOGRAPHIC CONTOUR
SWALE
SOIL BORINGS
SPOT ELEVATION
DRAINAGE SLOPE
EMERGENCY OVERFLOW

PROPOSED
EXISTING

GENERAL GRADING NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE BEFORE BEGINNING SITE GRADING ACTIVITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING QUANTITIES OF CUT, FILL AND WASTE MATERIAL TO BE HANDLED, AND FOR THE AMOUNT OF GRADING TO BE DONE. ALL COSTS ASSOCIATED WITH IMPORTING SUITABLE MATERIAL AND EXPORTING UNSUITABLE/EXCESS/WASTE MATERIAL SHALL BE INCLUDED IN THE BID PRICE.
3. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
4. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
5. CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER. ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.
6. REPLACE ALL SUBGRADE SOIL DISTURBED DURING CONSTRUCTION THAT HAVE BECOME UNSUITABLE AND WILL NOT PASS A TEST ROLL. REMOVE UNSUITABLE SOIL FROM THE SITE AND IMPORT SUITABLE SOIL, AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL STRIP, STOCKPILE AND RE-Spread EXISTING ON-SITE TOPSOIL. IF MATERIAL IS APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS, PROVIDE A UNIFORM THICKNESS OF 6" MINIMUM IN ALL DISTURBED AREAS TO BE LANDSCAPED.
8. CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL, UNLESS OTHERWISE DIRECTED.
9. MAINTAIN TEMPORARY PROTECTION MEASURES DURING CONSTRUCTION ACTIVITIES. SEE SITE REMOVALS PLAN FOR ADDITIONAL INFORMATION. PROVIDE ADDITIONAL PROTECTION AS NECESSARY AS WORK PROGRESSES.
10. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE TO FINISHED SURFACE GRADE.
11. SPOT ELEVATIONS LABELED MA REFERS TO MATCH EXISTING GRADE, EOF REFERS TO EMERGENCY OVERFLOW ELEVATION.
12. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL TIMES.
13. NO GRADED SLOPES SHALL EXCEED 3:1 (HORIZONTAL TO VERTICAL) UNLESS OTHERWISE NOTED.
14. UNIFORMLY GRADED AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
15. LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE AND CONDUCT GRADING OPERATIONS IN A MANNER TO MINIMIZE THE POTENTIAL FOR EROSION.
16. FLOOR SLAB FOR BASEMENT SHALL BE DESIGNED TO BEAR HYDROSTATIC PRESSURE BY OTHERS.
17. THE GROUND AROUND THE BUILDING MUST BE COMPACTED FILL, THE FILL MATERIAL—OR SOIL OF SIMILAR CLASSIFICATION AND DEGREE OF PERMEABILITY—MUST EXTEND TO AT LEAST 5 FEET BELOW THE BOTTOM OF THE BASEMENT FLOOR SLAB. THE FILL MATERIAL MUST BE COMPACTED TO AT LEAST 95 PERCENT OF STANDARD LABORATORY MAXIMUM DRY DENSITY (STANDARD PROCTOR), ACCORDING TO ASTM STANDARD D-698. FILL SOILS MUST BE FINE-GRAINED SOILS OF LOW PERMEABILITY, SUCH AS THOSE CLASSIFIED AS CL, CL-SC, OR ML ACCORDING TO ASTM STANDARD D-2487. CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES, SEE TABLE 1804.2 IN THE 2000 INTERNATIONAL BUILDING CODE (IBC) FOR DESCRIPTIONS OF THESE SOIL TYPES. THE FILL MATERIAL MUST BE HOMOGENEOUS AND ISOTROPIC; THAT IS, THE SOIL MUST BE ALL OF ONE MATERIAL, AND THE ENGINEERING PROPERTIES MUST BE THE SAME IN ALL DIRECTIONS.
18. THE DRAINAGE SYSTEM FOR THE PROPOSED FOUNDATION SHALL BE EQUIPPED WITH A POSITIVE MEANS OF PREVENTING BACKFLOW. COORDINATE WITH FOUNDATIONS PLANS.
19. THE ARCHITECT OR ENGINEER SHALL DESIGN AND THE CONTRACTOR SHALL INSTALL A GRANULAR DRAINAGE LAYER BENEATH THE FLOOR SLAB OF THE BASEMENT OR STORM SHELTER. THIS SYSTEM MAY REQUIRE THE INSTALLATION OF ONE OR MORE COLLECTION PIPES LEADING TO A SUMP AND PUMP OF A MINIMUM OF 1/4 HORSEPOWER. COMPUTATIONS SHALL SUPPORT THE SELECTION OF A PROPERLY SIZED PUMP. MAXIMUM SEEPAGE FLOW FOR BACK TO BACK OR 18 CHANGE OF OCCURRENCE EVENTS IS ESTIMATED TO BE APPROXIMATELY 4.2 GPM BUT SHALL BE VERIFIED BY THE ARCHITECT OR ENGINEER.

BENCHMARKS (BM)

BEARINGS SHOWN ARE ON HENNEPIN COUNTY COORDINATES
T.N.H. AT NE CORNER OF
BYWOOD WEST & CRESCENT TERRACE
ELEVATION: 908.25 (NVD 29 DATUM)

STORMWATER MODELING RESULTS (ASSUMING FULL BUILD)

	EX SITE DISCHARGE (CFS)	EX SITE DISCHARGE VOL. (AF)	PR SITE DISCHARGE (CFS)	PR SITE DISCHARGE VOL. (AF)
10-YR (4.20 IN)	2.86	0.19	2.19	0.14
100-YR (7.50 IN)	8.59	0.55	5.43	0.51

VOLUME RETENTION REQUIRED (CF) (FULL BUILD)	VOLUME RETENTION PROVIDED (CF)
NEW IMPERVIOUS = 12,623 SF x 1.1" 1,157 CF TOTAL REQUIRED	STORAGE PIPE VOLUME = 1,876 CF BELOW STORAGE PIPE OUTLET

	MAX BUILD-OUT AREAL (SF)	CURRENT PROPOSED AREAL (SF)
EXISTING IMPERVIOUS AREA*	12,651	12,651
EXISTING PERVIOUS AREA	63,747	63,747
PROPOSED IMPERVIOUS AREA*	25,274*	11,281
PROPOSED PERVIOUS AREA*	51,123*	57,117
DISTURBED AREA*	43,170*	33,450
CONSTRUCTION LIMITS*	50,196*	33,514

*PREVIOUSLY APPROVED STORMWATER DESIGN ASSUMES
MAX BUILD OUT CONDITIONS



4904 BYWOOD WEST
4904 BYWOOD WEST, EDINA, MN
ENGELSMAN RESIDENCE
EDINA, MN

CITY OF EDINA
JUL 15 2021
PLANNING DEPARTMENT

SUMMARY	DESIGNED BY	DRAWN BY
REVIEWED BY	PHASE IFC	INITIAL ISSUE 08/18/20

REVISION HISTORY	DATE	DESCRIPTION
01	08/02/20	REMOVED POOL HOUSE & STORM REV.
02	10/06/20	RAISED FINISHED FLOOR & STORM REV.
03	11/19/20	PERA DESIGN GUIDELINE NOTES ADDED
04	03/16/21	RESPONSE REMOVED REMOVED
05	07/05/21	POOL HOUSE ADDED AND POOL DECK REV.

CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF
MINNESOTA.
Benjamin Lucas
BENJAMIN LUCAS
DATE: 03/18/21 REG. NO. 54265

GRADING & DRAINAGE PLAN

SOLUTION BLUE PROJECT NO. 200703

C300

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4904 BYWOOD WEST
4904 BYWOOD WEST, EDINA, MN
ENGELSWA RESIDENCE
EDINA, MN

CITY OF EDINA
JUL 18 2021
PLANNING DEPARTMENT

SUMMARY	
DESIGNED: B.J.L.	DRAWN: B.J.L.
REVIEWED: B.J.L.	INITIAL ISSUE: 08/18/20
REVISION HISTORY	
#	DATE DESCRIPTION
01	08/18/2020 REMOVED POOL, HOUSE & STORM REV.
02	05/05/2020 RAISED FINISHED FLOOR & STORM REV.
03	11/16/2020 FEMTA DESIGN GUIDELINE NOTES ADDED
04	03/19/2021 RESIDENCE REMODEL, REMOVED
05	03/09/2021 HOUSE ADDITION/REMODEL POOL, DECK REV.

CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Benjamin Lucas
BENJAMIN LUCAS
DATE: 03/18/21 REG. NO. 54265

GRADING & DRAINAGE DETAILS

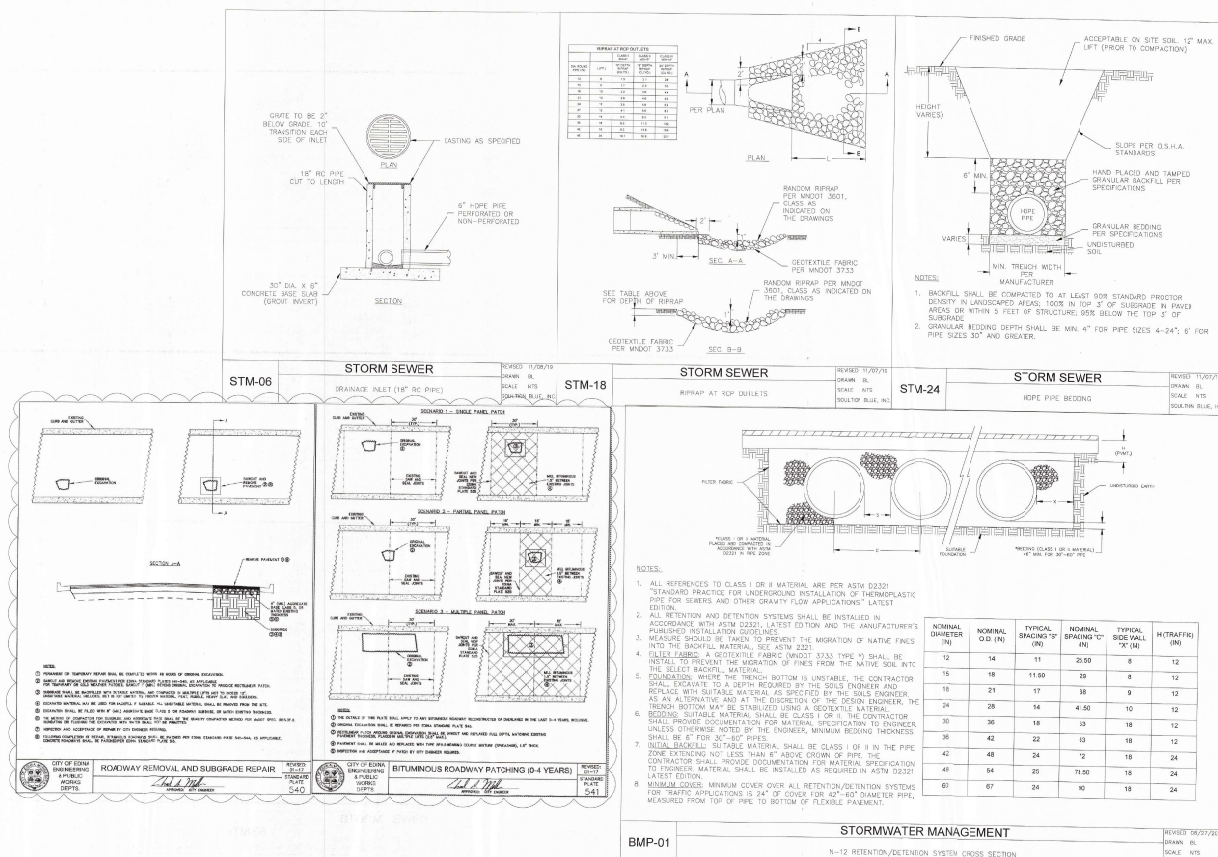
SOLUTION BLUE PROJECT NO. 200703

C301

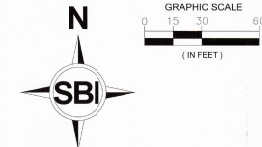
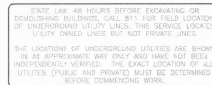
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BENCHMARKS (BM)

BEARINGS SHOWN ARE ON HENNEPIN COUNTY COORDINATES
T.A.H. AT NE CORNER OF
BYWOOD WEST & CRESCENT TERRACE
ELEVATION: 908.28 (NGVD 29 DATUM)



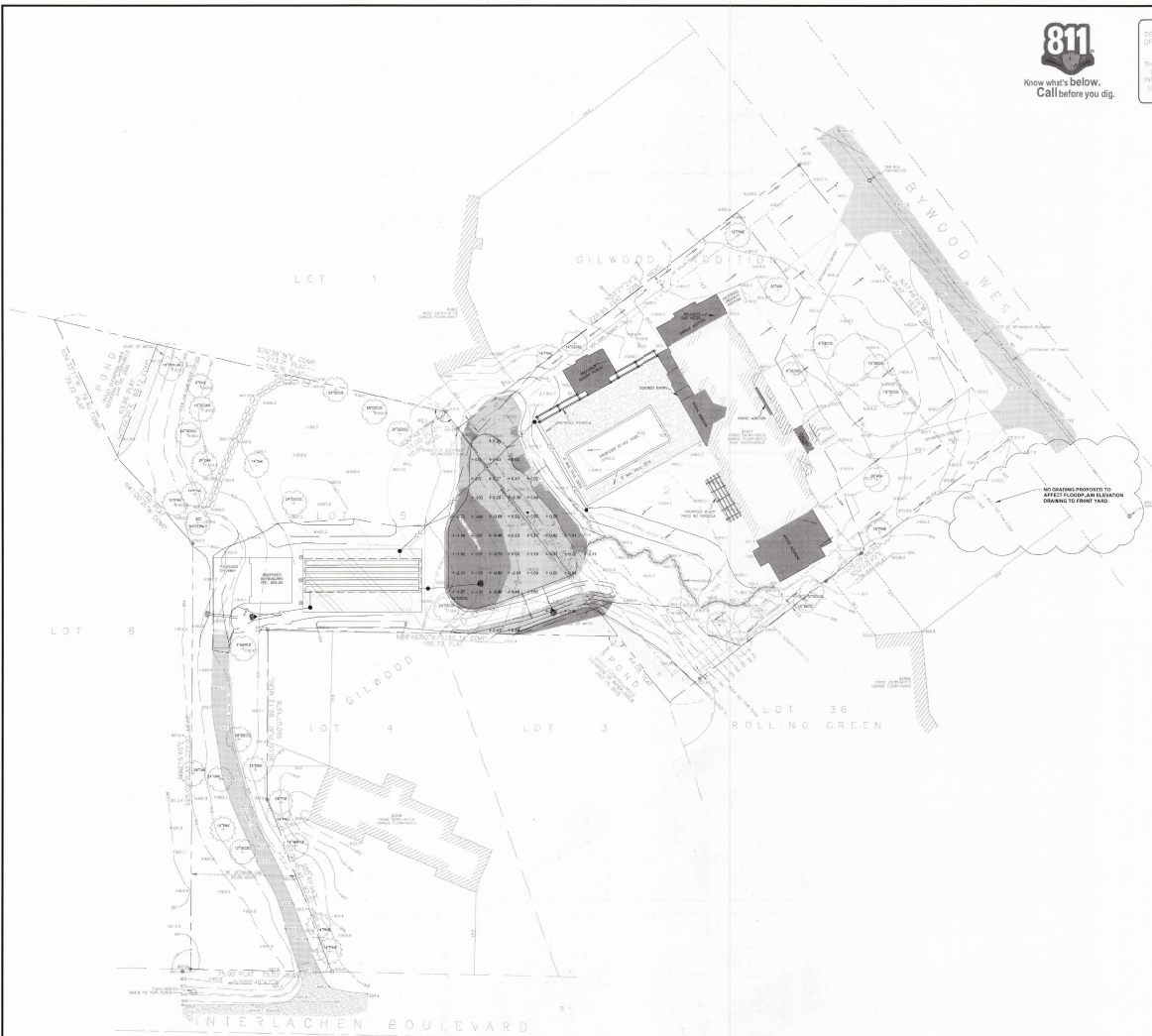
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water matters®

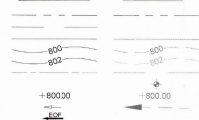
444 Cedar Street, Suite 3005
Salem, MA 01970

651-294-0038
www.SolutionBlue.com



PROPOSED

EXISTING



1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE BEFORE BEGINNING SITE GRADING ACTIVITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING QUANTITIES OF CUT, FILL AND WASTE MATERIAL TO BE HANDLED, AND FOR THE AMOUNT OF GRADING TO BE DONE. ALL COSTS ASSOCIATED WITH IMPORTING SUITABLE MATERIAL AND EXPORTING UNSUITABLE/EXCESS/WASTE MATERIAL SHALL BE INCLUDED IN THE BID PRICE.
3. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
4. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE INCLUDING TRAFFIC OF PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF CONTRACTOR TO MAINTAIN ADEQUATE CONSTRUCTION SAFETY IS NOT THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
5. SEE SITE PLAN SHEET C300 FOR SITE & GRADING LAYOUT.
6. POSITIVE SLOPE ELEVATIONS CORRELATE TO THE AMOUNT OF FILL (GREEN HATCH) IN FEET FROM EXISTING GRADE TO FINAL GRADE. NEGATIVE ELEVATIONS CORRELATE TO THE AMOUNT OF CUT (RED HATCH) IN FEET FROM EXISTING GRADE TO FINAL GRADE.

EARTHWORK BELOW FLOODPLAIN(S):

	Cut		Fill
O.F.	62 C.Y.	O.F.	65 C.Y.
+ Hold Down for pads.	0 C.Y.	- Hold Down for pads.	0 C.Y.
+ Hold Down for Pavement.	0 C.Y.	- Hold Down for pavement	22 C.Y.
+ Hold Down for Ponds.	0 C.Y.	- Hold Down for Ponds	0 C.Y.
+ Hold Down for Topsoil.	48 C.Y.	- Hold Down for topsoil.	73 C.Y.
+ Subgrade corrector.	0 C.Y.	+ Subgrade correction	0 C.Y.
+ Trench Borrow.	11 C.Y.	+ Trench Borrow.	11 C.Y.
		+ Topsoil Required.	118 C.Y.
Total Cut Volume W/ HD's:	118 C.Y.	Total Fill Volume W/ HD's:	99 C.Y.
		Total Fill plus shrinkage:	114 C.Y.

Summary

*EXISTING TOPSOIL	128	C.Y.	*no shrinkage applied
*TOPSOIL SALVAGE & RESPAVED	118	C.Y.	*no shrinkage applied
**EXCESS TOPSOIL	11	C.Y.	**no shrinkage applied. For site balance insert number into trench borrow
***MATERIAL DIFFERENCE	4	C.Y.	*** (Total cut) - (Total fill plus shrinkage)

BENCHMARKS (BM)

BEARINGS SHOWN ARE ON HENNEPIN COUNTY COORDINATES
T.N.H. AT NE CORNER OF
BYWOOD WEST & CRESCENT TERRACE
ELEVATION: 908.28 (NGVD 29 DATUM)

SUMMARY

DESIGNED: BJJ DRAWN: BJJ
REVIEWED: BJJ
PHASE: IFC INITIAL ISSUE: 08/18/20

REVISION HISTORY

#	DATE	DESCRIPTION
31	08/27/2020	REMOVED POOL, HOUSE & STORM REV.
32	10/05/2020	RAISED FINISHED FLOOR & STORM REV.
33	11/16/2020	FEMA DESIGN GUIDELINE NOTES ADDED
34	03/10/2021	RESIDENCE REMODEL REMOVED
35	07/02/2021	HOUSE ADDITION AND POOL DECK REV.

CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF
MINNESOTA

BENJAMIN LUCAS
DATE: 03/18/21 REG. NO. 54265

CUT & FILL ANALYSIS

SOLUTION BLUE PROJECT NO: 200703

C400

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Survey Responses

30 January 2019 - 22 July 2021

Public Hearing Comments-4904 Bywood West

Better Together Edina

Project: Public Hearing: 4904 Bywood West, A variance request for a 15.5%, (640.3 square foot), variance from the minimum 50% basement requirement for an addition on crawl space to an existing home



VISITORS

1

CONTRIBUTORS

0

RESPONSES

0

0

Registered

0

Unverified

0

Anonymous

0

Registered

0

Unverified

0

Anonymous

No Responses



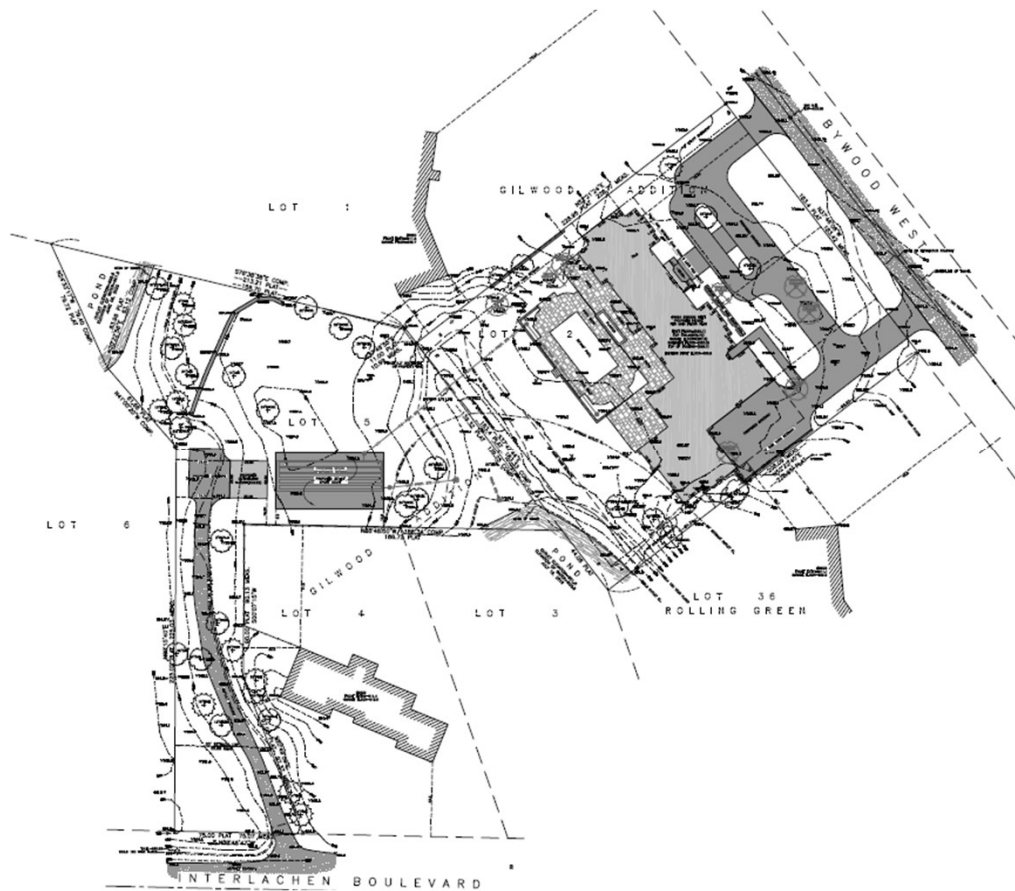
The CITY of
EDINA

4904 Bywood Variance request

Less than a 50% basement



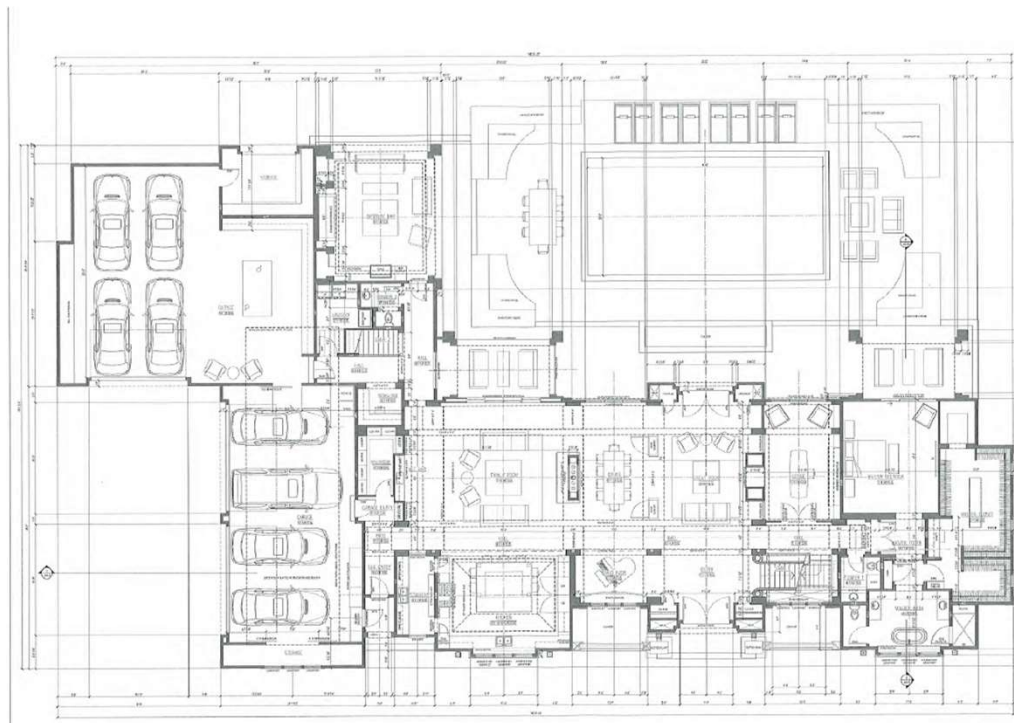




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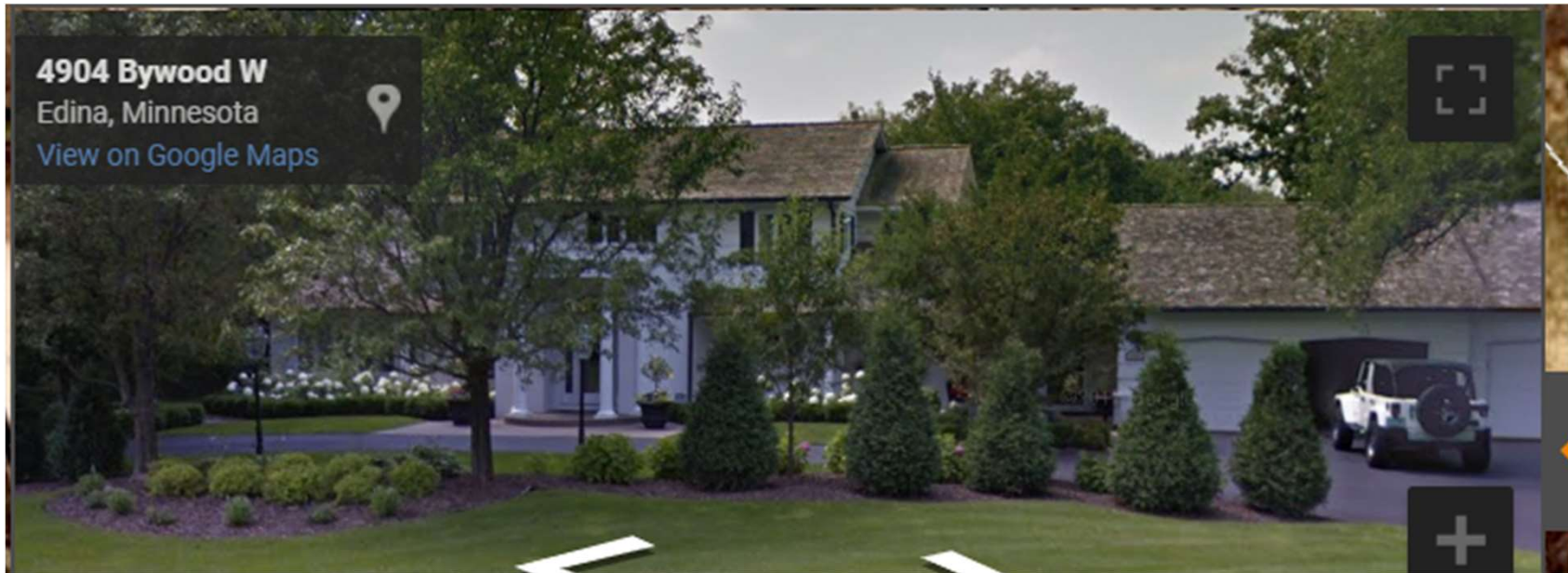
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Existing Home

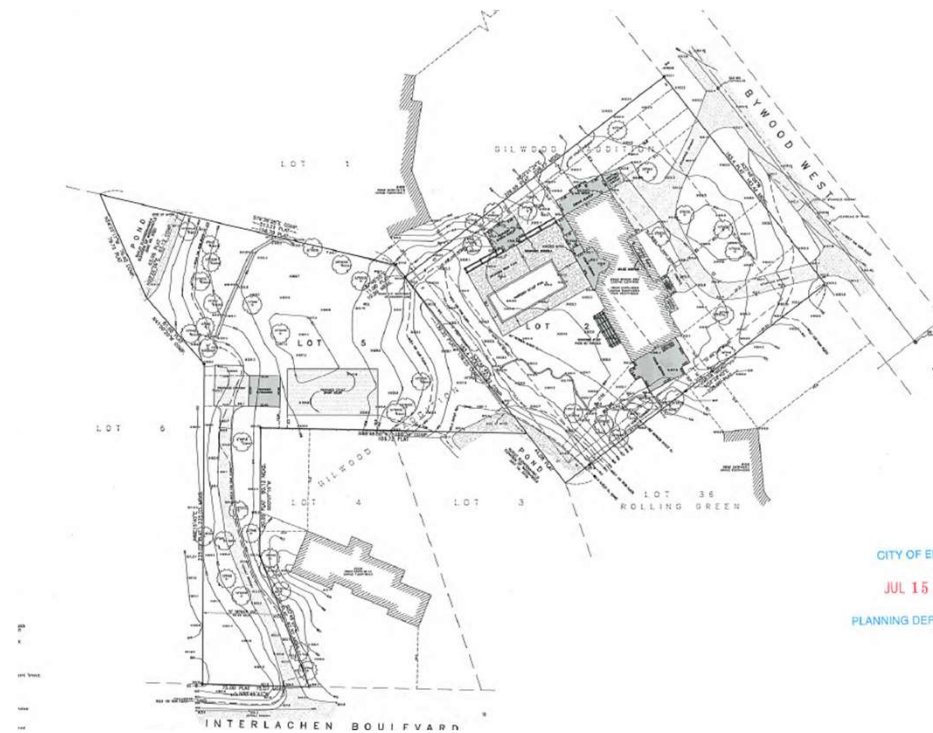


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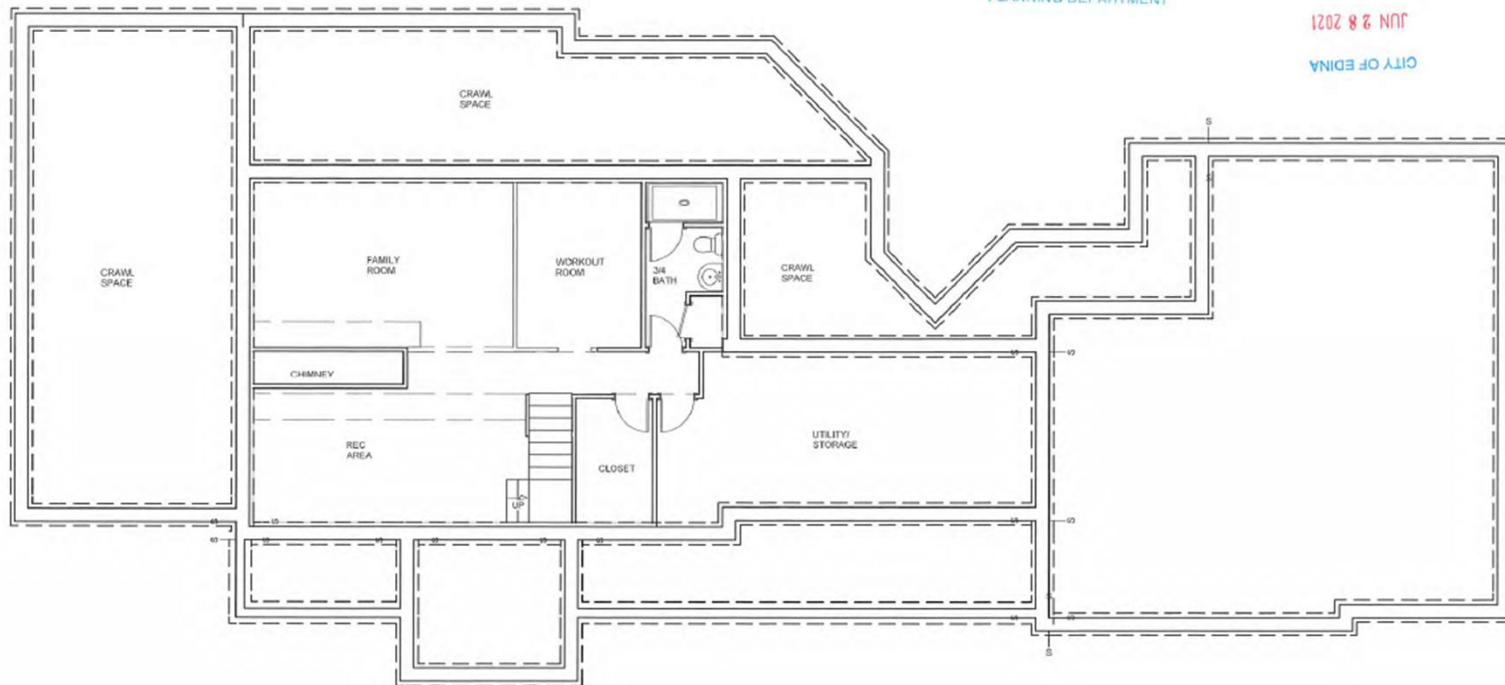
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JUN 28 2021

