STAFF REPORT
DATE:4/14/2025
ITEM #:
**PUBLIC HEARING**

**TO:** Planning Commission
**FROM:** Nathan Fuerst, AICP, Consulting Planner
**AGENDA ITEM:** **Inwood 8th Addition - Preliminary Plat, PUD, and Comprehensive Plan Amendment**
**REVIEWED BY:** Jason Stopa, Community Development Director
Sophia Jensen, City Planner

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## BACKGROUND:

The City of Lake Elmo received a request from M/I Homes, to develop several vacant outlots of the Inwood preliminary plat. Inwood is one of the City's largest Master Planned Unit Developments. When the initial Inwood Preliminary Plat was approved in December 2014, the development was planned to contain 275 single family residential lots in the northeast side of the development, 264 multi-family residential units in the southeast, and approximately 90,000 square feet of commercial space on the west side of the development. A City Park, Ivywood Park, was also created on land dedicated to the City just north of 5th St. N.

Since the initial approval of the Inwood PUD, all the planned single-family homes were constructed in 5 consecutive phases, followed by one commercial project, the Kwik Trip at Inwood Avenue and 5th Street North. This phase of the Inwood project would include a 123 unit apartment west of Island Trail, and 149 attached townhomes primarily east of Island Trail for a total of 272 units.

The following applications were required for this project:

1. **Preliminary Plat** – An amendment to the exist PUD requires a Preliminary and Final Plat.
2. **PUD** – The land uses in this development are consistent with the City's zoning district, High Density Residential. At the time that the Planned Unit Development was initially approved for this development, the City did not establish any flexibility for this property through the PUD Ordinance. Therefore, any flexibility required to the City's standards will be required to go back through the PUD review process.
3. **Comprehensive Plan Amendment –** The overall site is split in terms of future land use guidance. The western portion of the site exceeds the permitted density, and the Metropolitan Council restricts projects from blending densities across future land use areas. The proposed density will be permitted through a change in the Future Land Use, through the Comprehensive Plan amendment process. The Comprehensive Plan Amendment will cover the entire site.

## ISSUE BEFORE THE PLANNING COMMISSION:

The Planning Commission is being asked to review the preliminary plat, PUD, and comprehensive plan amendment requests to either table for further consideration or to make a recommendation to the City Council.

**REQUEST DETAILS:**

| | |
|---|---|
| *Applicant:* | M/I Homes of Minneapolis/St. Paul, LLC. |
| *Property Owner:* | Vadnais Associates, LLC. |
| *Location:* | Unaddressed parcel Southeast and Southwest of the intersection of 5th Street North and Island Trail. |
| *PID#:* | 33.029.21.14.0029, 33.029.21.13.0028, 33.029.21.42.0017, and 33.029.21.42.0018 |
| *Current Zoning:* | High-Density Residential (HDR)/Planned Unit Development (PUD), Shoreland Overlay |
| *Proposed Zoning* | HDR/PUD, Shoreland Overlay |
| *Future Land Use:* | Mixed Use Commercial/High-Density Residential/Business Park |
| *Surrounding:* | Low-Density Residential (LDR) PUD, Public Facility, Business Park PUD, HDR PUD/Commercial |
| *Deadline for Action:* | Application Complete: 2/14/2025<br>120 Day Preliminary Plat Deadline: 6/14/2025 |

**PROPOSAL DETAILS/ANALYSIS:**

**Site Data.**

| | |
|---|---|
| Total Site Area | 19.27 acres |
| Total Wetland Area | 0 acres |
| Total Units | 272 units |
| Overall Net Density | 14.12 units/acres |

**Comprehensive Plan Conformance.**

A comprehensive plan amendment is proposed by the developer to reguide the land west of Island Trail from Mixed Use Commercial to High Density Residential. The primary reason is to allow for the residential net density to be blended across this part of the Inwood development.

The Inwood Townhomes project is currently proposed across two different Future Land Use Categories. East of Island Trail, the future land use is designated as High Density Residential (HDR) which allows residential uses at a density range of between 8.01-15 units per acre. West of Island Trail, the future land use designation is Mixed Use Commercial (MU-C), which allows a density range of 10-15 units per acre. On their own, the two different parts of the development would have a net density of over 21 units per acre on the west side of Island Trail and 11.4 units per acre on the east side of Island Trail. Collectively, the entire project's net density is 14.12 units per acre which is within the allowable density of both future land use categories.

This development had an approved preliminary plat and EAW which both anticipated this level of density. Additionally, the entire project is below the maximum density in both future land use categories. Staff are therefore supportive of the request to amend the City's comprehensive plan.

**Land Use(s).**
The City's zoning map indicates that the subject property is zoned High Density Residential (HDR) with a PUD overlay. The proposed land uses, Multifamily Residential and Single Family Attached (townhomes), are permitted with conditions in the underlying HDR zoning district.

After a review of the Inwood PUD ordinance, staff have concluded that no PUD flexibilities or other standards were created for this part of the overall Inwood Development Project. Therefore, the zoning requirements for this property are all determined based on all current applicable standards from Lake Elmo City Code.

**Environmental Review.** This project is covered under an existing Environmental Assessment Worksheet (EAW) originally prepared for the Inwood Development at the time of the Inwood Preliminary Plat. Staff have reviewed the EAW and determined it accounted for the number of units and intensity of development proposed in this phase of the Inwood development. Furthermore, this project does not trigger a mandatory EAW on its own under Minnesota state rules. No further environmental review is required.

**Project Phasing.** As proposed, the Townhome portion of the development would be constructed in three separate phases, with the first phase beginning in 2025. The apartment building is not included in the phasing plan or narrative, but is assumed by staff be included as part of the project's first phase as it will be constructed by a separate developer, Rachel Development.

**PUD Minimum Requirements.**
The Developer is proposing private drives, which are allowed by a Conditional Use Permit by ordinance, but which create a need for other flexibilities based on the lack of street frontage to the residential units. A PUD is a negotiated zoning district, and according to the Lake Elmo Zoning Code Article 18, Planned Unit Development Regulations, zoning flexibility can be granted in order to better utilize site features and to obtain a higher quality of development.

City Code establishes minimum thresholds a project must meet in order to qualify as a PUD. Staff has found that the proposed development does meet the following minimum requirements of a PUD:

a. **Lot Area:** The site area exceeds the minimum lot area for of five acres for a PUD development.
b. **Open Space:** The PUD ordinance indicates that at least 20% of the development area not within roadway corridors is to be reserved as open space.
c. **Street Layout:** In existing developed area, the PUD should maintain the existing street grid, where present, and restore the street grid where it has been disrupted. In newly developing areas, streets shall be designed to maximize connectivity in each cardinal direction, except where environmental or physical constraints make this infeasible. All streets shall terminate at other streets, at public land, or at a park or other community facility, except that local streets may terminate in stub streets when those will be connected to other streets in future phases of the development or adjacent developments.

**PUD Identified Objectives.**
When evaluating a PUD proposal, the City must find a PUD meets one or more objectives contained in Article 18, which are listed below:

a. Innovation in land development techniques that may be more suitable for a given parcel than conventional approaches.
b. Promotion of integrated land uses, allowing for a mixture of residential, commercial, and public facilities.
c. Establishment of appropriate transitions between differing land uses.
d. Provision of more adequate, usable, and suitably located open space, recreational amenities, natural resource protection and other public facilities than would otherwise be provided under conventional land development techniques.
e. Accommodation of housing of all types with convenient access to employment opportunities and/or commercial facilities; and especially to create additional opportunities for lifecycle housing to all income and age groups.
f. Preservation and enhancement of important environmental features through careful and sensitive placement of buildings and facilities.
g. Coordination of architectural styles and building forms to achieve greater compatibility within the development and surrounding land uses.
h. Creation of more efficient provision of public utilities and services, lessened demand on transportation, and the promotion of energy resource conservation.
i. Establishing measures to protect and preserve groundwater storage.
j. Allowing the development to operate in concert with a redevelopment plan in certain areas of the City and to ensure the redevelopment goals and objectives will be achieved**.**

In their narrative, the applicant claims to meet all identified objectives. Staff find that the development may not meet all objectives, but could support findings for meeting b, c, e, and g.

**Bulk Standard Review.**
Cells in the 'As Proposed' column shaded in **blue** indicate a deviation requested from City Code.

| HDR Zoning Standards (105.12.720) | Requirements | Proposed - Single Family Attached | Proposed - Multifamily Dwelling |
|---|---|---|---|
| Single Family Attached - Minimum Lot Area | 1,750 sq ft/ unit | 4,306 sq ft/unit | - |
| Multifamily Dwelling - Minimum Lot Area | 1800 sq ft/ unit | - | 1608 sq ft/unit |
| Single Family Attached - Minimum Lot Width | 20 ft/unit | 21.3 feet | - |
| Multifamily Dwellings – Minimum Lot Width | 60 ft/ bldg | - | > 300 ft |
| Maximum Impervious Cover | 75% | Not Provided (Estimated at 80-83%) | 46.4% |
| Minimum Setback – Front | 20 ft | 5-9' | 50 ft |
| Minimum Setback – Side | 10 ft | 20 ft (between buildings) | 30 ft |
| Minimum Setback – Corner | 15 ft | 20 ft | - |
| Minimum Setback – Rear | 20 ft | 5-12' | 30 ft |
| Minimum Setback – 5th St. N. | 40 ft | 32 ft | > 60 ft |
| Maximum Height | 50 ft | 30-40' | 38' |

**Specific standards for Single Family Attached in the HDR.** City Code Section 105.12.740 (j) contains standards for attached townhome units in the HDR Zoning District. The Development meets requirements for buildings to be below ten units, and adequate open space is provided. The City's standards require buildings to front a public street with 15' of frontage and with no parking between the building and street. Private drives are permitted by the City's ordinance through a conditional use permit. The private lots are all greater than 15' wide and front a private drive. The only project element not meeting Section 105.12.740(j) are the townhomes along the south side of Street C which are not double fronted, and would have parking between the private street and the front of the homes. PUD Flexibility is requested by the Developer to this standard.

**Specific standards for Multifamily Dwellings in the HDR.** City Code Section 105.12.740 (k) requires that parking be screened from the public streets and that common open space of a minimum 200 square feet per unit. Both design standards are met by this proposed project.

**Design Guideline Conformance.** City Code Section 105.12.840 requires design review against standards in the Lake Elmo Design Standards Manual. The proposed housing types are provided in the packet and include elevations and floor plans. Staff review of conformance is below:

Townhome Site Design

- Building placement – Buildings are oriented perpendicular to the street, with entrances oriented towards the street where possible. Outside of the buildings along 5th Street N and Island Trail, building entrances are not provided directly onto a public street.
- Streetscape – Concrete sidewalks are provided through the development, but do not run along a public street. Buildings along proposed street C are primarily loaded with driveways facing the street with no frontage on a public street. No site furnishings such as benches or open areas are identified on the site plans.
- Landscaping – Overstory trees will not meet the City's boulevard tree spacing standard of one tree every 50'. Landscaping with shallow root systems which will not impact utility service lines should be planted between driveways to screen mechanical and HVAC equipment. Preservation of existing trees will help the development blend in with the existing development along the 5th Street North Corridor.
- Parking – All parking would be in enclosed spaces or on driveways and would not impede pedestrian movement. Street parking is proposed as 90-degree stalls, however staff would recommend parallel parking instead, also to be located in bump-outs where driveways are not present.

Townhome Building Design

- Form and Façade – Buildings are proposed with architecture consistent throughout the site, and the surrounding areas. Facades are articulated with little or no blank wall space. The front-loaded townhomes on the south side of "Street C" are inconsistent with standards requiring that parking be rear loaded. Garages are not recessed although that is a requirement of the design standards.
- Building Materials – Vinyl siding is prohibited by the City's design standards and approval would be required through the proposed PUD. Otherwise, design and color appear to be generally consistent with standards for townhomes.

- Mass and Scale – Buildings are articulated to create the appearance of multiple structures. Due to the private street design approach, buildings are located more closely together than nearby residential development, creating a denser appearance.
- Roof Design, Entries, Lighting – Features proposed are consistent with City standards for this type of construction.
- Signage – No signage appears to be proposed on the site plan and is thus not reviewed as part of this project.

Apartment Building Site Design

- Building placement – The building is oriented to both 5th Street North and Island Trail.
- Streetscape – Better connectivity could be provided from the north side of the apartment to 5th Street North for people choosing to walk or bike to area commercial amenities. Otherwise this part of the development complies with streetscaping requirements.
- Landscaping – Overstory trees will line the edges of this site along the public right of way with additional tree plantings and open space exceeding minimum requirements.
- Parking – The parking is central to the apartment site and is fully screened from public right of way.

Apartment Building Design

- Form and Façade – The apartment building facades are articulated with blank wall space minimized. No parking is proposed between the façade and street, meeting design standards.
- Building Materials – Materials and finishes are generally of quality with colors consistent with a requirement for earth or muted tones.
- Mass and Scale – Given the surrounding land uses of the apartment building site, the scale and mass of the building is an appropriate transition to lower intensity residential land uses east of the site.
- Roof Design, Entries, Lighting – features proposed are consistent with City standards for this type of construction and site layout.
- Signage – No signage appears to be proposed on the site plan and is thus not reviewed as part of this project.

**Parks and Trails.** The City Code requires park land dedication for all new residential developments. The City may also determine that land is not necessary and accept a cash fee in lieu for the purpose of enhancing the existing park and trail system. The development plans identify a public trail running east to west across the south side of the development. This trail does not meet the City's trail corridor requirements, and is not included in the City's trail system plans. Therefore, Staff are not supportive of approving a trail credit and suggest the developer revise the plans to include a concrete sidewalk in order to facilitate pedestrian connectivity around the site.

At its meeting on March 17, 2025, the City's Park Commission discussed the proposed development and made a recommendation to the City Council for acceptance of cash in lieu of land. Any park land or cash dedication would be subject to a credit from dedication of Ivywood park in previous additions of the Inwood development. Staff recommend acceptance of cash in lieu of park land given proximity of this project to an existing park.

**Subdivision Signs.** Section 105.12.430 allows 1 subdivision sign per entrance to the residential development. One primary sign is allowed with a maximum sign area of 32 sq. ft. and all other signs must be 24 sq. ft. or less. No signs are currently identified on the development plans. Staff suggest a condition of approval to clarify that no flexibility is granted for signage and that sign permits are required if and when any signage is proposed.

**Tree Preservation.** There is an existing stand of primarily pine and spruce trees on the east side of the property. The Developer is proposing to remove one tree and to preserve the rest. No mitigation is required. It will be the developer's responsibility to coordinate with city development staff to appropriately install tree protections at the grading limits.

**Landscaping.** The City's Landscape Architect has reviewed the planting plan for conformance with the City's ordinance. The Applicant is currently showing enough trees to meet the City's Code, although the planting locations are not always desirable based on the spatial constraints of the proposed development. The number of housing units and non-standard width of the private road corridors between buildings compresses the area for plantings to be located, and some are in locations that could cause conflicts with drainage or future street and utility maintenance. The development does not meet requirements for 50' spacing of boulevard (street tree) plantings.

**Buffering and Screening.** Given the location of this property adjacent to more intense land use, there is not a requirement for the developer to screen their land use under City Code Section 105.12.480 (f). This is because the more intensive land use (the Bremer services lot) is the one required by code to provide screening.

Some consideration of the land use to the south, Bremer, is recommended in order to reduce potential conflicts related to the parking lot such as headlights. Landscaping along the southern lot line could be considered, as could repositioning the units to be rear loaded and served by an alley. That would help reduce the conflicts by positioning garage door openings in the areas most impacted.

**Irrigation.** An irrigation plan was provided with the submittal. This phase of the Inwood development is not proposed to utilize stormwater reuse. The Lake Elmo City Council has required stormwater reuse in recent developments. As this project was never envisioned to be served by stormwater reuse when it was originally approved, retroactively requiring it would cause additional costs that are not understood at this time. The added costs which would ultimately be borne by the homebuyers or renters or could cause the project to be no longer viable as proposed.

**Shoreland Standards.** This project is located in the City's Shoreland Overlay District. A buffer of 300' surrounds an unnamed tributary on the southeast corner of the Inwood Development. Some minor overlap exists between the shoreland overlay and improvements (driveway and parking area) on the proposed apartment lot. The City's staff has clarified with the Minnesota DNR that no shoreland variances are needed because improvements within the master planned Inwood Development are well below the 30% impervious surface maximum allowed in sewered districts.

**Off-Street Parking, Multifamily.** City code requires one space per one bedroom unit, and two spaces for all units over 2 bedrooms. An additional one space for every four units is required for visitor parking. The Apartment site provides 123 enclosed stalls and 98 surface parking stalls for a total of 221 stalls.

There are 55 units with 2 or more bedrooms, and 68 that have one bedroom. Therefore City's code requires a total of 209 stalls, which includes 31 stalls of visitor parking. At least one stall per unit is enclosed with 123 stalls of proposed parking.

**Off-Street Parking, Single-Family Attached.** Since all of the attached townhome units will have more than 2 bedrooms, the City's code will require two spaces per unit. City code will also require an additional 30 parking spaces for visitors (10% of total parking required). The spaces required for parking the units will be found in the two-car garages provided with each unit. The driveways for each unit have been required to be deep enough to support an additional two parking spaces per unit. The parking proposed for the townhome units will satisfy the amount required by city code.

**Traffic and Access.** Since the proposed land uses are consistent with the anticipated density range of future development and access spacing requirements of the City, no further study will be required to understand the traffic impacts. The City Engineer has anticipated needs for turn lanes and secondary access to all units, which is reflected in the proposed plans and the forthcoming City Engineering memo.

**Lighting**. A photometric plan was provided for the apartment building. The plan shows that the building complies with city code. All lighting fixtures proposed in the development will be required to be downcast and compliant with applicable lighting standards.

**PROPOSED PUD DEVIATIONS AND REVIEW.**

The following list summarizes the proposed deviations from City Code that would be approved with this PUD as presented:

1. Minimum lot size for multifamily apartment building
2. Front and rear yard setbacks for townhome lots
3. Impervious Surface for attached townhome lots
4. Building setback from 5th Street North
5. Attached Townhomes not fronting a public street
6. Boulevard Tree Spacing a minimum of every 50'
7. Parking between front façade of attached townhomes and the street (lots along southern project boundary)
8. Lake Elmo Design Standards Manual
    - Vinyl siding proposed on attached townhomes
    - Access to apartment buildings is not located along a public street frontage

Other or related staff concerns with the development include the following

- The plans do not exceed standards for landscaping, and in some cases, landscaping is fit into tight spaces where it may not be viable long term.
- Sidewalks and trees are located very close to buildings and/or easements.
- The streetscape will lack trees/greenspace and be mostly paved driveway areas.
- Parallel Street parking is suggested along streets to create a better streetscape and maximize green space.
- Except for an existing wooded area, the open space serving the attached townhomes east of Island Trail largely consists of stormwater swales or mandatory setbacks between buildings. Although it could technically meet minimum standards, this development is not providing high quality open spaces or streetscapes.

- The proposed rear loaded design has created a combination of a street and alley, which does not conform with the design standards in city code or guidelines. The site could be redesigned to include a combination of public streets with private drives/alleys to create truly double-fronted lots with better streetscaping.
- Access from the apartment building to the commercial uses west and north is lacking. The site plan should be modified to make better use of the open space to the north of the building to both connect the building to the sidewalk along 5th street north and possibly provide some amenities to activate the open space.
- Screening of the parking lot to the south should be considered. Staff anticipate conflicts with the parking area of Bremer financial.

**PLANNED UNIT DEVELOPMENT AND PRELIMINARY PLAT FINDINGS.**

At this time staff are not supportive of the request as proposed given the concerns identified in the section above. Staff therefore recommend the City require the plans to be modified in order to more closely conform with the City's ordinances.

City Code Article XVIII provides for the requirements and process to approve a Planned Unit Development. To approve a PUD, the project will need to meet minimum standards for a PUD found in Section 105.12.1150 and meet at least one identified objective in section 105.12.1130. Both sections are provided above in this report.

The process for the review of preliminary plats is established in City Code Section 103.00.090. A development should be approved only if it does not meet the criteria for denial as follows:

- That the proposed subdivision is in conflict with the city's comprehensive plan, development code, capital improvements program, or other policy or regulation.
- That the physical characteristics of the site, including, but not limited to, topography, vegetation, susceptibility to erosion and siltation, susceptibility to flooding, water storage, and retention, are such that the site is not suitable for the type or intensity of development or use contemplated.
- That the design of the subdivision or the proposed improvements are likely to cause substantial and irreversible environmental damage.
- That the design of the subdivision or the type of improvements will be detrimental to the health, safety, or general welfare of the public.
- That the design of the subdivision or the type of improvement will conflict with easements on record or with easements established by judgment of a court.
- That the subdivision is premature as determined by the standards of this title.

The Planning Commission is asked to create findings of fact in support of recommended action to the City Council. Considerations for findings include the following:

- Is the project consistent with the City's Comprehensive Plan?
- Is the project consistent with the City's subdivision ordinance and criteria for approval or denial?
- Is the project consistent with the City's minimum requirements and identified objectives for Planned Unit Developments?
- Is the project conforming with the City's zoning ordinance and design standards?
- How might the project impact surrounding land uses?

**COMPREHENSIVE PLAN AMENDMENT FINDINGS.**

The process for the review of Comprehensive Plan Amendments is established in City Code Section 3.12.280 and Minnesota State Statutes. While specific findings are not established in that ordinance, staff recommend the following findings:

1. That the applicant has submitted a request to the City of Lake Elmo to amend the Comprehensive Plan in accordance with the procedures as established by the Lake Elmo Planning Department and the Lake Elmo Planning Commission; and
2. That the request is to amend the Map 3-3, Future Land Use Map to change the future land use category of the parcel addressed 8699 5th St N, with the PID 3302921130028, from Mixed Use Commercial to High Density Residential; and
3. That the proposed amendment is consistent with the overall goals and objectives of the Lake Elmo Comprehensive Plan.
4. That the proposed amendment is consistent with the preliminary plat for the Inwood Development granted by the Lake Elmo City Council on December 2, 2014.

**AGENCY REVIEW:**

This request was distributed to several departments and agencies for review on Thursday, February 27 2025. The following review comments are noted:

- Fire Department – Memo dated March 4, 2025 provides comments on minimum standards for roads, drives and parking areas, fire suppression requirements, building safety systems, addressing and street naming, and fire department access.
- City Engineer – Memo dated April 7, 2025 provides comments on how the development would be revised to meet minimum City engineering design standards.
- City Landscape Architect – Memo dated March 6, 2025 provides comments on conformance with City tree preservation and landscaping requirements.
- South Washington Watershed District (SWWD) – Watershed District staff indicated there were no comments.
- MN DNR – The MN DNR did not provide any comments.
- Washington County – County Staff indicated there were no comments on the project or Comprehensive Plan Amendment.
- City of Oakdale – City Staff indicated there were no comments on the project or Comprehensive Plan Amendment.
- City of Woodbury – City Staff indicated there were no comments on the project or Comprehensive Plan Amendment.

Minimum conditions of approval have been included to address agency review comments where applicable.

**CONDITIONS OF APPROVAL:**

Should the City approve the development, City staff suggest the following as minimum conditions for approval:

1. Prior to the City finding any application for a final plat and final PUD complete, the applicant shall fully address all comments in the following review memos to the satisfaction of the City:
   a. City Engineer's memo dated April 7, 2025;
   b. City Landscape Architect's memo dated March 6, 2025;

c. City Fire Chief's memo dated March 4, 2025; and,
d. City Planning comments related to addressing.

2. That prior to the City finding any application for final plat and final PUD complete, the applicant shall demonstrate that the plans reflect compliance with South Washington Watershed (SWWD) review requirements and that the applicant provide the City evidence that all conditions attached to a SWWD permit will be met before the starting any grading activity on the site.
3. That the applicant shall obtain all necessary permits including but not limited to all applicable City permits (building, grading, sign, etc.), NPDES/SWPPP permits and South Washington Watershed District approval before starting any grading or construction activities.
4. The final plat shall include all necessary and additional public right-of-way and easements.
5. The applicant/developer is responsible, at their own expense, for installing all required right of way improvements.
6. A storm water maintenance and easement agreement in a form acceptable to the City shall be executed and recorded with the final plat.
7. The applicant/developer shall provide the City a fee in lieu of park land dedication as required by Section 103.00.150 to be paid prior to recording of the final plat.
8. If landscaping is proposed in the City's Right of Way, a landscape and irrigation license agreement in a form acceptable to the City shall be executed and recorded with the final plat.
9. A sign permit will be required for any signage installed on site, and signage must comply with applicable city standards.
10. The Applicant shall submit information demonstrating compliance with a Plat Opinion by the City Attorney, to the satisfaction of the City, before execution or recording of the Final Plat.
11. If necessary, the applicant shall provide the City with a copy of written permission for any off-site grading work and storm sewer discharges to adjacent properties before starting any site work, grading and as part of any final plat or final PUD application.
12. Before the execution and recording of a final plat for the development, the developer or applicant shall enter into a Developer's Agreement or a Site Work Agreement with the City. Such an Agreement must be approved by the City Attorney and by the City Council. The Agreement shall delineate who is responsible for the design, construction and payment for the required improvements with financial guarantees therefore. The Agreement shall outline any approved phasing plan.
13. The applicant or developer shall enter into a separate grading agreement with the City before starting any grading activity in advance of final plat/ PUD approval. The City Engineer shall review any grading plan that is submitted in advance of a final plat or final PUD, and said plan shall document the extent of any proposed grading on the site.
14. That the Applicant must submit the final plat within 180 days after City Council approval of the preliminary plat or approval of the preliminary plat shall be considered void unless a request for a time extension is submitted in writing and approved by the City Council.

**PUBLIC COMMENT:**

A public hearing was sent to surrounding property owners on April 1st, 2025, and published in the Stillwater Gazette on April 4th, 2025. At this time no public comments have been received.

**OPTIONS:**

The Planning Commission may:

- Recommend approval of the request;
- Recommend approval of the request with conditions;
- Recommend denial of the request. Citing findings of fact for denial;
- Table the request for consideration at a future meeting.

**RECCOMENDATION:**

Staff recommend the Planning Commission discuss the requests made by the Developer in order to provide a recommended action to the City Council with supporting findings of fact. Considerations for possible findings are provided in the above sections of this report.

Should the Developer wish to move forward with the plans as presented, the City's staff would recommend denial of the preliminary plat and PUD, but would still recommend approval of the Comprehensive Plan Amendment.

Example [Approval/Denial] recommendation motion:

***"Move to recommend the City Council [approve/deny] the preliminary plat and PUD for the Inwood Townhome Development requested by M/I Homes with the findings of fact proposed by the Commission."***

Example motion to table:

***"Move to table consideration of the Inwood Townhome Development to a future meeting."***

Example Comprehensive Plan Amendment approval motion:

***"Move to recommend City Council approval of the Comprehensive Plan Amendment request by M/I Homes for the subject property with the findings proposed by City Staff."***

**ATTACHMENTS:**

1. Submittal Package
2. City Engineer Memo April 7, 2025
3. City Fire Dept Memo March 4, 2025
4. City Landscape Architect Memo March 6, 2025

# INWOOD TOWNHOMES COMPREHENSIVE PLAN AMENDMENT, PRELIMINARY PLAT, DEVELOPMENT STAGE PLANNED UNIT DEVELOPMENT REQUESTS

# INTRODUCTION

M/I Homes of Minneapolis/St. Paul, LLC (M/I Homes) is submitting application for a Comprehensive Plan Amendment, Preliminary Plat, Development Stage Planned Unit Development (PUD) Plan for a development containing 149 townhomes and a 123-unit apartment building. M/I Homes will be constructing the townhomes and partnering with Rachel Development, Inc. for the apartment building. Townhomes and an apartment building were shown on the approved Inwood preliminary planned unit development plans, and the Inwood Preliminary Plat and Planned Unit Development (PUD) Resolution 2014-94 approved the PUD which includes 275 single family homes and 264 multifamily units. An Environmental Assessment Worksheet (EAW) and Traffic Study were completed and approved with the approval of this preliminary plat. M/I Homes (dba Hans Hagen Homes) developed Inwood, including the extension of sewer and water to the multi-family property, as well as the construction of 5th Street and Island Trail. M/I Homes also constructed ponding and an infiltration basin to serve the subject property.

## SITE PLAN

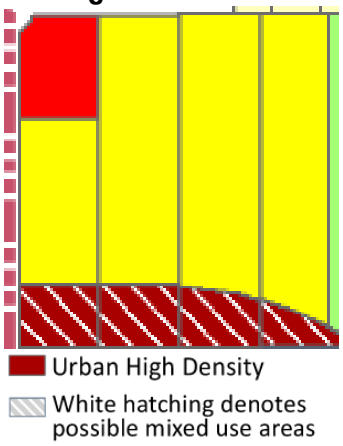
We are proposing private streets throughout the community with one street connection to 5th Street North and one connection to Island Trail. The public street-facing homes are proposed to consist of our City Collection Townhomes, which are our new rear-loaded three-story townhomes. The internal buildings and buildings that border the bank to the south will be our Carriage Collection Townhomes, which are front-loaded two-story townhomes. We have proposed a sidewalk on the southern border to connect 5th Street North to Island Trail, and sidewalk connections are provided for the rear-loaded City Collection townhomes. The proposed apartment is located on the northwest corner of the site, separated from all but one townhome building by Island Trail. M/I Homes and Rachel Development have experience working together on multi-family projects similar to this one. One such project is Marsh View which is located at 137th Avenue North in Rogers, Minnesota. An aerial photo of this development is included in this narrative.

M/I Homes previously submitted a sketch plan review application to City staff and have subsequently made amendments to the proposed plan. We have revised the street layout to eliminate dead-end roadand have provided an additional access to the apartment building. We also increased the front yard setbacks from the private street from 25 feet to 30 feet. Additionally, we have combined two access points off Island Trail to one and have rotated the townhome buildings to the west of Island Trail to face the public street and have combined those buildings, creating parking in the rear. The changes resulted in the loss of 4 townhome units.

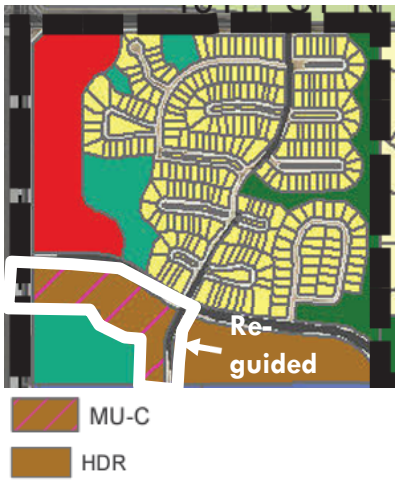
## COMPREHENSIVE PLAN AMENDMENT

With the 2040 Comprehensive Update (well after the entire Inwood site had an approved preliminary plat), a portion of the site to the west of Island Trail was re-guided from High Density Residential to Mixed Use Commercial, and the east side of Island Trail remained High Density Residential. This Land Use Guide Plan change was inconsistent with the approved preliminary pat for Inwood At the time of the Inwood PUD approval the City of Lake Elmo allowed the blending of densities across parcels. Since, then, however, standards have changed, and a Comprehensive Plan amendment is necessary to allow the proposed neighborhood as originally approved by the City. The parcel to the west of Island Trail has a proposed density of 21.13 units per acre, which is above the allowed maximum density of the Mixed-Use Commercial land use guidance of 15 units per acre. The east side of Island Trail proposes 141 townhomes, and with a site area of 13.1 acres, has a net density of 10.76 units per acre, which is well below the allowed density of 15 units per acre. As such, we are requesting a Comprehensive Plan Amendment to guide the parcel on the west side of Island Trail back to High Density Residential and blend the density across the entire site as originally approved in the Inwood PUD. The City's land use plan has long designed the subject property as High Density, which occurred before any of the existing homes were built in the single-family portion of the Inwood PUD

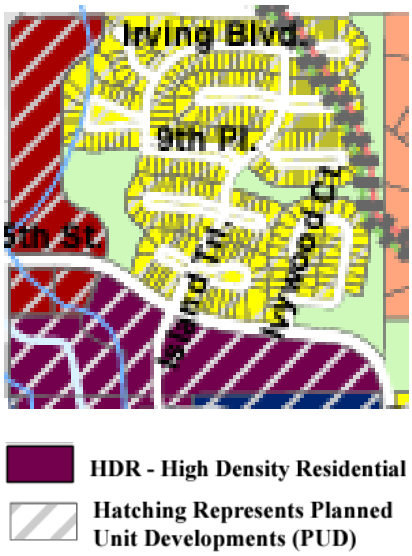
**Existing Land Use at time of Adoption of 2040 Comprehensive Plan**




**Future Land Use at time of Adoption of 2040 Comprehensive Plan**




**The proposed development is zoned High Density Residential (HDR)**



The proposed development includes the following parcels:
PID# 3302921140029 (12.7 acres)
PID# 3302921130028 (5.7 acres)
PID# 3302921420018 (0.4 acres)
PID# 3302921420017 (0.5 acres)
Total site acreage: 19.3 acres

With 272 units, this results in a density of 14.09 units per acre, which is within the allowable density.

## GENERAL DEVELOPMENT STAGE PUD/PRELIMINARY PLAT

The proposed development is part of the approved Inwood PUD. The development meets the City's minimum PUD requirements in that it is larger than five acres, at least 20% of the site is open space which will be protected by a drainage and utility easement, and streets are designed to maximize connectivity in each cardinal direction.

We believe the following PUD objectives are met with this site plan:

1) Innovation in land development techniques that may be more suitable for a given parcel than conventional approaches.
   ***Response:*** The original Inwood PUD included the use of private streets. Private streets are necessary to implement the original Inwood PUD approval. We believe the site design provides sufficient circulation and an eye-pleasing streetscape.
2) Promotion of integrated land uses, allowing for a mixture of residential, commercial and public features.
   ***Response:*** The Inwood PUD provides a mixture of commercial and a wide variety of housing options including single-family homes, villa homes (which are targeted towards an aging population), townhomes, and an apartment.
3) Establishment of appropriate transitions between differing land uses.
   ***Response:*** 5th Street North buffers the apartment site and townhomes. The townhomes are mostly buffered from the apartment by Island Trail. This is consistent with the City's Comprehensive Plan.
4) Provision of more adequate, usable, and suitably located open space, recreational amenities, natural resource protection and other public facilities than would otherwise be provided under conventional land development techniques.
   ***Response:*** The Inwood PUD includes a public park and a linear trail corridor than extends from 5th Street to 10th Street. Other trails and opens space areas are incorporated into the overall Inwood PUD. Private open space areas are also incorporated into the townhome portion of the Inwood PUD
5) Accommodation of housing of all types with convenient access to employment opportunities and/or commercial facilities; and emphasized to create additional opportunities for lifecycle housing to all income and age groups.
   ***Response:*** See response to 2.
6) Preservation and enhancement of important environmental features through careful and sensitive placement of buildings and facilities.
   ***Response:*** An Environmental Assessment Worksheet, which included this site and contemplated the multifamily and townhome portion of the site, was submitted and accepted by the City as part of the approved original PUD. There are no significant environmental features on this site.
7) Coordination of architectural styles and building forms to achieve greater compatibility within the development and surrounding land uses.
   ***Response:*** As previously mentioned, our rear-loaded City Collection townhomes will front all public streets, providing visual interest from the single-family homes across from 5th Street

North. The apartment will include landscaping to provide a buffer from 5th Street North, and the parking lot is screened from 5th Street North by the apartment building itself.

8) Creation of more efficient provision of public utilities and services, lessened demand on transportation, and/or the promotion of energy resource conservation.
   ***Response:*** Private streets will be owned and maintained by the HOA, which will reduce demand on City infrastructure and snow removal services.
9) Establishing measures to protect and preserve groundwater storage.
   ***Response:*** Ponding and an infiltration basin were constructed with the development of the single-family home portion of the Inwood development. Stormwater reuse for irrigation is being utilized in the single-family portion of the site.
10) Allowing the development to operate in concert with a redevelopment plan in certain areas of the city and to ensure the redevelopment goals and objectives will be achieved.
   ***Response:*** This application will allow the completion of the Inwood PUD as originally approved.

The following table demonstrates requested zoning flexibility.

| **Standard** | **HDR Zoning Standard (Single Family Attached)** | **Proposed** |
|---|---|---|
| Minimum Lot Size | 1,750 square feet (acknowledges that common lot areas will add a higher total than 1,750 square feet) | 19.3 acres=840,708 square feet This divided by the number of units totals 3,090.83 square feet per unit |
| Minimum Lot Width | 20 feet | 21.33 feet |
| Minimum Front Setback | 20 feet | 20 feet from Island Trail and 5th Street North with 6-foot upper-level balcony encroachment abutting 5th Street North and Island Trail<br>30 feet to back of curb on private streets |
| Minimum Side Setback | 10 feet | 20 feet between buildings[1] |
| Minimum Corner Side Setback | 15 feet | 20 feet[1] |
| Rear Setback | 20 feet | 30 feet to boundary[1] |
| Street Frontage | I5 feet of street frontage | This is a requested flexibility because the majority of townhome units are on private streets. |
| Impervious Surface | 75% | 65% (the existing plan shows 55%) |
| Maximum Number of Units within a Single Building | 8 | 8 |
| Minimum Street Frontage | 15 feet | We are proposing private streets, which are a conditional use per Section 105.12.740 (g)(2)(a). |
| Common or Private Open Space | 300 square feet per unit for single family attached (300 X 149 = 44,700 square feet or 1.03 acres) and 200 square feet per unit for multifamily (200 X 123 = 24,600 square feet or 0.56 acres) or 1.59 acres total | 8.63 acres of open space, which excludes the public park and open space areas already dedicated to the City as part of the Inwood PUD. |

| | | |
|---|---|---|
| Private Streets | Private Streets are an allowed conditional use in the HDR district. | We are proposing 24-foot-wide private streets with 30-foot front yard setbacks. |
| Driveway setbacks | No driveway or curb cute shall be less than 50 feet from any right-of-way line of any street intersections.<br><br>A driveway must be at least five feet from any side lot line. | We are requesting flexibility from these standards, as these are private streets that will only be used by this development's residents and their visitors. |
| Garage Design Guidelines | Attached garages are encouraged to be side or rear loaded | All townhomes that abut public right-of-way are proposed to be our City Collection townhomes, which have rear-loaded garages. The Carriage collection, which does not meet this guideline, only abuts a private street, and the garage will not be visible from the property to the south. |
| Parking | Multifamily: One space per one bedroom unit and two spaces per two-bedroom unit or larger (66 studio and one-bedroom units and 57 two-bedroom units or larger=180 required) and one space per four units for visitor parking (123X0.25=31, 211 total)<br>Single-family attached: Ten percent of parking spaces for visitor parking (149X0.1=15 visitor spaces | Multi Family: 99 above ground and 123 underground parking spaces (222 total)<br>Single-family attached: Two garage and two driveway parking spaces plus 34 visitor spaces for single family attached dwellings |

1. City standards do not contemplate individually platted units on private streets with surrounding commons area, which leads to noncompliance with strict interpretation of the code.

## DESIGN STANDARDS

The following demonstrates how the proposed plan meets the City's design standards:

- Buildings are located as close to and easily accessible by the street as possible while still meeting setback requirement with allowed flexibility.
- Common open spaces are located at the interior and rear of the site.
- Sidewalks are provided parallel to the street and provide interconnectivity within the development.
- Parking is screened from public streets.
- Townhomes that front a public street are rear loaded.
- Buildings provide multiple roof lines and visual interest.

## PHASING

We are proposing to begin construction on the first phase in spring of 2025, the second phase in the spring of 2026, and the third phase in spring of 2027.

## LANDSCAPING/TREE PRESERVATION

The landscaping plan is included with the submittal. M/I Homes has also previously completed all of the landscaping and berming along 5th Street as part of the Inwood PUD. This landscaping includes the boulevards adjacent to the subject property. There are only six boulevard trees proposed to be removed along 5th Street North to facilitate construction, which will be replaced in similar locations. We have provided sufficient boulevard trees, meeting the 50-foot spacing requirement for both the townhome and apartment site and have provided the sufficient number of trees required per area of disturbance (this includes the trees that will remain on site). Parking lot landscaping meets landscaping area and shade tree requirements.

## TOWNHOME INFORMATION

The townhomes in the proposed development will consist of M/I's Carriage and City Collection townhomes. The different townhome designs provide for added character and visual interest within the neighborhood as well as varying prices. The two-story Carriage Collection is planned to be positioned to the south and east of the site, adjacent to the existing single-family homes, with the three-story City Collection along public street frontages. A variety of exterior colors will be used throughout the neighborhood to provide additional visual interest while avoiding a monotony of colors.

The Carriage Collection offers a range of design features and options and ranges in size from 1,667 square feet to 1,772 square feet with 3 bedrooms and 2.5 bathrooms. The City Collection plans will provide up to 4 bedrooms and 3.5 bathrooms ranging from 1,898 square feet to 2,080 square feet.

## RESTRICTIVE COVENANTS

Inwood Townhomes will have a Homeowners Association (HOA) that will provide for the maintenance of the overall common elements in the community, including landscaping and irrigation of the common areas, snow removal from sidewalks and private streets, and exterior maintenance. In the unlikely event that the site runs out of snow storage, the HOA service will haul out snow from the site. The HOA will also provide for restrictions on outdoor storage, parking (no boats, campers, or trailers) in order to keep the community looking orderly and well maintained.

## FEES

With the single-family portion of the development, the Developers Agreements for each addition detailed the following:

- **Parkland.** The Development Contract for Inwood dated June 9, 2015 detailed that park dedication fees were satisfied for the single-family portion of the Inwood Development with the dedication of Outlot L (net 10.73 acres) and that the 1.16 acres of excess park dedication credit was to be applied for the future multi-family residential area as conceptually shown on the Inwood PUD concept plan.
- **Sewer and Water Availability Charges.** M/I Homes was responsible for paying $3,000 for both Sewer Availability Charge (SAC) and Water Availability Charge (WAC) per residential equivalency unit (REU) prior to recording the final plat. A $1,000 Sewer Connection Charge, the Metropolitan Council's Sewer Availability Charge ($2,435 at the time) and a Water Connection Charge of $1,000 per REU was due at the time of building permit.
- **County Right-of-Way (ROW) Improvements.** M/I Homes was responsible for improvements in the Washington County ROW along Inwood Avenue (CSAH 13) including construction of a new median crossing, turn lanes, and other improvements as were required by the County as well as its proportionate share of the future traffic signal at the intersection of Inwood and 5th Street. There were to be no further obligations to the City or County for the construction or payment of a future traffic signal for any future phases of the Inwood PUD.

## ELEVATION EXAMPLES

**Carriage Collection***



*Colors will vary, and slight design modifications may be made.

**City Collection***



*Colors will vary, and slight design modifications are being made.

**Apartment Building**



**Marsh View Townhome/ Development**






## LEGEND

- CITY COLLECTION TOWNHOME (ALLEY LOAD)
- CARRIAGE TOWNHOME (FRONT LOAD)
- 3-STORY APARTMENT BUILDING

## SITE DATA

| | |
|---|---|
| TOTAL SITE AREA | ±19.27 AC. |
| TOWNHOME AREA | ±11.77 AC. |
| APARTMENT AREA | ±4.54 AC. |
| OUTLOT AREAS | ±2.96 AC. |
| TOTAL NUMBER OF UNITS | 272 |
| TOWNHOME UNITS (TOTAL) | 149 |
| CITY COLLECTION TOWNHOME | 107 |
| CARRIAGE TOWNHOME | 42 |
| 3-STORY APARTMENT BUILDING | 123 |

## LEGAL DESCRIPTIONS

That part of OUTLOTS A, N & P, INWOOD and OUTLOT B, INWOOD SIXTH ADDITION as recorded in Washington County Surveyor's Office.

N

0 40 80 160

( SCALE IN FEET )

# SITE PLAN RENDERING

**THE TOWNS of INWOOD**
Lake Elmo, Minnesota

CARLSON ENGINEERING
ENGINEERING
SURVEYING
PLANNING
3890 PHEASANT RIDGE DRIVE NE, SUITE 100, BLAINE, MN 55449
TEL 763.489.7900 \ FAX 763.489.7959 \ CARLSON-ENGINEERING.COM

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, Minnesota 55416

REVISIONS

| | |
|---|---|
| 1. | |
| 2. | |
| 3. | |
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| 6. | |
| DRAWN BY: | C# / RR |
| ISSUE DATE: | 04/02/25 |
| FILE NO: | XXX |

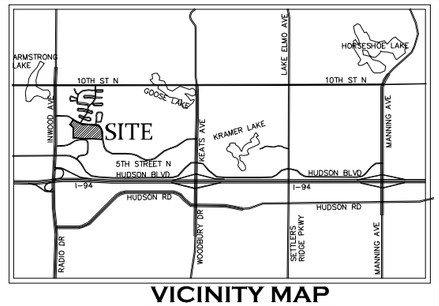
PRELIMINARY

1 of 1

Save Date: 04/02/25 \\cmlhq01\public\jobs\5161 5180\5172-01 - inwood\out cad\landscape\concept rendering\inwood\5172-01_site 4_rr.dwg

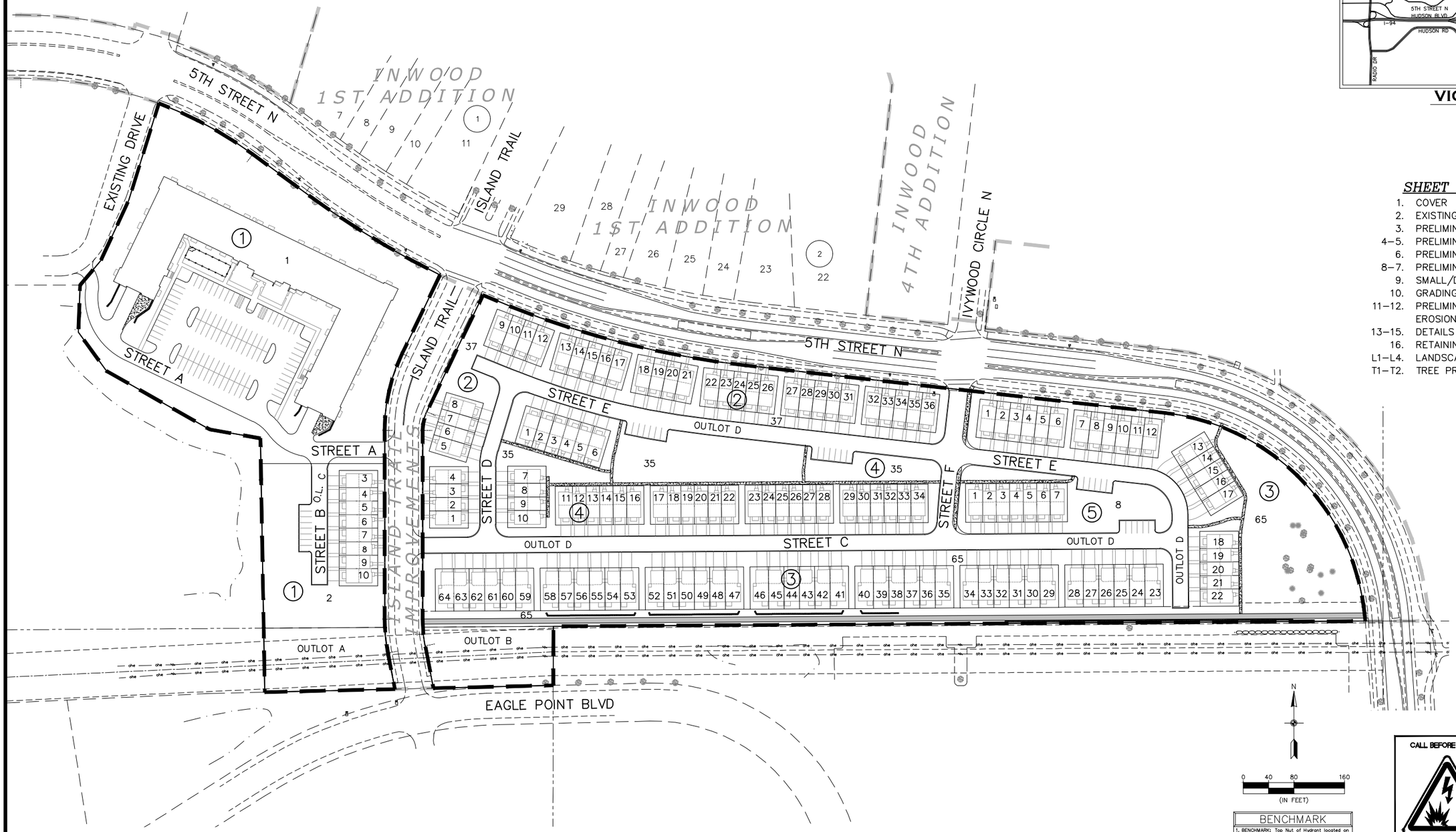
# INWOOD TOWNHOMES

## LAKE ELMO, MINNESOTA




**VICINITY MAP**

NOT TO SCALE




***SHEET INDEX***


1. COVER
2. EXISTING CONDITIONS
3. PRELIMINARY PLAT INDEX
4–5. PRELIMINARY PLAT
6. PRELIMINARY SITE & UTILITY PLAN INDEX
8–7. PRELIMINARY SITE & UTILITY PLAN
9. SMALL/DRY UTILITY CORRIDOR LAYOUT
10. GRADING INDEX
11–12. PRELIMINARY GRADING & EROSION CONTROL PLAN
13–15. DETAILS
16. RETAINING WALL PROFILES
L1–L4. LANDSCAPE PLANS
T1–T2. TREE PRESERVATION PLANS


N

0 40 80 160

(IN FEET)

**BENCHMARK**

1. BENCHMARK: Top Nut of Hydrant located on the south side of Eagle Point Road approximately 1290 ft. easterly of the intersection of Eagle Pont Road and Inwood Avenue North – Elevation = 1006.57 ft.

CALL BEFORE YOU DIG

811

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

The subsurface utility information shown on this plan is utility Quality Level D. This quality level was determined according to the guidelines of CI/ASCE 38-02, entitled "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."


CARLSON ENGINEERING
ENGINEERING
SURVEYING
PLANNING

3880 PHEASANT RIDGE DR NE
SUITE 100
BLAINE, MN 55449
TEL 763.489.7900
FAX 763.489.7999
CARLSON-ENGINEERING.COM


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

Print Name: Brian J. Krystofiak, P.E.

Signature:

Date: 12/20/24 License #: 25063

Drawn: KRO

Designed: BJK

Date: 12/20/24

Revisions:
1. 1/23/25 per City Comments.
2. 2/11/25 per City Comments.

