

**CITY OF NORTH ST. PAUL PLANNING COMMISSION  
REGULAR MEETING AGENDA  
THURSDAY, AUGUST 13TH, 2020  
6:15 PM**

North St. Paul City Hall – Council Chambers  
2400 Margaret Street

The City of North St. Paul has moved all of its public meetings online effective August 4, 2020. The move to online meeting access via Zoom ensures compliance with the Governor’s Emergency Executive Order and face covering mandate while providing our City Council members, staff and residents with safe and comfortable access to public meetings. Access information and links to meetings are available at northstpaul.org. This change to online meeting access will remain in effect until further notice. (Stat. 13D.02 subd. 4)

**The August 13<sup>th</sup> Zoom meeting can be accessed [HERE](#) or via:  
<https://wsbeng.zoom.us/> (from a PC, Mac, tablet, iPhone or Android device)  
**Meeting ID: 230 597 443**  
**Password: 663246**  
**or by phone at 1-929-205-6099, meeting ID 230 597 443, password 663246.****

The Planning Commission Zoom meeting will be ‘open to the public’ to listen in, but will be muted from contributing at all times with the exception of a Public Hearing and open to the public forum.

**Please join the meeting early to test your audio and video settings. If you join via a device and your audio is not working, you may need to use the dial-in phone number option in order to be heard.**

**I. CALL TO ORDER**

**II. ROLL CALL**

COMMISSION

Elaine Barton, Commission Chair

Patrick Bles, Commissioner – EXCUSED ABSENT

Rick Gelbmann, Commissioner – EXCUSED ABSENT

John Monge, Commission Vice-Chair

Tom Sonnek, Commission City Council Liaison

Michael Stahlmann, Commissioner

Allan Worm, Commissioner

STAFF

Erin Perdu, Planning Consultant

Olivia Boerschinger, Planning Secretary

**III. ADOPT AGENDA**

**IV. APPROVAL OF MINUTES**

*Minutes from the August 6<sup>th</sup> meeting will be approved at the September Planning Commission meeting.*

**V. MEETING OPEN TO THE PUBLIC**

*Note: This is a courtesy extended to persons wishing to address the Commission concerning issues that are not on the agenda. This discussion will be limited to 15 minutes.*

**VI. PUBLIC HEARING**

- A. Preliminary/Final Planned Unit Development, Preliminary/Final Plat for development of 12 townhouse units at 2239 17<sup>th</sup> Avenue E.

**VII. COMMISSION BUSINESS ACTION ITEMS & RECOMMENDATIONS**

- A. Preliminary/Final Planned Unit Development, Site Plan Review, and Preliminary/Final Plat for development of 12 townhouse units at 2239 17<sup>th</sup> Avenue E.

**VIII. OLD BUSINESS**

**IX. REPORTS FROM STAFF**

**X. REPORTS FROM COMMISSIONERS**

**XI. ADJOURNMENT**

**The next regularly scheduled Planning Commission Meeting is Thursday, September 3, 2020 at 6:15 p.m.**

## **MEMORANDUM**

Date: 8/11/2020  
To: Planning Commissioners  
From: Erin Perdu, AICP, City Planner  
Morgan Dawley, PE, City Engineer  
CC: Scott Duddeck, City Manager  
Re: Preliminary/Final Planned Unit Development, Site Plan Review and Preliminary/Final Plat for development of 12 townhouse units at the Intersection of Delaware Avenue and 17<sup>th</sup> Avenue (2329 17<sup>th</sup> Avenue E).

## **BACKGROUND**

Paul Bruggeman is requesting approval of a Preliminary/Final Planned Unit Development (PUD), Site Plan, and a Preliminary/Final Plat to facilitate the development of a revised concept (October 2019) for 12 townhouse units at 2329 17th Avenue E. The subject site is a vacant, City-owned, 2.48-acre parcel.

The concept plan for the current submittal was reviewed by the Planning Commission in October 2019. At that time, consensus was given for the plan which reduced the number of townhouse units from 18 to 12 and removed all development from the easterly portion of the property.

At the September 3, 2019 City Council meeting the parcel was rezoned from R-1 to the R-2 Mixed Residential District. The R-2 District allows residential townhomes as a permitted use and allows density at 5.6 – 7.3 units per acre. The 2040 Comprehensive Plan guides this site for Medium Density land uses including townhomes and attached residences at densities between 5.6 and 12 units per acre.

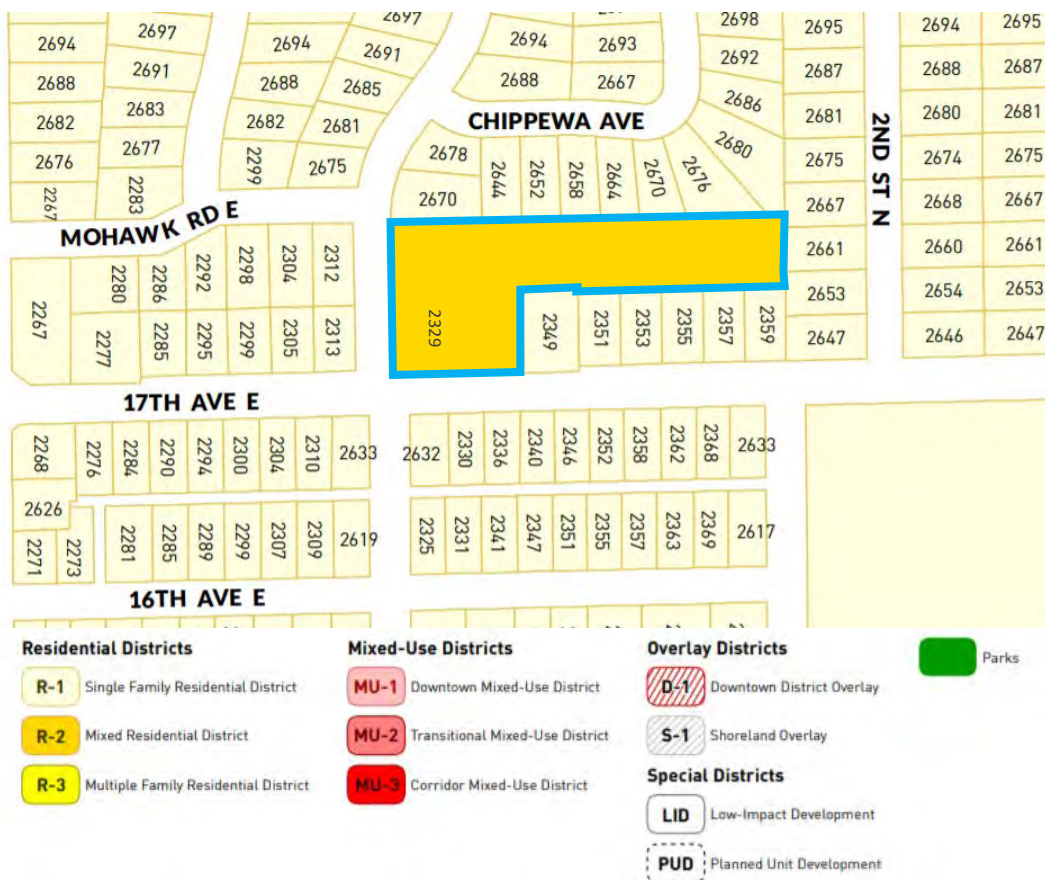
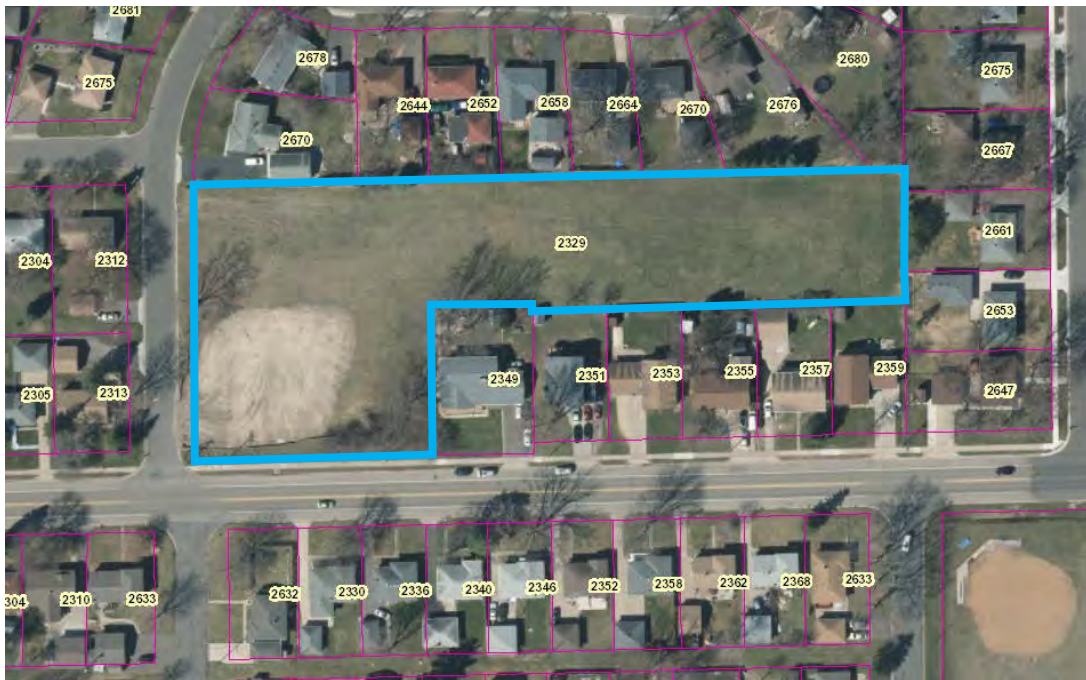
The applicant is requesting preliminary and final plat approval to plat the existing lot as a Common Interest Community (CIC). The function of a CIC plat is to allow common areas such as the driveway and yard could be owned and managed by a homeowner's association. The plat included individual lots for each unit and splits off the easterly

A Residential Planned Unit Development is being pursued as the townhome lots will be substandard with regard to dimensional standards as the private road and stormwater area are not included in the individual sites. The Residential Planned Unit Development is the form of approval that provides flexibility in dimensional standards in exchange for a mix of land uses, housing types, density, sustainability and creativity in land planning. In this instance the Planned Unit Development allows the property to be developed for medium density residences, which would be more difficult should all the R-2 district requirements apply.

Site Plan review is also required as the proposal represents more than 1,000 square feet of multiple residential units on one site.

The applicant was the successful respondent to the RFP from the City's Economic Development Authority (EDA) for development of the subject City-owned parcel. Initially, the proposal included 22 units, but was revised based on concerns from the EDA. Additionally, the EDA

requested that the development contain single-level dwellings and two-car garages which are included per the applicant.





## GENERAL STAFF REVIEW

Elements of the PUD, Site Plan and Plat review are organized in the following staff report by topic area.

### Consistency with the City Plans

- 154.004 (D)(2) Rezoning Standards (b) *The proposed amendment is consistent with the general purposes and intent of the Comprehensive Plan.*
- 154.004 (D)(2) Rezoning Standards (f) *If applicable, the proposed amendment is consistent with officially adopted city plans and overlays.*
- 154.008 (C)(4) PUD General Standards (a) *Consistency with Comprehensive Plan. The proposed PUD shall be consistent with the Comprehensive Plan.*

The 2040 Comprehensive Plan guides this site for Medium Density Residential land uses at densities between 5.6 and 12 units per acre. This future land use designation is meant to accommodate townhomes and other small-scale attached residential structures. The proposed PUD would enable the development of 12 townhome units on 1.74 acres of the site (the remaining area will be dedicated to the City as a public park). The resulting residential density is 6.89 units per acre, which is consistent with the recommendations of the Comprehensive Plan.

### Health, Safety, and General Welfare

- 154.004 (D)(2) Rezoning Standards (b) *The proposed amendment will not adversely affect the health, safety, or general welfare of the city;*

The subject requests would enable the development of medium density residential land uses. Surrounding land uses are low density residential. Adverse impacts on health, safety, or the general welfare of the City are not likely from the proposed rezoning or the resulting development particularly given the reconfiguration that leaves the east side of the development as public open space.

### Compatibility with Surrounding Context

- 154.004(D)(2) Rezoning Standards (c) *The proposed amendment is compatible with present and future land uses in the surrounding area and reasonably related to the overall needs of the city;*
- 154.004(D)(2) Rezoning Standards (d) *The proposed amendment is compatible with adjacent properties;*
- 154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria. (D). *The arrangement of buildings, structures, and accessory uses does not unreasonably disturb the privacy or property values of the surrounding residential uses.*
- 154.008 (C)(4) PUD General Standards (f) *Relationship of PUD site to adjacent areas. The design of a PUD shall take into account the relationship of the site to the surrounding areas. The perimeter of the PUD shall be so designed as to minimize undesirable impact of the PUD on adjacent properties and, conversely, to minimize undesirable impact of adjacent land use and development characteristics on the PUD.*

- *154.010(E)(3) General Architectural requirements (g) Protection of views. Buildings shall be designed and oriented so as not to detract from one another or to unduly restrict views to open spaces, plazas and vistas.*

The proposed townhome development is consistent with the future land use designation for this site and the surrounding properties. The Medium density residential use of the site appears to be designed in a manner that provides a reasonable transition to the adjoining R-1 zoning areas.

The buildings are arranged with the rears or sides of the units facing the perimeter of the site. The fronts of the units are facing an interior private road with the exception of one building which is facing Delaware Ave.

The rear elevations of the townhome units whose back faces 17<sup>th</sup> Ave. E. have been revised from the original submittal to reflect a more “front façade” feel. Staff does, however, question the doors shown on the rear elevation (under the covered porches): the door on the left appears to be a standard door and the door on the right appears to be a screen door. It is unclear which door will be used.

The submitted building elevations indicate that the proposed townhome structures would have designs and materials consistent with the general residential form in this area of the City. The perimeter of the development is primarily sodded lawn, which provides an appropriate transition between adjoining properties.

The general character of the development is consistent with the residential surroundings of the subject site. The perimeter of the development is primarily sodded lawn and trees, which provides an appropriate transition between adjoining properties.

#### Proposed Uses

- *154.006(C)(1) Permitted, Conditional, and Interim Uses refers to Table 3 for allowed uses within the residential districts.*
- *154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria. (H) Proposed unit and accessory use requirements are in compliance with the district provisions in which the development is planned.*
- *154.008 (C)(4) PUD General Standards (c) Permitted uses. All permitted, conditional, and interim uses contained in the underlying zoning district shall be treated as permitted, conditional, and interim uses in the PUD Overlay District.*

Townhomes and Planned Unit Developments are a permitted use in the R-2 Zoning District. The proposed townhome use is permitted in the R2 District.

There are no overlays governing the subject site, and as noted above the project is consistent with the types of land uses envisioned for the site by the 2040 Comprehensive Plan. The proposal is also consistent with the PUD intent of allowing for innovative site design.

### Proposed Lot/Building Dimensional and Setback Requirements

- 154.006(C)(3) refers to Table 4 for the lot requirements within the residential districts.
- 154.008 (C)(4) PUD General Standards (l) Building height. Height limitations shall be the same as imposed in the respective zoning districts.
- 154.008 (C)(4) PUD General Standards (d) Density. Increased density shall be permitted to encourage the preservation of natural topography and geological features. The city may, but shall not be required to, provide concessions in setbacks, density, or lot size to protect waterways or water bodies, steep slopes or other areas which would normally not be developable. The city will consider allowing an increase in the allowable density upon proof by the applicant that some of the following features are being provided as part of the proposed development:
  - i. Preservation of natural site features, wetlands, lowlands, wooded areas, and the like, protected by the Minnesota Department of Natural Resources, by the city and/or Ramsey County ordinances.
  - ii. Creation of conservation easements due to steep slopes, wooded areas and/or environmentally sensitive areas, as identified in the Comprehensive Plan.
  - iii. Creation of park/public areas for active and passive park uses beyond required standards or other public purposes such as schools, public buildings, greenways, and the like which meet the intent of the Park and Recreation goals of the Comprehensive Plan and are consistent with the public dedication requirements for the proposed development.
  - iv. Installation of public improvements designed to serve areas beyond the project boundary.
  - v. The city may consider increased density for housing projects which provide affordable housing options, consistent with the Comprehensive Plan.
- 154.008 (C)(4) PUD General Standards (e) Minimum lot size. The minimum lot size requirements of other sections of this chapter do not apply to a PUD except that the minimum lot size requirements of the underlying zone shall serve as a guideline to determine the maximum dwelling unit density of a total development. The maximum dwelling unit density shall be determined by the area remaining after appropriate space for street rights-of-way and any other public dedications have been determined and subtracted from the total PUD area. If the property involved in the PUD includes land in more than one zoning district, the number of dwelling units or the square footage of commercial, residential or industrial uses in the PUD shall be proportional to the amount that would be allowed separately on the parcels located in each of the underlying zoning districts.

A summary of the information included in Table 4 is provided below. (Items underlined are areas where the lot(s) do not meet zoning standards and therefore require deviations allowable in a PUD):

| <b>Requirement</b> | <b>R-2 (Existing Zoning Designation)</b> | <b>Proposed Townhome Lots (PUD Overlay)</b> |
|--------------------|------------------------------------------|---------------------------------------------|
| Minimum Lot Area   | 5,967 sf per dwelling unit               | <u>2,660 – 3,690</u> sf per dwelling unit   |

| Requirement                      | R-2 (Existing Zoning Designation)   | Proposed Townhome Lots (PUD Overlay)                                                                                                                       |
|----------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum Lot Width                | 60 ft                               | <u>33.8 ft – 47 ft</u>                                                                                                                                     |
| Front Yard Setback               | 25 ft                               | <u>9-14 ft.</u>                                                                                                                                            |
| Rear Yard Setback                | 25 ft                               | <u>8.5-17 ft.</u>                                                                                                                                          |
| Side Yard Setback                | 6 ft internal, 15 ft corner         | <u>5-12 ft interior</u><br><u>0 ft</u> where units are attached<br><u>13.5 ft corner</u>                                                                   |
| Maximum Height                   | Two (2) stories or 35 ft. in height | The submitted building renderings show heights of 16feet (one story units) to 22.5 feet (two story units) as measured to the midpoint of the highest gable |
| Limit of Surfacing in Front Yard | 40%                                 | <u>43-59%</u>                                                                                                                                              |
| Minimum Livable Space            | 900 sf 1 story, 1,200 sf 2 stories  | 1,286 sf (one-story) - 1,873 sf (two-story)                                                                                                                |
| Lot Coverage                     | 40%                                 | <u>Individual lots: 44.4%-61.5%</u><br>29.7% overall site (including outlots)                                                                              |
| Density                          | Medium (5.6 – 7.3 units/ac)         | 6.89 units per acre                                                                                                                                        |

The proposed density is consistent with the requirements of the underlying R-2 Zoning District. Increased density is not proposed. Relief from dimensional requirements including lot width, lot area, lot coverage, front, rear, side and corner side setbacks is requested in order to separate the on-site stormwater treatment facility and the private street into a commonly owned facility. These facilities would be managed and maintained by the entity as established through the common interest community process. This form of development allows for a medium density project as intended by the Comprehensive Plan; the site would not be able to support separately platted lots at this density due the greater area that would need to be dedicated for a public road and the area needed for each lot. The proposed private street and stormwater area would not be publicly dedicated therefore this area is not subtracted from the PUD area. The site contains enough area to accommodate the proposed number of units per R-2 density standards.

As a Planned Unit Development, derivations from the dimensional standards are permitted in order to promote creativity in design and land use. Without relief from the dimensional standards of the ordinance, each townhome lot would need 80 feet of frontage on a publicly dedicated street and would have to be significantly larger to accommodate setbacks and lot coverage requirements. Accordingly, the medium density land uses as permitted by the current zoning designation and as envisioned by the Comprehensive Plan could not be achieved without the flexibility provided by the Planned Unit Development process.

As noted above, the development as proposed would conflict with lot coverage and front yard surfacing requirements when considering the individual townhome units. However, the proposal would comply with the overall maximum lot coverage for the R-2 Zoning District.

The proposed residential structures would be one or two stories, 16'-22.5' tall which is less than the maximum 35 feet height as required in the R-2 Zoning District.