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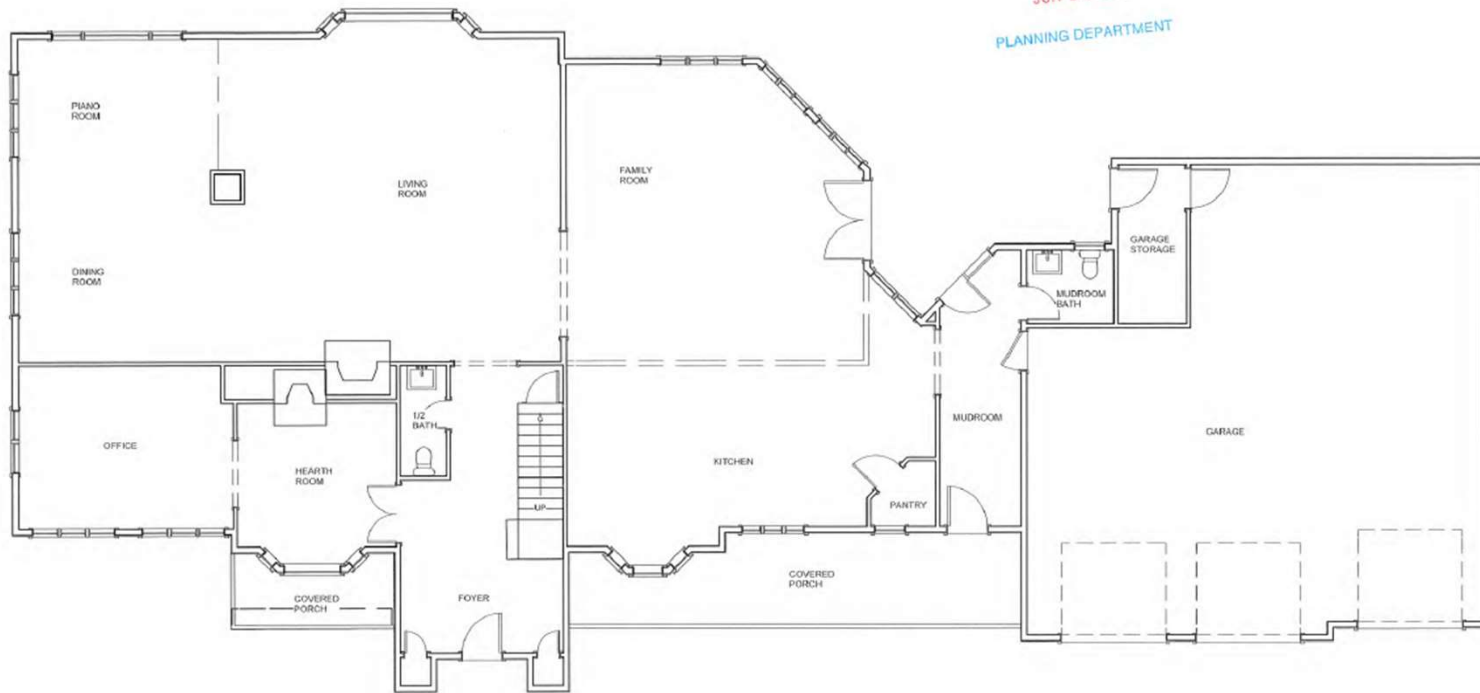




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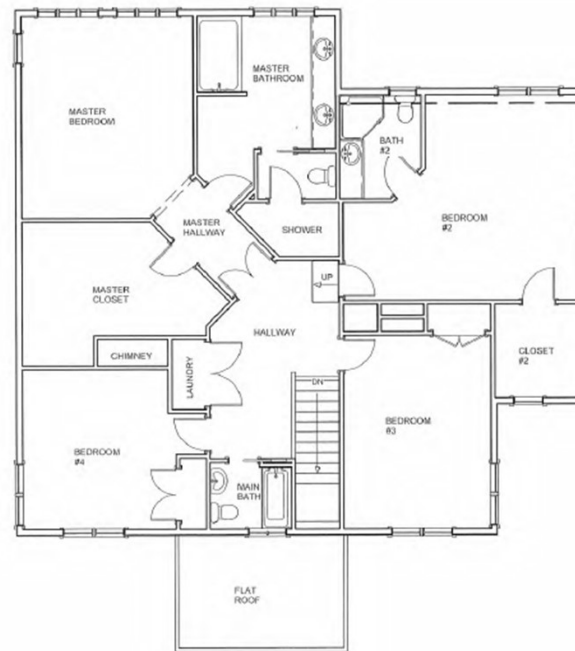
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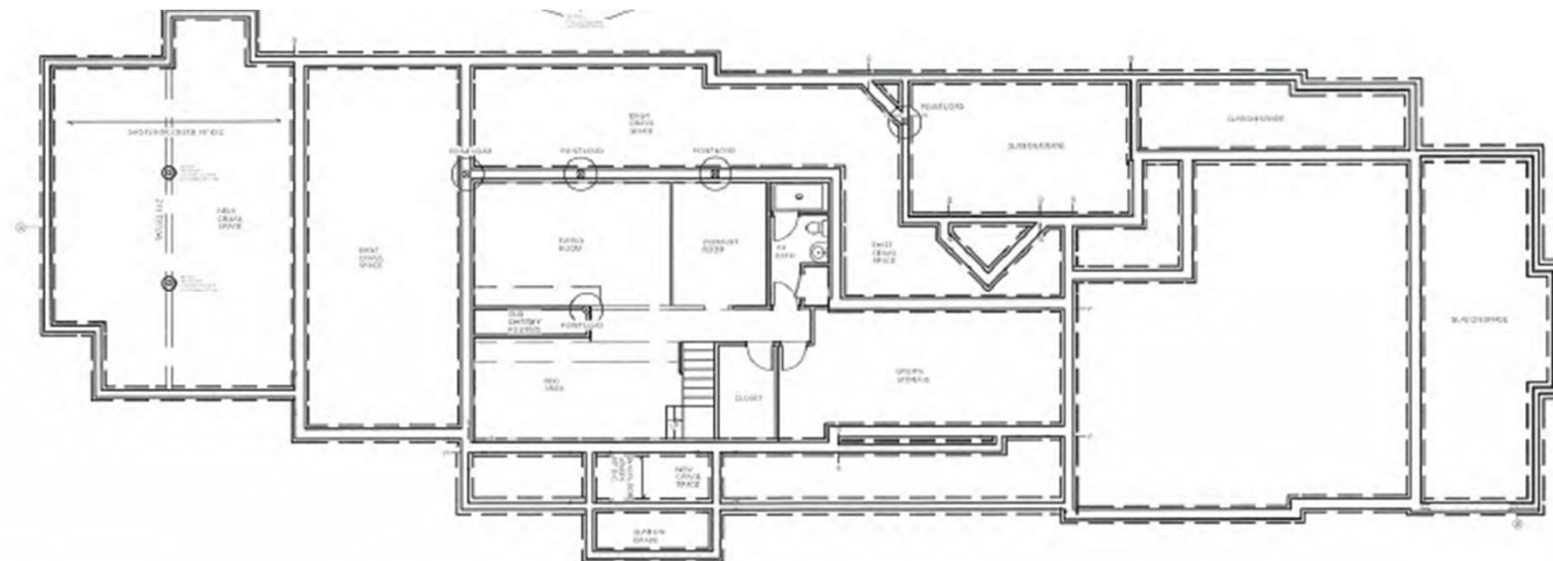


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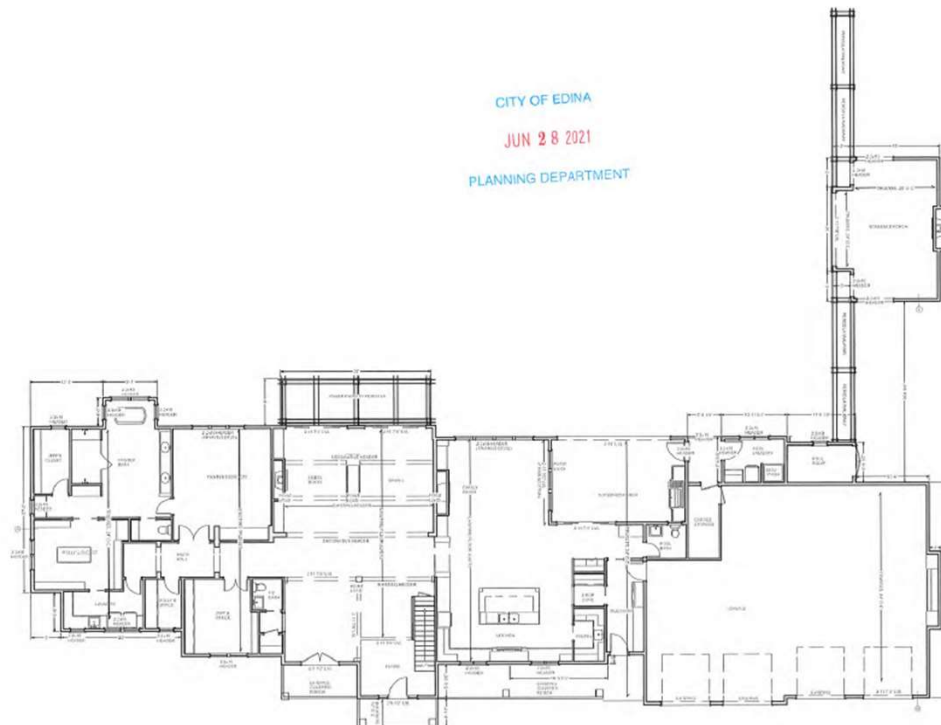
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PLAN I



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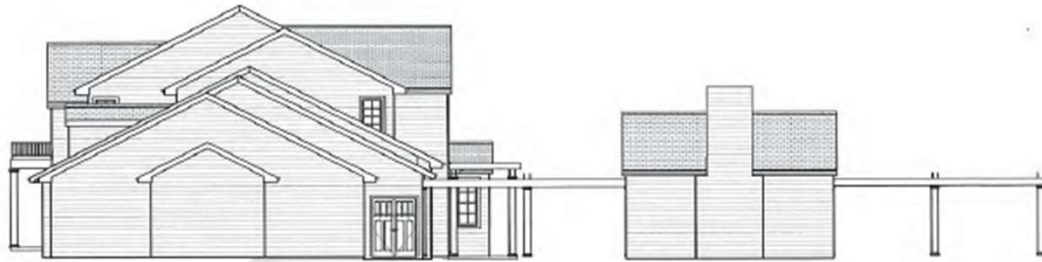




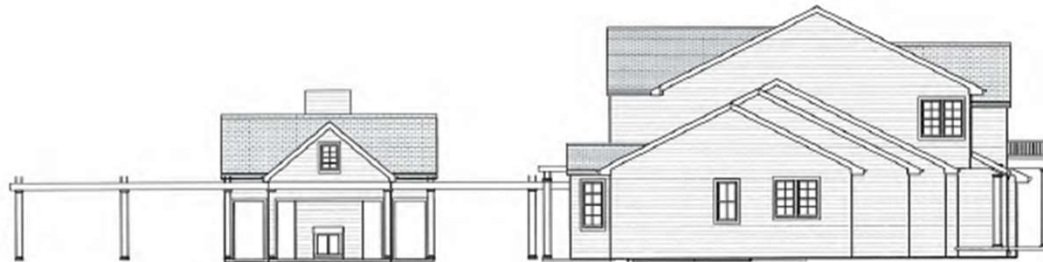
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CITY OF EDINA

4801 West 50th Street

Edina, MN 55424

www.edinamn.gov

Date: July 28, 2021

Agenda Item #: VIII.A.

To: Planning Commission

Item Type:

Report and Recommendation

From: Stephanie Hawkinson, Affordable Housing
Development Manager

Item Activity:

Subject: Finding that the Plan for 4040 W. 70th St. are
consistent with the Comprehensive Plan - Tax
Increment Financing

Action

ACTION REQUESTED:

Approved Resolution B-21-22

INTRODUCTION:

The Edina Housing Foundation acquired 4040 W. 70th St. and selected a developer to develop 118 age restricted affordable housing units. In order to use the Southdale TIF 2 Special legislative pooled funds and in order to capture tax increment, a TIF District must be created.

The Planning Commission is required to make a finding that the proposed plans for development of the site are consistent with the Comprehensive Plan.

ATTACHMENTS:

Staff Report

Resolution No. B-21-22

Appendix A

Resolution No. 2019-17

Presentation



Date: July 28, 2021

To: Chair and Members of the Edina Planning Commission

From: Stephanie Hawkinson, Affordable Housing Development Manager

Subject: Finding that the Proposed Development Plans for 4040 W. 70th Street is Consistent with the Comprehensive Plan – Tax Increment Financing District

Information / Background:

On December 11, 2019 the Planning Commission approved Resolution 2019-17 finding that a modification to the Tax Increment Financing (TIF) Plan for the Southdale 2 TIF District to include the acquisition of 4040 W. 70th St. for an 118 unit, age restricted affordable housing developments conformed to the Comprehensive Plan. The approved Resolution was required to allow the Housing and Redevelopment Authority to lend Southdale 2 TIF pooled funds for this acquisition.

Since that time, the Edina Housing Foundation selected a developer through a competitive Request for Qualifications process. The developer, a partnership between Lupe Development Partners and Ecumen, has undergone the regulatory approval process for their proposed 118-unit development. The next step is the City Council has to hold a Public Hearing scheduled on August 4, 2021 to consider the creation of a new TIF district that serves to advance the Comprehensive Plan's goal of creating 118 new affordable housing units towards the overall goal of 1804 new affordable units Citywide. A new TIF district allows for the use of Southdale 2 TIF pooled "Special Legislative Funds" to be used to support this development, that would otherwise sunset on December 31, 2021, as well as tax increment from the new development itself. A written opinion and input from the Planning Commission in the form of the proposed resolution regarding the proposed development's continued compatibility with the Comprehensive Plan is being solicited in advance of the City Council's Public Hearing.

Specifically, the Planning Commission is asked to confirm that the proposed residential use of 4040 W. 70th Street is generally in compliance with Edina's Comprehensive Plan. Staff recommends approval based on the following activities and findings:

- Parcels are located within the boundaries of the Southeast Edina Redevelopment Project Area,
- The site is guided for 25 to 75 units per acre, which could allow up to 118 housing units.
- The Zoning Ordinance allows for 4 stories and 48 feet.
- The City Council gave preliminary approval to the Site Plan.

Note that specific details regarding the use, terms and conditions of tax increment financing are evaluated by the Edina City Council and Edina Housing and Redevelopment Authority (not the Planning Commission).

TIF District Requirements

Establishing a new TIF District or modifying an existing TIF Plan is done in accordance with Section 469 of the Minnesota Statutes and is subject to the approval of the City Council after a public hearing. The process also requires the HRA submit a draft TIF Plan or Modification to the County and School District 30 days prior to the public hearing. The formation of a new TIF District requires consideration of the project's cost, conformity with land use regulations, impact to the tax base, infrastructure needs and other fiscal implications.

On July 2, 2021, in accordance with Minnesota Statutes, other taxing agencies, such as Hennepin County and Edina School District #273, were notified of the potential creation of a new 4040 W. 70th St. TIF district. To date, no comments have been received from the County or the Schools regarding this proposal.

Compliance with Greater Southdale District Plan

The development of 4040 W. 70th St. into age restricted affordable housing is supported by the Greater Southdale District Plan:

Page 32: "Additionally, Edina's continued aging of its own population will bring increased development pressures to the district as these residents choose to leave their home but not their community. The development community is responding with new apartments for young singles and couples and with new senior and assisted living facilities near medical and other community services."

Page 85: "The Greater Southdale District has an important role to play in accommodating expected housing growth. Already an area characterized by high density residential and mixed-use development, it is guided for additional infill development of a similar or higher intensity. The presence of jobs, retail and services, transit, and public amenities means this area contains the elements for a complete community, which can leverage these advantages for a convenient and accessible lifestyle for a range of household types.

Affordable housing is a necessary component of the housing mix. This is especially true given the demographic future of Greater Southdale. The expected growth in the senior population and the desire to attract young workers and families both point to the need to

have more affordable housing, including options for those that might choose to move here from other parts of the community.”

Page 100: “Land Use Goal #4: Provide for housing choices (housing and unit types, rental and ownership, and costs) to accommodate a wide range of individuals, including youth, singles, couples, families with children, seniors, and people with special needs.”

Page 101: “5-A. Promote new housing adjacent to or near existing residential development to facilitate neighborhood clusters.

5-B. Seek to optimize housing densities to increase housing that is proximate to transit and within walking distance of services and amenities.”

The attached Planning Commission Resolution B-21-22 expresses such confirmation and is recommended to be approved.

PLANNING COMMISSION

**CITY OF EDINA
HENNEPIN COUNTY
STATE OF MINNESOTA**

RESOLUTION NO. B-21-22

**FINDING THAT THE 4040 WEST 70TH STREET TAX INCREMENT FINANCING
PLAN CONFORMS TO THE GENERAL PLANS FOR THE DEVELOPMENT AND
REDEVELOPMENT OF THE CITY.**

WHEREAS, property at 4040 West 70th Street (the "Property") is proposed to be redeveloped by Cornelia View Developers, LLC into the Cornelia View project consisting of a four-story, 118-unit senior affordable housing project; and

WHEREAS, the Edina Planning Commission (the "Commission") reviewed the Cornelia View Developers, LLC redevelopment proposal on May 12, 2021 and recommended that the City Council approve the Preliminary Rezoning and Preliminary Development Plan for the Property; and

WHEREAS, the City Council via the passage of Resolution 2021-44 approved the Preliminary Rezoning and Preliminary Development Plan for the Property on June 15, 2021; and

WHEREAS, the Edina Housing and Redevelopment Authority (the "HRA") has recommended terms by which tax increment financing could be used to bridge a financial gap that otherwise renders the development of affordable housing unfeasible; and

WHEREAS, the City Council will be considering the establishment of a new Tax Increment Financing District to enable the affordable housing development at the Property; and

WHEREAS, Minnesota Statutes require notification and input from several entities as part of the process of establishing a new Tax Increment Financing District; and

WHEREAS, the HRA and the City of Edina (the "City") have proposed to adopt a Modification to the Southeast Edina Redevelopment Plan and a Tax Increment Financing Plan for the 4040 West 70th Street Tax Increment Financing District (the "TIF District") therefor (the Redevelopment Plan Modification and the TIF Plan are referred to collectively herein as the "Plans") and have submitted the Plans to the Commission all pursuant to and in accordance with Minnesota Statutes, Section 469.175, Subd. 3; and

WHEREAS, the redevelopment proposal that is described in Appendix A as the subject of the Plans is the same as that approved by the City Council on June 15, 2021; and

WHEREAS, the Commission has reviewed the Plans to determine their conformity with the general plans and guided land use as described in the comprehensive plan for the City.

NOW, THEREFORE, BE IT RESOLVED by the Commission that the Plans conform to the

general plans for the development and redevelopment of the City as a whole.

Dated: July 28, 2021

Planning Commission Chair

ATTEST:

Planning Commission Secretary



STATEMENT OF INTENDED USE OF THE PROPERTY
TEAM & EXPERIENCE OVERVIEW

4040 WEST 70TH STREET

CITY OF EDINA
PRELIMINARY REZONING & DEVELOPMENT APPLICATION

APRIL 12, 2021

CITY OF EDINA

APR 12 2021

PLANNING DEPARTMENT

STATEMENT OF INTENDED USE OF PROPERTY

4040 West 70th Street Apartments, LP is creating senior affordable rental housing, an amenity space with community-based programming and public art, transforming the existing 4040 West 70th parcel. We hope to create an appealing housing option for Edina residents greater than 55 years old, who wish to remain in their community after retirement. A compelling package of green space coupled with high performance sustainable development practices makes for a demonstration project of extraordinary value.



INTENDED USE OF PROPERTY

Our design, construction methods, and amenities will be high quality. We will provide no less than 25%-unit masonry exteriors, with architectural grade metal and durable cement exterior materials, high performance sound mitigation engineering, and quality interior finishes that rival “market-rate” properties.

Our housing choices are complimentary to the neighborhood’s need, with a large and growing “age-in- place” population. A diverse range of housing price points will add opportunities to the Cornelia neighborhood and address a chronic shortage of need-specific senior housing — at an affordable price point.

This parcel would contain 118 units, comprised of 83% 1-bedroom and 17% 2-bedroom units. We believe we can achieve 118 parking spaces through a combination of below ground and at-grade stalls, subject to input from planning staff and community.



Mill City Quarter Woonerf

One and a half acres sounds like a lot, but in reality, this is a compact and challenging site demanding creative thinking and flexible strategies to produce a winning outcome. The parcel is north-south in orientation, and Valley View Road is the least traveled street of the two hard edges. A prominent traffic circle on 70th Street suggests minimizing access from the south. The Southdale Design Experience suggests a stepping on the west edge that projects closer to France Avenue. Affordability is best paid for with density, but the limitations of below-grade and surface parking may constrain unit counts below the permitted maximum.

Our goal is to create dual-purpose spaces that serve both as connection points to the public realm, but also operate to infiltrate storm water and provide green edges with visual interest. We believe the below grade parking should be entered from the west side of the property. The economics and circulation limitations permit only one level of such parking. There are a variety of surface parking options along with a vehicle drop of/pick up area

The site will feature walking paths through and around the site to encourage physical activity and connect residents to the rich selection retail, commercial and entertainment within blocks. An outdoor gathering space for social activity, community gardens, raised beds and lush landscape serve to encourage resident engagement and to connect to street grid.

The building will have first floor common areas and amenities including lobby, fitness center, community/ clubroom with kitchen, business center, package and mail center, trash and recycling facilities, leasing/management offices. Viewshed from Valley View will provide for an outdoor public art component.

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STATEMENT OF INTENDED USE OF PROPERTY

The development team will set aside funds for locally commissioned art sculpture or similar artist installations. We would like to approach the Edina Arts Commission for participation in this effort, and we have suggested the idea to the staff at the Edina Arts Center in our outreach conversations with them.

The unit mix will be one- and two-bedroom units averaging 610 and 930 square feet, respectively, will feature complete kitchens with full sized cooktop/oven, over cooktop microwaves, refrigerator/ freezer, dishwasher, and disposal. Cabinets will be solid wood construction. Some units will have either islands or peninsula kitchen layouts, while others will be galley style. An emphasis on closet space, both at entry and in the main body of each unit will be provided. Up to 35% of the apartment homes will have a deck or balcony.

The project will include design elements to intentionally support the health, safety and accessibility of its future residents. Units and common areas will comply with the principals of Universal Design, which will allow for accessibility to populations with physical limitations. In addition to this commitment, a number of fully handicapped accessible units will be provided so that a person in a wheelchair could use all amenities of the apartment and some units will be adaptable for persons with vision or hearing impairments to allow them to live independently. Residential hallways will have handrails on one side and grab-bars will be provided in unit bathrooms. An enhanced lighting design package will consider needs of aging eyes. To mitigate spread of infectious disease, automatic plumbing fixtures and accessories will be used in public restrooms, automatic lighting, door openers and antimicrobial materials will be used when / where possible.



ZONING / PUD

The complexities of the site offer some design challenges to incorporate sufficient parking, attractive amenity spaces, landscape and storm management. We have conferred with City Planner Cary Teague on two occasions regarding appropriate land use, and we recommend a rezoning from PCD3 to a specific PUD for affordable housing, that staff could probably embrace. The PUD could allow for some flexibilities on parking such that not all is required below ground, and in particular, the exterior materials requirements of the planned district could be balanced between masonry, architectural metal and either lap or panel fiber cement that is attractively deployed. These are important cost considerations we believe an experienced team can help mitigate on the issue of design, producing excellent architecture at an effective price point.

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4040 WEST 70TH STREET TEAM OVERVIEW & EXPERIENCE



PROJECT TEAM OVERVIEW

Applicant is a joint venture of Ecumen and Lupe
4040 WEST 70TH STREET APARTMENTS, LP

ECUMEN

3530 Lexington Avenue North, Shoreview, MN 55126

Contact:

Anne Stanfield, Director of Business Development
annestanfield@ecumen.org | (651) 766-4320

LUPE DEVELOPMENT PARTNERS, LLC

1701 Madison Street NE, Suite 111, Minneapolis, MN 55413

Contact:

Steve Minn, Vice President & Chief Financial Officer
steve.minn@lupedevelopment.com | (612) 843-4069

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PLANNING DEPARTMENT

WHO WE ARE, & WHAT WE DO

The development team, which consists of Ecumen and Lupe Development Partners, LLC, were selected by the Edina Housing Foundation to develop this affordable housing project on its land. The two development teams have created a joint venture called 4040 West 70th Street Apartments, LP.

The project team features companies and professionals who have partnered successfully on housing developments in the Twin Cities for years. We offer the reassurance of a well-organized, experienced partnership to redevelop the existing office building on the site into a community-orientated housing option that will be a model demonstration project.

- Proven success in developing affordable housing.
- Experience with complex sites (power lines, tracks, zoning, tight sites).
- Creative solutions for connecting to outdoor amenities.
- Enhancing communities with site-specific buildings and programs.

TEAM OVERVIEW & EXPERIENCE

JOINT VENTURE: 4040 WEST 70TH STREET APARTMENTS, LP



Ecumen is one of the largest and most innovative nonprofit providers of senior housing and services in Minnesota and the nation. Founded more than 150 years ago, Ecumen develops and operates a variety of senior housing options and services, including cooperative senior housing, independent living, assisted living, long-term care, short-term rehabilitation care, senior affordable housing, as well as at-home and community-based services including home care and hospice, an online durable medical equipment store, and consulting services in management, marketing and development. Ecumen employs nearly 3,000 team members and serves more than 15,000 customers annually. The Minneapolis/St. Paul Business Journal has named Ecumen one of Minnesota's "Best Places to Work" ten times.

A 501(c)(3) corporation headquartered in Shoreview, MN, Ecumen does business in four states, managing over 44 senior communities -- 31 of which are both owned and operated. Affordable housing has been part of Ecumen's portfolio for nearly 50 years, and over one third of Ecumen's owned communities offer subsidized housing, providing 580 units of affordable housing to seniors in Minnesota.

Ecumen has long been recognized as a leader and innovator in senior housing and services, distinguishing itself among other nonprofit providers by embracing several of the strategies for-profits have used to build scale. Senior Housing News recently named Ecumen as one of its "6 Senior Living Providers to Watch in 2020." Over the past two decades, Ecumen has transformed its business from traditional skilled nursing care to a diverse mix of independent living, subsidized housing, assisted living, campus-based skilled care offerings, and an innovative co-op model, as well as home health and hospice service lines.

Ecumen has developed 11 senior residential properties in Minnesota in the past 10 years, working closely with city officials on designs that fit and complement each individual community. Ecumen is known for creating innovative living spaces and services for seniors, priding itself on life enrichment programming to keep residents active and engaged. On the cutting edge of using AI technology in senior housing, Ecumen has recently implemented a Minnesota Department of Human Services grant-funded pilot designed to reduce social isolation and promote social connectedness. It's Abiitan Mill City community, which opened in 2016 in the heart of downtown Minneapolis, has been widely recognized for its unique integration in the broader urban community, with features such as two restaurants and a fitness center open to the public.

Recent awards include a 2019 Award of Excellence from the MN Chapter of the Commercial Real Estate Development for its Zvago St. Anthony Park Cooperative community, and a Special Recognition Award in 2015 from the American Institute of Architects for innovative age-friendly design for Abiitan Mill City.

A selection of Ecumen's developments include:



- **ABIITAN MILL CITY – MINNEAPOLIS, MN**

Receiving a Special Recognition Award from the American Institute of Architects for innovative age-friendly design, Abiitan Mill City provides Downtown Minneapolis with its first senior housing complex in over 20 years, developed on one of the last open parcels of land in the Mill District. A five-story building, this project includes market-rate Independent Housing with Services apartments (86 units), Memory Care apartments (48 units), and 2 additional levels of underground parking. Abiitan uniquely supports the active lifestyle of its residents, creates a strong connection with the local community and facilitates intergenerational engagement with its location and programming. The building, which is in walking distance to many of the city's top amenities (Mississippi River, Stone Arch Bridge, Guthrie, Mill City Museum) includes two public restaurants and a gym with outside membership. Abiitan opened in 2016.

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PLANNING DEPARTMENT

TEAM OVERVIEW & EXPERIENCE

JOINT VENTURE: 4040 WEST 70TH STREET APARTMENTS, LP

- **SEASONS AT APPLE VALLEY, APPLE VALLEY, MN**

Seasons at Apple Valley consists of 106 independent or assisted living market-rate rental apartment homes, as well as 28 additional residences for seniors requiring 24-hour enhanced or memory care services. Independent units range from studios to two-bedrooms, offering a variety of layouts. A vital part of the lifestyle at Ecumen Seasons at Apple Valley is the inviting community spaces, which include: grand entry, great room with fireside lounge and bar, creative arts studio, a chef's kitchen with three distinctive restaurant areas, spa and beauty salon, state of the art fitness center, movie theater, and guest suite. Seasons of Apple Valley opened in 2012. **CITY OF EDINA**



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PLANNING DEPARTMENT

Lupe Development Partners, LLC is a woman- owned W/ MBE Certified real estate development company that began operations in 1989. Lupe has focused its portfolio of housing-related development activities on transit- oriented development and adaptive reuse. The company has created (or is currently in development with) over 2,000 units of affordable housing, market-rate apartments and ownership units in the Twin Cities, and over 2 Million square feet of commercial, office, industrial and retail. Lupe only manages for its own account, providing asset management in cooperation with a dedicated team within its residential portfolio and performing direct property management to its retail and office portfolio.

Lupe Development Partners has developed over 1,000 units of affordable housing in the last 20 years in Hennepin and Ramsey Counties. We still co-own and manage all of these units. A typical tax credit project requires a 30-year commitment to affordability which is our typical program. Since 1989, Lupe Development has created over \$500 Million of real estate value from the ground-up including condominiums, rental housing, retail, office and industrial property. Lupe has attracted over \$55 Million of private tax credit investor equity in its affordable housing developments since 2012, and has a well-earned reputation as a firm that can overcome obstacles and challenges. We are problem- solvers first and foremost.

It is often said that awards are rarely given unless you apply, but we are proud to have many "award-winning" projects in our portfolio, ranging from "best of..." citations, unique engineering applications, creative financing, or innovations in housing. Most recently in 2016, Finance & Commerce presented Lupe Development Partners with two Top Projects awards for Mill City Quarter and Broadway Flats. Mill City Quarter also won an engineering award for our stormwater design.

- **STONE ARCH APARTMENTS, MINNEAPOLIS, MN**

In 2000, the Stone Arch Apartments became the first truly affordable rental apartments to be built in the high demand riverfront area of Minneapolis. Stone Arch Apartments are a fitting addition to an area successfully making the transition from historic and industrial to recreational and residential. The Stone Arch Apartments are designed to reflect the history of the area while providing unique high-tech living spaces that offer everything that modern lifestyles demand. The warehouse/ industrial-chic vernacular creates apartment styles previously found only in other cities like San Francisco, Chicago or New York. Stone Arch's interior finishes include industrial lighting, high ceilings, huge windows, exposed beams, ductwork and warehouse-style spaces, which create an environment fitting the modern urban professional.



- **520 SECOND STREET SE APARTMENTS (N/K/A STONE ARCH 2), MINNEAPOLIS, MN**

This 91-unit apartment building in Marcy Holmes was delivered in 2014, with the help of Hennepin County TOD funds for site improvements and utility relocations.

TEAM OVERVIEW & EXPERIENCE

JOINT VENTURE: 4040 WEST 70TH STREET APARTMENTS, LP

It has great river views and is in close proximity to Downtown and the U of M. The project consists of a six-story building with 91 underground parking spaces. The project was conceived to address the long-standing waiting list of affordable units at Stone Arch Apartments around the corner, and is managed as part of the Stone Arch “campus” for the development team. Stone Arch 2 is 100% affordable, workforce focused, and has primarily 1-bedroom units with 15% studios. Amenities include a business center, community room, fitness center, extensive bicycle parking and connections to the riverfront walking and biking trails. Units have large closets and many of the units have decks and/or balconies.



- **MILL CITY QUARTER (MCQ), MINNEAPOLIS, MN**
An innovative demonstration of multiple property owner cooperation, MCQ offers Minneapolis’ first “woonerf” creating a pedestrian and bicycle linkage to Park Board trails between the river and the downtown streets. The woonerf includes an inviting educational interpretation of this district’s historic milling and rail past as well as sculptures and seating areas for public enjoyment. Hennepin TOD funds helped fund our woonerf and site improvements, allowing for a public easement with the Minneapolis Park Board for trail use. In conjunction with the neighboring Abitan senior project, the master development provides unique housing and services in a downtown campus. MCQ consists of one six-story building with 150-units of affordable senior-marketed & workforce housing, 14,000 sq. ft. of first floor retail and 227 underground and surface parking spaces. The unit mix is comprised of 115 one-bedroom units and 35 two-bedroom apartments. This downtown Minneapolis parcel is at the gateway to the historic riverfront milling district offering a rich patina of public recreation and transit options, in proximity to a vibrant and ethnically diverse employment base delivered on-time and under budget.