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**COVER**

1 of 16

Save Date: 02/13/25 I:\Jobs\5161 - 5180\5172-01 - Inwood\cad (3d)\engineering\prelim plans\5172-01_cover.dwg

#5172-01

## LEGEND

- Denotes Washington County Section Monument, as noted
- Denotes Set PK Nail
- Denotes Found Iron Monument, as noted
- Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361
- Denotes Light Pole
- Denotes Miscellaneous Sign
- Denotes Sanitary Manhole
- Denotes Storm Manhole
- Denotes Catch Basin
- Denotes Flared End Section
- Denotes Fire Hydrant
- Denotes Gate Valve
- Denotes Cleanout
- Denotes Utility Pole
- Denotes Electric Transformer
- Denotes Electric Box
- Denotes Hand Hole
- Denotes Underground Telephone
- Denotes Underground Electric
- Denotes Underground Gas
- Denotes Underground Fiber Optic
- Denotes Overhead Utility Line(s)
- Denotes Watermain
- Denotes Sanitary Sewer
- Denotes Storm Sewer
- Denotes Concrete Surface
- Denotes Bituminous Surface
- Denotes Existing Contour

N

0 40 80 160

( SCALE IN FEET )

**BENCHMARK**

1. BENCHMARK: Top Nut of Hydrant located on the south side of Eagle Point Road approximately 1290 ft. easterly of the intersection of Eagle Pont Road and Inwood Avenue North – Elevation = 1006.57 ft.

PROPERTY DESCRIPTION: (Per Schedule A of Title Commitment No. 696840, with a commitment date of May 23, 2024 at 7:00 A.M., prepared by Land Title, Inc. as issuing agent for Stewart Title Guaranty Company)

Abstract Property

Outlot A, Inwood, Washington County, Minnesota.

AND

Outlot B, Inwood Sixth Addition, Washington County, Minnesota.

Torrens Certificate No. 81980

Outlot N, Inwood, according to the plat thereof on file and of record in the office of the Registrar of Titles in and for Washington County, Minnesota.

Torrens Certificate No. 81980

Outlot P, Inwood, according to the plat thereof on file and of record in the office of the Registrar of Titles in and for Washington County, Minnesota.

GENERAL NOTES:

1) Bearings shown hereon are based on the South line of Outlot A, INWOOD, which is assumed to bear N89°38'02"E.

2) Surveyed property contains ±19.27 acres.

3) Above ground utilities have been field located as shown. All underground locations shown hereon are APPROXIMATE. Prior to any excavations or digging, contact Gopher State One Call for an on-site location (651-454-0002).

CARLSON ENGINEERING
ENGINEERING SURVEYING PLANNING
3890 PHEASANT RIDGE DR NE
SUITE 100
BLAINE, MN 55449
TEL 763.489.7900
FAX 763.489.7999
CARLSON-ENGINEERING.COM

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota

Print Name: Thomas R. Balluff, L.S.
Signature:
Date: 12/20/24 License #: 40361

DRAWN BY: NPC
ISSUE DATE: 12/20/24
FILE NO: 1870

Revisions:
1. 1/23/25 per City Comments
2. 2/11/25 per City Comments

**M/I HOMES OF MINNEAPOLIS/ST. PAUL, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**EXISTING CONDITIONS**



Save Date: 02/11/25 F:\Jobs\5161 - 5180\5172-01 - Inwood\cad c3d\survey\pre0liminary\5172-01_excon.dwg

PROPERTY DESCRIPTION: (Per Schedule A of Title Commitment No. 696840, with a commitment date of May 23, 2024 at 7:00 A.M., prepared by Land Title, Inc. as issuing agent for Stewart Title Guaranty Company)

Abstract Property

Outlot A, Inwood, Washington County, Minnesota.

AND

Outlot B, Inwood Sixth Addition, Washington County, Minnesota.

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Torrens Certificate No. 81980

Outlot P, Inwood, according to the plat thereof on file and of record in the office of the Registrar of Titles in and for Washington County, Minnesota.

## SITE DATA

| | |
|---|---|
| **TOTAL SITE AREA** | **±19.27 AC.** |
| **TOTAL OUTLOT AREA** | **±2.96 AC.** |
| OUTLOT A | ±0.45 AC. |
| OUTLOT B | ±0.43 AC. |
| OUTLOT C | ±0.15 AC. |
| OUTLOT D | ±1.93 AC. |
| **TOTAL LOT AREA** | **±16.31 AC.** |
| APARTMENT LOT | ±4.54 AC. |
| TOWNHOME LOTS | ±5.20 AC. |
| COMMON LOTS | ±6.57 AC. |
| SMALLEST LOT | ±1,301 S.F. |
| LARGEST LOT | ±197,774 S.F. |
| AVERAGE LOT | ±5,268 S.F. |
| **TOTAL NUMBER OF LOTS** | **155** |
| APARTMENT LOTS | 1 |
| TOWNHOME LOTS | 149 |
| COMMON LOTS | 5 |
| **GROSS DENSITY** | |
| APARTMENT (123 UNITS) | 27.09 UNITS/AC. |
| TOWNHOME | 10.13 UNITS/AC. |
| TOTAL SITE DENSITY | 14.12 UNITS/AC. (272 UNITS/19.27 AC.) |
| **EXISTING ZONING** | **HDR/PUD** |
| **PROPOSED ZONING** | **HDR/PUD** |
| **UTILITIES** | **AVAILABLE** |

## SETBACK DATA

**APARTMENT**
LOT 1, BLOCK 1
FRONT — 50 FT. (TO 5TH STREET N.)
50 FT. (TO ISLAND TRAIL)
SIDE — 30 FT (TO LOT LINE)
REAR — 30 FT (TO LOT LINE)

**TOWNHOMES**
LOTS 3–10, BLOCK 1; LOTS 93–100, BLOCK 2
FRONT — 20 FT. (TO ISLAND TRAIL)
SIDE — 20 FT. (BETWEEN BUILDINGS)
SIDE CORNER — 20 FT. (TO BACK OF CURB)
GARAGE — 30 FT. (TO BACK OF CURB)

LOTS 1–50, BLOCK 2
FRONT — 20 FT. (TO 5TH STREET N.)
SIDE — 20 FT. (BETWEEN BUILDINGS)
SIDE CORNER — 20 FT. (TO BACK OF CURB)
GARAGE — 30 FT. (TO BACK OF CURB)

LOTS 51–92, BLOCK 2
GARAGE — 30 FT. (TO BACK OF CURB)
SIDE — 20 FT. (BETWEEN BUILDINGS)
SIDE CORNER — 20 FT. (TO BACK OF CURB)
25 FT. (TO ISLAND TRAIL)
REAR — 30 FT. (TO SITE BOUNDARY)

LOTS 101–141, BLOCK 2
FRONT — 5 FT. (TO LOT LINE)
SIDE — 20 FT. (BETWEEN BUILDINGS)
SIDE CORNER — 20 FT. (TO BACK OF CURB)
GARAGE — 30 FT. (TO BACK OF CURB)

## LEGEND

- Denotes Washington County Section Monument, as noted
- Denotes Set PK Nail
- Denotes Found Iron Monument, as noted
- Denotes 5/8 inch by 14 inch rebar, marked with RLS 40361

0 40 80 160
( SCALE IN FEET )


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Print Name: Thomas R. Balluff, L.S.
Signature:
Date: 12/20/24 License #: 40361

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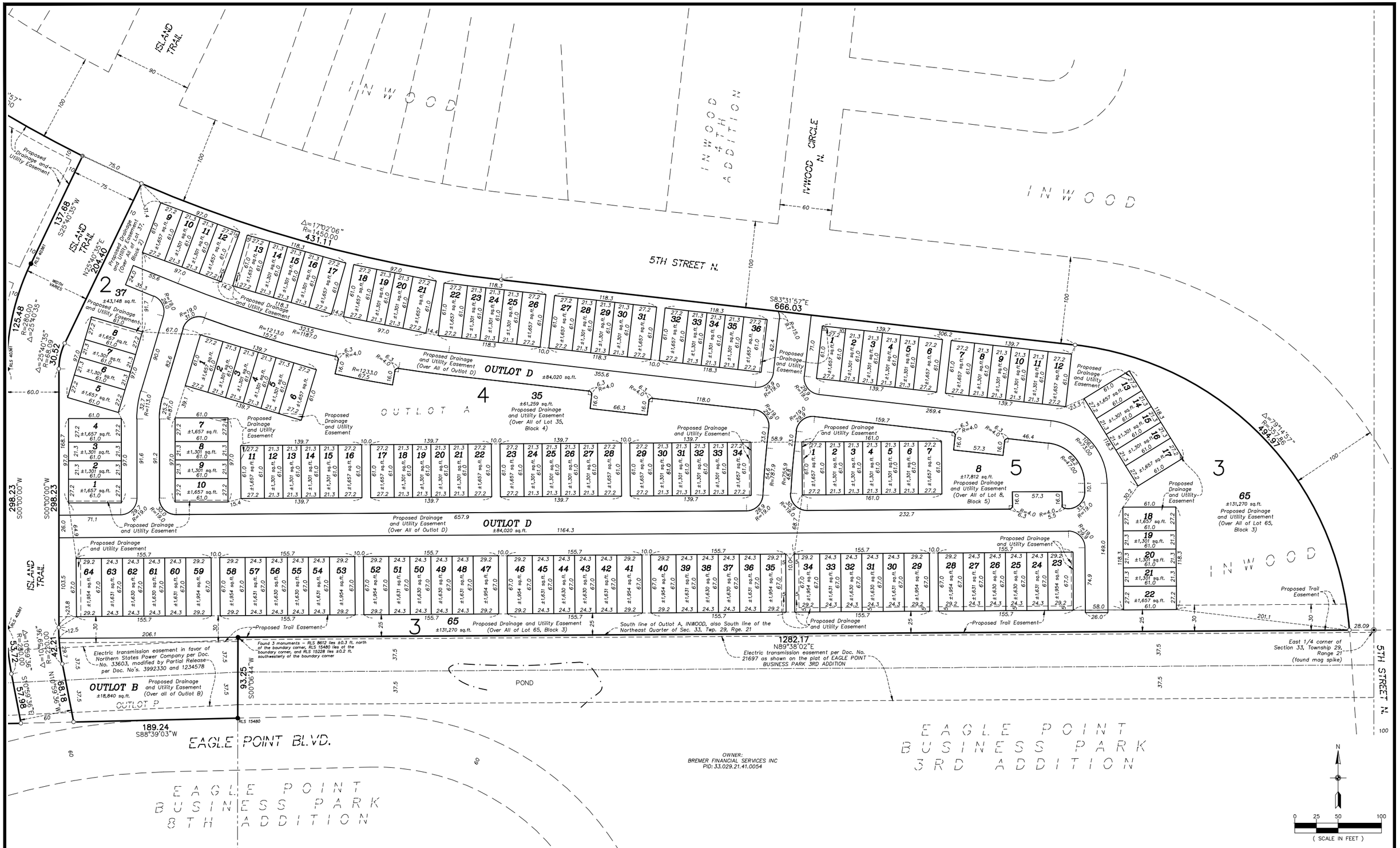
**M/I HOMES OF MINNEAPOLIS/ST. PAUL, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY PLAT INDEX**



Save Date: 02/12/25 f:\jobs\5161 - 5180\5172-01 - inwood\cad c3d\survey\preliminary\5172-01_preplat index.dwg




CARLSON ENGINEERING
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CARLSON-ENGINEERING.COM

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota

Print Name: Thomas R. Balluff, L.S.
Signature:
Date: 12/20/24 License #: 40361

DRAWN BY: NJS
ISSUE DATE: 12/20/24
FILE NO: 1870

Revisions:
1. 1/23/25 per City Comments
2. 2/11/25 per City Comments

**M/I HOMES OF MINNEAPOLIS/ST. PAUL, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY PLAT**

4 of 16

Save Date: 02/13/25 F:\Jobs\5161 - 5180\5172-01 - Inwood\cad c3d\survey\preliminary\5172-01_preplat.dwg

OWNER:
NGUYEN PROPERTIES
LAKE ELMO LLC
PID: 33.029.21.13.0027

INWOOD

S17°19'32"W 160.37

S24°48'49"W 105.23

S40°21'55"W 50.23

S02°10'18"W 74.63

Δ=15°41'47"
R=617.00
169.03

S53°41'03"E 103.16

5TH STREET N.

Δ=09°50'57"
R=1450.00
249.25

ISLAND TRAIL

Δ=17°02'06"
R=1450.00
431.11

SIXTH ADDITION

1

1
±197,774 sq.ft.

Proposed Drainage and Utility Easement

Proposed Drainage and Utility Easement (Over All of Lot 37, Block 2)

137.68
S25°40'35"W

N25°40'35"E 204.46

2 37
±43,148 sq.ft.

Proposed Drainage and Utility Easement 61.0

R=280.0

R=19.0

R=1213.0
157.5

R=1187.0
323.5

R=4.0

R=1233.0
67.5

Proposed Drainage and Utility Easement (Over All of Outlot D)

OUTLOT D
±84,020 sq.ft.

4 35
±61,259 sq.ft.
Proposed Drainage and Utility Easement (Over All of Lot 35, Block 4)

OUTLOT A

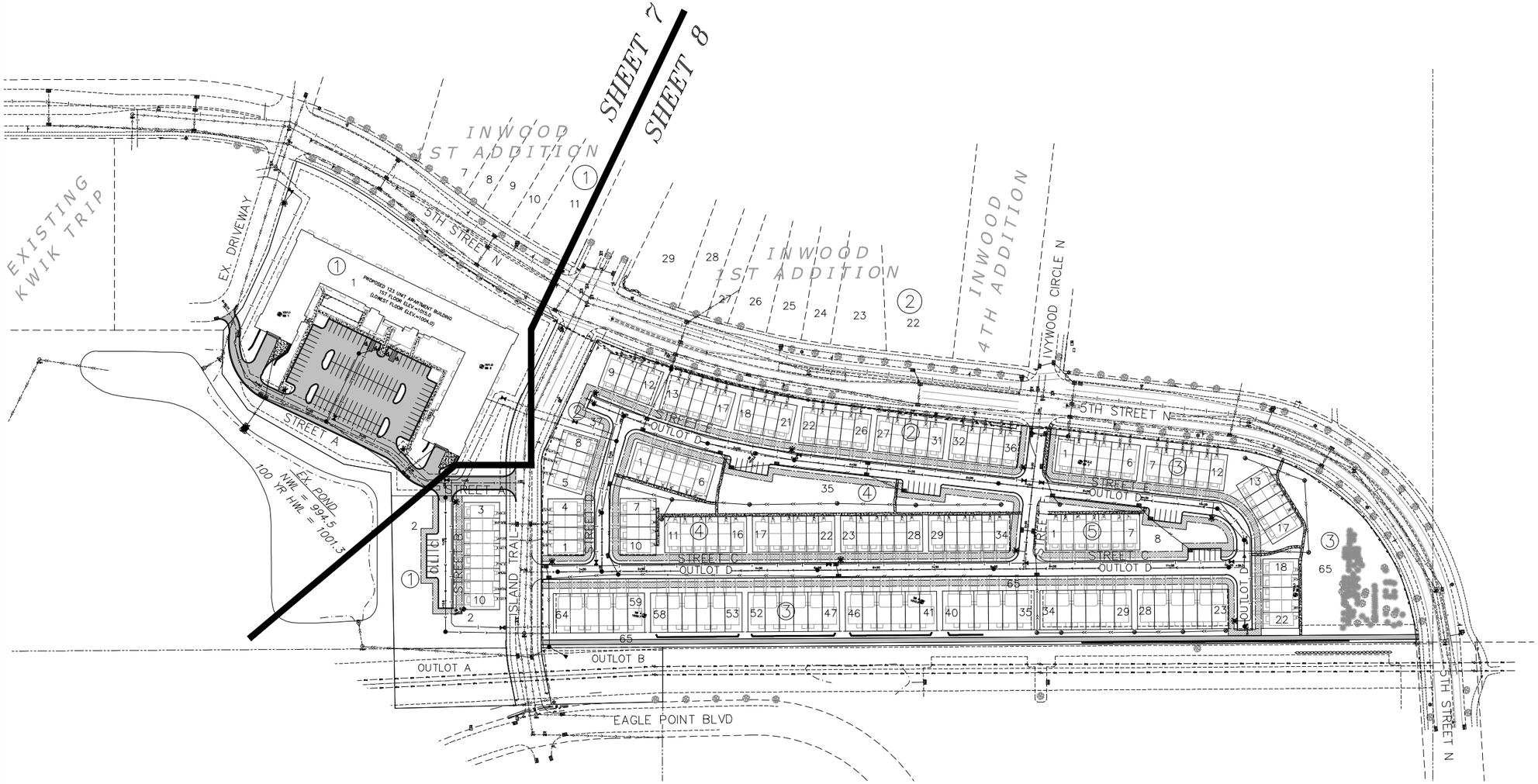
125.48
R=280.00
Δ=25°40'35"

Δ=25°40'35"
R=280.00
30.52

Proposed Drainage and Utility Easement

Proposed Drainage and Utility Easement

Proposed Drainage and Utility Easement




## SITE PLAN LEGEND

| | EXISTING | PROPOSED |
|---|---|---|
| LIGHT POLE | ☼ | |
| SANITARY MANHOLE | ○ SAN | ● |
| MISCELLANEOUS SIGN | —o— | |
| EXISTING SPOT ELEVATION | x 0000.0 | |
| EXISTING TREE | | |
| TELEVISION BOX | TV | |
| FIRE HYDRANT | FH | ✱ |
| GATE VALVE | GV | ⋈ |
| CLEANOUT | CO | ● |
| ELECTRIC BOX | EB | |
| GAS METER | GM | |
| CATCH BASIN | ▦ or ⊘ | ▦ or ⊘ |
| RAIN GUARDIAN | | |
| ELECTRIC METER | EM | |
| TELEPHONE BOX | TB | |
| UTILITY POLE | PP | |
| FLARED END SECTION | FES | ▲ |
| STORM MANHOLE | ○ STMH | ● |
| SERVICE | CSV | |
| SOIL BORING/TEST HOLE | TH | |
| RETAINING WALL | | |
| WATERMAIN | | |
| SANITARY SEWER | | |
| STORM SEWER | | |
| PROPERTY LINE | | |
| SETBACK LINE | | |
| WETLAND | | |
| UNDERGROUND TELEPHONE | | |
| UNDERGROUND ELECTRIC | | |
| UNDERGROUND GAS | | |
| UNDERGROUND FIBEROPTIC | | |
| FENCE | | |
| OVERHEAD ELECTRIC | | |
| CONCRETE SURFACE | | |
| BITUMINOUS SURFACE | | |
| SMALL/DRY UTILITY CORRIDOR | | |

### APARTMENT PARKING SUMMARY

PARKING PROVIDED IN APARTMENT PARKING LOT

| | | |
|---|---|---|
| STANDARD STALLS | = | 94 STALLS |
| HANDICAP STALLS | = | 4 STALLS |
| TOTAL | = | 98 STALLS |

PARKING PROVIDED IN 123 UNIT APARTMENT BUILDING

| | | |
|---|---|---|
| STANDARD STALLS | = | 123 STALLS |
| TOTAL | = | 123 STALLS |

TOTAL APARTMENT PARKING

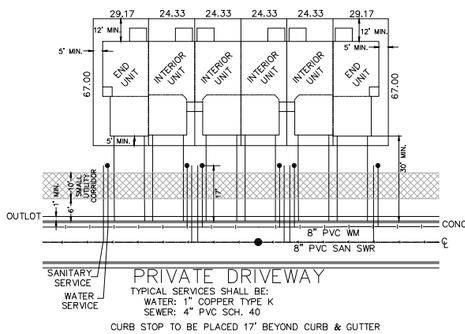
| | | |
|---|---|---|
| STANDARD STALLS | = | 217 STALLS |
| HANDICAP STALLS | = | 4 STALLS |
| TOTAL | = | 221 STALLS |

### TOWNHOME PARKING SUMMARY

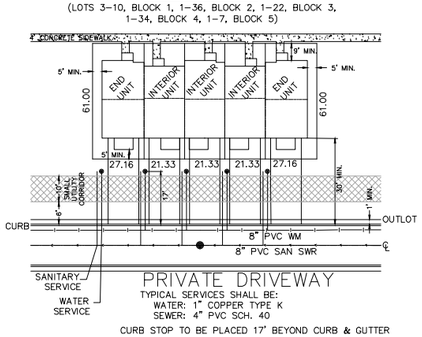
ROW HOMES (149 UNITS)

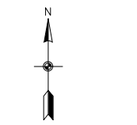
| | | |
|---|---|---|
| STANDARD STALLS | = | 34 STALLS |
| GARAGE STALLS (2 PER UNIT) | = | 298 STALLS |
| TOTAL | = | 332 STALLS |

*CARRIAGE MULTI-FAMILY TOWNHOME LOT*
(LOTS 23-64, BLOCK 3)




*CITY COLLECTION MULTI-FAMILY TOWNHOME LOT*
(LOTS 3-10, BLOCK 1, 1-36, BLOCK 2, 1-22, BLOCK 3, 1-34, BLOCK 4, 1-7, BLOCK 5)




**BENCHMARK**

1. BENCHMARK: Top Nut of Hydrant located on the south side of Eagle Point Road approximately 1290 ft. easterly of the intersection of Eagle Pont Road and Inwood Avenue North - Elevation = 1006.57 ft.

CALL BEFORE YOU DIG

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

The subsurface utility information shown on this plan is utility Quality Level D. This quality level was determined according to the guidelines of CI/ASCE 38-02, entitled "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."


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CARLSON-ENGINEERING.COM


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

Print Name: Brian J. Krystofiak, P.E.
Signature:
Date: 12/20/24 License #: 25063

Drawn: KRO
Designed: BJK
Date: 12/20/24

Revisions:
1. 1/23/25 per City Comments.
2. 2/11/25 per City Comments.

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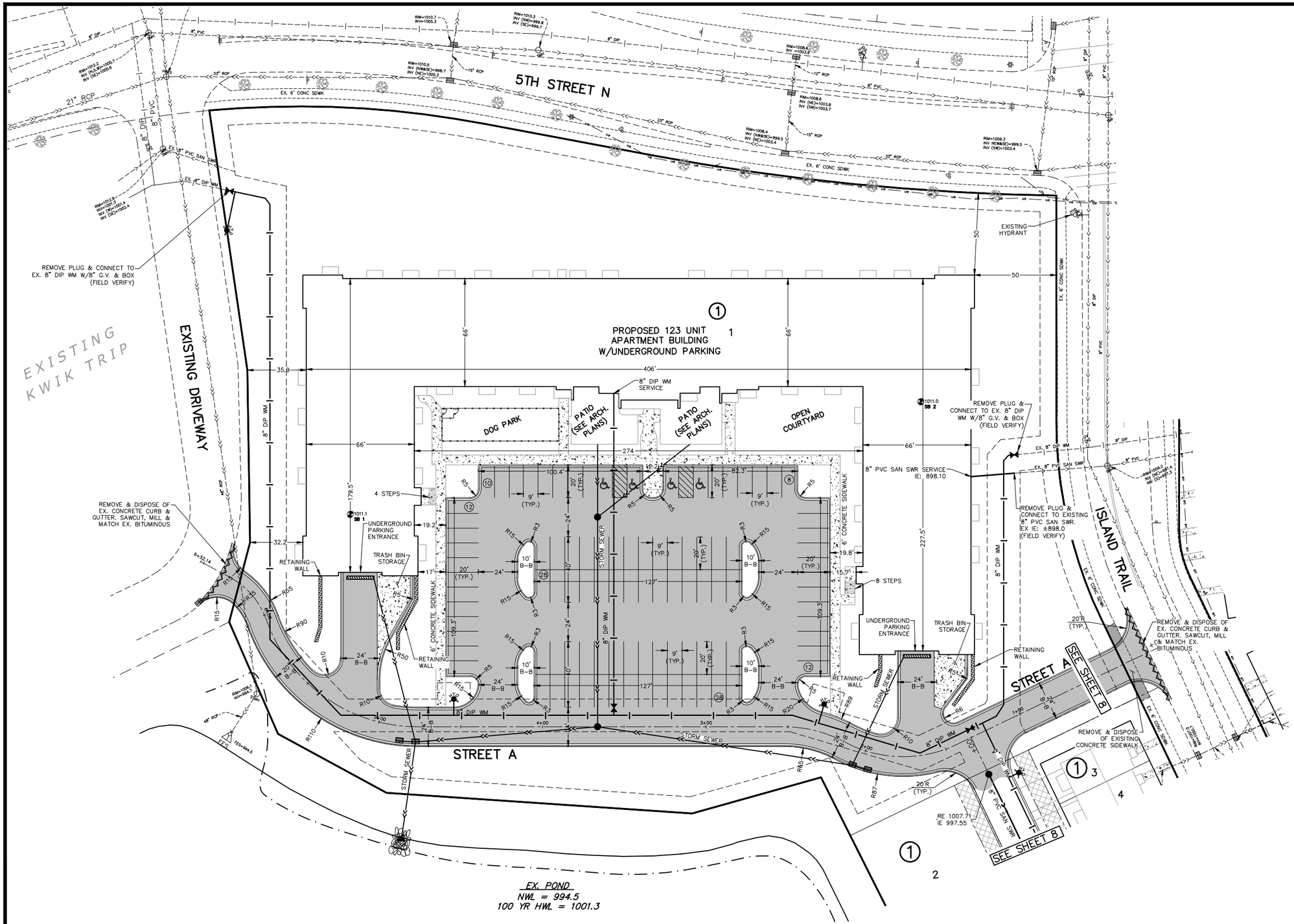
**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY SITE & UTILITY PLAN INDEX**



Save Date: 02/13/25 I:\jobs\5161 - 5180\5172-01 - Inwood\cad c3d\engineering\prelim plans\5172-01_site.dwg

#5172-01




## LEGEND

| | EXISTING | PROPOSED |
|---|---|---|
| PROPERTY LINE | | |
| EASEMENT LINE | | |
| BITUMINOUS PAVEMENT | | |
| CONCRETE WALK | | |
| CURB LINE | | |
| SANITARY SEWER | | |
| WATER MAIN | | |
| STORM SEWER | | |
| UNDERGROUND TELEPHONE | | |
| UNDERGROUND GAS | | |
| UNDERGROUND ELECTRIC | | |
| FENCE | | |
| GAS VALVE | | |
| HYDRANT | | |
| SANITARY MANHOLE | | |
| STORM MANHOLE | | |
| GUARD POST | | |
| LIGHT POLE | | |
| GATE VALVE | | |
| SIGN | | |
| TELEPHONE BOX | | |
| ELECTRIC TRANSFORMER | | |
| TELEVISION BOX | | |
| HAND HOLE | | |
| ELECTRIC METER | | |
| GAS METER | | |

## SITE DATA (APARTMENT)

| | |
|---|---|
| EXISTING ZONING: | HDR/PUD |
| PROPOSED ZONING: | HDR/PUD |
| TOTAL AREA: | 197,774 SF |
| HARD SURFACE AREA: | |
| BUILDING: | 46,133 SF 23.3% |
| PAVEMENT: | 59,938 SF 30.3% |
| TOTAL: | 106,071 SF 53.6% |
| PERVIOUS SURFACE AREA: | 91,703 SF 46.4% |

## BUILDING SETBACK (APARTMENT)

FRONT: 50' (ISLAND TRAIL & 5TH STREET N R/W)

SIDE: 30' (EXISTING DRIVEWAY – LOT LINE)

REAR: 30' (LOT LINE)

## APARTMENT PARKING SUMMARY

PARKING PROVIDED IN APARTMENT PARKING LOT

| | | |
|---|---|---|
| STANDARD STALLS | = | 94 STALLS |
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PARKING PROVIDED IN 123 UNIT APARTMENT BUILDING

| | | |
|---|---|---|
| STANDARD STALLS | = | 123 STALLS |
| TOTAL | = | 123 STALLS |

TOTAL APARTMENT PARKING

| | | |
|---|---|---|
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N

0 15 30 60

(IN FEET)

## BENCHMARK

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CARLSON-ENGINEERING.COM


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

Print Name: Brian J. Krystofiak, P.E.
Signature:
Date: 12/20/24 License #: 25063

Drawn: KRO
Designed: BJK
Date: 12/20/24

Revisions:
1. 1/23/25 per City Comments.
2. 2/11/25 per City Comments.

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
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**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY SITE & UTILITY PLAN**

7 of 16

Save Date: 02/12/25 f:\jobs\5161 - 5180\5172-01 - Inwood\cad c3d\engineering\prelim plans\5172-01_site.dwg

#5172-01

## TOWNHOME PARKING SUMMARY

ROW HOMES (149 UNITS)

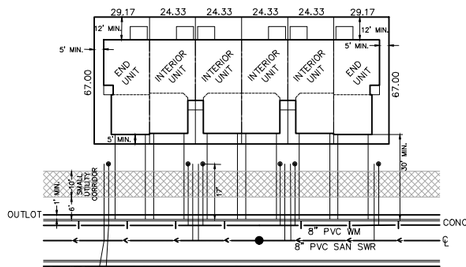
| | | |
|---|---|---|
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LIGHTING NOTES:

✲ PROPOSED LIGHT LOCATION.

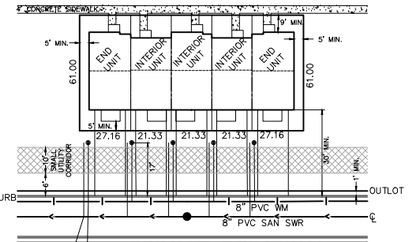
FINAL LOCATION TO BE VERIFIED WITH CITY/XCEL.

### CARRIAGE MULTI-FAMILY TOWNHOME LOT
(LOTS 23-64, BLOCK 3)

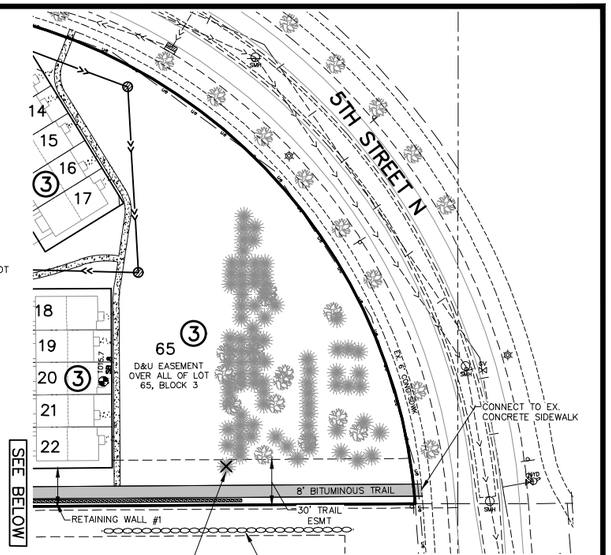


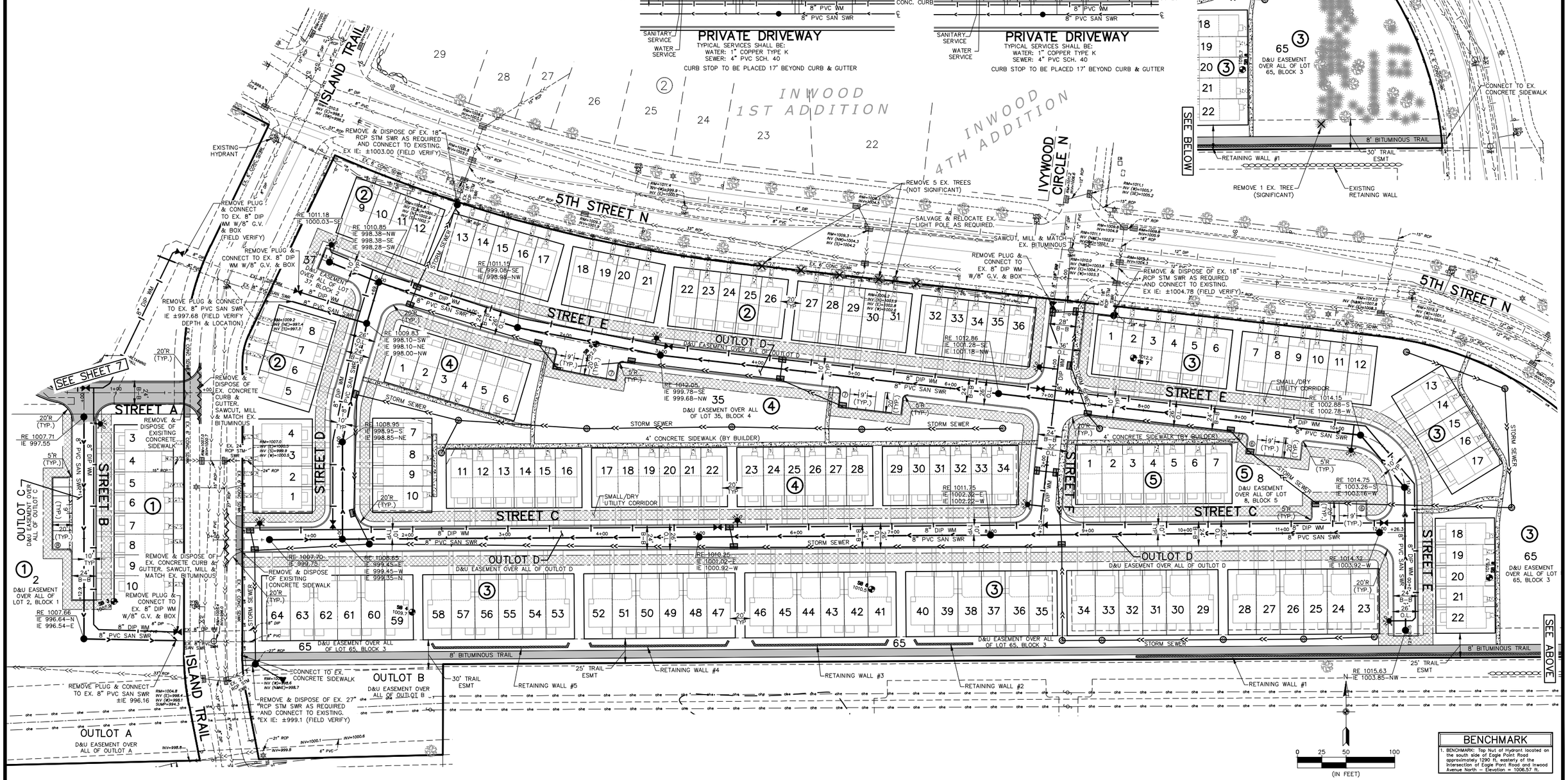

PRIVATE DRIVEWAY
TYPICAL SERVICES SHALL BE:
WATER: 1" COPPER TYPE K
SEWER: 4" PVC SCH. 40
CURB STOP TO BE PLACED 17' BEYOND CURB & GUTTER

### CITY COLLECTION MULTI-FAMILY TOWNHOME LOT
(LOTS 3-10, BLOCK 1, 1-36, BLOCK 2, 1-22, BLOCK 3, 1-34, BLOCK 4, 1-7, BLOCK 5)




PRIVATE DRIVEWAY
TYPICAL SERVICES SHALL BE:
WATER: 1" COPPER TYPE K
SEWER: 4" PVC SCH. 40
CURB STOP TO BE PLACED 17' BEYOND CURB & GUTTER




## BENCHMARK

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SUITE 100
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CARLSON-ENGINEERING.COM


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

Print Name: Brian J. Krystofiak, P.E.
Signature:
Date: 12/20/24 License #: 25063

Drawn: KRO
Designed: BJK
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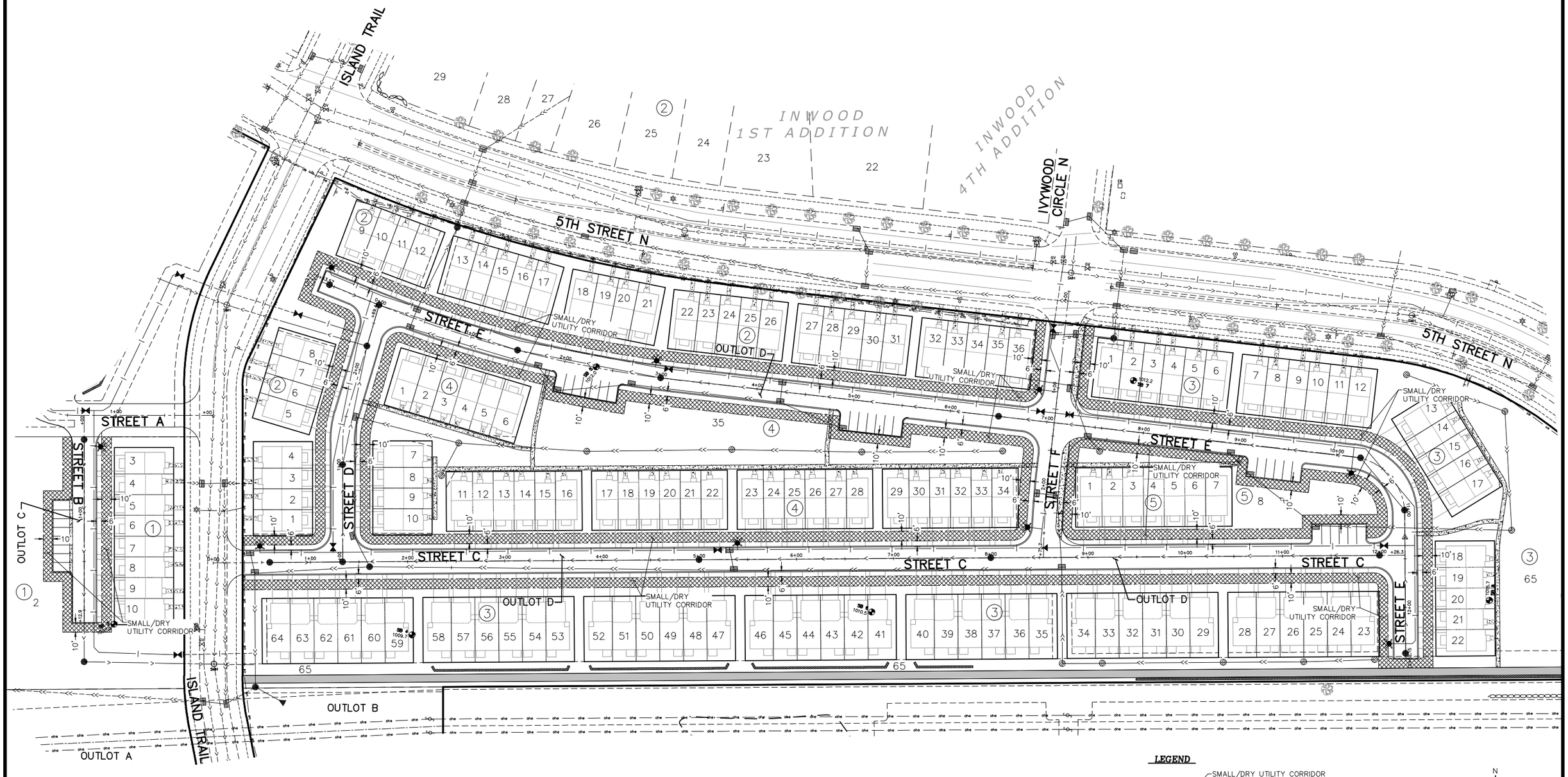
**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY SITE & UTILITY PLAN**

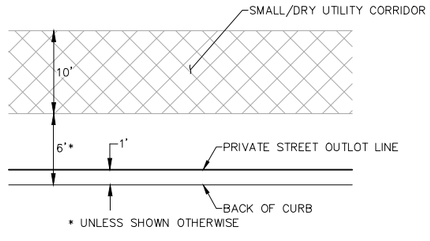
8 of 16

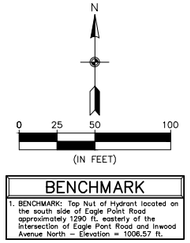
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#5172-01




**LEGEND**




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SURVEYING
PLANNING

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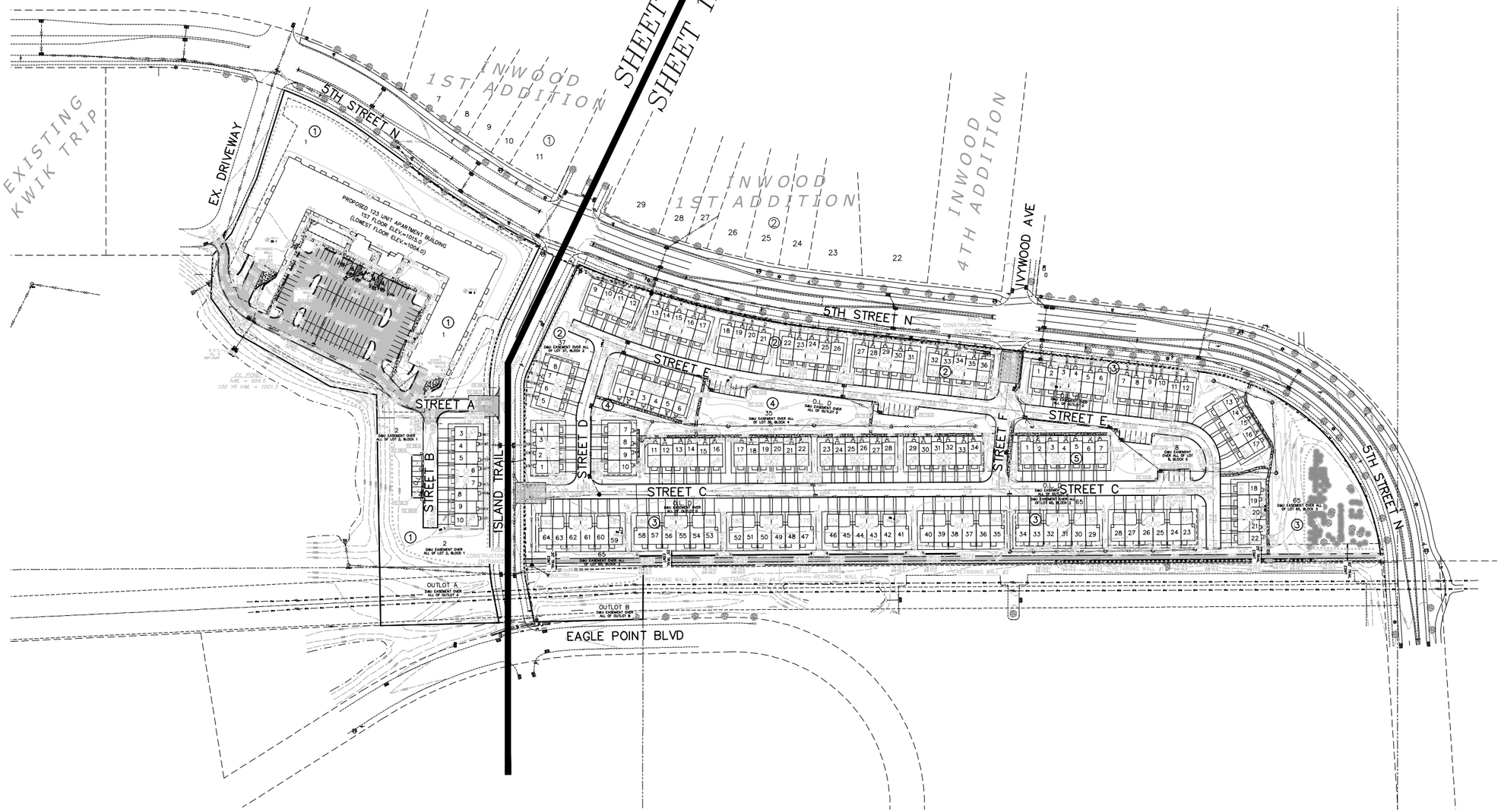
**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**SMALL/DRY UTILITY CORRIDOR LAYOUT**



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#5172-01




## LEGEND

| | EXISTING | PROPOSED |
|---|---|---|
| PROPERTY LINE | | |
| EASEMENT LINE | | |
| CURB LINE | | |
| BITUMINOUS | | |
| CONCRETE | | |
| SANITARY SEWER | | |
| STORM SEWER | | |
| DRAINTILE | | DT |
| WATER MAIN | | |
| OVERHEAD UTILITY | OHU | |
| STORM CATCH BASIN | | DENOTES INLET PROTECTION |
| STORM MANHOLE | | |
| MANHOLE | SAN SEWER MH | |
| HYDRANT | | |
| GATE VALVE | GV | |
| TELEVISION BOX | TV | |
| TELEPHONE BOX | TB | |
| UTILITY POLE | | |
| RETAINING WALL | | |
| FENCE | x x x | |
| 10' CONTOUR | 890 | 890 |
| 2' CONTOUR | 892 | 892 |
| FLOOD WAY | FW | |
| FLOOD PLAIN | FP | |
| WETLAND LINE | | |
| SPOT ELEVATION | 000.0 | 000.0 / E.O.F. / 000.0 |
| EMERGENCY OVERFLOW SURFACE DRAINAGE ARROW | | |
| STREET GRADE ARROW | | 0.60% |
| INFILTRATION AREA | | |
| MAINTENANCE ACCESS | | |
| WETLAND SIGN | | |
| SILT FENCE | | |
| TREE FENCE | | |
| GRADING LIMITS | | |
| PHASE LINE | | |
| TREELINE | | |
| RIP-RAP | | |
| SOIL BORING | | SB-2 |
| WELL | WELL | |
| LIGHT POLE | | |
| FLAG POLE | | |
| ELECTRIC BOX | EB | |
| TELEPHONE BOX | TB | |
| TELEVISION BOX | TV | |
| SIGN | | |

N

0 50 100 200
(IN FEET)

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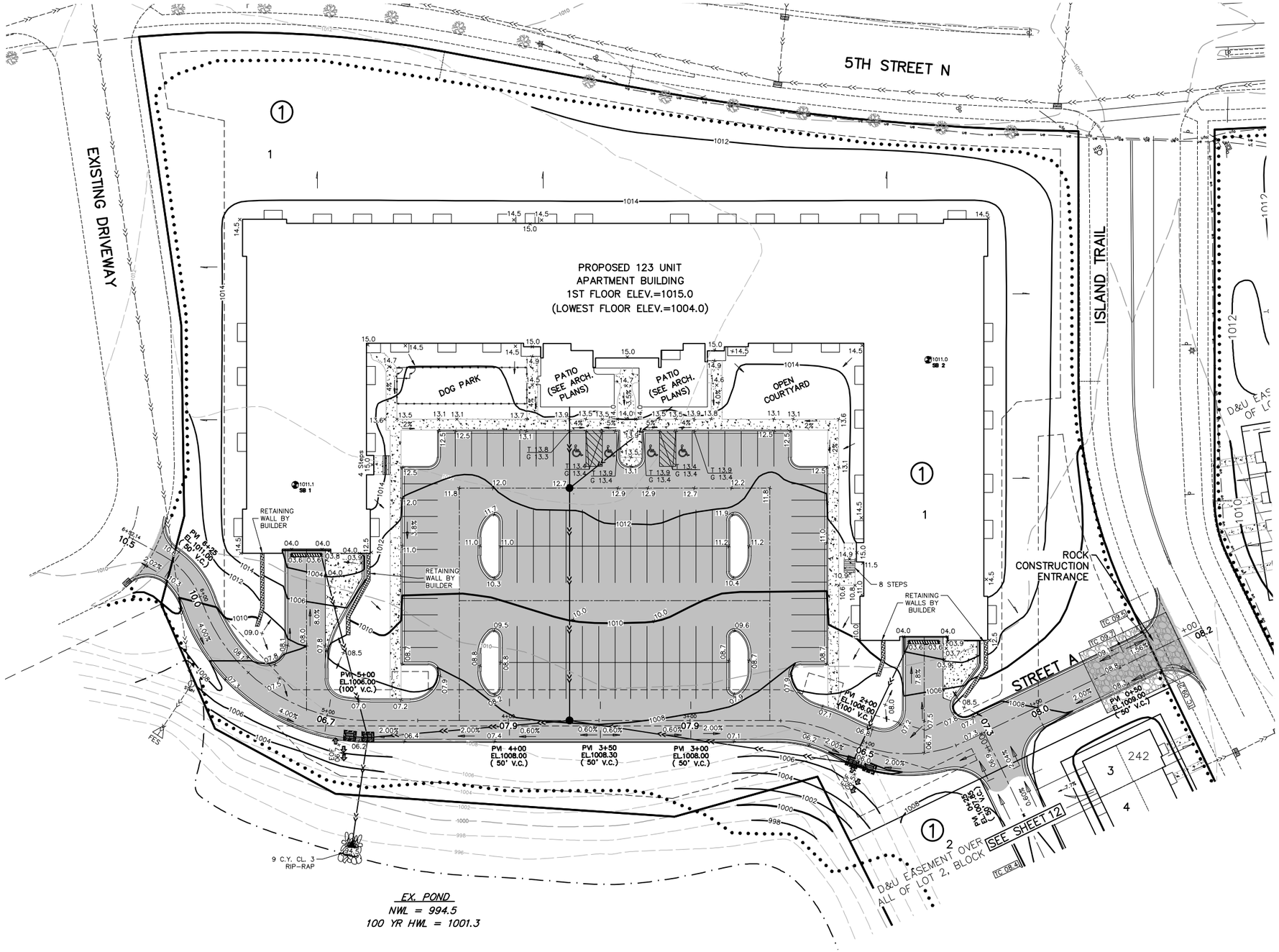
**INWOOD TOWNHOMES**
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**GRADING INDEX**

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#5172-01

Save Date: 02/12/25 F:\Jobs\5161 - 5180\5172-01 - Inwood\cad c3d\engineering\prelim plans\5172-01_gr.dwg




## LEGEND

| | EXISTING | PROPOSED |
|---|---|---|
| PROPERTY LINE | | |
| EASEMENT LINE | | |
| CURB LINE | | |
| BITUMINOUS | | |
| CONCRETE | | |
| SANITARY SEWER | | |
| STORM SEWER | | |
| DRAINTILE | | DT |
| WATER MAIN | | |
| OVERHEAD UTILITY | ohe | |
| | | DENOTES INLET PROTECTION |
| STORM CATCH BASIN | | |
| STORM MANHOLE | | |
| MANHOLE | SAN MH | |
| HYDRANT | | |
| GATE VALVE | GV | |
| TELEVISION BOX | TV | |
| TELEPHONE BOX | TB | |
| UTILITY POLE | | |
| RETAINING WALL | | |
| FENCE | x x | |
| 10' CONTOUR | 890 | 890 |
| 2' CONTOUR | 892 | 892 |
| FLOOD WAY | FW | |
| FLOOD PLAIN | FP | |
| WETLAND LINE | | |
| SPOT ELEVATION | 00.0 x | 00.0 x |
| EMERGENCY OVERFLOW | | E.O.F. x 000.0 |
| SURFACE DRAINAGE ARROW | | |
| STREET GRADE ARROW | | 0.60% |
| INFILTRATION AREA | | |
| MAINTENANCE ACCESS | | |
| WETLAND SIGN | | |
| SILT FENCE | | |
| TREE FENCE | | |
| GRADING LIMITS | | |
| PHASE LINE | | |
| TREELINE | | |
| RIP-RAP | | SB-2 |
| SOIL BORING | | |
| WELL | WELL | |
| LIGHT POLE | | |
| FLAG POLE | | |
| ELECTRIC BOX | EB | |
| TELEPHONE BOX | TB | |
| TELEVISION BOX | TV | |
| SIGN | | |

N

0 15 30 60
(IN FEET)

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SUITE 100
BLAINE, MN 55449
TEL 763.488.7800
FAX 763.488.7999
CARLSON-ENGINEERING.COM


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

Print Name: Brian J. Krystofiak, P.E.
Signature:
Date: 12/20/24 License #: 25063

Drawn: KRO
Designed: BJK
Date: 12/20/24

Revisions:
1. 1/23/25 per City Comments.
2. 2/11/25 per City Comments.