#### Ownership

- *154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria (A). Adequate property control is provided to protect the individual owner's rights and property values and the public responsibility for maintenance and upkeep.*
- *154.008 (C)(4) PUD General Standards (a) Ownership. An application for PUD approval must be filed by the landowner or jointly by all landowners of the property included in a project. The application and all submissions must be directed to the development of the property as a unified whole. In the case of multiple ownership, the approval of the final plat shall be binding on all owners. In absence of an ownership application, the project developer may submit with the development application the written consent of all property owners within the proposed PUD. The financial commitments incurred through any portion of the development shall be the responsibility of the owner.*

The subject parcel is owned by the City and is to be conveyed to the applicant. The individual townhome units in the Common Interest Community plat will be held in ownership by the applicant who will be responsible for maintenance and upkeep.

#### Development Process and Timeframe/Phasing

- *154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria. (G) The development schedule ensures a logical development of the site which will protect the public interest and conserve land.*
- *154.008 (C)(4) PUD General Standards (m) Development agreement. Prior to the issuance of a building permit as part of the PUD, the permit applicant, builder, or developer shall execute and deliver to the City Council a development agreement for the PUD.*
- *154.010(A) General Development Regulations, General Standards. (h) Compliance. No permit shall be issued allowing construction of a new building, the moving of an existing building into the city, nor shall any existing building be expanded more than 2,000 square feet or significantly structurally altered on the exterior unless it meets the requirements of this chapter and is approved.*

It is staff's understanding that this development is to occur in a single phase.

This development agreement criterion can be met provided the Planned Unit Development is approved. Such an agreement will be developed with the applicant to the satisfaction of the City Attorney. The City Council must approve any development agreement.Open Space

- *154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria. (C) A sufficient amount of usable open space is provided.*

- *154.008 (C)(4) PUD General Standards (n) Open space. Common open space shall be either held in common ownership by all owners in the PUD or dedicated for public use with approval of the City Council. Whenever possible, common open space shall be linked to the open space areas of adjoining developments. Common open space shall be of such size, shape, character, and locations as to be useable for its proposed purpose.*
- *154.010(B)(1)(d) Residential Open Space. Townhouse. Each lot shall contain at least 500 square feet of usable open space for each unit.*

Usable open space is defined as: A required area on a lot which is graded, developed, landscaped and equipped, intended and maintained for active and/or passive recreation, available and accessible to and usable by all persons. Such area and improvements include: ground areas, terraces, balconies, decks, rooftops, outdoor swimming pools, outdoor seating areas, patio area, game area, landscaped and grassy areas, gardens, sculpture gardens, recreational facilities, pedestrian paths and trails or similar outdoor fixtures or features, and water. Public parks or plazas within 300 feet of the site may be used to meet this requirement.

A minimum of 500 square feet of open space is required per unit. Each individual townhome unit lot contains at least 1,180 square feet of greenspace around each building. This does not include open space within the common elements. According to the proposed landscape plan, there are lawn areas and trees shown around each building.

The PUD Ordinance does not specify a minimum area required for common open space which is to be used for active or passive recreational purposes. The site does contain an area for stormwater management, a private street, and the area between the townhome unit lots and the perimeter of the site, all of which will be held in common ownership.

The main open space feature on the site is the public park to be dedicated on the easterly portion of the site. This space, shown on the proposed plat as Outlot B will be developed by the City. Public pedestrian access to this open space must be provided on the approved site plan. This access should include a paved pathway wide enough to accommodate City service vehicles which will need access to service the sewer infrastructure in that area. Staff recommends that plans be revised to include a 10-foot-wide path and curb cut at the private road to accommodate city maintenance vehicles. Staff also recommends that screening be provided between the pathway and the rear yards of the homes to the south via a fence or landscaping.

#### Drainage/Natural Resources

- *154.010(D)(45) Townhouse dwelling Supplemental Standards. (b) Drainage. Drainage shall be provided as required consistent with the city and Watershed District requirements. Any required NURP ponds shall be integrated into the overall plan and proper easement and maintenance agreements shall be provided.*
- *154.010(F) Landscaping Standards (9) Drainage, access & utility easements. No landscape material other than grass, or retaining walls, shall be placed within a drainage, access or utility easement. Rock or riprap may be allowed upon review and approval by the Zoning Administrator provided the proposed material does not interfere with drainage, access or utilities.*



The landscaping plan shows some plantings in the proposed drainage and utility easements shown on the plat. Certain elements are allowed within the easement area per the City Engineer. Accordingly, staff recommends a condition that if the City Engineer determines proposed landscaping conflicts with the easements, said plantings should be relocated.

### Landscaping

- 154.008 (C)(4) PUD General Standards (j) Landscaping. In any PUD, the developer shall prepare and submit a landscaping plan as a part of the Final Plan, which shall include a detailed planting list with sizes and species indicated to be approved by the City Council. In assessing the landscaping plan, the City Council shall consider the natural features of the particular site, the architectural characteristics of the proposed structures and the overall scheme of the PUD plan.
- 154.010(F)(3) Tree requirements. (a) Number of trees. Trees must be planted within the property lines and in a location as not to interfere with sight line visibility at maturity. The minimum number of trees of any given site shall be as follows: (i.) Single- and two-family uses. A minimum of one tree per parcel.
- 154.010(F)(3) Tree requirements. (a) Number of trees. (ii.) Townhouse and multiple family uses. Residential structures containing two or more units shall contain as a minimum: one tree per dwelling unit.
- 154.010(F)(4) Landscape coverage. All residential district properties are encouraged to have diversified landscaping in addition to the landscaping required in setback areas for free-standing, detached structures. All landscaped areas are encouraged to be developed with live deciduous and coniferous plants, grass, trees, and shrubs which provide a variety of color, texture, height, and forms consistent with the needs of the site and other elements of the plan. The landscaped areas may contain, but not limited to, some decorative stones, wood, patio blocks, sculptures, and other appropriate ornamental features. Overall composition and location of landscaped areas shall complement the scale of the development and its surroundings. In general, larger, well-placed contiguous planting areas shall be preferred to smaller, disconnected areas. The following zoning classifications will have the following percentage of the lot landscaped: (b) R-2 District. All areas, except for buildings, driveways and approved parking areas, shall be landscaped as described above. Landscaping may include retaining the natural landscape where appropriate. At least 50% of the front yard must be landscaped.
- 154.010(F)(5) Required yards and setbacks.
  - (a) All developed uses shall consist of, but not limited to, a landscaped yard, including grass, plantings, decorative stones, trees and shrubs, along all streets.
  - (b) Except for driveways, the yard shall extend along the entire frontage of the lot, and along both streets in the case of a corner lot, such yard shall have a depth of at least ten feet.
  - (c) Required yards and setback areas, except driveways and areas used for accessory structures, shall be graded to final elevations and sodded or seeded and landscaped with grass, plantings, decorative stones, trees and shrubs.

A landscaping plan was submitted and provides the required details. Arrangement of the proposed landscaping is typical of a new residential development and the site lacks natural features to enhance or protect.

The development would contain 12 units and landscaping plan shows 28 total trees on the site. As a Planned Unit Development, the placement of said trees does not need to necessarily be on the Common Interest Community lot for each unit. Areas not containing the buildings, driveway, or patio space consist of sod, planting areas, or trees. Additionally, 100% of the required yard area along 17<sup>th</sup> Avenue (from property line to the required setback of 25 ft. along 17<sup>th</sup> Avenue) is shown as sodded area and trees.

The landscaping plan shows no plantings within both the intersection of 17<sup>th</sup> Avenue and Delaware Avenue and the private drive intersection with Delaware Avenue.

### Screening

- 154.010 (A) Development Standards (12) Storage of trash. (a) Residential uses. There shall be no front yard storage of trash or trash containers except in the 24 hour period prior to a scheduled pickup in residential districts.
- 154.010(D)(45) Townhouse dwelling Supplemental Standards. (c) Projecting air conditioning and heating units. Air conditioning or heating units shall not project through exterior walls or windows unless located behind a balcony and screened from view.
- 154.010(D)(45) Townhouse dwelling Supplemental Standards. (d) Transformers. If located outside, shall be screened from view.
- 154.010(D)(27) Townhouse dwelling Supplemental Standards. (e) Utilities. Building utility services and structures such as meters, transformers, refuse containers, including dumpsters, ancillary equipment and the like shall be either located inside the principal building, inside an accessory building, or, where allowed, be outside and entirely screened from off-site views. For new buildings, all utilities shall be underground.
- 154.010(E)(3) General Architectural requirements. (b) Utilities. Building utility services and structures such as meters, transformers, refuse containers, including dumpsters, ancillary equipment and the like shall be either located inside the principal building, inside an accessory building, or, where outside be entirely screened from off-site views. For new buildings, all utilities shall be underground.

Each unit would have individual refuse and recycling containers, which are to be stored in the garage.

The submitted elevations show that air conditioning units would be located on the side of the units. The submitted site and landscaping plans do not show any screening measures for these units. These units must be screened from view or located behind a balcony per 154.010(D)(45)(c) above.

Building equipment, vents or chimneys were not shown on the site plan or building elevations. Any proposed equipment or service area would have to be screened pursuant to this Ordinance section.

## Lighting

- *154.010(A) Development Standards (7) Outdoor lighting. All outdoor lighting shall be directed away from adjoining property and from the street unless globe lighting is used. Bare incandescent light bulbs shall not be permitted in view of adjacent property or the public right-of-way, except decorative holiday lights having 7.5 watts or less. No exterior lighting shall exceed 0.4 foot candles at the lot line. Yard lights shall not be closer than five feet from the property line, provided the direct source of light is not visible from the public right-of-way or adjacent residential property.*

The building elevations show wall-mounted lights on both sides of the garages on each of the buildings. Additional information will need to be provided prior to issuance of a building permit to confirm conformance to these standards.

## Streets and Sidewalks

- *154.008 (C)(4) PUD General Standards (i) Street width. Requirements outlined in the subdivision ordinance for street widths may be relaxed depending on the number of off-street parking locations and the anticipated density in the planned unit development. The Planning Commission, City Engineer and city's Emergency Services (Fire, Ambulance and Police) shall review each planned unit development to determine street width requirements.*
- *154.010(A) Development Standards (22) Sidewalks and trails. Complete plans shall be provided for proposed sidewalks and trails to serve parking, recreation and service areas within developments and to link to the city's system.*
- *154.010(D)(44) General Regulations – Supplemental Regulations – Townhouse dwelling: (a) Access. Each townhouse unit shall have direct vehicle access from the garage and driveway to a public road or to an improved private road meeting the requirements of the city.*
- *154.010(D)(44) General Regulations – Supplemental Regulations – Townhouse dwelling: (e) Pedestrian ways. Buildings shall be designed with proper provision and orientation for a pedestrian system to serve and link development*
- *154.010(D)(44) General Regulations – Supplemental Regulations – Townhouse dwelling: (f) Public roads. Each townhouse development shall have direct vehicle access to a public road.*

The proposed access to the units off Delaware Avenue is sufficiently sized for the development. The location of the private road is such that traffic congestion or hazards are not likely.

Internal circulation consists of an L-shaped private street providing direct access to the garages of each of the townhome units. The width of the proposed private street serving each unit (24-28 feet) is less than the typical 30-foot public street width. The narrower width is appropriate as the street only serves as an access to the townhomes and does not connect through for public traffic. This street is wide enough to handle two-way vehicular travel and has been configured to allow emergency vehicles to navigate the site as verified by the North St. Paul Fire Department.

Each of the townhome units has an attached garage which is accessed either directly from Delaware Avenue or from a private road that extends from Delaware Avenue

The site plan shows sidewalks connecting the front door of each unit to the driveway leading to the private street. No other sidewalks are shown on the site plan. Staff recommends the installation of a sidewalk connection between 17<sup>th</sup> Ave. E., north along Delaware to the development entrance.

### Parking

- 154.008 (C)(4) PUD General Standards (h) Parking. Off-street parking and loading space shall be provided in each PUD in the same ratios for types of buildings and uses as required in the underlying zoning district.
- 154.010(J)(3) General Parking Standards. (a) Minimum size regulations. Each space shall contain a minimum area of not less than 180 square feet, exclusive of access drives, a width of not less than nine feet and a depth of not less than 20 feet. Each space shall be adequately served by access drives as determined by the Zoning Administrator. All loading spaces shall be sufficient to meet the requirements of each use and shall provide adequate space for storage and maneuvering of the vehicles they are designed to serve. Parking ramps and underground parking may be allowed to have some reduction in the dimensions stated above.
- 154.010(J)(9) Off-street parking standards for residential districts. (c) Setbacks. New driveways and off-street parking shall be set back a minimum of three feet from side property lines.
- 154.010(J)(9) Off-street parking standards for residential districts. (e) Driveways, authorized parking areas, and authorized garages.
  - i. Driveways must lead to and abut a vehicle access door having a width of at least eight feet. Driveways must not exceed a 22-foot maximum width at the property line.
  - iv. Required number of off-street parking spaces. The minimum number of off-street parking spaces are located in Table 8.

Off-street parking is provided within the subject site.

| Use                                              | Requirement                                        | Proposed                                              |
|--------------------------------------------------|----------------------------------------------------|-------------------------------------------------------|
| Townhouse Dwelling<br>Residential- Family Living | 2 per dwelling unit. 12 units<br>@ 2 per unit = 24 | 24 stalls (each unit has a two-stall attached garage) |

Each unit has an attached garage that has space for two vehicles. Townhomes require two stalls per unit. Each of the townhomes' attached garage has a driveway that leads from the private road. Said driveway is of sufficient length and width to accommodate two additional vehicles per unit. Additional parked vehicles can be reasonably accommodated in front of each garage door and/or along one side of the street. Driveways shown on the plan are all at least five feet from the side property lines.

As this project is reviewed as a multifamily residential development; bicycle parking would be required. The required number of spaces is four, which is 10% of the 36 required vehicle parking stalls – see below. Since this is a townhome development, there is no main entrance

that said spaces could be located near. Additionally, the Zoning Ordinance does not contain standards for how bicycle spaces must be provided. Since there is sufficient driveway area and garage space, staff finds that each unit could reasonably provide bicycle parking within each lot.

### Access and Circulation

- *154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria. (B) The interior circulation plan plus access from and onto public rights-of-way does not create congestion or dangers and is adequate for the safety of the project resident and the general public.*
- *154.010(D)(45) Townhouse dwelling Supplemental Standards. (a) Access. Each townhouse unit shall have direct vehicle access from the garage and driveway to a public road or to an improved private road meeting the requirements of the city.*
- *154.010(D)(45) Townhouse dwelling Supplemental Standards. (f) Public roads. Each townhouse development shall have direct vehicle access to a public road.*
- *154.010(F) Landscaping requirements (8) Traffic visibility. In order to provide a clear view of intersecting streets to motorists, a triangular area of clear vision formed by the two intersecting streets and driveways and a line connecting said centerlines, shall be kept clear of visual obstruction, as specified below.*
  - (a) Within any vision clearance triangle, screening, plantings, walls, fences or other obstructions are not permitted between a height of 30 inches and ten feet above the curb level, with the exception of fences with a maximum of three feet in height and at least two-thirds open to vision.*
  - (c) At the intersection of a private drive or alley with a street, the line shall extend a minimum of ten feet from the intersection of the street and alley or drive property lines.*

The proposed private street is 24-28 feet in width. Garage doors shown on the proposed building elevations exceed 8 feet in width. The proposed private road off of Delaware Avenue is located 81 ft from the corner of the Delaware and 17<sup>th</sup> Avenue.

According to the Institute of Transportation Engineers' (ITE) Trip Generation Manual townhomes are associated with a daily trip rate of 5.86 trips per unit, which is a lower rate than single-family residences. The 12 proposed units would be expected to generate 70 trips per day. This traffic would originate from the private drive, which feeds into Delaware Ave. This volume of traffic is not anticipated to create any congestion or dangers.

Each of the proposed townhome units would have a driveway out to the private road that appears to be 24-28 feet in width leading to an attached garage. Lastly, the vision triangle at the intersection of the private drive and 17<sup>th</sup> Avenue is clear of landscaping.

### Architecture

- *154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria. (D) The architectural design of the project is visually compatible with the surrounding area. Architectural style or type of buildings shall not solely be a basis for denial or approval of the preliminary PUD plan. However, the overall appearance and compatibility of individual buildings to other site elements of surrounding development will be given*

*primary consideration in the review stages of the Planning Commission and City Council.*

- *154.010(E)(3) General Architectural requirements (f) Pedestrian-oriented design. Building designs are encouraged to make the street enjoyable, visually interesting and comfortable. Individual buildings should be integrated with the streetscape to bring activity in the building in direct contact with the people on the street.*
- *154.010(E)(4) Architectural control. (a) Single-family dwelling. i. Shall be designed to consist of exterior materials compatible with residential development in the area with due regard to architectural quality and the massing of structures.*
- *154.010(E)(4) Architectural control. (b) Two-family dwelling, townhouse dwelling and modular housing:*
  - i. Shall be designed to consist of exterior materials compatible with residential development in the area with due regard to architectural quality and the massing of structures.*
  - ii. Number of units. There shall be no more than five townhouse units attached in any one group or building. For unique designs involving special circumstances, a greater number may be allowed, provided views, windows (in at least three directions for each unit), privacy and line of sight are preserved in the design.*
  - iii. Modulation, length. The building and units shall be modulated to provide interest.*
  - iv. Diversity. Townhouse groupings shall provide diversity in terms of size, type and building orientation and form.*
  - v. Equipment. All building equipment shall be hidden from view. Building vents and chimneys shall consist of similar materials to the building roof and the sides of the building.*

Each of the structures contains two townhome units.

The building elevations and site plan demonstrates that the project would generally be compatible with adjoining properties in terms of building materials and building form. Exterior materials are only shown on the proposed elevation for the one-story units. These materials include vinyl siding in lap and shakes patterns along with asphalt roofing. Some sample elevations contain stone around the base of the unit while others do not. These materials are consistent and compatible with dwellings in the vicinity.

The proposed buildings would have a walkway connection from the front door of the units to the private road area. The private road leads to the Delaware Avenue right-of-way which does not have sidewalks.

The buildings are oriented such that the front facades face the private road (except for the two units facing Delaware Ave). This results in the rear of some buildings facing 17<sup>th</sup> Avenue, and the side facing Delaware Avenue. The development plans do include patio areas at the rear of each unit, which for three of the two-townhome unit buildings would face 17<sup>th</sup> Avenue. The rear facades of the two-story units (which would face 17<sup>th</sup> Ave.) include covered porches and windows similar to what would be expected on a front façade.

The individual units within each building are aligned with each other, and groupings of structures are also aligned. No modulation in terms of length is provided. The proposed

townhouse structures appear to be largely identical in terms of size, and type. Staff recommends some variation in setback for the units facing the private drive to provide additional visual interest.

#### Utilities and Municipal Services

- *154.004(D)(2) Rezoning Standards (e) The proposed amendment can be adequately supported by public urban services including the water supply, transportation system and capacity, police and fire protection, utilities, and sanitary waste disposal and stormwater disposal systems.*
- *154.008(C)(6)(b)(ix) Preliminary PUD Review and evaluation criteria (F). The drainage and utility system plans are submitted to the City Engineer and shall be subject to approval of the City Engineer.*
- *154.008 (C)(4) PUD General Standards (k) Public services. The proposed project shall be served by the city water and sewer system and fire hydrants shall be installed at such locations as required by the City Engineer or the Fire Chief to provide fire protection.*
- *154.008 (C)(4) PUD General Standards (g) Utility requirements. Utilities, including telephone and electrical systems, installed within a PUD shall be placed underground. Utility appurtenances which can be effectively screened may be exempt from this requirement if the city finds that such exemption will be consistent with the objective of this section and the character of the proposed PUD.*
- *154.010(A) Development Standards (9) Utility installations. All on site utility installations shall be placed underground.*
- *Section 154.010(D)(44) General Regulations – Supplemental Regulations – Townhouse dwelling:*
  - *(b) Drainage. Drainage shall be provided as required consistent with the city and Watershed District requirements. Any required NURP ponds shall be integrated into the overall plan and proper easement and maintenance agreements shall be provided.*
  - *(c) Projecting air conditioning and heating units. Air conditioning or heating units shall not project through exterior walls or windows unless located behind a balcony and screened from view*
  - *(d) Transformers. If located outside, shall be screened from view.*
  - *(e) Utilities. Building utility services and structures such as meters, transformers, refuse containers, including dumpsters, ancillary equipment and the like shall be either located inside the principal building, inside an accessory building, or, where allowed, be outside and entirely screened from off-site views. For new buildings, all utilities shall be underground.*

The nearest City parks (Casey Lake Park, Polar Park, and Tower Park) are within blocks of the subject site. The residents of the 12 proposed units are not likely to overburden these parks, or existing schools serving the community.