- **BROADWAY FLATS, MINNEAPOLIS, MN**
Located in North Minneapolis at the corner of Broadway and Penn Avenue North, this 103-unit development with 10,000 SF of retail is located in a corridor ravaged by the 2010 tornado, and was made possible with the partnership of federal, state, regional, county and city resources. This mixed-use development has 10 efficiencies, 82 one-bedroom, and 15 two-bedroom units above underground and tuck under parking. Our effort to “raise the bar” about how the north side community thought about affordable housing was accomplished with attention to detail, an impressive list of amenities and keen budget control. The project features a cyber-café, community room, conference room, exercise facility, bike storage, and storage lockers. The overall project was delivered on-time and under budget.
- **LAKE STREET APARTMENTS, MINNEAPOLIS, MN**
The site is on Lake Street, just two blocks east of the Lyn-Lake intersection and one block south of the Midtown Greenway, completed on November 1, 2020 and 90% of the 111 work force affordable units are leased as of February 1. The owner has also committed to house up to nine (9) veterans who are homeless and have disabilities. This development is in a community that has become a high-rent district; the majority of new housing in last ten years has been high-end market rate, with market-rent exceeding the median income levels. This transit-oriented redevelopment revitalizes current surface parking, automotive and warehouse uses, and creates high-density affordable housing with emphasis on pedestrian and bicycle-focused connections to existing amenities and new transit connections. The overall project was delivered on-time and under budget.

Lupe Development Partners has a successful development history of working with the property manager, architect, and processing agent.

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PLANNING DEPARTMENT

TEAM OVERVIEW & EXPERIENCE

JOINT VENTURE: 4040 WEST 70TH STREET APARTMENTS, LP

PROPERTY MANAGER:

ECUMEN

Founded in 1862, Ecumen has grown to be among the most innovative leaders in senior housing and services with a passion for serving older adults and helping them live richer, fuller lives. Working closely with the US Department of Housing and Urban Development and Minnesota Housing, Ecumen currently provides its unique and caring management style to 15 affordable senior communities containing more than 863 housing units. It has several additional affordable housing projects in process.

Ecumen also has extensive experience and success at providing independent housing to hundreds of individuals in the older adult community across multiple states, as well as being a provider of skilled nursing care, assisted living, memory care and other needs-based senior care across four states. Ecumen's value also comes from its highly skilled, well-trained, experienced and dedicated workforce. Ecumen takes great pride in the services it provides to those who have chosen to be residents and, over time, has worked closely with HUD and other agencies to develop tenant selection guidelines that are fair and equitable to all and that help ensure a safe, affordable and enjoyable quality of life.

Ecumen strongly advocates for those it serves and practices diversity and inclusion — proudly embracing the differences among people. Ecumen welcomes all people as customers, employees and vendors, regardless of race, color, age, national origin, sex, gender identity, sexual orientation, religion, physical ability, marital status, political beliefs, economic status — and all the many other ways people can be different from one another. Ecumen strives to uphold a culture where everyone is included and treated with dignity and respect. Honoring diversity and inclusion inspires people to engage, create, innovate and help drive organizational success. By giving all people the opportunity to contribute their skills, experience, passion and perspectives, Ecumen is a stronger company.

ARCHITECT:

POPE ARCHITECTS

Pope Architects is an architecture and interior design firm based in St. Paul, MN, founded in 1974. The firm's practice is diverse and its reputation and expertise is well-established in multiple market sectors including multi-family housing, senior living, commercial, and healthcare. Pope Architects provides services around the country with a focus in the upper Midwest market. The firm's housing practice has grown over the last decade and includes over 5,000 units of multi-family and senior living housing designed by a dedicated housing team. Pope's team members have a unique sensitivity to the dynamics of housing planning and design that comes from their extensive work in multi-family and senior living campuses throughout the United States. They also bring the wisdom in project management gained from years of professional experience serving the needs of residents, families, staff and administrators.

DEVELOPMENT CONSULTANT:

RIPPLEY RICHARD

Rippley Richard brings over 25 years of real estate development experience utilizing a variety of public and private funds. The principals of Rippley Richard have played key roles on development teams from securing necessary financing to development team coordination that keeps projects on time and on budget. Rippley Richard successfully navigates and balances the intricacies of new construction, acquisition and rehab, historic preservation, 100% affordable housing, mixed-income housing, mixed-use developments, commercial space, community assets, portfolio refinancing and general development consultation. The development team has engaged Rippley Richard to work on this development.

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APR 12 2021

PLANNING DEPARTMENT

CORRESPONDENCE

LAKE CORNELIA NEIGHBORHOOD ASSOCIATION

From: Nora Davis <noradavis73@gmail.com>
Sent: Thursday, April 8, 2021 8:25 AM
To: Cameron Flakne <Cameron.Flakne@lupedevelopment.com>
Subject: 404 West 70th - Update

Morning - Cameron!

Hope you are doing well - and staying dry.

The Association doesn't provide letters of support for development projects.

We will, however, continue to facilitate dialogue between neighbors and your development team.
Now that it's getting warmer - we will be able to meet outside and on-site.

Thanks -

Nora

SOUTH CORNELIA NEIGHBORHOOD ASSOCIATION

From: South Cornelia Neighborhood Association <SouthCorneliaNA@gmail.com>
Sent: Thursday, April 8, 2021 12:46:19 PM
To: Cameron Flakne <Cameron.Flakne@lupedevelopment.com>
Subject: Re: 404 West 70th - Update

Hi Cameron,

Like Nora and the Lake Cornelia Neighborhood Association, our South Cornelia Neighborhood Association also doesn't do endorsements of any kind. It's nothing personal – our bylaws simply don't permit it.

And as Nora said, we're happy to continue helping the conversation along with all the interested folks around the 4040 West 70th Street area.

All the best,
Joel

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PLANNING DEPARTMENT



JOINT VENTURE OF
ECUMEN AND
LUPE DEVELOPMENT
PARTNERS

**4040 WEST
70TH STREET
APARTMENTS, LP**

4040 WEST 70TH STREET, EDINA

CITY OF EDINA
PRELIMINARY REZONING
& DEVELOPMENT APPLICATION
APRIL 12, 2021



PROJECT TEAM

APPLICANT IS A JOINT VENTURE OF ECUMEN & LUPE DEVELOPMENT PARTNERS
4040 WEST 70TH STREET APARTMENTS, LP

ECUMEN
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LUPE DEVELOPMENT PARTNERS, LLC
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STEVE.MINN@LUPEDEVELOPMENT.COM | (612) 843-4069

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ZAC ROSENOW, ARCHITECT – ZROSENOW@POPEARCH.COM

CIVIL ENGINEER
KIMLEY-HORN
767 N EUSTIS ST SUITE 100, ST PAUL, MN 55114
BRIAN WURDEMAN, CIVIL ENGINEER – BRIAN.WURDEMAN@KIMLEY-HORN.COM

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00

COVER SHEET

*NOTE: SCALE IS PRESERVED ONLY WHEN PRINTED AT 24X36.



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01

EXISTING
CONDITIONS
& CONTEXT



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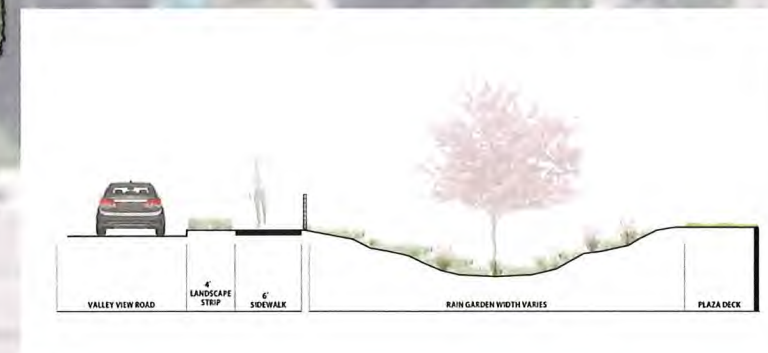
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NOT TO SCALE

02

CONTEXT PLAN



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1"=20'

03

ARCHITECTURAL
SITE PLAN



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NOT TO SCALE

04

**PEDESTRIAN &
TRANSIT
CIRCULATION**

- CIRCULATION
- COMMON SPACE
- INDEPENDENT LIVING
- STORAGE
- SUPPORT

APARTMENTS								
	Unit Type	GSF	1st Floor	2nd Floor	3rd Floor	4th Floor	TOTAL Units	% of Total
A1	1 BED	500	10	11	11	10	42	82%
A2	1 BED	600	8	12	12	7	39	
A3	1 BED	750	3	6	5	2	16	
B1	2 BED	875	3	4	3	3	13	18%
B2	2 BED	1035	2	2	2	2	8	
TOTAL PER FLOOR			26	35	33	24		
TOTAL UNITS							118	100%
TOTAL UNIT S.F.								76,055
BUILDING GROSS S.F.								
	Lower Level	1st Floor	2nd Floor	3rd Floor	4th Floor		S.F.	TOTAL
		31,400	31,400	29,600	21,500		113,900	
		31,400					31,400	
TOTAL BUILDING								145,300

SITE PARKING			
Type	Use	TOTAL	
VEHICULAR	SURFACE	23	
	UNDERGROUND	86	
	TOTAL PARKING STALLS	109	
BICYCLE	OUTDOORS (PUBLIC)	TBD	
	INDOORS (RESIDENT/PRIVATE)	TBD	
	TOTAL BICYCLE RACKS	0	



JOINT VENTURE OF
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PARTNERS

4040 WEST
70TH STREET
APARTMENTS, LP

4040 WEST 70TH STREET, EDINA

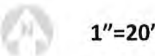
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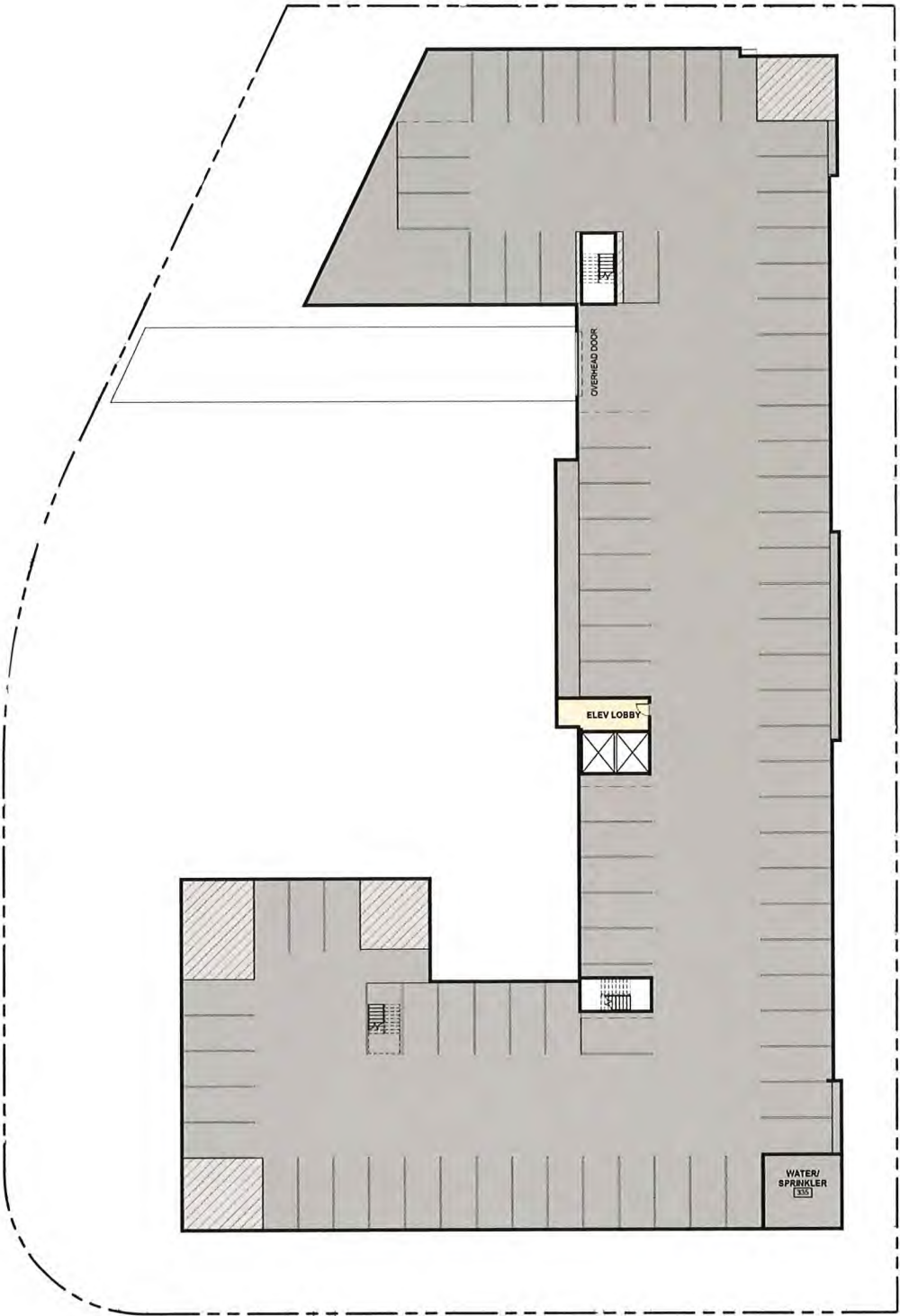
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PLANNING DEPARTMENT



05

LOWER LEVEL
& LEVEL 1
FLOOR PLANS



LOWER LEVEL PLAN



LEVEL 1 PLAN

-  CIRCULATION
-  COMMON SPACE
-  INDEPENDENT LIVING
-  STORAGE
-  SUPPORT



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PARTNERS

**4040 WEST
70TH STREET
APARTMENTS, LP**

4040 WEST 70TH STREET, EDINA

CITY OF EDINA
PRELIMINARY REZONING
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APRIL 12, 2021

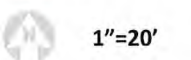
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PLANNING DEPARTMENT



06

LEVEL 2 & LEVEL 3 FLOOR PLANS



LEVEL 2 PLAN



LEVEL 3 PLAN

- CIRCULATION
- COMMON SPACE
- INDEPENDENT LIVING
- STORAGE
- SUPPORT



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4040 WEST
70TH STREET
APARTMENTS, LP

4040 WEST 70TH STREET, EDINA

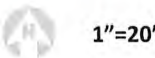
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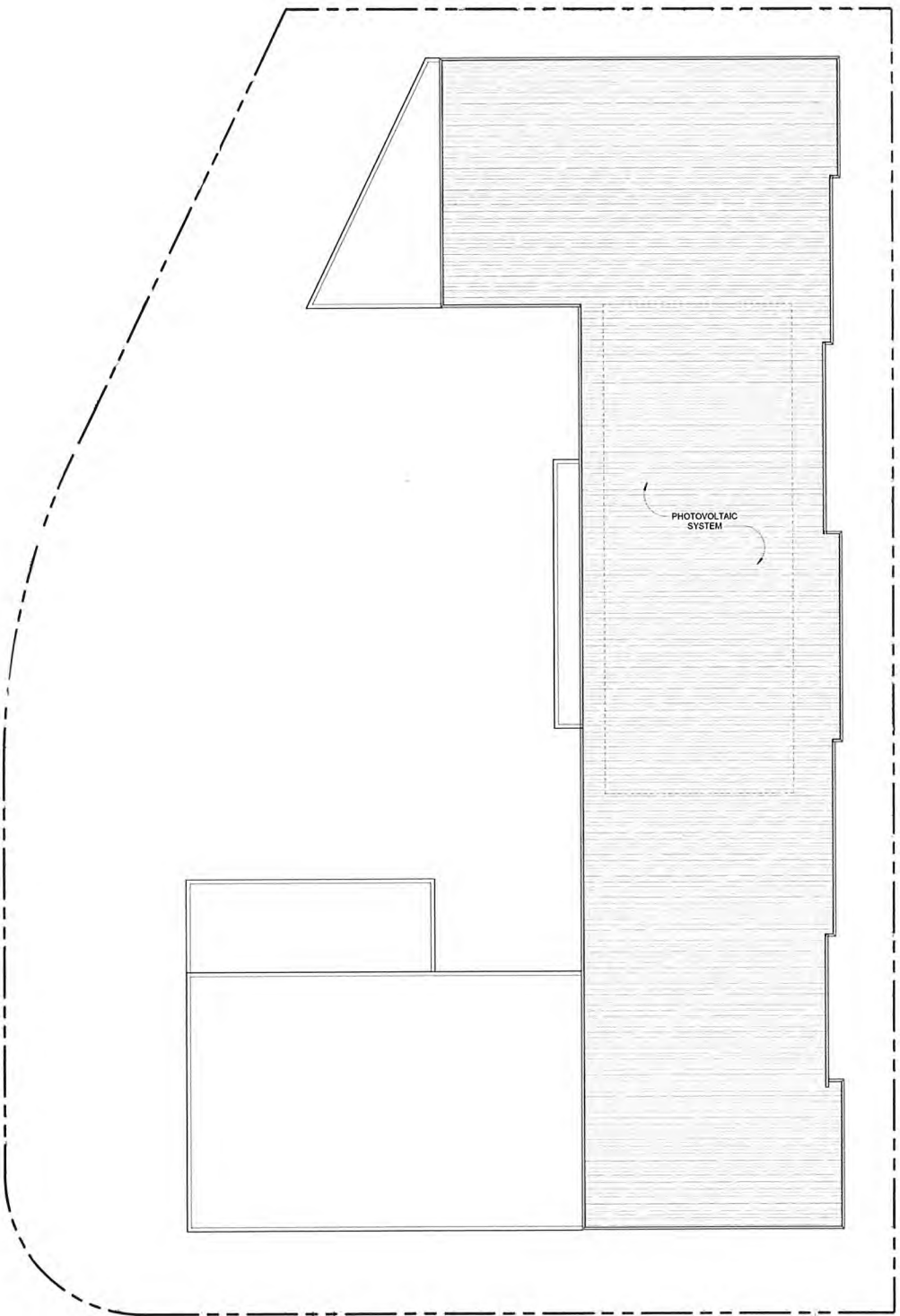


07

LEVEL 4 &
ROOF
FLOOR PLANS



LEVEL 4 PLAN



ROOF PLAN



EAST



WEST

EAST ELEVATION		
MATERIAL NAME	MATERIAL AREA	PERCENT of WALL
MASONRY	1,408	10.6%
METAL	2,324	17.5%
FIBER CEMENT LAP	4,724	35.5%
GLASS	4,839	36.4%
TOTALS	13,295	100.0%

WEST ELEVATION		
MATERIAL NAME	MATERIAL AREA	PERCENT of WALL
MASONRY	1,546	11.8%
METAL	4,599	35.2%
FIBER CEMENT LAP	2,837	21.7%
GLASS	4,072	31.2%
TOTALS	13,054	100.0%

SOUTH ELEVATION		
MATERIAL NAME	MATERIAL AREA	PERCENT of WALL
MASONRY	1,363	15.8%
METAL	2,833	32.9%
FIBER CEMENT LAP	1,934	22.5%
GLASS	2,473	28.7%
TOTALS	8,603	100.0%

NORTH ELEVATION		
MATERIAL NAME	MATERIAL AREA	PERCENT of WALL
MASONRY	423	5.5%
METAL	3,878	50.6%
FIBER CEMENT LAP	1,246	16.3%
GLASS	2,115	27.6%
TOTALS	7,662	100.0%



SOUTH



NORTH

MATERIALS - TOTAL BUILDING		
MATERIAL NAME	MATERIAL AREA	PERCENT of WALL
MASONRY	4,740	11.1%
METAL	13,634	32.0%
FIBER CEMENT LAP	10,741	25.2%
GLASS	13,499	31.7%
TOTALS	42,614	100.0%



JOINT VENTURE OF
ECUMEN AND
LUPE DEVELOPMENT
PARTNERS

4040 WEST 70TH STREET APARTMENTS, LP

4040 WEST 70TH STREET, EDINA

CITY OF EDINA
PRELIMINARY REZONING
& DEVELOPMENT APPLICATION
APRIL 12, 2021

POPE
ARCHITECTS

Kimley»Horn
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PLANNING DEPARTMENT

BASED ON 1/16" PERSPECTIVES



AERIAL PERSPECTIVE LOOKING EAST



JOINT VENTURE OF
ECUMEN AND
LUPE DEVELOPMENT
PARTNERS

**4040 WEST
70TH STREET
APARTMENTS, LP**

4040 WEST 70TH STREET, EDINA

CITY OF EDINA
PRELIMINARY REZONING
& DEVELOPMENT APPLICATION
APRIL 12, 2021





PERSPECTIVE LOOKING EAST FROM VALLEY VIEW DRIVE



JOINT VENTURE OF
ECUMEN AND
LUPE DEVELOPMENT
PARTNERS

**4040 WEST
70TH STREET
APARTMENTS, LP**

4040 WEST 70TH STREET, EDINA

CITY OF EDINA
PRELIMINARY REZONING
& DEVELOPMENT APPLICATION
APRIL 12, 2021



CITY OF EDINA

APR 12 2021

PLANNING DEPARTMENT

09.2

RENDERINGS



PERSPECTIVE LOOKING SOUTHEAST FROM VALLEY VIEW DRIVE



JOINT VENTURE OF
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LUPE DEVELOPMENT
PARTNERS

**4040 WEST
70TH STREET
APARTMENTS, LP**

4040 WEST 70TH STREET, EDINA

CITY OF EDINA
PRELIMINARY REZONING
& DEVELOPMENT APPLICATION
APRIL 12, 2021





PERSPECTIVE LOOKING NORTH FROM W 70TH STREET



JOINT VENTURE OF
ECUMEN AND
LUPE DEVELOPMENT
PARTNERS

**4040 WEST
70TH STREET
APARTMENTS, LP**

4040 WEST 70TH STREET, EDINA

CITY OF EDINA
PRELIMINARY REZONING
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APRIL 12, 2021



JOINT VENTURE OF
ECUMEN AND
LUPE DEVELOPMENT
PARTNERS

**4040 WEST
70TH STREET
APARTMENTS, LP**

4040 WEST 70TH STREET, EDINA

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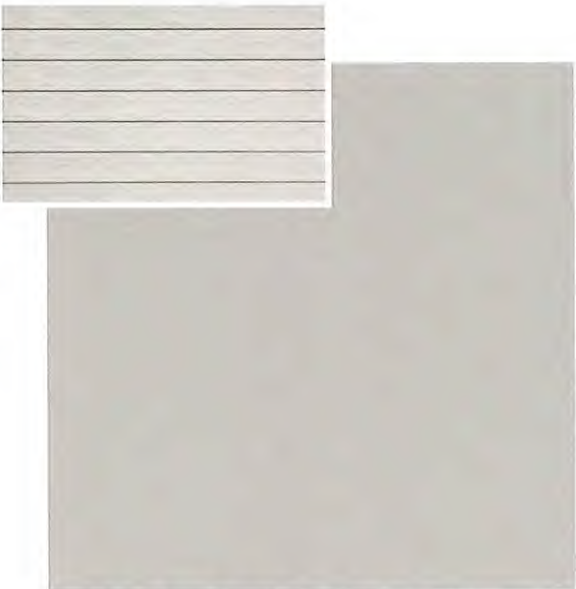
PLANNING DEPARTMENT



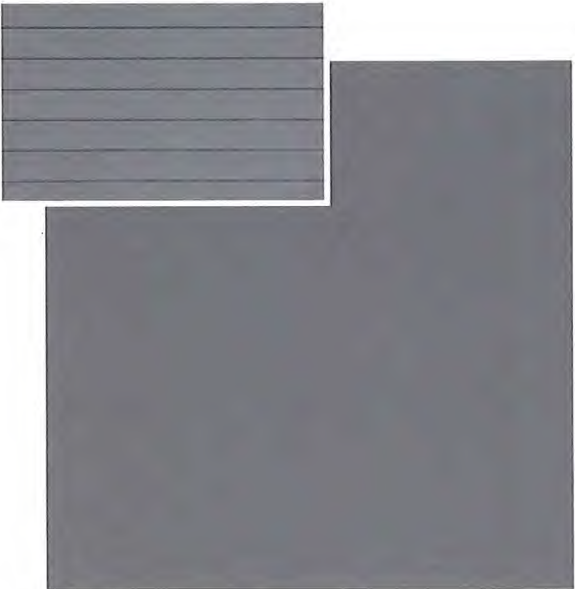
DARK GRAY POWDERCOATED
METAL PANEL



STACKED, LIGHT COLORED STONE



LIGHT WARM GRAY FIBER CEMENT
LAP SIDING (COLOR-1)



MID-GRAY/BLUE FIBER CEMENT
LAP SIDING (COLOR-2)



STOREFRONT, BLACK ANODIZED
ALUMINUM FRAMES



BLACK COMPOSITE WINDOWS
AND PATIO DOORS



SUNSHADE
POWDER COATED GRAY



METAL BALCONIES
STEEL, POWDER COATED

SITE DEVELOPMENT PLANS
FOR
EDINA MULTIFAMILY
SECTION 30, TOWNSHIP 28N, RANGE 24W
4040 70TH STREET WEST
EDINA, HENNEPIN COUNTY, MN

PROJECT TEAM:

ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.



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LUPE DEVELOPMENT PARTNERS



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ARCHITECT
POPE ARCHITECTS
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ST. PAUL, MN 55108
TELEPHONE: (651) 642-9200



VICINITY
N.T.S.

SITE

NOTES:

- CONTRACTOR SHALL CONFIRM THAT THE EXISTING CONDITIONS FOR THE SITE MATCH WHAT IS SHOWN ON THE DRAWINGS INCLUDED PRIOR TO CONSTRUCTION.
- IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A ARCH full bleed D (36.00 x 24.00 Inches) SHEET.
- ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICES COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
- ALL GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS.

Sheet List Table

Sheet Number	Sheet Title
C000	COVER SHEET
V100	ALTA SURVEY
C100	GENERAL NOTES
C200	DEMO PLAN
C300	TREE INVENTORY AND PRESERVATION PLAN
C400	SITE PLAN
C500	GRADING AND DRAINAGE PLAN
C600	UTILITY PLAN
L100	LANDSCAPE PLAN
L101	LANDSCAPE DETAILS

CITY OF EDINA

APR 12 2021

PLANNING DEPARTMENT

BENCHMARKS

SITE BENCHMARKS:
(LOCATIONS SHOWN ON SURVEY)

SBM #1 TOP OF MNDOT GEODETIC MONUMENT "2733 Q" GSID
STATION #95550
ELEVATION=874.82 (NAVD 88)

SBM #2 TOP NUT OF HYDRANT LOCATED ON THE SOUTH SIDE OF
70TH STREET WEST
ELEVATION=872.55 (NAVD 88)



Know what's below.
Call before you dig.

Kimley-Horn

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KHA PROJECT
180062001
DATE
04/12/2021
SCALE
AS SHOWN
DESIGNED BY
HKD
DRAWN BY
HKD
CHECKED BY
BMW

COVER SHEET

EDINA MULTIFAMILY
PREPARED FOR
LUPE DEVELOPMENT
PARTNERS
EDINA, MN

SHEET NUMBER
C000

PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE MN DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK, AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
3. THE EXISTING SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS QUALITY LEVEL "D" UNLESS OTHERWISE NOTED. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C1ACSE 3802, ENTITLED STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF SUBSURFACE QUALITY DATA BY THE FHA. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY 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 ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S 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 AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. IT IS THE CONTRACTOR'S 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 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND 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.
8. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER DIRECTLY FROM THE TESTING AGENCY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF MN PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
10. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
11. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
13. SHOULD CONTRACTOR ENCOUNTER ANY DEBRIS LADEN SOIL, STRUCTURES NOT IDENTIFIED IN THE DOCUMENTS, OR OTHER SOURCE OF POTENTIAL CONTAMINATION, THEY SHALL IMMEDIATELY CONTACT THE ENGINEER AND OWNER.

EROSION CONTROL MAINTENANCE

ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION AS REQUIRED BY ALL JURISDICTIONS UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A CERTIFIED PERSON AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.

1. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS REFER TO THE STANDARD SPECIFICATIONS.
2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
3. THE CONSTRUCTION ENTRANCE(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
5. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

TYPICAL OWNER/ENGINEER OBSERVATIONS

CONTRACTOR SHALL NOTIFY OWNER AND/OR ENGINEER 48 HOURS IN ADVANCE OF THE FOLLOWING ACTIVITIES:

- PRE-CONSTRUCTION MEETING, SUBGRADE PREPARATION, BASE INSTALLATION
- ASPHALT INSTALLATION, UNDERGROUND PIPING AND UTILITIES INSTALLATION,
- INSTALLATION OF STRUCTURES, CHECK VALVES, HYDRANTS, METERS, ETC., SIDEWALK
- INSTALLATION, CONNECTIONS TO WATER AND SEWER MAINS, TESTS OF UTILITIES

EROSION CONTROL NOTES

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THE EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN THE SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
4. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ON A PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR DISCHARGING SEDIMENT ONTO PUBLIC AREAS SHALL BE PAID BY THE CONTRACTOR.
5. TEMPORARY SEEDING OR OTHER APPROVED METHODS OF STABILIZATION SHALL BE INITIATED WITHIN 7 DAYS OF THE LAST DISTURBANCE ON ANY AREA OF THE SITE.
6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN SHALL BE INITIATED AS SOON AS IS PRACTICABLE.
13. ALL STAGING AREAS, STOCKPILES, SPOILS, ETC. SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY, OTHERWISE, COVERING OR ENCIRCLING THESE AREAS WITH SOME PROTECTIVE MEASURE WILL BE NECESSARY.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH THEY DISTURB. EACH CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES THAT MAY LEAD TO UNAUTHORIZED DISCHARGE, OR STORM WATER POLLUTION, SEDIMENTATION, OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE (BUT ARE NOT LIMITED TO) EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS, SOLVENTS, GREASES, FUEL AND LUBRICANT OIL, PESTICIDES, AND ANY SOLID WASTE MATERIALS.
15. EROSION CONTROL DEVICES SHOWN ON THESE PLANS SHALL BE INSTALLED PRIOR TO THE START OF LAND-DISTURBING ACTIVITIES ON THE PROJECT.
16. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. FOR THIS PROJECT, CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND THE CITY OF EDINA ENGINEERING DIVISION.
17. IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT, THE EROSION CONTROL PLAN WILL HAVE TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE. ANY REVISIONS TO THE EROSION CONTROL PLAN MADE BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER.

PAVING AND STRIPING NOTES

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTIONS RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR MNDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
2. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND CITY STANDARDS.
3. CONTRACTOR SHALL FURNISH ALL PAVEMENT MARKINGS FOR FIRE LANES, ROADWAY LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, ACCESS AISLES, STOP BARS AND SIGNS, AND MISCELLANEOUS STRIPING WITHIN THE PARKING LOT AS SHOWN ON THE PLANS.
4. ALL EXPANSION JOINTS SHALL EXTEND THROUGH THE CURB.
5. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
6. ALL JOINTS, INCLUDING EXPANSION JOINTS WITH REMOVABLE TACK STRIPS, SHALL BE SEALED WITH JOINT SEALANT.
7. THE MATERIALS AND PROPERTIES OF ALL CONCRETE SHALL MEET THE APPLICABLE REQUIREMENTS IN THE A.C.I. (AMERICAN CONCRETE INSTITUTE) MANUAL OF CONCRETE PRACTICE.
8. CONTRACTOR SHALL APPLY A SECOND COATING OVER ALL PAVEMENT MARKINGS PRIOR TO ACCEPTANCE BY OWNER FOLLOWED BY A COAT OF GLASS BEADS AS APPLICABLE PER THE PROJECT DOCUMENTS.
9. ANY EXISTING PAVEMENT, CURBS AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER AND OWNER.
10. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY SUITABLE ACCESSIBLE ROUTES (PER A.D.A.) GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2%, IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%, IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A D.A COMPLIANCE ISSUES.
11. MAXIMUM JOINT SPACING IS TWICE THE DEPTH OF THE CONCRETE PAVEMENT IN FEET.