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY GRADING & EROSION CONTROL PLAN**

11 of 16

Save Date: 02/17/25 F:\jobs\5161 - 5180\5172-01 - Inwood\cad c3d\engineering\prelim plans\5172-01_gr.dwg

#5172-01

## LEGEND

| | EXISTING | PROPOSED |
|---|---|---|
| PROPERTY LINE | | |
| EASEMENT LINE | | |
| CURB LINE | | |
| BITUMINOUS | | |
| CONCRETE | | |
| SANITARY SEWER | | |
| STORM SEWER | | |
| DRAINTILE | | DT |
| WATER MAIN | | |
| OVERHEAD UTILITY | | |
| STORM CATCH BASIN | | |
| STORM MANHOLE | | |
| MANHOLE | | |
| HYDRANT | | |
| GATE VALVE | | |
| TELEVISION BOX | | |
| TELEPHONE BOX | | |
| UTILITY POLE | | |

DENOTES INLET PROTECTION

| | EXISTING | PROPOSED |
|---|---|---|
| RETAINING WALL | | |
| FENCE | x x | |
| 10' CONTOUR | 890 | 890 |
| 2' CONTOUR | 892 | 892 |
| FLOOD WAY | FW | |
| FLOOD PLAIN | FP | |
| WETLAND LINE | | |
| SPOT ELEVATION | 00.0 | 00.0 |
| EMERGENCY OVERFLOW SURFACE DRAINAGE ARROW | | E.O.F. 000.0 |
| STREET GRADE ARROW | | 0.60% |
| INFILTRATION AREA | | |
| MAINTENANCE ACCESS | | |
| WETLAND SIGN | | |
| SILT FENCE | | |
| TREE FENCE | | |
| GRADING LIMITS | | |

| | EXISTING | PROPOSED |
|---|---|---|
| GRADING LIMITS | | |
| PHASE LINE | | |
| TREELINE | | |
| RIP-RAP | | |
| SOIL BORING | | |
| WELL | WELL | |
| LIGHT POLE | LP | |
| FLAG POLE | FP | |
| ELECTRIC BOX | EB | |
| TELEPHONE BOX | TB | |
| TELEVISION BOX | TV | |
| SIGN | | |

SB-2

INWOOD 1ST ADDITION

INWOOD 4TH ADDITION

5TH STREET N

IVYWOOD CIRCLE N

STREET A

STREET B

STREET C

STREET D

STREET E

STREET F

ISLAND TRAIL

ROCK CONSTRUCTION ENTRANCE

SEE SHEET 11

SEE BELOW

SEE ABOVE

O.L. D

D&U EASEMENT OVER ALL OF OUTLOT D

OUTLOT A
D&U EASEMENT OVER ALL OF OUTLOT A

OUTLOT B
D&U EASEMENT OVER ALL OF OUTLOT B

RETAINING WALL #1

RETAINING WALL #2

RETAINING WALL #3

RETAINING WALL #4

RETAINING WALL #5

TREE PROTECTION FENCE (SEE LANDSCAPE DETAILS)

0 25 50 100
(IN FEET)

### BENCHMARK

1. BENCHMARK: Top Nut of Hydrant located on the south side of Eagle Point Road approximately 1290 ft. easterly of the intersection of Eagle Pont Road and Inwood Avenue North – Elevation = 1006.57 ft.


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12 of 16

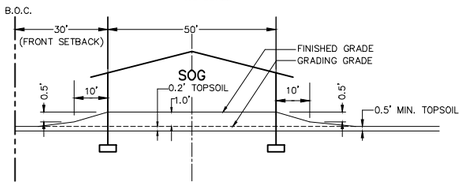
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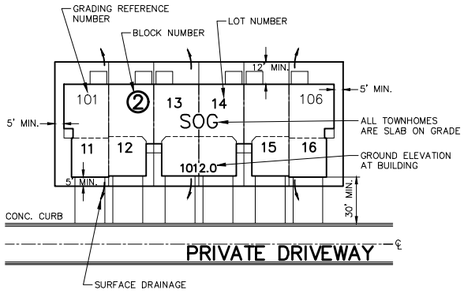
#5172-01

## ROW TOWNHOME HOLDDOWN SLAB ON GRADE

(LOTS 151–192)

NO SCALE

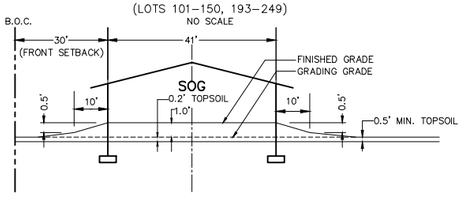


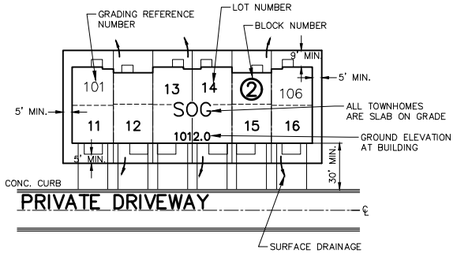




## ROW TOWNHOME HOLDDOWN SLAB ON GRADE

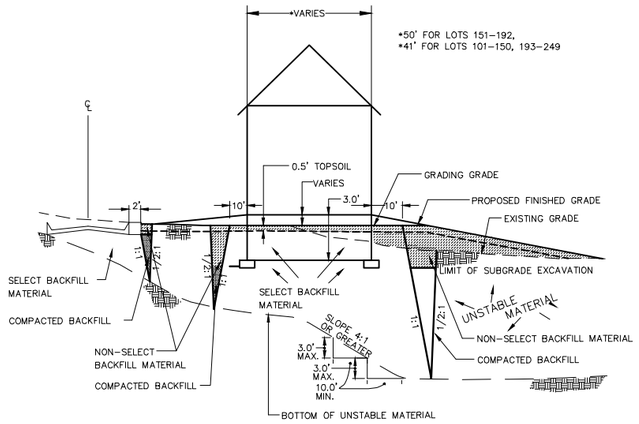
(LOTS 101–150, 193–249)

NO SCALE

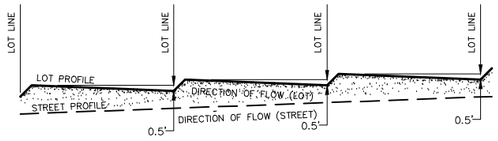


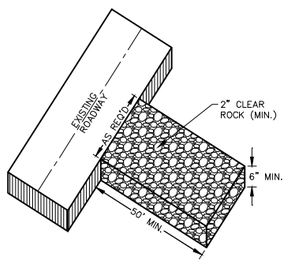

## SUBGRADE CORRECTION



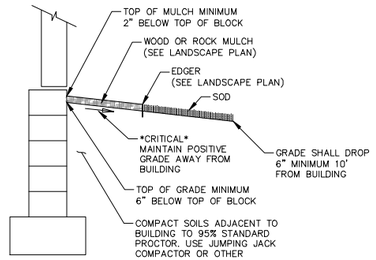

## LOT BENCHING DETAIL




## ROCK CONSTRUCTION ENTRANCE



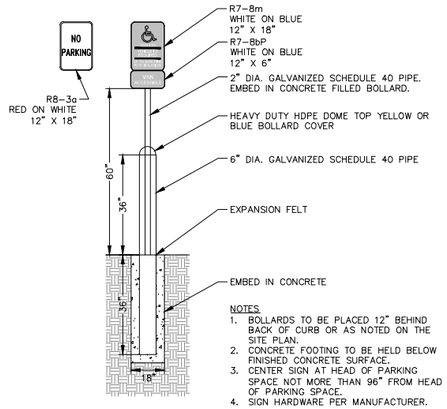

## TYPICAL GRADING AT APARTMENT BUILDING



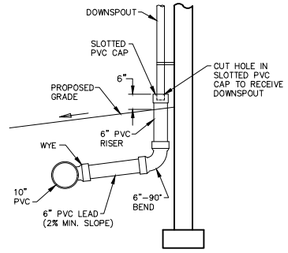

## TURF ESTABLISHMENT

1. TURF ESTABLISHMENT SHALL APPLY TO ALL DISTURBED AREAS AND SHALL BE ACCORDING TO MnDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION (LATEST EDITION) EXCEPT AS MODIFIED BELOW.
2. TURF ESTABLISHMENT SHALL OCCUR AS SOON AS POSSIBLE BUT IN NO CASE MORE THAN 7 DAYS.
3. SEED: MnDOT MIXTURE 25–141 AT 60 POUNDS PER ACRE.
4. DORMANT SEED: SHALL BE APPLIED AT TWICE THE NORMAL RATE AFTER NOVEMBER 1ST.
5. MULCH: TYPE 1 AT 2 TONS PER ACRE (DISK ANCHORED).
6. FERTILIZER: TYPE 10–10–10 AT 200 POUNDS PER ACRE.

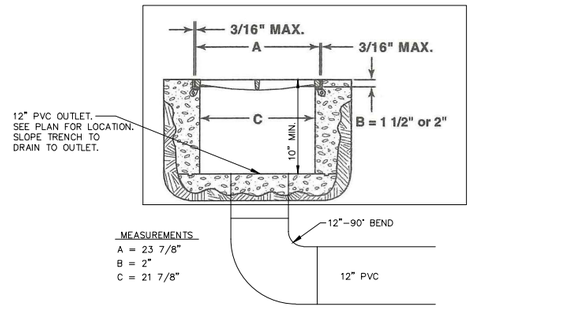
## SIGN ON BOLLARD



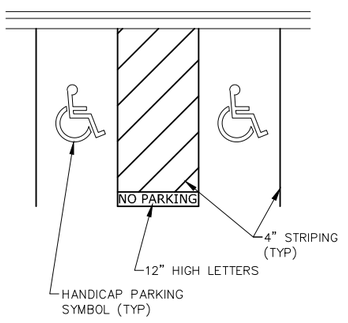

## DOWNSPOUT CONNECTION




## TRENCH DRAIN DETAIL
## R–4999–L6 DETAIL (PER MANUFACTURER'S SPEC.)




## HANDICAP PARKING SPACE STRIPING





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**DETAILS**



Issue Date: 02/17/25 I:\jobs\5161 - 5180\5172-01 - Inwood\cad c3d\engineering\prelim plans\5172-01_details.dwg

#5172-01

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND IMPLEMENT MINNESOTA POLLUTION CONTROL AGENCY (MPCA) BEST MANAGEMENT PRACTICES (BMP) TO CONTROL SITE SILTATION AND EROSION INTO DRAINAGE WAYS. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND COMPLETION DATES RELATIVE TO ALL PERMITS ISSUED FOR THE WORK TO BE COMPLETED. THE ENGINEER MAY ISSUE A STOP WORK ORDER FOR ALL DEVELOPMENT WORK AND BUILDING CONSTRUCTION FOR NONCOMPLIANCE WITH THESE MEASURES.

2. SEQUENCING. ALL SILT FENCE AND OTHER EROSION CONTROL MEASURES SHALL BE IN PLACE AND APPROVED BY ENGINEER PRIOR TO ANY REMOVALS, EXCAVATION OR CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER.

3. SILT FENCE. THE CONTRACTOR SHALL INSTALL SILT FENCE AT THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE CITY STANDARD DETAILS. SILT FENCE DAMS AND INTERIM SUMPS SHALL BE PLACED TO INTERCEPT SILT FROM CONCENTRATED RUNOFF FROM OPEN GRADED AREAS. ADDITIONAL SILT FENCE SHALL BE REQUIRED AS DIRECTED BY THE ENGINEER.

4. STOCKPILES. ALL STOCKPILE AREAS SHALL HAVE SILT FENCE OR SEDIMENT TRAPPING SYSTEMS PLACED AROUND THE ENTIRE PERIMETER.

5. INLET PROTECTION. THE CONTRACTOR SHALL INSTALL INLET PROTECTION ON ALL EXISTING STORM SEWER INLETS IN ACCORDANCE WITH THE CITY STANDARD DETAILS. INLET PROTECTION SHALL ALSO BE PROVIDED ON ALL PROPOSED STORM SEWER INLETS IMMEDIATELY FOLLOWING CONSTRUCTION OF THE INLET. INLET PROTECTION MUST BE INSTALLED IN A MANNER THAT WILL NOT IMPOUND WATER FOR EXTENDED PERIODS OF TIME OR IN A MANNER THAT PRESENTS A HAZARD TO VEHICULAR OR PEDESTRIAN TRAFFIC.

6. TEMPORARY SEDIMENT BASINS. THE CONTRACTOR SHALL INCORPORATE TEMPORARY SEDIMENT BASINS THROUGHOUT THE CONSTRUCTION SITE TO CAPTURE RUNOFF AND SLOW THE FLOW OF WATER AND ALLOW SEDIMENT TO SETTLE OUT. TEMPORARY SEDIMENT BASINS SHALL BE INSTALLED AS DIRECTED BY THE CITY ENGINEER.

7. ROCK CONSTRUCTION ENTRANCE. A ROCK ENTRANCE SHALL BE CONSTRUCTED AND MAINTAINED AS SHOWN ON THE PLAN TO REDUCE TRACKING OF SILT AND DIRT ONTO THE PUBLIC STREETS. A GEOTEXTILE FABRIC SHALL BE PLACED UNDERNEATH THE ROCK. THE ROCK SHALL BE PERIODICALLY REPLENISHED TO MAINTAIN THE INTENDED PERFORMANCE. MUD AND DEBRIS SHALL BE REMOVED OR SCRAPED FROM TIRES AND VEHICLE UNDERCARRIAGE PRIOR TO LEAVING THE SITE.

8. STREET SWEEPING. ALL STREETS USED FOR ACCESS TO THE SITE AND HAUL ROUTES USED FOR CONSTRUCTION EQUIPMENT AND MATERIAL SUPPLIES SHALL BE CLEANED AT THE END OF EACH WORKING DAY. THE CITY OR ENGINEER MAY ORDER ADDITIONAL SWEEPING OF THE STREETS AS DEEMED REQUIRED AT DEVELOPER/CONTRACTOR EXPENSE.

## STANDARD PLAN NOTES

GRADING AND EROSION CONTROL PLANS

**FEBRUARY 2015**

CITY OF LAKE ELMO | STANDARD DRAWING NO. 600A LAKE ELMO

9. DEWATERING. EACH EXCAVATION SHALL BE KEPT DRY DURING THE COURSE OF ALL WORK HEREIN, INCLUDING SUBGRADE CORRECTION, PIPE INSTALLATION, STRUCTURE CONSTRUCTION AND BACKFILLING, TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOATATION OR OTHER DAMAGE RESULTS. ALL EXCAVATIONS SHALL BE DEWATERED TO A DEPTH OF AT LEAST 3 INCHES BELOW THE BOTTOM OF THE CONCRETE SLAB OR PIPE TO BE INSTALLED THEREIN. THE CONTRACTOR MAY USE ANY METHOD OR COMBINATION OF METHODS FOR FOR DEWATERING HE CHOOSES; HOWEVER, ALL DEWATERING METHODS AND EQUIPMENT WHICH IN THE OPINION OF THE ENGINEER, ARE INEFFECTIVE SHALL BE ABANDONED, IMPROVED, REPLACED OR THERWISE ALTERED TO OBTAIN EFFECTIVE DEWATERING. THE CONTRACTOR SHALL PROVIDE ALL POWER, PUMPS, MATERIALS AND APPARATUS NECESSARY, AND SHALL BE RESPONSIBLE FOR DISPOSING OF THE WATER PUMPED FROM THE EXCAVATION IN A MANNER WHICH WILL NOT INTERFERE WITH OTHER WORK WITHIN THE AREA AND NOT TO DAMAGE PUBLIC OR PRIVATE PROPERTY. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE CONDITION OF ANY PIPE, CONDUIT, DITCH, CHANNEL OR NATURAL WATERCOURSE UTILIZED FOR DRAINAGE PURPOSES, AND ALL EROSION, SEDIMENT OR OTHER ADVERSE RESULTS OF THEIR USE SHALL BE REPAIRED.

10. POSITIVE DRAINAGE AND PROTECTION. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE SITE AT ALL TIMES. LOW POINTS WITHIN AND ALONG ROADWAYS ARE EXPRESSLY PROHIBITED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING OR OTHER MEANS TO FACILITATE PROPER DRAINAGE DURING CONSTRUCTION. TO PROTECT PREVIOUSLY GRADED AREAS FROM EROSION, WOOD FIBER BLANKET SHALL BE PLACED IMMEDIATELY ON STEEP SLOPES (1:3 OR GREATER) AND EMBANKMENTS, PERMANENT AND TEMPORARY PONDS, AND OUTLETS AND OVERFLOWS TO PROTECT THE COMPLETED GRADE AND MINIMIZE SILT IN THE RUNOFF.

11. DRAINAGE DITCHES. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. STABILIZATION OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES MUST BE COMPLETE WITHIN 14 DAYS AFTER CONNECTING TO A SURFACE WATER AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

12. TURF ESTABLISHMENT. ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

## STANDARD PLAN NOTES

GRADING AND EROSION CONTOL PLANS

**FEBRUARY 2015**

CITY OF LAKE ELMO | STANDARD DRAWING NO. 600B LAKE ELMO

13. MAINTENANCE AND INSPECTION. EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND UNTIL SATISFACTORY ESTABLISHMENT OF PERMANENT GROUND COVER IS OBTAINED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES, AND STORMWATER OUTFALLS MUST BE INSPECTED WEEKLY, AND WITHIN 24 HOURS OF THE SITE RECEIVING 0.5 INCHES OF RAIN. REPAIRS MUST BE MADE ON THE SAME DAY OR FOLLOWING DAY OF THE INSPECTION. UNSATISFACTORY CONDITIONS NOT REPAIRED OR CLEANED UP WITHIN 48-HOURS OF NOTIFICATION SHALL RESULT IN A STOP WORK ORDER, AND/OR SAID WORK SHALL BE COMPLETED AT CONTRACTOR'S EXPENSE.

14. REMOVAL. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL MEASURES, STRUCTURES AND DEVICES ONLY AFTER RECEIVING ENGINEER APPROVAL. ALL DEBRIS, STAKES, AND SILTS ALONG SILT FENCES SHALL BE REMOVED AND DISPOSED OFF SITE. THE CONTRACTOR SHALL HAND RAKE SILTED AREAS ALONG THE FENCE LOCATIONS TO PROVIDE A SMOOTH FINAL GRADE AND SHALL RESTORE THE GROUND SURFACE WITH SEED OR SOD, AS REQUIRED, TO MATCH THE FINISHED GRADE TO THE ADJACENT AREA.

15. FINAL STORM SEWER SYSTEM. AT THE COMPLETION OF THE WORK AND BEFORE THE FINAL WALK THROUGH, THE CONTRACTOR SHALL REMOVE STORM SEWER INLET PROTECTION MEASURES AND THOROUGHLY FLUSH THE STORM SEWER SYSTEM. SEDIMENT AND DEBRIS SHALL BE COMPLETELY REMOVED AND CLEANED AT THE INLETS, OUTLETS, AND DOWNSTREAM OF EACH OUTLET. RIPRAP AND GEOTEXTILE FABRIC MAY REQUIRE REPLACEMENT AS DIRECTED BY THE ENGINEER TO OBTAIN A LIKE NEW INSTALLATION ACCEPTABLE TO THE CITY.

16. DITCH CHECK (BIOROLL BLANKET SYSTEM). BIOROLL AND BLANKET SYSTEMS SHALL BE BE INSTALLED AS DITCH CHECKS ONLY IN SPECIFIED LOCATIONS AS APPROVED BY THE CITY ENGINEER. BIOROLLS ARE NOT TO BE UTILIZED IN AREAS WHERE VEHICLE AND CONSTRUCTION TRAFFIC OCCUR.

17. FLOTATION SILT CURTAIN. FLOTATION SILT CURTAIN SHALL BE UTILIZED WHEN CONSTRUCTION ACTIVITIES OCCUR DIRECTLY ADJACENT TO LAKES, STREAMS OR WETLANDS IN ORDER TO CONTAIN SEDIMENTS NEAR THE BANKS OF WORKING AREAS. THE INSTALLATION OF FLOTATION SILT CURTAINS WILL BE REQUIRED AS DIRECTED BY THE CITY ENGINEER.

18. CONCRETE WASHOUT ONSITE. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

## STANDARD PLAN NOTES

GRADING AND EROSION CONTOL PLANS

**FEBRUARY 2015**

CITY OF LAKE ELMO | STANDARD DRAWING NO. 600C LAKE ELMO

1. RESTORE ALL DISTURBED AREAS WITH 6 INCHES OF TOPSOIL CONFORMING TO MNDOT 3877.

2. PROTECT ALL STORM SEWER INLETS AS SPECIFIED HEREIN AND MAINTAIN UNTIL STREET CONSTRUCTION IS COMPLETED.

3. MAINTAIN ALL SILT FENCE AND REPAIR OR REPLACE AS NEEDED OR REQUIRED UNTIL TURF HAS BEEN ESTABLISHED.

4. RESTORATION WORK SHALL BEGIN WITHIN 7 DAYS OF FINAL GRADING.

5. A MINIMUM OF 2 ROWS OF SOD SHALL BE PLACED ADJACENT TO THE BACK OF CURBS ALONG ALL BOULEVARDS. SILT FENCE SHALL BE PLACED DIRECTLY BEHIND THE SOD IN ACCORDANCE WITH THE CITY STANDARD DETAILS.

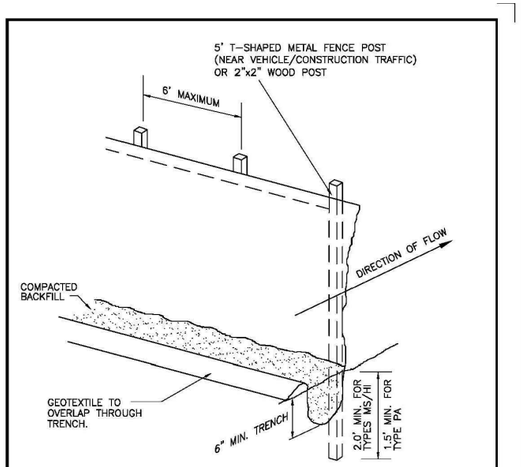
6. BOULEVARD AND DITCH RESTORATION INCLUDES FINE GRADING, WHICH INCLUDES THE REMOVAL OF ROCKS, DEBRIS AND SOIL CHUNKS, WHILE MAINTAINING POSITIVE DRAINAGE.

## STANDARD PLAN NOTES

SITE RESTORATION PLANS

**FEBRUARY 2015**

CITY OF LAKE ELMO | STANDARD DRAWING NO. 600D LAKE ELMO

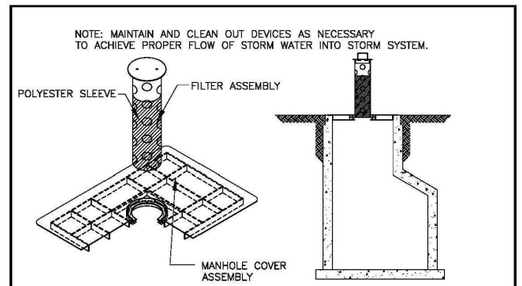



NOTE : -SILT FENCE INSTALLATION SHALL CONFORM TO MNDOT2573.3, TYPE MS/HI NEAR VEHICLE/CONSTRUCTION TRAFFIC, TYPE PA AT ALL OTHER LOCATIONS.
-MATERIALS SHALL CONFORM TO MNDOT 3886.

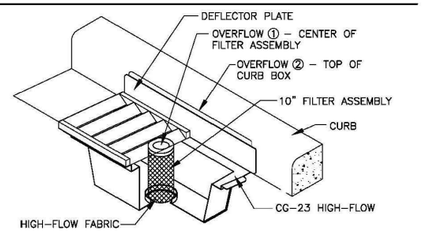
## SILT FENCE

**FEBRUARY 2015**

CITY OF LAKE ELMO | STANDARD DRAWING NO. 601 LAKE ELMO




WIMCO RD-23 OR APPROVED EQUAL

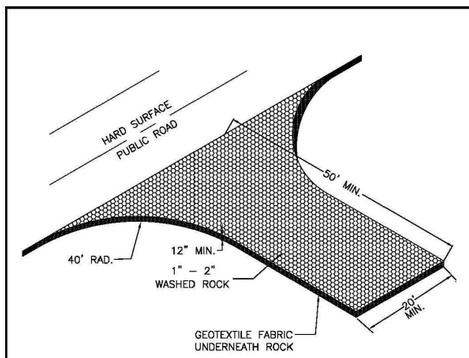



WIMCO CG-23 HIGH-FLOW OR APPROVED EQUAL

## SEDIMENT CONTROL AROUND STORM SEWER INLET

**FEBRUARY 2015**

CITY OF LAKE ELMO | STANDARD DRAWING NO. 604 LAKE ELMO




NOTES:

① MAXIMUM WIDTH OF CONSTRUCTION ENTRANCE IS 24 FEET.

② A MNDOT 3733 TYPE V GEOTEXTILE FABRIC SHALL BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.

③ CONSTRUCTION ENTRANCE IS REQUIRED FOR ALL NEW HOME CONSTRUCTION AND NEW STREET CONSTRUCTION.

④ CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OF MUD ONTO ROADWAYS THAT ADJOIN THE PROJECT. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION OF THE ROCK ENTRANCE.

⑤ REMOVE MUD AND DEBRIS FROM TIRES AND VEHICLE UNDERCARRIAGE PRIOR TO LEAVING THE SITE.

## ROCK CONSTRUCTION ENTRANCE

**FEBRUARY 2015**

CITY OF LAKE ELMO | STANDARD DRAWING NO. 605 LAKE ELMO


CARLSON ENGINEERING
ENGINEERING SURVEYING PLANNING
3890 PHEASANT RIDGE DR NE
SUITE 150
BLAINE, MN 55449
TEL 763.489.7500
FAX 763.489.7599
CARLSON-ENGINEERING.COM


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

Print Name: Brian J. Krystofiak, P.E.
Signature:
Date: 12/20/24 License #: 25063

Drawn: KRO
Designed: BJK
Date: 12/20/24

Revisions:
1. 1/23/25 per City Comments.
2. 2/11/25 per City Comments.

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

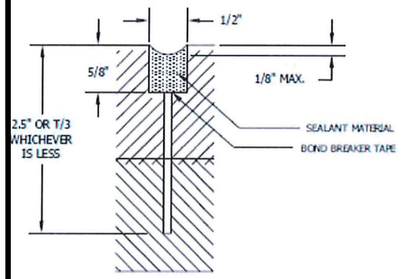
**DETAILS**



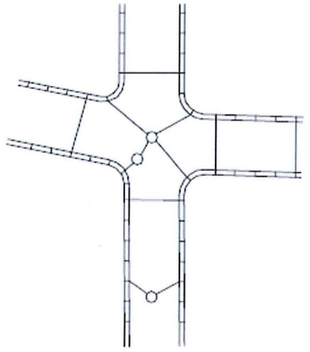
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#5172-01

## SAW AND SEAL FOR NEW STREETS




## SAW AND SEAL SAMPLE LAYOUT



SAW AND SEAL

### NOTES

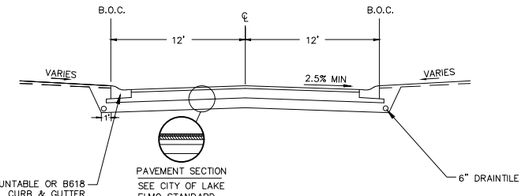
1. SAW AND SEAL CUT LOCATIONS SHALL BE AT 40' +/- SPACING AND AT MANHOLES, OR AS DIRECTED BY THE ENGINEER.
2. SAW AND SEAL CUT SHALL BE STRAIGHT AND MATCH JOINTS IN CURB AND GUTTER.
3. JOINTS TO BE BLOWN CLEAN AND DRIED WITH A HEAT LANCE IMMEDIATELY BEFORE SEALING.
4. CONTRACTOR TO SETUP AND MAINTAIN TRAFFIC CONTROL, INCLUDING FLAGGERS, IN ACCORDANCE WITH MMUTCD, APPENDIX B.
5. BOND BREAKER TAPE IS OPTIONAL.

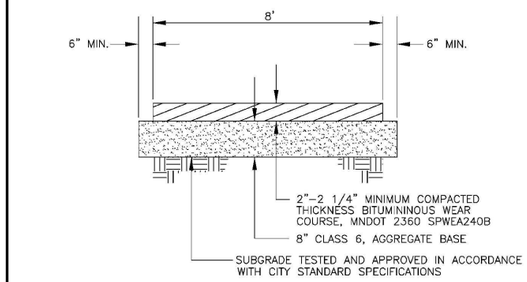
## TYPICAL PARKING LOT PAVEMENT SECTION (APARTMENT)



PAVEMENT SECTION
SEE CITY OF LAKE ELMO STANDARD DRAWING #801 SAW AND SEAL EVERY 40' (SEE DETAIL)

## TYPICAL STREET SECTION – 24' B–B PRIVATE DRIVES



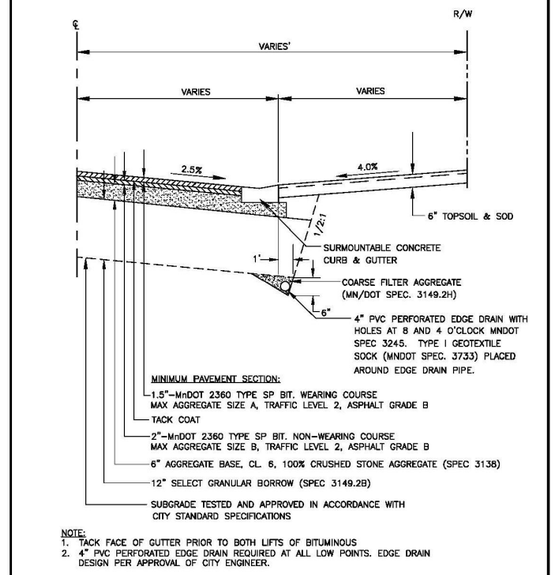




NOTE
1. BITUMINOUS TRAILS SHALL HAVE CONCRETE PED RAMPS AT ALL STREET INTESECTIONS.
2. PROVIDE 2% CROSS–SLOPE TO MAINTAIN POSITIVE DRAINAGE AWAY FROM TRAIL SURFACE THROUGHOUT LENGTH OF TRAIL.

## BICYCLE–PEDESTRIAN PATH

JANUARY 2022

| | |
|---|---|
| CITY OF LAKE ELMO | STANDARD DRAWING NO. 509 LAKE ELMO |




NOTE:
1. TACK FACE OF GUTTER PRIOR TO BOTH LIFTS OF BITUMINOUS
2. 4" PVC PERFORATED EDGE DRAIN REQUIRED AT ALL LOW POINTS. EDGE DRAIN DESIGN PER APPROVAL OF CITY ENGINEER.

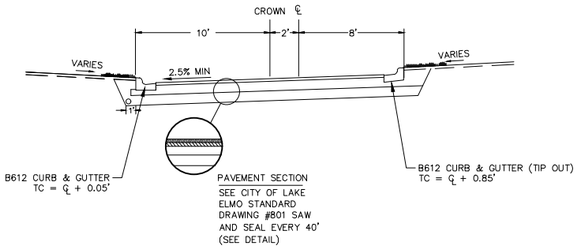
## TYPICAL LOCAL RESIDENTIAL STREET SECTION (MINIMUM 7–TON DESIGN)

FEBRUARY 2015

| | |
|---|---|
| CITY OF LAKE ELMO | STANDARD DRAWING NO. 801 LAKE ELMO |

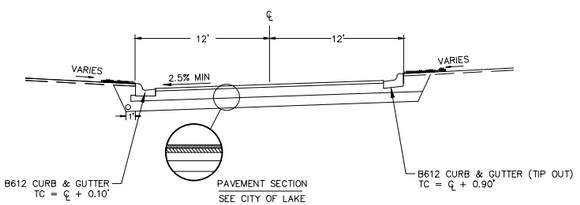
## TYPICAL STREET SECTION – 20' B–B STREET A

(STA. 5+50 TO STA. 6+50)

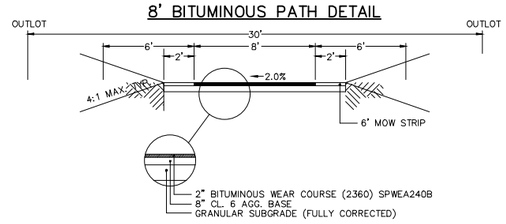


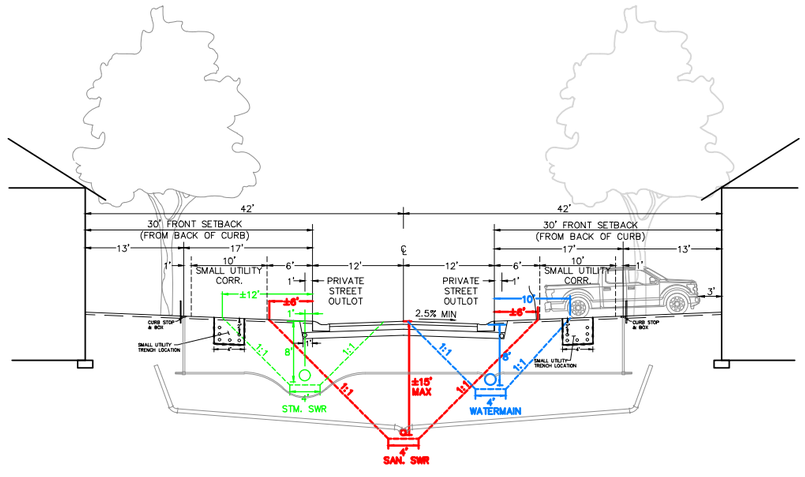

## TYPICAL STREET SECTION – 24' B–B STREET A

(STA. 0+00 TO STA. 5+50)




## 8' BITUMINOUS PATH DETAIL




## TYPICAL UTILITY STREET & BOULEVARD SECTION – 24' B–B (TOWNHOMES)


CARLSON ENGINEERING — ENGINEERING SURVEYING PLANNING
2880 PHEASANT RIDGE DR NE SUITE 100 BLAINE, MN 55449 TEL 763.489.7900 FAX 763.489.7999 CARLSON-ENGINEERING.COM


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Drawn: KRO
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Date: 12/20/24

Revisions:
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2. 2/11/25 per City Comments.

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Lake Elmo, Minnesota

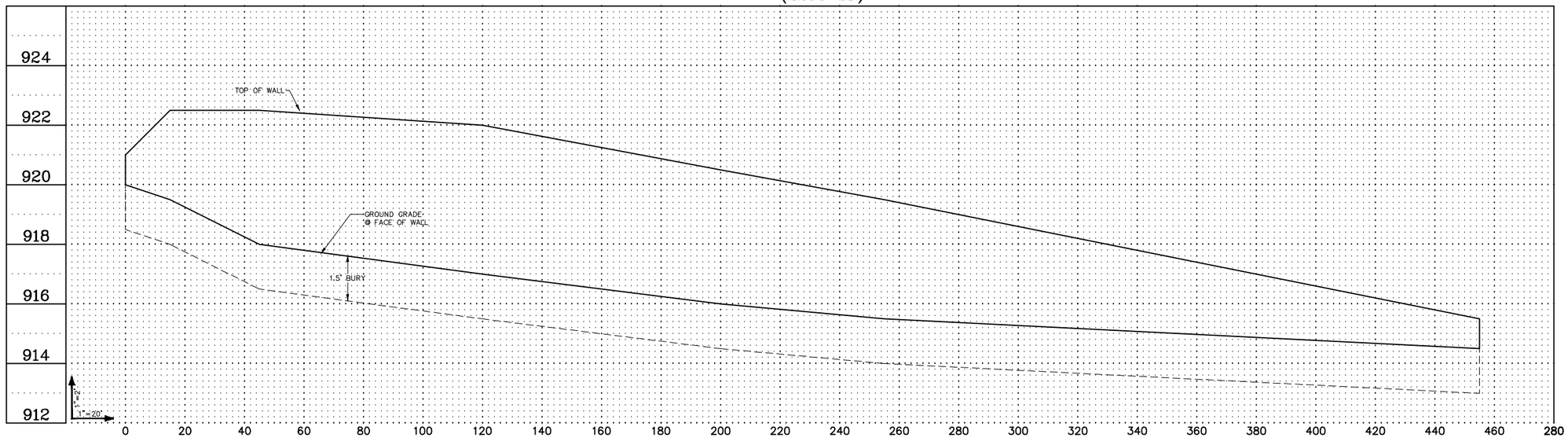
**DETAILS**



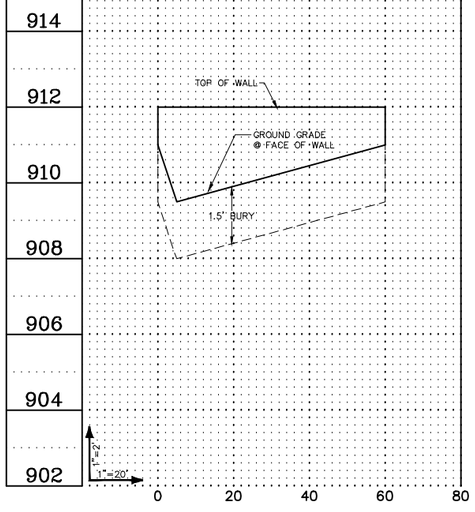
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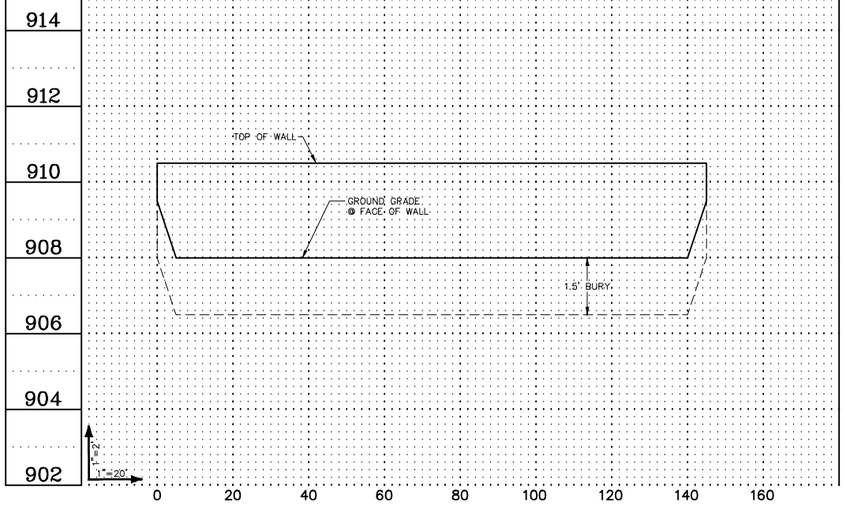
## MODULAR RETAINING WALL #1
(2295 SF)



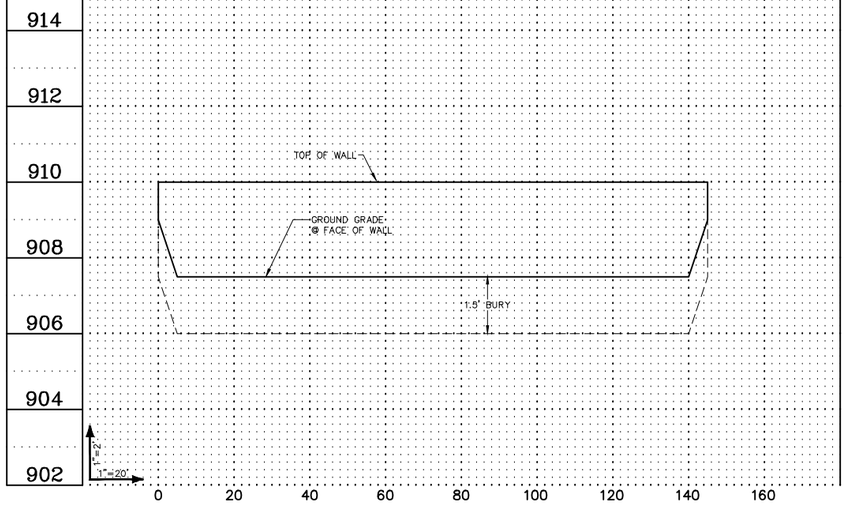

## MODULAR RETAINING WALL #2
(195 SF)




## MODULAR RETAINING WALLS #3 AND #4
(573 SF)




## MODULAR RETAINING WALLS #5
(572 SF)





CARLSON ENGINEERING
ENGINEERING
SURVEYING
PLANNING

3890 PHEASANT RIDGE DR NE
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5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**RETAINING WALL PROFILES**



Save Date: 02/13/25 I:\Jobs\5161 - 5180\5172-01 - Inwood\cad c3d\engineering\prelim plans\5172-01_details.dwg

#5172-01

## LANDSCAPE PLAN NOTES

1. EXISTING CONDITIONS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION START. ANY DISCREPANCIES FOUND THAT AFFECT THE WORK SHALL BE REPORTED TO THE OWNER/LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING OR APPROVING ANY ADDITIONAL WORK REQUIRED.
2. UTILITY LOCATES. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL PUBLIC AND PRIVATE UTILITIES, INCLUDING IRRIGATION LINES, AT LEAST 48 HOURS BEFORE EXCAVATING OR IN ACCORDANCE WITH STATE LAW. IN MINNESOTA, CALL GOPHER STATE ONE-CALL AT 651-454-0002 FOR FIELD LOCATION OF PUBLIC UNDERGROUND UTILITY LINES. ALL LOCATES AND ITEMS NOTED AS 'FIELD VERIFY' ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR AT THEIR EXPENSE.
3. PERMITS. CONTRACTOR SHALL VERIFY WITH THE OWNER/LANDSCAPE ARCHITECT THAT THE REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION START. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. EXISTING ITEMS TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING PAVEMENT, STRUCTURES, UTILITIES, TREES, SITE AMENITIES, ETC. THAT ARE TO REMAIN FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY DAMAGE (AT CONTRACTOR'S EXPENSE) TO EXISTING ITEMS TO REMAIN.
5. CONSTRUCTION STAGING AND ACCESS. CONTRACTOR SHALL VERIFY THE LOCATION FOR CONSTRUCTION STAGING AND SITE ACCESS WITH THE OWNER/LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION START. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PEDESTRIAN AND VEHICLE ACCESS WITHIN AND ADJACENT TO THE SITE THROUGHOUT THE CONSTRUCTION PERIOD UNLESS OTHERWISE NOTED. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE PERMITTED. ALL WASTE AND/OR UNUSED MATERIAL SHALL BE PROMPTLY REMOVED FROM THE SITE.
6. SITE REMOVALS. REFER TO CIVIL PLANS FOR GENERAL SITE REMOVALS. ALL ITEMS NOTED TO BE REMOVED SHALL BE COMPLETED BY THE CONTRACTOR AND IMMEDIATELY DISPOSED OF OFF-SITE, IN ACCORDANCE WITH LOCAL REGULATIONS, UNLESS OTHERWISE NOTED. COORDINATE WITH OWNER/LANDSCAPE ARCHITECT FOR ANY ITEMS NOTED AS 'REMOVED BY OTHERS' OR 'REMOVE AND SALVAGE.'
7. UTILITY COORDINATION. REFER TO CIVIL PLAN SHEETS FOR INFORMATION RELATED TO PROPOSED UTILITIES. COORDINATE WITH ELECTRICAL CONTRACTORS FOR SITE ELECTRICAL WORK AND SITE LIGHTING.
8. CONSTRUCTION STAKING. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING CONTROL POINTS AND ALL CONSTRUCTION FIELD STAKING DURING THE COURSE OF THE PROJECT.
9. DIMENSIONS. DIMENSIONS TAKE PRECEDENCE OVER SCALE. DIMENSIONS ARE TO FACE OF CURB, EDGE OF PAVEMENT/WALKWAY, OR OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
10. PLAN QUANTITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL MATERIAL QUANTITIES PER PLAN. MATERIAL SCHEDULES ARE PROVIDED SOLELY FOR CONTRACTOR'S CONVENIENCE.
11. REFERENCE SPECIFICATIONS. THE FOLLOWING SPECIFICATIONS SHALL GOVERN THIS PROJECT ACCORDING TO THE FOLLOWING ORDER:
    1. ADDENDA, WITH THOSE OF A LATER DATE HAVING PRECEDENCE OVER THOSE OF AN EARLIER DATE.
    2. LANDSCAPE SPECIFICATIONS.
    3. PLAN DRAWINGS.
    4. PLANT / MATERIAL SCHEDULES.
    5. CITY STANDARD SPECIFICATIONS AND DETAILS.
    6. MnDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, LATEST EDITION.

## CITY OF LAKE ELMO LANDSCAPE REQUIREMENTS (SEC. 105.12.480)

1. LANDSCAPING OF SETBACK AREAS.
   1.1. A MINIMUM OF ONE TREE PER LOT OR ONE TREE FOR EVERY 50 FEET OF STREET FOOTAGE, LAKE SHORE OR STREAM FRONTAGE, OR FRACTION THEREOF SHALL BE PLANTED AT THE TIME OF DEVELOPMENT. THE TOTAL TREE REQUIREMENT WILL BE WHICHEVER QUANTITY IS GREATER.

   APARTMENTS
   TREES REQUIRED: 17 TREES (1 LOT, OR 837 LF FRONTAGE / 50 = 17)
   TREES PROVIDED: 17 TREES

   TOWNHOMES
   TREES REQUIRED: 149 TREES (149 LOTS, OR 2,397 LF FRONTAGE / 50 = 48)
   TREES PROVIDED: 149 TREES

   1.2. IN ADDITION TO THE REQUIREMENTS OF 1.1 ABOVE, A MINIMUM OF FIVE (5) TREES SHALL BE PLANTED FOR EVERY ONE (1) ACRE OF LAND THAT IS DISTURBED BY DEVELOPMENT ACTIVITY. SUCH TREES MAY BE USED FOR PARKING LOT LANDSCAPING OR SCREENING AS SPECIFIED BELOW.

   APARTMENTS
   TREES REQUIRED: 23 TREES (4.54 AC DISTURBANCE x 5)
   TREES PROVIDED: 44 TREES

   TOWNHOMES
   TREES REQUIRED: 68 TREES (13.42 AC DISTURBANCE x 5)
   TREES PROVIDED: 47 TREES

2. INTERIOR PARKING LOT LANDSCAPING (APARTMENTS).
   2.1. AT LEAST FIVE (5) PERCENT OF THE INTERIOR AREA OF PARKING LOTS WITH MORE THAN THIRTY (30) SPACES SHALL BE DEVOTED TO LANDSCAPE PLANTING AREAS. AREAS MAY CONSIST OF ISLANDS OR CORNER PLANTING BEDS.

   AREA REQUIRED: 1,565 SF (31,283 SF PARKING AREA x .05)
   AREA PROVIDED: 2,632 SF

   2.2. SHADE TREES SHALL BE PROVIDED WITHIN THE INTERIOR OF PARKING LOTS (IN ISLANDS OR CORNER PLANTING BEDS):

   REQUIRED TREES: 10 TREES (98 PARKING SPACES / 1 TREE PER 10 SPACES)
   PROVIDED TREES: 10 TREES

APARTMENTS
TOTAL TREES REQUIRED: 40 TREES
TOTAL TREES PROVIDED: 61 TREES
- 29 DECIDUOUS TREES
- 26 CONIFEROUS TREES
- 6 ORNAMENTAL TREES

TOWNHOMES
TOTAL TREES REQUIRED: 217 TREES
TOTAL TREES PROVIDED: 196 TREES
- 105 DECIDUOUS TREES
- 59 CONIFEROUS TREES
- 32 ORNAMENTAL TREES

TOTAL PROJECT (APARTMENTS + TOWNHOMES)
TOTAL TREES REQUIRED: 257 TREES
TOTAL TREES PROVIDED: 257 TREES
- 134 DECIDUOUS TREES (52%)
- 85 CONIFEROUS TREES (33%)
- 38 ORNAMENTAL TREES (15%)

NOTE: EXCLUDES 83 EXISTING SIGNIFICANT TREES TO REMAIN.

## PRELIMINARY PLANS

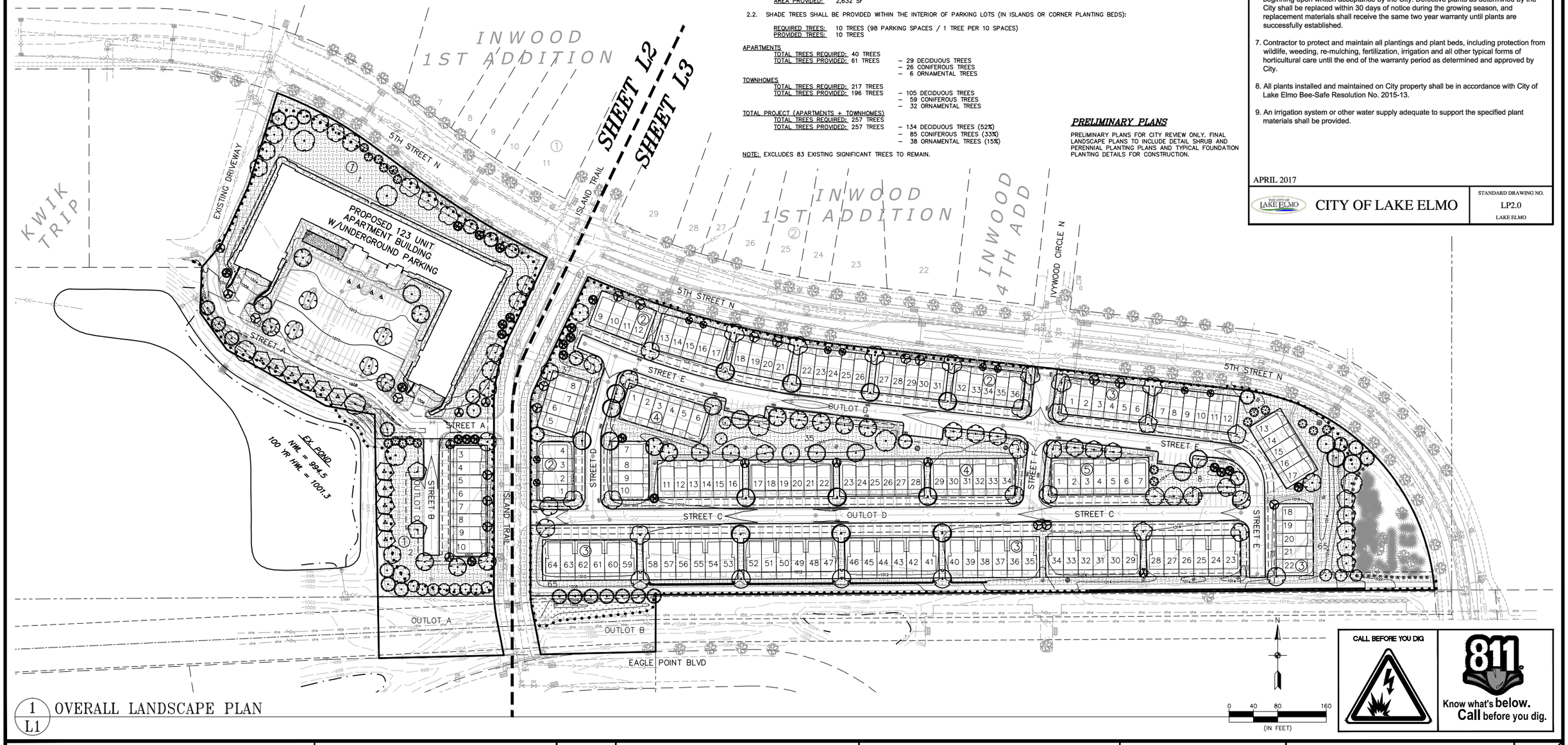
PRELIMINARY PLANS FOR CITY REVIEW ONLY. FINAL LANDSCAPE PLANS TO INCLUDE DETAIL SHRUB AND PERENNIAL PLANTING PLANS AND TYPICAL FOUNDATION PLANTING DETAILS FOR CONSTRUCTION.