The utility plan does not identify any new transformers.

The City Engineer has reviewed the development plans and provided a number of required revisions. Additional comments are provided on the plan sheets attached to this memo. Updated civil plans and calculations satisfying all of the City Engineer's comments will be required to be submitted for thorough review using typical review timeframes prior to City Council consideration of the proposed final PUD/final plat. .

Engineering Comments:

1. The applicant should revise the current sanitary sewer alignment to connect to the existing sanitary sewer manhole directly across from the site entrance. The existing sanitary services to the lots located south of the site should be shown as being reconnected to the last segment of proposed pipe at the east end. Applicant will need to maintain 10' horizontal and 18" vertical separation from all existing and proposed watermains with the revised alignment.
2. The watermain throughout the site will need to be 8" PVC C900. Applicant will need to maintain 10' horizontal and 18" vertical separation from all existing and proposed sanitary and storm sewers with the revised alignment.
3. Easements on final utility plans and final plat shall be wide enough to allow for a 1:1 working trench with a minimum of 20' centered on the utility.
4. Applicant is to maintain sanitary sewer service for the existing lots located south of the site throughout construction.
5. Applicant is to show remaining profile view to the east and include the proposed watermain and proposed/existing sanitary sewer main.
6. There are several areas where the surface grades are proposed to be less than 2%. The applicant should modify the grades or provide how water will be adequately conveyed in these areas.
7. The watermain throughout the site shall be 8" PVC C900. Hydrant leads are to be DIP.
8. Flow arrows for swales should match the center and bottom indicated by the proposed contours.
9. The site entrance/exit appears to have a grade of just under 7%. This may cause a hazard in the winter for cars attempting to enter and exit. A grade of 5% is recommended with a vertical curve and 0.5% immediately adjacent to Delaware Avenue. No profile was included in initial submittals to verify proposed grades.
10. Restoration of disturbed City roads will require matching the existing road section in the area and replacement of the bituminous pavement to the road's full width. This was agreed to in the applicant's 8/6/2020 response memo but is not shown in the submitted plans.
11. Cross slopes for the road should not be more than 6%.
12. Identify and show the existing storm sewer along near the eastern development line.
13. The applicant is responsible for obtaining all necessary permits for the project from both the City and applicable outside agencies.



## **Stormwater:**

### General

14. A Ramsey Washington Metro Watershed District permit will be required and shall be submitted to the City prior to issuance of any City permits.
15. A SWPPP and erosion control plan must be submitted to the City for review.
16. An operations and maintenance plan for the proposed stormwater treatment system must be submitted to the City.

### Plans

17. The stormwater management plan shall be subject to further comments by the city engineer following more detailed analysis of downstream system and HydroCAD modeling prior to final plan approvals and final plat approval. As part of this analyses the existing structure that is being connected to may require replacement. At this time updated stormwater management modeling and calculations have not yet been submitted by the applicant, which should not affect Planning Commission's recommendation to City Council on the proposed PUD, but that will be required prior to City Council consideration on final approval of the PUD.
18. The applicant is to provide low opening elevations for the adjacent homes around the entire site and verify adequate freeboard from the pond and drainage is demonstrated on the final construction plans to the satisfaction of the city engineer prior to final plat approval.
19. The applicant is to provide additional existing contour and grading information for the area just adjacent to the perimeter of the development to verify that water can drain and is not being held.
20. The grading into the City park shall be expanded to direct landlocked drainage into the pond and storm sewer, and the stormwater management plan, drainage areas, and calculations updated to reflect this condition.
21. Draintile is noted on the applicant's 8/6/2020 response memo as having been review, but there is still a detail for draintile. Clarify on revised submittals.
22. Show the existing 48-inch trunk storm sewer east of the site on the plans.
23. Applicant is to provide profile view and schedule for the storm sewer.
24. No landscaping shall conflict with underground or overhead infrastructure or maintenance access thereto, drainage swales, emergency overflow routes, or stormwater management infrastructure.
25. Revise grades to bring all driveways exceeding 10 percent grade to 10 percent or less.

### HydroCAD Model

1. The applicant is to totalize the runoff amounts for the different discharge points in the existing vs. proposed condition, and summarize what is routed to the West, South, North, East for Existing and Proposed.

Any approval of the project as proposed should include the following conditions:

- a. Revision of plan and stormwater management plan to satisfy all engineering comments on previously submitted information prior to City Council approval of the Preliminary/Final PUD.
- b. Easements shall be added to the final plat as required by the City Engineer.
- c. Final hydrant locations and turnaround dimensions shall be approved by the Fire Chief
- d. The applicant is responsible for obtaining all necessary permits for the project from the City and all applicable outside agencies, including but not limited to Ramsey County, Ramsey Washington Metro Watershed District, MPCA (NPDES and sanitary sewer), and MDH (Water main).
- e. A Developer's Agreement shall be required
- f. The water and sewer shall be public. The Stormwater management pond and related infrastructure and street shall be privately owned and maintained.

Water, sewer, and storm sewer facilities are shown on the utility plan as located underground. Any other utilities such as electric, cable, telephone, or other communications utilities not shown on the plan would have to be screened or located underground.

Units will have individual refuse containers.

The City Engineer has reviewed the drainage and stormwater management plans. Modifications to these plans are among the recommended conditions of approval.

#### Preliminary Plat Review

Standards for the review and approval of subdivisions of land are found in Chapter 153 the City Code.

No new public streets are proposed by the preliminary plat.

Park dedication is required as a condition of final plat approval. On this site, the applicant proposes to dedicate Outlot B to the City for use as a public park. This area totals 0.74 acres or approximately 30% of the total site area.

The proposed lots do not comply with the dimensional standards (lot area, width, etc.) of the R-2 Zoning District. However, this can occur because, while the overall plan meets the density requirements, the area devoted to residential lots is smaller due to the common areas, private road and stormwater area being subtracted from the total site. This configuration is one of the forms of development the Planned Unit Development process is designed for.

#### **RECOMMENDED ACTION**

Based on the findings in this staff report, staff recommends conditional approval of the proposed Preliminary/Final PUD, Preliminary/Final Plat and Site Plan.

Recommended conditions are as follows:

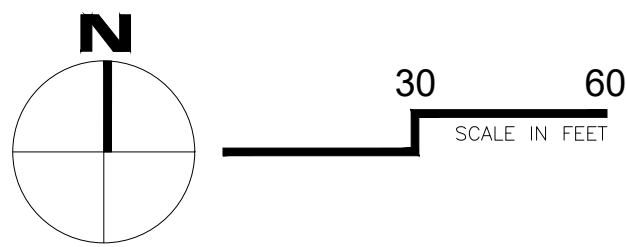
*Preliminary/Final PUD:*

1. A Developer's Agreement must be developed to the satisfaction of the City Attorney and approved by the City Council for execution, including development securities in an amount acceptable to the City Engineer. This agreement must be executed before September 30, 2020.
2. The applicant will apply for site work, utility and/or foundation permits prior to October 1, 2020 so that work can commence this fall.
3. All engineering comments shall be addressed by the applicant to the satisfaction of the City Engineer prior to City Council approval, unless specifically recommended for conditional approval by the City Engineer to be addressed in final construction plans prior to execution of Developer's Agreement, City signatures on the Final Plat, and issuance of grading/building permits.
4. All proposed setback distances shall be shown on the Site Plan so that deviations from the R-2 standards can be confirmed.
5. Installation of a sidewalk connection between 17<sup>th</sup> Ave. E., north along Delaware to the development entrance
6. Installation of a paved pathway at least 10 feet wide between the end of the private road and the dedicated open space. That pathway shall be screened from rear yards to the south with a fence or landscaping.
7. Additional detail on light fixtures shall be provided showing that the light levels and fixture directions conform to ordinance requirements
8. The landscaping plan shall provide additional screening for HVAC units.
9. The developer shall provide some variation in setback for the units facing the private drive to provide additional visual interest.
10. If the City Engineer determines proposed landscaping conflicts with the easements, said plantings must be relocated.
11. Final hydrant locations and turnaround dimensions shall be approved by the Fire Chief
12. The applicant is responsible for obtaining all necessary permits for the project from the City and all applicable outside agencies, including but not limited to Ramsey County, Ramsey Washington Metro Watershed District, MPCA (NPDES and sanitary sewer), and MDH (Water main).
13. The water and sewer mains shall be publicly owned and maintained. The Stormwater management pond and related storm sewer infrastructure and streets and curb and gutter shall be privately owned and maintained.
14. A Stormwater Management and Maintenance Agreement must be developed to the satisfaction of the City Engineer and the City Attorney and approved by the City Council for execution.

15. Units will have individual refuse containers.

*Preliminary/Final Plat:*

1. Ramsey County review and approval on Final Plat. Any comments or requirements of Ramsey County shall be incorporated into the Final plat, along with any changes to the final plans that may be needed to accommodate Ramsey County platting requirements.
2. Ramsey County right of way for 17<sup>th</sup> Avenue/County Road C to be dedicated to Ramsey County.
3. All existing drainage and utility easements to be applied for vacation by the applicant, the vacation granted and recorded at Ramsey County prior to recording of the final plat.
4. Final permanent drainage and utility easements to be dedicated on the final plat to the satisfaction of the City Engineer.
5. The City Park (Outlot B) to be dedicated in ownership to the City of North St. Paul. Permanent drainage and utility easements to the city to be dedicated over all of Outlot B.

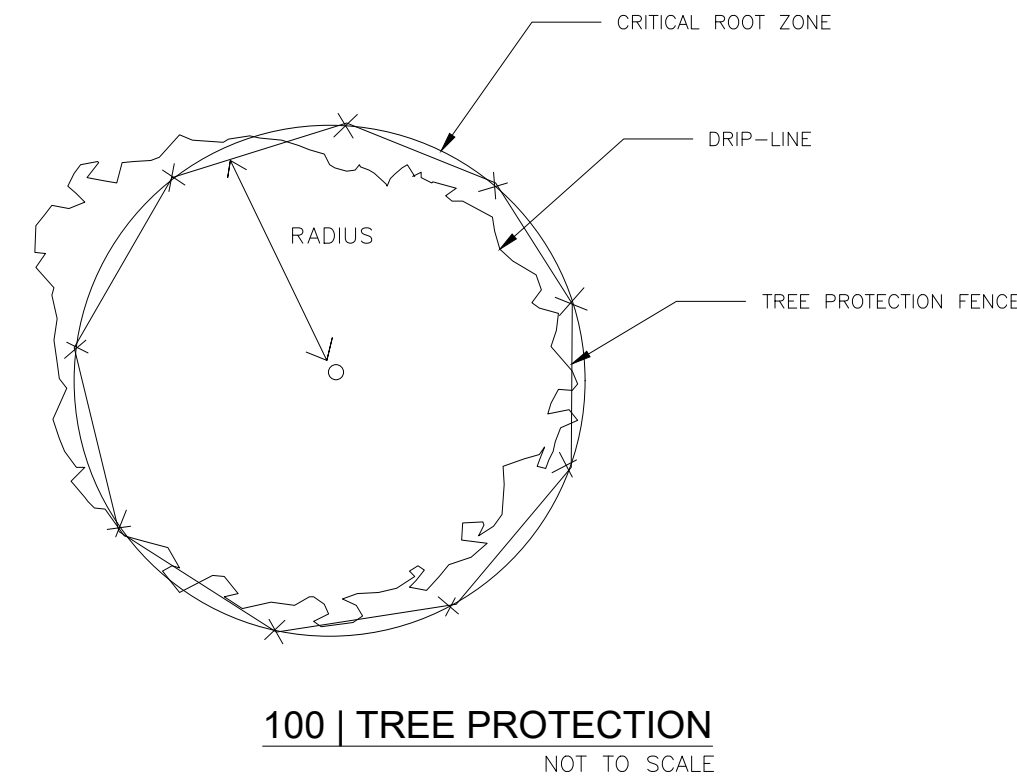
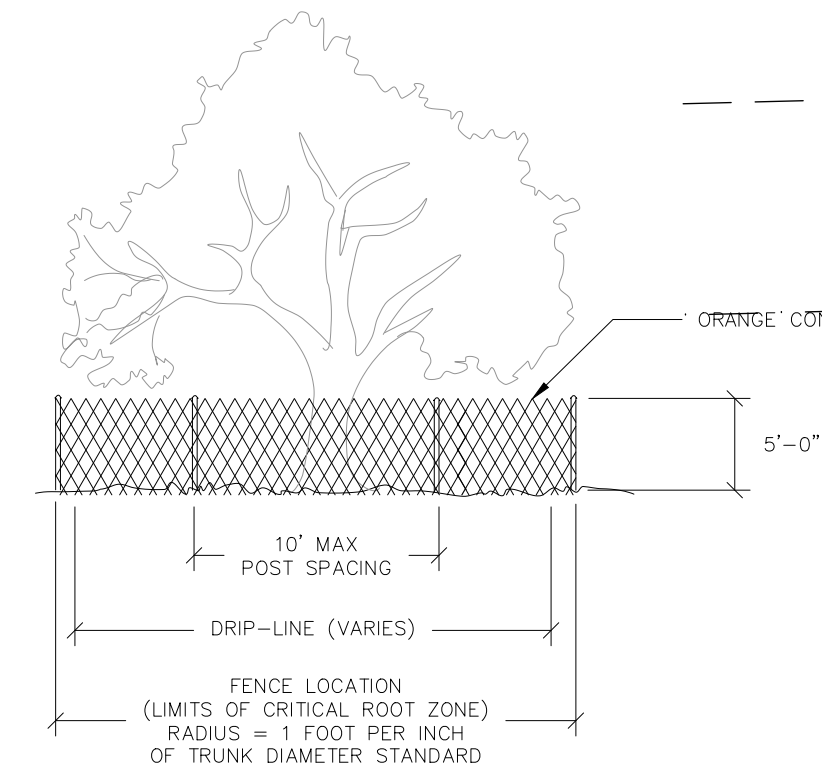


SITE DEMOLITION LEGEND:

- SAWCUT
- UTILITY PIPE REMOVAL
- FENCE REMOVAL
- CURB REMOVAL
- CONCRETE REMOVAL
- PAVEMENT REMOVAL
- SIZE TYPE
- TREE REMOVAL
- SITE FEATURE REMOVAL AS INDICATED
- TREE PROTECTION (SEE DETAIL 100)

KEY NOTES

- REMOVE BITUMINOUS PAVEMENT
- REMOVE CONCRETE CURB AND GUTTER
- PROTECT EXISTING UTILITIES TO REMAIN
- RELOCATE POWER POLE, CONTACT CONTRACTOR TO COORDINATE WITH PRIVATE UTILITY
- REMOVE EXISTING UTILITY PIPE
- ABANDON EXISTING SANITARY LINE
- REMOVE EXISTING MANHOLE
- REMOVE EXISTING SIDEWALK



GENERAL SITE DEMOLITION AND CLEARING NOTES:

- CONTRACTOR SHALL COORDINATE LIMITS OF REMOVALS WITH PROPOSED IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR PROTECTING EXISTING SITE FEATURES (STRUCTURES, CURBS, WALKS, PAVEMENTS, UTILITIES, SIGNS, FENCES, ETC.) WHICH ARE TO REMAIN. REPAIR OR REPLACE, TO OWNER'S SATISFACTION, ANY DAMAGE TO EXISTING PROPERTY OR SITE FEATURES WHICH ARE TO REMAIN, AT NO ADDITIONAL COST.
- COORDINATE DISRUPTION OF UTILITY SERVICES WITH THE OWNER'S PROJECT REPRESENTATIVE AND UTILITY OWNER, PUBLIC OR PRIVATE. CONTRACTOR TO PROVIDE TEMPORARY UTILITIES AS NECESSARY TO MAINTAIN BUILDING SERVICES.
- THE OWNER'S ACTIVITIES MAY CONTINUE ON THE SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE SEQUENCE OF WORK WITH THE OWNER.
- CONTRACTOR TO PROVIDE AND MAINTAIN FOR TEMPORARY FENCING AND PROTECTION REQUIREMENTS TO PROTECT PEDESTRIANS, VEHICLES, AND COMPLETED WORK FROM HARM/DAMAGE.
- PRIOR TO START OF ANY WORK, ALL EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE IN PLACE. SEE EROSION CONTROL PLAN OR SWPPP FOR DETAILS.
- CONTRACTOR SHALL PRESERVE ALL VEGETATION NOT TO BE REMOVED BY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-SEEDING OR SODDING AREAS DISTURBED BY CONSTRUCTION.
- CLEARLY IDENTIFY AND LABEL EACH TREE THAT IS TO REMAIN PRIOR TO STARTING SITE CLEARING. CONTACT OWNER'S PROJECT REPRESENTATIVE FOR SITE INSPECTION AFTER ALL "TO REMAIN" TREES HAVE BEEN IDENTIFIED. TREES THAT ARE TO BE PROTECTED SHALL HAVE TEMPORARY FENCING PLACED AT THE DRIP LINE AROUND EACH TREE.
- STOCKPILE TOPSOIL FOR REUSE ON SITE. VERIFY THE STRIPPED TOPSOIL MEETS SPECIFICATIONS FOR THE PROPOSED USE. VERIFY THE AMOUNT OF TOPSOIL NEEDED AND REMOVE EXCESS FROM SITE.
- ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF-SITE AND IN A LEGAL MANNER.
- MATERIAL TO BE SALVAGED FOR REUSE BY OWNER SHALL BE REMOVED UNDAMAGED IN USABLE CONDITION. TEMPORARY PROTECTED STORAGE ON-SITE MAY BE REQUIRED.
- ON-SITE BROKERAGE OF MATERIALS SALVAGED BY CONTRACTOR FROM MATERIALS TO BE REMOVED IS NOT PERMITTED WITHOUT PRIOR OWNER APPROVAL.
- LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET (OR AVOIDED) SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN THEIR MEASUREMENTS AND THESE PLANS. CONTRACTOR SHALL ALSO MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES, CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

Additional Engineering Comments

expand area of pavement removal and utility removal to reflect appropriate abandonment of existing sewer and water services to site at the main per requirements and as directed by Public Works

expand pavement removals and utility removal to reflect abandonment and bulkhead at manhole/sewer main at direction of Public Works

PROVIDE TEMPORARY PUMPING OF WASTEWATER WHEN REQUIRED. CONTINUOUS FLOW IS REQUIRED FOR IMPACTED PROPERTIES

EXISTING 42" ST

17th AVENUE EAST



Know what's below.  
Call before you dig.

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

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



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.