GRADING AND DRAINAGE NOTES

1. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL ADJUST BMP'S AS NECESSARY AND REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
3. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS SO THAT SURFACE RUNOFF WILL DRAIN BY GRAVITY TO NEW OR EXISTING DRAINAGE OUTLETS. CONTRACTOR SHALL ENSURE NO PONDING OCCURS IN PAVED AREAS AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
4. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION. EXISTING CASTINGS AND STRUCTURES TO REMAIN SHALL BE ADJUSTED TO MATCH THE PROPOSED FINISHED GRADES.
5. BACKFILL FOR UTILITY LINES SHALL BE PLACED PER DETAILS, STANDARDS, AND SPECIFICATIONS SO THAT THE UTILITY WILL BE STABLE. WHERE UTILITY LINES CROSS THE PARKING LOT, THE TOP 6 INCHES SHALL BE COMPACTED SIMILARLY TO THE REMAINDER OF THE LOT. UTILITY DITCHES SHALL BE VISUALLY INSPECTED DURING THE EXCAVATION PROCESS TO ENSURE THAT UNDESIRABLE FILL IS NOT USED.
6. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF 4" OF TOPSOIL AT COMPLETION OF WORK. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.
7. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORM RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
8. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT FULL DEPTH FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
9. THE CONTRACTOR SHALL INSTALL PROTECTION OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
11. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO MNDOT STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
12. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
14. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
15. THE CONTRACTOR SHALL ENSURE THAT LANDSCAPE ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
16. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS AND MNDOT SPECIFICATION.
17. ALL CONCRETE/ASPHALT SHALL BE INSTALLED PER GEOTECH REPORT, CITY OF EDINA AND MNDOT SPECIFICATIONS.
18. SPOT ELEVATIONS ARE TO FLOWLINE OF CURB UNLESS OTHERWISE NOTED.
19. LIMITS OF CONSTRUCTION ARE TO THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED ON THE PLAN.
20. IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS.
21. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION WITHOUT COMPENSATION.
22. BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
23. ALL PROPOSED GRADES ONSITE SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE INDICATED ON THE PLANS. ANY SLOPES STEEPER THAN 4:1 REQUIRE EROSION AND SEDIMENT CONTROL BLANKET.
24. ADHERE TO ALL TERMS AND CONDITIONS AS NECESSARY IN THE GENERAL N.P.D.E.S. PERMIT AND STORMWATER POLLUTION PREVENTION PLAN FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
25. ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
26. CONTRACTOR SHALL ENSURE MINIMUM GRADES ARE MET WITHIN PAVED AREAS, 1.2% FOR ASPHALT PAVING AND 0.6% FOR CONCRETE PAVING.

3RD PARTY TEST REPORTS REQ'D

TEST REPORTS REQUIRED FOR CLOSE OUT INCLUDE, BUT ARE NOT LIMITED TO:

- DENSITY TEST REPORTS
- BACTERIOLOGICAL TESTS OF WATER SYSTEM
- PRESSURE TEST OF WATER/SEWER
- LEAK TESTS ON SEWER SYSTEM AND GREASE TRAPS
- ANY OTHER TESTING REQUIRED BY THE AGENCY/MUNICIPALITY

WATER STORM SEWER & SANITARY SEWER NOTES

1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, MANHOLES, GRAVITY SEWER LINES, AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.
3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
5. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. WATER FOR FIRE FIGHTING SHALL BE MADE AVAILABLE FOR USE BY THE CONTRACTOR PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
8. UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF MN PROFESSIONAL LAND SURVEYOR PRIOR TO BACK FILLING.
9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.
10. CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF 10' AND A VERTICAL CLEARANCE OF 18" BETWEEN WATER AND SANITARY SEWER MANHOLES AND LINES.
11. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
12. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT UNLESS OTHERWISE STATED BY CITY AND STATE DESIGN STANDARDS AND SPECIFICATIONS.
13. UNLESS OTHERWISE STATED IN CITY AND STATE DESIGN STANDARDS AND SPECIFICATIONS, ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER". EXISTING CASTINGS AND STRUCTURES WITHIN PROJECT LIMITS SHALL BE ADJUSTED TO MEET THESE CONDITIONS AND THE PROPOSED FINISHED GRADE.
14. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
16. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR FROM INVERT IN TO INVERT OUT.
17. ROOF DRAINS SHALL BE CONNECTED TO STORM SEWER BY PREFABRICATED WYES OR AT STORM STRUCTURES. ROOF DRAINS AND TRUCK WELL DRAIN SHALL RUN AT A MINIMUM 1% SLOPE, UNLESS NOTED OTHERWISE, AND TIE IN AT THE CENTERLINE OF THE STORM MAIN.
18. ALL ROOF AND SANITARY SEWER DRAINS SHALL BE INSULATED IF 7" OF COVER CANNOT BE PROVIDED.
19. THE CONTRACTOR SHALL PROTECT EXISTING UNDERGROUND UTILITIES AND APPURTENANCES THAT ARE TO REMAIN FROM DAMAGE DURING CONSTRUCTION OPERATIONS.
20. THE LOCATION OF EXISTING UTILITIES, STORM DRAINAGE STRUCTURES AND OTHER ABOVE AND BELOW-GRADE IMPROVEMENTS ARE APPROXIMATE AS SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE AND INVERT ELEVATIONS OF EACH PRIOR TO THE START OF CONSTRUCTION.
21. A MINIMUM OF 5' SEPARATION IS REQUIRED BETWEEN UTILITIES AND TREES UNLESS A ROOT BARRIER IS UTILIZED.
22. GAS, PHONE AND ELECTRIC SERVICES SHOWN FOR INFORMATIONAL PURPOSES ONLY. DRY UTILITY COMPANIES MAY ALTER THE DESIGN LAYOUT DURING THEIR REVIEW. CONTRACTOR TO COORDINATE FINAL DESIGN AND INSTALLATION WITH UTILITY COMPANIES.
23. COORDINATE UTILITY INSTALLATION WITH IRRIGATION DESIGN AND INSTALLATION.
24. ALL DIMENSIONS ARE TO FLOW LINE OF CURB UNLESS OTHERWISE NOTED. PERIMETER WALL DIMENSIONS ARE TO INSIDE WALL FACE. REFERENCE ARCHITECTURAL PLANS FOR EXACT WALL WIDTH AND SPECIFICATIONS.
25. REFERENCE ARCHITECTURAL PLANS (BY OTHERS) FOR EXACT BUILDING DIMENSIONS, AND MATERIALS SPECIFICATIONS.
26. REFERENCE M.E.P. PLANS (BY OTHERS) FOR MECHANICAL EQUIPMENT DIMENSIONS AND SPECIFICATIONS.
27. CONTRACTOR SHALL REFERENCE STRUCTURAL PLANS (BY OTHERS) FOR MECHANICAL EQUIPMENT DIMENSIONS AND PAD PREPARATION SPECIFICATIONS.
28. CONTRACTOR SHALL REFERENCE M.E.P. PLANS (BY OTHERS) FOR LIGHT POLE WRING.

REFER TO GEOTECHNICAL REPORT NO. B2100387
BRAUN INTERTEC CORPORATION
1101 HAMPSHIRE AVENUE S
MINNEAPOLIS, MN 55438
DATED 4/02/2021

CITY OF EDINA

APR 12 2021

PLANNING DEPARTMENT

PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY

PREPARED FOR

LUPE DEVELOPMENT

PARTNERS

EDINA

MN

SHEET NUMBER

C100

LEGEND: CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

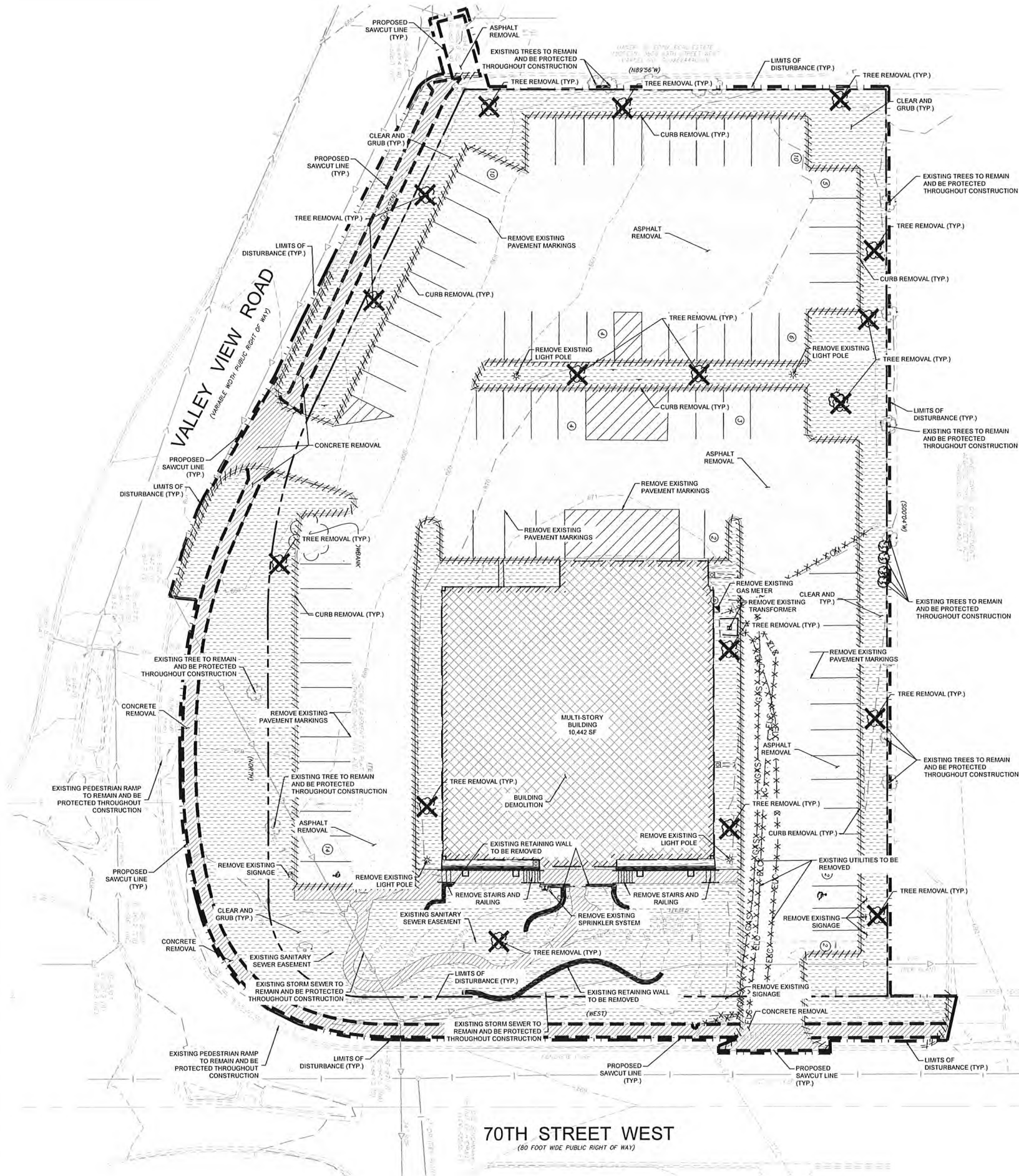
BRIAN M. WURDEMAN
DATE: 04/12/2021
LIC. NO. 53113

Kimley»Horn

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PHONE: 651-645-4197
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NO.	REVISIONS	DATE	BY

K:\TWC_LDEVELOPE DEVELOPMENT\Edina Multifamily\3 Design\CAD\PlanSheets\C2-DEMO PLAN.dwg April 12, 2021 - 10:07am



DEMOLITION PLAN NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC. SUCH THAT THE IMPROVEMENTS ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE PROJECT DOCUMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. CONTRACTOR SHALL PROVIDE COPIES OF THE PERMIT AND RECEIPTS OF DISPOSAL OF MATERIALS TO THE OWNER AND OWNERS REPRESENTATIVE.
3. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO ADJACENT PROPERTIES AT ALL TIMES. UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE CONSTRUCTION MANAGER AND COORDINATION WITH THE ADJACENT PROPERTIES AND/OR THE CITY.
4. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
5. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE 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 LOCATIONS OF EXISTING UTILITIES WITHIN ALL AREAS OF PROPOSED WORK.
6. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS ANY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
7. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT-OF-WAY DURING CONSTRUCTION.
8. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC. (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY THE CONSTRUCTION MANAGER. MAINTENANCE OF TRAFFIC CONTROL SHALL BE COORDINATED IN ACCORDANCE WITH EDINA, <COUNTY> COUNTY AND MNDOT.
9. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES DURING CONSTRUCTION, AND SHALL NOTIFY ALL PROPERTIES IF ACCESS WILL BE INTERRUPTED OR ALTERED AT ANY TIME DURING CONSTRUCTION.
10. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
11. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
12. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPT. AND THE CITY WATER DEPARTMENT TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH THE CITY OF EDINA DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
13. REFER TO SURVEY FOR ALL EXISTING INVERT AND RIM ELEVATIONS.
14. ALL UTILITIES SHOWN ARE EXISTING UTILITIES.
15. IN THE EVENT A WELL IS FOUND, THE CONTRACTOR SHALL CONTACT THE ENGINEER AND OWNER IMMEDIATELY. ALL WELLS SHALL BE SEALED BY A LICENSED WELL CONTRACTOR IN ACCORDANCE WITH ALL STATE OF MN REQUIREMENTS.
16. IN THE EVENT THAT UNKNOWN CONTAINERS OR TANKS ARE ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE OWNER AND/OR OWNERS REPRESENTATIVE IMMEDIATELY. ALL CONTAINERS SHALL BE DISPOSED OF AT A PERMITTED LANDFILL PER THE PROJECT DOCUMENTS.
17. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY EXISTING DRAINILE IS ENCOUNTERED ON SITE. NO ACTIVE DRAINILE SHALL BE REMOVED WITHOUT APPROVAL FROM THE ENGINEER.

LEGEND

	PROPERTY LINE
	REMOVE BITUMINOUS SURFACE
	REMOVE CONCRETE SURFACE
	REMOVE BUILDING
	CLEARING & GRUBBING
	FULL DEPTH SAWCUT
	REMOVE TREE
	REMOVE CONCRETE CURB & GUTTER
	REMOVE UTILITY LINES
	FILL & ABANDON UTILITY LINES
	LIMITS OF CONSTRUCTION
	EXISTING OVERHEAD POWER LINE
	EXISTING CHAINLINK FENCE
	EXISTING J-BARRIER
	EXISTING RETAINING WALL
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATERMAIN
	EXISTING GAS MAIN
	EXISTING UNDERGROUND TELEPHONE
	EXISTING UNDERGROUND CABLE
	EXISTING CONTOUR
	EXISTING CURB & GUTTER
	EXISTING SIGN
	EXISTING FLARED END SECTION
	EXISTING STORM MANHOLE
	EXISTING STORM CATCHBASIN
	EXISTING GAS METER
	EXISTING POST INDICATOR VALVE
	EXISTING VELL
	EXISTING AUTOMATIC SPRINKLER
	EXISTING ROOF DRAIN
	EXISTING GATE VALVE
	EXISTING HYDRANT
	EXISTING METAL COVER
	EXISTING ELECTRICAL METER
	EXISTING AIR CONDITIONER
	EXISTING TELEPHONE MANHOLE
	EXISTING CABLE BOX
	EXISTING GUY WIRE
	EXISTING POWER POLE
	EXISTING LIGHT POLE
	EXISTING TREE
	EXISTING TREE LINE



PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY		PREPARED FOR		LUPE DEVELOPMENT		PARTNERS		EDINA	SHEET NUMBER		C200	
									MIN			
KHA PROJECT		16062001		DATE		04/12/2021		SCALE		AS SHOWN		
DESIGNED BY		HKD		DRAWN BY		HKD		CHECKED BY		BMW		
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.									BRIAN M. WURDEMAN			
DATE:									04/12/2021		MN L.C. NO. 53113	
Kimley»»»Horn												
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No.												
REVISIONS												
DATE												
BY												

Kimley»Horn

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PHONE: 651-645-4197
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LEGEND

PROPERTY LINE

REMOVE BITUMINOUS SURFACE

REMOVE CONCRETE SURFACE

REMOVE BUILDING

CLEARING & GRUBBING

FULL DEPTH SAWCUT

REMOVE TREE

REMOVE CONCRETE CURB & GUTTER

REMOVE UTILITY LINES

FILL & ABANDON UTILITY LINES

LIMITS OF CONSTRUCTION

EXISTING OVERHEAD POWER LINE

EXISTING CHAINLINK FENCE

EXISTING J-BARRIER

EXISTING RETAINING WALL

EXISTING SANITARY SEWER

EXISTING STORM SEWER

EXISTING WATERMAIN

EXISTING GAS MAIN

EXISTING UNDERGROUND TELEPHONE

EXISTING UNDERGROUND CABLE

EXISTING CONTOUR

EXISTING CURB & GUTTER

EXISTING SIGN

EXISTING FLARED END SECTION

EXISTING STORM MANHOLE

EXISTING STORM CATCHBASIN

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EXISTING ROOF DRAIN

EXISTING GATE VALVE

EXISTING HYDRANT

EXISTING METAL COVER

EXISTING ELECTRICAL METER

EXISTING AIR CONDITIONER

EXISTING TELEPHONE MANHOLE

EXISTING CABLE BOX

EXISTING GUY WIRE

EXISTING POWER POLE

EXISTING LIGHT POLE

EXISTING TREE

EXISTING TREE LINE

DEMO PLAN

CITY OF EDINA

APR 12 2021

PLANNING DEPARTMENT

EDINA MULTIFAMILY

PREPARED FOR

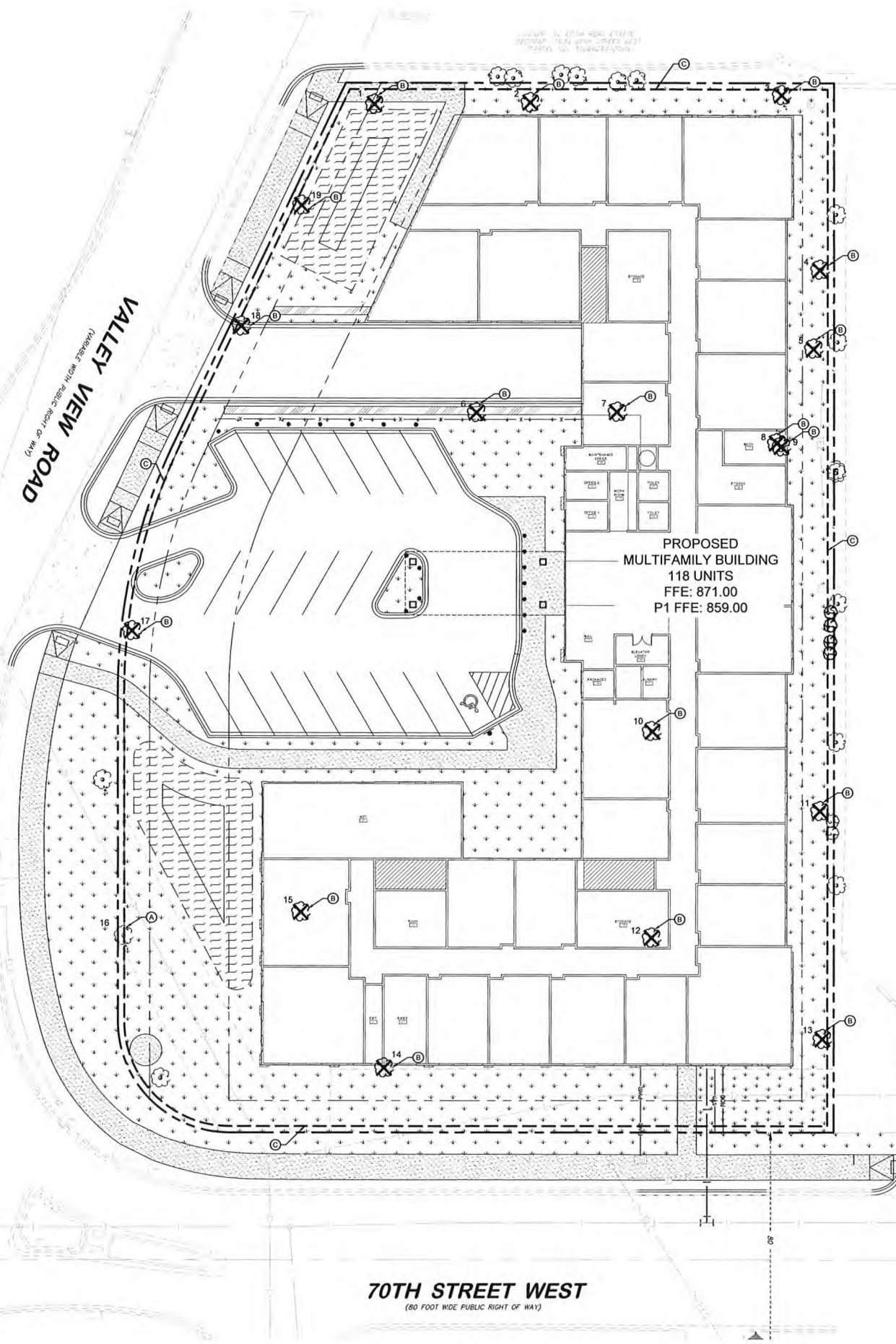
LUPE DEVELOPMENT

PARTNERS

EDINA

SHEET NUMBER

C200



LEGEND

---	PROPERTY LINE
⊗	TREE TO REMAIN
⊗	TREE TO BE REMOVED
---	EXISTING VEGETATION EDGE
---	LIMITS OF CONSTRUCTION
---	TREE PROTECTION FENCE

TREE MITIGATION DATA

PROTECTED TREE REMOVAL:	18 TREES
PROTECTED TREE MITIGATION REQUIRED:	2 TREES

*PROTECTED TREES MAY BE REMOVED WITHOUT MITIGATION WITHIN 10 FOOT RADIUS OF BUILDING PAD, DECK OR PATIO OF A NEW OR REMODELED BUILDING, WITHIN 5 FOOT RADIUS OF DRIVEWAYS AND PARKING AREAS, WITHIN 10 FOOT RADIUS OF INSTALLATION OF PUBLIC INFRASTRUCTURE IMPROVEMENTS.

*PROTECTED TREES MUST BE REPLACED WITH ONE TREE OF SIMILAR SPECIES.

TREE PROTECTION NOTES

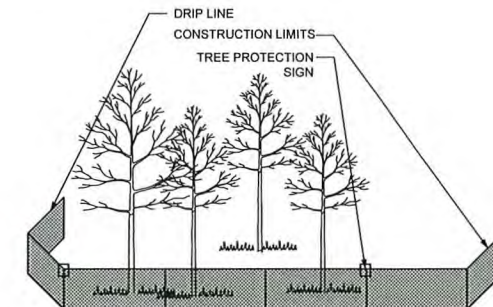
1. PRUNING WILL BE DONE BY PROFESSIONALS DURING APPROPRIATE PRUNING SEASON.
2. NO STORAGE OF MATERIALS, OPERATION OF MACHINERY, OR DEVELOPMENT OF ANY SORT WILL OCCUR WITHIN THE FENCE-LINE WITHOUT APPROVAL IN WRITING FROM CITY.
3. SITE GRADING TO BE DONE ONLY AFTER PROTECTIVE MEASURES HAVE BEEN TAKEN, CITY HAS APPROVED FENCING LOCATIONS, AND ALL CONTRACTORS HAVE BEEN BRIEFED ON TREE PRESERVATION TECHNIQUES.
4. EXISTING TREES TO REMAIN OR REMOVED TO BE CLEARLY IDENTIFIED, WITHIN DISTURBANCE LIMITS AND 10' OUTSIDE OF THE DISTURBANCE LIMITS.
5. TREE PRESERVATION TO BE APPROVED BY OWNER AND PER LOCAL GOVERNMENTAL AUTHORITY.

KEYNOTE LEGEND

- (A) EXISTING TREE TO BE SAVED (TYP.)
- (B) EXISTING TREE TO BE REMOVED (TYP.)
- (C) LIMITS OF CONSTRUCTION (TYP.)
- (D) TREE PROTECTION FENCE (SEE DETAIL) (TYP.)

TAG #	SPECIES	CAL IN. / HT.	STATUS	REQUIRES REPLACEMENT
1	DECIDUOUS	18 IN.	REMOVED	YES
2	DECIDUOUS	8 IN.	REMOVED	NO
3	DECIDUOUS	24 IN.	REMOVED	NO
4	DECIDUOUS	12 IN.	REMOVED	NO
5	DECIDUOUS	10 IN.	REMOVED	NO
6	DECIDUOUS	14 IN.	REMOVED	NO
7	DECIDUOUS	14 IN.	REMOVED	NO
8	DECIDUOUS	24 IN.	REMOVED	NO
9	DECIDUOUS	24 IN.	REMOVED	NO
10	DECIDUOUS	15 IN.	REMOVED	NO
11	DECIDUOUS	18 IN.	REMOVED	NO
12	DECIDUOUS	15 IN.	REMOVED	NO
13	DECIDUOUS	15 IN.	REMOVED	NO
14	DECIDUOUS	24 IN.	REMOVED	NO
15	DECIDUOUS	15 IN.	REMOVED	NO
16	DECIDUOUS	24 IN.	SAVED	NO
17	DECIDUOUS	20 IN.	REMOVED	NO
18	DECIDUOUS	14 IN.	REMOVED	NO
19	DECIDUOUS	15 IN.	REMOVED	YES

NOTE: ONLY SIGNIFICANT TREES IN THE SUBJECT PROPERTY SHOWN ON PLAN/ INVENTORY.



FURNISH AND INSTALL TEMPORARY FENCE AT THE TREE'S DRIPLINE OR CONSTRUCTION LIMITS AS SPECIFIED, PRIOR TO ANY CONSTRUCTION. WHEN POSSIBLE PLACE FENCE 25 FEET BEYOND THE DRIP LINE. PLACE PROTECTION SIGNS ALONG FENCE AT 20' INTERVALS.

1 TEMPORARY TREE PROTECTION FENCE PLACEMENT

SCALE: N.T.S.

C300

CITY OF EDINA

APR 12 2021

PLANNING DEPARTMENT

PRELIMINARY - NOT FOR CONSTRUCTION

TREE INVENTORY AND PRESERVATION PLAN

EDINA MULTIFAMILY
PREPARED FOR
LUPE DEVELOPMENT
PARTNERS

SHEET NUMBER

C300

DESIGNED BY: J. L. HORN
CHECKED BY: J. L. HORN
DATE: 04/12/2021
SCALE: AS SHOWN
DRAWN BY: PWB
CHECKED BY: MGC

Kimley-Horn

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PHONE: 651-645-4197
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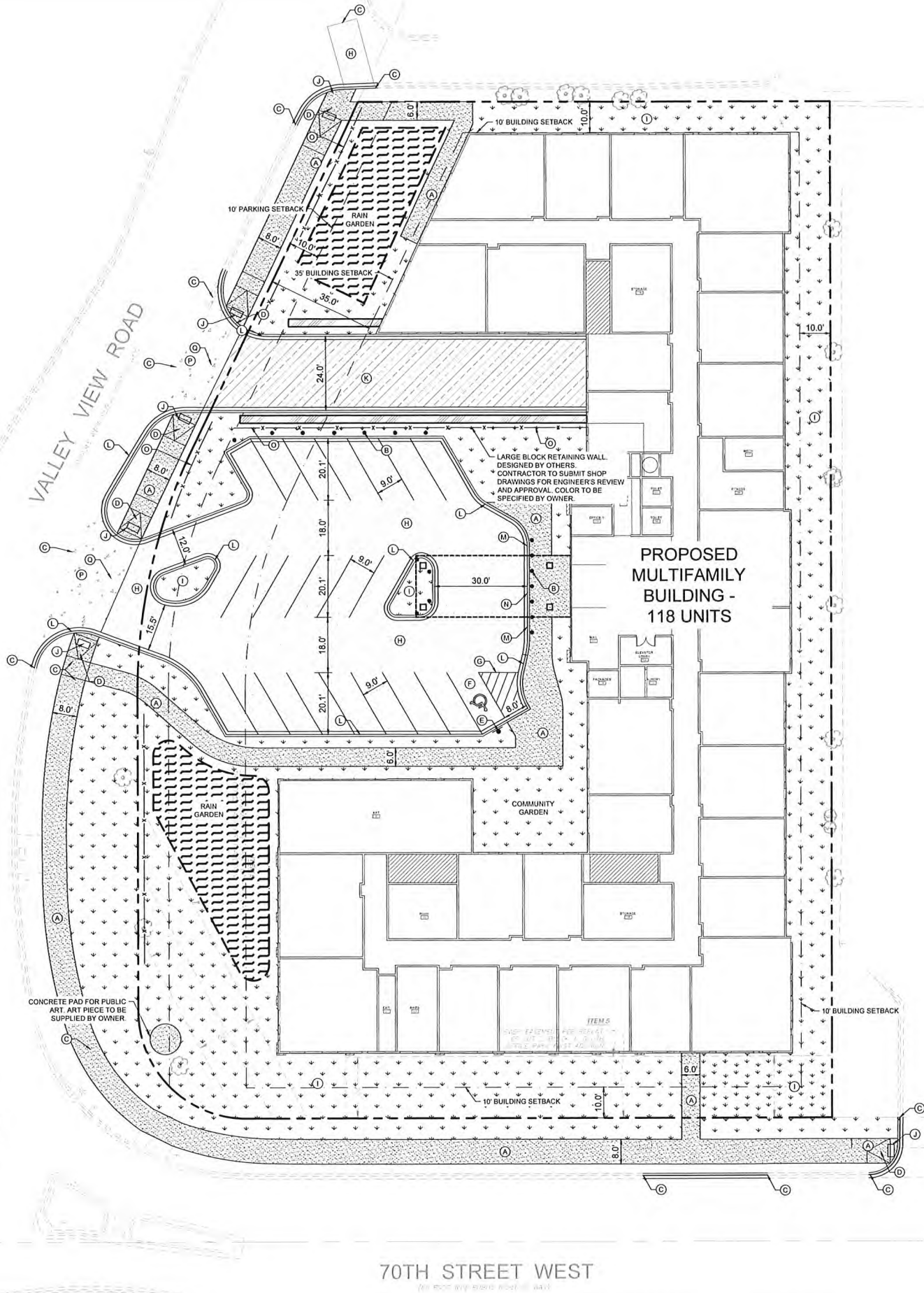
MITCHELL G. COOKAS, P.L.A.
MICHIGAN
DATE: 04/12/2021
LIC. NO. 58522

No.

REVISIONS

DATE

BY



KEYNOTE LEGEND

- (A) CONCRETE SIDEWALK
- (B) 6" CONCRETE FILLED PIPE BOLLARD
- (C) MATCH EXISTING EDGE OF PAVEMENT/ CURB & GUTTER
- (D) ACCESSIBLE CURB RAMP
- (E) ACCESSIBLE PARKING SIGN
- (F) ACCESSIBLE PARKING
- (G) AREA STRIPED WITH 4" SYSL @ 45° 2' O.C.
- (H) STANDARD DUTY ASPHALT PAVEMENT
- (I) LANDSCAPE AREA - SEE LANDSCAPE PLANS
- (J) TRUNCATED DOME RAMP
- (K) HEAVY DUTY ASPHALT PAVEMENT
- (L) B612 CURB & GUTTER (TYP.)
- (M) TRANSITION CURB
- (N) FLAT CURB
- (O) 4" ALUMINUM PICKET FENCE
- (P) CONCRETE PAVEMENT
- (Q) PEDESTRIAN CROSSWALK

LEGEND

- PROPERTY LINE
- - - - - PROPOSED FENCE
- - - - - SETBACK LINE
- ===== RETAINING WALL
- ===== PROPOSED CURB AND GUTTER
- ===== PROPOSED HEAVY DUTY ASPHALT
- ===== PROPOSED STANDARD DUTY ASPHALT
- ===== PROPOSED CONCRETE PAVEMENT
- ===== PROPOSED STORMWATER MANAGEMENT AREA
- ===== PROPOSED CONCRETE SIDEWALK

PROPERTY SUMMARY

EDINA MULTIFAMILY	
TOTAL PROPERTY AREA	68,634 SF (1.57 AC)
PROPOSED IMPERVIOUS AREA	50,836 SF (1.16 AC)
PROPOSED PERVIOUS AREA	17,798 SF (0.41 AC)
TOTAL DISTURBED AREA	68,634 SF (1.57 AC)

ZONING SUMMARY

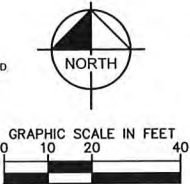
EXISTING ZONING	PCD-3 (PLANNED COMMERCIAL)
PROPOSED ZONING	PUD (PLANNED UNIT DEVELOPMENT)
PARKING SETBACKS	ROAD = 10'
BUILDING SETBACKS	FRONT = 35' SIDE = 10' REAR = 10'

BUILDING DATA SUMMARY

AREAS	
PROPOSED PROPERTY	68,634 SF (1.57 AC)
BUILDING AREA	31,446 SF (45.8% OF TOTAL PROPERTY AREA)
PARKING	
REQUIRED PARKING	1 SPACE/4 RESIDENTS BASED ON MAXIMUM CAPACITY OF THE BUILDING, PLUS ONE SPACE/EMPLOYEE ON THE MAJOR SHIFT, PLUS ONE SPACE PER VEHICLE OWNED BY THE BUILDING'S MANAGEMENT
PROPOSED SURFACE PARKING	24 STALLS
PROPOSED UNDERGROUND PARKING	86 STALLS
SURFACE ADA STALLS REQ'D / PROVIDED	1 STALLS / 1 STALLS
UNDERGROUND ADA STALLS REQ'D / PROVIDED	4 STALLS / 4 STALLS

SITE PLAN NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- ALL INNER CURBED RADII ARE TO BE 3' AND OUTER CURBED RADII ARE TO BE 10' UNLESS OTHERWISE NOTED. STRIPED RADII ARE TO BE 5'.
- ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS AND PROJECT SITE WORK SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
- SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY EGAN, FIELD & NOWAK, INC., DATED 02/02/2021.
- KIMLEY-HORN ASSUMES NO LIABILITY FOR ANY ERRORS, INACCURACIES, OR OMISSIONS CONTAINED THEREIN.
- TOTAL LAND AREA IS 1.57 ACRES.
- PLYON / MONUMENT SIGNS SHALL BE CONSTRUCTED BY OTHERS. SIGNS ARE SHOWN FOR GRAPHICAL & INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY SIZE, LOCATION AND ANY REQUIRED PERMITS NECESSARY FOR THE CONSTRUCTION OF THE PLYON / MONUMENT SIGN.
- CONTRACTOR SHALL REFERENCE ARCH / MEP PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.
- NO PROPOSED LANDSCAPING SUCH AS TREES OR SHRUBS, ABOVE AND UNDERGROUND STRUCTURES, OR OTHER OBSTRUCTIONS SHALL BE LOCATED WITHIN EXISTING OR PROPOSED UTILITY EASEMENTS AND RIGHTS OF WAY UNLESS SPECIFICALLY NOTED ON PLANS OTHERWISE.
- REFERENCE ARCHITECTURAL PLANS FOR DUMPSTER ENCLOSURE DETAILS.
- REFER TO FINAL PLAT OR ALTA SURVEY FOR EXACT LOT AND PROPERTY BOUNDARY DIMENSIONS.
- ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
- ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.
- ALL PARKING STALLS TO BE 9' IN WIDTH AND 18' IN LENGTH UNLESS OTHERWISE INDICATED.
- THERE ARE <X.XX> ACRES OF WETLAND IMPACTS.
- FOR OFFSITE IMPROVEMENTS, SEE THE <OFFSITE PLANS> IMPROVEMENTS PLANS.



PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY
PREPARED FOR
LUPE DEVELOPMENT
PARTNERS

SITE PLAN

THESEY CERTIFY THAT THIS PLAN
ME OR UNDER MY DIRECT SUPERVISION AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF
MINNESOTA.

DATE: 04/12/2021
SCALE: AS SHOWN
DESIGNED BY: BMW
DRAWN BY: RAV
CHECKED BY: BMW

BRIAN M. WURDEMAN
DATE: 04/12/2021
LIC. NO. 53113

MINN.

EDINA

SHEET NUMBER

C400

REVISIONS

DATE

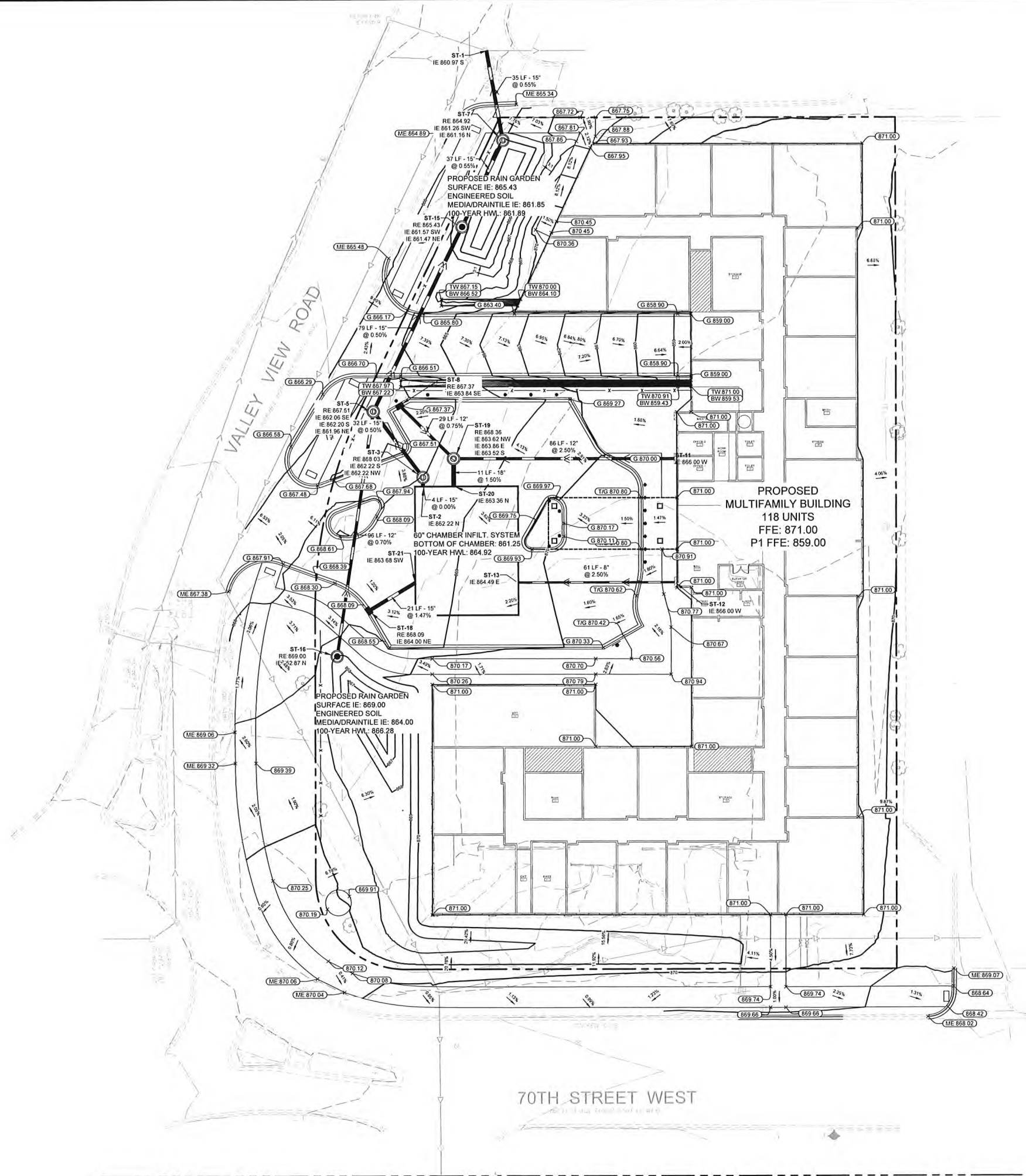
BY

No.

Kimley-Horn

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767 EUSTIS AVE., SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

K:\TWC_LDEVELOPE DEVELOPMENT\Edina Multifamily\3 Design\CAD\PlanSheets\CS-GRADING PLAN.dwg April 12, 2021 - 10:07am



LEGEND

---	PROPERTY LINE
- - -	EXISTING CONTOUR
- - -	PROPOSED CONTOUR
⊙	PROPOSED STORM MANHOLE (SOLID CASTING)
⊙	PROPOSED STORM MANHOLE (ROUND INLET CASTING)
⊙	PROPOSED STORM MANHOLE/ CATCH BASIN (CURB INLET CASTING)
⊙	PROPOSED STORM SEWER CLENOUT
⊙	PROPOSED FLARED END SECTION
⊙	PROPOSED RIPRAP
⊙	PROPOSED STORM SEWER
⊙	PROPOSED STORM SEWER
⊙	PROPOSED SPOT ELEVATION
⊙	PROPOSED HIGH POINT ELEVATION
⊙	PROPOSED LOW POINT ELEVATION
⊙	PROPOSED GUTTER ELEVATION
⊙	PROPOSED TOP OF CURB ELEVATION
⊙	PROPOSED FLUSH PAVEMENT ELEVATION
⊙	MATCH EXISTING ELEVATION
⊙	PROPOSED EMERGENCY OVERFLOW
⊙	PROPOSED DRAINAGE DIRECTION
⊙	PROPOSED ADA SLOPE

- GRADING PLAN NOTES**
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF EDINA SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
 - CONTRACTOR TO CALL Gopher State Call One @ 1-800-253-1166 AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
 - STORM SEWER PIPE SHALL BE AS FOLLOWS:
RCP PER ASTM C-76
HDPE 12" OR GREATER PER ASTM F-2306
PVC SCH 40 PER ASTM D-1785
STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
RCP PER ASTM C-361, C-390, AND C-443
HDPE PER ASTM 3212
PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
 - CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
 - SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT. THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING PAVEMENT.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
 - CONTRACTOR SHALL EXCAVATE DRAINAGE TRENCHES TO FOLLOW PROPOSED STORM SEWER ALIGNMENTS.
 - GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION AND LEAVE STREET READY FOR SUBBASE.
 - ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
 - REFER TO THE UTILITY PLAN FOR SANITARY SEWER MAIN, WATER MAIN SERVICE LAYOUT AND ELEVATIONS AND CASTING / STRUCTURE NOTATION.
 - CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM SLOPES TO PROVIDE POSITIVE DRAINAGE.
 - INSTALL A MINIMUM OF 4" CLASS 5+ AGGREGATE BASE UNDER CURB AND GUTTER AND CONCRETE SIDEWALKS.
 - UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF 4" OF TOPSOIL.
 - ALL SPOT ELEVATIONS/CONTOURS ARE TO GUTTER / FLOW LINE UNLESS OTHERWISE NOTED.
 - GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1" VERTICAL TO 12" HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2%. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A D A COMPLIANCE ISSUES.
 - MAINTAIN A MINIMUM OF 0.5% GUTTER SLOPE TOWARDS LOW POINTS.
 - CONTRACTOR TO PROVIDE 3" INSULATION BY 5" WIDE CENTERED ON STORM PIPE IF LESS THAN 4" OF COVER IN PAVEMENT AREAS AND LESS THAN 3" OF COVER IN LANDSCAPE AREAS.
 - ROOF DRAIN INVERT CONNECTIONS AT THE BUILDING SHALL BE AT ELEVATION -XXX.XX- OR LOWER UNLESS NOTED OTHERWISE. REFERENCE MEP PLANS FOR ROOF DRAIN CONNECTION.
 - ALL STORM SEWER CONNECTIONS SHALL BE GASKETED AND WATER TIGHT INCLUDING MANHOLE CONNECTIONS.
 - ALL STORM SEWER PIPE SHALL BE AIR TESTED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
 - MAINTAIN A MINIMUM OF 1.25% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.
 - CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "INFALL CURB" WHERE PAVEMENT DRAINS TOWARD GUTTER, AND "OUTFALL" CURB WHERE PAVEMENT DRAINS AWAY FROM GUTTER.

CITY OF EDINA
APR 12 2021
PLANNING DEPARTMENT

NORTH

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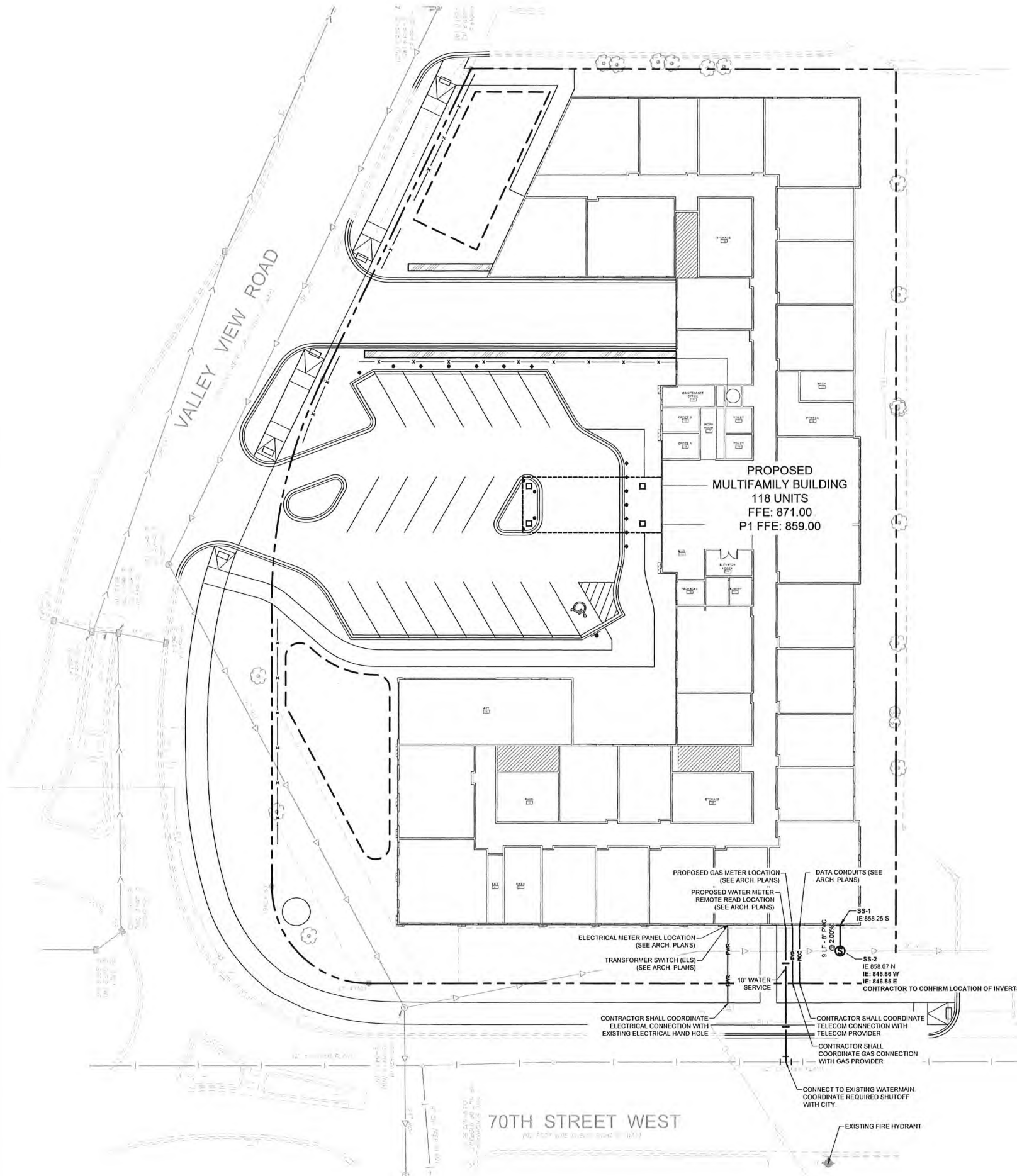
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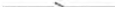
KHA PROJECT 160062001 DATE 04/12/2021 SCALE AS SHOWN DESIGNED BY DSS DRAWN BY DSS CHECKED BY BMW	LEGEND PROPERTY LINE EXISTING CONTOUR PROPOSED CONTOUR PROPOSED STORM MANHOLE (SOLID CASTING) PROPOSED STORM MANHOLE (ROUND INLET CASTING) PROPOSED STORM MANHOLE/ CATCH BASIN (CURB INLET CASTING) PROPOSED STORM SEWER CLENOUT PROPOSED FLARED END SECTION PROPOSED RIPRAP PROPOSED STORM SEWER PROPOSED STORM SEWER PROPOSED SPOT ELEVATION PROPOSED HIGH POINT ELEVATION PROPOSED LOW POINT ELEVATION PROPOSED GUTTER ELEVATION PROPOSED TOP OF CURB ELEVATION PROPOSED FLUSH PAVEMENT ELEVATION MATCH EXISTING ELEVATION PROPOSED EMERGENCY OVERFLOW PROPOSED DRAINAGE DIRECTION PROPOSED ADA SLOPE	KIMLEY-HORN AND ASSOCIATES, INC. 767 EUSTIS AVE., SUITE 100, ST. PAUL, MN 55114 PHONE: 651-645-4197 WWW.KIMLEY-HORN.COM	BRIAN M. WURDEMAN DATE: 04/12/2021 LIC. NO. 53113	NO.	REVISIONS	DATE	BY

GRADING AND DRAINAGE PLAN

EDINA MULTIFAMILY
PREPARED FOR
LUPE DEVELOPMENT
PARTNERS
EDINA MN

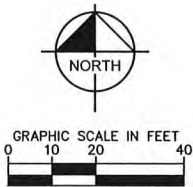
SHEET NUMBER
C500



LEGEND		
EXISTING	PROPOSED	
		GATE VALVE
		HYDRANT
		REDUCER
		TEE
		SANITARY SEWER MANHOLE
		SANITARY CLEANOUT
		WATERMAIN
		SANITARY SEWER
		STORM SEWER
		STORM SEWER
		ELC
		COM
		GAS MAIN

- UTILITY PLAN NOTES**
- ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
 - SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
8" PVC SDR35 PER ASTM D-3034, FOR PIPES LESS THAN 12' DEEP
8" PVC SDR26 PER ASTM D-3034, FOR PIPES MORE THAN 12' DEEP
6" PVC SCHEDULE 40 PER ASTM D-1785
DUCTILE IRON PIPE PER AWWA C150
 - WATER LINES SHALL BE AS FOLLOWS:
6" AND LARGER, PVC C-900 PER ASTM D 2241
CLASS 200 UNDER COUNTY ROADS, OTHERWISE CLASS 150
4" AND LARGER DUCTILE IRON PIPE PER AWWA C150
SMALLER THAN 4" PIPING SHALL BE COPPER TUBE TYPE "K" PER
ANSI B16.22 OR PVC, 200 P.S.I., PER ASTM D1784 AND D2241.
 - MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
 - ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH RESTRAINTS SUCH AS THRUST BLOCKING, WITH STAINLESS STEEL OR COBALT BLUE BOLTS, OR AS INDICATED IN THE CITY SPECIFICATIONS AND PROJECT DOCUMENTS.
 - ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE OR STRUCTURE).
 - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 7'-5" COVER ON ALL WATERLINES.
 - IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES, OR ANY OBSTRUCTION (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE SCH. 40 OR C900 WITH MECHANICAL JOINTS AT LEAST 10 FEET ON EITHER SIDE OF THE CENTER LINE OF THE CROSSING. THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE FASTENERS AS REQUIRED TO PROVIDE A MINIMUM OF 18" VERTICAL SEPARATION. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
 - LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
 - TOPS OF MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS, IN GREEN AREAS, WITH WATERTIGHT LIDS.
 - ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
 - EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
 - REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
 - CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE CITY OF EDINA AND/OR STATE OF MN WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
 - THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
 - CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES.
 - CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
 - CONTRACTOR SHALL REFERENCE ARCH / MEP PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.
 - BACKFLOW DEVICES (DDCV AND PRZ ASSEMBLIES) AND METERS ARE LOCATED IN THE INTERIOR OF THE BUILDING. REF. ARCH / MEP PLANS.
 - ALL ONSITE WATERMANS AND SANITARY SEWERS SHALL BE PRIVATELY OWNED AND MAINTAINED.
 - ALL WATERMAIN STUBOUTS SHALL BE MECHANICALLY RESTRAINED WITH REACTION BLOCKING.

CITY OF EDINA
APR 12 2021
PLANNING DEPARTMENT



PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY		SHEET NUMBER	
PREPARED FOR		C600	
LUPE DEVELOPMENT			
PARTNERS			
EDINA			
MIN			
NO.		REVISIONS	
		DATE	
		BY	

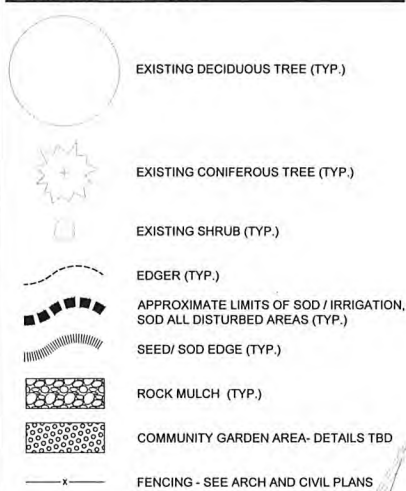
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767 EUSTIS AVE, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

LEGALLY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

BRIAN M. WURDEMAN
MN LIC. NO. 53113
DATE: 04/12/2021

KHA PROJECT	160602001
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	HKD
DRAWN BY	HKD
CHECKED BY	BMW

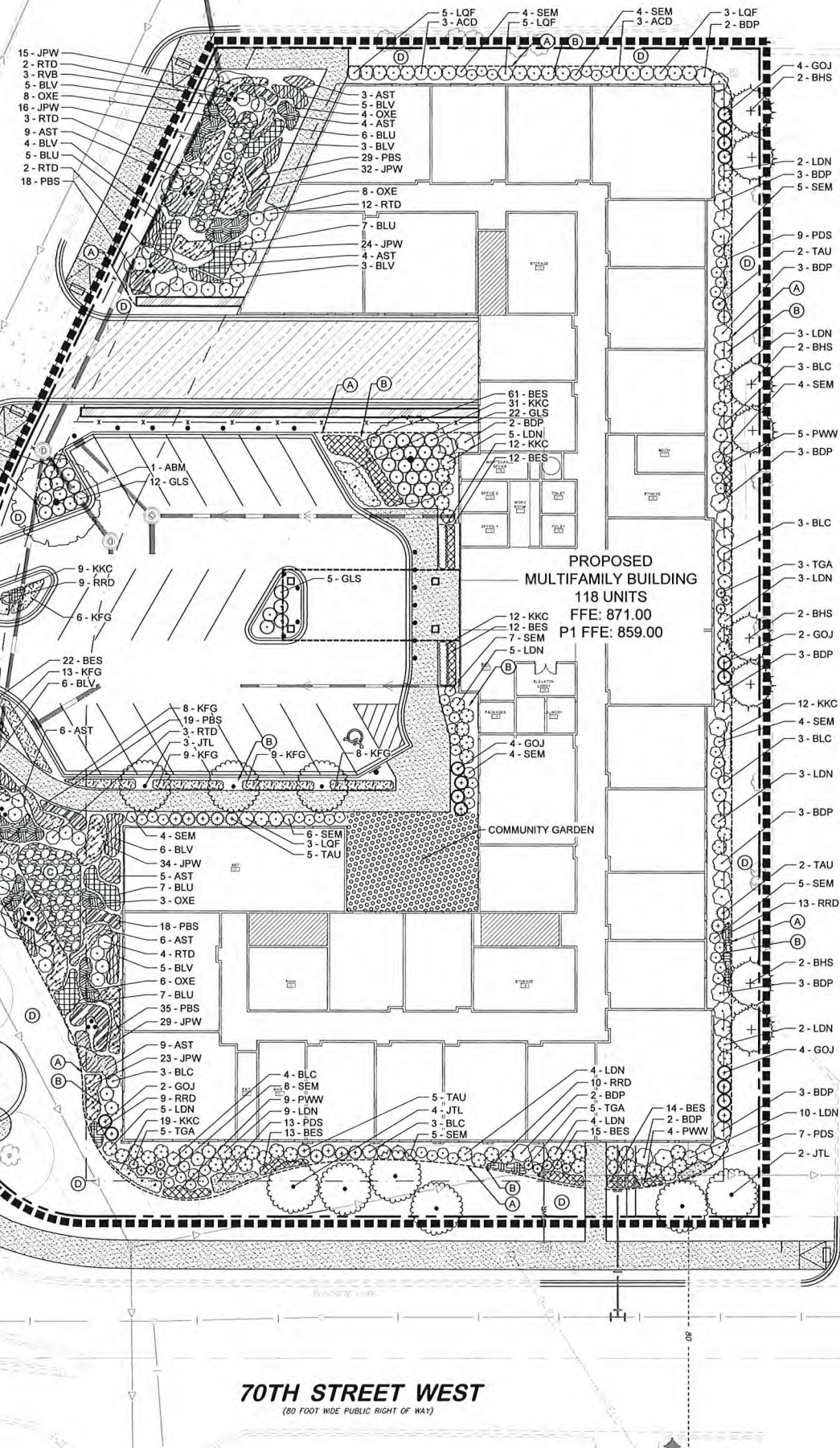
LANDSCAPE LEGEND



CITY OF EDINA

APR 12 2021

PLANNING DEPARTMENT

VALLEY VIEW ROAD
(80' WIDE PUBLIC RIGHT OF WAY)CITY OF EDINA
APR 12 2021
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APR 12 2021
PLANNING DEPARTMENTCITY OF EDINA
APR 12 2021
PLANNING DEPARTMENT70TH STREET WEST
(80 FOOT WIDE PUBLIC RIGHT OF WAY)

PLANT SCHEDULE

CONIFEROUS TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	BHS	8	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	B & B		6' HT.
ORNAMENTAL TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	JTL	9	SYRINGA RETICULATA	JAPANESE TREE LILAC CLUMP	B & B		6' HT.
	RVB	6	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK	B & B		6' HT.
OVERSTORY TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	ABM	2	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE MAPLE	B & B	2.5" CAL.	
	GSL	1	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	B & B	2.5" CAL.	
RAIN GARDEN	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	RTD	33	CORNUS SERICEA 'BAILADELINE'	FIRE DANCE RED TWIG DOGWOOD	#5 CONT.	4' O.C.	
CONIFEROUS SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	GOJ	16	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	#5 CONT.	4' O.C.	
	TAU	14	TAXUS X MEDIA 'TAUNTONII'	TAUTON YEW	#5 CONT.	4' O.C.	
	TGA	13	THUJA OCCIDENTALIS 'BAILJOHN' TM	TECHNITO GLOBE ARBORVITAE	#5 CONT.	3' O.C.	
DECIDUOUS SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	ACD	6	CORNUS SERICEA 'ALLEMAN'S COMPACT'	DWARF RED TWIG DOGWOOD	#5 CONT.	4' O.C.	
	BDP	30	SYRINGA X 'SMSJB7' TM	BLOOMERANG DARK PURPLE LILAC	#5 CONT.		
	BLC	19	ARONIA MELANOCARPA 'IROQUOIS BEAUTY' TM	IROQUOIS BEAUTY BLACK CHOKEBERRY	#5 CONT.	4' O.C.	
	GLS	39	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#5 CONT.	4' O.C.	
	LDN	55	PHYSOCARPUS OPULIFOLIUS 'DONNA MAY' TM	LITTLE DEVIL NINEBARK	#5 CONT.	4' O.C.	
	LQF	16	HYDRANGEA PANICULATA 'SMHPLQF' TM	LITTLE QUICK FIRE HYDRANGEA	#5 CONT.		
	SEM	60	SORBARIA SORBIFOLIA 'SEM'	SEM FALSESPIREA	#5 CONT.	3' O.C.	
PERENNIALS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	SPACING
	BES	149	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACK-EYED SUSAN	#1 CONT		18" OC
	KFG	53	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#1 CONT		30" OC
	KKC	95	NEPETA X FAASSENII 'KIT KAT'	KIT KAT CATMINT	#1 CONT		18" OC
	PDS	29	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	#1 CONT		24" OC
	PWW	18	ECHINACEA X 'POW WOW WILDBERRY'	POW WOW WILDBERRY CONEFLOWER	#1 CONT		24" OC
	RRD	41	HEMEROCALLIS X 'ROSY RETURNS'	ROSY RETURNS DAYLILY	#1 CONT	18" O.C.	
RAIN GARDEN	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	SPACING
	AST	52	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	FLAT	2" PLUGS	36" OC
	BLU	35	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM GRASS	FLAT	2" PLUGS	36" OC
	BLV	42	VERBENA HASTATA	BLUE Vervain	FLAT	2" PLUGS	36" OC
	JPW	226	EUPATORIUM MACULATUM	JOE PYE WEED	FLAT	2" PLUGS	18" OC
	OXE	42	HELIOPSIS HELIANTHOIDES	OX-EYE SUNFLOWER	FLAT	2" PLUGS	36" OC
	PBS	147	LIATRIS PYCNOSTACHYA	PRAIRIE BLAZINGSTAR	FLAT		18" OC

LANDSCAPE REQUIREMENTS

TREES REQUIRED: 26 TREES = 1,039 FEET PERIMETER / 40

TREES PROVIDED: 26 TREES

OFF-STREET PARKING SCREENING:

MUST BE 4 FEET ABOVE LEVEL OF PARKING LOT WITH MINIMUM
OPACITY OF 90 PERCENT YEAR ROUND.

LANDSCAPE KEYNOTES

- (A) EDGER (TYP.)
- (B) DOUBLE SHREDDED HARDWOOD MULCH (TYP.)
- (C) ROCK MULCH (TYP.)
- (D) SOD (TYP.)

GRAPHIC SCALE IN FEET
0 10 20 40

PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY

PREPARED FOR

LUPE DEVELOPMENT

PARTNERS

LANDSCAPE PLAN

KHA PROJECT

16062001

DATE

04/12/2021

SCALE

AS SHOWN

DESIGNED BY

PWB

DRAWN BY

PWB

CHECKED BY

MSC

LEGEND: CERTIFY THAT THIS PLAN
SPECIFICATION OR REPORT WAS PREPARED BY
ME OR UNDER MY DIRECT SUPERVISION AND
THAT I AM A DULY LICENSED PROFESSIONAL
LANDSCAPE ARCHITECT UNDER THE LAWS OF
THE STATE OF MINNESOTA.

MITCHELL G. COOKS, P.L.A.

MN LIC. NO. 56522

DATE: 04/12/2021

Kimley»Horn

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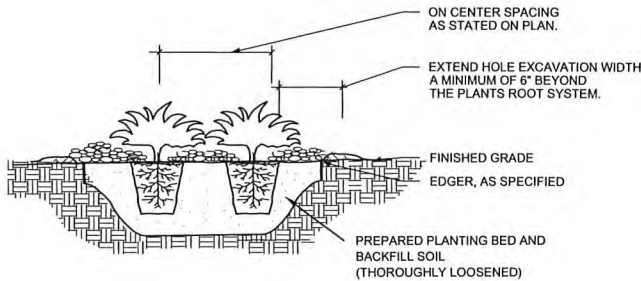
SHEET NUMBER

L100

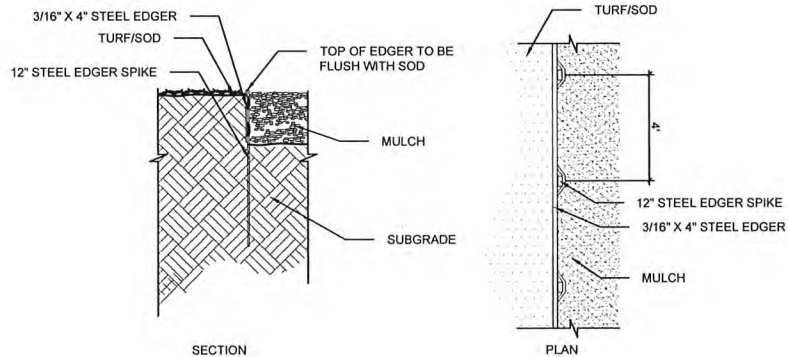
A cross-sectional diagram of a lawn edge. The diagram shows a vertical section of the ground. On the left, there is a layer of mulch, indicated by a stippled pattern. A line points to this layer with the label "MULCH AT PLANTING AREA". To the right of the mulch is a vertical edge, indicated by a line with a "V" shape at the top. A line points to this edge with the label "SPADED EDGE 'V' SHAPED, 4\"

NOTES:

1. SCARIFY SIDES AND BOTTOM OF HOLE.
2. PROCEED WITH CORRECTIVE PRUNING.
3. SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED NATURAL SOIL.
4. INSTALL PLANT SO THE ROOT BALL IS AT OR UP TO 2" ABOVE THE FINISHED GRADE WITH BURLAP AND WIRE BASKET, (IF USED), INTACT.
5. SLIT REMAINING TREATED BURLAP AT 6" INTERVALS.
6. BACKFILL TO WITHIN APPROXIMATELY 12" OF THE TOP OF THE ROOTBALL, THEN WATER PLANT.
7. REMOVE THE TOP 1/3 OF THE BASKET OR THE TOP TWO HORIZONTAL RINGS WHICHEVER IS GREATER. REMOVE ALL BURLAP AND NAILS FROM THE TOP 1/3 OF THE BALL. REMOVE ALL TWINE.
8. MOVE OR CORRECT STEEPLY CIRCLING ROOTS.
9. PLUMB AND BACKFILL WITH PLANTING SOIL.
10. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
11. BACK FILL VOIDS AND WATER SECOND TIME.
12. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.
13. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.