## STANDARD PLAN NOTES
### LANDSCAPE PLANS

1. Contractor must contact Gopher State One Call 811 (www.gopherstateonecall.org) prior to tree staking and planting operations to verify underground utilities. Where private utilities exist on-site the Contractor is required to have those located as well.
2. Plant materials shall meet American Standard for Nursery Stock: ANSI Z60.1, latest edition.
3. No plant substitutions shall be made without the prior written authorization from the City.
4. All tree locations to be field staked prior to installation. Contractor to coordinate field review of proposed tree locations with the City and Project Landscape Architect prior to any tree installation.
5. All plants shall be planted immediately upon arrival to project site. No plant material is to be left overnight on the project site without being installed unless written approval by City.
6. All trees, shrubs, perennials, turf lawn and native seeding to have a two-year warranty beginning upon written acceptance by the City. Defective plants as determined by the City shall be replaced within 30 days of notice during the growing season, and replacement materials shall receive the same two year warranty until plants are successfully established.
7. Contractor to protect and maintain all plantings and plant beds, including protection from wildlife, weeding, re-mulching, fertilization, irrigation and all other typical forms of horticultural care until the end of the warranty period as determined and approved by City.
8. All plants installed and maintained on City property shall be in accordance with City of Lake Elmo Bee-Safe Resolution No. 2015-13.
9. An irrigation system or other water supply adequate to support the specified plant materials shall be provided.

APRIL 2017

CITY OF LAKE ELMO — STANDARD DRAWING NO. LP2.0 LAKE ELMO




1/L1 OVERALL LANDSCAPE PLAN

CALL BEFORE YOU DIG — 811 Know what's below. Call before you dig.


CARLSON ENGINEERING — ENGINEERING SURVEYING PLANNING
3890 PHEASANT RIDGE DR NE SUITE 100 BLAINE, MN 55449 TEL 763.489.7900 FAX 763.489.7899 CARLSON-ENGINEERING.COM


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Print Name: Ryan J. Ruttger, RLA
Signature:
Date: 12/20/24 License #: 56346

Drawn: RJR
Designed: RJR
Date: 12/20/24

Revisions:
1. 01/23/25 - Per City Comments.
2. 02/11/25 - Per City Comments.

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St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY LANDSCAPE PLAN**

L1 of 4

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#5172-01

CITY OF LAKE ELMO

APRIL 2017

STANDARD DRAWING NO. LP2.1 LAKE ELMO

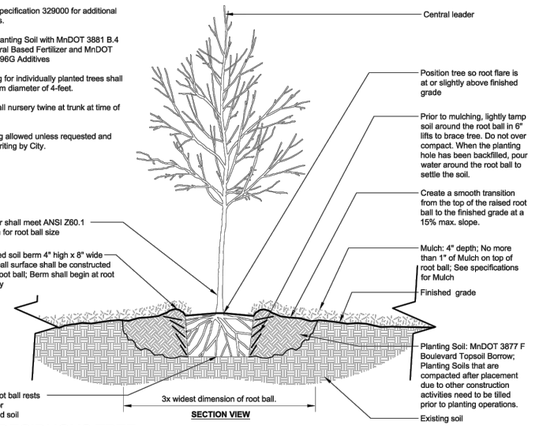
Notes:
1- Refer to specification 329000 for additional requirements.

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

3- Mulch ring for individually planted trees shall be a minimum diameter of 4-feet.

4- Remove all nursery twine at trunk at time of planting.

5- No staking allowed unless requested and granted in writing by City.




LP2.1 DECIDUOUS TREE

CITY OF LAKE ELMO

APRIL 2017

STANDARD DRAWING NO. LP2.3 LAKE ELMO

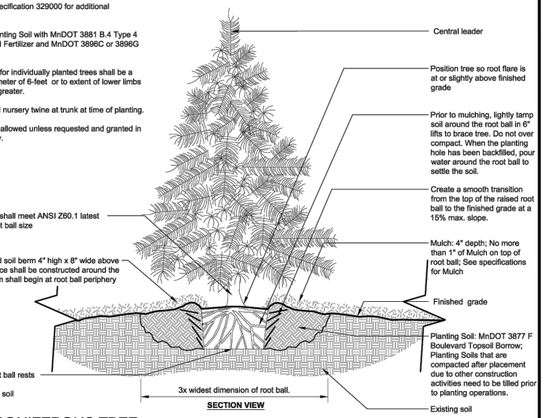
Notes:
1- Refer to specification 329000 for additional requirements.

2- Amend Planting Soil with MnDOT 3881 B.4 Type 4 Natural Based Fertilizer and MnDOT 3896C or 3896G Additives

3- Mulch ring for individually planted trees shall be a minimum diameter of 6-feet or to extent of lower limbs whichever is greater.

4- Remove all nursery twine at trunk at time of planting.

5- No staking allowed unless requested and granted in writing by City.

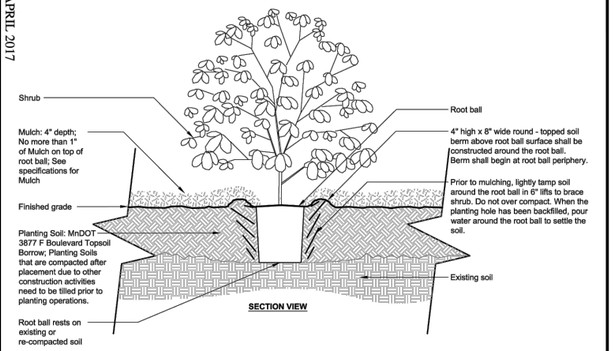



LP2.3 CONIFEROUS TREE

CITY OF LAKE ELMO

APRIL 2017

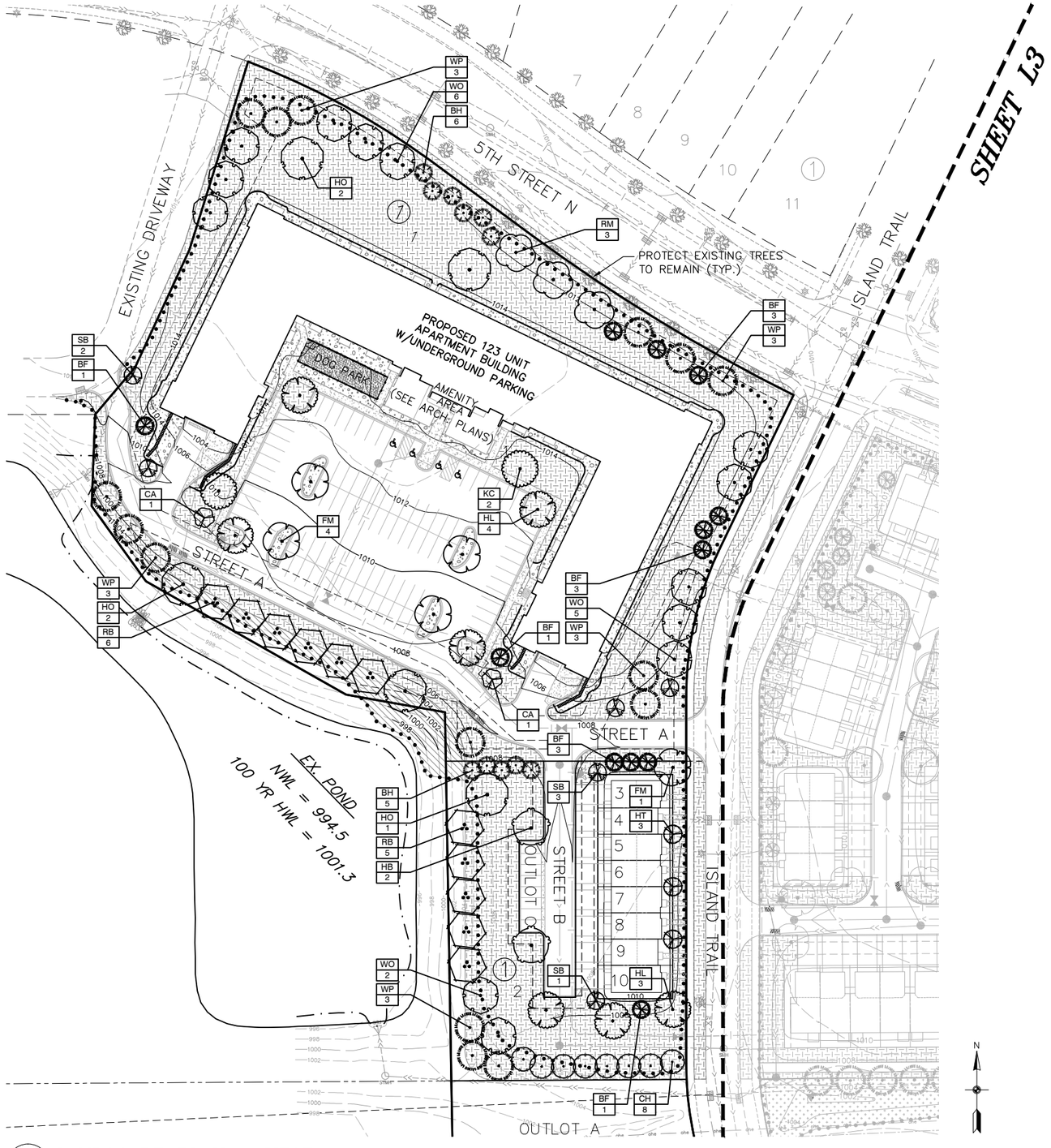
STANDARD DRAWING NO. LP2.5 LAKE ELMO




Notes:
1- Refer to specification 329000 for additional requirements.

2- Shrubs shall be of quality as prescribed in the root observations detail and specification.

LP2.5 SHRUB




1 / L2 LANDSCAPE PLAN – WEST

0 25 50 100 (IN FEET)


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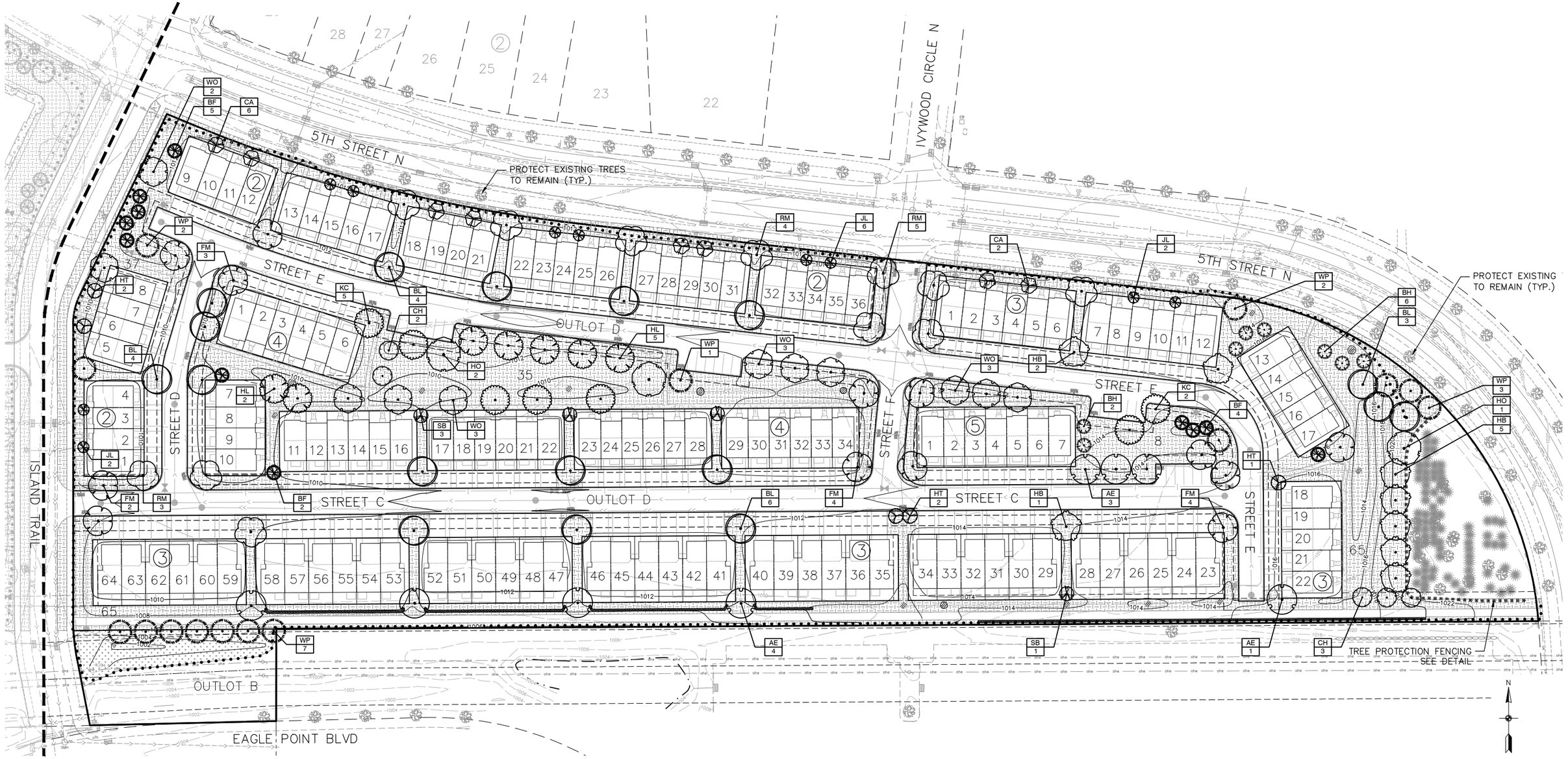
**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY LANDSCAPE PLAN**

L2 of 4

Save Date: 02/12/25 f:\jobs\5161 - 5180\5172-01 - inwood\cad c3d\landscape\5172-01_landscape_prelim.dwg

#5172-01




1/L3 LANDSCAPE PLAN – EAST

CARLSON ENGINEERING
ENGINEERING SURVEYING PLANNING
3890 PHEASANT RIDGE DR NE
SUITE 100
BLAINE, MN 55449
TEL 763.489.7900
FAX 763.489.7999
CARLSON-ENGINEERING.COM

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 Landscape Architect under the laws of the State of Minnesota

Print Name: Ryan J. Ruttger, RLA
Signature:
Date: 12/20/24 License #: 56346

Drawn: RJR
Designed: RJR
Date: 12/20/24

Revisions:
1. 01/23/25 - Per City Comments.
2. 02/11/25 - Per City Comments.

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY LANDSCAPE PLAN**

L3 of 4

Save Date: 02/12/25 f:\jobs\5161 - 5180\5172-01 - inwood\cad c3d\landscape\5172-01_landscape_prelim.dwg

#5172-01

## PLANT SCHEDULE APARTMENTS

| SYMBOL | CODE | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
|---|---|---|---|---|---|---|
| TREES | | | | | | |
| | RM | 3 | Acer rubrum `Northwood` | Northwoods Red Maple | 2.5" Cal. | B&B |
| | FM | 4 | Acer x freemanii `Sienna` | Sienna Glen Maple | 2.5" Cal. | B&B |
| | RB | 6 | Betula nigra<br>Clump Form, 2.5" Cal Equivalent | River Birch Multi-Trunk | 10` Ht. | B&B |
| | HL | 4 | Gleditsia triacanthos inermis `Harve` | Northern Acclaim Thornless Honey Locust | 2.5" Cal. | B&B |
| | KC | 2 | Gymnocladus dioica `Espresso` | Kentucky Coffeetree | 2.5" Cal. | B&B |
| | WO | 11 | Quercus bicolor | Swamp White Oak | 2.5" Cal. | B&B |
| | HO | 4 | Quercus x macdanielii `Clemons` TM | Heritage Oak | 2.5" Cal. | B&B |
| CONIFEROUS TREES | | | | | | |
| | BF | 8 | Abies balsamea | Balsam Fir | 6` Ht. | B&B |
| | BH | 6 | Picea glauca densata | Black Hills Spruce | 6` Ht. | B&B |
| | WP | 12 | Pinus strobus | White Pine | 6` Ht. | B&B |
| ORNAMENTAL TREES | | | | | | |
| | SB | 4 | Amelanchier x grandiflora `Autumn Brilliance`<br>Clump Form, 2" Cal Equivalent | Autumn Brilliance Serviceberry | 8` Ht. | B&B |
| | CA | 2 | Malus x `Prairiefire`<br>Red Flowers, Clump Form, 2" Cal Equivalent | Prairiefire Crabapple | 7` Ht. | B&B |
| GROUND COVERS | | | | | | |
| | DG | 1,430 sf | Decomposed Granite<br>Compacted, Non-Woven Geotextile Incidental | Decomposed Granite | 4" Depth | |
| | ROCK | 12,469 sf | Rock Mulch<br>Non-Woven Geotextile Incidental | 1.5" Trap Rock Mulch | 4" Depth | |
| | SOD | 78,907 sf | Turf Sod Bluegrass | Kentucky Bluegrass | sod | |
| | TII | 5,960 sf | Type II - Stormwater Seed Mix<br>Refer to notes for acceptable seeding methods<br>Seeding Rate 52.0 lb/ac | MnDOT Seed Mix 33-261 | seed | |

## PLANT SCHEDULE TOWNHOMES

| SYMBOL | CODE | QTY | BOTANICAL NAME | COMMON NAME | SIZE | CONTAINER |
|---|---|---|---|---|---|---|
| TREES | | | | | | |
| | RM | 12 | Acer rubrum `Northwood` | Northwoods Red Maple | 2.5" Cal. | B&B |
| | FM | 14 | Acer x freemanii `Sienna` | Sienna Glen Maple | 2.5" Cal. | B&B |
| | RB | 5 | Betula nigra<br>Clump Form, 2.5" Cal Equivalent | River Birch Multi-Trunk | 10` Ht. | B&B |
| | HB | 10 | Celtis occidentalis | Common Hackberry | 2.5" Cal. | B&B |
| | HL | 10 | Gleditsia triacanthos inermis `Harve` | Northern Acclaim Thornless Honey Locust | 2.5" Cal. | B&B |
| | KC | 7 | Gymnocladus dioica `Espresso` | Kentucky Coffeetree | 2.5" Cal. | B&B |
| | WO | 13 | Quercus bicolor | Swamp White Oak | 2.5" Cal. | B&B |
| | HO | 4 | Quercus x macdanielii `Clemons` TM | Heritage Oak | 2.5" Cal. | B&B |
| | BL | 17 | Tilia americana `Boulevard` | Boulevard Linden | 2.5" Cal. | B&B |
| | AE | 8 | Ulmus americana `Princeton` | American Elm | 2.5" Cal. | B&B |
| CONIFEROUS TREES | | | | | | |
| | BF | 15 | Abies balsamea | Balsam Fir | 6` Ht. | B&B |
| | BH | 13 | Picea glauca densata | Black Hills Spruce | 6` Ht. | B&B |
| | WP | 18 | Pinus strobus | White Pine | 6` Ht. | B&B |
| | CH | 13 | Tsuga canadensis | Canadian Hemlock | 6` Ht. | B&B |
| ORNAMENTAL TREES | | | | | | |
| | SB | 6 | Amelanchier x grandiflora `Autumn Brilliance`<br>Clump Form, 2" Cal Equivalent | Autumn Brilliance Serviceberry | 8` Ht. | B&B |
| | HT | 8 | Crataegus crus-galli `Inermis` | Thornless Hawthorn | 2" Cal. | B&B |
| | CA | 8 | Malus x `Prairiefire`<br>Red Flowers, Clump Form, 2" Cal Equivalent | Prairiefire Crabapple | 7` Ht. | B&B |
| | JL | 10 | Syringa reticulata `Ivory Silk`<br>White Flowers | Ivory Silk Japanese Tree Lilac | 2" Cal. | B&B |
| GROUND COVERS | | | | | | |
| | SOD | 193,924 sf | Turf Sod Bluegrass | Kentucky Bluegrass | sod | |
| | TI | 7,398 sf | Type I - Turf Seed Mix<br>Refer to notes for acceptable seeding methods<br>Seeding Rate 180 lb/ac | MnDOT Seed Mix 25-151 | seed | |

## *LANDSCAPE SPECIFICATIONS*

1. TREE PROTECTION. ALL TREES NOT SPECIFICALLY NOTED OR MARKED ON SITE FOR REMOVAL SHALL REMAIN PROTECTED AND UNDISTURBED DURING CONSTRUCTION. TREE PROTECTION SHALL EXTEND TO THE DRIP LINE, WITHIN WHICH NO CONSTRUCTION ACTIVITY, MATERIAL STORAGE, OR VEHICLE PARKING SHALL BE PERMITTED. TREE PROTECTION FENCING SHALL BE ERECTED PRIOR TO CONSTRUCTION START PER PLANS OR AS DIRECTED BY OWNER/LANDSCAPE ARCHITECT AND SHALL CONSIST OF 4' TALL HEAVY DUTY ORANGE CONSTRUCTION FENCING WITH 6' STEEL FENCE POSTS SPACED 6' O.C. MAX.
2. EROSION CONTROL. REFER TO CIVIL PLAN SHEETS FOR STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND TEMPORARY AND PERMANENT STORMWATER BMPS, INCLUDING SILT FENCE, BIO-ROLLS, INLET PROTECTION, EROSION CONTROL BLANKETING, DUST CONTROL, SWEEPING AND ROCK CONSTRUCTION ENTRANCE. ALL DISTURBED AREAS SHALL RECEIVE PERMANENT STABILIZATION IN ACCORDANCE WITH THE LANDSCAPE PLAN WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY IN THE DISTURBED AREA HAS CEASED. IN THE EVENT PERMANENT STABILIZATION CANNOT BE IMPLEMENTED WITHIN 7 DAYS, TEMPORARY STABILIZATION BMPS MUST BE IMPLEMENTED WITHIN 7 DAYS USING RAPID STABILIZATION METHOD 3.
3. CLEARING AND GRUBBING. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING ALL AREAS INDICATED AS BEING DISTURBED OR OTHERWISE SHOWN ON PLANS. CLEARING AND GRUBBING SHALL INCLUDE REMOVAL AND DISPOSAL OF ALL TREES, STUMPS, BRUSH, GRASS, ROOTS AND OTHER ORGANIC MATERIAL AT AN APPROVED OFF-SITE DISPOSAL LOCATION.
4. SOIL PREPARATION. REFER TO GEOTECHNICAL REPORT FOR ANY REQUIRED SOIL CORRECTIONS, AMENDMENTS OR ADDITIONAL INFORMATION (IF APPLICABLE). EXISTING TOPSOIL SHALL BE STRIPPED FROM ALL DISTURBED AREAS AND STOCKPILED IN AN APPROVED LOCATION FOR RE-SPREAD. ALL AREAS WHERE SOIL HAS BEEN COMPACTED BY CONSTRUCTION ACTIVITY AND THAT ARE INDICATED TO BE SODDED, SEEDED OR PLANTING BED SHALL BE DE-COMPACTED TO A MINIMUM DEPTH OF 12 INCHES BY SOIL RIPPING, TILLING OR OTHER APPROVED SOIL LOOSENING METHOD PRIOR TO INSTALLATION OF ANY IRRIGATION, SEEDING, PLANTING, SODDING, ETC.
5. TOPSOIL MATERIAL. ALL EXISTING, AMENDED OR IMPORTED TOPSOIL SHALL MEET THE REQUIREMENTS OF MNDOT TOPSOIL TYPE A. A MINIMUM 4 INCH DEPTH OF TOPSOIL SHALL BE PLACED ON ALL AREAS TO BE SODDED OR SEEDED. A MINIMUM 12 INCH DEPTH OF TOPSOIL SHALL BE PLACED WITHIN ALL PLANTING BED AREAS. ALL TOPSOIL SHALL BE FINE GRADED, RAKED AND DRAGGED TO PROVIDE A SMOOTH, UNIFORM SURFACE. TOPSOIL GRADES SHALL BE WITHIN .1 FEET OF INDICATED FINISHED GRADE AND SHALL BE TRUE TO GRADIENTS SHOWN ON PLANS. CONFIRMATION OF TOPSOIL DEPTH AND QUALITY SHALL BE SUBMITTED AS WRITTEN CONFIRMATION FROM A LICENSED PARTY BEFORE A FULL CERTIFICATE OF OCCUPANCY IS ISSUED.
6. SEEDING AND TURF ESTABLISHMENT. CONTRACTOR SHALL OBTAIN OWNER/LANDSCAPE ARCHITECT'S APPROVAL OF FINAL GRADES AND TOPSOIL PREP PRIOR TO SEEDING. APPLY 10-10-10 TYPE I STARTER FERTILIZER AT A RATE OF 200 LBS PER ACRE PRIOR TO SEEDING. SEEDS SHALL BE SOWED AT THE INDICATED RATE, VIA BROADCAST SPREADER, DROP SEEDER OR DRILL SEEDER. FOLLOWING SEED APPLICATION, INSTALL CATEGORY 20 - STRAW EROSION CONTROL BLANKET WITH NATURAL NETTING ON ALL SLOPES GREATER THAN 4:1. IN ALL OTHER AREAS, APPLY DISC-ANCHORED TYPE 3 MULCH (MCIA CERTIFIED WEED FREE GRAIN STRAW) AT A RATE OF 2 TONS PER ACRE. SOIL SHALL BE KEPT MOIST DURING ESTABLISHMENT WITH ADDITIONAL RE-SEEDING AS NECESSARY TO ACHIEVE A HEALTHY, UNIFORM STAND OF GRASS, FREE OF WEEDS AND WITH COVERAGE EXCEEDING 75% IN ANY 10'x10' AREA PRIOR TO FINAL ACCEPTANCE.
7. SODDING. CONTRACTOR SHALL OBTAIN OWNER/LANDSCAPE ARCHITECT'S APPROVAL OF FINAL GRADES AND TOPSOIL PREP PRIOR TO SODDING. APPLY 10-10-10 TYPE I STARTER FERTILIZER AT A RATE OF 200 LBS PER ACRE PRIOR TO SODDING AND ROLL TOPSOIL TO CREATE A UNIFORM SURFACE FOR LAYING SOD. SOD SHALL NOT BE CUT MORE THAN 24-HOURS IN ADVANCE OF INSTALLATION. CONTRACTOR SHALL KEEP SOD MOIST FOR A MINIMUM OF 30 DAYS AND SHALL BE RESPONSIBLE FOR MAINTAINING THE SOD UNTIL FINAL ACCEPTANCE.
8. PLANT MATERIAL. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS. OWNER/LANDSCAPE ARCHITECT RESERVE THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION. NO SUBSTITUTION OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE OWNER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
9. PLANT MATERIAL SUBSTITUTIONS. ALL REQUESTS FOR PLANT SUBSTITUTIONS SHALL BE MADE IN WRITING TO THE OWNER/LANDSCAPE ARCHITECT AND MUST BE APPROVED BY THE CITY.
10. PLANT INSTALLATION AND ESTABLISHMENT. REFER TO STANDARD PLANTING DETAILS. CONTRACTOR SHALL STAKE TREE LOCATIONS FOR APPROVAL BY OWNER/LANDSCAPE ARCHITECT PRIOR TO PLANTING. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE.
11. MULCH MATERIAL. DOUBLE SHREDDED HARDWOOD MULCH OR ROCK MULCH AS INDICATED ON PLANS. ALL MULCH SHALL BE CLEAN AND FREE OF NOXIOUS WEEDS, SOIL, OR OTHER DELETERIOUS MATERIAL, AND SHALL BE INSTALLED OVER A NON-WOVEN GEOTEXTILE FABRIC (INCIDENTAL) OR OTHER APPROVED WEED BARRIER TO A MINIMUM SETTLED DEPTH OF 4". MULCH SHALL BE HELD BACK FROM PLANT STEMS/TRUNKS A MINIMUM OF 3". WOOD MULCH SHALL BE PLACED AROUND INDIVIDUAL TREES TO A 4' MINIMUM DIAMETER. MULCH SHALL BE INSTALLED WITHIN 48-HOURS OF PLANT INSTALLATION.
12. LANDSCAPE EDGING. INSTALL LANDSCAPE EDGING BETWEEN ALL MULCH AREAS AND TURF. EDGING SHALL BE COMMERCIAL GRADE BLACK POLYETHYLENE OR VINYL EDGING, 0.1 INCH THICK BY 5 INCHES DEEP, V-LIPPED BOTTOM, HORIZONTALLY GROOVED, 1-INCH ROUND TOP, EXTRUDED IN STANDARD LENGTHS, WITH 9-INCH STEEL ANGLE STAKES.
13. IRRIGATION. DESIGN, FURNISH AND INSTALL A COMPLETE UNDERGROUND IRRIGATION SYSTEM FROM APPROVED POINT(S)-OF-CONNECTION WITHIN THE SITE COVERING ALL TURF AND PLANTING AREAS AS SHOWN ON THE LANDSCAPE PLAN. INCLUDES FLOW/PRESSURE TESTING, PLANS WITH DESIGN CALCULATIONS, AS-BUILT DRAWINGS, LABOR, MATERIALS, EQUIPMENT, AND SERVICES FOR THE TESTING, ADJUSTING, RETESTING AND READJUSTING AS REQUIRED TO PLACE THE SYSTEM IN AN APPROVED OPERATING CONDITION. THE IRRIGATION SYSTEM SHALL INCLUDE THE DESIGN AND INSTALLATION OF THE FOLLOWING: PIPING, METER AND BACKFLOW ASSEMBLIES, SPRINKLER HEADS, CABINETS, VALVES AND VALVE BOXES, CONTROLLERS, CONTROL WIRING, FITTINGS, ELECTRICAL CONNECTIONS, QUICK-COUPLERS, ALL OTHER NECESSARY ACCESSORIES, SYSTEM MANUALS, 1-YEAR MAINTENANCE PERIOD INCLUDING 1 FALL WINTERIZATION AND 1 SPRING START-UP. IRRIGATION PLANS TO BE PREPARED BY A QUALIFIED IRRIGATION DESIGNER AND SUBMITTED TO OWNER/LANDSCAPE ARCHITECT FOR APPROVAL.
14. MAINTENANCE. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE MOWING, TRIMMING, WATERING, FERTILIZING, WEED AND PESTICIDE CONTROL, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES, HOWEVER, THE CONTRACTOR SHALL RETAIN RESPONSIBILITY FOR ALL PLANT MATERIAL THROUGH THE COMPLETION OF THE WARRANTY PERIOD.
15. WATERING. UPON ESTABLISHMENT OF SEED AND INSTALLATION OF PLANTS, CONTRACTOR SHALL MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS AND TURF AREAS A MINIMUM OF ONCE A WEEK. MORE FREQUENT WATERING MAY BE REQUIRED DURING PERIODS OF HOT, DRY WEATHER. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER. IN THE ABSENCE OF PERMANENT IRRIGATION, TEMPORARY IRRIGATION, TREE WATERING BAGS, OR HAND-WATERING ARE ACCEPTABLE.
16. FINAL ACCEPTANCE. UPON SUBSTANTIAL COMPLETION OF THE WORK, CONTRACTOR SHALL REQUEST FINAL ACCEPTANCE OF THE WORK IN WRITING BY THE OWNER/LANDSCAPE ARCHITECT. IF ANY WORK IS FOUND TO BE INCOMPLETE OR UNSATISFACTORY IN THE OPINION OF THE OWNER/LANDSCAPE ARCHITECT, A WRITTEN PUNCH LIST WILL BE PREPARED LISTING ALL ITEMS THAT REQUIRE COMPLETING OR CORRECTING BEFORE FINAL ACCEPTANCE.
17. WARRANTY. ALL PLANTS, MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR TWO (2) YEARS FROM THE DATE OF FINAL ACCEPTANCE, UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND MATERIAL.

CARLSON ENGINEERING
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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 Landscape Architect under the laws of the State of Minnesota

Print Name: Ryan J. Ruttger, RLA
Signature:
Date: 12/20/24 License #: 56346

Drawn: RJR
Designed: RJR
Date: 12/20/24

Revisions:
1. 01/23/25 - Per City Comments.
2. 02/11/25 - Per City Comments.

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**PRELIMINARY LANDSCAPE PLAN**



Save Date: 02/12/25 F:\Jobs\5161 - 5180\5172-01 - inwood\cad c3d\landscape\5172-01_landscape_prelim.dwg

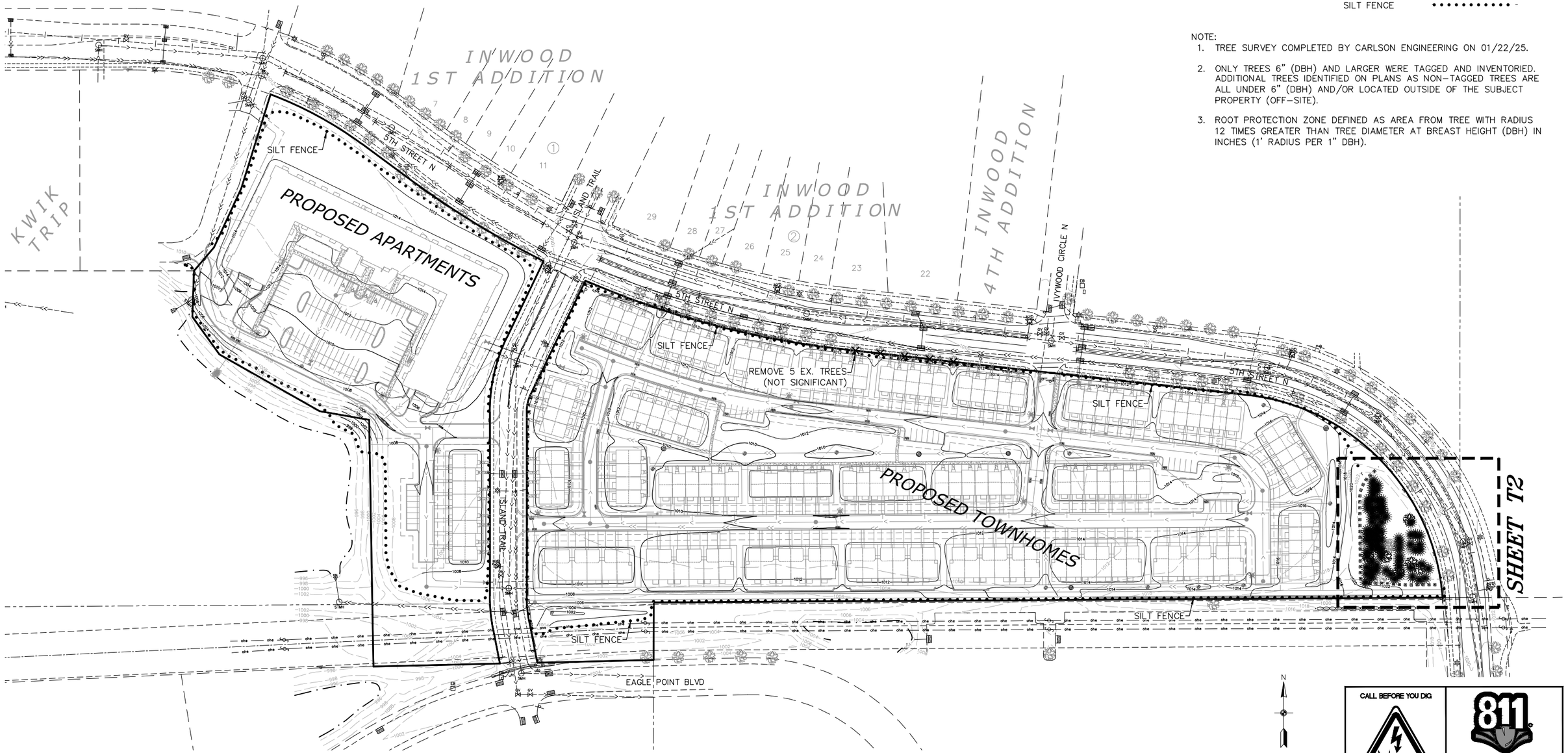
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## LEGEND – EXISTING TREES

| | CONIFEROUS | DECIDUOUS |
|---|---|---|
| TAGGED TREE | ✹ | ✿ |
| NON-TAGGED TREE | ✹ | ✿ |
| TREE REMOVAL | ✕ | ✕ |
| ROOT PROTECTION ZONE | ~ | |
| TREE PROTECTION FENCE | ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ | |
| SILT FENCE | • • • • • • • • • • • • | |

NOTE:

1. TREE SURVEY COMPLETED BY CARLSON ENGINEERING ON 01/22/25.
2. ONLY TREES 6" (DBH) AND LARGER WERE TAGGED AND INVENTORIED. ADDITIONAL TREES IDENTIFIED ON PLANS AS NON-TAGGED TREES ARE ALL UNDER 6" (DBH) AND/OR LOCATED OUTSIDE OF THE SUBJECT PROPERTY (OFF-SITE).
3. ROOT PROTECTION ZONE DEFINED AS AREA FROM TREE WITH RADIUS 12 TIMES GREATER THAN TREE DIAMETER AT BREAST HEIGHT (DBH) IN INCHES (1' RADIUS PER 1" DBH).




1 / T1 OVERALL TREE PRESERVATION PLAN

CALL BEFORE YOU DIG

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


CARLSON ENGINEERING ENGINEERING SURVEYING PLANNING

3890 PHEASANT RIDGE DR NE
SUITE 100
BLAINE, MN 55449
TEL 763.489.7900
FAX 763.489.7989
CARLSON-ENGINEERING.COM


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 Landscape Architect under the laws of the State of Minnesota

Print Name: Ryan J. Ruttger, RLA
Signature:
Date: 12/20/24 License #: 56346

Drawn: RJR
Designed: RJR
Date: 12/20/24

Revisions:
1. 01/23/25 - Per City Comments.
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**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**TREE PRESERVATION PLAN**

T1 of 2

Save Date: 02/12/25 F:\Jobs\5161 - 5180\5172-01 - inwood\cad c3d\landscape\5172-01_tree preservation.dwg

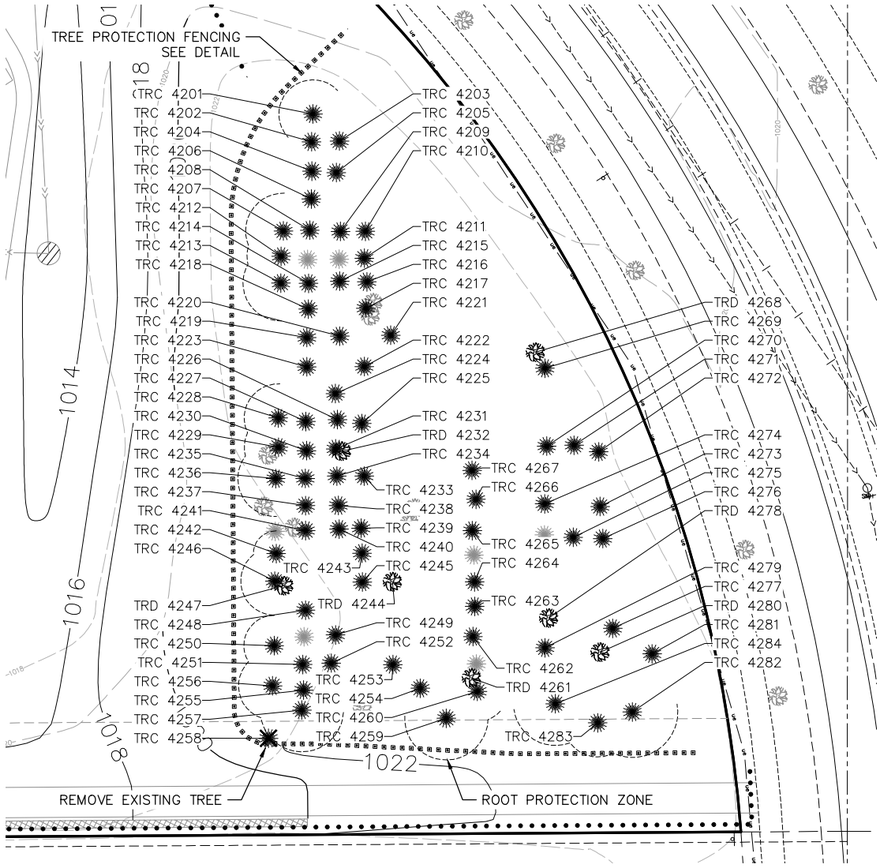
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## LEGEND – EXISTING TREES

| | CONIFEROUS | DECIDUOUS |
|---|---|---|
| TAGGED TREE | ✹ | ✹ |
| NON–TAGGED TREE | ✹ | ✹ |
| TREE REMOVAL | ✹ | ✹ |
| ROOT PROTECTION ZONE | ~ | |
| TREE PROTECTION FENCE | ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ | |
| SILT FENCE | • • • • • • • • • • • • | |

NOTE:

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2. ONLY TREES 6" (DBH) AND LARGER WERE TAGGED AND INVENTORIED. ADDITIONAL TREES IDENTIFIED ON PLANS AS NON–TAGGED TREES ARE ALL UNDER 6" (DBH) AND/OR LOCATED OUTSIDE OF THE SUBJECT PROPERTY (OFF–SITE).
3. ROOT PROTECTION ZONE DEFINED AS AREA FROM TREE WITH RADIUS 12 TIMES GREATER THAN TREE DIAMETER AT BREAST HEIGHT (DBH) IN INCHES (1' RADIUS PER 1" DBH).

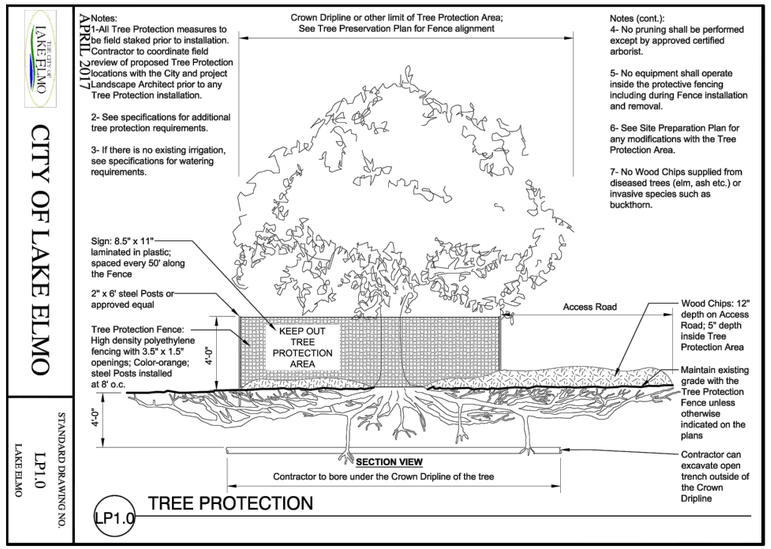



1/T2 TREE PRESERVATION PLAN ENLARGEMENT

CITY OF LAKE ELMO

APRIL 2017

STANDARD DRAWING NO. LP1.0 LAKE ELMO




LP1.0 TREE PROTECTION

| Tree Tag No. | Tree Species (Common Name) | DBH (in.) | Quality (0-3) | Stems | City Classification | Significant | Save | Remove |
|---|---|---|---|---|---|---|---|---|
| 4201 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4202 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4203 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4204 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4205 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4206 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4207 | Red Pine | 10 | 3 | 1 | Coniferous | Yes | X | |
| 4208 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4209 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4210 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4211 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4212 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4213 | Red Pine | 10 | 3 | 1 | Coniferous | Yes | X | |
| 4214 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4215 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4216 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4217 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4218 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4219 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4220 | Red Pine | 10 | 3 | 1 | Coniferous | Yes | X | |
| 4221 | Red Pine | 10 | 3 | 2 | Coniferous | Yes | X | |
| 4222 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4223 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4224 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4225 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4226 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4227 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4228 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4229 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4230 | Red Pine | 6 | 3 | 1 | Coniferous | No | X | |
| 4231 | Red Pine | 6 | 3 | 1 | Coniferous | No | X | |
| 4232 | Green Ash | 6 | 3 | 1 | Common Tree | No | X | |
| 4233 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4234 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4235 | Red Pine | 6 | 3 | 1 | Coniferous | No | X | |
| 4236 | Red Pine | 10 | 3 | 1 | Coniferous | Yes | X | |
| 4237 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4238 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4239 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4240 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4241 | Red Pine | 6 | 3 | 1 | Coniferous | No | X | |
| 4242 | Red Pine | 6 | 3 | 1 | Coniferous | No | X | |
| 4243 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4244 | Poplar | 7 | 3 | 1 | Common Tree | No | X | |
| 4245 | Red Pine | 11 | 3 | 1 | Coniferous | Yes | X | |
| 4246 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4247 | Green Ash | 13 | 3 | 2 | Common Tree | Yes | X | |
| 4248 | Red Pine | 8 | 3 | 2 | Coniferous | Yes | X | |
| 4249 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4250 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4251 | Red Pine | 7 | 3 | 1 | Coniferous | No | X | |
| 4252 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4253 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4254 | Red Pine | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4255 | Red Pine | 10 | 3 | 2 | Coniferous | Yes | X | |
| 4256 | Red Pine | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4257 | Red Pine | 11 | 3 | 1 | Coniferous | Yes | X | |
| 4258 | Red Pine | 12 | 3 | 1 | Coniferous | Yes | | X |
| 4259 | Red Pine | 11 | 3 | 1 | Coniferous | Yes | X | |
| 4260 | White Spruce | 7 | 3 | 1 | Coniferous | No | X | |
| 4261 | Poplar | 7 | 3 | 1 | Common Tree | No | X | |
| 4262 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4263 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4264 | White Spruce | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4265 | White Spruce | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4266 | White Spruce | 7 | 3 | 1 | Coniferous | No | X | |
| 4267 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4268 | Poplar | 8 | 3 | 1 | Common Tree | No | X | |
| 4269 | Blue Spruce | 10 | 3 | 1 | Coniferous | Yes | X | |
| 4270 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4271 | White Spruce | 7 | 3 | 1 | Coniferous | No | X | |
| 4272 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4273 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4274 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4275 | White Spruce | 7 | 3 | 1 | Coniferous | No | X | |
| 4276 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4277 | White Spruce | 6 | 3 | 1 | Coniferous | No | X | |
| 4278 | Poplar | 8 | 3 | 1 | Common Tree | No | X | |
| 4279 | White Spruce | 8 | 3 | 1 | Coniferous | Yes | X | |
| 4280 | Poplar | 6 | 3 | 1 | Common Tree | No | X | |
| 4281 | Blue Spruce | 10 | 3 | 1 | Coniferous | Yes | X | |
| 4282 | Blue Spruce | 12 | 3 | 1 | Coniferous | Yes | X | |
| 4283 | White Spruce | 9 | 3 | 1 | Coniferous | Yes | X | |
| 4284 | White Spruce | 11 | 3 | 1 | Coniferous | Yes | X | |

| SIGNIFICANT TREE SUMMARY | TOTAL (QTY) | DBH (INCHES) TOTAL | SAVE | REMOVE | (%) | MITIGATION (OVER 30%) |
|---|---|---|---|---|---|---|
| Deciduous Hardwood Trees | 0 | 0 | 0.0 | 0 | - | 0 |
| Coniferous Trees | 52 | 470.0 | 458.0 | 12.0 | 2.6% | 0 |
| Common Trees | 1 | 13.0 | 13.0 | 0 | 0.0% | 0 |
| TOTAL | 53 | 483.0 | 471.0 | 12 | | 0 |


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CARLSON-ENGINEERING.COM


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 Landscape Architect under the laws of the State of Minnesota

Print Name: Ryan J. Ruttger, RLA
Signature:
Date: 12/20/24 License #: 56346

Drawn: RJR
Designed: RJR
Date: 12/20/24

Revisions:
1. 01/23/25 - Per City Comments.
2. 02/11/25 - Per City Comments.

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, MN 55416

**INWOOD TOWNHOMES**
Lake Elmo, Minnesota

**TREE PRESERVATION PLAN**

T2 of 2

Save Date: 02/12/25 F:\jobs\5161 - 5180\5172-01 - inwood\cad c3d\landscape\5172-01_tree preservation.dwg

#5172-01

# The City Collection Townhomes

## City, MN

### Revisions History

| Date | General Revisions |
|---|---|
| | **ATHENS Revisions** |
| 05/17/2024 | revision |
| | **ATHENS II Revisions** |
| 05/17/2024 | revision |
| | **BARCELONA Revisions** |
| 11/14/2024 | Flipped Mechanical Room layout/door |
| | **CAPRI Revisions** |
| 11/14/2024 | Add 2x6 wall in LL Bedroom closet |
| 11/14/2024 | Add soffit in LL Bedroom/Bath layout |

### Project Information

PROJECT NAME: The City Collection Townhomes

LOCATION: City, Minnesota

PROJECT TYPE: Rear-loaded Townhomes

THIS PROJECT SHALL COMPLY WITH THE FOLLOWING BUILDING CODES:

-2020 MINNESOTA RESIDENTIAL CODE (2020 IRC)
-2020 MINNESOTA ENERGY CODE (2020 IECC)
-2020 MINNESOTA ACCESSIBILITY CODE (2020 IRC)
-2015 MINNESOTA PLUMBING CODE (2012 UPC)
-2020 NATIONAL ELECTRICAL CODE

-ALL APPLICABLE STATE AND LOCAL CODES.

### Project Team

BUILDER / OWNER: M/I Homes of Minneapolis/St. Paul, LLC
5354 Parkdale Dr.
St. Louis Park, MN 55416
www.mihomes.com

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1 Front Elevation
1/8"=1'-0"




2 Front Elevation - Stone
1/8"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

| Revisions / Custom Options | Date | By |
|---|---|---|
| 1 | | |

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Final Approval Date
X
X

M/I HOMES
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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Block: --
Lot: --
Addition:
Client: CUSTOMER
Elevation: ALL
Model: City Collection
Drawn By: PFG
Date: 05/17/2022
Job # BUILDING --
Drawing No. G1
Sheet Title: Cover Sheet

# GENERAL NOTES

A. GENERAL REQUIREMENTS

A.1. All work performed shall comply with all applicable Local and State Building Codes, Ordinances and Regulations and all other Authorities having jurisdiction.

A.2. These plans, details and specifications remain the property of the Architect and may not be altered in any way without the written consent of the Architect.

A.3. DO NOT SCALE DRAWINGS. Written dimensions take precedence over scaled dimensions.

A.4. All differences in anticipated dimensions or conditions shall be immediately submitted in writing to the Architect prior to the commencement or continuation of work.

A.5. The Architect shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. The Architect shall not be responsible for Contractor's or Subcontractor's schedules or for failure to carry out the Work in conformance with the Construction Documents. The Architect shall not have control over or charge of acts or omissions of the Contractor, Subcontractor, or their agents or employees, or of any other person performing portions of the Work.