NOT FOR CONSTRUCTION

NAME: SIGNATURE: DATE:

| REV. BY: | DESCRIPTION          | REV. | DATE      |
|----------|----------------------|------|-----------|
| ECR      | CITY REVIEW          | A    | 9/10/2019 |
| NPCT     | CITY PLANNING REVIEW | B    | 8/6/2020  |
|          |                      |      |           |
|          |                      |      |           |
|          |                      |      |           |
|          |                      |      |           |
|          |                      |      |           |

DELAWARE PLACE

3RD ST N AND 17TH AVE E

NORTH SAINT PAUL, MN 55109

DEMOLITION PLAN

JOB No: 181076

DATE: 09/10/19

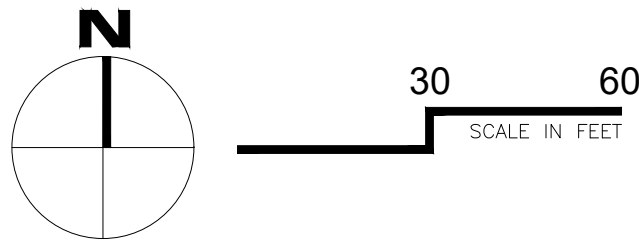
DRAWN BY: WNW

DESIGNED BY: NPCT

SHEET:

C1.0





GRADING LEGEND:

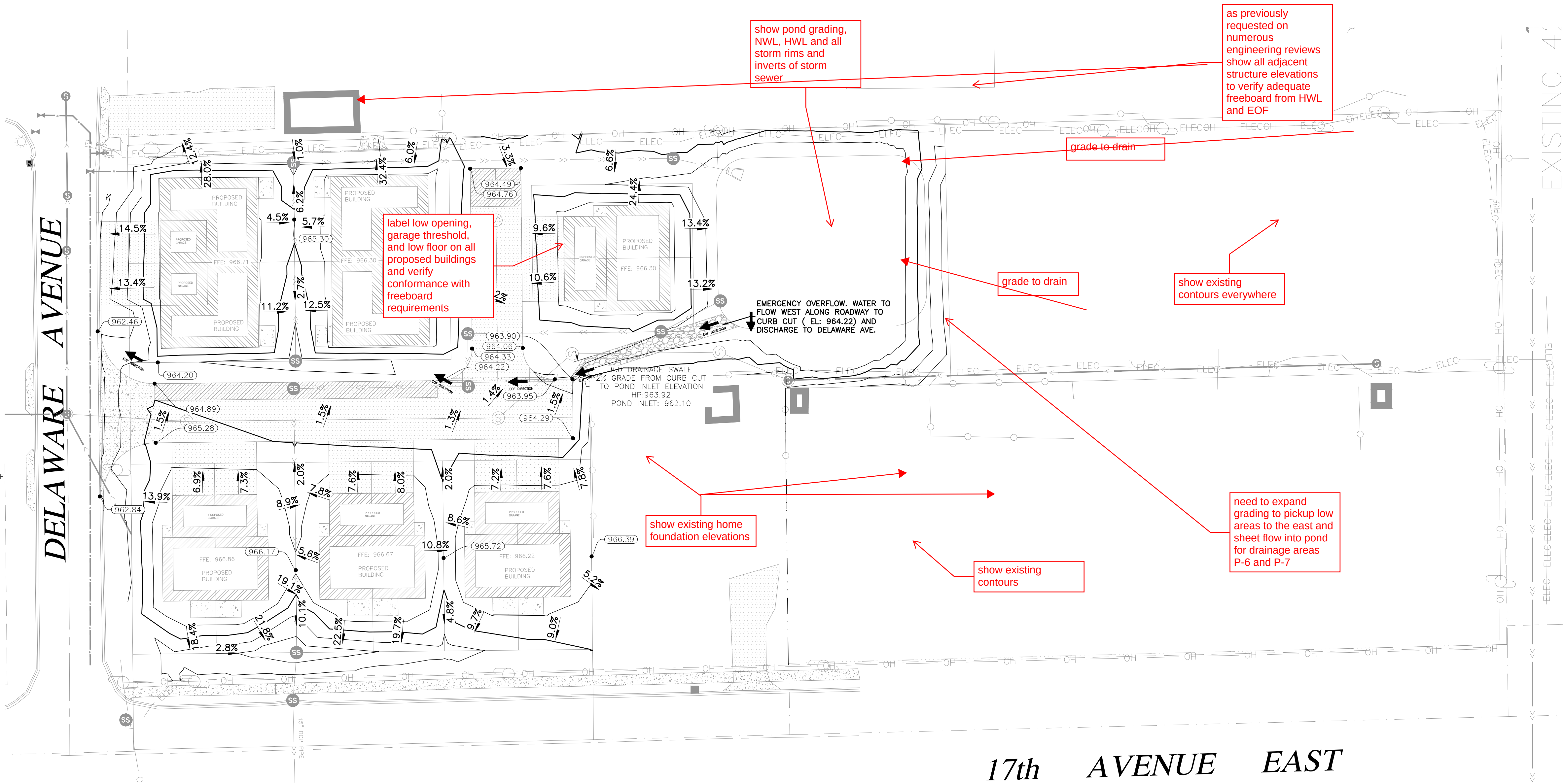
- MANHOLE
- CATCHBASIN
- APRON
- FLOW ARROW
- SPOT ELEVATION
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- TIP-OUT CURB AND GUTTER
- RIPRAP
- VEGETATED SWALE

GENERAL GRADING AND DRAINAGE NOTES:

- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE BEFORE BEGINNING SITE GRADING ACTIVITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIAL TO BE HANDLED, AND FOR THE AMOUNT OF GRADING TO BE DONE. ALL COSTS ASSOCIATED WITH IMPORTING SUITABLE MATERIAL AND EXPORTING UNSUITABLE/EXCESS/WASTE MATERIAL SHALL BE INCLUDED IN THE BID PRICE.
- CONTRACTOR SHALL STRIP, STOCKPILE AND RE-SPREAD EXISTING ONSITE TOPSOIL, IF MATERIAL IS APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS. PROVIDE A UNIFORM THICKNESS OF 6" MINIMUM IN ALL DISTURBED AREAS TO BE LANDSCAPED.
- CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL UNLESS OTHERWISE DIRECTED.
- REFER TO LANDSCAPE PLAN FOR PERMANENT TURF RESTORATION AND PLANTING INFORMATION.
- MAINTAIN TEMPORARY PROTECTION MEASURES DURING CONSTRUCTION ACTIVITIES. SEE SITE REMOVALS PLAN FOR ADDITIONAL INFORMATION. PROVIDE ADDITIONAL PROTECTION AS NECESSARY AS WORK PROGRESSES.
- SEE CIVIL SITE PLAN FOR SITE LAYOUT.
- PROPOSED CONTOURS AND SPOT ELEVATIONS ARE TO FINISHED SURFACE GRADE.
- SPOT ELEVATIONS SHOWN ADJACENT TO CURB REFER TO GUTTER/FLOW LINE. SPOT ELEVATION SHOWN FOR TOP OF CURB ARE LABELED WITH TC (TOP OF CURB). SPOT LABELED ME REFERS TO MATCH EXISTING GRADE. EOF REFERS TO EMERGENCY OVERFLOW ELEVATION, TW REFERS TO TOP OF WALL AND BW REFERS TO BOTTOM OF WALL. HP REFERS TO HIGH POINT AND LP REFERS TO LOW POINT.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL TIMES.
- NO GRADED SLOPES SHALL EXCEED 3:1 (HORIZONTAL TO VERTICAL) UNLESS OTHERWISE NOTED.
- UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
- LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE AND CONDUCT GRADING OPERATIONS IN A MANNER TO MINIMIZE THE POTENTIAL FOR EROSION.
- PIPE LENGTH INCLUDES THE LENGTH OF THE APRON.

| CUT/ FILL SUMMARY                                                                                      |                |
|--------------------------------------------------------------------------------------------------------|----------------|
| TOTAL CUT                                                                                              | 2076 CY        |
| TOTAL FILL                                                                                             | 1648 CY        |
| NET CUT/FILL                                                                                           | 428 CY OF FILL |
| CUT AND FILL IS FROM EXISTING GRADE TO FINISHED GRADE AND DOES NOT ACCOUNT FOR SUB-GRADE MODIFICATIONS |                |
| TOTAL IMPORT FOR BIT. CONCRETE, AND SUB-BASE                                                           | 4263 CY        |

FFE = LOW OPENING, LOW FLOOR, GARAGE THRESHOLD ELEVATION



17th AVENUE EAST



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

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR RECORD 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.

NOT A FINAL CONSTRUCTION

NAME: SIGNATURE: DATE: XX/XX/XX

| REV. BY: | DESCRIPTION          | REV. | DATE      |
|----------|----------------------|------|-----------|
| ECR      | CITY REVIEW          | A    | 9/10/2019 |
| NPCT     | CITY PLANNING REVIEW | B    | 8/6/2020  |

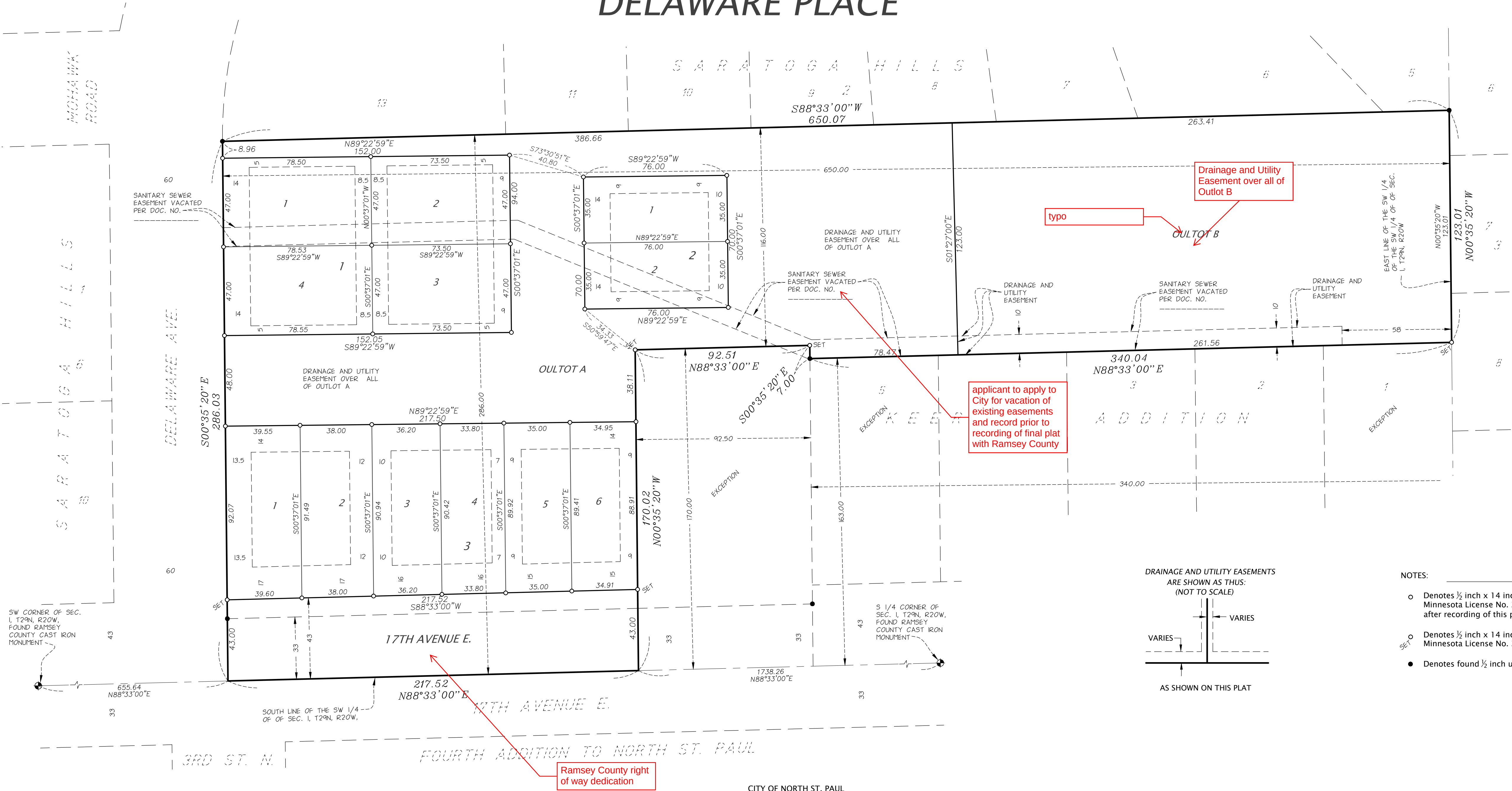
|                            |                            |
|----------------------------|----------------------------|
| DELaware PLACE             | DELaware PLACE             |
| 3RD ST N AND 17TH AVE E    | 3RD ST N AND 17TH AVE E    |
| NORTH SAINT PAUL, MN 55109 | NORTH SAINT PAUL, MN 55109 |

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: WNW  
DESIGNED BY: NPCT

SHEET: C3.0



DELAWARE PLACE



KNOW ALL PERSONS BY THESE PRESENTS: That Bruggerman Builders, LLC, a Minnesota limited liability company, owner of the following described property situated in the City of North St. Paul, County of Ramsey, State of Minnesota:

The South 286 feet of the East 650 feet of the SW ¼ of SW ¼ of Section 1, Township 29, Range 22, EXCEPT the South 163 feet of the East 340 feet and EXCEPT the West 92.5 feet of the South 170 feet of the East 432.5 feet, Ramsey County, Minnesota.

Has caused the same to be surveyed and platted as DELAWARE PLACE and does hereby dedicate to the public for public use forever the public way and the easements for drainage and utility purposes only as shown on this plat.

In witness whereof said Bruggerman Builders, LLC, a Minnesota limited liability company, has caused these presents to be signed by its proper officer this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Signed: Bruggerman Builders, LLC, a Minnesota limited liability company  
\_\_\_\_\_, manager

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_  
The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, manager of Bruggerman Builders, LLC, a Minnesota limited liability company, on behalf of the company.

Notary Public, \_\_\_\_\_ County, \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

I, Daniel L. Thurmes, do hereby certify that I have surveyed or directly supervised the survey of the property described on this plat; prepared this plat or directly supervised the preparation of this plat; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been correctly set; that all monuments indicated on this plat will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this surveyor's certification are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Daniel L. Thurmes, Land Surveyor  
Minnesota License No. 25718

STATE OF MINNESOTA  
COUNTY OF \_\_\_\_\_  
The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by Daniel L. Thurmes, Licensed Land Surveyor.

Notary Public, \_\_\_\_\_ County, Minnesota  
My Commission Expires \_\_\_\_\_

CITY OF NORTH ST. PAUL  
We do hereby certify that on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, the City Council of the City of North St. Paul, Minnesota, approved this plat. Also, the conditions of Minnesota Statutes, Section 505.03, Subd. 2, have been fulfilled

\_\_\_\_\_, Mayor \_\_\_\_\_, Clerk

PROPERTY TAX, RECORDS, AND ELECTION SERVICES DEPARTMENT  
Pursuant to Minnesota Statutes, Section 505.021, Subd. 9, taxes payable in the year 20\_\_ on the land hereinbefore described have been paid. Also, pursuant to Minnesota Statutes, Section 272.12, there are no delinquent taxes and transfer entered this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Christopher A. Samuel, Ramsey County Auditor/Treasurer

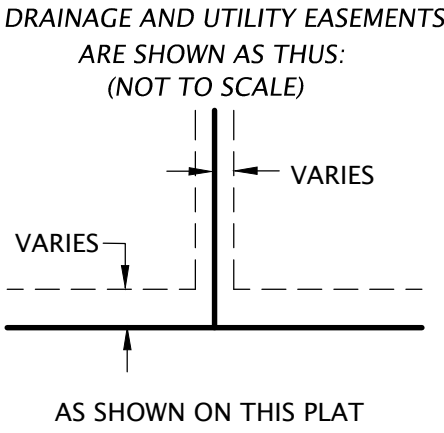
By \_\_\_\_\_, Deputy

COUNTY SURVEYOR  
Pursuant to Minnesota Statutes, Section 383A.42, this plat is approved this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Daniel D. Baar  
Ramsey County Surveyor

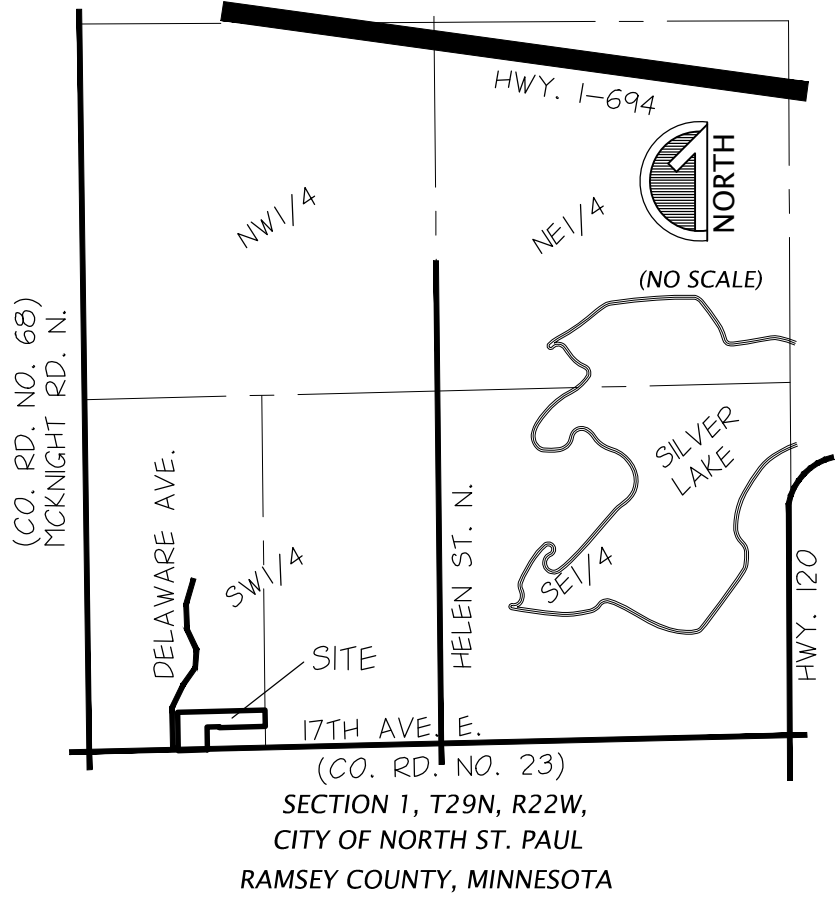
COUNTY RECORDER, County of Ramsey, State of Minnesota  
I hereby certify that this plat of DELAWARE PLACE was filed in the office of the County Recorder for public record on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, at \_\_\_\_\_ o'clock \_\_\_\_M. and was duly filed in Book \_\_\_\_\_ of Plats, Page \_\_\_\_\_, as Document Number \_\_\_\_\_.

Deputy County Recorder

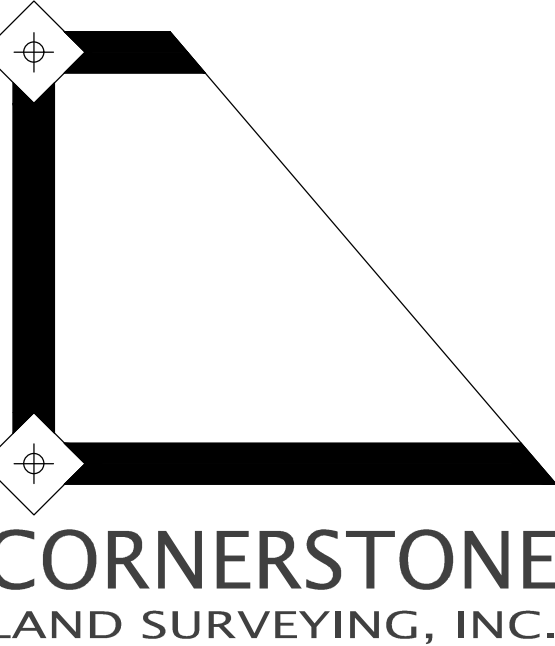
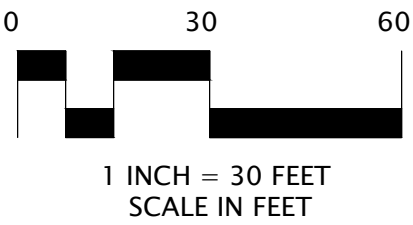


- NOTES:
- Denotes ½ inch x 14 inch iron pipe marked with Minnesota License No. 25718 to be set within one year after recording of this plat.
  - Denotes ½ inch x 14 inch iron pipe set and marked with Minnesota License No. 25718.
  - Denotes found ½ inch unless otherwise indicated.

VICINITY MAP

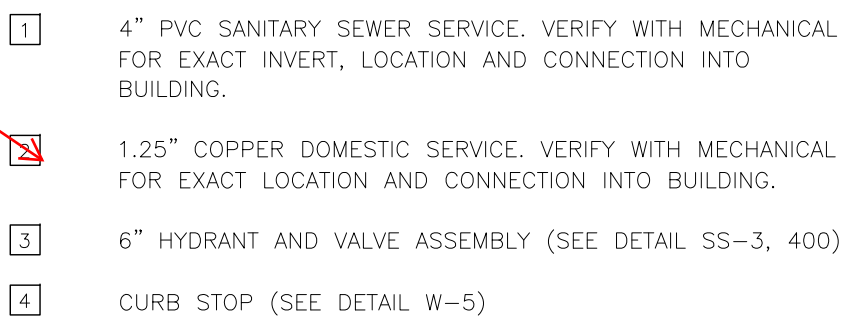


FOR THE PURPOSES OF THIS SURVEY THE SOUTH LINE OF THE SW ¼ OF SEC. 1, T29N, R22W IS ASSUMED TO BEAR N88°33'00"E.