2 SHRUB / PERENNIAL PLANTING DETAIL
SCALE: N.T.S.



4 STEEL EDGER DETAIL
SCALE: N.T.S.

1. CONTRACTOR SHALL CONTACT COMMON GROUND ALLIANCE AT 811 OR CALL 811.COM TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANTS OR LANDSCAPE MATERIAL.
2. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR.
5. CONTRACTOR SHALL PROVIDE TWO YEAR GUARANTEE OF ALL PLANT MATERIALS. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
6. ALL PLANTS TO BE SPECIMEN GRADE, MINNESOTA-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOULDS, SCARS, ETC.
ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.
7. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
8. PLANTS TO BE INSTALLED AS PER MNLA & ANSI STANDARD PLANTING PRACTICES.
9. PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
10. PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
11. OPEN TOP OF BURLAP ON BB MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS.
12. PRUNE PLANTS AS NECESSARY - PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
13. WRAP ALL SMOOTH-BARKED TREES - FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
14. STAKING OF TREES AS REQUIRED; REPOSITION, PLUMB AND STAKE IF NOT PLUMB AFTER ONE YEAR.
15. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
16. BACKFILL SOIL AND TOPSOIL TO ADHERE TO MNDOT STANDARD SPECIFICATION 3877 (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 4" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 12" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
17. MULCH TO BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS. TREE AND SHRUB PLANTING BEDS SHALL HAVE 4" DEPTH OF DOUBLE SHREDDED HARDWOOD MULCH. DOUBLE SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. PERENNIAL AND ORNAMENTAL GRASS BEDS SHALL HAVE 2" DEPTH DOUBLE SHREDDED HARDWOOD MULCH. MULCH TO BE FREE OF DELETERIOUS MATERIAL AND COLORED RED, OR APPROVED EQUAL. ROCK MULCH TO BE BUFF LIMESTONE, 1 1/2" TO 3" DIAMETER, AT MINIMUM 3" DEPTH, OR APPROVED EQUAL. ROCK MULCH TO BE ON COMMERCIAL GRADE FILTER FABRIC, BY TYFAR, OR APPROVED EQUAL WITH NO EXPOSURE. MULCH AND FABRIC TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. MULCH TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
18. EDGING TO BE COMMERCIAL GRADE COL-MET (OR EQUAL) STEEL EDGING; 3/16" THICK, COLOR BLACK, OR SPADED EDGE, AS INDICATED. STEEL EDGING SHALL BE PLACED WITH SMOOTH CURVES AND STAKED WITH METAL SPIKES NO GREATER THAN A FOOT ON CENTER WITH TOP OF EDGER AT GRADE, FOR MOWERS TO CUT ABOVE WITHOUT DAMAGE. UTILIZE CURBS AND SIDEWALKS FOR EDGING WHERE POSSIBLE. SPADED EDGE TO PROVIDE V-SHAPED DEPTH AND WIDTH TO CREATE SEPARATION BETWEEN MULCH AND GRASS. INDIVIDUAL TREE, SHRUB, OR RAIN-GARDEN BEDS TO BE SPADED EDGE, UNLESS NOTED OTHERWISE. EDGING TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
19. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. PARKING LOT ISLANDS TO BE SODDED WITH SHREDDED HARDWOOD MULCH AROUND ALL TREES AND SHRUBS. SOD TO BE STANDARD MINNESOTA GROWN AND HARDY BLUEGRASS MIX, FREE OF LAWN WEEDS. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE DRAINAGE. SLOPES OF 3:1 OR GREATER SHALL BE STAKED. SEED AS SPECIFIED AND PER MNDOT SPECIFICATIONS. IF NOT INDICATED ON LANDSCAPE PLAN, SEE EROSION CONTROL PLAN.
20. PROVIDE IRRIGATION TO ALL PLANTED AREAS ON SITE. IRRIGATION SYSTEM TO BE DESIGN/BUILD BY LANDSCAPE CONTRACTOR. LANDSCAPE CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. CONTRACTOR TO PROVIDE OPERATION MANUALS, AS-BUILT PLANS, AND NORMAL PROGRAMMING. SYSTEM SHALL BE WINTERIZED AND HAVE SPRING STARTUP DURING FIRST YEAR OF OPERATION. SYSTEM SHALL HAVE ONE-YEAR WARRANTY ON ALL PARTS AND LABOR. ALL INFORMATION ABOUT INSTALLATION AND SCHEDULING CAN BE OBTAINED FROM THE GENERAL CONTRACTOR.
21. CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
22. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION.
23. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
24. RAIN GARDEN NOTE: PROVIDE AND INSTALL EROSION CONTROL BLANKET AT RAIN GARDEN AREA SIDE SLOPES AFTER ALL PLANTING HAVE BEEN INSTALLED. BLANKET TO BE ONE SEASON GEOTJUTE, MNDOT CATEGORY 2 (STRAW IS, WOOD FIBER IS), OR APPROVED EQUAL. BLANKET TO BE OVERLAPPED BY 4" AND ANCHORED BY SOD STAPLES. PLACE BLANKET PERPENDICULAR TO THE SLOPE. TRENCH IN EDGES OF BLANKET AREA TO PREVENT UNDER MINING. PROVIDE SILT FENCE AT TOP OF SLOPE AS NEEDED. SHREDDED HARDWOOD MULCH TO MATCH OTHER PROJECT PLANTING MULCH. PLACE 4" DEPTH OF MULCH AT ALL PLANTING AND EROSION CONTROL BLANKET AREA (NO FILTER FABRIC). SEE RAIN GARDEN DETAIL FOR FURTHER INFORMATION. RAIN GARDEN TO PROVIDE PROPER INFILTRATION AND DRAINAGE REQUIREMENTS PER ENGINEERS APPROVAL.
25. MAINTAIN TREES, SHRUBS, AND OTHER PLANTS UNTIL PROJECT COMPLETION, BUT IN NO CASE, LESS THAN FOLLOWING PERIOD; 1 YEAR AFTER PROJECT COMPLETION. MAINTAIN TREES, SHRUBS, AND OTHER PLANTS BY PRUNING, CULTIVATING, AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE. REPLENISH MULCH TO THE REQUIRED DEPTH. MAINTAIN LAWNS FOR 45 DAYS AFTER INSTALLING SOD INCLUDING MOWING WHEN SOD RECITES 4" IN HEIGHT. WEED PLANTING BEDS AND MULCH SAUCERS AT MINIMUM ONCE A MONTH DURING THE GROWING SEASON. PROVIDE A MONTHLY REPORT TO THE OWNER ON WEEDING AND OTHER MAINTENANCE RESPONSIBILITIES.

Kimley»Horn
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PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

DATE: 04/12/2021 MN LIC NO 56522

MITCHELL G. COOKAS, PLA

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

KHA PROJECT	DATE	SCALE	AS SHOW
160062001	04/12/2021	DESIGNED BY	KH
		DRAWN BY	KH
		CHECKED BY	MC

EDINA MULTIFAMILY	PREPARED FOR	LUPE DEVELOPMENT	PARTNERS	MN
SHEET NUMBER	L101			

K:\TWC_LDEV\LUPE DEVELOPMENT\Edina Multifamily\3 Design\CAD\PlanSheets\CO-COVER SHEET.dwg April 12, 2021 - 10:06am

SITE DEVELOPMENT PLANS
FOR
EDINA MULTIFAMILY
SECTION 30, TOWNSHIP 28N, RANGE 24W
4040 70TH STREET WEST
EDINA, HENNEPIN COUNTY, MN

PROJECT TEAM:

ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.



PREPARED BY: BRIAN M. WURDEMAN
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ST. PAUL, MN 55114
TELEPHONE (651) 645-4197

LANDSCAPE ARCHITECT
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GEOTECHNICAL ENGINEER
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CONTACT: STEVE MARTIN

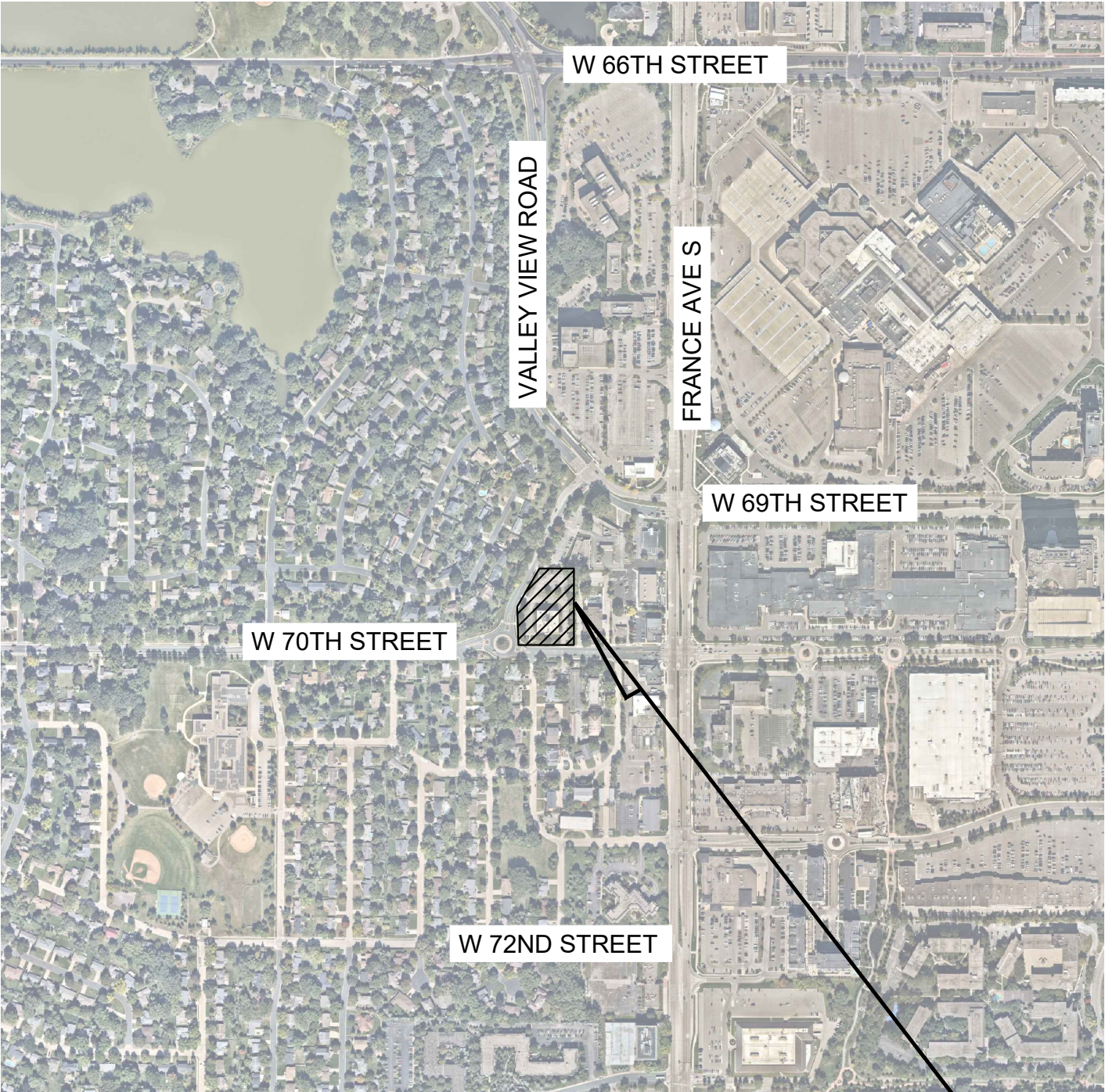
OWNER / DEVELOPER
LUPE DEVELOPMENT PARTNERS



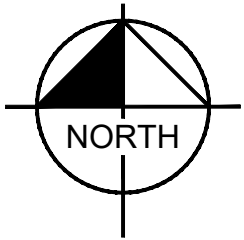
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SURVEYOR
EGAN, FIELD & NOWAK, INC.
1229 TYLER STREET NE
SUITE 100
TELEPHONE: (612) 466-3300
FAX: (612) 466-3383
CONTACT: CHRISTOPHER A. TERWEDO

ARCHITECT
POPE ARCHITECTS
1295 BANADANA BLVD N, SUITE 200
ST. PAUL, MN 55108
TELEPHONE: (651) 642-9200



VICINITY
N.T.S.



SITE

NOTES:

1. CONTRACTOR SHALL CONFIRM THAT THE EXISTING CONDITIONS FOR THE SITE MATCH WHAT IS SHOWN ON THE DRAWINGS INCLUDED PRIOR TO CONSTRUCTION.
2. IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A ARCH full bleed D (36.00 x 24.00 Inches) SHEET.
3. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICES COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
4. ALL GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS.

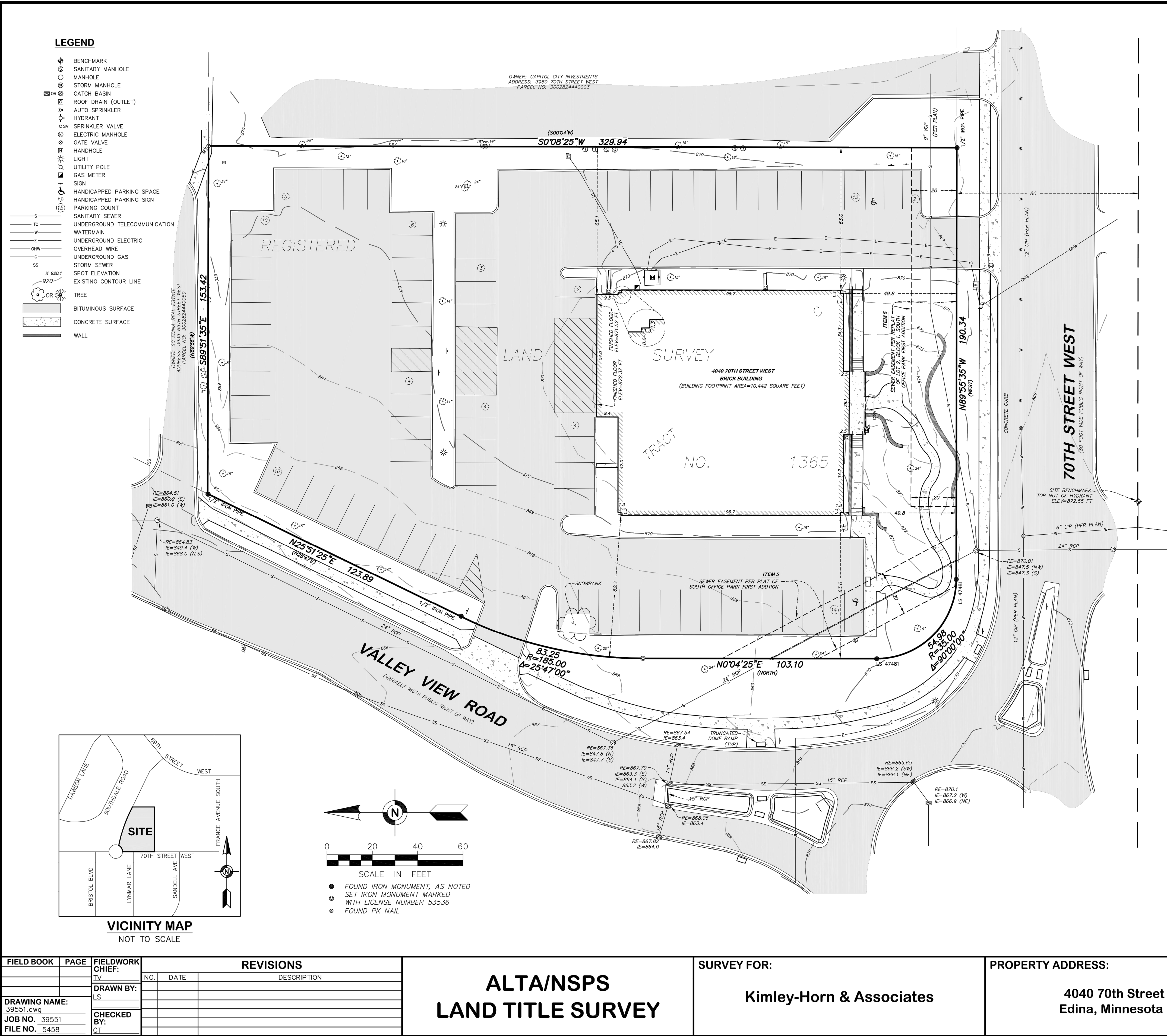
Sheet List Table	
Sheet Number	Sheet Title
C000	COVER SHEET
V100	ALTA SURVEY
C100	GENERAL NOTES
C200	DEMO PLAN
C300	TREE INVENTORY AND PRESERVATION PLAN
C400	SITE PLAN
C500	GRADING AND DRAINAGE PLAN
C600	UTILITY PLAN
L100	LANDSCAPE PLAN
L101	LANDSCAPE DETAILS

BENCHMARKS	
SITE BENCHMARKS: (LOCATIONS SHOWN ON SURVEY)	
SBM #1 TOP OF MNDOT GEODETIC MONUMENT "2733 Q" GSID STATION #95550 ELEVATION=874.82 (NAVD 88)	
SBM #2 TOP NUT OF HYDRANT LOCATED ON THE SOUTH SIDE OF 70TH STREET WEST ELEVATION=872.55 (NAVD 88)	



PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY		COVER SHEET		KIMLEY»Horn	
PREPARED FOR LUPE DEVELOPMENT		PARTNERS		© 2021 KIMLEY-HORN AND ASSOCIATES, INC. 767 EUSTIS AVE, SUITE 100, ST. PAUL, MN 55114 PHONE: 651-645-4197 WWW.KIMLEY-HORN.COM	
EDINA		MN		No.	
SHEET NUMBER		C000		REVISIONS	
				DATE	
				BY	



ALTA/NSPS LAND TITLE SURVEY FOR: Kimley-Horn & Associates

LEGAL DESCRIPTION:

Tract C, Registered Land Survey No. 1365, Hennepin County, Minnesota.
Being Registered land as is evidenced by Certificate of Title No. 1511530.

GENERAL SURVEY NOTES:

- The orientation of this bearing system is based on the Hennepin County coordinate grid (NAD 83-2011 Adj.).
- The legal description and easement information used in the preparation of this survey is based on the Commitment for Title Insurance prepared by Guaranty Commercial Title, Inc. as agent for Old Republic Title Insurance Company, Commitment No. 65874 dated October 6, 2020.

OPTIONAL TABLE A ITEMS:

- Monuments have been placed at all major corners of the property described hereon, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner.
- The address of the property described hereon is 4040 70th Street West, Edina, Minnesota 55435.
- The property described hereon lies within Flood Zone X per Federal Insurance Rate Map No. 27053C0364F, dated November 4, 2016.
- The total area of the property described hereon is 68,634 square feet or 1.57562 acres.
- The contours depicted hereon are per elevation data collected while conducting the fieldwork. The contour interval is 1 foot.

BENCHMARK: Top of Minnesota Department of Transportation Geodetic Monument "2733 O" GSD station # 95550
Elevation = 874.82 feet. (NAVD 88)

SITE BENCHMARK: Top nut of hydrant located on the south side of 70th Street West
Elevation = 872.55 feet. (NAVD 88)

- No zoning report or letter was received from the Insurer pursuant to Optional Table A Item 6(a), as set forth in the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys.
- Exterior building dimensions are depicted hereon.
- The exterior building footprint areas at ground level is depicted hereon.
- Substantial features observed in the process of conducting the fieldwork are depicted hereon.
- As of the date of this survey the property described hereon contains a total of 78 visibly striped parking spaces of which 76 are standard spaces and 2 are handicapped spaces.
- There are no division or party walls on the property described hereon.
- Existing utilities, services and underground structures shown hereon were located either physically, from existing records made available to us, by resident testimony, or by locations provided by Gopher State One Call, per Ticket No. 210140753. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary. Other utilities and services may be present and verification and location of all utilities and services should be obtained from the owners of the respective utilities prior to any design, planning or excavation.
- The names of adjoining owners according to current tax records are depicted hereon.
- As of the date of this survey there is no observable evidence of current earth moving work, building construction or building additions on the property described hereon.
- The surveyor is unaware of any completed or proposed changes in street right-of-way lines. As of the date of this survey there is no observable evidence of recent street or sidewalk construction or repairs that affect the property described hereon.
- No plottable offsite easements or servitudes were disclosed in documents provided to the surveyor.
- Professional Liability Insurance policy obtained by the surveyor to be in effect throughout the contract term.

SURVEY ITEMS PER SCHEDULE B:

ITEM 5: Sanitary Sewer easement(s) over the Land as shown on the recorded plat of South Office Park First Addition, and as shown on the recorded plat of Replat of Lot 2, Block 1, South Office Park First Addition.

Said Sanitary sewer easement affects the surveyed property and is depicted hereon.

CERTIFICATION:

To Lupe Development Partners, LLC, a Minnesota limited liability company, and Ecumen, a Minnesota non-profit corporation and Guaranty Commercial Title, Inc. as agent for Old Republic 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 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6(a), 7(c), 7(b)(1), 8, 9, 10(a), 10(b), 11, 13, 16, 17, 19 and 20 of Table A thereof. The fieldwork was completed on January 25, 2021.

Date of Plat or Map: February 2, 2021

Christopher A. Terwedo
Christopher A. Terwedo
Minnesota License No. 53536
cterwedo@efnsurvey.com



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SHEET 1 OF 1

PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY
PREPARED FOR
LUPE DEVELOPMENT
PARTNERS

MINN
EDINA

SHEET NUMBER
V100

FOR
REFERENCE
ONLY

KHA PROJECT
160062001
DATE
04/12/2021
SCALE
AS SHOWN
DESIGNED BY
HKD
DRAWN BY
HKD
CHECKED BY
BMW

ALTA SURVEY

Kimley»Horn
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767 EUSTIS AVE, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

REVISIONS
DATE
BY

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE MN DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK, AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND CRUSH ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
3. THE EXISTING SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS QUALITY LEVEL "D" UNLESS OTHERWISE NOTED. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CIACSE 3802 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND REPORTING OF SUBSURFACE QUALITY DATA" BY THE FHA. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY 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 ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S 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 OR SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. TO CONTACT THE UTILITIES, THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND 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.
8. ALL COPS OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER DIRECTLY FROM THE TESTING AGENCY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF MN PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
10. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
11. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
13. SHOULD CONTRACTOR ENCOUNTER ANY DEBRIS LADEN SOIL, STRUCTURES NOT IDENTIFIED IN THE DOCUMENTS, OR OTHER SOURCE OF POTENTIAL CONTAMINATION, THEY SHALL IMMEDIATELY CONTACT THE ENGINEER AND OWNER.

EROSION CONTROL MAINTENANCE

ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION AS REQUIRED BY ALL JURISDICTIONS UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A CERTIFIED PERSON AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.

1. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS REFER TO THE STANDARD SPECIFICATIONS.
2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
3. THE CONSTRUCTION ENTRANCE(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
5. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

TYPICAL OWNER/ENGINEER OBSERVATIONS

CONTRACTOR SHALL NOTIFY OWNER AND/OR ENGINEER 48 HOURS IN ADVANCE OF THE FOLLOWING ACTIVITIES:

- PRE-CONSTRUCTION MEETING, SUBGRADE PREPARATION, BASE INSTALLATION
ASPHALT INSTALLATION, UNDERGROUND PIPING AND UTILITIES INSTALLATION,
INSTALLATION OF STRUCTURES, CHECK VALVES, HYDRANTS, METERS, ETC., SIDEWALK
INSTALLATION, CONNECTIONS TO WATER AND SEWER MAINS, TESTS OF UTILITIES

EROSION CONTROL NOTES

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THE EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN THE SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MINNESOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
4. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ON A PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR DISCHARGING SEDIMENT ONTO PUBLIC AREAS SHALL BE PAID BY THE CONTRACTOR.
5. TEMPORARY SEEDING OR OTHER APPROVED METHODS OF STABILIZATION SHALL BE INITIATED WITHIN 7 DAYS OF THE LAST DISTURBANCE ON ANY AREA OF THE SITE.
6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLotation BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN SHALL BE INITIATED AS SOON AS IS PRACTICABLE.
13. ALL STAGING AREAS, STOCKPILES, SPOILS, ETC. SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. OTHERWISE, COVERING OR ENCIRCLING THESE AREAS WITH SOME PROTECTIVE MEASURE WILL BE NECESSARY.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH THEY DISTURB. EACH CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES THAT MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION, SEDIMENTATION, OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE (BUT ARE NOT LIMITED TO) EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS, SOLVENTS, GREASES, FUEL AND LUBRICANT OIL, PESTICIDES, AND ANY SOLID WASTE MATERIALS.
15. EROSION CONTROL DEVICES SHOWN ON THESE PLANS SHALL BE INSTALLED PRIOR TO THE START OF LAND-DISTURBING ACTIVITIES ON THE PROJECT.
16. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THIS PROJECT. CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND THE CITY OF EDINA ENGINEERING DIVISION.
17. IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT, THE EROSION CONTROL PLAN WILL HAVE TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE. ANY REVISIONS TO THE EROSION CONTROL PLAN MADE BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER.

PAVING AND STRIPING NOTES

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTION'S RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR MIN/NOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
2. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND CITY STANDARDS.
3. CONTRACTOR SHALL FURNISH ALL PAVEMENT MARKINGS FOR FIRE LANES, ROADWAY LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, ACCESS AISLES, STOP BARS AND SIGNS, AND MISCELLANEOUS STRIPING WITHIN THE PARKING LOT AS SHOWN ON THE PLANS.
4. ALL EXPANSION JOINTS SHALL EXTEND THROUGH THE CURB.
5. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
6. ALL JOINTS, INCLUDING EXPANSION JOINTS WITH REMOVABLE TACK STRIPS, SHALL BE SEALED WITH JOINT SEALANT.
7. THE MATERIALS AND PROPERTIES OF ALL CONCRETE SHALL MEET THE APPLICABLE REQUIREMENTS IN THE A.C.I. (AMERICAN CONCRETE INSTITUTE) MANUAL OF CONCRETE PRACTICE.
8. CONTRACTOR SHALL APPLY A SECOND COATING OVER ALL PAVEMENT MARKINGS PRIOR TO ACCEPTANCE BY OWNER FOLLOWED BY A COAT OF GLASS BEADS AS APPLICABLE PER THE PROJECT DOCUMENTS.
9. ANY EXISTING PAVEMENT, CURBS AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER AND OWNER.
10. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY SUITABLE ACCESSIBLE ROUTES (PER A.D.A.), GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ALL STATE AND LOCAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CLOSING SLOPES EXCEED 2%. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A COMPLIANCE ISSUES.
11. MAXIMUM JOINT SPACING IS TWICE THE DEPTH OF THE CONCRETE PAVEMENT IN FEET.

GRADING AND DRAINAGE NOTES

- GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL ADJUST BMP'S AS NECESSARY AND REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
3. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS SO THAT SURFACE RUNOFF WILL DRAIN BY GRAVITY TO NEW OR EXISTING DRAINAGE OUTLETS. CONTRACTOR SHALL ENSURE NO PONDING OCCURS IN PAVED AREAS AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADIES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
4. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION. EXISTING CASTINGS AND STRUCTURES TO REMAIN SHALL BE ADJUSTED TO MATCH THE PROPOSED FINISHED GRADIES.
5. BACKFILL FOR UTILITY LINES SHALL BE PLACED PER DETAILS, STANDARDS, AND SPECIFICATIONS SO THAT THE UTILITY WILL BE STABLE. WHERE UTILITY LINES CROSS THE PARKING LOT, THE TOP 6 INCHES SHALL BE COMPACTED SIMILARLY TO THE REMAINDER OF THE LOT. UTILITY DITCHES SHALL BE VISUALLY INSPECTED DURING THE EXCAVATION PROCESS TO ENSURE THAT UNDESIRABLE FILL IS NOT USED.
6. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF 4" OF TOPSOIL AT COMPLETION OF WORK. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.
7. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORM RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
8. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT FULL DEPTH FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
9. THE CONTRACTOR SHALL INSTALL PROTECTION OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
11. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO MN/DOT STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
12. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
14. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
15. THE CONTRACTOR SHALL ENSURE THAT LANDSCAPE ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
16. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS AND MN/DOT SPECIFICATION.
17. ALL CONCRETE/ASPHALT SHALL BE INSTALLED PER GEOTECH REPORT, CITY OF EDNA AND MN/DOT SPECIFICATIONS.
18. SPOT ELEVATIONS ARE TO FLOWLINE OF CURB UNLESS OTHERWISE NOTED.
19. LIMITS OF CONSTRUCTION ARE TO THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED ON THE PLAN.
20. IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS.

3RD PARTY TEST REPORTS REQ'D

TEST REPORTS REQUIRED FOR CLOSE OUT INCLUDE, BUT ARE NOT LIMITED TO

- DENSITY TEST REPORTS
- BACTERIOLOGICAL TESTS OF WATER SYSTEM
- PRESSURE TEST OF WATER/SEWER
- LEAK TESTS ON SEWER SYSTEM AND GREASE TRAPS
- ANY OTHER TESTING REQUIRED BY THE AGENCY/MUNICIPALITY

WATER STORM SEWER & SANITARY SEWER NOTES

1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, MANHOLES, GRAVITY SEWER LINES, AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.
3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
5. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WITHIN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. IF PIPE IS NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. WATER FOR FIRE FIGHTING SHALL BE MADE AVAILABLE FOR USE BY THE CONTRACTOR PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
8. UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF MN PROFESSIONAL LAND SURVEYOR PRIOR TO BACK FILLING.
9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.
10. CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF 10' AND A VERTICAL CLEARANCE OF 18" BETWEEN WATER AND SANITARY SEWER MANHOLES AND LINES.
11. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
12. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUDED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT UNLESS OTHERWISE STATED BY CITY AND STATE DESIGN STANDARDS AND SPECIFICATIONS.
13. UNLESS OTHERWISE STATED IN CITY AND STATE DESIGN STANDARDS AND SPECIFICATIONS, ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RINGS & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 8" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER". EXISTING CASTINGS AND STRUCTURES WITHIN PROJECT LIMITS SHALL BE ADJUSTED TO MEET THESE CONDITIONS AND THE PROPOSED FINISHED GRADE.
14. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
16. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR FROM INVERT IN TO INVERT OUT.
17. ROOF DRAINS SHALL BE CONNECTED TO STORM SEWER BY PREFABRICATED WYES OR AT STORM STRUCTURES. ROOF DRAINS AND TRUCK WHEEL DRAIN SHALL RUN AT A MINIMUM 1% SLOPE, UNLESS NOTED OTHERWISE, AND TIE IN AT THE CENTERLINE OF THE STORM MAIN.
18. ALL ROOF AND SANITARY SEWER DRAINS SHALL BE INSULATED IF 7" OF COVER CANNOT BE PROVIDED.
19. THE CONTRACTOR SHALL PROTECT EXISTING UNDERGROUND UTILITIES AND APPURTENANCES THAT ARE TO REMAIN FROM DAMAGE DURING CONSTRUCTION OPERATIONS.
20. THE LOCATION OF EXISTING UTILITIES, STORM DRAINAGE STRUCTURES AND OTHER ABOVE AND BELOW-GRADE IMPROVEMENTS ARE APPROXIMATE AS SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE AND INVERT ELEVATIONS OF EACH PRIOR TO THE START OF CONSTRUCTION.
21. A MINIMUM OF 5' SEPARATION IS REQUIRED BETWEEN UTILITIES AND TREES UNLESS A ROOT BARRIER IS UTILIZED.
22. GAS, PHONE AND ELECTRIC SERVICES SHOWN FOR INFORMATIONAL PURPOSES ONLY. DRY UTILITY COMPANIES MAY ALTER THE DESIGN LAYOUT DURING THEIR REVIEW. CONTRACTOR TO COORDINATE FINAL DESIGN AND INSTALLATION WITH UTILITY COMPANIES.
23. COORDINATE UTILITY INSTALLATION WITH IRRIGATION DESIGN AND INSTALLATION.
24. ALL DIMENSIONS ARE TO FLOW LINE OF CURB UNLESS OTHERWISE NOTED. PERIMETER WALL DIMENSIONS ARE TO INSIDE WALL FACE. REFERENCE ARCHITECTURAL PLANS FOR EXACT WALL WIDTH AND SPECIFICATIONS.
25. REFERENCE ARCHITECTURAL PLANS (BY OTHERS). FOR EXACT BUILDING DIMENSIONS, AND MATERIALS SPECIFICATIONS.
26. REFERENCE M.E.P. PLANS (BY OTHERS) FOR MECHANICAL EQUIPMENT DIMENSIONS AND SPECIFICATIONS.
27. CONTRACTOR SHALL REFERENCE STRUCTURAL PLANS (BY OTHERS) FOR MECHANICAL EQUIPMENT DIMENSIONS AND PAD PREPARATION SPECIFICATIONS.
28. CONTRACTOR SHALL REFERENCE M.E.P PLANS (BY OTHERS) FOR LIGHT POLE WIRING.