B. DESIGN CRITERIA

B.1. Minimum Uniformly Distributed Live Loads

| | |
|---|---|
| Attics without storage | 10 psf |
| Exterior Decks: | 60 psf |
| Guardrails and handrails: | 200 psf |
| Passenger vehicle garages: | 50 psf |
| Rooms other than sleeping rooms: | 40 psf |
| Sleeping Rooms: | 30 psf |
| Stairs | 40 psf |
| Soil | 3000 psf minimum |

B.1. Climatic and Geographic Design Criteria

| | |
|---|---|
| Seismic Design Category: | B |
| Climate Zone: | 6A |
| Ground Snow Load: | 35 lb/ft. |
| Wind Speed (mph) | 115 |
| Winter Design Temp: | (–) 10 degrees F. |
| Ice and Water Shield: | Yes |
| Air Freezing Index: | 1635 |
| Mean Annual Temperature: | 48.7 degrees F. |
| Weathering: | Severe |
| Frost Line Depth: | 42 inches |
| Termite Infestation Probability: | Moderate |
| Decay: | Slight to Moderate |

C. SITE WORK

C.1. If suitable soil bearing for foundations is not encountered at the depth indicated on the drawings, the Architect shall be immediately notified in writing.

C.2. Backfill materials shall be earth, free from debris, roots, organic matter and frozen substances. Fill materials under slabs shall consist of non-expansive, free draining, granular material free of debris and organic material.

C.3. Provide consistent compaction of the top 8 inches of sub-grade, all fill and backfill.

C.4. Provide foundation drainage at the perimeter of excavated basement areas using 4 inch diameter drain tile and appropriate fittings. Foundation drain to run to day light.

C.5. Drain tile shall be placed on a minimum of 2 inches of No. 6 stone and shall be completely covered with a minimum of 8 inches of No. 6 stone placed on top of the drain tile.

C.6. Slope drain tile $\frac{1}{8}$ inches per foot to the point of drainage.

C.7. Keep all excavations free from water. Remove from the construction site all unsuitable soils, debris and excess materials.

C.8. Do not place fill on muddy or frozen areas. Fill only after sub-soil installations have been complete.

D. CONCRETE

D.1. Foundation types and designs may vary with the individual pertinent soil conditions on each lot. The Architect does not warrant or guarantee this building design in locations where inadequate soils or landfill occurrences require special or additional design for structure or gas mitigation due to these occurrences.

D.2. All design, revisions, engineering, installation and liability of soil conditions, gas mitigation and structural designs due to inadequate soils or landfill occurrences shall be the responsibility of the "Builder-Developer" or its subcontractors involved with the design and installation of such;; and the Architect shall not be held liable or responsible for their implementations.

D.3. A soil test, performed by an approved agency using an approved method, shall be performed prior to the placement of any concrete. The soil report shall be on site at time of concrete pour.

D.4. All concrete shall attain a 28 day compressive strength of 5000 psi.

D.5. All concrete footings are designed to bear on minimum soil pressure of 1500 psi and shall be placed on firm, undisturbed soil 3'–6" minimum below grade.

D.6. Concrete foundation walls and garage slabs shall be air entrained. Total air content shall not be less than 5% or greater than 7%.

D.7. Backfill shall not be placed against the foundation wall until the wall has sufficient strength and has been anchored to the floor above or has been sufficiently braced to prevent damage by the backfill.

D.8. Pea gravel shall not be used or approved as sub-base material for any new exterior flatwork.

D.9. All cracks, concrete separation and the like shall be permanently closed with an approved "epoxy" type material at all concrete slabs or concrete foundation walls.

D.10. Spread footings shall be used with minimum size of 8"x20" at 10 inch wide foundations and 8"x16" at 8inch wide foundations.

D.11. No concrete shall be poured into or placed on any sub-grade that is frozen or containing free water.

D.12. Provide minimum 4 inch concrete cover at under slab utility locations. When concrete encasement of utility lines is required, increase slab thickness at the utility line. Install utility lines well below the slab.

D.13. Provide "Zip Strip" or tooled control joints where indicated on the foundation plans.

D.14. Provide isolation joint material (asphalt impregnated) between foundation walls and all patio, and sidewalks.

D.15. All form ties shall be removed from the inside and outside of all foundation walls. Voids created by the removal of ties shall be filled with a suitable cement mortar or method acceptable to the Director of Building prior to application of dampproofing.

D.16. Install 1/2" x 12" anchor bolts at 6'–0" O.C. maximum; minimum 2 bolts in each piece of wall sill plate, 12 inch maximum from foundation corners. Anchor bolts to embed into concrete a minimum of 8 inches.

D.17. Contractor shall be responsible for size, location and installation of revised steel reinforcing per local codes or specific soil conditions, whichever is more restrictive.

D.18. Install fiberglass or foam sill sealer between teh top of the foundation and the sill plate.

E. CARPENTRY / FRAMING

E.1. Furnish all labor, materials and equipment necessary to compltee carpentry work as shown on the Construction Documents and/ or specified hereinafter and listed below.

E.2. Wood framing studs shall be a minimum No. 2 standard or stud grade.

E.3. Wood headers and beams (dimensional lumber) shall be Hem Flr No. 2 or better

E.4. Laminated veneer lumber (LVL) shall provide the design values equal to or exceeding the following:

Modulus of Elasticity (E): 1,800,000 psi
Fiber Stress in Bending (Fb) 2600 psi
Horizontal Shear (Fv) 285 psi

E.5. Parallel strand lumber (PSL) shall provide the design values equal to or exceeding the following:

Modulus of Elasticity (E): 2,000,000 psi
Fiber Stress in Bending (Fb) 2900 psi
Horizontal Shear (Fv) 290 psi

E.6. Deck joists shall be Hem Fir No. 2 or better – preservative treated.

E.7. Roof and floor truss systems shall be designed by the truss manufacturer and performed under the supervision of a registered professional engineer. Drawings shall be accessible on site at all times.

E.8. Floor trusses shall be designed to meet a deflection criteria of L/480.

E.9. Wood trussed shall be designed to sustain the loads for the spans, profiles and arrangements indicated in the construction documents. Truss layout is schematic only. Truss manufacturer and/ or engineer shall be responsible for the design, including spacing of all trusses.

E.10. Truss manufacturer shall submit 2 sets of sealed shop drawings to the builder and the building department for approval of trusses and structural beams. Drawings shall be accessible on site at all times.

E.11. All trusses shall be securely braced both during erection and after permanent installation in accordance with commentary and recommendations as published by the Truss Plate Institute.

E.12. Truss members shall not be cut, notched, drilled spliced or otherwise altered in any way without the approval of a registered design professional.

E.13. Load bearing dimensional lumber for trusses shall be identified by a grade mark of a lumber grading or inspection agency that has been approved by an accreditation body that complies with Doc PS 20.

E.14. Roof trusses shall be connected to wall plates by the use of approved connectors and shall be installed in accordance with the manufacturer's specifications. Refer to connector schedule.

E.15. All wood plates in contact with concrete shall be pressure preservative treated wood.

E.16. Floor sheathing shall be 3/4" tongue and groove OSB, glued and nailed. Panel span rating shall be APA 24/32, Exposure 1 with sealed edges. Install per manufacturer's spacing and edge requirements.

E.17. OMIT

E.18. Exterior Wall Sheathing shall be 7/16" exterior grade wall sheathing.

E.19. Provide 15/32 inch, OSB roof sheathing with panel edge clips, APA panel span rating shall be 24/0, Exposure 1 with sealed edges and shall be installed in accordance with manufacturer's specifications.

E.20. Walls shall be braced at each corner, main cross stud partitions at each end and at every 25'–0" of wall length with 7/16 inch OSB sheathing, interior metal let–in bracing or exterior metal straps. At openings, the sheathing shall run from the edge of the opening a distance equal to the width of the opening. Provide metal strap bracing at frame walls parallel to dwelling unit separation. Metal bracing shall be installed in accordance with the manufacturer's specifications and shall be place at an angle not greater then 60 degrees or less than 45 degrees from horizontal.

E.21. All vertical joints of sheathing shall occur over studs. Horizontal joints shall occur over blocking of a minimum 1 1/2 inch thickness.

E.22. All studs to have full bearing on wood plate.

E.23. Wood studs shall be capped with a double top plate overlapping at corners and intersections with interior partitions. End joints shall be offset at least 24 inches.

E.24. Not less than 3 studs shall be installed at every corner of an exterior wall.

E.25. Stud spacing for all exterior walls and bearing walls shall be spaced 16" O.C. unless noted otherwise.

E.26. Stud spacing for all interior non load–bearing walls shall be spaced 16" O.C.

E.27. All walls greater than 10'–0" in height shall be 2X6 wood studs framed to the upper plate line.

E.28. Provide backing as required for all light fixtures, cabinets, wardrobes, brackets, handles, drywall, etc.

E.29. Provide "box–out" framing behind all heat supplies in walls common to garage space so as to allow a full 3 1/2 inch insulation batt behind the heat supply duct.

E.30. A single king stud shall be provided on each side of openings less than 6'–0" in width and double king studs on each side of openings equal to and greater than 6'–0" in width unless noted otherwise.

E.31. All headers and beams are to be free from splits, checks and shakes.

E.32. All trusses headers and beams shall have a minimum solid bearing of 2 in. at each end.

E.33. Framing under parallel bearing partitions shall be of adequate size to support the load. Framing that is separated to allow for installation of piping or vents shall be full depth , solid blocked with lumber not less than 2 inches in nominal thickness, spaced not more than 4'–0" O.C.

E.34. Provide stud guards where any piping is less than 1 1/2 inch from stud face.

E.35. Exterior deck construction shall be with pressure preservative treated lumber as indicated on the plans unless noted otherwise.

E.36. Pressure preservative treated wood shall contain the quality mark of an approved testing agency.

E.37. Fasteners for pressure preservative treated wood shall be hot–dipped galvanized steel, stainless steel, silicon bronze or copper and shall be compatible with ACQ treated lumber.

E.38. Fire blocking shall be provided to cut–off all concealed openings (both horizontal and vertical) and to form an effective fire barrier between stories and between the top story and the roof space. Fire blocking shall be provided in the following areas:

E.38.1. Concealed spaces of stud walls and partitions, including furred spaces at the ceiling and floor level.

E.38.2. At all intersections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, cove ceilings, etc.

E.38.3. In concealed spaces between stair stringers in the top and bottom of run.

E.38.4. At openings around vents, pipes, ducts chimneys and fireplaces at the ceiling and floor level.

E.39. Draft stopping shall be installed every 1000 sf when there is useable space above and below the concealed space of a floor/ ceiling system.

E.40. Draft stopping materials shall be 1/2 inch gypsum board, 3/8 inch wood structural panel or 3/8 inch particle board.

E.41. All wood trim shall be engineered wood, primed on all sides, unless otherwise noted.

E.42. Provide flashing and sheet metal required to prevent the penetration of water through the exterior shell of the building.

E.43. The roof truss–to–wall plate bracket shall be Simpson H2.5T uplift connector at all single–ply trusses. Refer to plans for connection bracket at roof girder truss.

E.44. All roof and wall sheathing shall terminate at common walls.

F. SIDING, MASONRY VENEER AND ROOFING

F.1. Siding shall be vinyl. Vinyl siding shall be certified and labeled as conforming to the requirements of ASTM D 3679 by an approved quality control agency.

F.2. Tyvek housewrap shall be applied over all exterior wall sheathing and shall run continuous behind all roof to wall intersections. Membrane shall be water repellent. The membrane shall be installed with the minimal number of seams. All seams shall be lapped a minimum of 6 inches and be fastened with manufacturer's approved tape.

F.3. Masonry veneer shall be anchored to the supporting wall with corrosion resistant metal ties. Metal ties shall be a minimum No. 22 US guage x 7/8 inch wide corrugated, spaced not more than 2.67 sf of wall area.

F.4. Flashing shall be located beneath the first course of masonry above finished grade.

F.5. Raggled joints shall be used to install all counter flashing in brick work. Counter flashing shall be cut into the mortar joints an sealed.

F.6. Weepholes shall be spaced 33 inches OC, max. and shall be not less than 3/8 inches in diameter. Weepholes shall be located immediately above the flashing.

F.7. Roof shingles shall be 25 year, Class 'C', architectural self–sealing asphalt shingles.

F.8. Roof shingles shall be fastened with nails according to manfacturer's specifications. Nails shall be galvanized steel, stainless steel, aluminum or copper roofing nails with a minimum 12 guage shank and a minimum 3/8 inch diameter head. No staples allowed.

F.9. Enclosed attics shall have cross ventilation for each separate space by means of ventilating openings protected against the entrance of rain and snow. Ventilating openings shall be provided with corrosion resistant wire mesh with 1/8 inch minimum to 1/4 inch maximum openings.

F.10. The total net free area of roof venting shall be not less than 1 o 150 of the area of space to be ventilated. Total net free area is permitted to be reduced to 1 to 300 provided at least 50% and not more then 80% of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated. The balance of the required ventilating area shall be provided at the eaves.

F.11. Provide Accuvent soffit insulation baffles at each truss bay so insulation shall not block the free flow of air. A minimum of 1 inch space shall be provided between the insulation and the roof sheathing at the location of the vent. At locations with irregular shapes or where the Accuvent will not conform to the space, Thermo–ply or insulated sheathing shall be applied vertically to the truss heel, extending over the height of attic insulation while maintaining a minimum 1 inch air space.

F.12. An attic access having a vertical height of 30 inches or greater shall be provided to attic areas exceeding 30 sf. The rough framed opening of not less than 22 inches x 30 inches shall be located in a hallway or other readily accessible location. A 30 inch un–obstructed headroom in the attic space shall be provided at some point above the access.

F.13. All eaves, valleys and roof–to–wall intersections shall have a self–adhesive ice and water shield applied per manufacturer's specifications.

F.14. All gutters to be 4 inch, .027 gauge aluminum with baked enamel finish.

F.15. Gutter downspouts shall be 4 inch, .20 gauge aluminum with baked enamel finish.

F.16. Provide concrete splash blocks at all downspout locations. The bottom of downspout shall not exceed 6 inches above the splash block and shall discharge a minimum of 5 feet from house (foundation wall).

G. ENERGY CONSERVATION/ EFFICIENCY

G.1. Energy conservation compliance shall meet the requirements of Energy Star V–3.0 and the 2020 International Energy Conservation Code for residential buildings.

G.2. The interior design temperatures used for heating and cooling load calculations shall be a maximum of 72 degrees F for heating and minimum of 75 degrees F for cooling.

G.3. An R–value identification mark shall be applied by the manufacturer to each piece of insulation 12 inches or greater in width.

G.4. The thickness of blown–in–insulation shall be written in inches on markers (rulers) that are installed at least one for every 300 square feet throughout the attic space. The markers shall be affixed to the trusses or joists and marked with the minimum installed thickness with numbers a minimum of 1 inch in height. Each marker shall face the attic opening.

G.5. Insulation materials shall be installed such that the manufacturer's R–value mark is readily observable upon inspection.

G.6. Provide R–15 high density (H.D.) batt insulation with integral vapor barrier with 1/2" (R–3) insulated sheathing at all 2x4 wood stud exterior wall framing with the exception of garages.

G.7. Provide R–21 batt insulation with integral vapor barrier at all 2x6 wood stud exterior wall framing with the exception of garages.

G.8. Provide R–45 insulation (batt/blown combo) with vapor barrier at all flat attic ceilings. Provide R–21 high density (H.D.) batt insulation with integral vapor barrier extending over exterior wall plates and 12" in (towards house) from the outside face of exterior walls.

G.9. Provide R–35 blown–in insulation with net (full 14" depth of truss) in floors over unconditioned spaces (garages) with vapor barrier installed in contact with underside of the sub–floor decking above.

G.10. Provide R–35 blown–in insulation with net (full 14" depth of truss) at all cantilevered floors with vapor barrier installed in contact with underside of the sub–floor decking above.

G.11. Provide R–21 FSK faced batt insulation at truss ends.

G.12. Provide R–13 (vinyl backed) batt insulation blanketed over exterior foundation walls in basements & crawl spaces from top of foundation to approximately 6" above top of slab.

G.13. Provide R–10 (rigid) insulation between conditioned and unconditioned spaces. Insulation shall run from top of footing to top of foundation wall.

G.14. Provide 1/2" (R–3 min.) insulated headers.

G.15. Provide 3/4" (rigid) insulation as a thermal break between slab and exterior foundation walls between conditioned and unconditioned spaces (where applicable).

G.16. Combustible insulation shall be separated by a minimum dimension of 3 inches from IC–AT rated recessed (can) lighting fixtures, fan motors and all other heat producing devices.

G.17. U–Factors and solar heat gain coefficient of fenestration products shall be labeled and certified by the manufacturer.

G.18. A permanent certificate listing the predominate R–values of insulation installed in or on the ceiling/roof, walls, foundation and ducts outside conditioned spaces and U–factors and solar heat gain coefficient for fenestration shall be posted on or in the electrical distribution panel. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. A certification tag shall be posted within 3 feet of attic access panel.

G.19. Access doors from condition spaces to unconditioned spaces shall be weather–stripped/ gasketed, insulated to a level equivalent to the insulation on the surrounding surfaces and must include retaining baffle to hold insulation in place.

G.20. Floor Insulation shall be installed to maintain permanent contact with underside of the sub–floor decking.

G.21. The following shall be durably sealed/caulked, foamed, gasketed, weather–stripped or otherwise sealed with an air barrier material (Tyvek), suitable film or solid material

G.21.1. Joints, seams and penetrations

G.21.2. Top plates to drywall and sill plates to sub–floor or slab

G.21.3. Cracks in building envelope

G.21.4. Openings between window and door assemblies and their respective jambs and framing

G.21.5. Utility penetrations (Duct/flue shaft, plumbing & piping, electrical wiring, kitchen and baths fans, IC–AT rated can lights).

G.21.6. Dropped ceilings or chases adjacent to the thermal envelope

G.21.7. Walls and ceilings (rim & band) separating unconditioned garge from conditioned spaces.

G.21.8. Behind tubs and showers on exterior walls

G.21.9. Behind fireplaces on exterior walls

G.21.10. Behind stair case walls on exterior walls

G.21.11. Gap between shaft–wall and common walls between dwelling units

G.21.12. Between double walls at garage common or exterior walls

G.21.13. Attic access openings and knee walls (sloped attic walls) on attic side

G.21.14. Rim joist junction

G.21.15. Floors above a garage and cantilevered floors

G.21.16. Sump Pit covers

G.21.17. Building envelope air tightness and insulation installation shall be demonstrated to comply by blower door testing to less than 4 ACH at 50 Pascals.

G.21.18. At least one thermostat shall be provided for each separate heating and cooling system and at least one thermostat per dwelling shall be programmable.

G.21.19. All ducts, air handlers, filter boxes shall be sealed in accordance with M1601.4.1 of the International Residential Code and ASHRE 193 for furnace cabinet. Duct tightness shall be verified by either a post–construction test or a rough–in–test and must be less than 4 cfm per 100 square feet total leakage across the entire system.

G.21.20. Building framing cavities shall not be used as supply ducts.

G.21.21. Mechanical system piping capable of carrying fluids above 105 degrees F. or below 55 degrees F. shall be insulated to a minimum of R–3.

G.21.22. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

G.21.23. Heating and cooling equipment shall be sized in accordance with Section M1401.3 of the International Residential Code and ACCA Manual J 8th edition and include Manual D & S.

G.21.24. The required CFM for the intermittent whole house mechanical ventilation system shall be 180 CFM per ASHRAE 62.2 Ventilation Table.

G.21.25. Provide 1/2" (R–3) insulated sheathing at rim joists unless 7/16" exterior grade OSB wall sheathing is required for designated shear walls.

H. GYPSUM WALLBOARD

H.1. All exterior walls shall have (1) layer of 1/2 inch gypsum wallboard at the interior face.

H.2. All interior walls shall have (1) layer 1/2 inch gypsum wallboard at each face.

H.3. All ceilings shall have 5/8 inch gypsum wallboard finish.

H.4. Garage walls common to the unit shall be of 5/8" Type 'X'.

H.5. Provide (1) layer of 1/2 inch gypsum wallboard under all stairs with accessible space.

H.6. Garage ceilings shall have (1) layer of 5/8" Type "X" gypsum wallboard with one coat of fire–tape. Nail heads to be covered.

H.7. See specific details for gypsum board requirements at fire rated assembly.

I. INTERIOR TRIM AND FINISHES

I.1. All interior trim and finishes to be selected by builder/ developer.

J. DOORS AND WINDOWS

J.1. All exterior glazing in doors and windows to have Low 'E' rated glass and shall be double glazed or insulated. Frames, jambs and thresholds must be foamed or sealed to create a thermal barrier. Window fenestration (U–factor)shall not exceed 0.35. Windows have a U–Factor of 0.32 and solar heat gain coefficient (SHGC) of 0.29. All glazing shall comply with NFRC 100 for fenestration and be installed with the required gasketing and seals.

J.2. All patio doors shall have the operable leaf to the inside.

J.3. Door and window infiltration shall be in accordance with Municipal requirements and shall meet the performance standards of ANSI/ DH–C40 for vinyl windows and the CRF shall be less than 55.

J.4. Provide safety glazing in all areas deemed hazardous by the 2020 International Residential Code.

J.5. All sashes, sliding glass doors, entrance doors and bottom plates shall be caulked (all sides of opening) and all window and door heads shall be flashed.

J.6. Patio doors shall be constructed and installed to withstand a force of 300 lbs. applied in any direction when it is in the locked position.

J.7. Each exterior door (except patio doors) shall be equipped with a deadbolt with an throw of 1 inch. Deadbolts shall be located a minimum dimension of 6 inches from the lock set and installed with a security lock set.

J.8. Emergency and escape windows shall have a sill height not more than 44 inches above the finished floor and not less than 24" when located 72" or more above grade.

J.9. Emergency and escape windows shall have a min. net clear opening of 5.7 sf.

J.10. Grade floor windows shall have a minimum net clear opening of 5.0 sf.

J.11. Emergency and escape windows shall have a minimum net clear opening height of 24 inches and width of 20 inches.

J.12. Emergency escape and rescue openings shall be operable from the inside of the room without the use of keys or tools.

J.13.3. Window supplier to verify at least one window in each sleeping room meets the net clear opening requirements for emergency escape and rescue openings.

J.14. All operable windows shall have an insect screen.

K. FIREPLACES AND CHIMNEYS

K.1. All fireplaces shall be U.L. approved.

K.2. Provide an approved fire stop at chimneys penetrating floors, ceilings and roofs.

K.3. Fireplace flues shall be equipped with approved spark arrestors.

K.4. Insulate all chase walls and main floor ceilings above the fire box.

K.5. All fire boxes shall be equipped with an exterior air supply and gas line.

K.6. Exterior air intake shall be capable of providing all combustion air from the exterior of the dwelling or from spaces within the dwelling ventilated with outside air. The exterior air intake shall not be located within the garage or basement nor shall it be located at an elevation higher than the fire box.

K.7. Fireplace chimneys shall extend a minimum of 2 feet higher than any portion of the roof or building within 10 feet, but shall not be less than 3 feet above the highest point where the chimney passes through the roof.

L. HEATING AND VENTILATING

L.1. Combustion air shall be obtained from outside the thermal envelope.

L.2. The heating and cooling system shall be designed to operate per ASHRAE standards and/ or government standards.

L.3. The heating contractor shall provide a complete and operating system consisting of, but not necessarily limited to, gas fired forced air furnace, fans, ducts, individual return air ducts in all rooms except kitchen and bathrooms, thermostats, etc.

L.4. The heating contractor shall provide a heating system capable of maintaining 72 degrees F inside at (–) 10 degrees F outside with a 5 mph wind. Air conditioning system shall be capable of maintaining 75 degrees F inside at 100 degrees F outside.

L.5. Sheet metal ducts shall be sized, designed and constructed in accordance with mechanical plans and specifications. All joints, seams and penetrations need to be sealed with Mastic or UL 181 tape.

L.6. All supply and return air ducts in attics and unheated spaces shall be sheet metal or flex duct. Supply ductwork outside the thermal envelope shall be insulated to a minimum R–value of R–8. All other ductwork shall be insulated to a min. R–6.

L.7. Class 'B' vents to have a minimum clearance of 1 inch to all combustible material and shall be fire stopped at all floor and ceiling penetrations.

L.8. Ducts shall not be exposed in the garage.

L.9. The heating contractor shall install ductwork to maintain ceiling heights as indicated in the construction documents.

L.10. Mechanical appliances shall be accessible without removing permanent construction. 30 inches of working space shall be provided in front of the control side to service the appliance.

L.11. Dryer ducts shall be independent, shall convey the moisture to the outdoors and shall terminate on the outside of the building. Screens shall not be installed at the duct termination.

L.12. Exhaust ducts shall not be connected with sheet metal screws or fastening means which extend into the duct. Joints to be taped with approved tape.

L.13. Exhaust ducts shall be equipped with a back–draft damper.

L.14. Interior duct surfaces shall be smooth and run in the direction of air flow.

L.15. Flexible ducts used to connect the dryer to the exhaust system shall be limited to single lengths not to exceed 8 feet.

L.16. The maximum length of dryer duct shall not exceed 25 feet from the dryer location to the wall or roof termination. The maximum length shall be reduced 25 feet for every 45 degree bend and 5 feet for every 90 degree bend.

L.17. All HVAC equipment shall be individually switched.

L.18. Air conditioner shall be 13 SEER or better.

L.19. Air handler, coil box, and cabinet penetrations must be sealed.

L.20. Bathroom and Powder Room exhaust fans shall discharge directly to the exterior and shall be provided wit a suitable cap (guard) and back draft damper. Fans shall have a tested output of 50 CFM and less than 3 sones.

L.21. Kitchen exhaust fans shall discharge directly to the exterior by a single wall pipe having a minimum clearance of 1 inch to combustible materials and shall be provided with a suitable cap (guard) and back draft damper. Fans shall have a tested output of 100 CFM and less then 3 sones.

L.22. Provide individual gas shutoff valves to range, water heater, dryer, optional fireplace, and furnace.

L.23. Exhaust ductwork shall be installed with solid metal ductwork terminating with individual vents with integral bug screens to exterior.

L.24. All duct work concealed in floor space to be solid pipe.

L.25. Return air ducts are required in each bedroom.

L.26. Furnace AFUE shall be a minimum of 92%.

L.27. An air–tight furnace filter cap shall prevent infiltration of air from the surrounding area and provide easy access to change the filter.

L.28. 'B' vent support shall be provided every 5 feet minimum with no screw penetrations unless specifically required by the manufacturer.

M. PLUMBING

M.1. The plumbing contractor shall include all necessary, labor, materials and equipment required for a complete and operable installation of all water and sewage systems per all applicable codes.

M.2. Underground water piping shall conform to 2015 Minnesota Plumbing Code.

M.3. All domestic water piping shall conform to 2015 Minnesota Plumbing Code.

M.4. All joints and connections shall be made water tight and shall be free from any leakage.

M.5. Provide 18 inch air chambers at all fixtures and 24 inch air chambers at all risers.

M.6. All water pipes to fixtures shall be valved.

M.7. Every fixture supply pipe shall be protected from backflow.

M.8. All ball valves for domestic water 2" and below shall be ofiead–free type.

M.9. Interior waste and vent piping shall be PVC.

M.10. Provide clean–pits in each waste and soil line for each change of direction greater than 45 degrees at bottom of each stack. All soil stacks shall be a minimum of four inches inside diameter.

M.11. An accessible soil stack shall be provided at the foot of each soil and waster stack and at intervals of not over 50 feet of building drains of eight inches or less.

M.12. All plumbing fixtures shall be of water sense type, 1.28 GPF WC, 2.0 GPM shower heads and 1.5 GPM lavatories.

M.13. Lavatories shall have waste outlets not less than 1 1/4 inches in diameter and shall be provided with strainers. Wastes may be provided with open strainers or may be provided with stoppers.

M.14. Waste outlets serving showers shall be at least 2 inches in diameter and for other than those in bathtubs, shall have removable strainers not less than 3 inches in diameter having strainer openings not less than 1/4" in minimum dimension.

M.15. Sinks shall be provided with waste outlets not less than 1 1/2 inches in diameter.

M.16. A strainer, crossbar, or other device shall be provided to restrict the clear opening of the waste outlet.

M.17. Sinks on which a food grinder is installed shall have a waste opening of the waste outlet.

M.18. Provide 50 gallon electric water heater (.62 EF or better) temperature and pressure relief valves.

M.19. Water heaters shall be provided with a cold water supply valve within 2 feet of the tank and a sludge drain at the bottom level of the tank.

M.20. A flue pipe with a draft diverter shall be installed from the heating device to the building chimney or other flue system as approved by the building inspector.

M.21. Provide frost proof hose bibs with vacuum breakers at each unit per plan.

M.22. Provide shower heads and faucets in all bathtubs. Shower heads to be 65 inches above the top of the tub.

M.23. Plumber shall remove all spoils occurring from his work and shall replace removed soils with compacted gravel.

M.24. Underground interior waste and vent piping to a point not less than 5 feet outside of the building shall be a minimum of 4 inch service weight PVC.

M.25. Provide gray box with sill faucet, standpipe and 2 inch drain at all washer locations.

M.26. Provide chrome plated fixture supplies and straps for all fixture connections.

M.27. The connection between drainage pipes and water closets and floor outlet service sinks shall be made by means of brass, hard lead or iron flanges, caulked, soldered or screwed to the drainage pipe.

M.28. PVC type fittings may be used as approved by the building inspector.

M.29. Dishwasher drain shall not be connected to the garbage disposal.

M.30. Water meter size shall be based on fixture count.

M.31. All water meters shall be installed as to provide a minimum of 8 inches of clearance from any wall, floor, or object that may obstruct the required clearance.

M.32. Water meters shall not be installed in excess of 4 feet from finished floor level.

M.33. Water service size shall be based on fixture count and sized in accordance with Appendix A, Tables M, N, O, P and Q of the 2014 Illinois State Plumbing Code. Where optional fixtures are added, the supply demand shall be taken into consideration for sizing purposes.

M.34. B–boxes shall not be located in driveways or sidewalks.

M.35. Floor drains shall be a minimum of 4 inch pipe, trapped, covered and venting.

M.36. Plumbing rough–ins shall be complete as to waste, water supply and venting.

M.37. Domestic food, waste and disposal units shall be connected and trapped separately from any other fixture and compartment. Unit shall have on–off control located in cover so that the cover cannot be removed while unit is operating.

M.38. Plumbing systems and/ or pipes passing through walls, ceilings, exiting concrete slabs, or passing through concrete walls, shall be protected from breakage and/ or corrosion by protective sleeves as approved by the building inspector.

M.39. Plumbing systems (drain piping, etc.) passing under a building footing or through a building foundation wall shall be so installed as to incorporate a sleeve equal in size as two pipe sizes larger than said plumbing pipe.

M.40. A minimum of one 4 inch floor drain shall be installed in all basement areas and/ or utility rooms.

M.41. OMIT

M.42. OMIT

M.43. The use of plastic pipe in the underground drainage system shall be prohibited.

M.44. The minimum nominal size of any fixture supply pipe shall be 1/2 inch to the fixture stop.

M.45. A kitchen sink installed with a food washer grinder shall have a drain line not less than 2 inches in diameter and shall be properly vented and a clean–out shall be provided at its base.

M.46. Kitchen waste fixture drains shall not be less than 2 inches.

M.47. All bathtubs and showers shall have 2 inch traps and shall have their drains calculated for three drainage fixture units.

M.48. Outside water meter reading devices shall be installed in a building to a point that will permit easy access not less than 42 inches or greater than 48 inches above the finished grade level outside the building.

M.49. Water service pipe from the water main to the building being served shall be installed at a depth of not less than 5 feet below finished grade level at all points along the course of the service pipe.

M.50. The use of wet venting where venting is otherwise required is prohibited.

M.51. Every building shall be separately and independently connected with a public or private sewer connection to a public or private sewer when there is such located in the street abutting the lot occupied by the building. The entire plumbing and drainage system of every building shall be entirely separate and independent from that of any other building.

M.52. Building drains shall be discharged to the sewer by gravity flow.

M.53. A drain pipe of not less than 4 inches inside diameter, which shall be of solid and rigid drain pipe shall be connected to a tee fitting incorporated with the building foundation footing drain tile system.

M.54. All gas pipe material shall be Schedule 40 black pipe.

M.55. Plumber to install back–flow preventer for fire suppression system prior to rough plumbing inspection

M.56. Water meter to be installed at the time of the rought plumbing inspection.

M.57. Rough plumbing inspection to consist of a water test on the stack, 15 lb. air test on gas service and 100 lb. water test.

M.58. All showers and shower/bath combinations shall be provided with an automatic safety water mixing device to prevent sudden unanticipated changes in water temperature or excessive water temperatures. The device shall comply with ANSI/ASSE 1016–1996 or –1017 and be designed with a maximum handle rotation stop. The device shall be adjusted to a maximum temperature not to exceed 115 degrees F at the time of installation.

M.59. Provide and install a passive radon reduction system in each unit. See Detail 5 located on Sheet AD.7 for more information.

N. ELECTRICAL

N.1. The electrical contractor shall include all necessary labor, materials and equipment for the installation of a complete and operable electrical system.

N.2. The electrical contractor shall include all necessary labor, materials and equipment for the installation of a complete and operable electrical system.

N.3. The electrical contractor shall provide 100 ampere 120/240 volt, single phase, 3 wire service.

N.4. Distribution panel to be 100 amp with a minimum of 24 pole spaces with a minimum of 4 pole spaces free. Provide breakers as required.

N.5. Service entrance conductors shall be a minimum AWG wire size of No. 3/0 gauge copper conductor and shall be type THWN insulation and shall be installed in a minimum of 2 inch RMC.

N.6. Main service disconnection means shall be 100 ampere rated, located within 5 feet of the point where the service conductors enter the building and/ or within 5 feet of the metering device and be installed in the same enclosure as the branch circuit breakers.

N.7. 15 and 20 amp, 125 and 250 volt receptacles installed outdoors in a wet location shall be GFCI grounded outlets and shall have an enclosure that is weatherproof whether or not the attachment plug is inserted.

N.8. Receptacle outlets in habitable rooms shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6 feet from a receptacle outlet (less than 12 foot spacing). A receptacle shall be installed in each wall space 2 feet or more in width.

N.9. All 120–volt, 15 and 20 amp branch circuits that supply outlets in dwelling unit bedrooms, including lighting and smoke detectors, shall be protected by a listed arc–fault circuit interrupter device listed to provide protection of the entire branch circuit. Closets and hallways on shared circuits with bedrooms shall be arc–fault.

N.10. Install ground fault circuit interrupter protected grounded outlets (GFCI) at all bathrooms, kitchens, garages, unfinished basements all receptacles serving countertops and receptacles within 6' of outer edge of all sinks.

N.11. A receptacle outlet shall be installed at each counter space 12 inches or wider and at each island counter or peninsular space 24 inches by 12 inches or larger. Countertop spaces separated by range tops, sinks or refrigerators are separate spaces.

N.12. Receptacle outlets in bathrooms and serving counters shall not be installed in the face–up position.

N.13. Receptacle outlets in bathrooms and serving counters shall not be installed in the face–up position.

N.14. All lighting fixtures installed in walk–in–closets, storage area, utility/laundry room, etc, shall be switched.

N.15. A minimum of one switched lighting fixture shall be installed in the immediate area of the top stair tread and lowermost stair tread of all staircases leading to basement areas.

N.16. Panel–boards installed in basement areas shall have a minimum of one lighting fixture installed within 3 feet of the panel–board cover.

N.17. Working space around electrical service equipment or electrical sub–feed equipment that measures more than 42 inches wide shall have a minimum of 3 feet of clearance in front of and in rear of and 2 feet of clearance on each side of said equipment.

N.18. A minimum of one lighting fixture shall be installed within 4 feet of the furnace and over any laundry tub or equipment located in the basement area.

N.19. Basement lighting fixtures shall be evenly divided and/ or separated as to be connected to more than one individual circuit on different phases.

N.20. Lighting circuits shall not have more than ten power–consuming devices for general lighting purposes connected thereto.

N.21. All junction boxes installed for the use and/ or attachment of any type of ceiling fan shall be listed by a recognized testing laboratory. All ceiling boxes shall be listed for paddle fans except closets, hallways, detectors, etc.

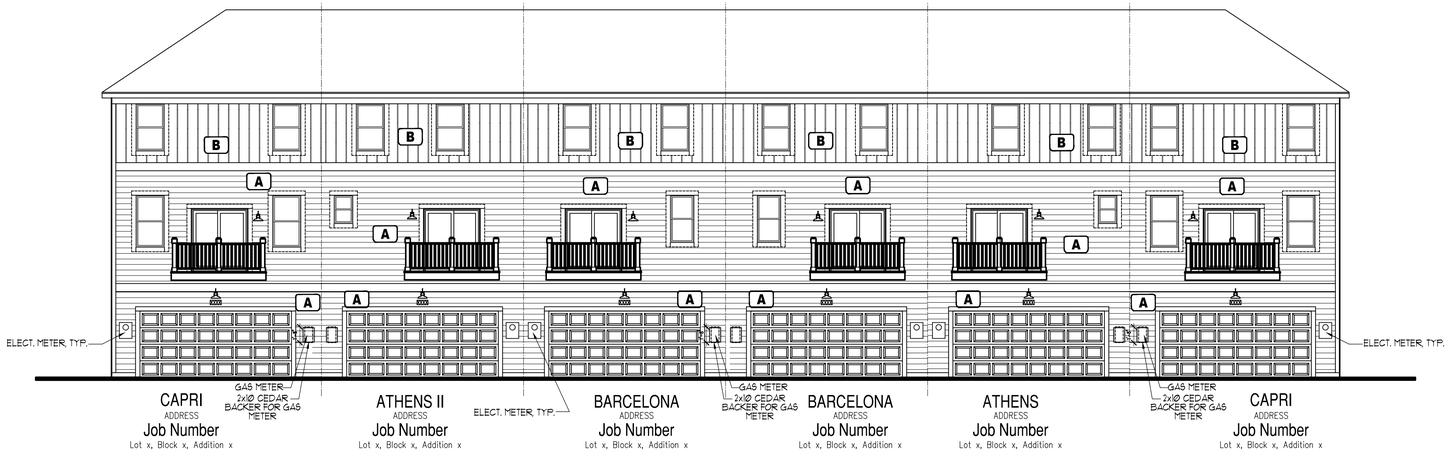
N.22. Each bathroom and/ or rooms that are required to be ventilated by an electrically operated mechanical means, such as by the use of an approved exhaust fan, shall be controlled by a wall switch which shall not control any other device other said mechanical exhaust device.

N.23. All receptacles installed on any separate appliance circuit shall be of the duplex type and shall be 20 ampere rated.

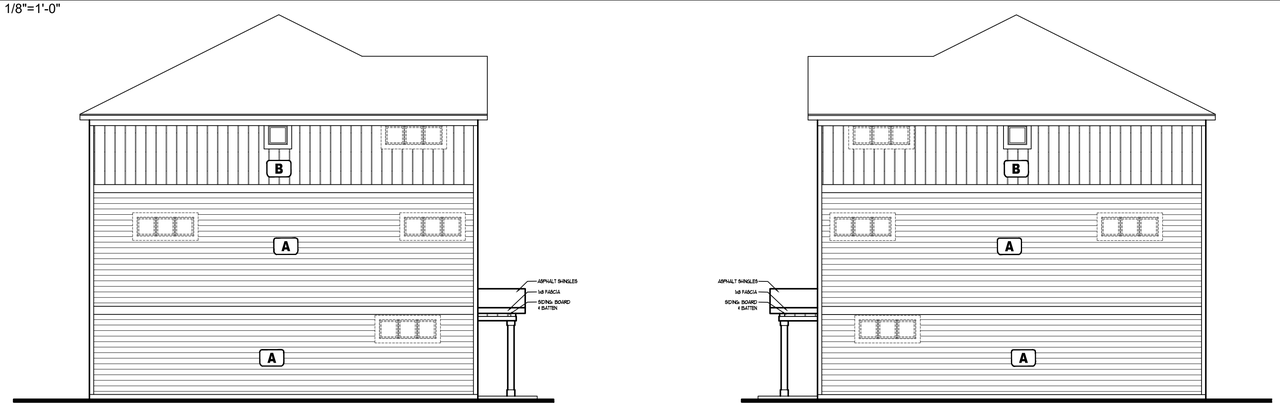
N.24. All permanently installed dishwashers shall be hard wired on a separate 20–mp branch circuit with the use of electric metallic tubing and minimum 1/2 inch trade size flexible metal conduit. Flexible metal conduit shall not exceed 6 feet in length. In addition, the dishwasher shall have an approved disconnecting means for the purpose of disconnecting the underground conductors.

N.25. In addition to the branch circuits installed to supply general illumination and receptacle outlets in dwelling units, the following minimum requirements apply: (2) 20–amp circuits for the Kitchen receptacles, (1) 20 –amp circuit for the laundry receptacles, (1) 20–amp circuit for the bathroom receptacles and (1) separate, individual branch circuit for the central heating equipment.

N.26. All receptacles shall be of spring type grounding strap that holds the mounting screw captive.




## 4 Rear Elevation
1/8"=1'-0"




## 3 Left Elevation
1/8"=1'-0"

## 2 Right Elevation
1/8"=1'-0"




## 1 Front Elevation
1/8"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

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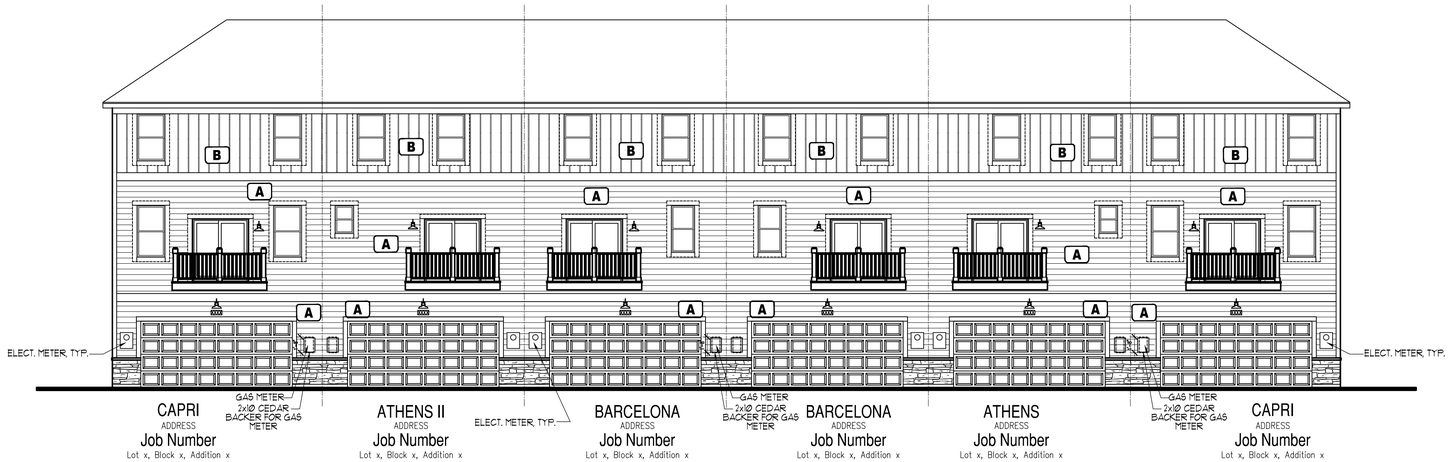
Final Approval — Date
X
X

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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Addition:
Lot: --
Block: --

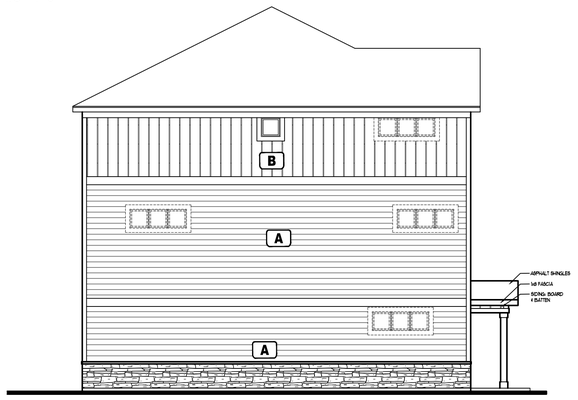
Client: CUSTOMER
Elevation: A
Model: City Collection
Drawn By: PFG
Date: 05/17/2022
Job # BUILDING --
Drawing No. AA1

Sheet Title: Exterior Elevations



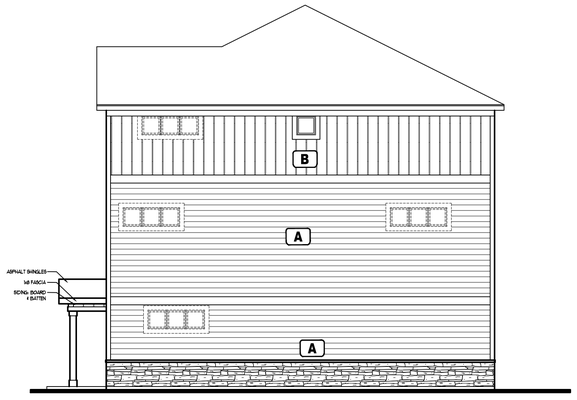

## 4 Rear Elevation - Opt. Stone Loc. C

1/8"=1'-0"




## 3 Left Elevation - Opt. Stone Loc. B

1/8"=1'-0"




## 2 Right Elevation - Opt Stone Loc. B

1/8"=1'-0"




## 1 Front Elevation - Opt. Stone Loc. A

1/8"=1'-0"

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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Lot: --
Block: --
Addition:

Client: CUSTOMER
Elevation: A
Model: City Collection
Drawn By: PFG
Date: 05/17/2022
Job # BUILDING --
Drawing No. AAS1

Sheet Title: Exterior Elevations

## CONSTRUCTION ASSEMBLIES:

T THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS

A. TYPICAL ROOF CONST.:
COMPOSITION ROOF SHINGLES ON UNDERLAYMENT WITH ICE & WATER SHIELD, WHERE REQ'D, ON ROOF SHEATHING ON ROOF FRAMING MEMBERS (AS NOTED ON FRAMING PLANS).
UPPER FLOOR CEILING: 5/8" GYPSUM BOARD WITH INSULATION ABOVE.

B1. TYPICAL SIDING WALL CONST.:
SIDING PER ELEVATION ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: 1/2" GYPSUM BOARD.

B2. TYPICAL STONE VENEER WALL CONST.:
ADHERED SYNTHETIC STONE VENEER ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: 1/2" GYPSUM BOARD.

C. TYPICAL FLOOR CONST.:
FINISHED FLOORING ON FLOOR SHEATHING ON FLOOR FRAMING MEMBERS (AS NOTED ON FRAMING PLANS).
MAIN FLOOR CEILING: 5/8" GYPSUM BOARD.

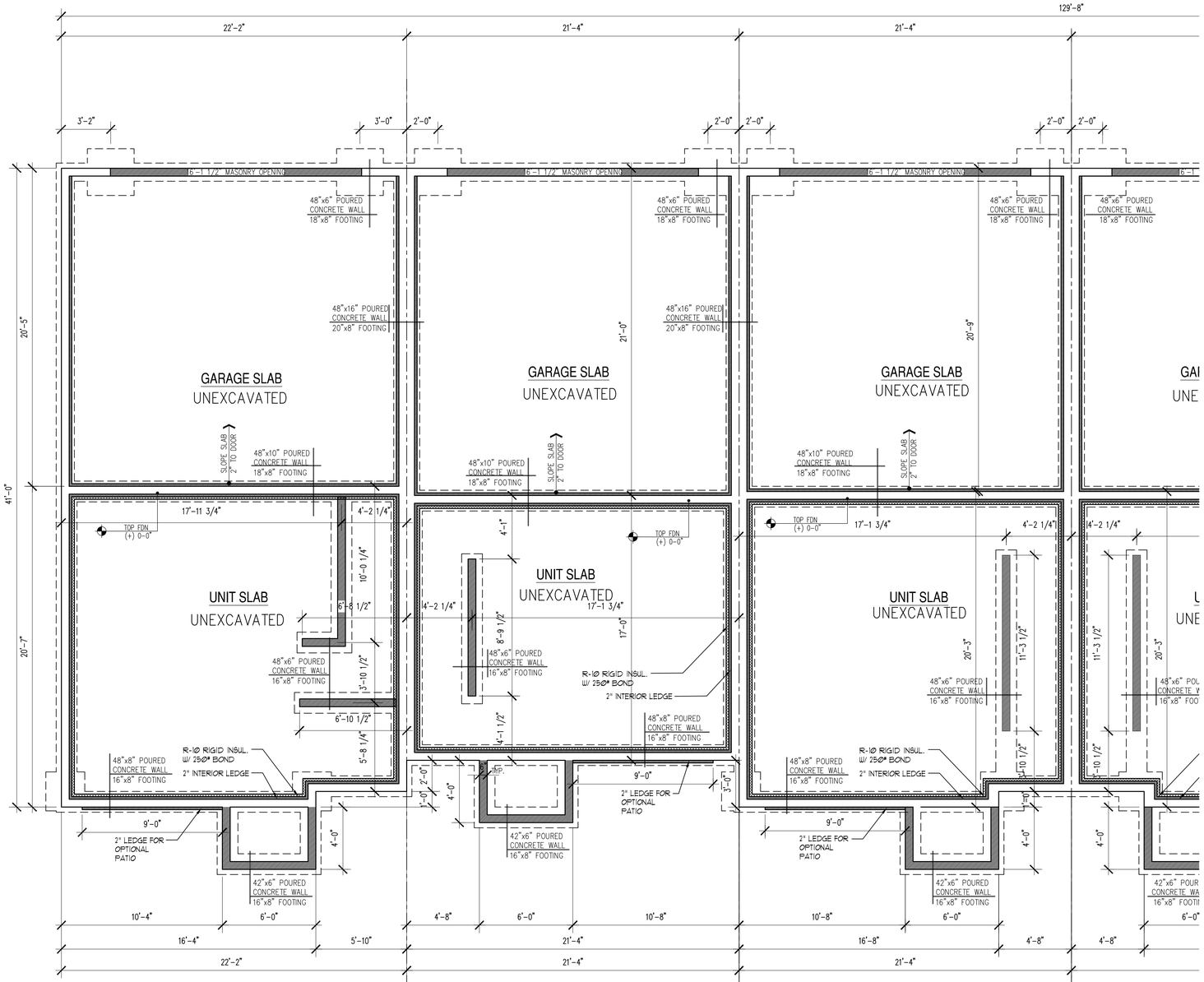
D1. TYPICAL UNIT SLAB CONST.:
4" CONCRETE SLAB OVER 6 MIL. POLYETHYLENE SOIL-GAS MEMBRANE (LAP JOINTS MIN. 12") ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

D2. TYPICAL GARAGE SLAB CONST.:
4" CONCRETE SLAB ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

D3. TYPICAL PORCH SLAB CONST.:
4" CONCRETE SLAB w/ #4 REBAR @ 16" O.C. (E.W.) ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

## GENERAL BASEMENT PLAN NOTES:

- ALL UNDIMENSIONED PARTITIONS ( ~~4"~~ ) ARE 3 1/2" ROUGH UNLESS NOTED OTHERWISE.
- SEE STRUCTURAL DRAWINGS FOR CONCRETE FOOTING AND PAD INFORMATION!
- ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
- FOR ADDITIONAL INFORMATION SEE GENERAL NOTES AND DETAILS.
- PROVIDE MIN. 4" CONCRETE COVER AT BELOW SLAB UTILITY LOCATIONS WHEN CONCRETE ENCASEMENT OF UTILITY LINES IS REQ'D. INCREASE SLAB THICKNESS AT THE UTILITY. UTILITIES SHALL BE PLACED SUFFICIENTLY BELOW SLAB TO MAINTAIN PROPER COVERAGE.
- CONTROL JOINTS TO CONSIST OF "2IP-STRIP" OR TOOLED JOINTS AS SHOWN WITH MINIMUM DEPTH OF 1/4 OF SLAB THICKNESS.
- SLOPE CONCRETE SLAB TO FLOOR DRAINS WITHIN 5'-0" OF DRAIN.
- MECHANICAL TRADES RESPONSIBLE FOR PROVIDING AND LOCATING FOUNDATION SLEEVES.
- ALL CONCENTRATED LOADS FROM BEAMS OR GIRDER TRUSSES TO TRANSFER TO FOUNDATION VIA POSTS, BEAMS, AND/OR SOLID BLOCKING.