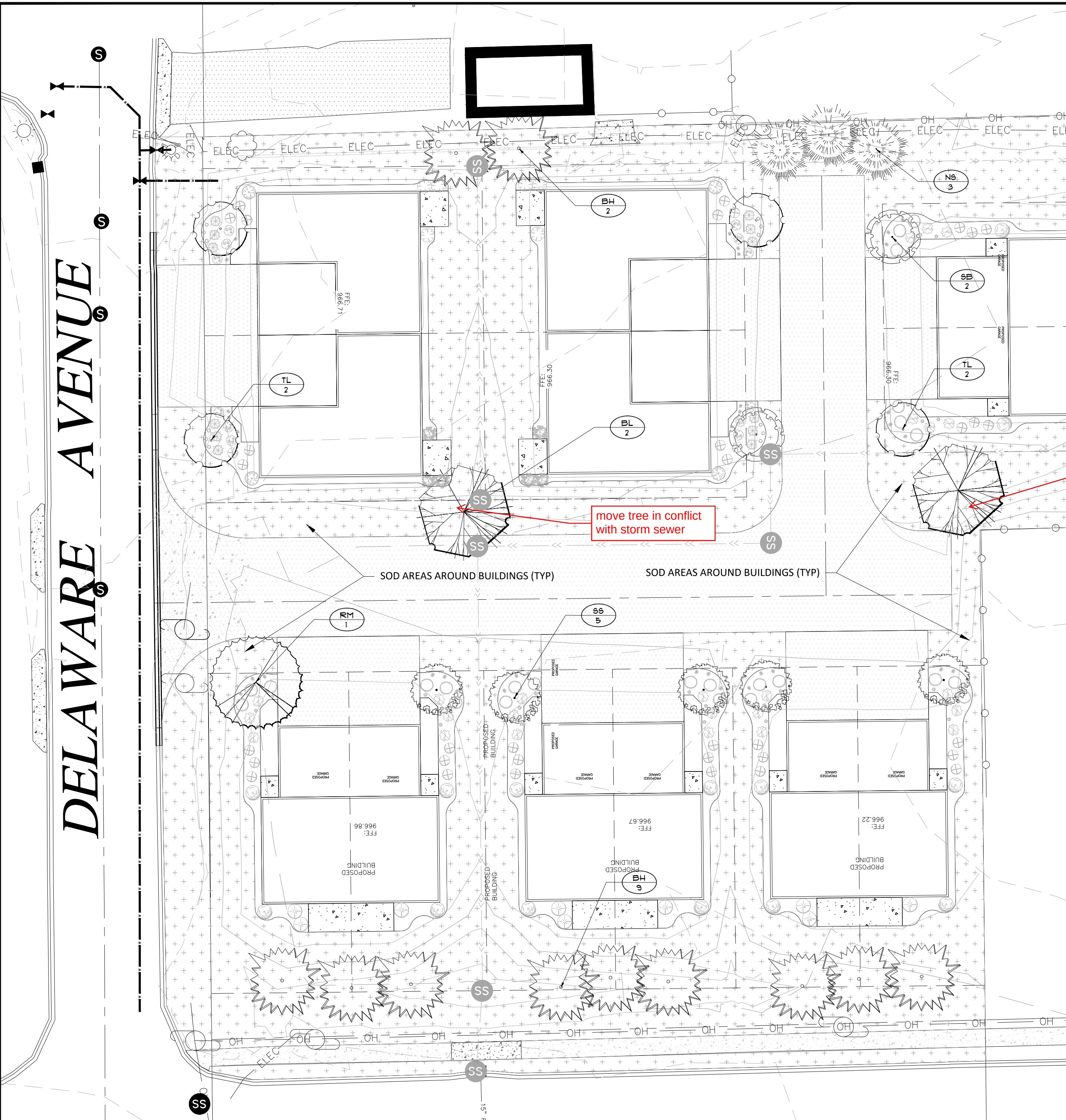
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITY PROVIDERS FOR REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES AFFECTED BY SITE IMPROVEMENTS, INCLUDING PORTIONS OF WORK WHICH MAY BE PERFORMED BY UTILITY COMPANY'S FORCES. ALL PERMITS, APPLICATIONS, FEES AND CHARGES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- UTILITY DISCONNECTIONS, REMOVALS AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE PROJECT PHASING TO ENSURE NEEDED SERVICES ARE MAINTAINED TO ALL BUILDING FACILITIES.
- REFER TO SITE REMOVALS PLAN FOR LIMITS OF UTILITY PIPE REMOVALS.
- PRIOR TO CONSTRUCTION OF PROPOSED BUILDING UTILITY SERVICES, VERIFY PIPE SIZES, LOCATIONS AND ELEVATIONS WITH MECHANICAL PLANS. COORDINATE CONSTRUCTION AND CONNECTIONS WITH MECHANICAL CONTRACTORS.
- THE CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITIES FOR CONNECTION TO PUBLIC WATER, SANITARY SEWER AND STORM SEWER UTILITIES AND WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING PROVIDING AN APPROVED TRAFFIC CONTROL PLAN AS NECESSARY.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR UTILITY CONNECTIONS AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WATER SERVICES ARE TO HAVE A MINIMUM OF 7.5 FEET AND A MAXIMUM OF 9.0 FEET OF COVER. MAXIMUM COVER MAY CHANGE IF DEFLECTING WATER SERVICE UNDER UTILITIES. ALL VALVES ARE TO HAVE 7.5 TO 9.0 FEET OF COVER.
- WATERMAIN SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY MANHOLE, CATCH BASIN, STORM SEWER, SANITARY SEWER, DRAINILE OR OTHER POTENTIAL SOURCE OF CONTAMINATION. THIS ISOLATION DISTANCE SHALL BE MEASURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION SOURCE.
- SHOULD WATER SERVICE CONFLICT WITH OTHER UTILITIES, DEFLECT WATER SERVICE DOWN TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18 INCHES BETWEEN BOTTOM OF UTILITY PIPE AND TOP OF WATERMAIN. CENTER SECTION OF WATERMAIN PIPE AT CROSSING TO PROVIDE MAXIMUM DISTANCE OF JOINTS FROM SEWER CROSSING. FOLLOW TEN STATE STANDARDS, CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) AND MINNESOTA DEPARTMENT OF HEALTH STANDARDS FOR UTILITY CROSSINGS. REFER TO DETAIL UTL-10 FOR DETAILS.
- ALL WATER SERVICE THRUST FORCE POINTS (INCLUDES VALVES, TEES, WYES, CROSSES, REDUCERS, HYDRANTS, DEAD ENDS AND BENDS) ARE TO BE LUGGED (MECHANICAL JOINTS). VERIFY JOINT RESTRAINT METHOD REQUIREMENTS WITH LOCAL GOVERNING AUTHORITY.
- FIRE HYDRANT ASSEMBLY SHALL INCLUDE NECESSARY TEES, STUBS, AND GATE VALVES SHOWN ON THE DRAWING AND DETAILS, AND AS REQUIRED BY THE CITY. VERIFY INSTALLATION REQUIREMENTS WITH LOCAL GOVERNING AUTHORITY REQUIREMENTS.
- CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED GATE VALVES AND MANHOLES TO BE FLUSH WITH FINAL GRADE.
- SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC, SDR 35 FOR PIPES LESS THAN 12- FEET DEEP, SDR 26 FOR PIPES GREATER THAN 12 FEET DEEP UNLESS OTHERWISE NOTED.
- ALL SERVICE CONNECTIONS WITH LESS THAN 5 FEET COVER (TO TOP OF PIPE FOR WATER AND TO INVERT ON SANITARY, ARE TO BE INSULATED.
- INSTALL CLEANOUTS/MANHOLES ALONG SANITARY SEWER SERVICE PER MINNESOTA DEPARTMENT OF HEALTH PLUMBING CODE REQUIREMENTS.
- SANITARY MANHOLES SHALL HAVE WATERTIGHT LIDS.
- THE CONTRACTOR SHALL CLEAN ALL SURFACE FLOW CHANNELS, PIPES AND STRUCTURES AFTER FINAL SURFACES ARE ESTABLISHED AND PRIOR TO PROJECT CLOSEOUT.
- STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (CLASS 5 FOR PIPE DIAMETERS 18" AND SMALLER, CLASS 3 FOR PIPE DIAMETERS 21" AND LARGER UNLESS OTHERWISE NOTED) WITH R-4 GASKETS. ROOF DRAIN LEADERS SHALL BE PVC, SCHEDULE 40.
- ALL SEWER AND WATER CONSTRUCTION TO COMPLY WITH CITY ENGINEERING DESIGN STANDARDS.
- UTILITY CONSTRUCTION PER MNDOT SPECIFICATIONS 2451, 2501, 2502, 2506, 2506, 2511, 2611, 2621, AND 2625



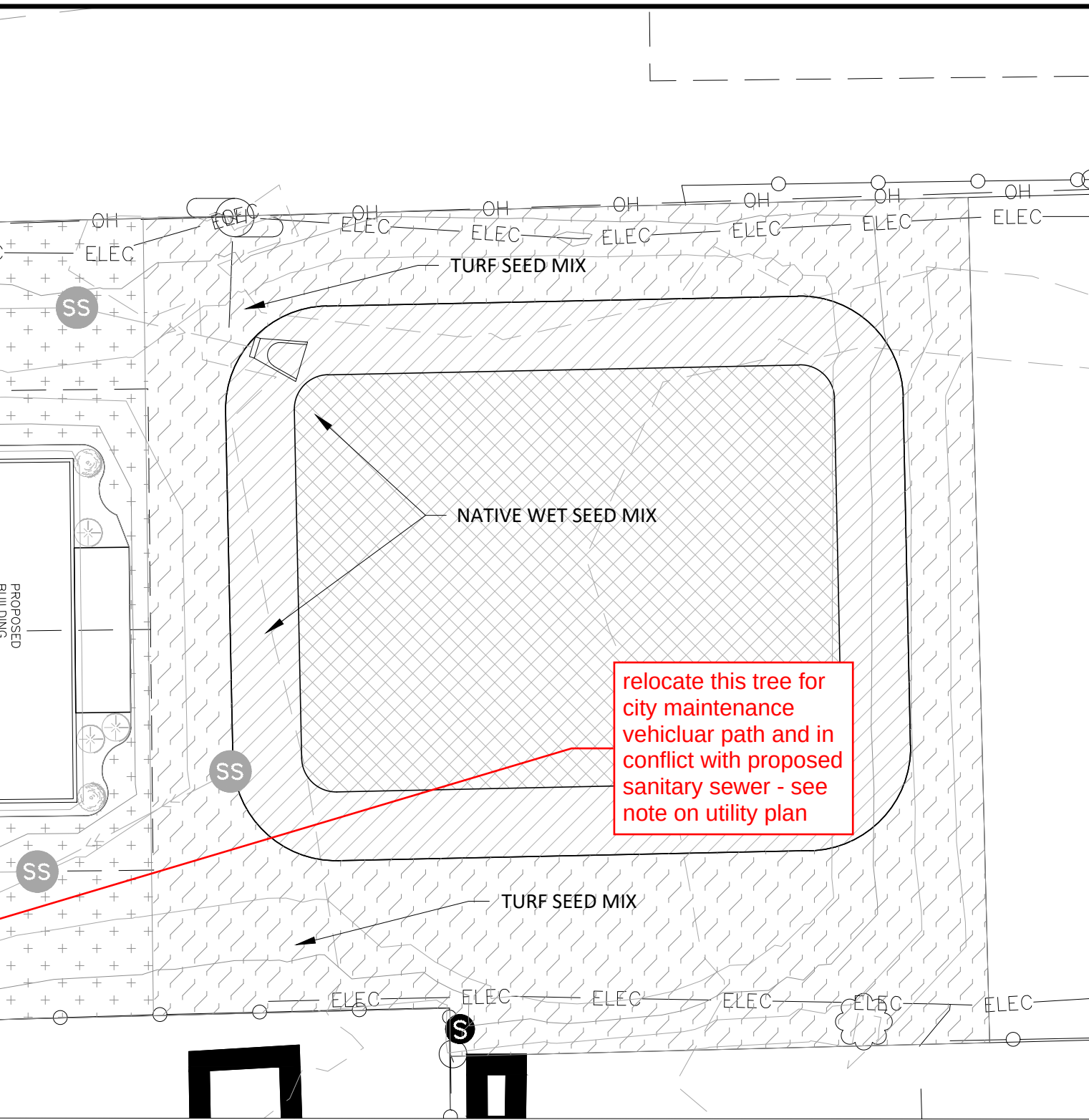
THE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE EXACT LOCATION OF ALL UTILITIES (PUBLIC AND PRIVATE) MUST BE DETERMINED BEFORE COMMENCING WORK.

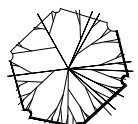
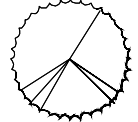
|                           |                                                                                                                                                                                                                                                                                                            |                                                                                                           |                                                                   |                                                                                                                                                                                                                                                                                                               |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SHEET:<br><div>C4.0</div> | JOB No: 181076<br>DATE: 09/10/19<br>DRAWN BY: WNW<br>DESIGNED BY: ECR                                                                                                                                                                                                                                      | 17TH & 3RD TOWNHOMES NSP<br><br>3RD ST N AND 17TH AVE E<br>NORTH SAINT PAUL, MN 55109<br><br>UTILITY PLAN | DATE: _____<br>REV: _____<br>DESCRIPTION: _____<br>REV. BY: _____ | <div>  <div> <b>AMI</b><br/>           Consulting Engineers P.A.<br/>           3640 TALMAGE CIR. VADNAIS HEIGHTS<br/>           651.344.8783 - amingenieurs.com<br/>           SUPERIOR - IRON RANGE         </div> </div> |
|                           | I HEREBY CERTIFY THAT THE PLAN, SPECIFICATION, AND CALCULATIONS WERE PREPARED BY ME OR DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA<br><div>  </div> |                                                                                                           |                                                                   |                                                                                                                                                                                                                                                                                                               |



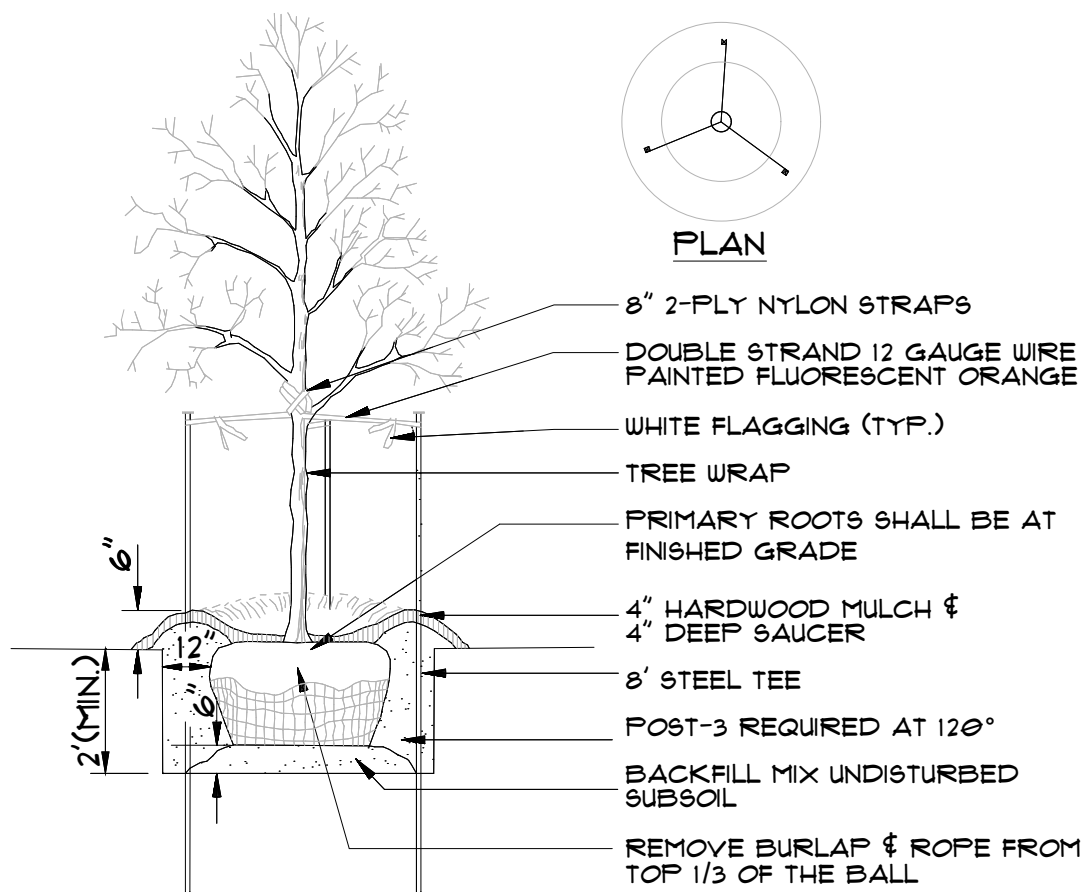
DELAWARE AVENUE<sup>5</sup>

| SEED MIX LEGEND (FOR ALL SHEETS)                                                   |                                                                                                 |                                                                                                          |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| SYM.                                                                               | TYPE                                                                                            | SEED MIX                                                                                                 |
|  | NATIVE WET PRAIRIE                                                                              | MN SEED MIX <b>34-271</b> (OLD BWSR W2)                                                                  |
|  | WETLAND FRINGE                                                                                  | MN SEED MIX <b>35-221</b> (OLD BWSR U6)                                                                  |
|  | COMMERCIAL TURF - SOD                                                                           | HIGHLAND SOD                                                                                             |
|  | MNDOT 260<br>ALL AREAS DISTURBED BY<br>CONSTRUCTION NOT INTENDED<br>SODDED, OR RETENTION BASINS | MN SEED MIX <b>25-131</b> (OLD MINDOT 260) &<br><br>(USE EROSION CONTROL BLANKET<br>FOR SLOPES OVER 3:1) |
|  | MESIC GENERAL ROADSIDE<br>FOR GENERAL STABILIZATION<br>OF PAD AREAS                             | MN SEED MIX <b>25-131</b><br>(USE EROSION CONTROL BLANKET<br>FOR SLOPES OVER 3:1)                        |
|  | HARDWOOD MULCH<br>SHREDDED HARDWOOD MULCH                                                       | (NATURAL COLOR)                                                                                          |
|  | 1/2" CRUSHED GRANITE                                                                            | CRUSHED QUARRY GRANITE                                                                                   |