REFER TO GEOTECHNICAL REPORT NO. B2100387
BRAUN INTERTEC CORPORATION
1101 HAMPSHIRE AVENUE S
MINNEAPOLIS, MN 55438
DATED 4/02/2021

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Kimley»Horn

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HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS PREPARED BY
ME OR UNDER MY DIRECT SUPERVISION AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF
MINNESOTA

CHRISTIAN W. WIDEMAN

04/01/2004

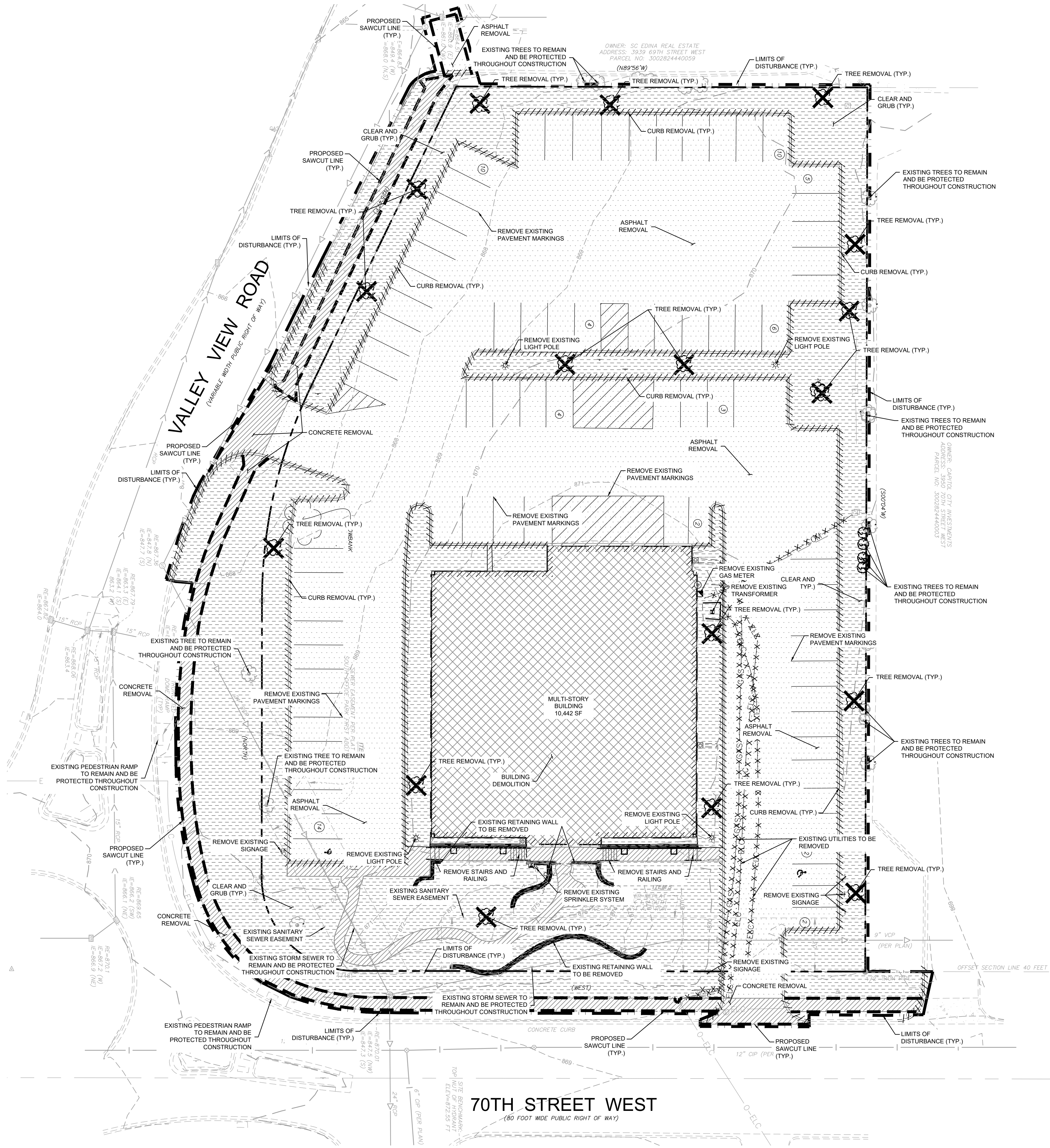
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KHA PROJECT 160062001	DATE 04/12/2021	SCALE AS SHOWN	DESIGNED BY HKD	DRAWN BY HKD	CHECKED BY BMW
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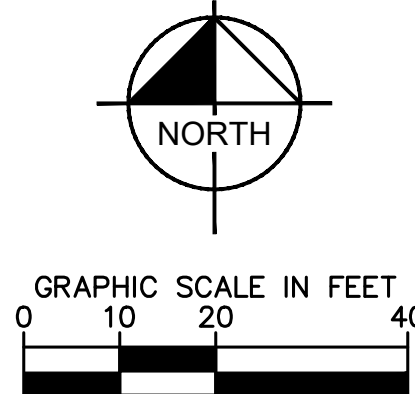
GENERAL NOTES

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- ### DEMOLITION PLAN NOTES
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNMENT) ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC. SUCH THAT THE IMPROVEMENTS ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE PROJECT DOCUMENTS.
 - THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING OF THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. CONTRACTOR SHALL PROVIDE COPIES OF THE PERMIT AND RECEIPTS OF DISPOSAL OF MATERIALS TO THE OWNER AND OWNERS REPRESENTATIVE.
 - THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO ADJACENT PROPERTIES AT ALL TIMES. UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE CONSTRUCTION MANAGER AND COORDINATION WITH THE ADJACENT PROPERTIES AND/OR THE CITY.
 - THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
 - THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE 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 LOCATIONS OF EXISTING UTILITIES WITHIN ALL AREAS OF PROPOSED WORK.
 - ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS ANY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PRECEDING WITH THE WORK.
 - ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT-OF-WAY DURING CONSTRUCTION.
 - CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC. (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY THE CONSTRUCTION MANAGER. MAINTENANCE OF TRAFFIC CONTROL SHALL BE COORDINATED IN ACCORDANCE WITH EDINA, <COUNTY> COUNTY AND MN/DOT.
 - CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES DURING CONSTRUCTION, AND SHALL NOTIFY ALL PROPERTIES IF ACCESS WILL BE INTERRUPTED OR ALTERED AT ANY TIME DURING CONSTRUCTION.
 - PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
 - CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
 - THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPT. AND THE CITY WATER DEPARTMENT TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH THE CITY OF EDINA DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
 - REFER TO SURVEY FOR ALL EXISTING INVERT AND RIM ELEVATIONS.
 - ALL UTILITIES SHOWN ARE EXISTING UTILITIES.
 - IN THE EVENT A WELL IS FOUND, THE CONTRACTOR SHALL CONTACT THE ENGINEER AND OWNER IMMEDIATELY. ALL WELLS SHALL BE SEALED BY A LICENSED WELL CONTRACTOR IN ACCORDANCE WITH ALL STATE OF MN REQUIREMENTS.
 - IN THE EVENT THAT UNKNOWN CONTAINERS OR TANKS ARE ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE OWNER AND/OR OWNERS REPRESENTATIVE IMMEDIATELY. ALL CONTAINERS SHALL BE DISPOSED OF AT A PERMITTED LANDFILL PER THE PROJECT DOCUMENTS.
 - CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY EXISTING DRAIN TILE IS ENCOUNTERED ON SITE. NO ACTIVE DRAIN TILE SHALL BE REMOVED WITHOUT APPROVAL FROM THE ENGINEER.

- ### LEGEND
- | | |
|--|--------------------------------|
| | PROPERTY LINE |
| | REMOVE BITUMINOUS SURFACE |
| | REMOVE CONCRETE SURFACE |
| | REMOVE BUILDING |
| | CLEARING & GRUBBING |
| | FULL DEPTH SAWCUT |
| | REMOVE TREE |
| | REMOVE CONCRETE CURB & GUTTER |
| | REMOVE UTILITY LINES |
| | FILL & ABANDON UTILITY LINES |
| | LIMITS OF CONSTRUCTION |
| | EXISTING OVERHEAD POWER LINE |
| | EXISTING CHAINLINK FENCE |
| | EXISTING J-BARRIER |
| | EXISTING RETAINING WALL |
| | EXISTING SANITARY SEWER |
| | EXISTING STORM SEWER |
| | EXISTING WATERMAIN |
| | EXISTING GAS MAIN |
| | EXISTING UNDERGROUND TELEPHONE |
| | EXISTING UNDERGROUND CABLE |
| | EXISTING CONTOUR |
| | EXISTING CURB & GUTTER |
| | EXISTING SIGN |
| | EXISTING FLARED END SECTION |
| | EXISTING STORM MANHOLE |
| | EXISTING STORM CATCHBASIN |
| | EXISTING GAS METER |
| | EXISTING POST INDICATOR VALVE |
| | EXISTING WELL |
| | EXISTING AUTOMATIC SPRINKLER |
| | EXISTING ROOF DRAIN |
| | EXISTING GATE VALVE |
| | EXISTING HYDRANT |
| | EXISTING METAL COVER |
| | EXISTING ELECTRICAL METER |
| | EXISTING AIR CONDITIONER |
| | EXISTING TELEPHONE MANHOLE |
| | EXISTING CABLE BOX |
| | EXISTING GUY WIRE |
| | EXISTING POWER POLE |
| | EXISTING LIGHT POLE |
| | EXISTING TREE |
| | EXISTING TREE LINE |



PRELIMINARY - NOT FOR CONSTRUCTION

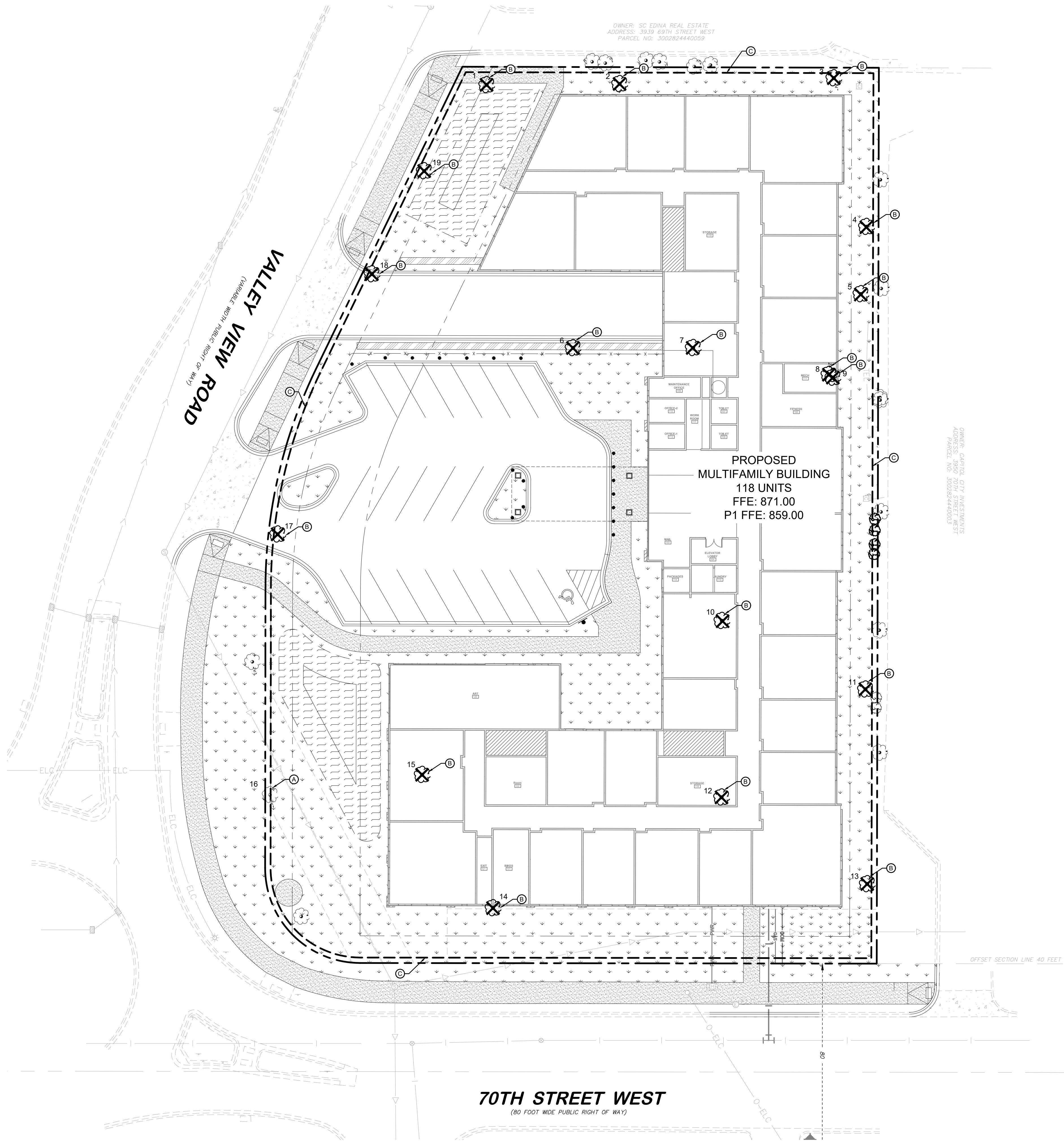
EDINA MULTIFAMILY		EDINA	
PREPARED FOR LUPE DEVELOPMENT PARTNERS		MN	
SHEET NUMBER C200		NO.	
		REVISIONS	
		DATE	
		BY	

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PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, AND REPORT WERE 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.	
BRIAN K. WURDEMAN MN DATE: 04/12/2021	33113

KHA PROJECT	160062001
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	HKD
DRAWN BY	HKD
CHECKED BY	BMW

DEMO PLAN



LEGEND

---	PROPERTY LINE
⊗	TREE TO REMAIN
⊗	TREE TO BE REMOVED
~~~~~	EXISTING VEGETATION EDGE
---	LIMITS OF CONSTRUCTION
---	TREE PROTECTION FENCE

TREE MITIGATION DATA

PROTECTED TREE REMOVAL:	18 TREES
PROTECTED TREE MITIGATION REQUIRED:	2 TREES

*PROTECTED TREES MAY BE REMOVED WITHOUT MITIGATION WITHIN 10 FOOT RADIUS OF BUILDING PAD, DECK OR PATIO OF A NEW OR REMODELED BUILDING, WITHIN 5 FOOT RADIUS OF DRIVEWAYS AND PARKING AREAS, WITHIN 10 FOOT RADIUS OF INSTALLATION OF PUBLIC INFRASTRUCTURE IMPROVEMENTS.

*PROTECTED TREES MUST BE REPLACED WITH ONE TREE OF SIMILAR SPECIES.

TREE PROTECTION NOTES

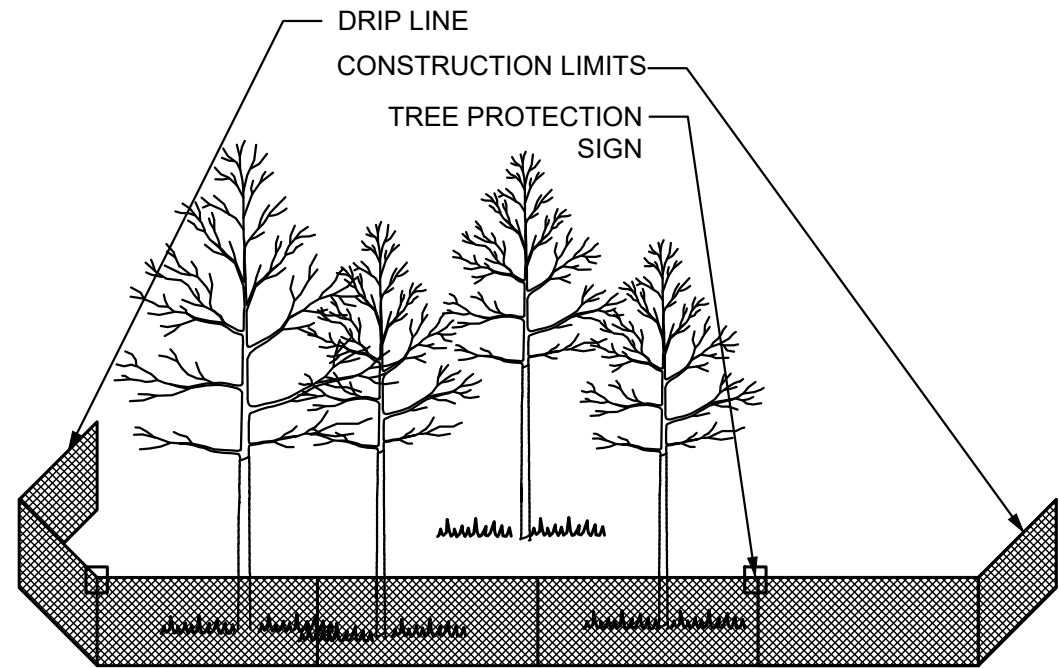
- PRUNING WILL BE DONE BY PROFESSIONALS DURING APPROPRIATE PRUNING SEASON.
- NO STORAGE OF MATERIALS, OPERATION OF MACHINERY, OR DEVELOPMENT OF ANY SORT WILL OCCUR WITHIN THE FENCE-LINE WITHOUT APPROVAL IN WRITING FROM CITY.
- SITE GRADING TO BE DONE ONLY AFTER PROTECTIVE MEASURES HAVE BEEN TAKEN, CITY HAS APPROVED FENCING LOCATIONS, AND ALL CONTRACTORS HAVE BEEN BRIEFED ON TREE PRESERVATION TECHNIQUES.
- EXISTING TREES TO REMAIN OR REMOVED TO BE CLEARLY IDENTIFIED, WITHIN DISTURBANCE LIMITS AND 10' OUTSIDE OF THE DISTURBANCE LIMITS.
- TREE PRESERVATION TO BE APPROVED BY OWNER AND PER LOCAL GOVERNMENTAL AUTHORITY.

KEYNOTE LEGEND

- (A) EXISTING TREE TO BE SAVED (TYP.)
- (B) EXISTING TREE TO BE REMOVED (TYP.)
- (C) LIMITS OF CONSTRUCTION (TYP.)
- (D) TREE PROTECTION FENCE (SEE DETAIL) (TYP.)

TAG #	SPECIES	CAL IN. / HT.	STATUS	REQUIRES REPLACEMENT
1	DECIDUOUS	18 IN.	REMOVED	YES
2	DECIDUOUS	8 IN.	REMOVED	NO
3	DECIDUOUS	24 IN.	REMOVED	NO
4	DECIDUOUS	12 IN.	REMOVED	NO
5	DECIDUOUS	10 IN.	REMOVED	NO
6	DECIDUOUS	14 IN.	REMOVED	NO
7	DECIDUOUS	14 IN.	REMOVED	NO
8	DECIDUOUS	24 IN.	REMOVED	NO
9	DECIDUOUS	24 IN.	REMOVED	NO
10	DECIDUOUS	15 IN.	REMOVED	NO
11	DECIDUOUS	18 IN.	REMOVED	NO
12	DECIDUOUS	15 IN.	REMOVED	NO
13	DECIDUOUS	15 IN.	REMOVED	NO
14	DECIDUOUS	24 IN.	REMOVED	NO
15	DECIDUOUS	15 IN.	REMOVED	NO
16	DECIDUOUS	24 IN.	SAVED	NO
17	DECIDUOUS	20 IN.	REMOVED	NO
18	DECIDUOUS	14 IN.	REMOVED	NO
19	DECIDUOUS	15 IN.	REMOVED	YES

NOTE: ONLY SIGNIFICANT TREES IN THE SUBJECT PROPERTY SHOWN ON PLAN/ INVENTORY.



FURNISH AND INSTALL TEMPORARY FENCE AT THE TREE'S DRILINE OR CONSTRUCTION LIMITS AS SPECIFIED, PRIOR TO ANY CONSTRUCTION. WHEN POSSIBLE PLACE FENCE 25 FEET BEYOND THE DRIP LINE. PLACE PROTECTION SIGNS ALONG FENCE AT 20' INTERVALS.

1 TEMPORARY TREE PROTECTION FENCE PLACEMENT

SCALE: N.T.S.

C300

PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY  
PREPARED FOR  
LUPE DEVELOPMENT  
PARTNERS

EDINA  
MN

TREE INVENTORY  
AND  
PRESERVATION  
PLAN

KHA PROJECT 160062001	DATE 04/12/2021	SCALE AS SHOWN	DESIGNED BY PWB	DRAWN BY PWB	CHECKED BY MGC
THEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, AND/OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.					
MITCHELL G. COOKAS, P.L.A. MINN. DATE: 04/12/2021 LIC. NO. 96522					

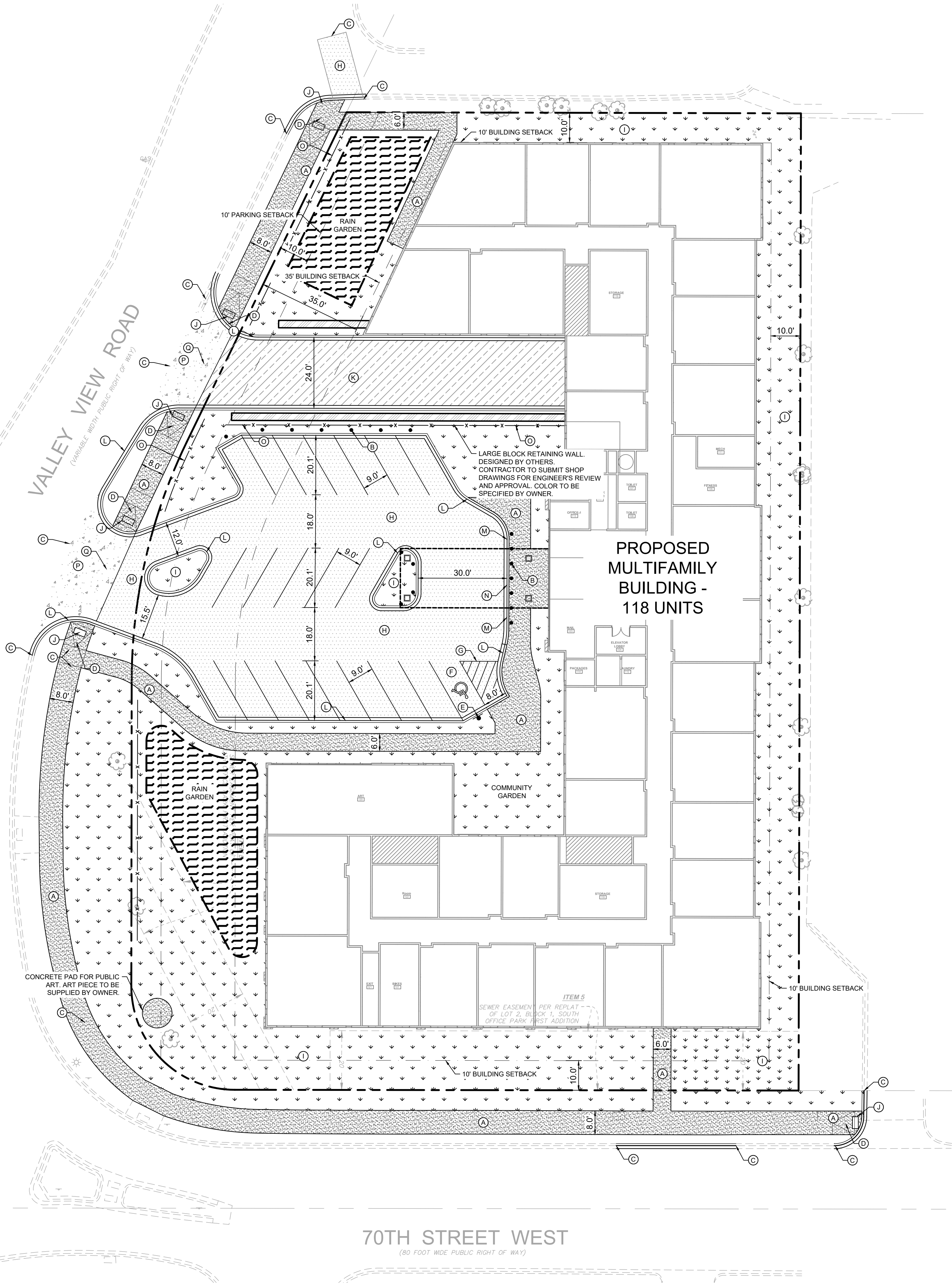
Kimley»Horn

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No.	REVISIONS	DATE	BY

SHEET NUMBER  
C300





KEYNOTE LEGEND

- (A) CONCRETE SIDEWALK
- (B) 6" CONCRETE FILLED PIPE BOLLARD
- (C) MATCH EXISTING EDGE OF PAVEMENT/ CURB & GUTTER
- (D) ACCESSIBLE CURB RAMP
- (E) ACCESSIBLE PARKING SIGN
- (F) ACCESSIBLE PARKING
- (G) AREA STRIPED WITH 4" SYSL @ 45° 2' O.C.
- (H) STANDARD DUTY ASPHALT PAVEMENT
- (I) LANDSCAPE AREA - SEE LANDSCAPE PLANS
- (J) TRUNCATED DOME RAMP
- (K) HEAVY DUTY ASPHALT PAVEMENT
- (L) B612 CURB & GUTTER (TYP.)
- (M) TRANSITION CURB
- (N) FLAT CURB
- (O) 4' ALUMINUM PICKET FENCE
- (P) CONCRETE PAVEMENT
- (Q) PEDESTRIAN CROSSWALK

LEGEND

- PROPERTY LINE
- x-x-x-x-x- PROPOSED FENCE
- - - - - SETBACK LINE
- ===== RETAINING WALL
- ===== PROPOSED CURB AND GUTTER
- ////// PROPOSED HEAVY DUTY ASPHALT
- ..... PROPOSED STANDARD DUTY ASPHALT
- ..... PROPOSED CONCRETE PAVEMENT
- ~~~~~ PROPOSED STORMWATER MANAGEMENT AREA
- ===== PROPOSED CONCRETE SIDEWALK

PROPERTY SUMMARY

EDINA MULTIFAMILY	
TOTAL PROPERTY AREA	68,634 SF (1.57 AC)
PROPOSED IMPERVIOUS AREA	50,836 SF (1.16 AC)
PROPOSED PERVIOUS AREA	17,798 SF (0.41 AC)
TOTAL DISTURBED AREA	68,634 SF (1.57 AC)

ZONING SUMMARY

EXISTING ZONING	PCD-3 (PLANNED COMMERCIAL)
PROPOSED ZONING	PUD (PLANNED UNIT DEVELOPMENT)
PARKING SETBACKS	ROAD = 10'
BUILDING SETBACKS	FRONT = 35' SIDE = 10' REAR = 10'

BUILDING DATA SUMMARY

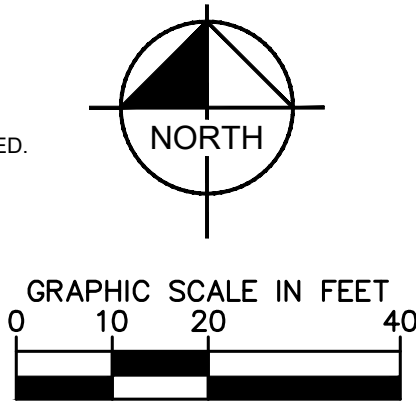
AREAS	
PROPOSED PROPERTY	68,634 SF (1.57 AC)
BUILDING AREA	31,446 SF (45.8% OF TOTAL PROPERTY AREA)

PARKING

REQUIRED PARKING	1 SPACE/4 RESIDENTS BASED ON MAXIMUM CAPACITY OF THE BUILDING, PLUS ONE SPACE/EMPLOYEE ON THE MAJOR SHIFT, PLUS ONE SPACE PER VEHICLE OWNED BY THE BUILDING'S MANAGEMENT
PROPOSED SURFACE PARKING	24 STALLS
PROPOSED UNDERGROUND PARKING	86 STALLS
SURFACE ADA STALLS REQ'D / PROVIDED	1 STALLS / 1 STALLS
UNDERGROUND ADA STALLS REQ'D / PROVIDED	4 STALLS / 4 STALLS

SITE PLAN NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- ALL INNER CURBED RADII ARE TO BE 3' AND OUTER CURBED RADII ARE TO BE 10' UNLESS OTHERWISE NOTED. STRIPED RADII ARE TO BE 5'.
- ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS AND PROJECT SITE WORK SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
- SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY EGAN, FIELD & NOWAK, INC., DATED 02/02/2021.  
KIMLEY-HORN ASSUMES NO LIABILITY FOR ANY ERRORS, INACCURACIES, OR OMISSIONS CONTAINED THEREIN.
- TOTAL LAND AREA IS 1.57 ACRES.
- PYLON / MONUMENT SIGNS SHALL BE CONSTRUCTED BY OTHERS. SIGNS ARE SHOWN FOR GRAPHICAL & INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY SIZE, LOCATION AND ANY REQUIRED PERMITS NECESSARY FOR THE CONSTRUCTION OF THE PYLON / MONUMENT SIGN.
- CONTRACTOR SHALL REFERENCE ARCH / MEP PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.
- NO PROPOSED LANDSCAPING SUCH AS TREES OR SHRUBS, ABOVE AND UNDERGROUND STRUCTURES, OR OTHER OBSTRUCTIONS SHALL BE LOCATED WITHIN EXISTING OR PROPOSED UTILITY EASEMENTS AND RIGHTS OF WAY UNLESS SPECIFICALLY NOTED ON PLANS OTHERWISE.
- REFERENCE ARCHITECTURAL PLANS FOR DUMPSTER ENCLOSURE DETAILS.
- REFER TO FINAL PLAT OR ALTA SURVEY FOR EXACT LOT AND PROPERTY BOUNDARY DIMENSIONS.
- ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
- ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.
- ALL PARKING STALLS TO BE 9' IN WIDTH AND 18' IN LENGTH UNLESS OTHERWISE INDICATED.
- THERE ARE <X.XX> ACRES OF WETLAND IMPACTS.
- FOR OFFSITE IMPROVEMENTS, SEE THE <OFFSITE PLANS> IMPROVEMENTS PLANS.



PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY  
PREPARED FOR  
LUPE DEVELOPMENT  
PARTNERS

EDINA MN

SITE PLAN

KHA PROJECT	160062001
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	BMW
DRAWN BY	RAV
CHECKED BY	BMW

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS, AND NOTES WERE 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.

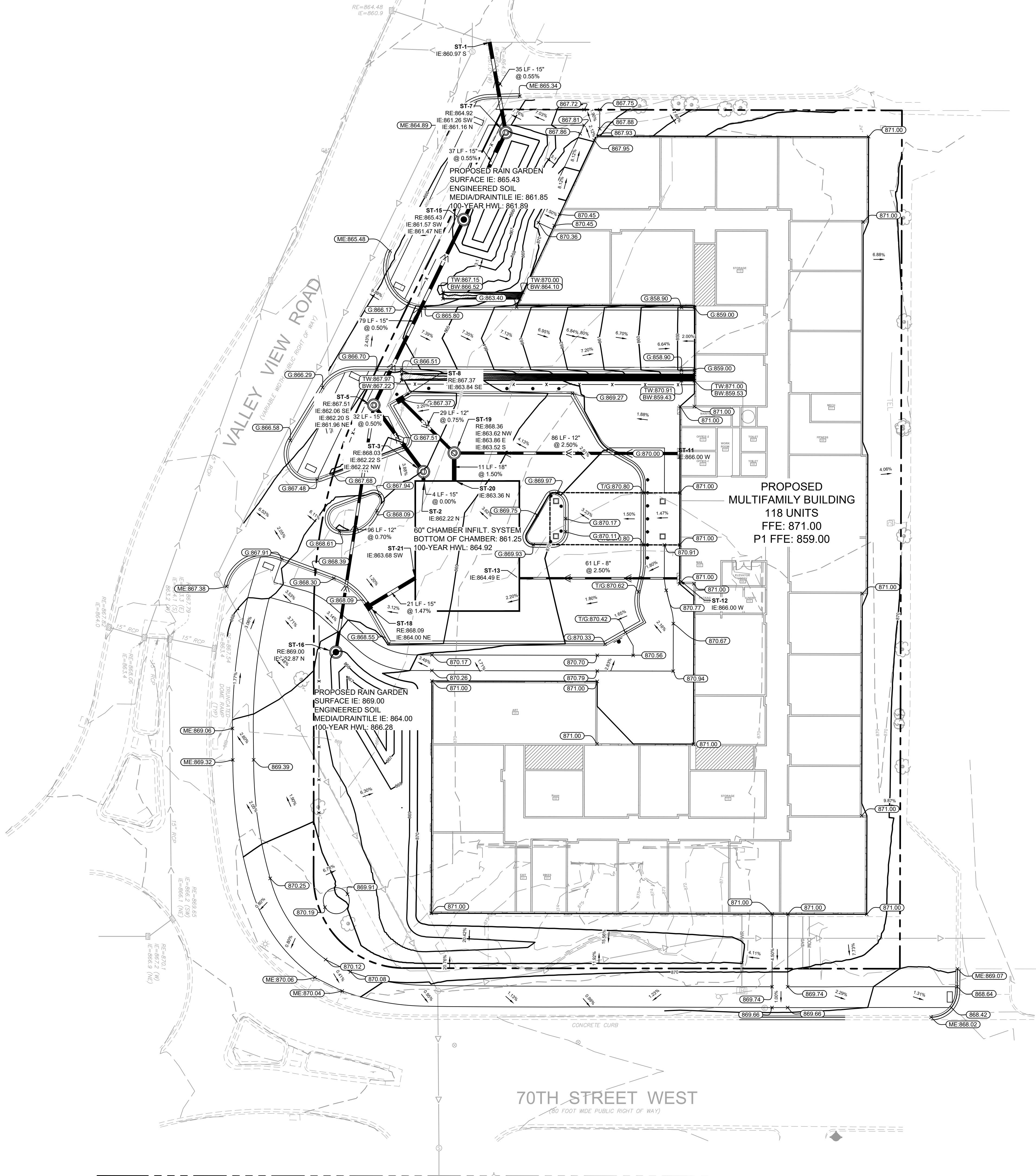
BRIAN K. WURDEMAN  
MINN. LIC. NO. 93113  
DATE: 04/12/2021

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No.	REVISIONS	DATE	BY

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C400



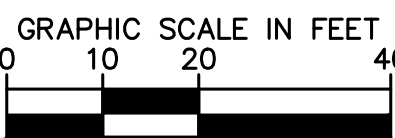
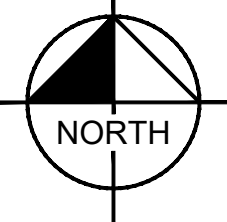


LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED STORM MANHOLE (SOLID CASTING)
- PROPOSED STORM MANHOLE/ CATCH BASIN (CURB INLET CASTING)
- PROPOSED STORM SEWER CLENOUT
- PROPOSED FLARED END SECTION
- PROPOSED RIPRAP
- PROPOSED STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED SPOT ELEVATION
- PROPOSED HIGH POINT ELEVATION
- PROPOSED LOW POINT ELEVATION
- PROPOSED GUTTER ELEVATION
- PROPOSED TOP OF CURB ELEVATION
- PROPOSED FLUSH PAVEMENT ELEVATION
- MATCH EXISTING ELEVATION
- PROPOSED EMERGENCY OVERFLOW
- PROPOSED DRAINAGE DIRECTION
- PROPOSED ADA SLOPE