CAPRI
ADDRESS
Job Number
Lot x, Block x, Addition x

ATHENS
ADDRESS
Job Number
Lot x, Block x, Addition x

BARCELONA
ADDRESS
Job Number
Lot x, Block x, Addition x

BA
Jo
Lot x, I

1 Foundation Assembly Plan - Left Side Partial
1/4"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

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Addition:
Client: CUSTOMER
Elevation: A
Model: City Collection
Drawn By: PFG
Date: 05/17/2022
Job # BUILDING --
Drawing No. AA2
Sheet Title: Foundation Assembly Plans

## CONSTRUCTION ASSEMBLIES:

T THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS

A. TYPICAL ROOF CONST.:
COMPOSITION ROOF SHINGLES ON UNDERLAYMENT WITH ICE & WATER SHIELD, WHERE REQ'D, ON ROOF SHEATHING ON ROOF FRAMING MEMBERS (AS NOTED ON FRAMING PLANS).
UPPER FLOOR CEILING: 5/8" GYPSUM BOARD WITH INSULATION ABOVE.

B1. TYPICAL SIDING WALL CONST.:
SIDING PER ELEVATION ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: 1/2" GYPSUM BOARD.

B2. TYPICAL STONE VENEER WALL CONST.:
ADHERED SYNTHETIC STONE VENEER ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: 1/2" GYPSUM BOARD.

C. TYPICAL FLOOR CONST.:
FINISHED FLOORING ON FLOOR SHEATHING ON FLOOR FRAMING MEMBERS (AS NOTED ON FRAMING PLANS).
MAIN FLOOR CEILING: 5/8" GYPSUM BOARD.

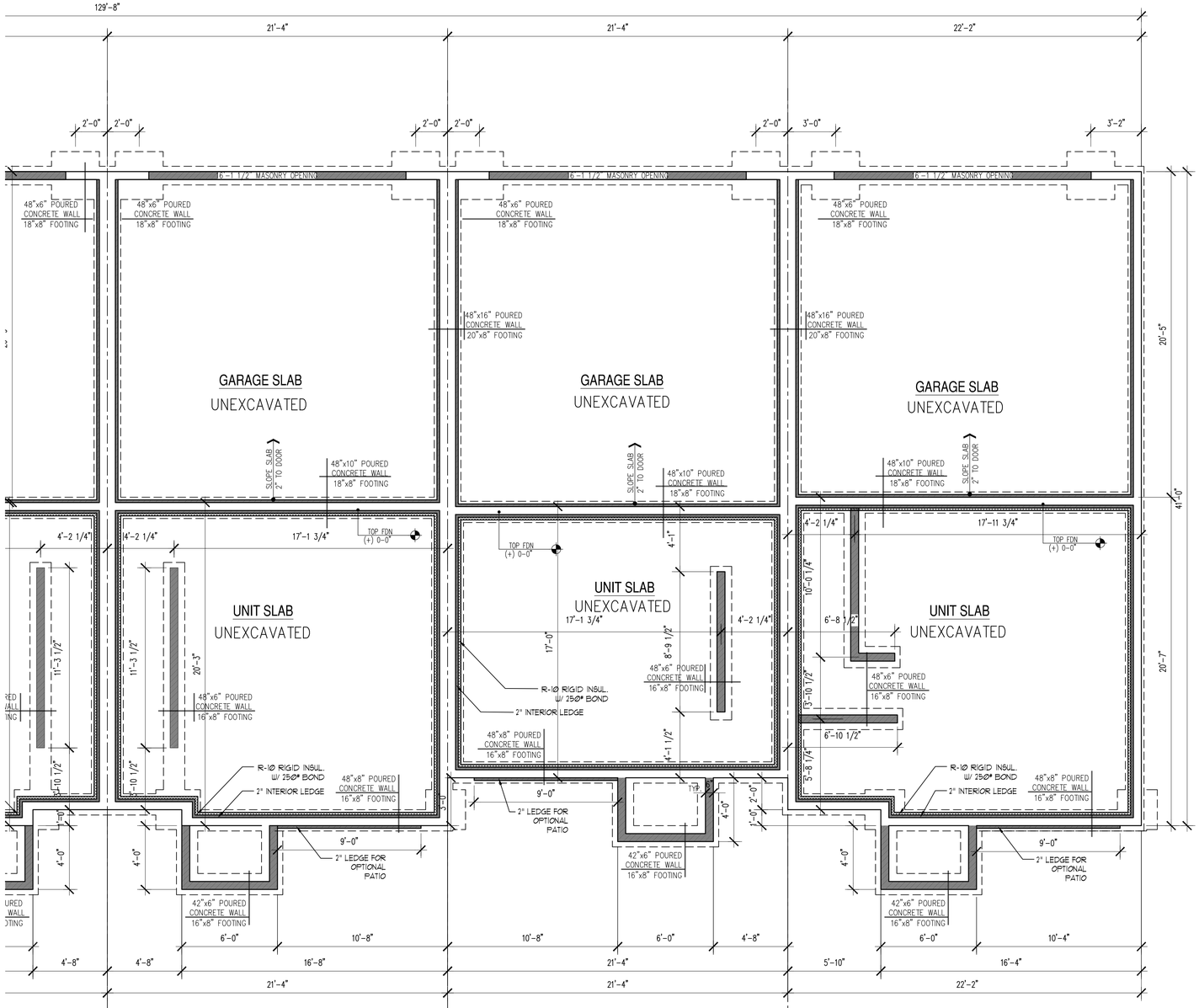
D1. TYPICAL UNIT SLAB CONST.:
4" CONCRETE SLAB OVER 6 MIL. POLYETHYLENE SOIL-GAS MEMBRANE (LAP JOINTS MIN. 12") ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

D2. TYPICAL GARAGE SLAB CONST.:
4" CONCRETE SLAB ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

D3. TYPICAL PORCH SLAB CONST.:
4" CONCRETE SLAB w/ #4 REBAR @ 16" O.C. (E.W.) ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

## GENERAL BASEMENT PLAN NOTES:

- ALL UNDIMENSIONED PARTITIONS ( 4") ARE 3 1/2" ROUGH UNLESS NOTED OTHERWISE.
- SEE STRUCTURAL DRAWINGS FOR CONCRETE FOOTING AND PAD INFORMATION!
- ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
- FOR ADDITIONAL INFORMATION SEE GENERAL NOTES AND DETAILS.
- PROVIDE MIN. 4" CONCRETE COVER AT BELOW SLAB UTILITY LOCATIONS WHEN CONCRETE ENCASEMENT OF UTILITY LINES IS REQ'D. INCREASE SLAB THICKNESS AT THE UTILITY. UTILITIES SHALL BE PLACED SUFFICIENTLY BELOW SLAB TO MAINTAIN PROPER COVERAGE.
- CONTROL JOINTS TO CONSIST OF "ZIP-STRIP" OR TOOLED JOINTS AS SHOWN WITH MINIMUM DEPTH OF 1/4 OF SLAB THICKNESS.
- SLOPE CONCRETE SLAB TO FLOOR DRAINS WITHIN 5'-0" OF DRAIN.
- MECHANICAL TRADES RESPONSIBLE FOR PROVIDING AND LOCATING FOUNDATION SLEEVES.
- ALL CONCENTRATED LOADS FROM BEAMS OR GIRDER TRUSSES TO TRANSFER TO FOUNDATION VIA POSTS, BEAMS, AND/OR SOLID BLOCKING.




## BARCELONA
ADDRESS
Job Number
Lot x, Block x, Addition x

## ATHENS II
ADDRESS
Job Number
Lot x, Block x, Addition x

## CAPRI
ADDRESS
Job Number
Lot x, Block x, Addition x

1 Foundation Assembly Plan - Right Side Partial
1/4"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

| Revisions / Custom Options | Date | By |
|---|---|---|
| 1 | | |

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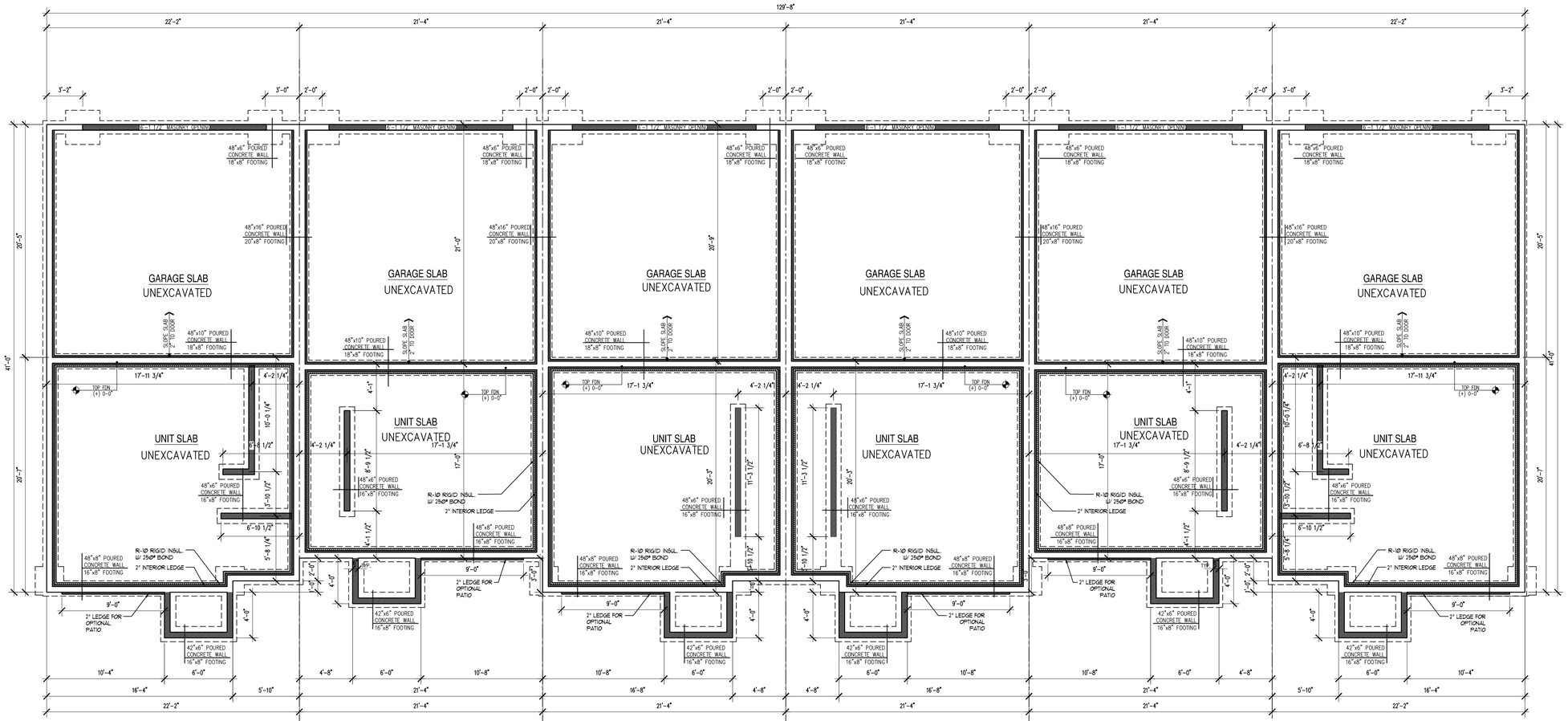
Final Approval Date
X
X

M/I HOMES
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St. Louis Park, MN 55416
763.586.7200
minneapolispermits@MIHOMES.com

Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Lot: --
Block: --
Addition:

Client: CUSTOMER
Elevation: A
Model: City Collection
Drawn By: PFG
Date: 05/17/2022
Job #: BUILDING --
Drawing No.: AA3

Sheet Title: Foundation Assembly Plans




1 Foundation Assembly Plan

3/16"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

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| 1 | | |

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Address: STREET ADDRESS
City: CITY, MN
Lot: --
Block: --
Addition:

Client: CUSTOMER

Elevation: A

Model: City Collection

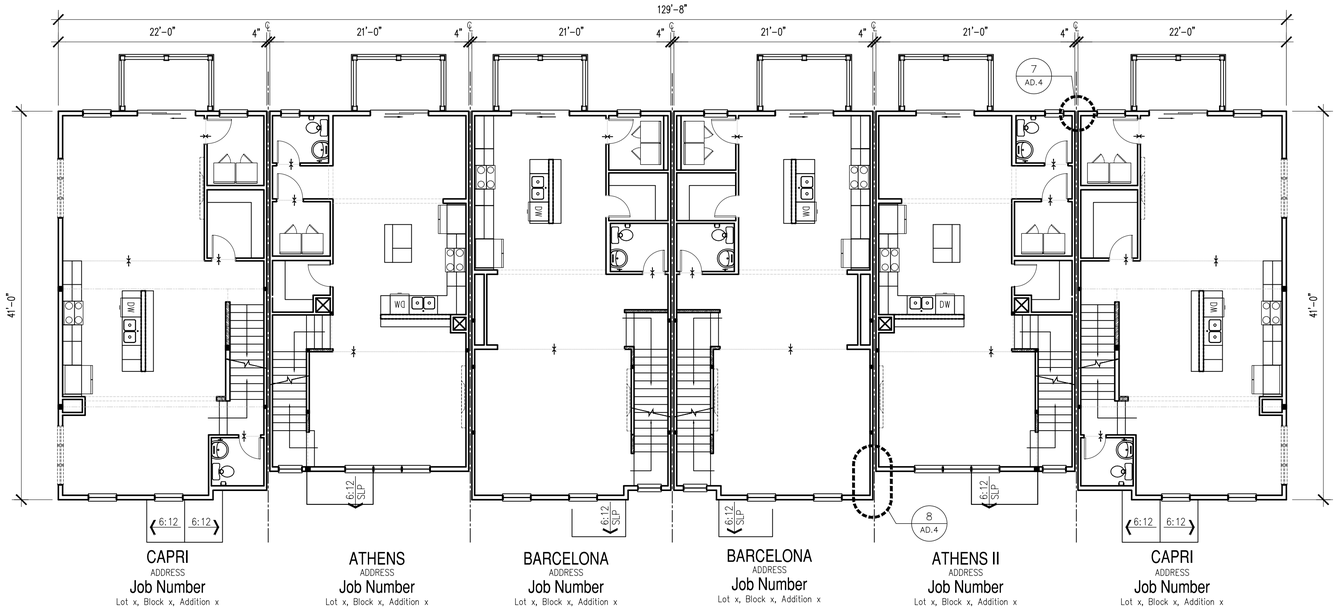
Sheet Title: Foundation Assembly Plans

Drawn By: PFG

Date: 05/17/2022

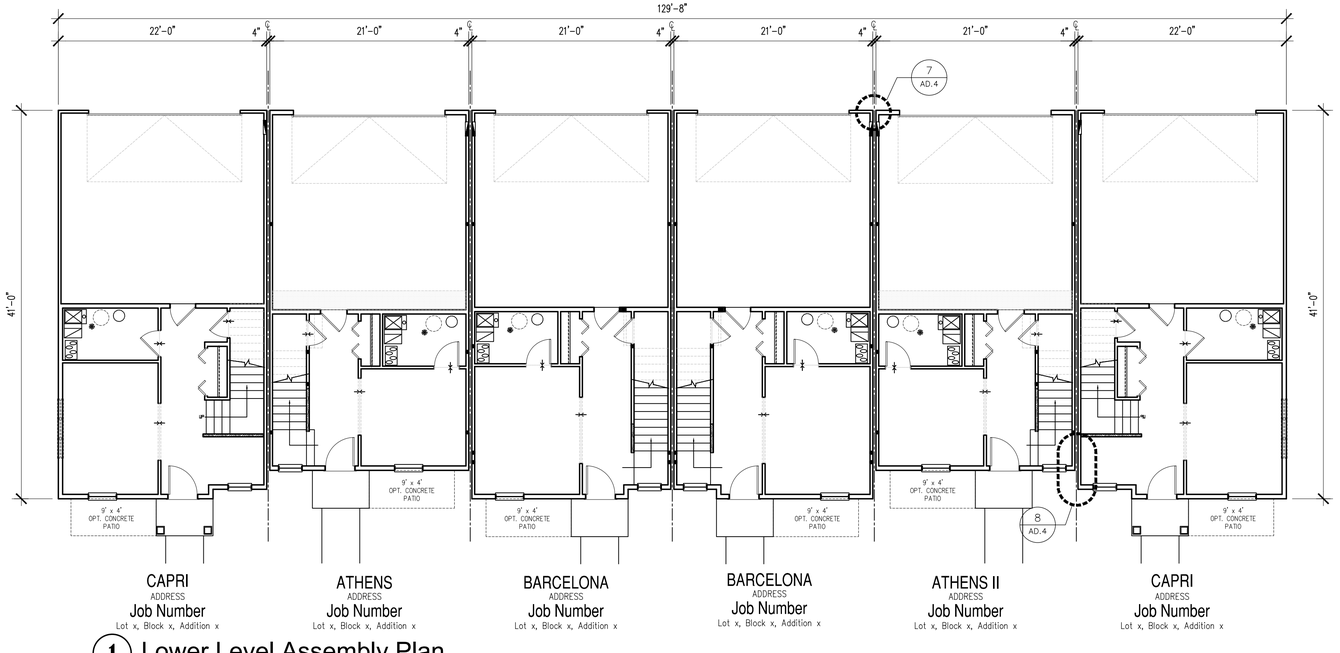
Job # BUILDING --

Drawing No. AA4




## 2 Main Level Assembly Plan

1/8"=1'-0"




## 1 Lower Level Assembly Plan

1/8"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

| Revisions / Custom Options | Date | By |
|---|---|---|
| 1 | | |

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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Lot: --
Block: --
Addition:

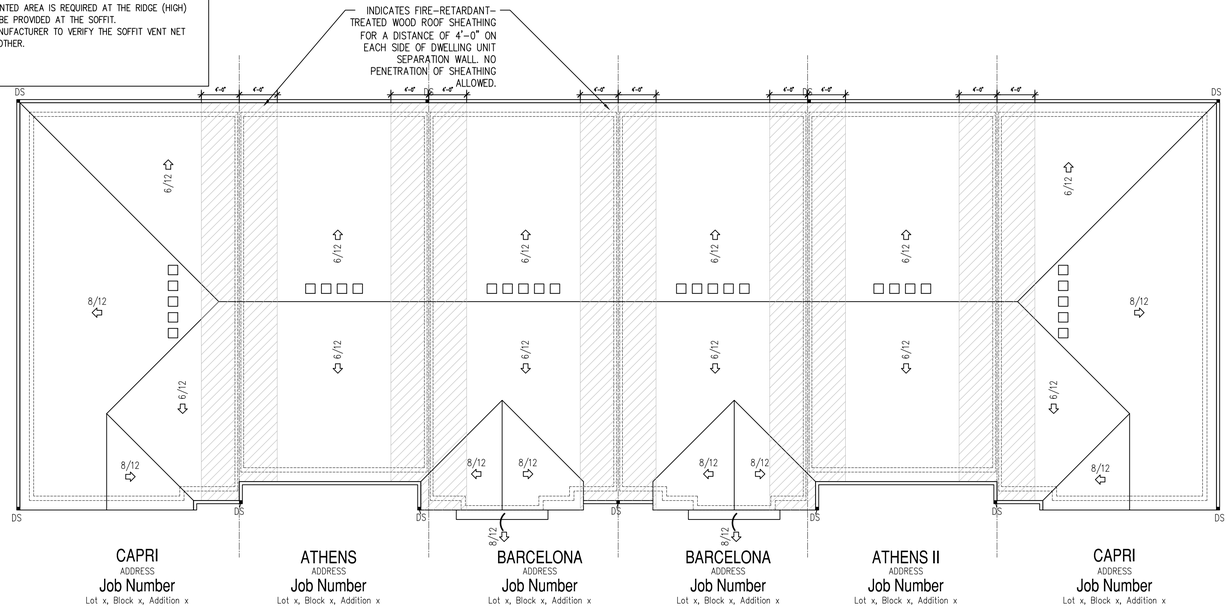
Client: CUSTOMER
Elevation: A
Model: City Collection
Drawn By: PFG
Date: 05/17/2022
Job #: BUILDING --
Drawing No. AA5

Sheet Title: Lower & Main Level Assembly Plans

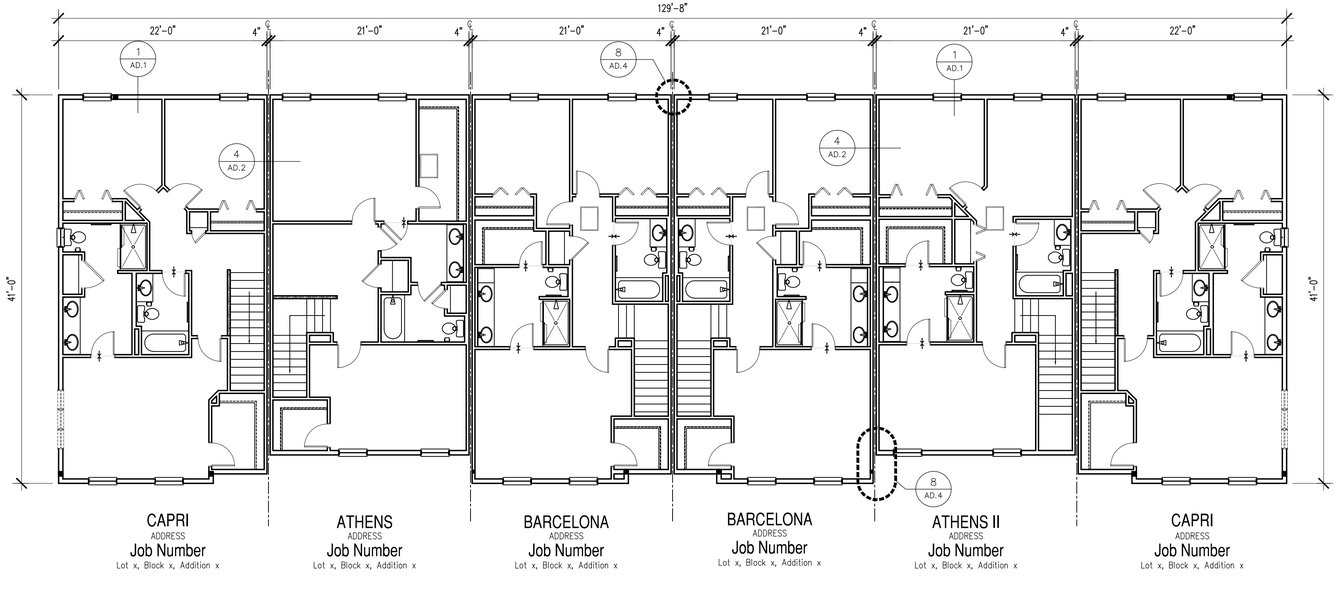
## ATTIC VENTILATION SCHEDULE

| AREA | ATTIC AREA (SQ FT) | TOTAL NET FREE VENTED AREA REQ. (1/300) (SQ IN) | TOTAL NET FREE VENTED AREA REQ. (1/150) (SQ IN) | LOWER – SOFFIT (SQ IN / LF) | | | | UPPER – RIDGE & POD (SQ IN / LF) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | REQ* | | PROVIDED** | LINEAR FT | REQ* | | PROVIDED*** | LINEAR FT | PROVIDED**** | COUNT |
| | | | | REMAINING REQUIRED | | | | 40% (MIN.) | 50% (MAX.) | | | | |
| Prescott – Main Roof | 981 | 471 | 412 | 235 | 283 | 240 | 24 | 188 | 235 | 132 | 11 | 100 | 2 |
| Prescott – Porch Roof | 24 | | 23 | | 23 | 30 | 3 | | | | | | |
| Hudson – Main Roof | 881 | 423 | 520 | 211 | 254 | 220 | 22 | 169 | 211 | 192 | 16 | 0 | 0 |
| Hudson – Porch Roof | 31 | | 30 | | 30 | 30 | 3 | | | | | | |
| Avery – Main Roof | 816 | 392 | 388 | 196 | 235 | 200 | 20 | 157 | 196 | 192 | 16 | 0 | 0 |
| Avery – Porch Roof | 24 | | 23 | | 23 | 30 | 3 | | | | | | |

NOTE:
* REQUIRED NET FREE VENTED AREAS ARE CALCULATED BY MULTIPLYING THE ACTUAL ATTIC AREA (SQ FT) IN COLUMN 1 BY 1/300 AND MULTIPLYING SUM BY 144 SQ IN/SQ FT 40%–50% OF TOTAL NET FREE VENTED AREA IS REQUIRED AT THE RIDGE (HIGH) AND THE REMAINING IS THE REQUIRED IN THE SOFFIT (LOW). WHEN NO "HIGH/LOW" VENTING IS PROVIDED, THE REQUIRED NET FREE AREA IS 1/150 OF THE ACTUAL AREA AND 100% OF THIS VENTED AREA SHALL BE PROVIDED AT THE SOFFIT.
** ACTUAL NET FREE VENTED SOFFIT AREAS ARE CALCULATED BY DIVIDING THE REQUIRED NET FREE VENTED SOFFIT AREA (FT) BY THE MANUFACTURERS STATED ACTUAL VENTED NET FREE AREA PER VENT – MANUFACTURER TO VERIFY THE SOFFIT VENT NET FREE AREA = MIN 10.0 SQ IN/VENT. WHEN APPLICABLE, THE ACTUAL TOTAL NUMBER OF SOFFIT VENTS SHALL BE DIVIDED EQUALLY BETWEEN EACH EAVE AND SPACED AN EQUAL DISTANCE APART FROM ONE ANOTHER.
ACTUAL NET FREE VENTED RIDGE AREAS ARE CALCULATED BY DIVIDING THE REQUIRED NET FREE VENTED RIDGE AREA (FT) BY THE MANUFACTURERS STATED ACTUAL VENTED NET FREE AREA PER VENT –
*** MANUFACTURER TO VERIFY THE RIDGE VENT NET FREE AREA = MIN 12.0 SQ IN/LF.
**** MANUFACTURER TO VERIFY THE POD (ROOF) VENT NET FREE AREA = MIN 50.0 SQ IN/VENT.




## 2 Roof Assembly Plan
1/8"=1'-0"




## 1 Upper Level Assembly Plan
1/8"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

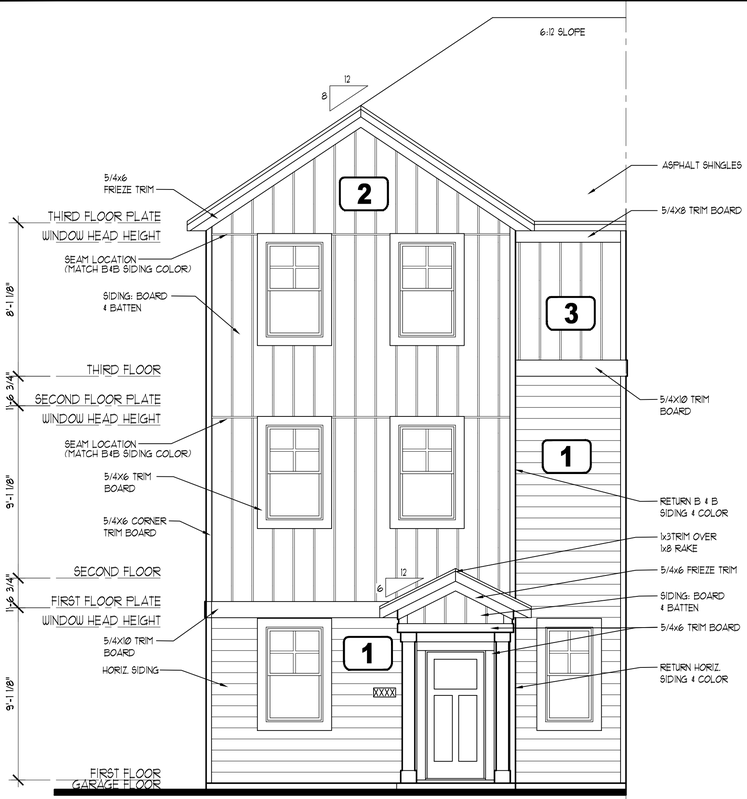
| Revisions / Custom Options | Date | By |
|---|---|---|
| 1 | | |

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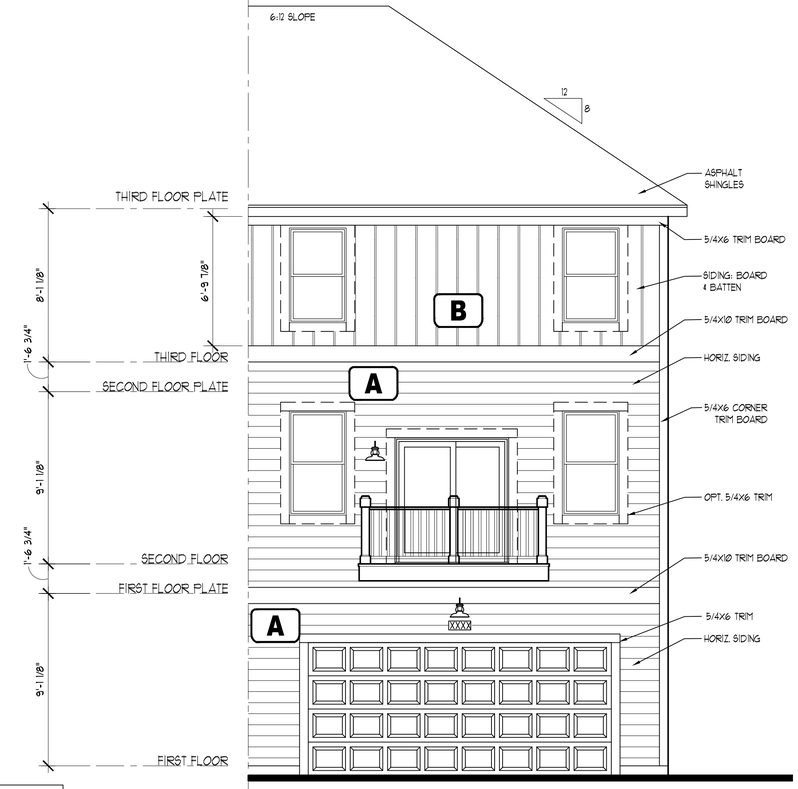
Final Approval Date
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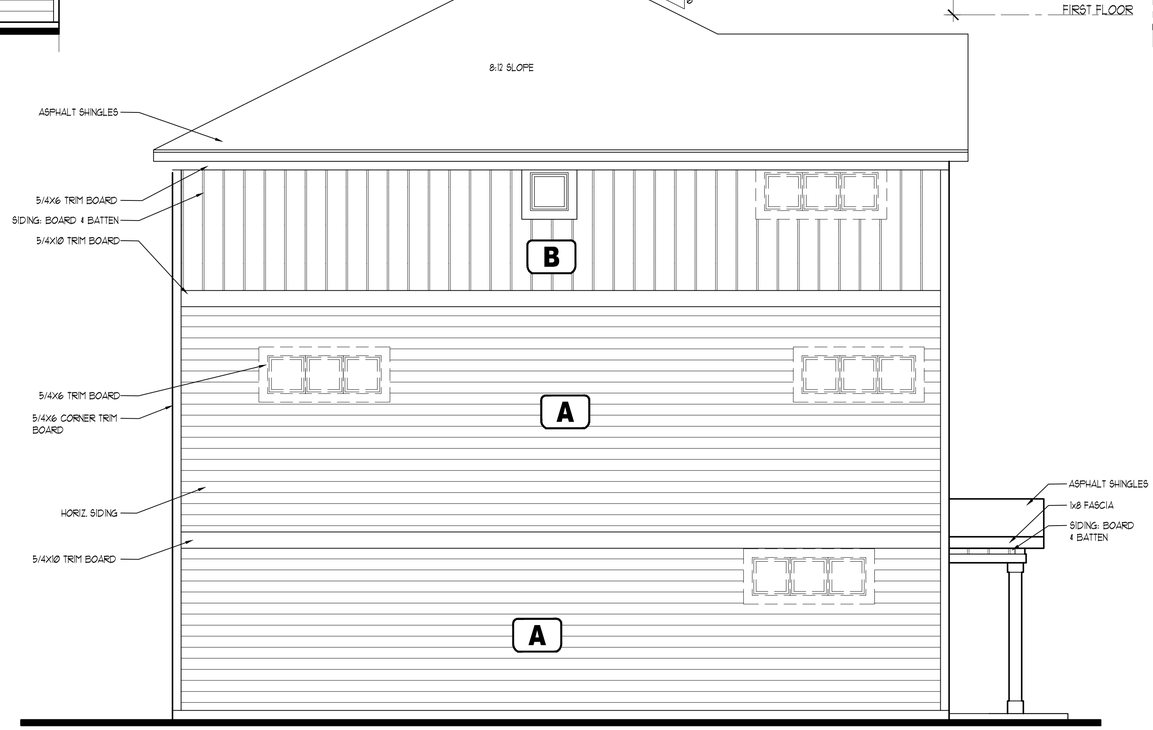
Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Lot: --
Block: --
Addition:
Client: CUSTOMER
Elevation: A
Model: City Collection
Drawn By: PFG
Date: 05/17/2022
Job #: BUILDING --
Drawing No. AA6
Sheet Title: Upper Level & Roof Assembly Plans




1 Front Elevation
1/4"=1'-0"




2 Rear Elevation
1/4"=1'-0"




2 Side Elevation
1/4"=1'-0"

| Revisions / Custom Options | Date | By |
|---|---|---|
| 1 | | |

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X

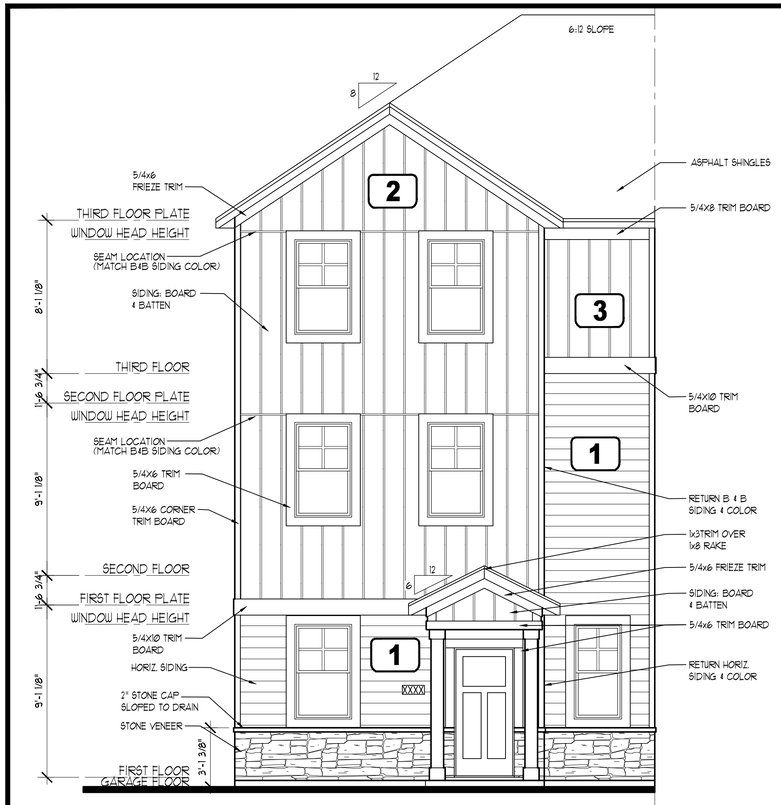
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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Addition:
Lot: --
Block: --

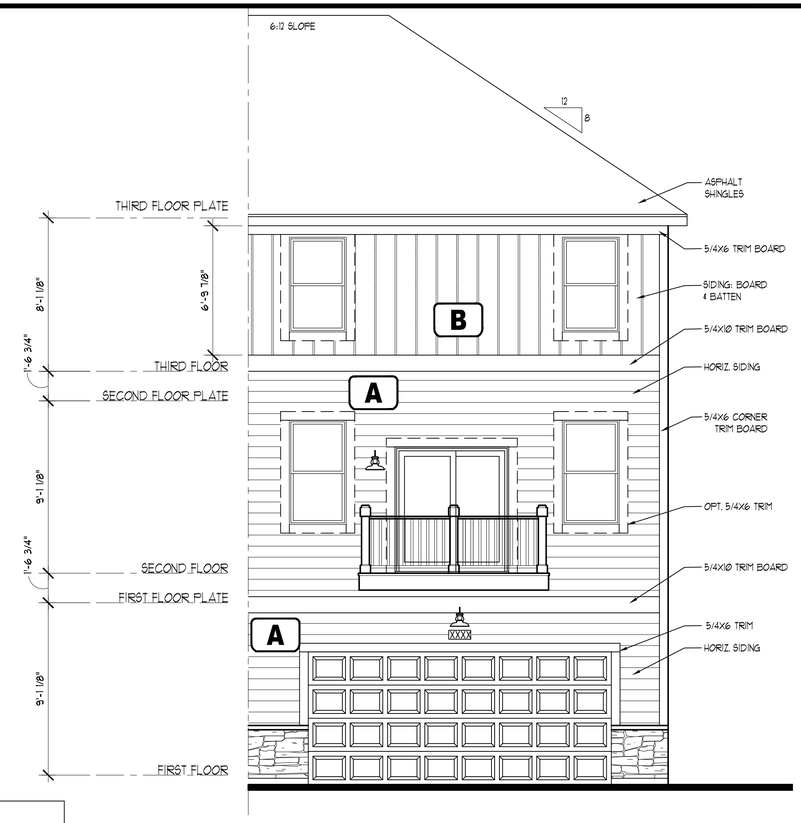
Client: CUSTOMER
Elevation: A
Model: CAPRI
Drawn By: M/I
Date: 06/25/2024
Job # -------
Drawing No. A1

Sheet Title: Exterior Elevations

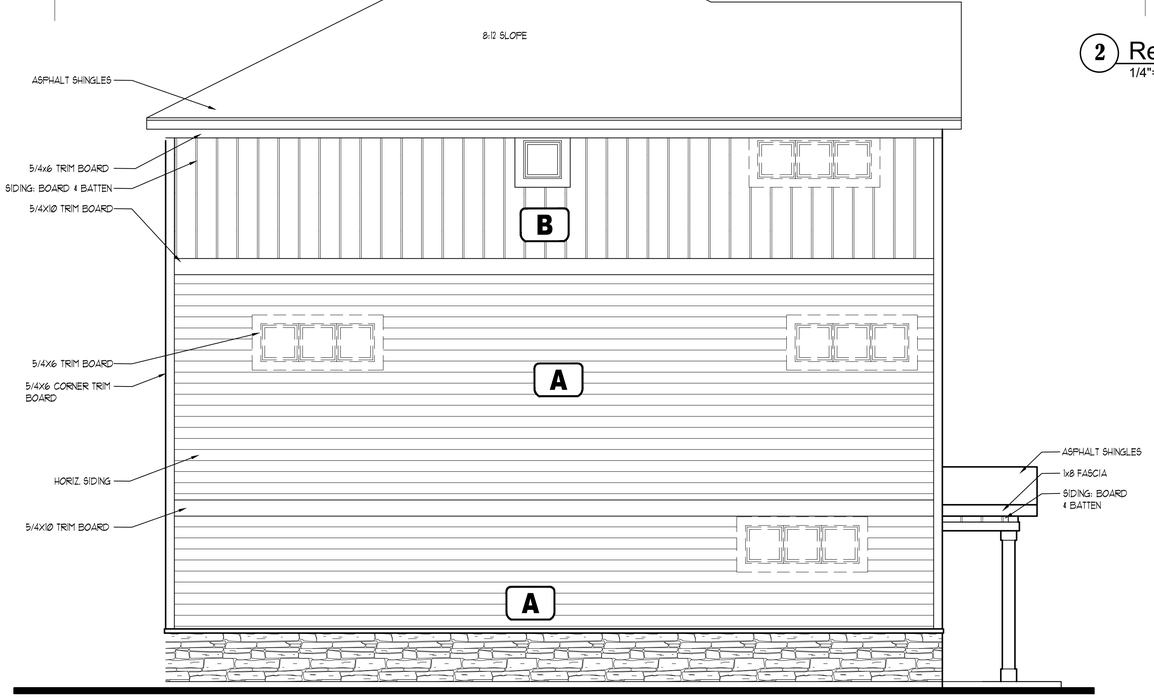
This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"




1 Front Elevation - Stone Loc. A
1/4"=1'-0"




2 Rear Elevation - Stone Loc. C
1/4"=1'-0"




2 Side Elevation - Stone Loc. B
1/4"=1'-0"

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Final Approval
X Date
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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Lot: "
Block: "
Addition:
Client: CUSTOMER
Elevation: A
Model: CAPRI
Drawn By: M/I
Date: 06/25/2024
Job # -------
Drawing No. AS1
Sheet Title: Exterior Elevations

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

# Four Unit Townhome

## The Carriage Collection Townhomes

## REVISION HISTORY

| Date | General Revisions |
|---|---|
| 03-07-2024 | Bayfield - Extend stair wall 6" @ main level |
| 03-07-2024 | Bayfield - Move thermostat & door chimes to stair wall @ main level |
| 07-22-2024 | Bayfield - Change foyer light to LED ilo semi-flush mount ceiling light |

## PROJECT INFORMATION

PROJECT NAME: The Carriage Collection Townhomes

LOCATION: City, MN

PROJECT TYPE: Slab Frontload Townhomes

THE PROJECT SHALL COMPLY WITH THE FOLLOWING BUILDING CODES:

-2020 MINNESOTA RESIDENTIAL CODE (2020 IRC)
-2020 MINNESOTA ENERGY CODE (2020 IECC)
-2020 MINNESOTA ACCESSIBILITY CODE (2020 IRC)
-2015 MINNESOTA PLUMBING CODE (2012 UPC)
-2014 NATIONAL ELECTRICAL CODE

-ALL APPLICABLE STATE AND LOCAL CODES.

## PROJECT TEAM

**BUILDER/OWNER:** **M/I Homes of Minneapolis/St. Paul, LLC**
**5354 Parkdale Dr.**
**St. Louis Park, MN 55416**
**763-586-7279**
**www.mihomes.com**

## SHEET INDEX


| | |
|---|---|
| 1 | COVER SHEET, SHEET INDEX, PROJECT INFORMATION, PROJECT TEAM |
| 2 | GENERAL NOTES |
| AA3 | OVERALL FOUNDATION PLAN |
| AA4 | OVERALL MAIN LEVEL |
| AA5 | OVERALL UPPER LEVEL |
| AA6 | FRONT ELEVATION |
| AA7 | SIDE & REAR ELEVATION |
| AA8 | OVERALL ROOF PLAN |

BAYFIELD

| | |
|---|---|
| A1 | EXTERIOR ELEVATIONS |
| A2 | SECTION |
| A3 | FLOOR PLANS |
| AE1 | ELECTRICAL PLANS |

HAYWARD

| | |
|---|---|
| A1 | EXTERIOR ELEVATIONS |
| A2 | SECTION |
| A3 | FLOOR PLANS |
| AE1 | ELECTRICAL PLANS |

**DETAILS**

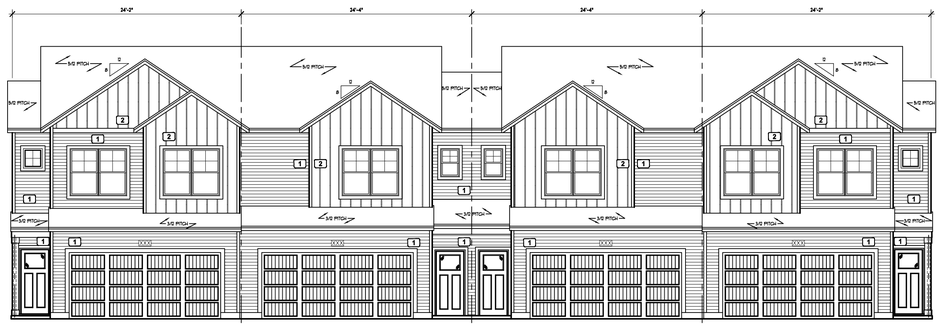
| | |
|---|---|
| FP | FIREPLACE DETAIL |
| W | WINDOW SCHEDULE |

**STRUCTURAL DRAWINGS**

| | |
|---|---|
| S1 | REFERENCE PLAN, NOTES, DETAILS |
| S2 | BAYFIELD UNIT REFERENCE PLAN |
| S3 | HAYWARD UNIT REFERENCE PLAN |
| S4 | DETAILS |

**DETAILS**

| | |
|---|---|
| AD.1 | WALL SECTIONS |
| AD.2 | DETAILS |
| AD.3 | DETAILS |
| AD.4 | DETAILS |
| AD.5 | DETAILS |
| AD.6 | DETAILS |


BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Lot: "
Block: "
Addition:
Client: CUSTOMER
Elevation: ALL
Model: CARRIAGE
Drawn By: PFG
Date: 11/02/2022
Job #: BUILDING --
Drawing No. 1
Sheet Title: COVER SHEET

# GENERAL NOTES

A. GENERAL REQUIREMENTS

A.1. All work performed shall comply with all applicable Local and State Building Codes, Ordinances and Regulations and all other Authorities having jurisdiction.

A.2. These plans, details and specifications remain the property of the Architect and may not be altered in any way without the written consent of the Architect.

A.3. DO NOT SCALE DRAWINGS. Written dimensions take precedence over scaled dimensions.

A.4. All differences in anticipated dimensions or conditions shall be immediately submitted in writing to the Architect prior to the commencement or continuation of work.

A.5. The Architect shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. The Architect shall not be responsible for Contractor's or Subcontractor's schedules or for failure to carry out the Work in conformance with the Construction Documents. The Architect shall not have control over or charge of acts or omissions of the Contractor, Subcontractor, or their agents or employees, or of any other person performing portions of the Work.

B. DESIGN CRITERIA

B.1. Minimum Uniformly Distributed Live Loads

| | |
|---|---|
| Attics without storage | 10 psf |
| Exterior Decks: | 60 psf |
| Guardrails and handrails: | 200 psf |
| Passenger vehicle garages: | 50 psf |
| Rooms other than sleeping rooms: | 40 psf |
| Sleeping Rooms: | 30 psf |
| Stairs | 40 psf |
| Soil | 3000 psf minimum |

B.1. Climatic and Geographic Design Criteria

| | |
|---|---|
| Seismic Design Category: | B |
| Climate Zone: | 6A |
| Ground Snow Load: | 35 lb/ft. |
| Wind Speed (mph) | 115 |
| Winter Design Temp: | (–) 10 degrees F. |
| Ice and Water Shield: | Yes |
| Air Freezing Index: | 1635 |
| Mean Annual Temperature: | 48.7 degrees F. |
| Weathering: | Severe |
| Frost Line Depth: | 42 inches |
| Termite Infestation Probability: | Moderate |
| Decay: | Slight to Moderate |

C. SITE WORK

C.1. If suitable soil bearing for foundations is not encountered at the depth indicated on the drawings, the Architect shall be immediately notified in writing.

C.2. Backfill materials shall be earth, free from debris, roots, organic matter and frozen substances. Fill materials under slabs shall consist of non-expansive, free draining, granular material free of debris and organic material.

C.3. Provide consistent compaction of the top 8 inches of sub-grade, all fill and backfill.

C.4. Provide foundation drainage at the perimeter of excavated basement areas using 4 inch diameter drain tile and appropriate fittings. Foundation drain to run to day light.

C.5. Drain tile shall be placed on a minimum of 2 inches of No. 6 stone and shall be completely covered with a minimum of 8 inches of No. 6 stone placed on top of the drain tile.

C.6. Slope drain tile $\frac{1}{8}$ inches per foot to the point of drainage.

C.7. Keep all excavations free from water. Remove from the construction site all unsuitable soils, debris and excess materials.

C.8. Do not place fill on muddy or frozen areas. Fill only after sub-soil installations have been complete.

D. CONCRETE

D.1. Foundation types and designs may vary with the individual pertinent soil conditions on each lot. The Architect does not warrant or guarantee this building design in locations where inadequate soils or landfill occurrences require special or additional design for structure or gas mitigation due to these occurrences.

D.2. All design, revisions, engineering, installation and liability of soil conditions, gas mitigation and structural designs due to inadequate soils or landfill occurrences shall be the responsibility of the "Builder–Developer" or its subcontractors involved with the design and installation of such;; and the Architect shall not be held liable or responsible for their implementations.

D.3. A soil test, performed by an approved agency using an approved method, shall be performed prior to the placement of any concrete. The soil report shall be on site at time of concrete pour.

D.4. All concrete shall attain a 28 day compressive strength of 5000 psi.

D.5. All concrete footings are designed to bear on minimum soil pressure of 1500 psi and shall be placed on firm, undisturbed soil 3'–6" minimum below grade.

D.6. Concrete foundation walls and garage slabs shall be air entrained. Total air content shall not be less than 5% or greater than 7%.

D.7. Backfill shall not be placed against the foundation wall until the wall has sufficient strength and has been anchored to the floor above or has been sufficiently braced to prevent damage by the backfill.

D.8. Pea gravel shall not be used or approved as sub–base material for any new exterior flatwork.

D.9. All cracks, concrete separation and the like shall be permanently closed with an approved "epoxy" type material at all concrete slabs or concrete foundation walls.

D.10. Spread footings shall be used with minimum size of 8"x20" at 10 inch wide foundations and 8"x16" at 8inch wide foundations.

D.11. No concrete shall be poured into or placed on any sub–grade that is frozen or containing free water.

D.12. Provide minimum 4 inch concrete cover at under slab utility locations. When concrete encasement of utility lines is required, increase slab thickness at the utility line. Install utility lines well below the slab.

D.13. Provide "Zip Strip" or tooled control joints where indicated on the foundation plans.

D.14. Provide isolation joint material (asphalt impregnated) between foundation walls and all patio, and sidewalks.

D.15. All form ties shall be removed from the inside and outside of all foundation walls. Voids created by the removal of ties shall be filled with a suitable cement mortar or method acceptable to the Director of Building prior to application of damproofing.

D.16. Install 1/2" x 12" anchor bolts at 6'–0" O.C. maximum; minimum 2 bolts in each piece of wall sill plate, 12 inch maximum from foundation corners. Anchor bolts to embed into concrete a minimum of 8 inches.

D.17. Contractor shall be responsible for size, location and installation of revised steel reinforcing per local codes or specific soil conditions, whichever is more restrictive.