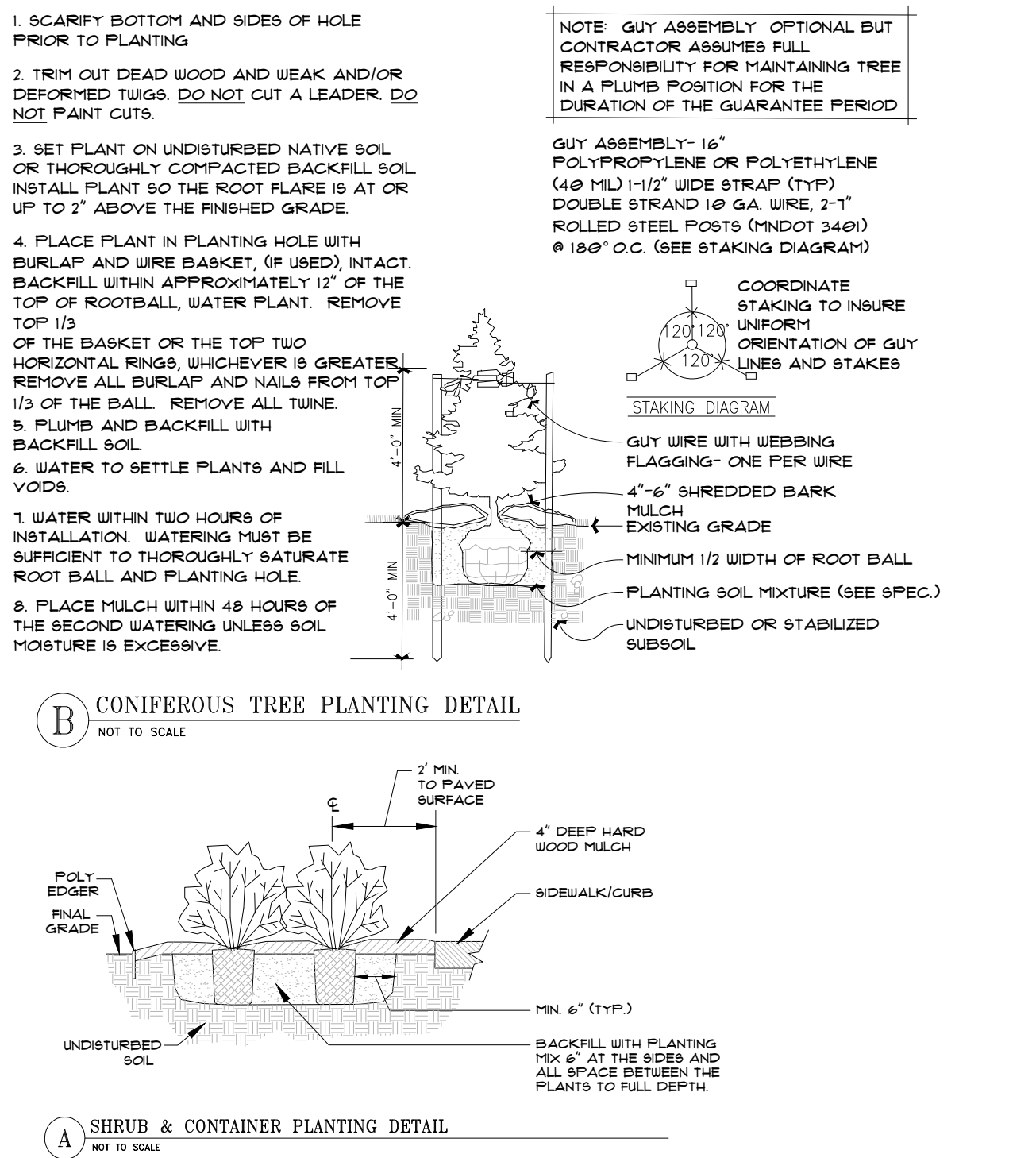


| LANDSCAPE LEGEND |                                                                                       |                                               |  |             |                                |      |      |                |        |     |                                |
|------------------|---------------------------------------------------------------------------------------|-----------------------------------------------|--|-------------|--------------------------------|------|------|----------------|--------|-----|--------------------------------|
| KEY              | BOTANICAL NAME                                                                        |                                               |  | COMMON NAME | SIZE                           | ROOT | QTY. | INSTALL HEIGHT | MATURE |     |                                |
| DECIDUOUS TREES  |                                                                                       |                                               |  |             |                                |      |      |                |        |     |                                |
| BL               |    | Tilia americana 'Boulevard'                   |  |             | BOULEVARD LINDEN               | 2.5" | BB   | -              | 15'    | 60' | STRAIT LEADER<br>NO "V" CROTCH |
| RM               |    | Acer rubrum 'Nothwoods'                       |  |             | NORTHWOODS MAPLE               | 2.5" | BB   | -              | 14'    | 50' |                                |
| ORNAMENTAL TREES |                                                                                       |                                               |  |             |                                |      |      |                |        |     |                                |
| SB               |  | Amelanchier x grandiflora 'Autumn Brilliance' |  |             | AUTUMN BRILLIANCE SERVICEBERRY | 1.5" | BB   | -              | 8'     | 20' | STRAIT LEADER<br>NO "V" CROTCH |
| SS               |  | Malus x 'Spring Snow'                         |  |             | SPRING SNOW CRABAPPLE          | 1.5" | BB   | -              | 8'     | 25' |                                |
| TL               |  | Syringa Reticulata                            |  |             | JAPANESE TREE LILAC            | 1.5" | BB   | -              | 8'     | 20' |                                |
| EVERGREEN TREES  |                                                                                       |                                               |  |             |                                |      |      |                |        |     |                                |
| BH               |  | Picea glauca var. Densata                     |  |             | BLACK HILLS SPRUCE             | 6'   | BB   | -              | 6'     | 40' | FULL FORM<br>TO GRADE          |
| NS               |  | Picea abes                                    |  |             | NORWAY SPRUCE                  | 6'   | BB   | -              | 6'     | 60' |                                |

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE  
CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.



1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
2. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
3. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
4. ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
5. ALL PLANTING STOCK SUBJECT TO COMPLIANCE TO THE "AMERICAN STANDARD FOR NURSERY STOCK" AND ISO 9001, LATEST EDITION FROM AMERICAN ASSOCIATION OF NURSERYMEN, INC. SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
6. ALL TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DEGREE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4" HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS @ 6' ON CENTER.
7. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE "STAKING" OF ALL PLANTING BEDS TO BE SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION ALL PLANT MATERIALS PRIOR TO INSTALLATION.
8. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
9. MULCH: 3" DEEPED BARKWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL. ON-SITE FOR APPROVAL. DELIVER MULCH BY DATE OF INSTALLATION. USE 4" FOR SHRUB BEDS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
10. PLANT LANDSCAPE FILTER FABRIC UNDER ALL ROCK MULCHED AREAS. FILTER FABRIC SHALL BE 100% INTERWOVEN 5.1oz NEEDLE PUNCHED POLYPROPYLENE FABRIC MANUFACTURED BY DEDW. USE PRO 5 "WEED BARRIER" OR APPROVED EQUAL.
11. PLACE EDGING BETWEEN ALL PLANTING/ROCK BEDS AND TURF. EDGING SHALL BE POLY.
12. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND. DISCREPANCIES TO EXIST. THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES. FOR EXAMPLE, THE CONTRACTOR SHALL PLAN, VERIFY ALL QUANTITIES SHOWN ON THE LANDSCAPE LEGEND.
14. LONG-TERM STORAGE OF MATERIALS OR SHEDS ON-SITE WILL NOT BE ALLOWED.
15. THE CONTRACTOR SHALL KEEP PAVEMENTS, PLANTERS AND BUILDINGS CLEAN AND UNSTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. MATERIALS SHALL BE PROMPTLY REMOVED FROM THE SITE. ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HELED IN AND WATERED UNTIL RE-PLANTATION DATE. ANY STOCK IN THIS MANNER WILL BE REJECTED. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAVED AT THE CONTRACTOR'S EXPENSE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, REGULATIONS, AND PERMITS GOVERNING THE WORK.
17. LOCATE AND VERIFY ALL UTILITIES, INCLUDING UTILITY LOCATING LINE, WITH THE OWNER. LOCATE AND VERIFY UTILITIES AND Gopher STATE ONE CALL AT 454-0002 (TWIN CITIES METRO AREA) OR 800-252-1166 (GREATER MINNESOTA) 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE
- LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
18. USE ANTI-DECIDUOUS (WILTRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND EVERGREENS MOVED IN BARE. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS MUST BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
19. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL BE MIXED WITH A 30% SPECIFICATION 3587 TYPE B SELECT TOPSOIL MIXTURE SHALL BE FREE FROM HARDPAK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH OF 6.1 AND 10% NUTRIENT FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED BY ROTILLAGE UP TO THE TOP 12" OF THE BED.
20. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASON (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
21. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
22. SEASONS/TIME OF CONTRACTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT PLANTING SEASONS: SPRING AT HIS/HERS/OPT. DECIDUOUS POTTED PLANTS: 4/1 - 6/1; 9/21 - 11/1  
DECIDUOUS &B&B: 4/1 - 6/1; 9/21 - 11/1  
EVERGREEN POTTED PLANTS: 4/1 - 6/1; 9/21-11/1  
EVERGREEN &B&B: 4/1 - 5/1; 9/21 - 11/1  
TURF/LAWN SEEDING: 4/1 - 6/1; 7/20 - 9/20  
NATIVE MIX SEEDING: 4/1 - 7/20; 9/20-10/20
23. 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 EXCEPTIVE OF THE QUALITY OF THE PLANTS. SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GROUND AND KEEPING PLANTS IN PLUMB POSITION. AFTER ACCEPTANCE, THE OWNERS SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE PLANTING PERIOD.
24. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH THE SAME TYPE AND SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
25. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS AT LEAST ONCE A WEEK IN EXTREMELY DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO PREVENT OVERWATERING. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.
26. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL INSPECTION.
27. ALL DISTURBED AREAS TO BE TURF SEEDED, AND RECEIVE 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
28. ALL DISTURBED AREAS TO RECEIVE NATIVE WETLAND SEEDED, ARE TO RECEIVE ENGINEERED SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--|
| DELWARE PLACE<br>-----<br>3RD ST N AND 17TH AVE E<br>NORTH SAINT PAUL, MN 55109                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | JOB No: 181076<br>DATE: 09/10/19<br>DRAWN BY: JAK<br>DESIGNED BY: JAK                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SHEET:<br><b>L1.0</b>                                                                                 |  |
| LANDSCAPE PLAN<br>-----                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE: 09/10/2019<br>REV: A<br>DESCRIPTION: CITY REVIEW<br>REV: B<br>DESCRIPTION: CITY PLANNING REVIEW |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | REV. BY: ECR<br>NPT                                                                                   |  |
| <div><p>DreamScapes Landscape and Design<br/>7087 20th Ave S, Centerville MN 55038<br/><a href="http://www.DreamScapesMN.com">www.DreamScapesMN.com</a></p></div>                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |  |
| <p>I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.</p> <p>NAME: James A. Kalkes RLA<br/>SIGNATURE: <i>James A. Kalkes</i><br/>DATE: 08/02/2020<br/>LIC. NO.: 4597</p> <div><p><b>AMI</b><br/>Consulting Engineers P.A.<br/>3640 TALMAGE CIR. VADNAIS HEIGHTS<br/>651.344.8783 - <a href="mailto:amiengineers.com">amiengineers.com</a><br/>SUPERIOR - IRON RANGE</p></div> |                                                                                                       |  |

DreamScapes Landscape and Design  
7087 20th Ave S, Centerville MN 55038  
[www.DreamScapesMN.com](http://www.DreamScapesMN.com)

| DATE:     | REV: | DESCRIPTION          | REV. BY: |
|-----------|------|----------------------|----------|
| 9/10/2019 | A    | CITY REVIEW          | ECR      |
| 8/6/2020  | B    | CITY PLANNING REVIEW | HPCT     |
|           |      |                      |          |
|           |      |                      |          |
|           |      |                      |          |
|           |      |                      |          |

|                                                                                        |                       |
|----------------------------------------------------------------------------------------|-----------------------|
| <p>DELAWARE PLACE</p> <p>3RD ST N AND 17TH AVE E</p> <p>NORTH SAINT PAUL, MN 55109</p> | <p>LANDSCAPE PLAN</p> |
|----------------------------------------------------------------------------------------|-----------------------|

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: JAK  
DESIGNED BY: JAK

SHEET:  
L1.0





- BITUMINOUS PAVEMENT (SEE DETAIL 200)
- CONCRETE (SIDEWALK OR PAVEMENT) (SEE DETAIL 204)
- PROPOSED DRAINAGE AND UTILITY EASEMENT
- OUTLOT DEDICATED TO CITY PARKS
- CONCRETE CURB AND GUTTER (SEE DETAIL 211)
- TIP-OUT CURB
- BUILDING SETBACK
- 100-YR HIGH WATER LEVEL
- POWER POLE

## KEY NOTES

- |   |                                                                           |
|---|---------------------------------------------------------------------------|
| 1 | BITUMINOUS PAVEMENT (SEE DETAIL 200)                                      |
| 2 | CONCRETE PAVEMENT (SEE DETAIL 204)                                        |
| 3 | RELOCATE POWERPOLE, CONTACT CONTRACTOR TO COORDINATE WITH PRIVATE UTILITY |
| 4 | D312 CURB & GUTTER (SEE DETAIL 211)                                       |
| 5 | CURB TAPER (SEE DETAIL 212)                                               |
| 6 | ENTRANCE APRON (SEE DETAIL ST-6)                                          |

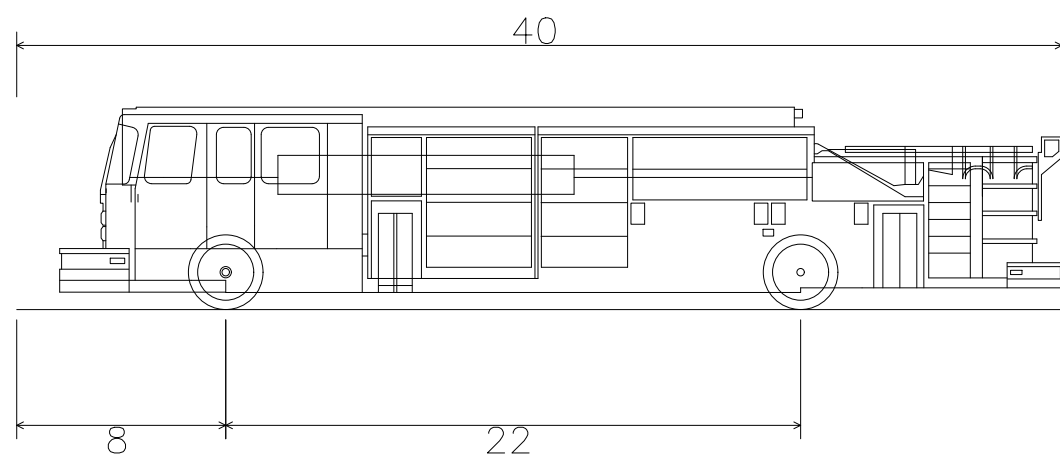
GENERAL GEOMETRIC AND PAVING NOTES:

3. SITE DIMENSIONS SHOWN ON THIS PLAN SHALL BE USED FOR ALL LAYOUT WORK. CHECK ALL PLAN AND DETAIL DIMENSIONS. BUILDING AND SITE IMPROVEMENTS SHALL BE LAID OUT ON SITE BY A REGISTERED LAND SURVEYOR, OR A LICENSED ENGINEER.
2. REFER TO ARCHITECTURAL PLANS FOR BUILDING LAYOUT, EXACT LOCATION AND DIMENSIONS OF STOOPS/EXITS, RAMPS AND TRUCK DOCKS AND PRECISE BUILDING DIMENSIONS.
3. REFER TO SITE DEMOLITION PLAN FOR LIMITS OF PAVEMENT REMOVAL, IF APPLICABLE.
4. ALL PAVING DIMENSIONS ARE TO FLOW LINE OF CURB UNLESS NOTED OTHERWISE. THE FLOW LINE OF CURB IS ASSUMED TO BE 8 INCHES FROM THE BACK OF CURB.
5. MEET REQUIREMENTS OF LOCAL GOVERNING AUTHORITY FOR WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING TEMPORARY TRAFFIC CONTROL. A TRAFFIC CONTROL PLAN SHALL BE PROVIDED AND APPROVED BY THE CITY PRIOR TO BEGINNING WORK IN THE RIGHT OF WAY.
6. ALL SIDEWALKS SHALL HAVE POSITIVE SLOPE AWAY FROM THE BUILDING. THE MAXIMUM CROSS SLOPE SHALL BE 2.0% AND THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 5.0% UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
7. NO SLOPE IN ANY DIRECTION SHALL EXCEED 2% IN ACCESSIBLE PARKING AND LOADING AREAS.
8. MATCH NEW AND EXISTING PAVEMENT SURFACES, SIDEWALKS AND CURBS AT SAWCUT LINES, ALLOWING NO PONDING OF WATER AT JOINTS. PROVIDE SMOOTH GRADE TRANSITION ACROSS NEW AND EXISTING JOINTS.
9. ALLOW MINIMUM OF SEVEN DAYS CURE FOR CURB AND GUTTER PRIOR TO PAVING.
10. ALLOW MINIMUM OF 24 HOUR COOLING PRIOR TO ALLOWING TRAFFIC ON BITUMINOUS PAVING.
11. PROVIDE 4' TRANSITION OF B618 CURB AND GUTTER EITHER SIDE OF RECTANGULAR CATCH BASINS TO MATCH WIDTH OF CASTING.
12. OPEN SPACE IS DEFINED AS LAND THAT IS GRADED, DEVELOPED, LANDSCAPED AND EQUIPPED, INTENDED AND MAINTAINED FOR ACTIVE AND/OR PASSIVE RECREATION, AVAILABLE AND ACCESSIBLE, TO AND USABLE BY ALL PERSONS.

SIGNAGE AND MARKING NOTES:

1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MN MUTCD, CURRENT VERSION.
2. SEE REGULATORY SIGN DETAIL FOR SIGN AND POST DETAILS AND SIGN DESIGNATION AND SIZE INFORMATION.
3. ACCESSIBLE PARKING SIGNS SHALL BE PER MINNESOTA MUTCD SIGN R7-8M, VAN ACCESSIBLE PARKING SIGNS PER R7-8BP WHERE INDICATED AS "VAN". SEE ACCESSIBLE SIGN AND POST DETAIL.
4. PROVIDE 4" WIDE SOLID WHITE STRIPING IN PARKING AREAS, UNLESS NOTED OTHERWISE.
5. PROVIDE PAVEMENT MARKINGS AND PAINT SYMBOLS AT ACCESSIBLE PARKING SPACES PER MN MUTCD, ADA AND LOCAL CODE.

| SITE DATA                 |                          |
|---------------------------|--------------------------|
| SITE/PARCEL SIZE          | 2.48 AC (108,029 SF)     |
| BUILDING AREA             | 14,622 SF (14% COVERAGE) |
| IMPERVIOUS/PERVIOUS AREA  | 0.67 AC/1.81 AC          |
| LAND USE CLASSIFICATION   | R2                       |
| CURRENT ZONING            | R2                       |
| FLOOD ZONE CLASSIFICATION | ZONE X                   |



Pumper Fire Truck  
Overall Length  
Overall Width  
Overall Body Height  
Min Body Ground Clearance  
Track Width  
Lock-to-lock time  
Max Wheel Angle

40.000ft  
8.167ft  
7.745ft  
0.656ft  
8.167ft  
5.00s  
45.00°



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

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

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

**AMI**  
Consulting Engineers P.A.  
36640 TALMAGE CIR. VADNAIS HEIGHTS  
651.344.8783 - amientengineers.com  
SUPERIOR - IRON RANGE

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.

NOT A FINAL CONSTRUCTION  
 NAME: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_  
 DATE: \_\_\_\_\_

[illegible]

17TH & 3RD TOWNHOMES NSP

3RD ST N AND 17TH AVE E

NORTH SAINT PAUL, MN 55109

SITE PLAN

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: WNW  
DESIGNED BY: ECR

SHEET:

# C2.0

# Applicant Response to Previous Engineering Comments

## MEMORANDUM

Date: 9/12/2019  
To: Planning Commissioners  
From: Erin Perdu, AICP, City Planner  
Ryan Krzos, AICP, Planning Consultant  
CC: Scott Duddeck, City Manager  
Debra Gustafson, Administrative and Community Services Director  
Re: Rezoning, Preliminary Plat, Planned Unit Development and Site Plan Review for development of 18 townhouse units at the Intersection of Delaware Avenue and 17<sup>th</sup> Avenue (2329 17<sup>th</sup> Avenue E).

Note that at the time of this addendum, staff is still waiting for some information to be provided by the applicant. Please note that newly added content is highlighted in grey.