GRADING PLAN NOTES

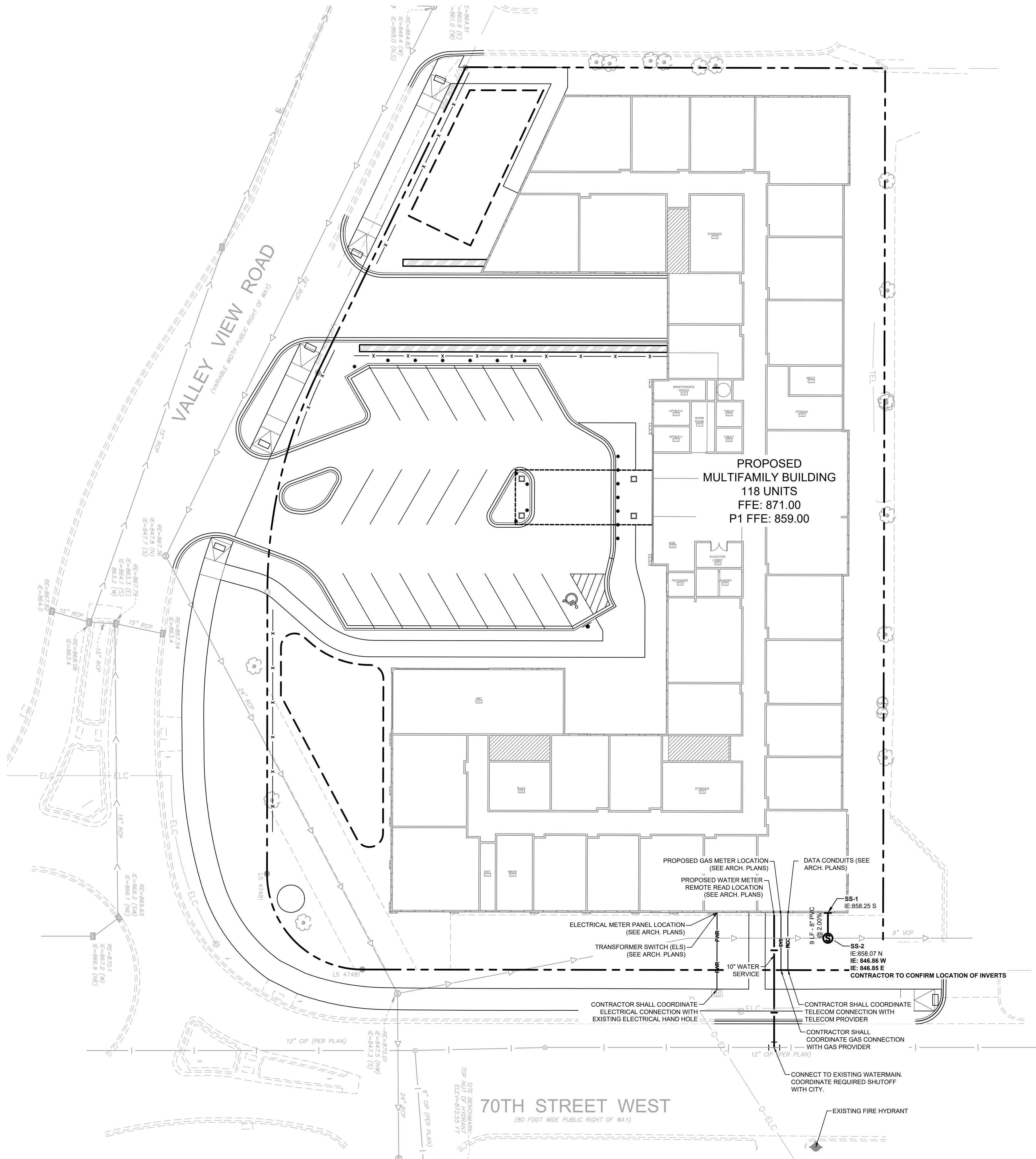
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF EDINA, SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
- CONTRACTOR TO CALL GOPHER STATE CALL ONE @ <1-800-252-1166> AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
- STORM SEWER PIPE SHALL BE AS FOLLOWS:  
RCP PER ASTM C-76  
HDPE: 6" - 10" PER AASHTO M-252  
HDPE: 12" OR GREATER PER ASTM F-2306  
PVC SCH. 40 PER ASTM D-1785  
STORM SEWER FITTINGS SHALL BE AS FOLLOWS:  
RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443  
HDPE PER ASTM D-3034, JOINTS PER ASTM D-3212  
PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
- CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
- SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING PAVEMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
- CONTRACTOR SHALL EXCAVATE DRAINAGE TRENCHES TO FOLLOW PROPOSED STORM SEWER ALIGNMENTS.
- GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION AND LEAVE STREET READY FOR SUBBASE.
- ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
- REFER TO THE UTILITY PLAN FOR SANITARY SEWER MAIN, WATER MAIN SERVICE LAYOUT AND ELEVATIONS AND CASTING / STRUCTURE NOTATION.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM FLOWS TO PROVIDE POSITIVE DRAINAGE.
- INSTALL A MINIMUM OF <4" CLASS 5> AGGREGATE BASE UNDER CURB AND GUTTER AND CONCRETE SIDEWALKS.
- UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF <4" OF TOPSOIL>.
- ALL SPOT ELEVATIONS/CONTOURS ARE TO GUTTER / FLOW LINE UNLESS OTHERWISE NOTED.
- GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2%. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A D A COMPLIANCE ISSUES.
- MAINTAIN A MINIMUM OF 0.5% GUTTER SLOPE TOWARDS LOW POINTS.
- CONTRACTOR TO PROVIDE 3" INSULATION BY 5' WIDE CENTERED ON STORM PIPE IF LESS THAN 4' OF COVER IN PAVEMENT AREAS AND LESS THAN 3' OF COVER IN LANDSCAPE AREAS.
- ROOF DRAIN INVERT CONNECTIONS AT THE BUILDING SHALL BE AT ELEVATION <XXX.XX> OR LOWER UNLESS NOTED OTHERWISE. REFERENCE MEP PLANS FOR ROOF DRAIN CONNECTION.
- ALL STORM SEWER CONNECTIONS SHALL BE GASKETED AND WATER TIGHT INCLUDING MANHOLE CONNECTIONS.
- ALL STORM SEWER PIPE SHALL BE AIR TESTED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
- MAINTAIN A MINIMUM OF 1.25% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.
- CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "INFALL CURB" WHERE PAVEMENT DRAINS TOWARD GUTTER, AND "OUTFALL" CURB WHERE PAVEMENT DRAINS AWAY FROM GUTTER.



PRELIMINARY - NOT FOR CONSTRUCTION

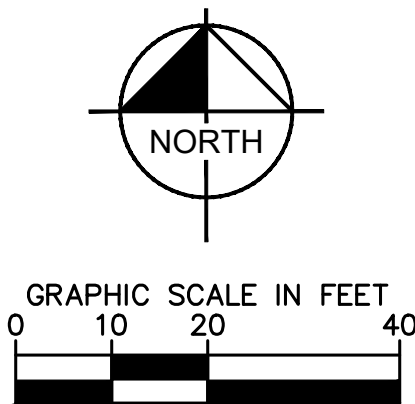
KIMLEY-HORN		2021 KIMLEY-HORN AND ASSOCIATES, INC. 767 EUSTIS AVE, SUITE 100, ST. PAUL, MN 55114 PHONE: 651-645-4197 WWW.KIMLEY-HORN.COM	
EDINA MULTIFAMILY		EDINA	
PREPARED FOR LUPE DEVELOPMENT PARTNERS		MN	
SHEET NUMBER C500		BY DATE	





LEGEND		
EXISTING		PROPOSED
		 GATE VALVE
		 HYDRANT
		 REDUCER
		 TEE
		 SANITARY SEWER MANHOLE
		 SANITARY CLEANOUT
		 WATERMAIN
		 SANITARY SEWER
		 STORM SEWER
		 STORM SEWER
		 UNDERGROUND ELECTRIC
		 TELEPHONE
		 GAS MAIN

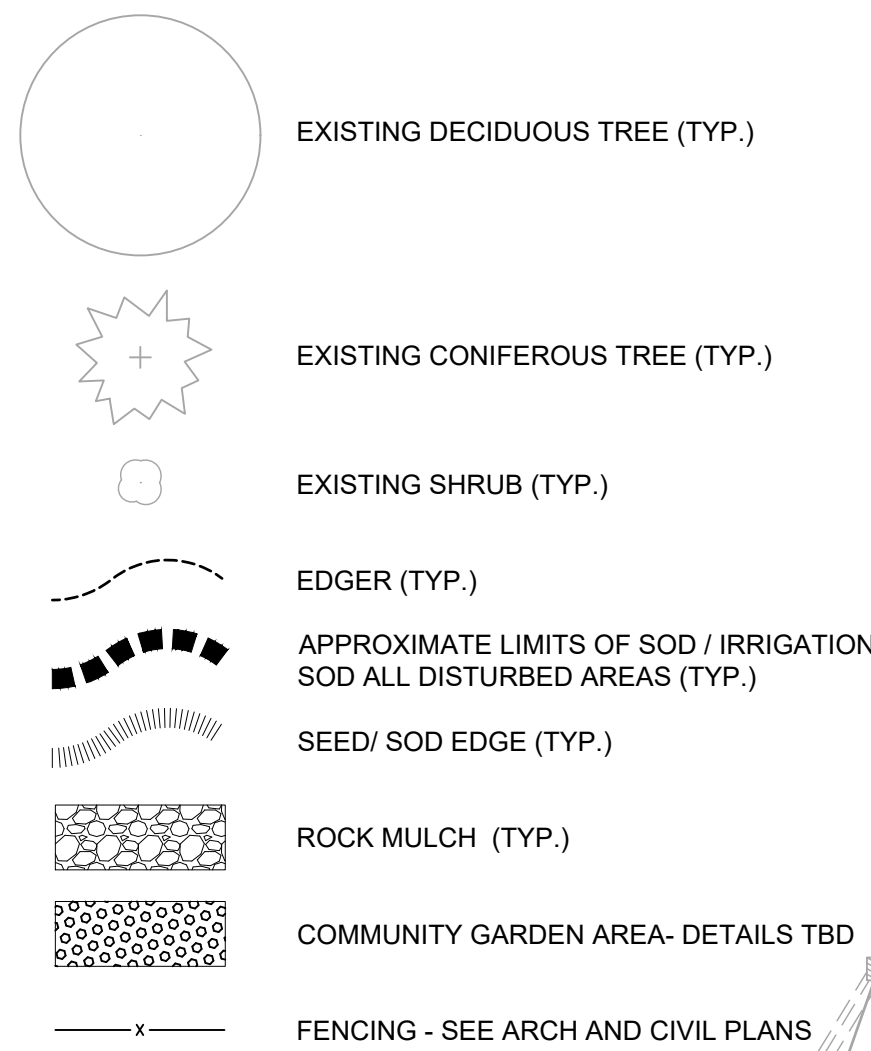
- UTILITY PLAN NOTES**
- ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
  - SANITARY SEWER PIPE SHALL BE AS FOLLOWS:  
8" PVC SDR35 PER ASTM D-3034, FOR PIPES LESS THAN 12' DEEP  
8" PVC SDR26 PER ASTM D-3034, FOR PIPES MORE THAN 12' DEEP  
6" PVC SCHEDULE 40 PER ASTM D-1785  
DUCTILE IRON PIPE PER AWWA C150
  - WATER LINES SHALL BE AS FOLLOWS:  
6" AND LARGER, PVC C-900 PER ASTM D 2241  
CLASS 200 UNDER COUNTY ROADS, OTHERWISE CLASS 150  
4" AND LARGER DUCTILE IRON PIPE PER AWWA C150  
SMALLER THAN 3" PIPING SHALL BE COPPER TUBE TYPE "K" PER ANSI B16.22 OR PVC, 200 P.S.I., PER ASTM D1784 AND D2241.
  - MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
  - ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH RESTRAINTS SUCH AS THRUST BLOCKING, WITH STAINLESS STEEL OR COBALT BLUE BOLTS, OR AS INDICATED IN THE CITY SPECIFICATIONS AND PROJECT DOCUMENTS.
  - ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE OR STRUCTURE).
  - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 7'-5" COVER ON ALL WATERLINES.
  - IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES, OR ANY OBSTRUCTION (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE SCH. 40 OR C900 WITH MECHANICAL JOINTS AT LEAST 10 FEET ON EITHER SIDE OF THE CENTER LINE OF THE CROSSING. THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE FASTENERS AS REQUIRED TO PROVIDE A MINIMUM OF 18" VERTICAL SEPARATION. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI Z11.1 (AWWA C-151) (CLASS S0).
  - LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
  - TOPS OF MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS, IN GREEN AREAS, WITH WATERTIGHT LIDS.
  - ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
  - EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
  - REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
  - CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE CITY OF EDINA AND/OR STATE OF MN WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
  - THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
  - CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES.
  - CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
  - CONTRACTOR SHALL REFERENCE ARCH / MEP PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.
  - BACKFLOW DEVICES (DDCV AND PRZ ASSEMBLIES) AND METERS ARE LOCATED IN THE INTERIOR OF THE BUILDING. REF. ARCH / MEP PLANS.
  - ALL ONSITE WATERMAINS AND SANITARY SEWERS SHALL BE PRIVATELY OWNED AND MAINTAINED.
  - ALL WATERMAIN STUBOUTS SHALL BE MECHANICALLY RESTRAINED WITH REACTION BLOCKING.



EDINA MULTIFAMILY PREPARED FOR LUPE DEVELOPMENT PARTNERS EDINA		MN	SHEET NUMBER C600	
UTILITY PLAN		KHA PROJECT 160062001 DATE 04/12/2021 SCALE AS SHOWN DESIGNED BY HKD DRAWN BY HKD CHECKED BY BMW		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  BRIAN M. WURDEMAN DATE: 04/12/2021 U.C. NO. 53113 MN
Kimley»Horn		© 2021 KIMLEY-HORN AND ASSOCIATES, INC. 767 EUSTIS AVE., SUITE 100, ST. PAUL, MN 55114 PHONE: 651-645-4197 WWW.KIMLEY-HORN.COM		No.
		REVISIONS		DATE
				BY



LANDSCAPE LEGEND



VALLEY VIEW ROAD  
(Variable Width Public Right of Way)

70TH STREET WEST  
(80 FOOT WIDE PUBLIC RIGHT OF WAY)

PROPOSED  
MULTIFAMILY BUILDING  
118 UNITS  
FFE: 871.00  
P1 FFE: 859.00

COMMUNITY GARDEN

70TH STREET WEST  
(80 FOOT WIDE PUBLIC RIGHT OF WAY)

PLANT SCHEDULE

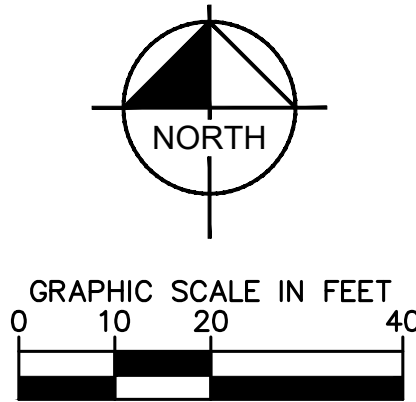
CONIFEROUS TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	BHS	8	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	B & B		6' HT.
ORNAMENTAL TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	JTL	9	SYRINGA RETICULATA	JAPANESE TREE LILAC CLUMP	B & B		6' HT.
	RVB	6	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK	B & B		6' HT.
OVERSTORY TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	ABM	2	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE MAPLE	B & B	2.5" CAL.	
	GSL	1	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	B & B	2.5" CAL.	
RAIN GARDEN	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	RTD	33	CORNUS SERICEA 'BAILADELINE'	FIREDANCE RED TWIG DOGWOOD	#5 CONT.	4' O.C.	
CONIFEROUS SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	GOJ	16	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	#5 CONT.	4' O.C.	
	TAU	14	TAXUS X MEDIA 'TAUNTONII'	TAUTON YEW	#5 CONT.	4' O.C.	
	TGA	13	THUJA OCCIDENTALIS 'BAILJOHN' TM	TECHNITO GLOBE ARBORVITAE	#5 CONT.	3' O.C.	
DECIDUOUS SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	ACD	6	CORNUS SERICEA 'ALLEMAN'S COMPACT'	DWARF RED TWIG DOGWOOD	#5 CONT.	4' O.C.	
	BDP	30	SYRINGA X 'SMSJB7' TM	BLOOMERANG DARK PURPLE LILAC	#5 CONT.		
	BLC	19	ARONIA MELANOCARPA 'IROQUOIS BEAUTY' TM	IROQUOIS BEAUTY BLACK CHOKEBERRY	#5 CONT.	4' O.C.	
	GLS	39	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#5 CONT.	4' O.C.	
	LDN	55	PHYSOCARPUS OPULIFOLIUS 'DONNA MAY' TM	LITTLE DEVIL NINEBARK	#5 CONT.	4' O.C.	
	LQF	16	HYDRANGEA PANICULATA 'SMHPLQF' TM	LITTLE QUICK FIRE HYDRANGEA	#5 CONT.		
	SEM	60	SORBARIA SORBIFOLIA 'SEM'	SEM FALSESPIREA	#5 CONT.	3' O.C.	
PERENNIALS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	SPACING
	BES	149	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACK-EYED SUSAN	#1 CONT		18" OC
	KFG	53	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#1 CONT		30" OC
	KKC	95	NEPETA X FAASSENII 'KIT KAT'	KIT KAT CATMINT	#1 CONT		18" OC
	PDS	29	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	#1 CONT		24" OC
	PWW	18	ECHINACEA X 'POW WOW WILDBERRY'	POW WOW WILDBERRY CONEFLOWER	#1 CONT		24" OC
	RRD	41	HEMEROCALLIS X 'ROSY RETURNS'	ROSY RETURNS DAYLILY	#1 CONT	18" O.C.	
RAIN GARDEN	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	SPACING
	AST	52	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	FLAT	2" PLUGS	36" OC
	BLU	35	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM GRASS	FLAT	2" PLUGS	36" OC
	BLV	42	VERBENA HASTATA	BLUE VERVAIN	FLAT	2" PLUGS	36" OC
	JPW	226	EUPATORIUM MACULATUM	JOE PYE WEED	FLAT	2" PLUGS	18" OC
	OXE	42	HELIOPSIS HELIANTHOIDES	OX-EYE SUNFLOWER	FLAT	2" PLUGS	36" OC
	PBS	147	LIATRIS PYCNOSTACHYA	PRAIRIE BLAZINGSTAR	FLAT		18" OC

LANDSCAPE REQUIREMENTS

TREES REQUIRED: 26 TREES = 1,039 FEET PERIMETER / 40  
TREES PROVIDED: 26 TREES  
OFF-STREET PARKING SCREENING:  
MUST BE 4 FEET ABOVE LEVEL OF PARKING LOT WITH MINIMUM  
OPACITY OF 90 PERCENT YEAR ROUND.

LANDSCAPE KEYNOTES

- (A) EDGER (TYP.)  
(B) DOUBLE SHREDDED HARDWOOD MULCH (TYP.)  
(C) ROCK MULCH (TYP.)  
(D) SOD (TYP.)



PRELIMINARY - NOT FOR CONSTRUCTION

EDINA MULTIFAMILY  
PREPARED FOR  
LUPE DEVELOPMENT  
PARTNERS

EDINA

KIMLEY-HORN  
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.  
767 EUSTIS AVE, SUITE 100, ST. PAUL, MN 55114  
PHONE: 651-645-4197  
WWW.KIMLEY-HORN.COM

MITCHELL & COOKS, P.L.A.  
MN  
DATE: 04/12/2021  
LIC. NO. 95622

KHA PROJECT  
160062001

DATE  
04/12/2021

SCALE AS SHOWN

DESIGNED BY PWB

DRAWN BY PWB

CHECKED BY MSC

SHEET NUMBER  
L100



[illegible]





**PLANNING COMMISSION**

**CITY OF EDINA  
HENNEPIN COUNTY  
STATE OF MINNESOTA**

**RESOLUTION NO. 2019-17**

**FINDING THAT A MODIFICATION TO THE TAX INCREMENT FINANCING PLAN FOR THE SOUTHDALE 2 TAX INCREMENT FINANCING DISTRICT CONFORMS TO THE GENERAL PLANS FOR THE DEVELOPMENT AND REDEVELOPMENT OF THE CITY.**

WHEREAS, sites at 4040 70th Street West and 7075-9 Amundson Avenue (the "Property") are proposed to be acquired for redevelopment into affordable housing projects; and

WHEREAS, the Edina Housing and Redevelopment Authority (the "HRA") has recommended terms by which tax increment financing from its existing Southdale 2 Tax Increment Financing District (the "TIF District") could be used to assist in the acquisition of the Property; and

WHEREAS, the City Council will hold a public hearing to consider a Modification to the Tax Increment Financing Plan of the TIF District (the "Modification") to designate the Property intended for acquisition with the use of TIF District funds; and

WHEREAS, Minnesota Statutes require notification and input from several entities as part of the process of establishing or modifying a Tax Increment Financing District; and

WHEREAS, the HRA and the City of Edina (the "City") have proposed to adopt the Modification to designate the Property for acquisition using Tax Increment funds and have submitted the Modification to the Edina Planning Commission (the "Commission") all pursuant to and in accordance with Minnesota Statutes, Section 469.175, Subd. 3 and 4; and

WHEREAS, the Commission has reviewed the Modification to determine its conformity with the general plans and guided land use as described in the comprehensive plan for the City.

NOW, THEREFORE, BE IT RESOLVED by the Commission that the Modification conforms to the general plans for the development and redevelopment of the City as a whole.

Dated: December 11, 2019

A handwritten signature in blue ink, appearing to read 'John O'Connell', is written over a horizontal line.

Planning Commission Chair

ATTEST:

A large, stylized handwritten signature in blue ink is written over a horizontal line.

Planning Commission Secretary

**CITY OF EDINA**

4801 West 50th Street • Edina, Minnesota 55424  
www.EdinaMN.gov • 952-927-8861 • Fax 952-826-0389



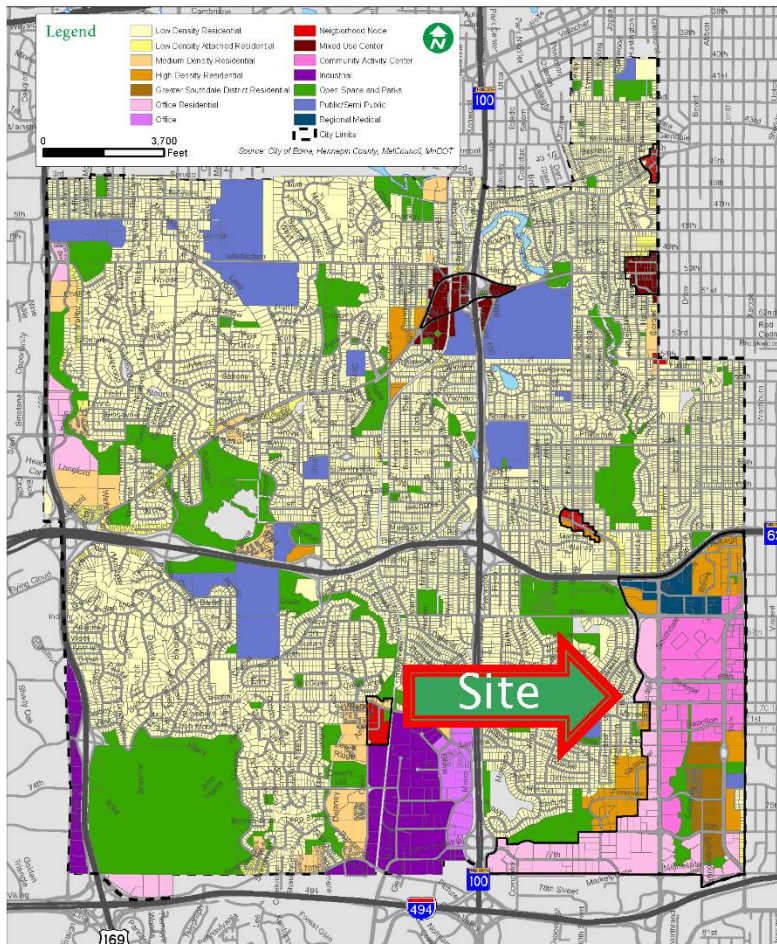
The CITY of  
**EDINA**

# Cornelia View Apartments

## Creation of a New Housing TIF District

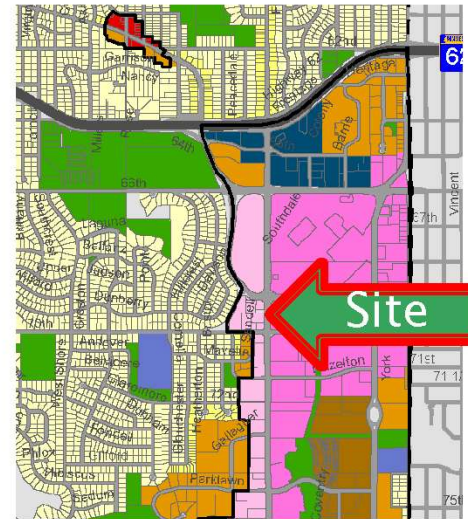
Stephanie Hawkinson  
Affordable Housing Development Manager  
July 29, 2021  
August 4, 2021





## The CITY of EDINA

Approve Resolution No. B-21-22 finding that the 4040 W. 70th St. TIF District conforms to the general plans for the development and redevelopment of the City.



### Legend

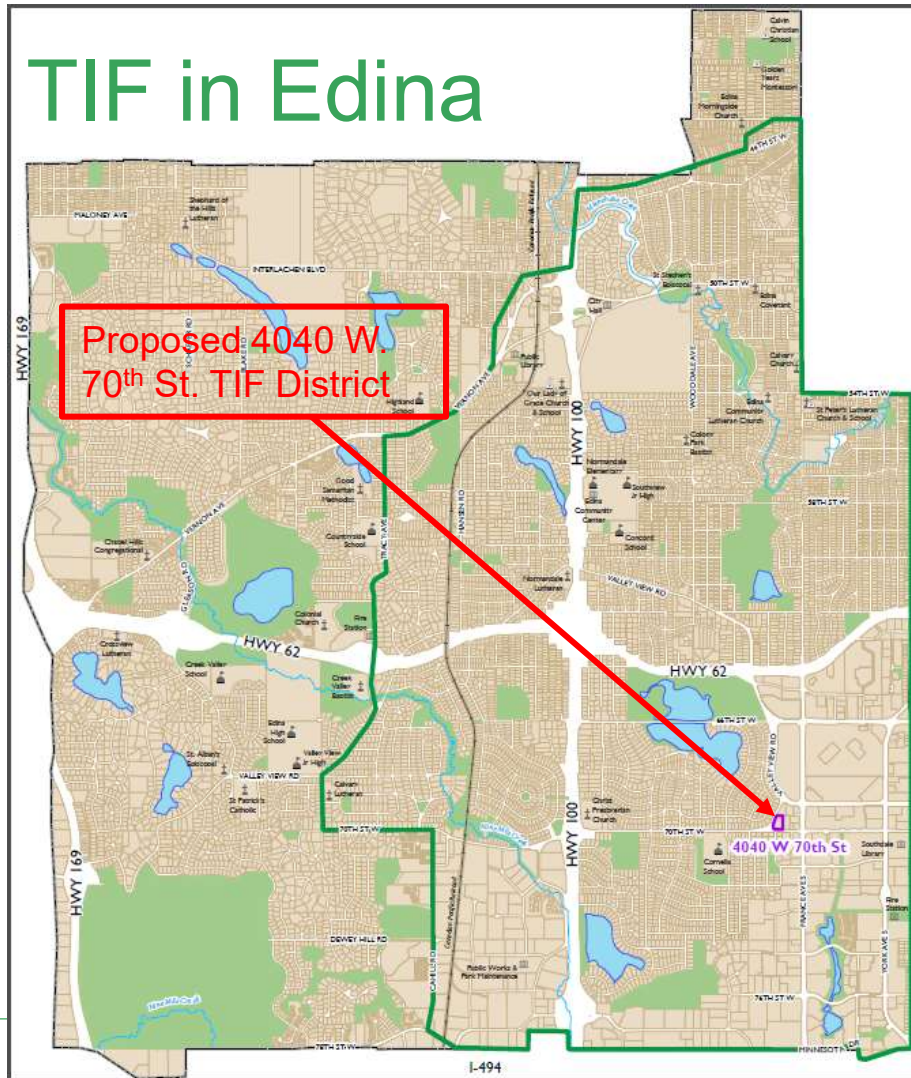
- Low Density Residential
- Low Density Attached Residential
- Medium Density Residential
- High Density Residential
- Greater Southdale District Residential
- Office Residential
- Office
- Neighborhood Node
- Mixed Use Center
- Community Activity Center
- Industrial
- Open Space and Parks
- Public/Semi Public
- Regional Medical
- City Limits

0 3,700 Feet

Source: City of Edina, Hennepin County, MetCouncil, MnDOT

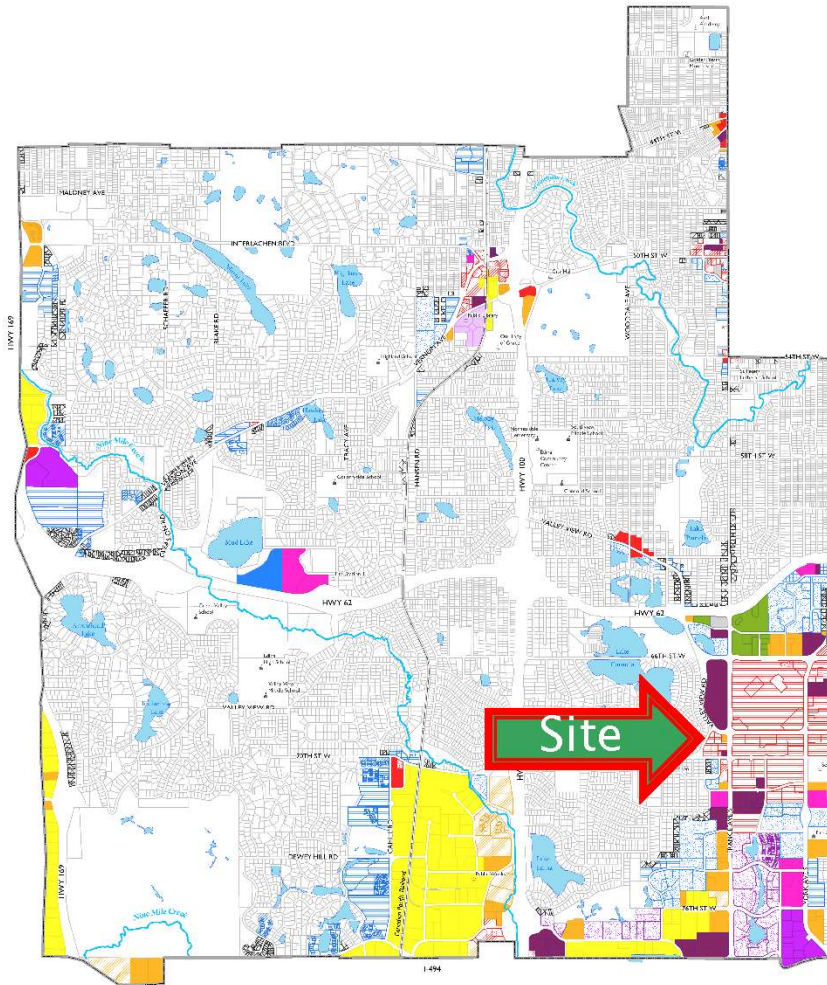


# TIF in Edina



The CITY of  
**EDINA**





## 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
- 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
- Private School



The CITY of  
**EDINA**



## Excerpts from Greater Southdale District Plan



The CITY of  
**EDINA**

Additionally, Edina's continued aging of its own population will bring increased development pressures to the district as these residents choose to leave their home but not their community. The development community is responding with new apartments for young singles and couples and with new senior and assisted living facilities near medical and other community services. (pg 32)

Land Use Goal #4: Provide for housing choices (housing and unit types, rental and ownership, and costs) to accommodate a wide range of individuals, including youth, singles, couples, families with children, seniors, and people with special needs. (pg 100)

5-A. Promote new housing adjacent to or near existing residential development to facilitate neighborhood clusters.  
5-B. Seek to optimize housing densities to increase housing that is proximate to transit and within walking distance of services and amenities. (pg 101)

The Greater Southdale District has an important role to play in accommodating expected housing growth. Already an area characterized by high density residential and mixed-use development, it is guided for additional infill development of a similar or higher intensity. The presence of jobs, retail and services, transit, and public amenities means this area contains the elements for a complete community, which can leverage these advantages for a convenient and accessible lifestyle for a range of household types.

Affordable housing is a necessary component of the housing mix. This is especially true given the demographic future of Greater Southdale. The expected growth in the senior population and the desire to attract young workers and families both point to the need to have more affordable housing, including options for those that might choose to move here from other parts of the community. (pg 85)

# Southdale 2 TIF Plan: 4040 W. 70th Street



The CITY of  
**EDINA**

4040 W. 70th Street



# Plan Conformance: Is residential use in compliance with Comprehensive Plan?



The CITY of  
**EDINA**

## 4040 West 70th Street

Acquisition of low-density office building for redevelopment into high density residential use. The site is guided for Office Residential.