D.18. Install fiberglass or foam sill sealer between teh top of the foundation and the sill plate.

E. CARPENTRY / FRAMING

E.1. Furnish all labor, materials and equipment necessary to compltee carpentry work as shown on the Construction Documents and/ or specified hereinafter and listed below.

E.2. Wood framing studs shall be a minimum No. 2 standard or stud grade.

E.3. Wood headers and beams (dimensional lumber) shall be Hem Fir No. 2 or better

E.4. Laminated veneer lumber (LVL) shall provide the design values equal to or exceeding the following:

| | |
|---|---|
| Modulus of Elasticity (E): | 1,800,000 psi |
| Fiber Stress in Bending (Fb) | 2,600 psi |
| Horizontal Shear (Fv) | 285 psi |

E.5. Parallel strand lumber (PSL) shall provide the design values equal to or exceeding the following:

| | |
|---|---|
| Modulus of Elasticity (E): | 2,000,000 psi |
| Fiber Stress in Bending (Fb) | 2,900 psi |
| Horizontal Shear (Fv) | 290 psi |

E.6. Deck joists shall be Hem Fir No. 2 or better - preservative treated.

E.7. Roof and floor truss systems shall be designed by the truss manufacturer and performed under the supervision of a registered professional engineer.

E.8. Floor trusses shall be designed to meet a deflection criteria of L/480.

E.9. Wood trussed shall be designed to sustain the loads for the spans, profiles and arrangements indicated in the construction documents. Truss layout is schematic only. Truss manufacturer and/ or engineer shall be responsible for the design, including spacing of all trusses.

E.10. Truss manufacturer shall submit 2 sets of sealed shop drawings to the builder and the building department for approval of trusses and structural beams. Drawings shall be accessible on site at all times.

E.11. All trusses shall be securely braced both during erection and after permanent installation in accordance with commentary and recommendations as published by the Truss Plate Institute.

E.12. Truss members shall not be cut, notched, drilled spliced or otherwise altered in any way without the approval of a registered design professional.

E.13. Load bearing dimensional lumber for trusses shall be identified by a grade mark of a lumber grading or inspection agency that has been approved by an accreditation body that complies with Doc PS 20.

E.14. Roof trusses shall be connected to wall plates by the use of approved connectors and shall be installed in accordance with the manufacturer's specifications. Refer to connector schedule.

E.15. All wood plates in contact with concrete shall be pressure preservative treated wood.

E.16. Floor sheathing shall be 3/4" tongue and groove OSB, glued and nailed. Panel span rating shall be APA 24/32, Exposure 1 with sealed edges. Install per manufacturer's spacing and edge requirements.

E.17. OMIT

E.18. Exterior Wall Sheathing shall be 7/16" exterior grade wall sheathing.

E.19. Provide 15/32 inch, OSB roof sheathing with panel edge clips, APA panel span rating shall be 24/0, Exposure 1 with sealed edges and shall be installed in accordance with manufacturer's specifications.

E.20. Walls shall be braced at each corner, main cross stud partitions at each end and at every 25'–0" of wall length with 7/16 inch OSB sheathing, interior metal let-in bracing or exterior metal straps. At openings, the sheathing shall run from the edge of the opening a distance equal to the width of the opening. Provide metal strap bracing at frame walls parallel to duelling unit separation. Metal bracing shall be installed in accordance with the manufacturer's specifications and shall be place at an angle not greater then 60 degress or less than 45 degrees from horizontal.

E.21. All vertical joints of sheathing shall occur over studs. Horizontal joints shall occur over blocking of a minimum 1 1/2 inch thickness.

E.22. All studs to have full bearing on wood plate.

E.23. Wood studs shall be capped with a double top plate overlapping at corners and intersections with interior partitions. End joints shall be offset at least 24 inches.

E.24. Not less than 3 studs shall be installed at every corner of an exterior wall.

E.25. Stud spacing for all exterior walls and bearing walls shall be spaced 16" O.C. unless noted otherulse.

E.26. Stud spacing for all interior non load-bearing walls shall be spaced 16" O.C.

E.27. All walls greater than 10'–0" in height shall be 2X6 wood studs framed to the upper plate line.

E.28. Provide backing as required for all light fixtures, cabinets, wardrobes, brackets, handles, drywall, etc.

E.29. Provide "box–out" framing behind all heat supplies in walls common to garage space so as to allow a full 3 1/2 inch insulation batt behind the heat supply duct.

E.30. A single king stud shall be provided on each side of openings less than 6'–0" in width and double king studs on each side of openings equal to and greater than 6'–0" in width unless noted otherulse.

E.31. All headers and beams are to be free from splits, checks and shakes.

E.32. All trusses headers and beams shall have a minimum solid bearing of 2 in. at each end.

E.33. Framing under parallel bearing partitions shall be of adequate size to support the load. Framing that is separated to allow for installation of piping or vents shall be full depth , solid blocked with lumber not less than 2 inches in nominal thickness, spaced not more than 4'–0" O.C.

E.34. Provide stud guards where any piping is less than 1 1/2 inch from stud face.

E.35. Exterior deck construction shall be with pressure preservative treated lumber as indicated on the plans unless noted otherulse.

E.36. Pressure preservative treated wood shall contain the quality mark of an approved testing agency.

E.37. Fasteners for pressure preservative treated wood shall be hot-dipped galvanized steel, stainless steel, silicon bronze or copper and shall be compatible with ACQ treated lumber.

E.38. Fire blocking shall be provided to cut-off all concealed openings (both horizontal and vertical) and to form an effective fire barrier between stories and between the top story and the roof space. Fire blocking shall be provided in the following areas:

E.38.1. Concealed spaces of stud walls and partitions, including furred spaces at the ceiling and floor level.

E.38.2. At all intersections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, cove ceilings, etc.

E.38.3. In concealed spaces between stair stringers in the top and bottom of run.

E.38.4. At openings around vents, pipes, ducts chimneys and fireplaces at the ceiling and floor level.

E.39. Draft stopping shall be installed every 1000 sf when there is useable space above and below the concealed space of a floor/ ceiling system.

E.40. Draft stopping materials shall be 1/2 inch gypsum board, 3/8 inch wood structural panel or 3/8 inch particle board.

E.41. All wood trim shall be engineered wood, primed on all sides, unless otherulse noted.

E.42. Provide flashing and sheet metal required to prevent the penetration of water through the exterior shell of the building.

E.43. The roof truss-to-wall plate bracket shall be Simpson H2.5T uplift connector at all single-ply trusses. Refer to plans for connection bracket at roof girder truss.

E.44. All roof and wall sheathing shall terminate at common walls.

F. SIDING, MASONRY VENEER AND ROOFING

F.1. Siding shall be vinyl. Vinyl siding shall be certified and labeled as conforming to the requirements of ASTM D 3679 by an approved quality control agency.

F.2. Tyvek housewrap shall be applied over all exterior wall sheathing and shall run continuous behind all roof to wall intersections. Membrane shall be water repellent. The membrane shall be installed with the minimal number of seams. All seams shall be lapped a minimum of 6 inches and be fastened with manufacturer's approved tape.

F.3. Masonry veneer shall be anchored to the supporting wall with corrosion resistant metal ties. Metal ties shall be a minimum No. 22 US guage x 7/8 inch wide corrugated, spaced not more than 2.67 sf of wall area.

F.4. Flashing shall be located beneath the first course of masonry above finished grade.

F.5. Raggled joints shall be used to install all counter flashing in brick work. Counter flashing shall be cut into the mortar joints an sealed.

F.6. Weepholes shall be spaced 33 inches OC, max. and shall be not less than 3/8 inches in diameter. Weepholes shall be located immediately above the flashing.

F.7. Roof shingles shall be 25 year, Class 'C', architectural self-sealing asphalt shingles.

F.8. Roof shingles shall be fastened with nails according to manfacturer's specifications. Nails shall be galvanized steel, stainless steel, aluminum or copper roofing nails with a minimum 12 guage shank and a minimum 3/8 inch diameter head No staples allowed.

F.9. Enclosed attics shall have cross ventilation for each separate space by means of ventilating openings protected against the entrance of rain and snow. Ventilating openings shall be provided with corrosion resistant wire mesh with 1/8 inch minimum to 1/4 inch maximum openings.

F.10. The total net free area of roof venting shall be not less than 1 to 150 of the area of space to be ventilated. Total net free area is permitted to be reduced to 1 to 300 provided at least 50% and not more than 80% of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated. The balance of the required ventilating area shall be provided at the eaves.

F.11. Provide Accuvent soffit insulation baffles at each truss bay so insulation shall not block the free flow of air. A minimum of 1 inch space shall be provided between the insulation and the roof sheathing at the location of the vent. At locations with irregular shapes or where the Accuvent will not conform to the space, thermo-ply or insulated sheathing shall be applied vertically to the truss heel, extending over the height of attic insulation while maintaining a minimum 1 inch air space.

F.12. An attic access having a vertical height of 30 inches or greater shall be provided to attic areas exceeding 30 sf. The rough framed opening of not less than 22 inches x 30 inches shall be located in a hallway or other readily accessible location. A 30 inch un-obstructed headroom in the attic space shall be provided at some point above the access.

F.13. All eaves, valleys and roof-to-wall intersections shall have a self-adhesive ice and water shield applied per manufacturer's specifications.

F.14. All gutters to be 4 inch, 0027 gauge aluminum with baked enamel finish.

F.15. Gutter downspouts shall be 4 inch, 20 gauge aluminum with baked enamel finish.

F.16. Provide concrete splash blocks at all downspout locations. The bottom of downspout shall not exceed 6 inches above the splash block and shall discharge a minimum of 5 feet from house (foundation wall).

G. ENERGY CONSERVATION/ EFFICIENCY

G.1. Energy conservation compliance shall meet the requirements of Energy Star V-3.0 and the 2020 International Energy Conservation Code for residential buildings.

G.2. The interior design temperatures used for heating and cooling load calculations shall be a maximum of 72 degrees F for heating and minimum of 75 degrees F for cooling.

G.3. An R-value identification mark shall be applied by the manufacturer to each piece of insulation 12 inches or greater in width.

G.4. The thickness of blown-in-insulation shall be written in inches on markers (rulers) that are installed at least one for every 300 square feet throughout the attic space. The markers shall be affixed to the trusses or joists and marked with the minimum installed thickness with numbers a minimum of 1 inch in height. Each marker shall face the attic opening.

G.5. Insulation materials shall be installed such that the manufacturer's R-value mark is readily observable upon inspection.

G.6. Provide R-15 high density (HD) batt insulation with integral vapor barrier with 1/2" (R-3) insulated sheathing at all 2x4 wood stud exterior wall framing with the exception of garages.

G.7. Provide R-21 batt insulation with integral vapor barrier at all 2x6 wood stud exterior wall framing with the exception of garages.

G.8. Provide R-49 insulation (batt/blown combo) with vapor barrier at all flat attic ceilings. Provide R-21 high density (HD) batt insulation with integral vapor barrier extending over exterior wall plates and 12" in (towards house) from the outside face of exterior walls.

G.9. Provide R-35 blown-in insulation with net (full 14" depth of truss) in floors over unconditioned spaces (garages) with vapor barrier installed in contact with underside of the sub-floor decking above.

G.10. Provide R-35 blown-in insulation with net (full 14" depth of truss) at all cantilevered floors with vapor barrier installed in contact with underside of the sub-floor decking above.

G.11. Provide R-21 FSK faced batt insulation at truss ends.

G.12. Provide R-13 (vinyl backed) batt insulation blanketed over exterior foundation walls in basements 4 crawl spaces from top of foundation to approximately 6" above top of slab.

G.13. Provide R-30 (rigid) insulation between conditioned and unconditioned spaces. Insulation shall run from top of footing to top of foundation wall.

G.14. Provide 1/2" (R-3 min.) insulated headers.

G.15. Provide 3/4" (rigid) insulation as a thermal break between slab and exterior foundation walls between conditioned and unconditioned spaces (where applicable).

G.16. Combustible insulation shall be separated by a minimum dimension of 3 inches from IC-AT rated recessed (can) lighting fixtures, fan motors and all other heat producing devices.

G.17. U-Factors and solar heat gain coefficient of fenestration products shall be labeled and certified by the manufacturer.

G.18. A permanent certificate listing the predominate R-values of insulation installed in or on the ceiling/roof, walls, foundation and ducts outside conditioned spaces and U-factors and solar heat gain coefficient for fenestration shall be posted on or in the electrical distribution panel. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. A certification tag shall be posted within 3 feet of attic access panel.

G.19. Access doors from condition spaces to unconditioned spaces shall be weather-stripped/ gasketed, insulated to a level equivalent to the insulation on the surrounding surfaces and must include retaining baffle to hold insulation in place.

G.20. Floor Insulation shall be installed to maintain permanent contact with underside of the sub-floor decking.

G.21. The following shall be dually sealed/caulked, foamed, gasketed, weather-stripped or otherulse sealed with an air barrier material (Tyvek), suitable film or solid material

G.21.1. Joints, seams and penetrations

G.21.2. Top plates to drywall and sill plates to sub-floor or slab

G.21.3. Cracks in building envelope

G.21.4. Openings between window and door assemblies and their respective jambs and framing

G.21.5. Utility penetrations (Duct/flue shaft, plumbing 4 piping, electrical wiring, kitchen and baths fans, IC-AT rated can lights).

G.21.6. Dropped ceilings or chases adjacent to the thermal envelope

G.21.7. Walls and ceilings (rim 4 band) separating unconditioned garage from conditioned spaces.

G.21.8. Behind tubs and showers on exterior walls

G.21.9. Behind fireplaces on exterior walls

G.21.10. Behind stair soffits walls on exterior walls

G.21.11. Gap between shaft-wall and common walls between dwelling units

G.21.12. Between double walls at garage common or exterior walls

G.21.13. Attic access openings and knee walls (sloped attic walls) on attic side

G.21.14. Rim joist junction

G.21.15. Floors above a garage and cantilevered floors

G.21.16. Sump Pit covers

G.21.17. Building envelope air tightness and insulation installation shall be demonstrated to comply by blower door testing to less than 4 ACH at 50 Pascals.

G.21.18. At least one thermostat shall be provided for each separate heating and cooling system and at least one thermostat per duelling shall be programmable.

G.21.19. All ducts, air handlers, filter boxes shall be sealed in accordance with MI6.01.41 of the International Residential Code and ASHRE 193 for furnace cabinet. Duct tightness shall be verified by either a post-construction test or a rough-in-test and must be less than 4 cfm per 100 square feet total leakage across the entire system.

G.21.20. Building framing cavities shall not be used as supply ducts.

G.21.21. Mechanical system piping capable of carrying fluids above 105 degrees F. or below 55 degrees F. shall be insulated to a minimum of R-3.

G.21.22. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

G.21.23. Heating and cooling equipment shall be sized in accordance with Section M1401.3 of the International Residential Code and ACCA Manual J 8th edition and include Manual D 4 8.

G.21.24. The required CFM for the intermittent whole house mechanical ventilation system shall be 180 CFM per ASHRAE 622 Ventilation Table.

G.21.25. Provide 1/2" (R-3) insulated sheathing at rim joists unless 7/16" exterior grade OSB wall sheathing is required for designated shear walls.

H. GYPSUM WALLBOARD

H.1. All exterior walls shall have (1) layer of 1/2 inch gypsum wallboard at the interior face.

H.2. All interior walls shall have (1) layer 1/2 inch gypsum wallboard at each face.

H.3. All ceilings shall have 5/8 inch gypsum wallboard finish.

H.4. Garage walls common to the unit shall be of 5/8" Type 'X'.

H.5. Provide (1) layer of 1/2 inch gypsum wallboard under all stairs with accessible space.

H.6. Garage ceilings shall have (1) layer of 5/8" Type "X" gypsum wallboard with one coat of fire-tape. Nail heads to be covered.

H.7. See specific details for gypsum board requirements at fire rated assembly.

I. INTERIOR TRIM AND FINISHES

I.1. All interior trim and finishes to be selected by builder/ developer.

J. DOORS AND WINDOWS

J.1. All exterior glazing in doors and windows to have Low 'E' rated glass and shall be double glazed or insulated. Frames, jambs and thresholds must be foamed or sealed to create a thermal barrier. Window fenestration (U-factor shall not exceed 035. Windows have a U-Factor of 032 and solar heat gain coefficient (SHGC) of 029. All glazing shall comply with NFRC 100 for fenestration and be installed with the required gasketing and seals.

J.2. All patio doors shall have the operable leaf to the inside.

J.3. Door and window infiltration shall be in accordance with Municipal requirements and shall meet the performance standards of ANSI/ DH-C40 for vinyl windows and the CRF shall be less than 35.

J.4. Provide safety glazing in all areas deemed hazardous by the 2020 International Residential Code.

J.5. All sashes, sliding glass doors, entrance doors and bottom plates shall be caulked (all sides of opening) and all window and door heads shall be flashed.

J.6. Patio doors shall be constructed and installed to withstand a force of 300 lbs. applied in any direction when it is in the locked position.

J.7. Each exterior door (except patio doors) shall be equipped with a deadbolt with an throw of 1 inch. Deadbolts shall be located a minimum dimension of 6 inches from the lock set and installed with a security lock set.

J.8. Emergency and escape windows shall have a sill height not more than 44 inches above the finished floor and not less than 24" when located 72" or more above grade.

J.9. Emergency and escape windows shall have a min. net clear opening of 5.7 sf.

J.10. Grade floor windows shall have a minimum net clear opening of 5.0 sf.

J.11. Emergency and escape windows shall have a minimum net clear opening height of 24 inches and width of 20 inches.

J.12. Emergency escape and rescue openings shall be operable from the inside of the room without the use of keys or tools.

J.13. Window supplier to verify at least one window in each sleeping room meets the net clear opening requirements for emergency escape and rescue openings.

J.14. All operable windows shall have an insect screen.

K. FIREPLACES AND CHIMNEYS

K.1. All fireplaces shall be UL. approved.

K.2. Provide an approved fire stop at chimneys penetrating floors, ceilings and roofs.

K.3. Fireplace flues shall be equipped with approved spark arrestors.

K.4. Insulate all chase walls and main floor ceilings above the fire box.

K.5. All fire boxes shall be equipped with an exterior air supply and gas line.

K.6. Exterior air intake shall be capable of providing all combustion air from the exterior of the duelling or from spaces within the duelling ventilated with outside air. The exterior air intake shall not be located within the garage or basement nor shall it be located higher than the fire box.

K.7. Fireplace chimneys shall extend a minimum of 2 feet higher than any portion of the roof or building within 10 feet, but shall not be less than 3 feet above the highest point where the chimney passes through the roof.

L. HEATING AND VENTILATING

L.1. Combustion air shall be obtained from outside the thermal envelope.

L.2. The heating and cooling system shall be designed to operate per ASHRAE standards and/ or government standards.

L.3. The heating contractor shall provide a complete and operating system consisting of, but not necessarily limited to, gas fired forced air furnace, fans, ducts, individual return air ducts in all rooms except kitchen and bathrooms, thermostats, etc.

L.4. The heating contractor shall provide a heating system capable of maintaining 72 degrees F inside at (-) 10 degrees F outside with a 5 mph wind. Air conditioning system shall be capable of maintaining 75 degrees F inside at 100 degrees F outside.

L.5. Sheet metal ducts shall be sized, designed and constructed in accordance with mechanical plans and specifications. All joints, seams and penetrations need to be sealed with Mastic or UL. 181 tape.

L.6. All supply and return air ducts in attics and unheated spaces shall be sheet metal or flex duct. Supply ductwork outside the thermal envelope shall be insulated to a minimum R-value of R-8. All other ductwork shall be insulated to a min. R-6.

L.7. Class 'B' vents to have a minimum clearance of 1 inch to all combustible material and shall be fire stopped at all floor and ceiling penetrations.

L.8. Ducts shall not be exposed in the garage.

L.9. The heating contractor shall install ductwork to maintain ceiling heights as indicated in the construction documents.

L.10. Mechanical appliances shall be accessible without removing permanent construction. 30 inches of working space shall be provided in front of the control side to service the appliance.

L.11. Dryer ducts shall be independent, shall convey the moisture to the outdoors and shall terminate on the outside of the building. Screens shall not be installed at the duct termination.

L.12. Exhaust ducts shall not be connected with sheet metal screws or fastening means which extend into the duct. Joints to be taped with approved tape.

L.13. Exhaust ducts shall be equipped with a back-draft damper.

L.14. Interior duct surfaces shall be smooth and run in the direction of air flow.

L.15. Flexible ducts used to connect the dryer to the exhaust system shall be limited to single lengths not to exceed 8 feet.

L.16. The maximum length of dryer duct shall not exceed 25 feet from the dryer location to the wall or roof termination. The maximum length shall be reduced 25 feet for every 45 degree bend and 5 feet for every 90 degree bend.

L.17. All HVAC equipment shall be individually suitched.

L.18. Air conditioner shall be 13 SEER or better.

L.19. Air handler, coil box, and cabinet penetrations must be sealed.

L.20. Bathroom and Powder Room exhaust fans shall discharge directly to the exterior and shall be provided wit a suitable cap (guard) and back draft damper. Fans shall have a tested output of 50 CFM and less than 3 sones.

L.21. Kitchen exhaust fans shall discharge directly to the exterior by a single wall pipe having a minimum clearance of 1 inch to combustible materials and shall be provided with a suitable cap (guard) and back draft damper. Fans shall have a tested output of 100 CFM and less then 3 sones.

L.22. Provide individual gas shutoff valves to range, water heater, dryer, optional fireplace, and furnace.

L.23. Exhaust ductwork shall be installed with solid metal ductwork terminating with individual vents with integral bug screens to exterior.

L.24. All duct work concealed in floor space to be solid pipe.

L.25. Return air ducts are required in each bedroom.

L.26. Furnace AFUE shall be a minimum of 92%.

L.27. An air-tight furnace filter cap shall prevent infiltration of air from the surrounding area and provide easy access to change the filter.

L.28. 18" vent appears shall be provided every 5 feet minimum with no screw penetrations unless specifically required by the manufacturer.

M. PLUMBING

M.1. The plumbing contractor shall include all necessary, labor, materials and equipment required for a complete and operable installation of all water and sewage systems per all applicable codes.

M.2. Underground water piping shall conform to 2015 Minnesota Plumbing Code.

M.3. All domestic water piping shall conform to 2015 Minnesota Plumbing Code.

M.4. All joints and connections shall be made water tight and shall be free from any leakage.

M.5. Provide 18 inch air chambers at all fixtures and 24 inch air chambers at all risers.

M.6. All water pipes to fixtures shall be valved.

M.7. Every fixture supply pipe shall be protected from backflow.

M.8. All ball valves for domestic water 2" and below shall be oflead-free type. Interior waste and vent piping shall be PVC.

M.9. Provide clean-pits in each waste and soil line for each change of direction greater than 45 degrees at bottom of each stack. All soil stacks shall be a minimum of four inches inside diameter.

M.10. An accessible soil stack shall be provided at the foot of each soil and waster stack and at intervals of not over 50 feet of building drains of eight inches or less.

M.11. All plumbing fixtures shall be of water sense type, 1.28 GPF WC, 2.0 GPM shower heads and 1.5 GPM lavatories.

M.12. Lavatories shall have waste outlets not less than 1 1/4 inches in diameter and shall be provided with strainers. Urinates may be provided with open strainers or may be provided with stoppers.

M.13. Waste outlets serving showers shall be at least 2 inches in diameter and for other than those in bathtubs, shall have removable strainers not less than 3 inches in diameter having strainer openings not less than 1/4" in minimum dimension.

M.14. Sinks shall be provided with waste outlets not less than 1 1/2 inches in diameter.

M.15. A strainer, crossbar, or other device shall be provided to restrict the clear opening of the waste outlet.

M.16. Sinks on which a food grinder is installed shall have a waste opening of the waste outlet.

M.17. Provide 50 gallon electric water heater (.62 EF or better) temperature and pressure relief valves.

M.18. Water heaters shall be provided with a cold water supply valve within 2 feet of the tank and a sludge drain at the bottom level of the tank.

M.19. A flue pipe with a draft diverter shall be installed from the heating device to the building chimney or other flue system as approved by the building inspector.

M.20. Provide frost proof hose bibs with vacuum breakers at each unit per plan.

M.21. Provide shower heads and faucets in all bathtubs. Shower heads to be 65 inches above the top of the tub.

M.22. Plumber shall remove all spoils occurring from his work and shall replace removed soils with compacted gravel.

M.23. Underground interior waste and vent piping to a point not less than 5 feet outside of the building shall be a minimum of 4 inch service weight PVC.

M.24. Provide gray box with sill faucet, standpipe and 2 inch drain at all washer locations.

M.25. Provide chrome plated fixture supplies and straps for all fixture connections.

M.26. The connection between drainage pipes and water closets and floor outlet service sinks shall be made by means of brass, hard lead or iron flanges, caulked, soldered or screwed to the drainage pipe.

M.27. PVC type fittings may be used as approved by the building inspector.

M.28. Dishwasher drain shall not be connected to the garbage disposal.

M.29. Water meter size shall be based on fixture count.

M.30. Water meters shall be installed as to provide a minimum of 8 inches of clearance from any wall, floor, or object that may obstruct the required clearance.

M.31. Water meters shall not be installed in excess of 4 feet from finished floor level.

M.32. Water service size shall be based on fixture count and sized in accordance with Appendix A, Tables 7, N, O, P and Q of the 2014 Illinois State Plumbing Code. Where optional fixtures are added, the supply demand shall be taken into consideration for sizing purposes.

M.33. B-boxes shall not be located in driveways or sidewalks.

M.34. Floor drains shall be a minimum of 4 inch pipe, trapped, covered and venting.

M.35. Plumbing rough-ins shall be complete as to waste, water supply and venting.

M.36. Domestic food, waste and disposal units shall be connected and trapped separately from any other fixture and compartment. Unit shall have on-off control located in cover so that the cover cannot be removed while unit is operating.

M.37. Plumbing systems and/ or pipes passing through walls, ceilings, exiting concrete slabs, or passing through concrete walls, shall be protected from breakage and/ or corrosion by protective sleeves as approved by the building inspector.

M.38. Plumbing systems (drain piping, etc.) passing under a building footing or through a building foundation wall shall be so installed as to incorporate a sleeve equal in size as two pipe sizes larger than said plumbing pipe. A minimum of one 4 inch floor drain shall be installed in all basement areas and/ or utility rooms.

M.39. OMIT

M.40. OMIT

M.41. OMIT

M.42. OMIT

M.43. The use of plastic pipe in the underground drainage system shall be prohibited.

M.44. The minimum nominal size of any fixture supply pipe shall be 1/2 inch to the fixture stop.

M.45. A kitchen sink installed with a food washer grinder shall have a drain line not less than 2 inches in diameter and shall be properly vented and a clean-out shall be provided at its base.

M.46. Kitchen waste fixture drains shall not be less than 2 inches.

M.47. All bathtubs and showers shall have 2 inch traps and shall have their drains calculated for three drainage fixture units.

M.48. Outside water meter reading devices shall be installed in a building to a point that will permit easy access not less than 42 inches or greater than 48 inches above the finished grade level outside the building.

M.49. Water service pipe from the water main to the building being served shall be installed at a depth of not less than 5 feet below finished grade level at all points along the course of the service pipe.

M.50. The use of wet venting where venting is otherulse required is prohibited.

M.51. Every building shall be separately and independently connected with a public or private sewer connection to a public or private sewer when there is such located in the street abutting the lot occupied by the building.

M.52. The entire plumbing and drainage system of every building shall be entirely separate and independent from that of any other building.

M.53. Building drains shall be discharged to the sewer by gravity flow.

M.54. A drain pipe of not less than 4 inches inside diameter, which shall be of solid and rigid drain pipe shall be connected to a tee fitting incorporated with the building foundation footing drain tile system.

M.55. All gas pipe material shall be Schedule 40 black pipe.

M.56. Plumber to install back-flow preventer for fire suppression system prior to rough plumbing inspection

M.57. Water meter to be installed at the time of the rought plumbing inspection.

M.58. Rough plumbing inspection to consist of a water test on the stack, 15 lb. air test on gas service and 100 lb. water test.

M.59. All showers and shower/bath combinations shall be provided with an automatic safety water mixing device to prevent sudden unanticipated changes in water temperature or excessive water temperatures. The device shall comply with ANSI/A556E 1016-1996 or -1017 and be designed with a maximum handle rotation stop. The device shall be adjusted to a maximum temperature not to exceed 115 degrees F at the time of installation.

M.60. Provide and install a passive radon reduction system in each unit. See Detail 5 located on Sheet AD.1 for more information.

N. ELECTRICAL

N.1. The electrical contractor shall include all necessary labor, materials and equipment for the installation of a complete and operable electrical system.

N.2. The electrical contractor shall include all necessary labor, materials and equipment for the installation of a complete and operable electrical system.

N.3. The electrical contractor shall provide 150 ampere 120/240 volt, single phase, 3 wire service.

N.4. Distribution panel to be 100 amp with a minimum of 24 pole spaces with a minimum of 4 pole spaces free. Provide breakers as required.

N.5. Service entrance conductors shall be a minimum AWG wire size of No. 3/0 gauge copper conductor and shall be type THWN insulation and shall be installed in a minimum of 2 inch RMC.

N.6. Main service disconnection means shall be 100 ampere rated, located within 5 feet of the point where the service conductors enter the building and/ or within 5 feet of the metering device and be installed in the same enclosure as the branch circuit overcurrent device.

N.7. 15 and 20 amp, 125 and 250 volt receptacles installed outdoors in a wet location shall be GFCI grounded outlets and shall have an enclosure that is weatherproof whether or not the attachment plug is inserted.

N.8. Receptacle outlets in habitable rooms shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6 feet from a receptacle outlet (less than 12 foot spacing). A receptacle shall be installed in each wall space 2 feet or more in width.

N.9. All 120-volt, 15 and 20 amp branch circuits that supply outlets in duelling unit bedrooms, including lighting and smoke detectors, shall be protected by a listed arc-fault circuit interrupter device listed to provide protection of the entire branch circuit. Closets and hallways on shared circuits with bedrooms shall be arc-fault.

N.10. Install ground fault circuit interrupter protected grounded outlets (GFCI) at all bathrooms, kitchens, garages, unfinished basements all receptacles serving countertops and receptacles within 6' of outer edge of all sinks.

N.11. A receptacle outlet shall be installed at each counter space 12 inches or wider and at each island counter or peninsular space 24 inches by 12 inches or larger. Countertop spaces separated by range tops, sinks or refrigerators are separate spaces.

N.12. Receptacle outlets in bathrooms and serving counters shall not be installed in the face-up position.

N.13. Receptacle outlets in bathrooms and serving counters shall not be installed in the face-up position.

N.14. All lighting fixtures installed in walk-in-closets, storage area, utility/laundry room, etc, shall be switched.

N.15. A minimum of one switched lighting fixture shall be installed in the immediate area of the top stair tread and lowermost stair tread of all staircases leading to basement areas.

N.16. Panel-boards installed in basement areas shall have a minimum of one lighting fixture installed within 3 feet of the panel-board cover.

N.17. Working space around electrical service equipment or electrical sub-feed equipment that measures more than 42 inches wide shall have a minimum of 3 feet of clearance in front of and in rear of and 2 feet of clearance on each side of said equipment.

N.18. A minimum of one lighting fixture shall be installed within 4 feet of the furnace and over any laundry tub or equipment located in the basement area.

N.19. Basement lighting fixtures shall be evenly divided and/ or separated as to be connected to more than one individual circuit on different phases.

N.20. Lighting circuits shall not have more than ten power-consuming devices for general lighting purposes connected thereto.

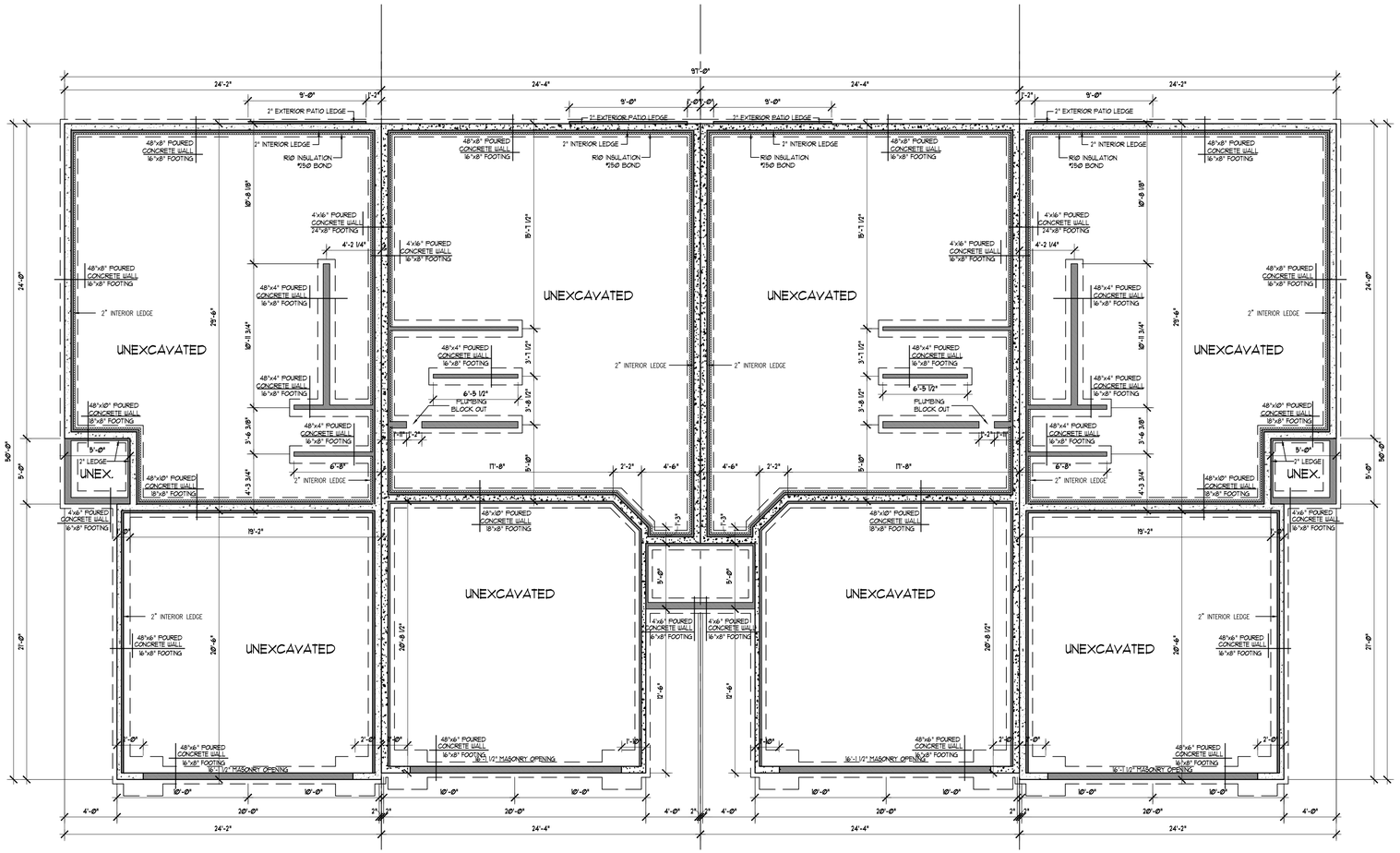
N.21. All junction boxes installed for the use and/ or attachment of any type of ceiling fan shall be listed by a recognized testing laboratory. All ceiling boxes shall be listed for paddle fans except closets, hallways, detectors, etc. Each bathroom and/ or rooms that are required to be ventilated by an electrically operated mechanical means, such as by the use of an approved exhaust fan, shall be controlled by a wall switch which shall not control any other device other sald mechanical exhaust device.

N.22. All receptacles installed on any separate appliance circuit shall be of the duplex type and shall be 20 ampere rated.

N.23. All permanently installed dishwashers shall be hard wired on a separate 20-mp branch circuit with the use of electric metallic tubing and minimum 1/2 inch trade size flexible metal conduit. The conduit shall not exceed 6 feet in length. In addition, the dishwasher shall have an approved disconnecting means for the purpose of disconnecting the underground conductors.

N.24. In addition to the branch circuits installed to supply general illumination and receptacle outlets in duelling units, the following minimum requirements apply: (2) 20-amp circuits for the Kitchen receptacles, (1) 20 -amp circuit for the laundry receptacles, (1) 20-amp circuit for the bathroom receptacles and (1) separate, individual branch circuit for the central heating equipment.

N.25. All receptacles shall be of spring type grounding strap that




BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

# Foundation Plan

SCALE: 3/16"=1'-0" (22x34) 3/32 =1'-0" (11x17)

## CONSTRUCTION ASSEMBLIES:

T THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS

A. TYPICAL ROOF CONST.:
COMPOSITION ROOF SHINGLES ON UNDERLAYMENT WITH ICE & WATER SHIELD, WHERE REQ'D, ON ROOF SHEATHING ON ROOF FRAMING MEMBERS (AS NOTED ON FRAMING PLANS).
UPPER FLOOR CEILING: 5/8" GYPSUM BOARD WITH INSULATION ABOVE.

B1. TYPICAL SIDING WALL CONST.:
SIDING PER ELEVATION ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: 1/2" GYPSUM BOARD.

B2. TYPICAL STONE VENEER WALL CONST.:
ADHERED SYNTHETIC STONE VENEER ON WATER RESISTANT BARRIER ON EXTERIOR WALL SHEATHING ON 2x4 OR 2x6 STUDS, 16" O.C. W/ INSULATION IN CAVITIES.
INTERIOR: 1/2" GYPSUM BOARD.

C. TYPICAL FLOOR CONST.:
FINISHED FLOORING ON FLOOR SHEATHING ON FLOOR FRAMING MEMBERS (AS NOTED ON FRAMING PLANS).
MAIN FLOOR CEILING: 5/8" GYPSUM BOARD.

D1. TYPICAL UNIT SLAB CONST.:
4" CONCRETE SLAB 6 MIL. POLYETHYLENE SOIL-GAS MEMBRANE (LAP JOINTS MIN. 12") ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

D2. TYPICAL GARAGE SLAB CONST.:
4" CONCRETE SLAB ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

D3. TYPICAL PORCH SLAB CONST.:
4" CONCRETE SLAB w/ #4 REBAR @ 16" O.C. (E.W.) ON 4" MINIMUM COMPACTED GRANULAR FILL ON COMPACTED EARTH.

## GENERAL BASEMENT PLAN NOTES:

- ALL UNDIMENSIONED PARTITIONS ( ) ARE 3 1/2" ROUGH UNLESS NOTED OTHERWISE.
- SEE STRUCTURAL DRAWINGS FOR CONCRETE FOOTING AND PAD INFORMATION!
- ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
- FOR ADDITIONAL INFORMATION SEE GENERAL NOTES AND DETAILS.
- PROVIDE MIN. 4" CONCRETE COVER AT BELOW SLAB UTILITY LOCATIONS WHEN CONCRETE ENCASEMENT OF UTILITY LINES IS REQ'D. INCREASE SLAB THICKNESS AT THE UTILITY. UTILITIES SHALL BE PLACED SUFFICIENTLY BELOW SLAB TO MAINTAIN PROPER COVERAGE.
- CONTROL JOINTS TO CONSIST OF "ZIP-STRIP" OR TOOLED JOINTS AS SHOWN WITH MINIMUM DEPTH OF 1/4 OF SLAB THICKNESS.
- MECHANICAL TRADES RESPONSIBLE FOR PROVIDING AND LOCATING FOUNDATION SLEEVES.
- ALL CONCENTRATED LOADS FROM BEAMS OR GIRDER TRUSSES TO TRANSFER TO FOUNDATION VIA POSTS, BEAMS, AND/OR SOLID BLOCKING.

| | By | Date | Revisions / Custom Options |
|---|---|---|---|
| 1 | | | |

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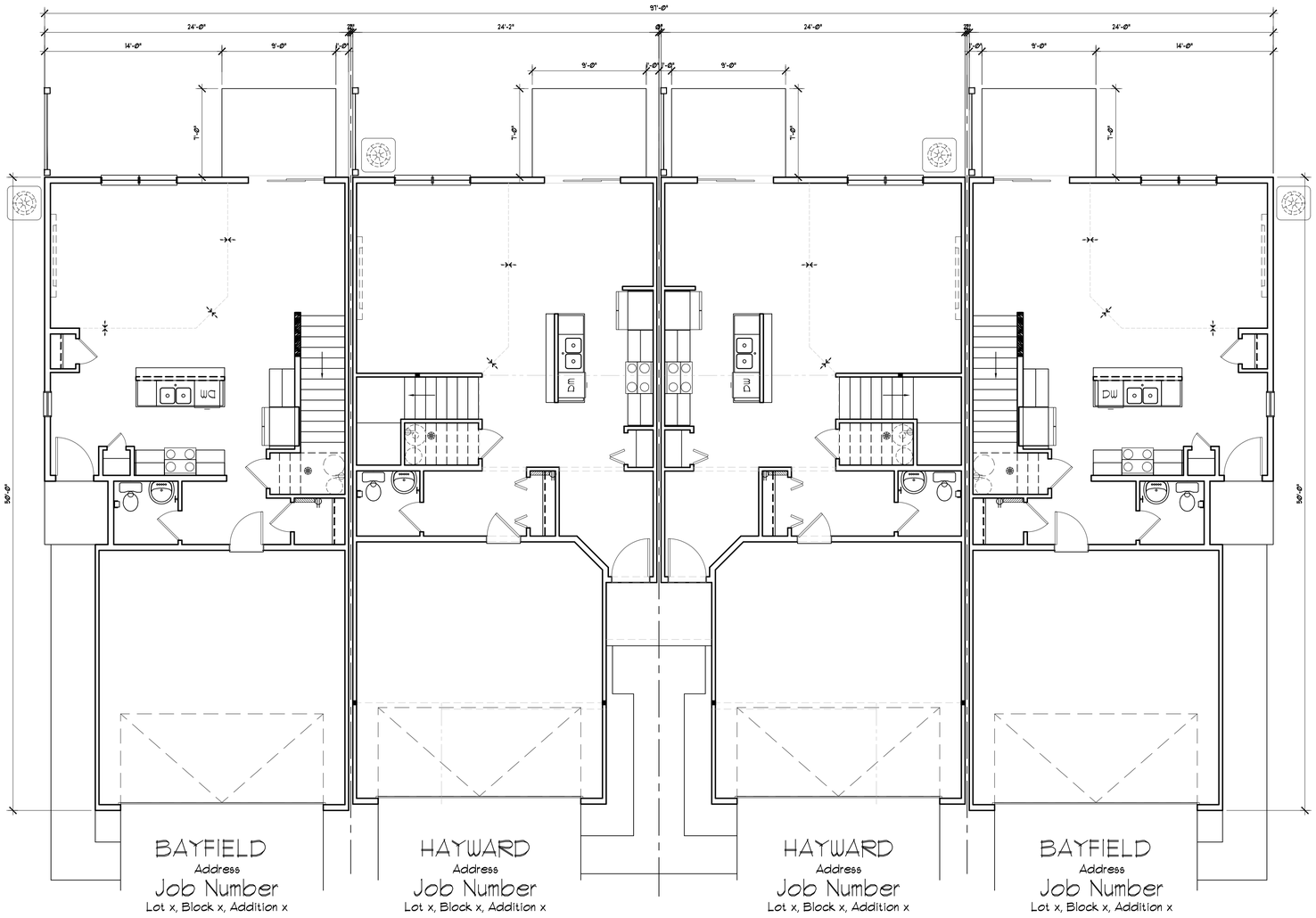
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Address: STREET ADDRESS
City: CITY, MN
Addition: Block: --
Lot: --
Client: CUSTOMER
Elevation: A
Model: CARRIAGE

Sheet Title: FOUNDATION OVERALL PLAN

Drawn By: PFG
Date: 11/02/2022
Job #: BUILDING --
Drawing No.: AA3

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

VERIFY PRIVACY FENCE
LOCATION WITH SALES




BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

# Main Level Floor Plan

SCALE: 3/16"=1'-0" (22x34) 3/32 =1'-0" (11x17)

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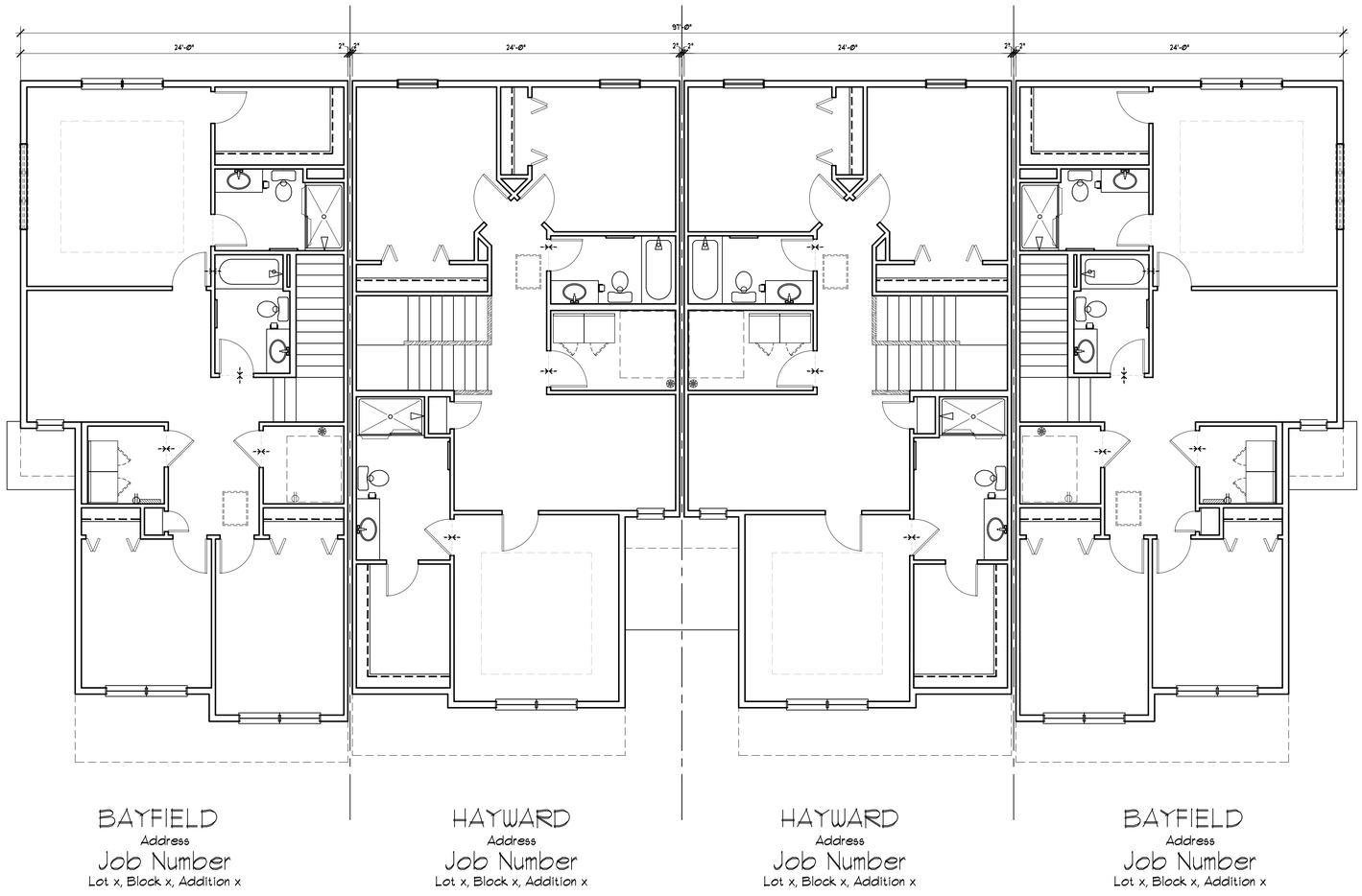
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Address: STREET ADDRESS
City: CITY, MN
Addition:
Lot: --
Block: --

Elevation: A
Client: CUSTOMER

Model: CARRIAGE

Drawn By: PFG
Date: 11/02/2022
Job # BUILDING --
Drawing No. AA4

Sheet Title: MAIN LEVEL OVERALL FLOOR PLAN




BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

# Upper Level Floor Plan

SCALE: 3/16"=1'-0" (22x34) 3/32 =1'-0" (11x17)

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Address: STREET ADDRESS
City: CITY, MN
Addition:
Lot: --
Block: --
Elevation: A
Client: CUSTOMER
Model: CARRIAGE
Drawn By: PFG
Date: 11/02/2022
Job # BUILDING --
Drawing No. AA5
Sheet Title: UPPER LEVEL OVERALL FLOOR PLAN




BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

# Front Elevation Plan

SCALE: 3/16"=1'-0" (22x34) 3/32 =1'-0" (11x17)

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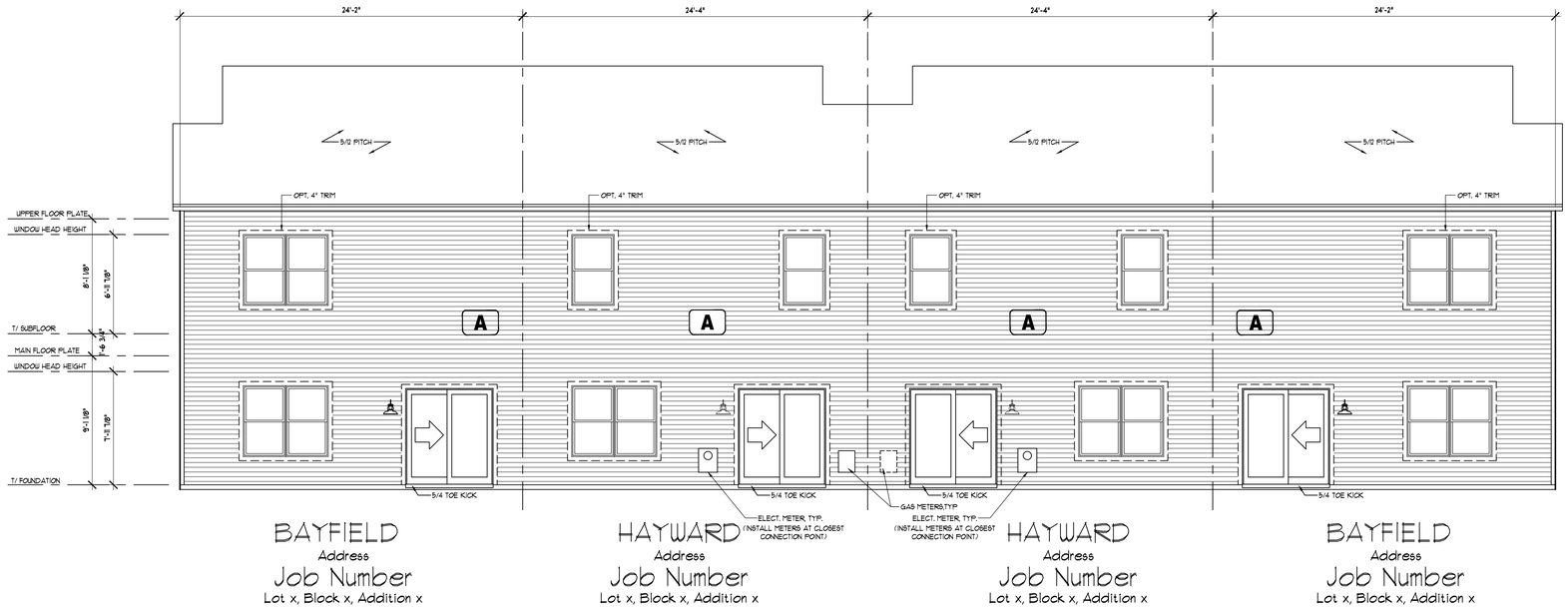
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X _____