### Engineering Comments:

1. It is recommended that the existing 8-inch VCP sanitary be replaced as new 8-inch PVC, at the same time as watermain installation. The new sanitary sewer can be placed 10 feet away from the proposed watermain on the east end. The applicant should show the existing sanitary services to the lots located south of the site as being reconnected to the last segment of proposed pipe at the east end. Co-participation shall be determined in the final Developer's Agreement. **Agree**
2. The applicant is to provide additional construction or temporary access easements for all work on utilities that will extend outside the current permanent easements. This includes the sanitary sewer on the east end where the current easement is only 5' wide to the southern development border. Easements should be wide enough to allow for a 1:1 working trench unless a box or additional sheeting/shoring is utilized. **Agree**
3. Applicant is to maintain sanitary sewer service for the existing lots located south of the site throughout construction. **Agree**
4. Applicant is to show remaining profile view to the east and include the proposed watermain and proposed/existing sanitary sewer main. Applicant is to provide the connection to the existing sanitary sewer manhole if necessary as well. **Plan modified for new site layout.**
5. The watermain throughout the site shall be 8" PVC C900. Hydrant leads are to be DIP. **Agree**
6. Applicant is to provide a gate valve at the connection to the existing watermain in the street. **Agree**
7. Applicant is to provide a shutoff for the irrigation service. **Agree**
8. The applicant is to provide additional drainage and utility easement to encompass drainage swales that convey water from one lot across another. **agree**
9. There are several areas where the surface grades are proposed to be less than 2% between lots. The applicant should modify the grades or provide how water will be adequately conveyed in these areas. **Agree**

10. The applicant is to provide turning movements and show that emergency vehicles can navigate the hammerhead at the east end of the development. **Agree**
11. The site entrance/exit has a grade of just under 7%. This may cause a hazard in the winter time for cars attempting to enter and exit. A grade of 5% is recommended with a vertical curve and 0.5% immediately adjacent to Delaware Avenue. **Agree**
12. Restoration of disturbed City roads will require matching the existing road section in the area and replacement of the bituminous pavement to the road's full width. **Agree.**
13. The applicant is to modify the proposed site grading and draitile installation to avoid existing electrical utilities or coordinate relocating the facilities with the utility owner. Proposed site grading shall not compromise the integrity of the existing electrical facilities. **Agree**
14. The applicant is to modify the proposed site grading or FFE's to allow for at least 0.5' of fall between the FFE of the houses and the high point of the adjacent drainage swales between the houses. **Agree**
15. The applicant shall verify that flow arrows are in agreement with proposed contours (see the north side of Lot 1, etc.). **Plan modified for new site layout.**
16. The applicant shall provide valley gutter to convey water across the bituminous stub between Lot 2 and the pond. **Agree.**
17. The curb line must convey drainage at a minimum 0.5% for the whole length. Applicant is to modify curblines grades and highpoints at the turnaround to achieve this. **Agree**
18. Applicant is to verify references called out in the plan for specific details (e.g. Sheet C4.0 Key Notes 3, 4, etc.). **Agree.**
19. The applicant is responsible for obtaining all necessary permits for the project from both the City and applicable outside agencies. **At later date.**

## **Stormwater:**

### General

20. A Ramsey Washington Metro Watershed District permit will be required and should be submitted to the City prior to issuance of any City permits. **At later date.**
21. A SWPPP and erosion control plan must be submitted to the City for review. **Agree**
22. An operations and maintenance plan for the proposed stormwater treatment system must be submitted to and executed with the City. **At later date.**

### Plans

23. The stormwater management plan shall be subject to further comments by the city engineer following more detailed analysis of downstream system and HydroCAD modeling prior to final construction plan approvals and final plat approval. As part of this analyses the existing structure that is being connected to may require replacement. **At later date.**
24. The applicant is to provide low opening elevations for the adjacent homes around the entire site and verify adequate freeboard from the pond and drainage is demonstrated on the final construction plans to the satisfaction of the city engineer prior to final plat approval. **Agree**

25. Drainage and utility easements are to be added to the final plat as required by the city engineer. **Agree**
26. No landscaping shall conflict with underground or overhead infrastructure or maintenance access thereto, drainage swales, emergency overflow routes, or stormwater management infrastructure. **Agree**
27. Applicant shall provide cleanouts on drintile at all bend points and in the middle of the 343' length. **No drintile.**
28. Applicant is to provide a profile view and schedule for the storm sewer. **Agree**

## **RECOMMENDED ACTION**

Based on the findings described in this report, staff recommends the following actions:

1. **Conditional approval** of the site plan for redevelopment of the site as proposed, with the following conditions:
  - a. Revision of plan and stormwater management plan to satisfy all engineering comments on previously submitted information
  - b. Easements shall be added to the final plat as required by the City Engineer.
  - c. Final hydrant locations and turnaround dimensions shall be approved by the Fire Chief
  - d. The applicant is responsible for obtaining all necessary permits for the project from the City and all applicable outside agencies, including but not limited to Ramsey County, Ramsey Washington Metro Watershed District, MPCA (NPDES and sanitary sewer), and MDH (Water main).
  - e. A Developer's Agreement shall be required
  - f. The water and sewer shall be public. The Stormwater management pond and related infrastructure and street shall be privately owned and maintained.



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# VICINITY MAP

|  |                               |
|--|-------------------------------|
|  | PROPERTY LINE                 |
|  | SETBACK LINE                  |
|  | RIGHT OF WAY LINE             |
|  | RETAINING WALL                |
|  | EXISTING BUILDING             |
|  | PROPOSED BUILDING             |
|  | FENCE                         |
|  | EXISTING STORM                |
|  | PROPOSED STORM                |
|  | PROPOSED DRAIN TILE           |
|  | EXISTING SANITARY             |
|  | PROPOSED SANITARY             |
|  | EXISTING WATERMAIN            |
|  | PROPOSED WATERMAIN            |
|  | EXISTING OVERHEAD UTILITY     |
|  | EXISTING FIBEROPTIC           |
|  | EXISTING UNDERGROUND ELECTRIC |
|  | EXISTING UNDERGROUND GAS      |
|  | EXISTING MAJOR CONTOUR        |
|  | PROPOSED MAJOR CONTOUR        |
|  | EXISTING MINOR CONTOUR        |
|  | PROPOSED MINOR CONTOUR        |
|  | SILT FENCE                    |
|  | BIOREFILL LOG                 |

|         |                                |
|---------|--------------------------------|
| FFE     | FINISH FLOOR ELEVATION         |
| WO      | WALKOUT ELEVATION              |
| LO      | LOOKOUT ELEVATION              |
| ME      | MATCH EXISTING ELEVATION       |
| GB      | GRADE BREAK                    |
| HP      | HIGH POINT                     |
| LP      | LOW POINT                      |
| TW      | TOP OF WALL ELEVATION          |
| BW      | BOTTOM OF WALL ELEVATION       |
| EOF     | EMERGENCY OVERFLOW ELEVATION   |
| HWL     | HIGH WATER LEVEL               |
| NWL     | NORMAL WATER LEVEL             |
| RIM     | RIM ELEVATION                  |
| INV     | INVERT ELEVATION               |
| DIP     | DUCTILE IRON PIPE              |
| RCP     | REINFORCED CONCRETE PIPE       |
| PVC     | POLYVINYL CHLORIDE PIPE        |
| HDPE    | HIGH DENSITY POLYETHYLENE PIPE |
| PERF PE | PERFORATED PIPE                |
| LF      | LINEAR FEET                    |
| CY      | CUBIC YARD                     |
| SF      | SQUARE FOOTAGE                 |
| STA     | STATION                        |
| F&I     | FURNISH AND INSTALL            |
| AR      | AS REQUIRED                    |
| UAI     | USE AS-IS                      |
| TYP     | TYPICAL                        |
| R       | RADIUS                         |
| NTS     | NOT TO SCALE                   |
| ROW     | RIGHT OF WAY                   |

|                                                                                       |                      |
|---------------------------------------------------------------------------------------|----------------------|
|  | SANITARY MANHOLE     |
|  | SANITARY CLEANOUT    |
|  | STORM MANHOLE        |
|  | STORM CATCH BASIN    |
|  | STORM APRON          |
|  | WATER VALVE          |
|  | FIRE HYDRANT         |
|  | POWER POLE           |
|  | LIGHT POLE           |
|  | FLAG POLE            |
|  | GAS METER            |
|  | ELECTRIC METER       |
|  | MAIL BOX             |
|  | SIGN                 |
|  | SOIL BORING LOCATION |
|  | SLOPE                |
|  | SPOT ELEVATION       |
|  | PARKING STALL COUNT  |
|  | INLET PROTECTION     |

|                                                                                       |                            |
|---------------------------------------------------------------------------------------|----------------------------|
|  | BITUMINOUS PAVEMENT        |
|  | CONCRETE                   |
|  | RIPRAP                     |
|  | WETLAND                    |
|  | EROSION CONTROL BLANKET    |
|  | SOD                        |
|  | MULCH                      |
|  | ROCK CONSTRUCTION ENTRANCE |

|          |                                              |
|----------|----------------------------------------------|
| CIVIL    |                                              |
| T1.0-1.1 | TITLE SHEET                                  |
| C1.0     | DEMOLITION PLAN                              |
| C2.0-2.1 | SITE PLAN                                    |
| C3.0     | GRADING PLAN                                 |
| C4.0-4.2 | UTILITY PLAN                                 |
| C5.0-5.1 | STORM MANAGEMENT PLAN                        |
| C6.0-6.2 | STORMWATER POLLUTION PREVENTION PLAN (SWPPP) |

CORNERSTONE LAND SURVEYING, INC.  
DANIEL L. THURMES, PLS  
DAN@CSSURVEY.NET  
6750 STILLWATER BLVD N #1  
STILLWATER, MN 55082  
651.275.8969



THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN PROVIDED BY THE UTILITY OWNER, ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING CONSTRUCTION PER STATE LAW.

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE CURRENT VERSION OF THE **CITY OF NORTH SAINT PAUL** STANDARD CONSTRUCTION SPECIFICATIONS SHALL GOVERN.

**AMI**  
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38640 TALMAGE CIR. VADNAIS HEIGHTS  
651.344.8783 - [amiengineers.com](http://amiengineers.com)  
SUPERIOR - IRON RANGE

OR BEFORE 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.

**NOT A FINAL**

NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE: \_\_\_\_\_

LET. NO. XXXX

|           |   |                      |      |
|-----------|---|----------------------|------|
| 9/10/2019 | A | CITY REVIEW          | ECR  |
| 8/4/2020  | B | CITY PLANNING REVIEW | NPCT |
|           |   |                      |      |
|           |   |                      |      |
|           |   |                      |      |
|           |   |                      |      |

DELAWARE 1 LANCE  
3RD ST N AND 17TH AVE E  
NORTH SAINT PAUL, MN 55109

---

TITLE SHEET

OB No: 181076  
DATE: 09/10/19  
DRAWN BY: WNW  
DESIGNED BY: NPCT

# T1.0



GENERAL PROJECT NOTES:

- BIDDER WILL VISIT THE SITE PRIOR TO BIDDING TO UNDERSTAND THE SCOPE OF WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ITEMS THAT COULD HAVE BEEN IDENTIFIED BY A SITE VISIT, STUDYING THE TOPOGRAPHIC SURVEY, THOROUGHLY REVIEWING ALL PLANS AND REPORTS, AND ADDITIONAL INFORMATION REQUESTED FOR CLARIFICATION PRIOR TO BIDDING.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO STARTING WORK.
- EXISTING TOPOGRAPHIC AND BOUNDARY INFORMATION TAKEN FROM SURVEY BY AMI CONSULTING ENGINEERS IN 2018. SUPPLEMENTAL INFORMATION GATHERED FROM SITE VISITS, AND PLANS OBTAINED FROM CLIENT, ARE SHOWN AS APPROXIMATE LOCATIONS ONLY AND SHALL BE FIELD VERIFIED PRIOR TO OR DURING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE.
- PROVIDE AND MAINTAIN TRAFFIC CONTROL DEVICES WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE CITY AND ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE MN MUTCD, CURRENT ADDITION.
- CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES.
- ALL CONSTRUCTION WORK SHALL BE COMPLETED WITHIN CITY APPROVED WORKING HOURS.
- INSTALL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.

GENERAL SITE DEMOLITION AND CLEARING NOTES:

- CONTRACTOR SHALL COORDINATE LIMITS OF REMOVALS WITH PROPOSED IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR PROTECTING EXISTING SITE FEATURES (STRUCTURES, TREES, CURBS, WALKS, PAVEMENTS, UTILITIES, SIGNAGE, FENCES, ETC.) WHICH ARE TO REMAIN. REPAIR OR REPLACE, TO OWNER'S SATISFACTION, ANY DAMAGE TO EXISTING PROPERTY OR SITE FEATURES WHICH ARE TO REMAIN, AT NO ADDITIONAL COST.
- COORDINATE DISRUPTION OF UTILITY SERVICES WITH THE OWNER'S PROJECT REPRESENTATIVE AND UTILITY OWNER, PUBLIC OR PRIVATE. CONTRACTOR TO PROVIDE TEMPORARY UTILITIES AS NECESSARY TO MAINTAIN BUILDING SERVICES.
- THE OWNER'S ACTIVITIES MAY CONTINUE ON THE SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE SEQUENCE OF WORK WITH THE OWNER. WEEKEND AND/OR OFF-PEAK HOURS MAY BE REQUIRED.
- PRIOR TO START OF ANY WORK, ALL EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE IN PLACE. SEE EROSION CONTROL PLAN OR SWPPP FOR DETAILS.
- CONTRACTOR SHALL PRESERVE ALL VEGETATION NOT TO BE REMOVED BY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-SEEDING OR SODDING AREAS DISTURBED BY CONSTRUCTION.
- CLEARLY IDENTIFY AND PROTECT EACH TREE THAT IS TO REMAIN PRIOR TO STARTING SITE CLEARING. CONTACT OWNER'S PROJECT REPRESENTATIVE FOR SITE INSPECTION AFTER ALL "TO REMAIN" TREES HAVE BEEN IDENTIFIED. TREES THAT ARE TO BE PROTECTED SHALL HAVE TEMPORARY FENCING PLACED AT THE DRIP LINE AROUND EACH TREE.
- STOCKPILE TOPSOIL FOR REUSE ON SITE. VERIFY THE STRIPPED TOPSOIL MEETS SPECIFICATIONS FOR THE PROPOSED USE. VERIFY THE AMOUNT OF TOPSOIL NEEDED AND REMOVE EXCESS FROM SITE.
- ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF-SITE AND IN A LEGAL MANNER.
- MATERIAL TO BE SALVAGED FOR REUSE BY OWNER SHALL BE REMOVED UNDAMAGED IN USABLE CONDITION. TEMPORARY PROTECTED STORAGE ON-SITE MAY BE REQUIRED.
- ON-SITE BROKERAGE OF MATERIALS SALVAGED BY CONTRACTOR FROM MATERIALS TO BE REMOVED IS NOT PERMITTED WITHOUT PRIOR WRITTEN OWNER APPROVAL.
- LOCATION AND ELEVATIONS OF EXISTING IMPROVEMENTS SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN THEIR MEASUREMENTS AND THESE PLANS. CONTRACTOR SHALL ALSO MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY. IF DEEMED NECESSARY, CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

SIGNAGE AND MARKING NOTES:

- ALL SIGNS SHALL BE ACCORDANCE WITH THE MN MUTCD, CURRENT VERSION.
- SEE REGULATORY SIGN DETAIL FOR SIGN AND POST DETAILS AND SIGN DESIGNATION AND SIZE INFORMATION.
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GENERAL GEOMETRIC AND PAVING NOTES:

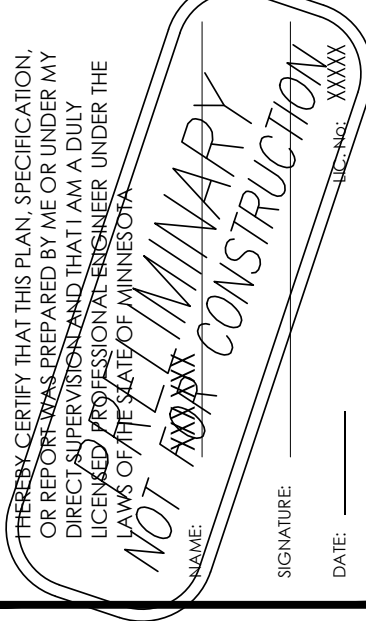
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- ALL PAVING DIMENSIONS ARE TO FLOW LINE OF CURB UNLESS NOTED OTHERWISE. THE FLOW LINE OF CURB IS ASSUMED TO BE 8 INCHES FROM THE BACK OF CURB.
- MEET REQUIREMENTS OF LOCAL GOVERNING AUTHORITY FOR WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING TEMPORARY TRAFFIC CONTROL. A TRAFFIC CONTROL PLAN SHALL BE PROVIDED AND APPROVED BY THE CITY OR APPLICABLE ROAD AUTHORITY PRIOR TO BEGINNING WORK IN THE RIGHT OF WAY.
- ALL SIDEWALKS SHALL HAVE POSITIVE SLOPE AWAY FROM THE BUILDING. THE MAXIMUM CROSS SLOPE SHALL BE 2.0% AND THE MAXIMUM LONGITUDINAL SLOPE SHALL BE 5.0% UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- NO SLOPE IN ANY DIRECTION SHALL EXCEED 2% IN ACCESSIBLE PARKING AND LOADING AREAS.
- MATCH NEW AND EXISTING PAVEMENT SURFACES, SIDEWALKS AND CURBS AT SAWCUT LINES, ALLOWING NO PONDING OF WATER AT JOINTS. PROVIDE SMOOTH GRADE TRANSITION ACROSS NEW AND EXISTING JOINTS.
- ALLOW MINIMUM OF SEVEN DAYS CURE FOR CURB AND GUTTER PRIOR TO PAVING.
- ALLOW MINIMUM OF 24 HOUR COOLING PRIOR TO ALLOWING TRAFFIC ON BITUMINOUS PAVING.
- PROVIDE 4' TRANSITION OF B618 CURB AND GUTTER EITHER SIDE OF RECTANGULAR CATCH BASINS TO MATCH WIDTH OF CASTING.

GENERAL GRADING AND DRAINAGE NOTES:

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE BEFORE BEGINNING SITE GRADING ACTIVITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIAL TO BE HANDLED, AND FOR THE AMOUNT OF GRADING TO BE DONE. ALL COSTS ASSOCIATED WITH IMPORTING SUITABLE MATERIAL AND EXPORTING UNSUITABLE/EXCESS/WASTE MATERIAL SHALL BE INCLUDED IN THE BID PRICE.
- CONTRACTOR SHALL STRIP, STOCKPILE AND RE-SPREAD EXISTING ONSITE TOPSOIL, IF MATERIAL IS APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS. PROVIDE A UNIFORM THICKNESS OF 6" MINIMUM IN ALL DISTURBED AREAS TO BE LANDSCAPED.
- CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL UNLESS OTHERWISE DIRECTED.
- REFER TO LANDSCAPE PLAN FOR PERMANENT TURF RESTORATION AND PLANTING INFORMATION.
- MAINTAIN TEMPORARY PROTECTION MEASURES DURING CONSTRUCTION ACTIVITIES. SEE SITE REMOVALS PLAN FOR ADDITIONAL INFORMATION. PROVIDE ADDITIONAL PROTECTION AS NECESSARY AS WORK PROGRESSES.
- FILL POTHOLES, LOW SPOTS, AND OVERLAY GUTTER WHERE NEEDED TO ATTAIN PROPER DRAINAGE WHEN NEEDED
- SEE CIVIL SITE PLAN FOR SITE LAYOUT.
- PROPOSED CONTOURS AND SPOT ELEVATIONS ARE TO FINISHED SURFACE GRADE.
- SPOT ELEVATIONS SHOWN ADJACENT TO CURB REFER TO GUTTER/FLOW LINE. SPOT ELEVATION SHOWN FOR TOP OF CURB ARE LABELED WITH TC (TOP OF CURB). SPOT ELEVATIONS LABELED ME REFERS TO MATCH EXISTING GRADE, EOF REFERS TO EMERGENCY OVERFLOW CONTROL ELEVATION, TW REFERS TO TOP OF WALL AND BW REFERS TO BOTTOM OF WALL.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL TIMES.
- NO GRADED SLOPES SHALL EXCEED 3:1 (HORIZONTAL TO VERTICAL) UNLESS OTHERWISE NOTED.
- UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
- LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE AND CONDUCT GRADING OPERATIONS IN A MANNER TO MINIMIZE THE POTENTIAL FOR EROSION.