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Address: STREET ADDRESS
City: CITY, MN
Addition:
Lot: "
Block: "

Client: CUSTOMER
Elevation: A
Model: CARRIAGE
Drawn By: PFG
Date: 11/02/2022
Job # BUILDING --
Drawing No. AA6
Sheet Title: FRONT ELEVATION




BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

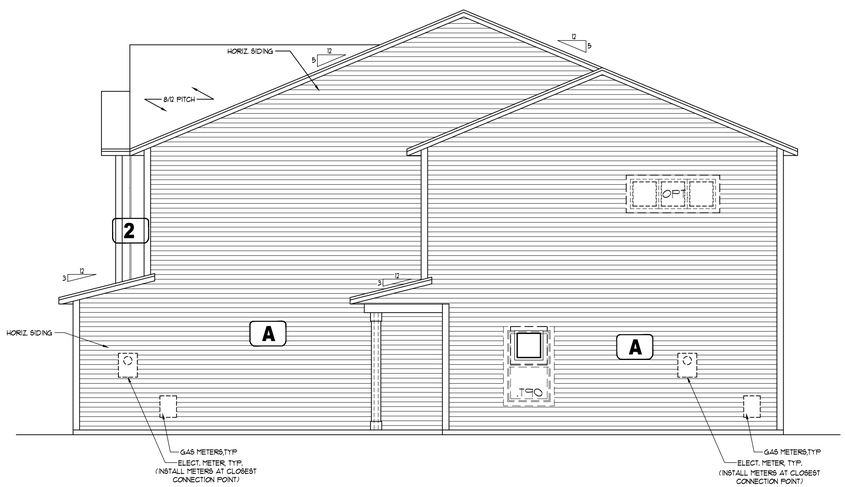
HAYWARD
Address
Job Number
Lot x, Block x, Addition x

HAYWARD
Address
Job Number
Lot x, Block x, Addition x

BAYFIELD
Address
Job Number
Lot x, Block x, Addition x

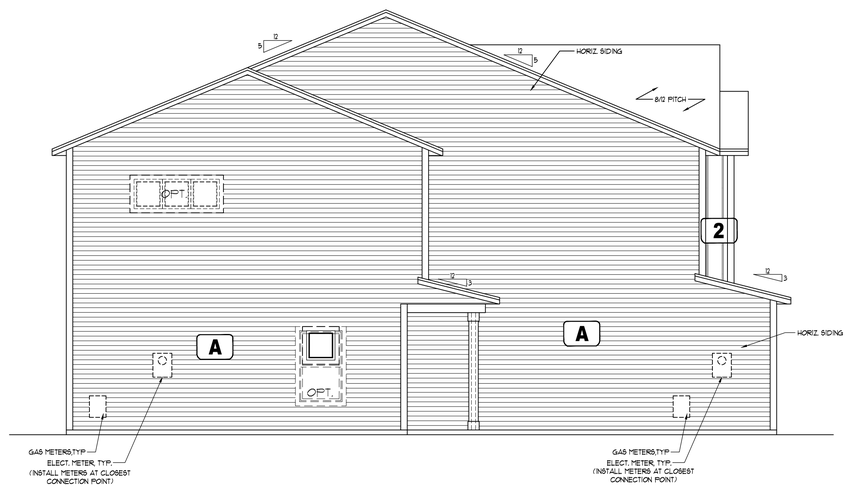
# Rear Elevation Plan

SCALE: 3/16"=1'-0" (22x34) 3/32 =1'-0" (11x17)




# Side Elevation Plan

SCALE: 3/16"=1'-0" (22x34) 3/32 =1'-0" (11x17)




# Side Elevation Plan

SCALE: 3/16"=1'-0" (22x34) 3/32 =1'-0" (11x17)

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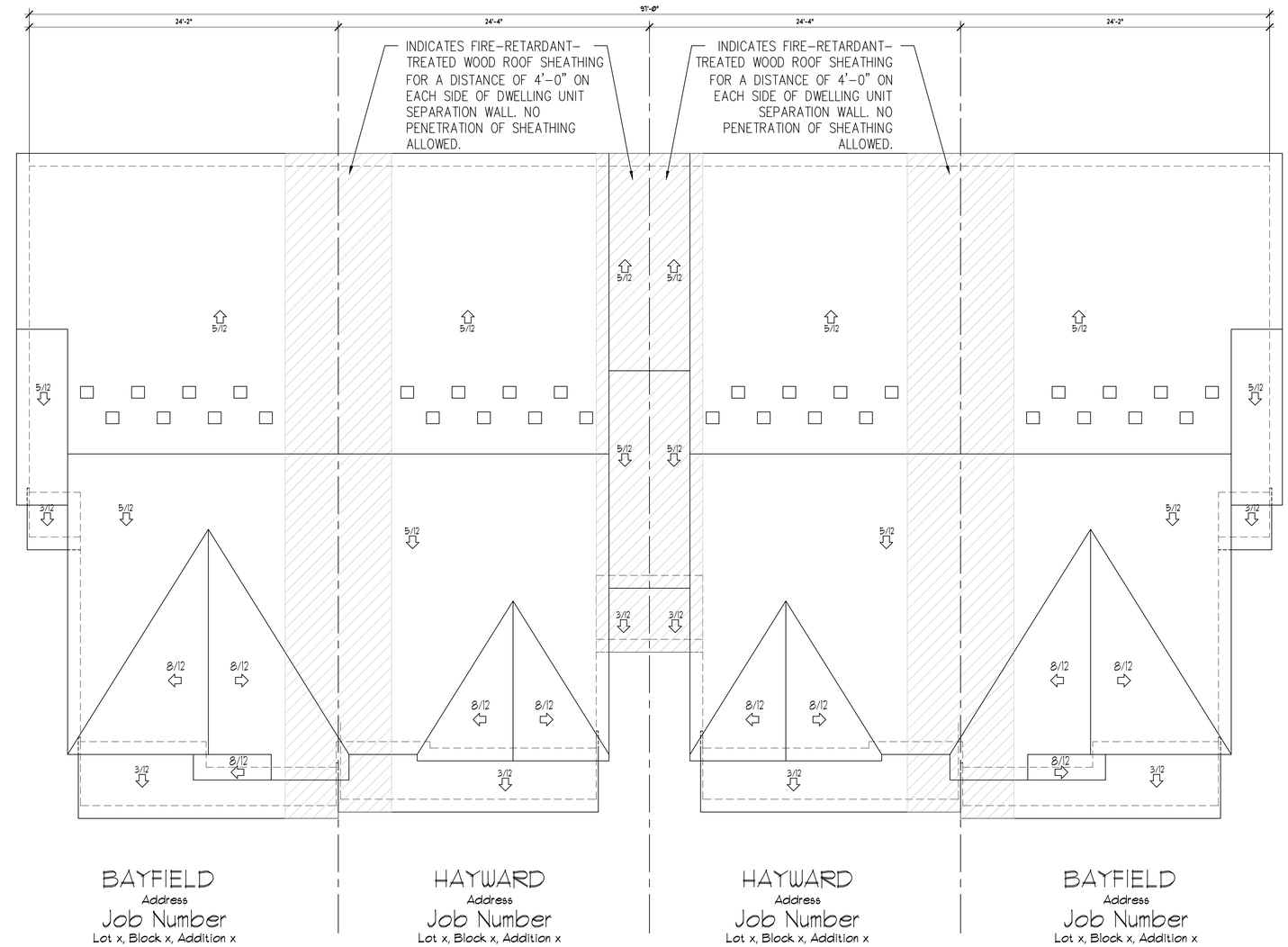
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Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Addition: Lot: -- Block: --

Elevation: A
Client: CUSTOMER
Model: CARRIAGE

Drawn By: PFG
Date: 11/02/2022
Job #: BUILDING --
Drawing No.: AA7

Sheet Title: SIDE & REAR ELEVATION




## ROOF PLAN NOTES

ROOF CONSTRUCTION

ASPHALT SHINGLES, 15/32" OSB SHEATHING WITH "H" CLIPS, ICE & WATER SHIELD. APPROVED WOOD TRUSSES (24") O.C. MAX. (2"x6") FASCIA, VENTED SOFFIT. ATTIC VENTILATION (R-49).

☐ DENOTES ROOF VENT. PROVIDE 1 S.F. VENTILATION AREA PER 150 S.F. OF ATTIC SPACE.

**1** ROOF PLAN
3/16"=1'-0"

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Address: STREET ADDRESS
City: CITY, MN
Addition: Lot: -- Block: --

Client: CUSTOMER
Elevation: A
Model: CARRIAGE
Drawn By: PFG
Date: 11/02/2022
Job #: BUILDING --
Drawing No.: AA8
Sheet Title: ROOF PLAN

## ENERGY CODE NOTES

A BUILDING CERTIFICATE SHALL BE POSTED ON THE ELECTRICAL PANEL WITH THE FOLLOWING INFO.:
DATE CERTIFICATE IS INSTALLED
ADDRESS OF HOUSE
CONTRACTORS NAME AND LICENSE NO.
TYPES OF INSULATION USED AND THEIR R VALUES
WINDOW U VALUES AND SOLAR HEAT GAIN COEFFICIENT
RESULTS OF BLOWER DOOR TEST.

BUILDING SHALL PASS A BLOWER DOOR TEST PERFORMED BY A THIRD PARTY AND MEET OR EXCEED R402.4.1 REQUIREMENTS (MRC).

MECHANICAL DUCTS WILL NOT BE LOCATED IN AN EXTERIOR WALL OR OUTSIDE THE BUILDING ENVELOPE

## GENERAL NOTES

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ALL CONSTRUCTION SHALL CONFORM TO THE 2020 MINNESOTA RESIDENTIAL CODE AND IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS AND COVENANTS.

DRAWING NOTES:
DO NOT SCALE DRAWINGS, USE NOTED DIMENSIONS. DIMENSIONS ON DRAWINGS ARE TO CENTER OR FACE OF FRAMING.

ELECTRICAL PANEL TO BE LOCATED ON SERVICE SIDE OF HOME. SEE PLANS FOR STANDARD LOCATIONS.

## SAFETY GLAZING NOTES

SAFETY GLAZING REQUIRED:
1. ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS.
2. WINDOW GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE FINISHED SHOWER OR TUB FLOOR.
3. WINDOWS LESS THAT 60" MEASURED HORIZONTALLY FROM WATER'S EDGE OF TUB OR SHOWER.
4. GLAZING THAT IS LESS THAT 36" ABOVE STAIR LANDINGS.
5. WINDOWS LESS THAN 18" ABOVE THE FLOOR.

## WINDOW FALL PROTECTION

WINDOW FALL PROTECTION SHALL MEET MINNESOTA RESIDENTIAL CODE REQUIREMENTS (R312.2)

## STAIR REQUIREMENTS

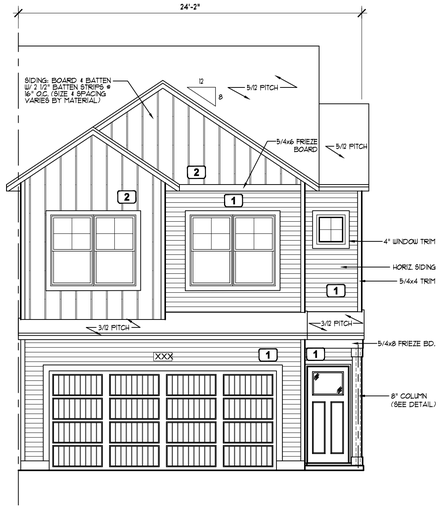
| | |
|---|---|
| MAX. RISE: | 7 3/4" |
| MIN. RUN | 10" |
| MIN. TREAD | 11" |
| MAX. NOSING | 1" |
| MIN. HEADROOM | 6'-8" |
| RAIL @ LANDING | 36" AFF. |
| RAIL @ STAIR | 36" AFF. |

## NOTE TO HOMEOWNER & LANDSCAPER

TO PREVENT MOISTURE PROBLEMS, FINAL GRADE SHOULD BE HELD 6" BELOW TOP OF FOUNDATION. FINAL GRADE SHOULD NOT BE HIGHER THAN 2" ABOVE BOTTOM OF BRICK.

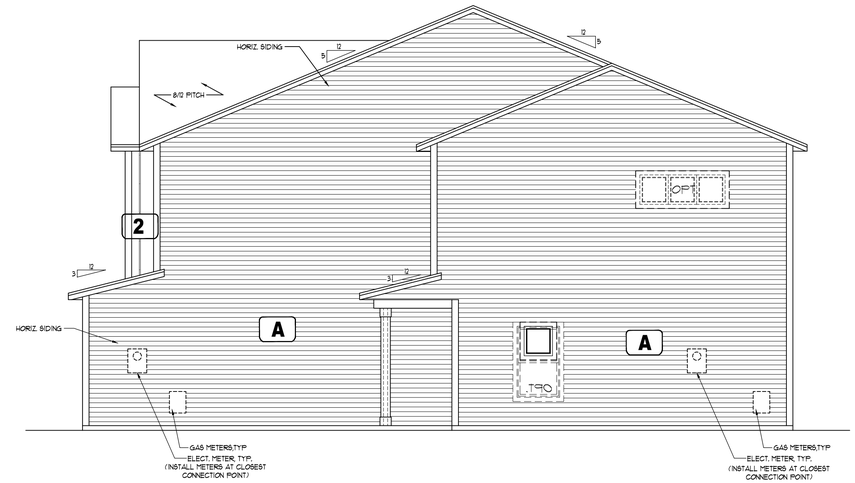
M/I HOMES REQUIRES A TAPERED DRIVEWAY AT 3RD CAR STALL. DRIVE SHOULD BE 20' WIDE AT CURB.

SEE SELECTION SHEETS FOR EXTERIOR FINISHES & COLORS **A**



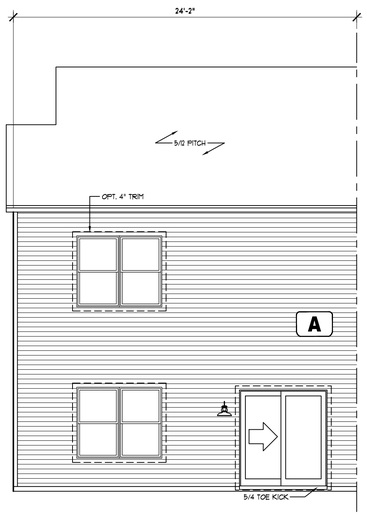

## 1 FRONT ELEVATION A

3/16"=1'-0"



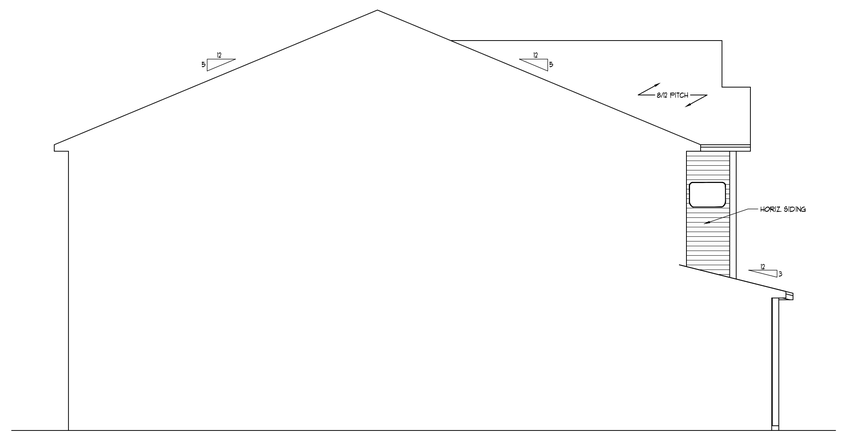

## 3 SIDE ELEVATION

3/16"=1'-0"




## 2 REAR ELEVATION

3/16"=1'-0"




## 3 SIDE ELEVATION

3/16"=1'-0"

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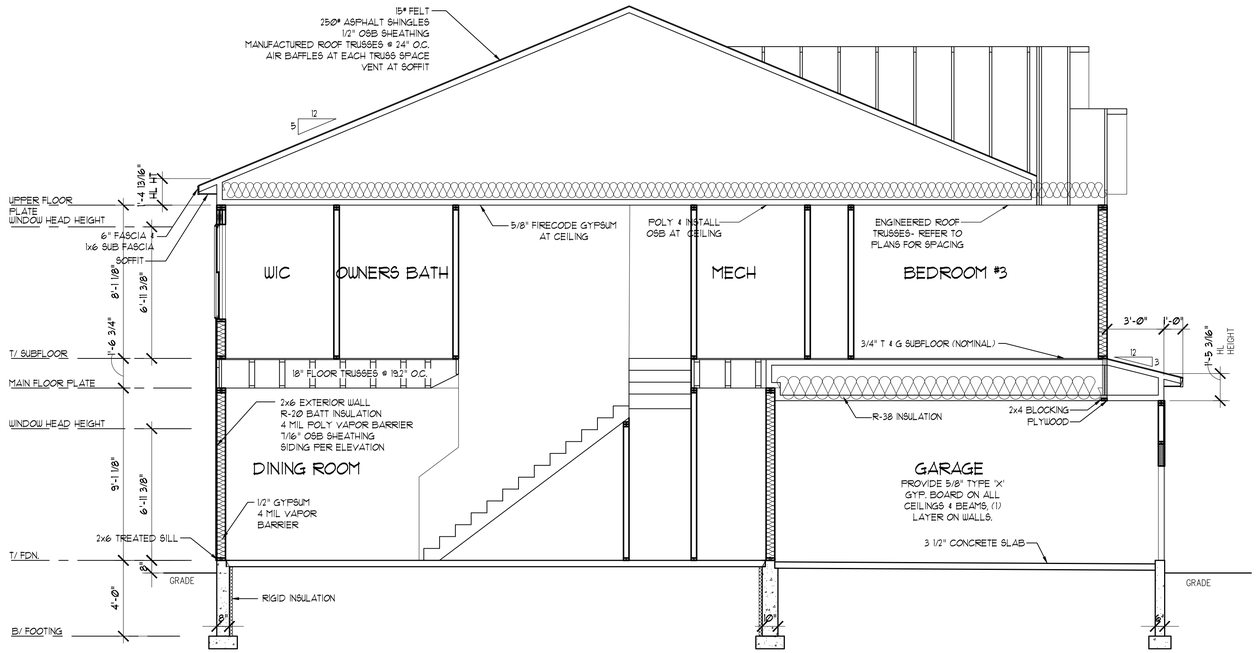
Final Approval — Date — X — X

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Community: COMMUNITY
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City: CITY, MN
Addition: ""
Lot: ""
Block: ""

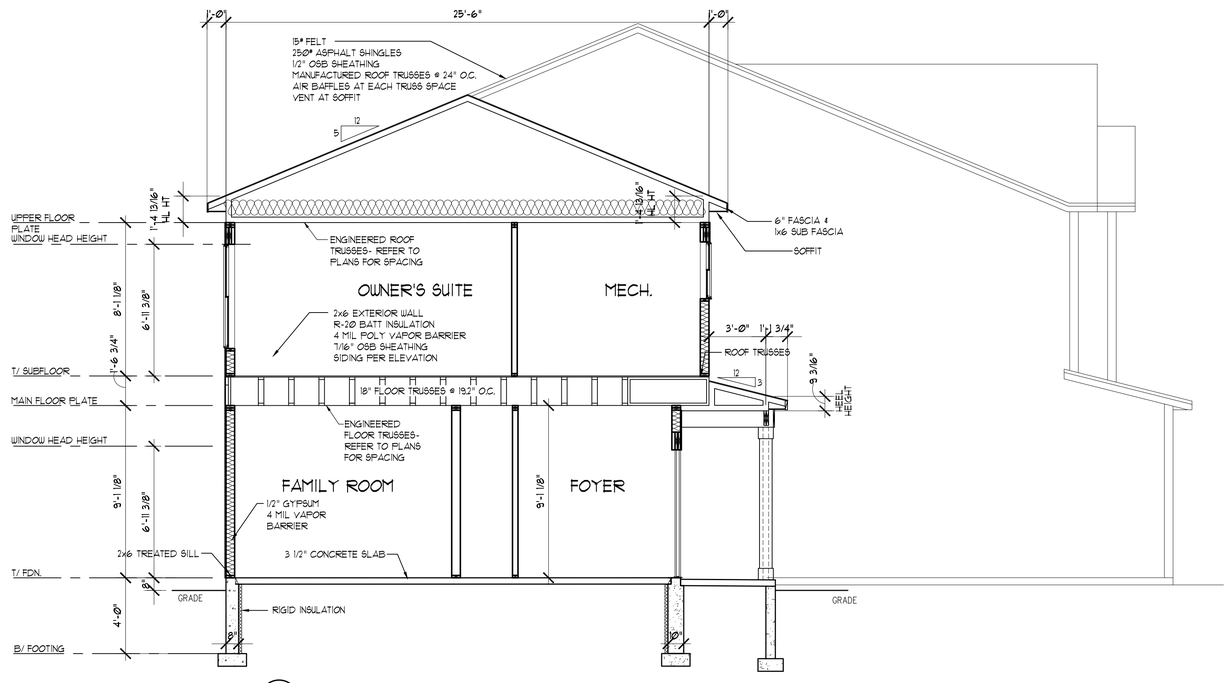
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Elevation: A
Model: BAYFIELD
Drawn By: PG
Date: 08-02-2023
Job # -------
Drawing No. A1

Sheet Title: ELEVATIONS




## 1 BUILDING CROSS SECTION @ GARAGE/HOUSE

1/4"=1'-0"




## 2 SECTION @ FRONT PORCH

1/4"=1'-0"

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

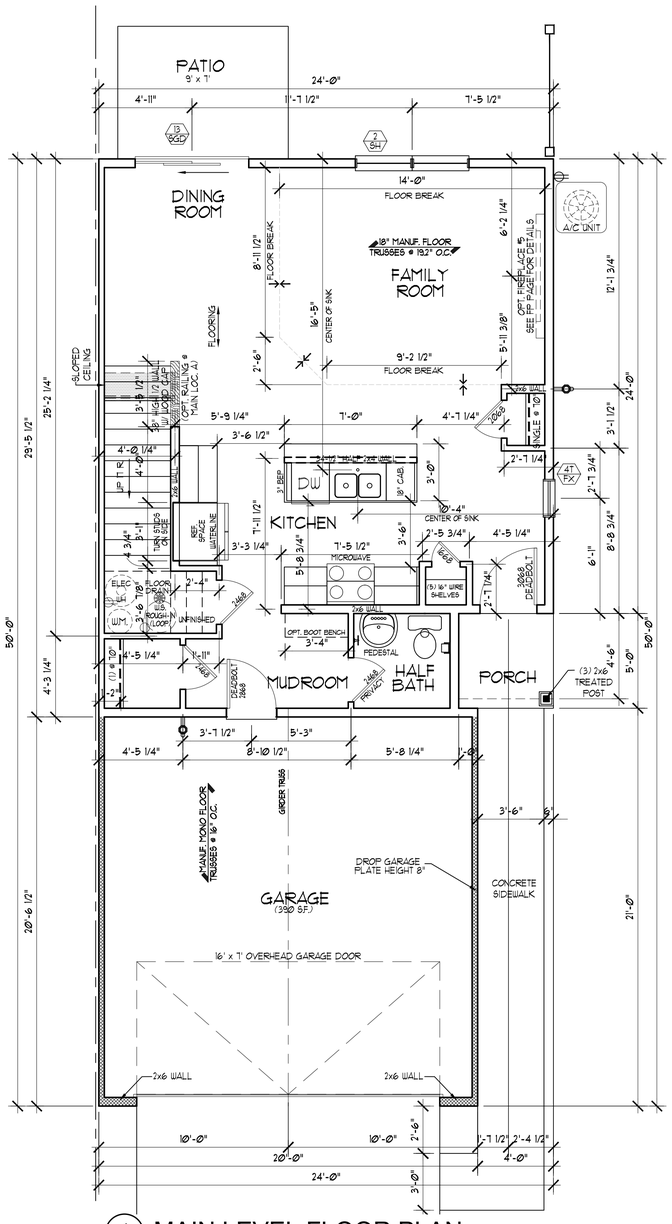
| Revisions / Custom Options | Date | By |
|---|---|---|
| | | |

These plans are exclusive property of MI Homes. All drawings and specifications are instruments of service copyrighted by MI Homes, Inc. and must be returned upon request. These plans are for construction purposes only. These plans are to vary from model homes and marketing materials. Contractor to verify suitability of plans with owner. These plans are exclusive property of MI Homes.

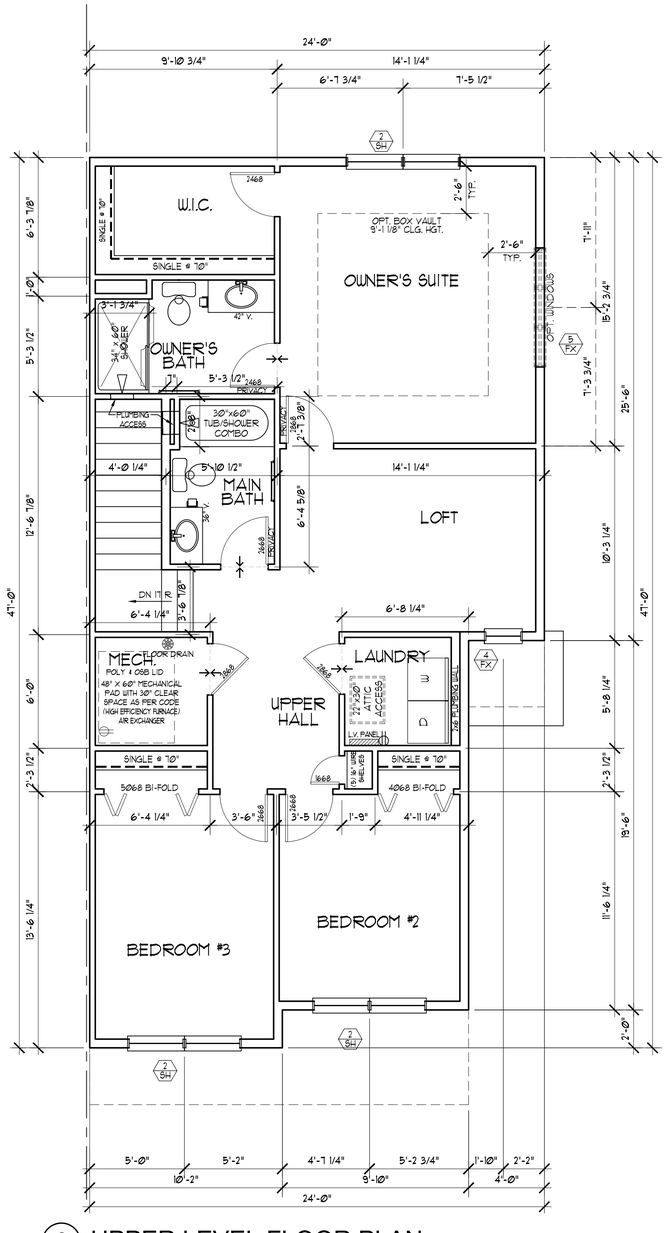
Final Approval Date
X
X

M/I HOMES
5354 Parkdale Dr. #100
St. Louis Park, MN 55416
763.586.7200
minneapolispermits@MIHOMES.com

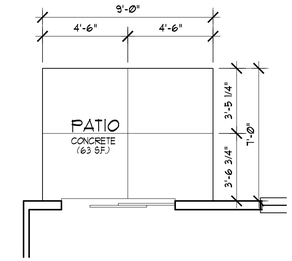
Community: COMMUNITY
Address: STREET ADDRESS
City: CITY, MN
Lot: --
Block: --
Addition:
Client: CUSTOMER
Elevation: A
Model: BAYFIELD
Drawn By: PG
Date: 08-02-2023
Job # -------
Drawing No. A2
Sheet Title: BUILDING SECTIONS




1 MAIN LEVEL FLOOR PLAN
1/4"=1'-0"




2 UPPER LEVEL FLOOR PLAN
1/4"=1'-0"




3 PATIO DETAIL
1/4"=1'-0"

## FLOOR PLAN NOTES

SEE ENGINEERING DRAWINGS FOR HEADERS, FOOTINGS AND BRACE WALLS IF NOT SHOWN ON PLAN.

WINDOW HEADER HEIGHTS - U.N.O.

| | |
|---|---|
| LOWER LEVEL: | N/A |
| MAIN LEVEL: | 6-11 3/8" |
| UPPER LEVEL: | 6-11 3/8" |

VERIFY WINDOW ROUGH OPENINGS W/ WINDOW SUPPLIER

CEILING HEIGHTS

| | |
|---|---|
| LOWER LEVEL: | SEE SECTION |
| MAIN LEVEL: | 9'-1 1/8" |
| UPPER LEVEL: | 8'-1 1/8" |

## LEGEND

- 2X4 OR 2X6 STUD WALL
- EXTERIOR WALL W/ BRICK OR STONE VENEER
- NON STANDARD PLATE HEIGHT, SEE PLAN OR DETAIL FOR ACTUAL HEIGHT
- 2X4 OR 2X6 KNEE WALL - SEE PLAN FOR HEIGHT
- DRYWALL FRAMED OPENING - SOFFIT @ 8'-Ø" U.N.O.
- FUTURE WALL

SEE SELECTION SHEET FOR FLOOR FINISHES & RAILING OPTIONS.

## FLOOR AREAS (S.F.)

| | |
|---|---|
| FOUNDATION: | 680 |
| FINISHED LOWER LEVEL: | N/A |
| MAIN LEVEL: | 680 |
| UPPER LEVEL: | 987 |
| TOTAL: | 1667 |

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| Revisions / Custom Options | Date | By |
|---|---|---|
| | | |

Final Approval — Date
X
X

M/I HOMES
5354 Parkdale Dr. #100
St. Louis Park, MN 55416
763.586.7200
minneapolispermits@MIHOMES.com

Community: COMMUNITY
Address: STREET ADDRESS
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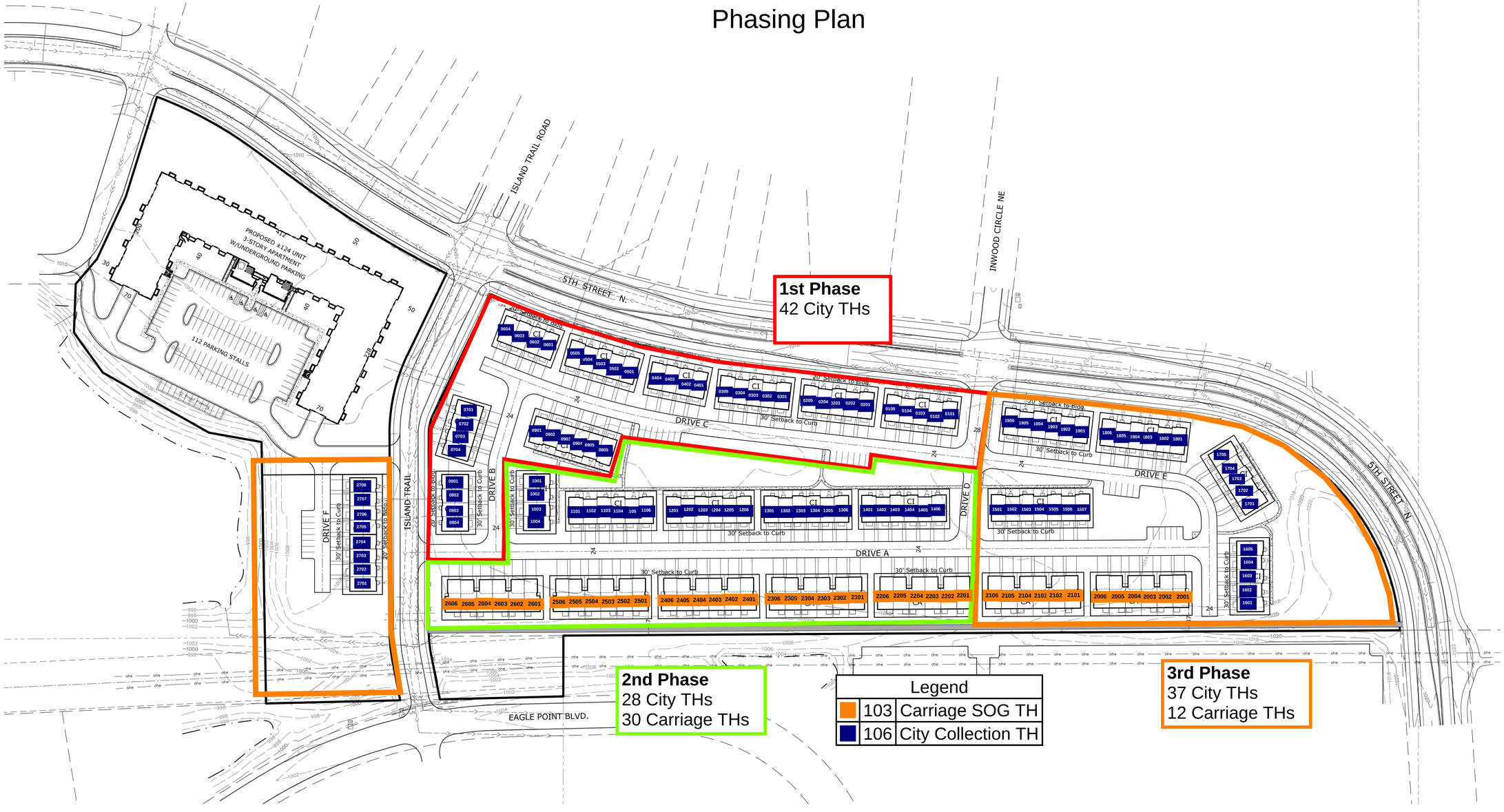
Client: CUSTOMER
Elevation: A
Model: BAYFIELD

Sheet Title: FLOOR PLANS

Drawn By: PG
Date: 08-02-2023
Job # --------
Drawing No. A3

This drawing is intended to be printed at 22"x34". Drawing is half scale when printed at 11"x17"

# Phasing Plan




## LEGEND

| | |
|---|---|
| CI | CITY COLLECTION TOWNHOME (ALLEY LOAD) |
| CA | CARRIAGE TOWNHOME (FRONT LOAD) |

## SITE DATA

| | |
|---|---|
| TOTAL SITE AREA | ±19.27 AC. |
| TOWNHOME AREA | ±14.68 AC. |
| APARTMENT AREA | ±4.59 AC. |
| TOTAL NUMBER OF UNITS | 273 |
| CITY COLLECTION TOWNHOME | 107 |
| CARRIAGE TOWNHOME | 42 |
| 3-STORY APARTMENT BUILDING | 124 |

TOWNHOME LOTS
MINIMUM RESIDENTIAL SETBACK DATA:
FRONT (5TH ST. OR ISLAND TRAIL)—20 FT.
FRONT (TO BACK OF CURB)—30 FT.
SIDE (BETWEEN BUILDINGS)—20 FT.
SIDE CORNER MIN.—20 FT.
REAR BLDG. MIN.(TO BOUNDARY)—30 FT.

## LEGAL DESCRIPTIONS

That part of OUTLOTS A, N & P, INWOOD and OUTLOT B, INWOOD SIXTH ADDITION as recorded in Washington County Surveyor's Office.

N

0 40 80 160
( SCALE IN FEET )


CARLSON McCAIN
ENGINEERING
SURVEYING
ENVIRONMENTAL
3890 PHEASANT RIDGE DRIVE NE, SUITE 100, BLAINE, MN 55449
TEL 763.489.7900 \ FAX 763.489.7959 \ CARLSONMCCAIN.COM


CONCEPT PLAN A
ALTERNATE

**THE TOWNS of INWOOD**
Lake Elmo, Minnesota

**M/I HOMES OF MINNEAPOLIS, LLC**
5354 Parkdale Drive, #100
St. Louis Park, Minnesota 55416

REVISIONS
1.
2.
3.
4.
5.
6.

| | |
|---|---|
| DRAWN BY: | C# |
| ISSUE DATE: | 12/03/2024 |
| FILE NO: | XXX |

REVIEW COPY



Save Date: 12/03/24 | C:\plats\5161 - 5180\5172-01 - inwood\par\SitSurvey\layout\51572-01 - sba 7.dwg

BOLTON & MENK

Real People. Real Solutions.

# MEMORANDUM

Date: April 7, 2025

---

To: Nathan Fuesrt, Planning Consultant
Jason Stopa, Community Development Director
Marty Powers, Public Works Director
Nate Stanley, City Engineer
Chad Isakson, Assistant City Engineer

Re: Inwood Townhomes
Preliminary Plat/Plans

From: Jack Griffin, Sr. Project Manager

---

An engineering review has been completed for the Inwood Townhomes Preliminary Plat/Plans received on February 27, 2025. The review consisted of the following documentation:

- Inwood Townhomes Preliminary Plat and Plans dated February 11, 2025.
- Stormwater Management Plan dated December 20, 2024.

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**STATUS/FINDINGS:** A condition of Preliminary Plat approval, if granted, must require the applicant to revise and resubmit Preliminary Plat/Plans to address each review comment and condition of approval to the satisfaction of City staff prior to the City accepting a Final Plat/Plan application. Engineering has prepared the following review comments to be addressed. A point-by-point response letter must accompany the plan resubmittal.

---

SITE PLANS, TRAFFIC AND ACCESS MANAGEMENT

1. Right-of-way dedication. No additional right-of-way dedication is required along 5th Street. Additional right-of-way dedication along Island Trail may be needed to accommodate turn lanes at the new proposed site accesses.
2. Access Management for East Parcel. The east parcel is allowed a single access location to 5th Street as shown at the Inwood Circle N. intersection, and a single access location along Island Trail.
3. Access Management for West Parcel. The west parcel may have a single new access location along Island Trail. The west Island Trail access location should be aligned with the Island Trail access location for the east parcel.
4. Turn lanes should be added along Island Trail for both the east and west access locations, each having more than 35 new units.
5. The subdivision phasing must provide secondary access for 30 or greater units per Fire Code adopted by the City.
6. No access will be allowed to Eagle Point Boulevard due to limited access spacing.
7. Secondary access for the proposed 124-unit apartment building is required per Fire Code. The secondary access must connect to the shared driveway for Outlot A of the Inwood 6th Addition. A shared driveway easement has been created for this connection as part of the Inwood 6th Addition. The access design should be improved to encourage equal distribution of traffic to the 5th Street and Island Trail access locations.

8. The subdivision proposes 24-foot wide private streets with no sidewalks adjacent to the street. City design standards require public streets for medium and high-density residential subdivisions to be minimum 32-feet in width located within a 66-foot right-of-way. Sidewalks are also required along both sides of the public street.
9. The proposed design is not recommended as presented due to significant narrowing of the street and utility corridors, and increased conflicts between various design elements. If the City approves the Preliminary Plat, the Plans must be further detailed and revised to eliminate encroachments and conflicts between public watermain and public sanitary sewer, private storm sewer, small/dry utility corridor preservation, trees and landscaping, drainage, and pedestrian facilities.
10. Whether the streets are public or private, all street intersections must be at 90 degrees and maintain 50-ft of tangent with maximum longitudinal slopes of 2.5%. Plan revisions are required accordingly.
11. Driveways must be further detailed, labeled and dimensioned to demonstrate compliance with all requirements of the City Code. Plan revisions are required. Particular attention should be detailed on the plans to demonstrate compliance with the required offsets from the right-of-way at intersections, the required offsets from side lot lines, the driveway separation distance requirements, and connection of each driveway to the public street at 90-degree angles.
    - Lot 64, Block 3 must be revised to increase the driveway setback to 50-feet from the Island Trail intersection per City driveway standards.
    - Lots 9 and 10, Block 2; and Lots 19-22, Block 3; include driveways located on dead-end streets with no City standard turn around. Redesign is recommended or approval is required from the City Planning and Fire Departments.
    - Lots 13-17, Block 3 are located on a curve with the driveways failing to intersect the street at 90-degrees as required. Redesign is recommended for these lots to revise driveway layout, and utility service layout. Horizontal geometrics for this curve must be detailed for City review.
12. Dedicated drainage and utility easements, minimum 10-feet wide, are required along all public roadway frontage, including 5th Street and Island Trail. Small/dry utility corridor preservation is also required along all private streets (if allowed). All easement areas must be free from all encroachments other than those approved by the City Engineer and upon execution of an easement encroachment agreement. Prohibited encroachments include, but are not limited to trees, structures, landscaping, fences, retaining walls, storm sewer running parallel with the easement, stormwater basins and BMPs, and grading that exceeds 4:1.

STORMWATER MANAGEMENT

1. The proposed development is subject to a Stormwater Management Plan (SWMP) meeting State, South Washington Watershed District (SWWD) and City rules. A SWWD permit is required.
2. The Preliminary Plat includes improvements that reside within the larger Inwood subdivision in which stormwater management provisions have been previously designed, permitted and constructed. The site design will create 10.64 acres of new impervious surfaces, or 55 percent impervious surfaces. The existing stormwater management system constructed with previous Inwood development phases assumed these parcels would contain 75% impervious surfaces. Therefore, the existing stormwater management system will accommodate the subdivision as proposed.
3. Approval of the Preliminary Plat/Plans for the development is contingent upon all SWMP revisions, as required by the SWWD or other applicable permitting agency, being submitted to the City for review and approval.
4. Approval of the preliminary grading and storm sewer plans for the development is contingent upon all grading plans being reviewed and approved by the City Engineer prior to the start of any grading or construction.

5. Overland emergency overflow (EOF) elevations are required throughout the site, requiring a system of interconnecting drainage ways. Low openings for adjacent structures must maintain 1-foot above any adjacent EOF in the as-built condition.
6. Plan revisions may be required to meet City design standards and to mitigate all encroachments.
7. All storm sewer systems internal to the subdivision will be privately owned and maintained. A Stormwater Management Maintenance and Easement Agreement in the City's standard form of agreement must be executed and recorded with the Final Plat for all privately owned stormwater facilities. Easement areas must incorporate all 100-year high water level areas including localized low points, and to protect all overland emergency overflow locations and flow paths. Easement revisions may be necessary to reflect any revisions to the construction plans.

MUNICIPAL WATER SUPPLY

1. Connection to the public watermain system is readily available to serve each proposed development parcel. The developer will be required to connect to existing watermain stubs located along 5th Street and Island Trail and extend the public watermain system internally throughout the subdivision. All public watermain improvements must be installed in accordance with the City engineering design standards and as approved by the City.
2. Hydrants and gate valves must be installed as directed by the Fire Department and Public Works Department. All hydrants and connecting watermains shall be owned and maintained by the City.
3. All watermain improvements must be completed at developer's sole cost including all City connection and availability charges.
4. Watermain distribution lines and connections will be required wherever reasonably possible to create a looped network throughout the proposed subdivision and as the project is phased.
5. Minimum 30-foot easements centered over the pipe/hydrant will be required when not located within the public right-of-way. Easements must be free from all encroachments, including retaining walls, trees, fences, small/dry utilities, or storm water management BMPs. Dedicated utility easements must be shown on all site, grading, utility, and landscape plans when submitting a Preliminary and Final Plat application.
6. Plan revisions will be required to meet City design standards and to mitigate all encroachments.

MUNICIPAL SANITARY SEWER

1. The proposed property is located in the Southwest Planning MUSA and current Regional Sewer Staging Plan area and would discharge to the MCES WONE Interceptor.
2. Connection to the municipal sanitary sewer system is readily available to serve each proposed development parcel. The developer will be required to connect to existing 8-inch sanitary sewer stubs located along Island Trail and extend the public sanitary sewer system internally throughout the subdivision to serve each platted lot/parcel and in accordance with the City engineering design standards.
3. All sanitary sewer improvements must be completed at developer's sole cost including all City connection and availability charges.
4. All public sanitary sewer mains placed within the development will require minimum 30-foot easements centered over the pipe/structure, if not located within a public right-of-way. Easements must be free from all encroachments, including retaining walls, trees, fences, small/dry utilities, or storm water management BMPs. Dedicated utility easements must be shown on all site, grading, utility, and landscape plans when submitting Preliminary and Final Plat applications.
5. Plan revisions will be required to meet City design standards and to mitigate all encroachments.

**LAKE ELMO FIRE DEPARTMENT – OFFICE OF THE FIRE MARSHAL**

***Fire Prevention, Code Enforcement, and Public Education***

March 4, 2025

Ashley Monterusso, Planner
City of Lake Elmo

Re: Inwood 8th Addition – Apartments and Townhomes

Prepared by: Anthony Svoboda, Fire Marshal
Approved by: Dustin Kalis, Fire Chief

Applicable Codes:

- 2020 Minnesota State Fire Code
- 2020 Minnesota State Building Code
- Lake Elmo Fire Department Fire Code Policies
- NFPA 13, 2016 edition
- NFPA 13D, 2016 edition

Fire Department Comments:

***Roads, Drive Lanes, and Parking Areas***

- All roads and drive lanes shall meet the Lake Elmo Fire Department requirements for widths and turning radiuses.
- Approved fire apparatus roads shall be provided and maintained throughout all development phases in coordination with engineering, public works, planning, and fire departments.
- An approved signage and marking plan shall be determined for all No Parking and Fire Lane access roads. On- street parking shall be provided in approved locations following review by Engineering and Public Works. Parking shall be prohibited on both sides of private drive lanes.
- All parking areas shall be capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds.

***Fire Detection and Suppression***

- Fire sprinkler systems shall be installed in the townhome buildings compliant with provisions of 2016 NFPA Standard 13D, Installation of Sprinkler Systems in One- and Two-Family Dwellings or IRC P2904. City permit required prior to initiation of work.
- Fire sprinkler system shall be installed in the apartment building compliant with provisions of 2016 NFPA Standard 13, Installation of Sprinkler Systems. City permit required prior to initiation of work.
- Standpipes shall be installed in the apartment building compliant with 2016 NFPA 14, Standard for the Installation of Standpipe and Hose Systems.
- Fire Department sprinkler connection locations to be approved prior to installation.
- Fire alarm system in the apartment building shall be installed compliant with provisions of 2016 NFPA Standard 72, National Fire Alarm Code. City permit required prior to initiation of work.
- Fire hydrants and watermain shall be provided in approved locations following review by Engineering and Public works.

**LAKE ELMO FIRE DEPARTMENT – OFFICE OF THE FIRE MARSHAL**

***Fire Prevention, Code Enforcement, and Public Education***

***Building Systems and Equipment***

- Locations of all EV charging stations or Electric Vehicle Supply Equipment shall be reviewed and installed in approved locations. All electric vehicle supply equipment installed in the apartment building underground parking area may require additional fire suppression considerations and restrictions on installation locations. An electric vehicle supply equipment plan is required. This plan shall be reviewed by the fire department, building contractor, building owner and building insurance provider.
- Emergency egress illumination shall be installed in the apartment building in the means of egress including exit discharge compliant with 2020 MSFC.
- Compliant exit signage shall be installed in the apartment building as required by the 2020 MSFC.
- Provide and install in the apartment building, dry chemical fire extinguishers certified for service and tagged as required. Service classification rating shall be a minimum 2A classification rating and maximum travel distance of 75 feet to extinguishers. The minimum classification rating may be upgraded for special or extra hazard areas within the occupancy.
- In the apartment building, rooms containing controls for air-conditioning systems, roof access, elevator equipment, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location, shall be constructed of durable materials, permanently installed and readily visible.

***Address and Street Naming Systems***

- Building address numbers shall be plainly visible from the street fronting the property and shall be contrasting color from the background.
- Size and placement of address numbers shall be approved by the fire and planning departments.
- Street names and addressing shall be consistent with the Washington County Uniform Street Naming and Property Numbering System. Street names shall be approved by the City of Lake Elmo.

***Gates, Locks, and Access***

- Project construction phasing shall always accommodate emergency access to the entire construction zone, generally meaning two separate means of entrance/exit as defined in the code. Phasing plan to be approved by the fire department prior to construction.

Questions, clarifications, or the request to provide code documents can be made using the contact information listed below.

Respectfully,

Anthony Svoboda

**Anthony Svoboda** | Assistant Chief
Lake Elmo Fire Department
3880 Laverne Ave N. | Lake Elmo, MN | 55042
612-528-1514 *mobile* | 651-747-3907 *office*

# Memorandum

March 6, 2025

TO: ASHLEY MONTERUSSO

FROM: SARAH EVENSON, PLA

RE: TOWNS OF INWOOD LANDSCAPE AND TREE PRESERVATION CONCEPT PLAN REVIEW

## SUBMITTALS

1. Concept Plan Submittal, dated 8/9/24, received 8/26/24

## REVIEW HISTORY

1. 9/12/24 Concept Plan Review
2. 3/6/25 Preliminary Plat PUD Review

**LOCATION:** East of Inwood Ave N, between 5th Street N. to the north and east and Eagle Point Blvd. to the south

**CURRENT LAND USE CATEGORY:** High-density residential and guided high-density residential and mixed-use commercial

**ADJACENT AND SURROUNDING LAND USE:** Business Park to the south, high-density residential to the west, low-density residential to the north, and Public Facilities to the north and east

**SPECIAL LANDSCAPE PROVISIONS:** none

**TREE PRESERVATION PLAN:** 105. 12. 470

- The applicant has provided a tree preservation plan that meets code.

**LANDSCAPE PLAN:** 105.12.480

- The following changes will need to be made to the landscape plans prior to acceptance:
  - Provide a plant schedule showing the ground covers and tree species proposed on each sheet for easy reference (currently only shown on one sheet all together at the end)
  - Show the location of a topsoil stockpile on the grading plans
  - Confirm that per 05.12.480 (b) (7), trees shall be planted ten feet away from utilities including water and sewer stubs.

**RECOMMENDATION:**

Submit revised landscape plans per code.



**Sarah Evenson, PLA (MN)**
City of Lake Elmo Municipal Landscape Architect
P: (262) 391-7653 E: sarah@hkgi.com

800 Washington Avenue North, Suite 207
Minneapolis, MN 55401

HKGi
Planning | Landscape Architecture | Urban Design

**ADMINISTRATION**
Kevin Corbid, County Administrator
Jan Lucke, Deputy County Administrator
Jennifer Wagenius, Deputy County Administrator

March 7, 2025

Ashley Monterusso
City Planner
City of Lake Elmo

**RE**: Inwood Townhomes - Comprehensive Plan Amendment

Ms. Monterusso:

Washington County received and reviewed the documents for the Inwood Townhomes Comprehensive Plan Amendment application requesting the Future Land Use Category be changed from Mixed Use Commercial to High Density Residential.

The departments of Public Works and Public Health and Environment reviewed the documents provided by the City of Lake Elmo on February 27th. It was identified through this review that the development proposed is located in a DWSMA and known area of PFAS contamination. Best management practices as outlined by MDH and MPCA should be implemented to protect public health. Washington County's Public Works Department had no additional comments.

Thank you for the opportunity to comment.

Sincerely,

Kelli Matzek
Senior Planner
Washington County – Office of Administration

Cc: Emily Jorgensen, Washington County Planning Manager