INCIDENTAL ITEMS:

- ALL SAWCUTS AND FULL BITUMINOUS REMOVAL ASSOCIATED WITH CONCRETE CURB AND GUTTER REMOVAL AND PLACEMENT.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- ADDITIONAL INCIDENTAL ITEMS AS DESCRIBED IN THE REFERENCED TECHNICAL SPECIFICATIONS OR DETAILS.



| DATE      | REV. | DESCRIPTION          | REV. BY: |
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| 9/10/2019 | A    | CITY REVIEW          | ECR      |
| 8/6/2020  | B    | CITY PLANNING REVIEW | NPCT     |
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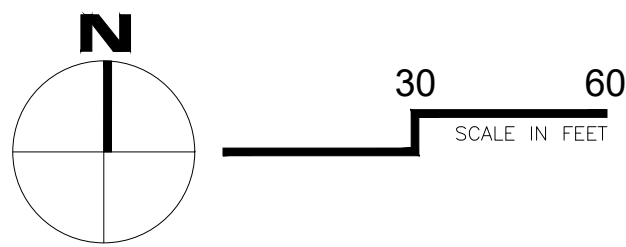
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| DELAWARE PLACE             | GENERAL PROJECT NOTES |
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| 3RD ST N AND 17TH AVE E    |                       |
| NORTH SAINT PAUL, MN 55109 |                       |

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| JOB No: 181076    |
| DATE: 09/10/19    |
| DRAWN BY: WNW     |
| DESIGNED BY: NPCT |

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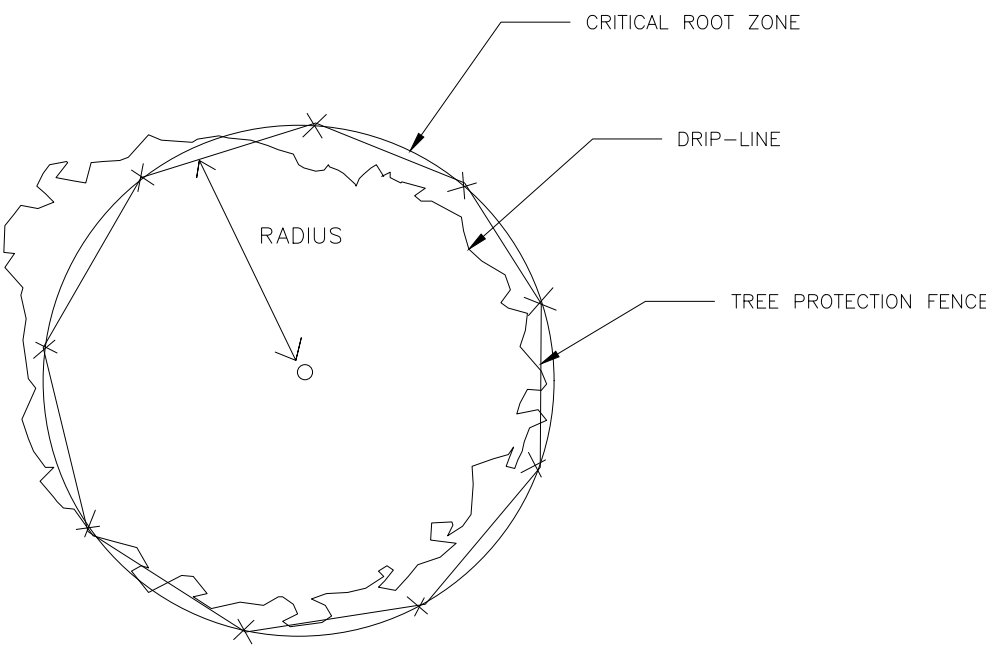
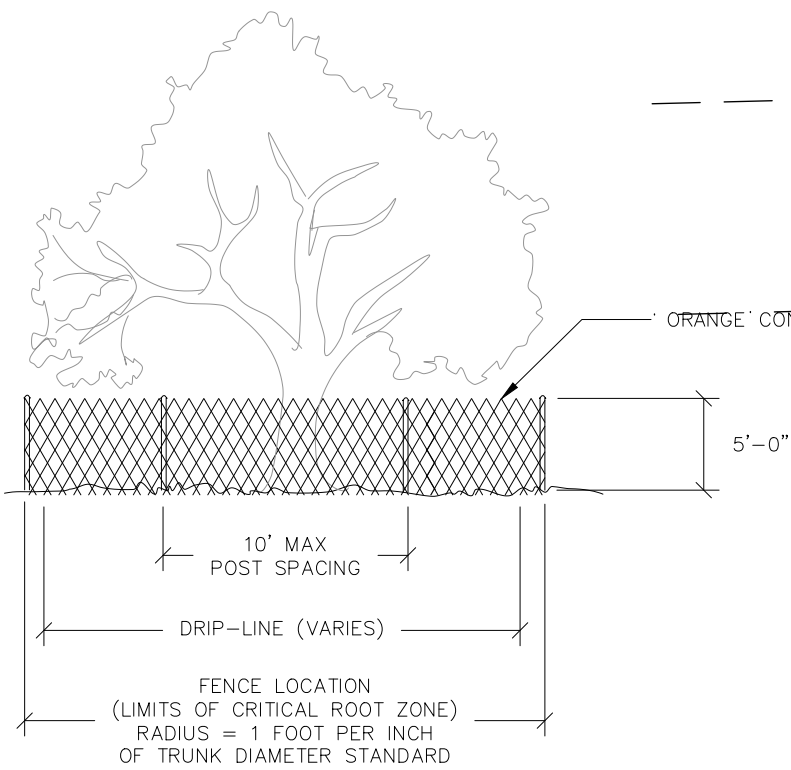


SITE DEMOLITION LEGEND:

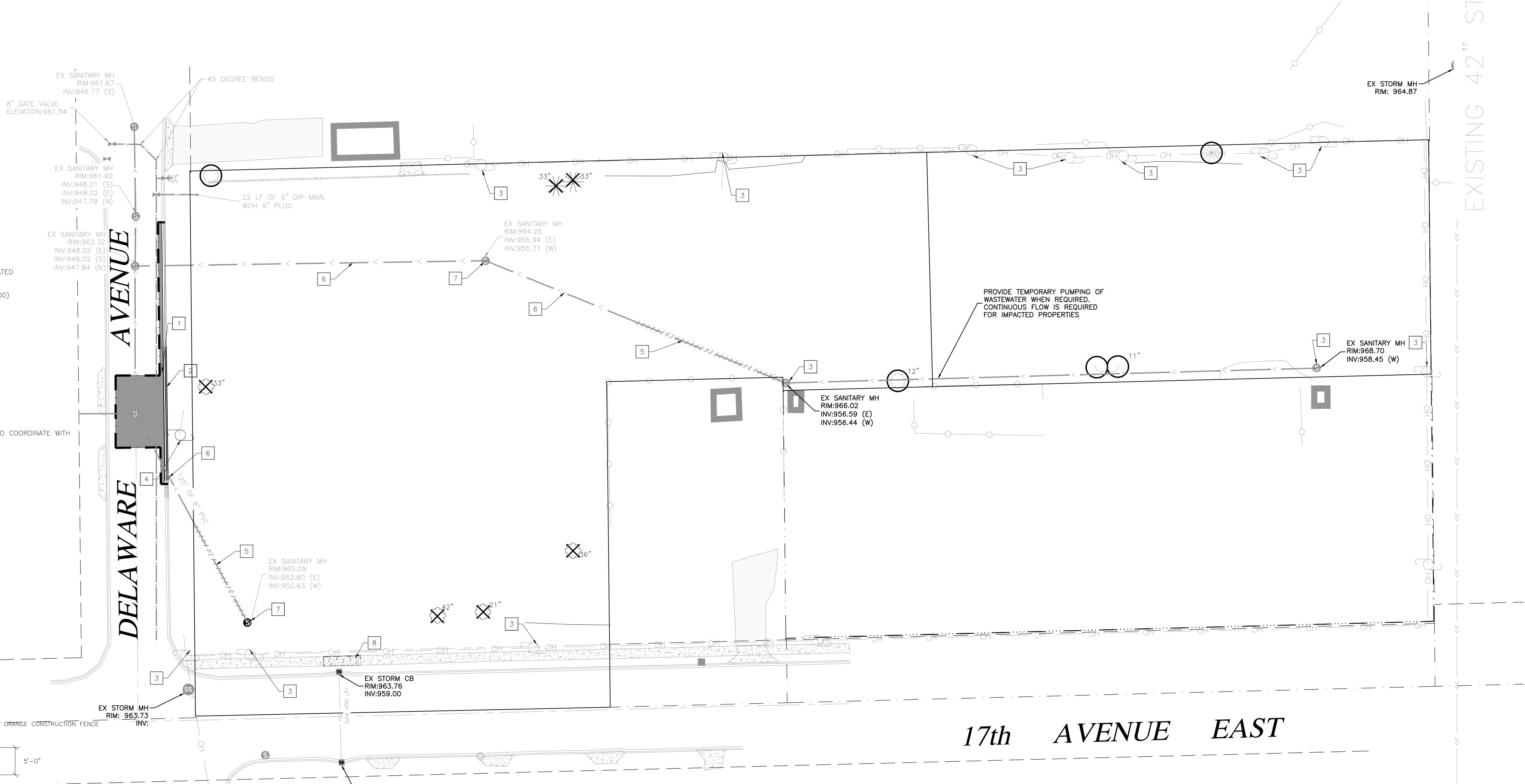
- SAWCUT
- UTILITY PIPE REMOVAL
- FENCE REMOVAL
- CURB REMOVAL
- CONCRETE REMOVAL
- PAVEMENT REMOVAL
- SIZE TYPE
- TREE REMOVAL
- SITE FEATURE REMOVAL AS INDICATED
- TREE PROTECTION (SEE DETAIL 100)

KEY NOTES

- 1 REMOVE BITUMINOUS PAVEMENT
- 2 REMOVE CONCRETE CURB AND GUTTER
- 3 PROTECT EXISTING UTILITIES TO REMAIN
- 4 RELOCATE POWER POLE, CONTACT CONTRACTOR TO COORDINATE WITH PRIVATE UTILITY
- 5 REMOVE EXISTING UTILITY PIPE
- 6 ABANDON EXISTING SANITARY LINE
- 7 REMOVE EXISTING MANHOLE
- 8 REMOVE EXISTING SIDEWALK



100 | TREE PROTECTION  
NOT TO SCALE



GENERAL SITE DEMOLITION AND CLEARING NOTES:

- CONTRACTOR SHALL COORDINATE LIMITS OF REMOVALS WITH PROPOSED IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR PROTECTING EXISTING SITE FEATURES (STRUCTURES, CURBS, WALKS, PAVEMENTS, UTILITIES, SIGNS, FENCES, ETC.) WHICH ARE TO REMAIN. REPAIR OR REPLACE, TO OWNER'S SATISFACTION, ANY DAMAGE TO EXISTING PROPERTY OR SITE FEATURES WHICH ARE TO REMAIN, AT NO ADDITIONAL COST.
- COORDINATE DISRUPTION OF UTILITY SERVICES WITH THE OWNER'S PROJECT REPRESENTATIVE AND UTILITY OWNER, PUBLIC OR PRIVATE. CONTRACTOR TO PROVIDE TEMPORARY UTILITIES AS NECESSARY TO MAINTAIN BUILDING SERVICES.
- THE OWNER'S ACTIVITIES MAY CONTINUE ON THE SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE SEQUENCE OF WORK WITH THE OWNER.
- CONTRACTOR TO PROVIDE AND MAINTAIN FOR TEMPORARY FENCING AND PROTECTION REQUIREMENTS TO PROTECT PEDESTRIANS, VEHICLES, AND COMPLETED WORK FROM HARM/DAMAGE.
- PRIOR TO START OF ANY WORK, ALL EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE IN PLACE. SEE EROSION CONTROL PLAN OR SWPPP FOR DETAILS.
- CONTRACTOR SHALL PRESERVE ALL VEGETATION NOT TO BE REMOVED BY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-SEEDING OR SODDING AREAS DISTURBED BY CONSTRUCTION.
- CLEARLY IDENTIFY AND LABEL EACH TREE THAT IS TO REMAIN PRIOR TO STARTING SITE CLEARING. CONTACT OWNER'S PROJECT REPRESENTATIVE FOR SITE INSPECTION AFTER ALL "TO REMAIN" TREES HAVE BEEN IDENTIFIED. TREES THAT ARE TO BE PROTECTED SHALL HAVE TEMPORARY FENCING PLACED AT THE DRIP LINE AROUND EACH TREE.
- STOCKPILE TOPSOIL FOR REUSE ON SITE. VERIFY THE STRIPPED TOPSOIL MEETS SPECIFICATIONS FOR THE PROPOSED USE. VERIFY THE AMOUNT OF TOPSOIL NEEDED AND REMOVE EXCESS FROM SITE.
- ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF-SITE AND IN A LEGAL MANNER.
- MATERIAL TO BE SALVAGED FOR REUSE BY OWNER SHALL BE REMOVED UNDAMAGED IN USABLE CONDITION. TEMPORARY PROTECTED STORAGE ON-SITE MAY BE REQUIRED.
- ON-SITE BROKERAGE OF MATERIALS SALVAGED BY CONTRACTOR FROM MATERIALS TO BE REMOVED IS NOT PERMITTED WITHOUT PRIOR OWNER APPROVAL.
- LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET (OR AVOIDED) SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN THEIR MEASUREMENTS AND THESE PLANS. CONTRACTOR SHALL ALSO MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES, CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.



Know what's below.  
Call before you dig.

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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 PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NOT FOR CONSTRUCTION

NAME: SIGNATURE: DATE: XX/XX/XX

| REV. BY: | DESCRIPTION          | REV. | DATE      |
|----------|----------------------|------|-----------|
| ECR      | CITY REVIEW          | A    | 9/10/2019 |
| NPCT     | CITY PLANNING REVIEW | B    | 8/6/2020  |
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DELAWARE PLACE

3RD ST N AND 17TH AVE E

NORTH SAINT PAUL, MN 55109

DEMOLITION PLAN

JOB No:181076

DATE: 09/10/19

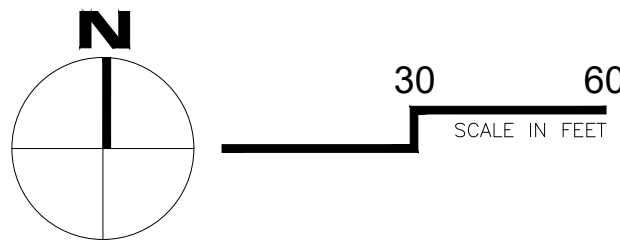
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DESIGNED BY: NPCT

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CIVIL SITE LEGEND:

- 
- BITUMINOUS PAVEMENT (SEE DETAIL 200)

KEY NOTES

- 1
- BITUMINOUS PAVEMENT (SEE DETAIL 200)

2

3

4

5

6

7

GENERAL GEOMETRIC AND PAVING NOTES:

1.
- SITE DIMENSIONS SHOWN ON THIS PLAN SHALL BE USED FOR ALL LAYOUT WORK. CHECK ALL PLAN AND DETAIL DIMENSIONS. BUILDING AND SITE IMPROVEMENTS SHALL BE LAID OUT ON SITE BY A REGISTERED LAND SURVEYOR, OR A LICENSED ENGINEER.

2.

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SIGNAGE AND MARKING NOTES:

1.
- ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MN MUTCD, CURRENT VERSION.

2.

3.

4.

5.

| SITE DATA                 |                           |
|---------------------------|---------------------------|
| SITE/PARCEL SIZE          | 1.74 AC (75724.6 SF)      |
| BUILDING AREA             | 16582.5 SF (22% COVERAGE) |
| IMPERVIOUS/PERVIOUS AREA  | 0.7 AC/1.79 AC            |
| LAND USE CLASSIFICATION   | R2                        |
| CURRENT ZONING            | R2                        |
| FLOOD ZONE CLASSIFICATION | ZONE X                    |



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Consulting Engineers P.A.  
3640 TALMAGE CIR. VADNAIS HEIGHTS  
651.344.8783 - am Engineers.com  
SUPERIOR - IRON RANGE

THE ENGINEER CERTIFIES THAT THIS PLAN, SPECIFICATION, OR RECORDS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NOT FOR CONSTRUCTION

DATE: 09/10/19

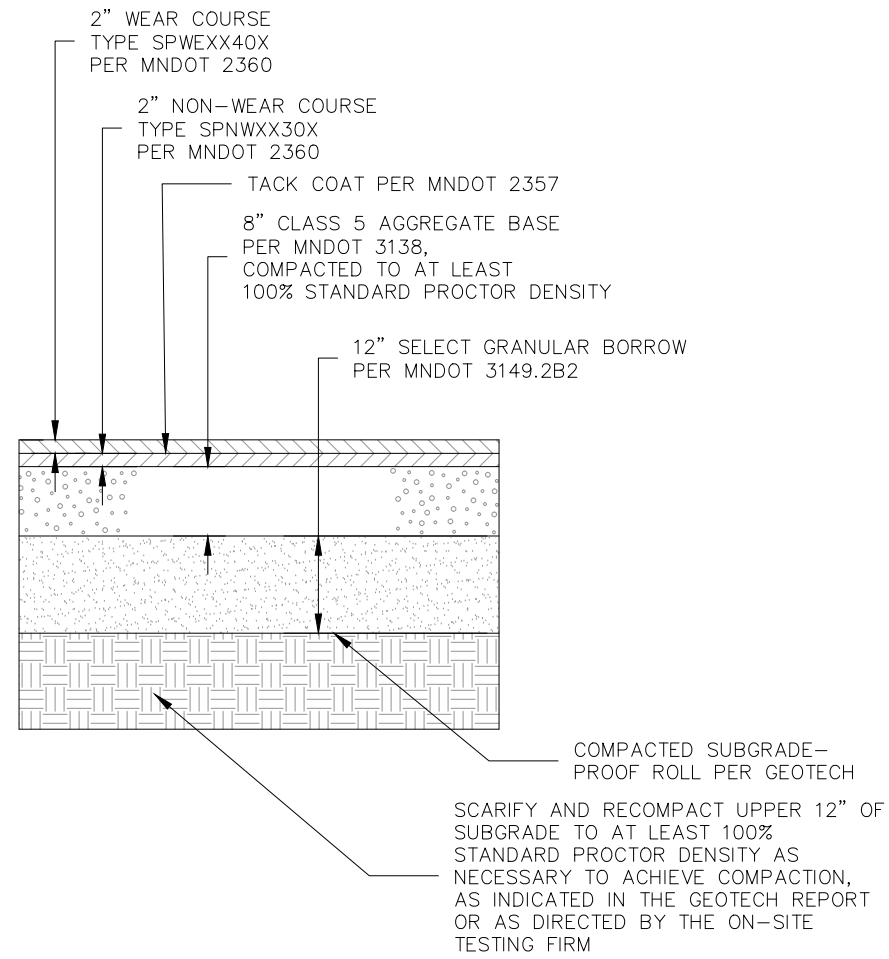
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| DELAWARE PLACE             | DELAWARE PLACE             |
| -----                      | -----                      |
| 3RD ST N AND 17TH AVE E    | 3RD ST N AND 17TH AVE E    |
| NORTH SAINT PAUL, MN 55109 | NORTH SAINT PAUL, MN 55109 |
| SITE PLAN                  | SITE PLAN                  |
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JOB No:181076  
DATE: 09/10/19  
DRAWN BY: WNW  
DESIGNED BY: NPCT

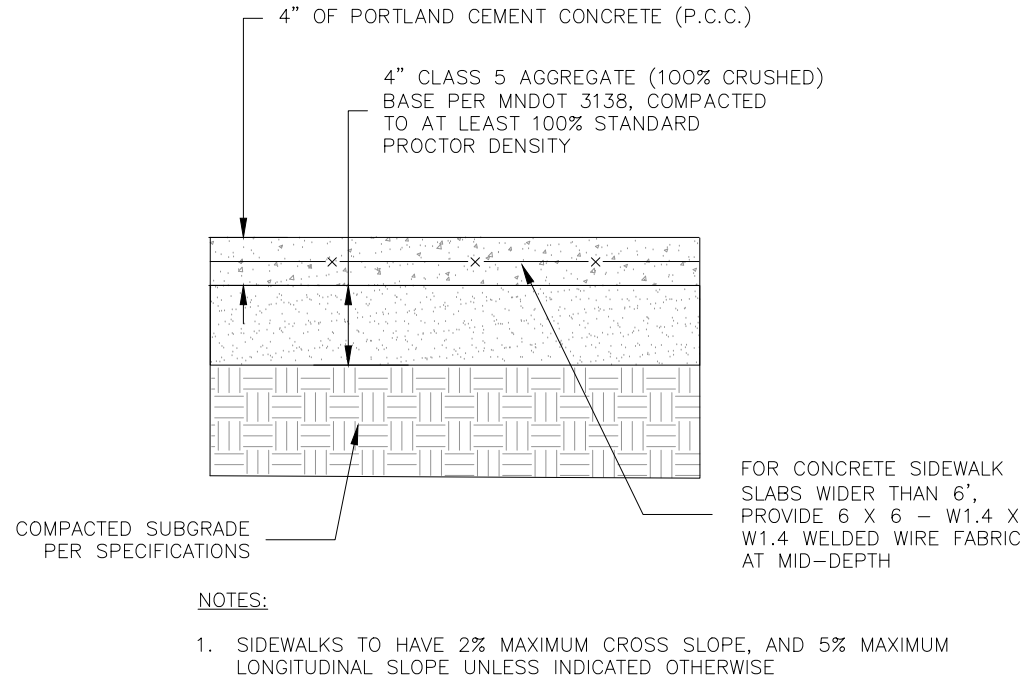
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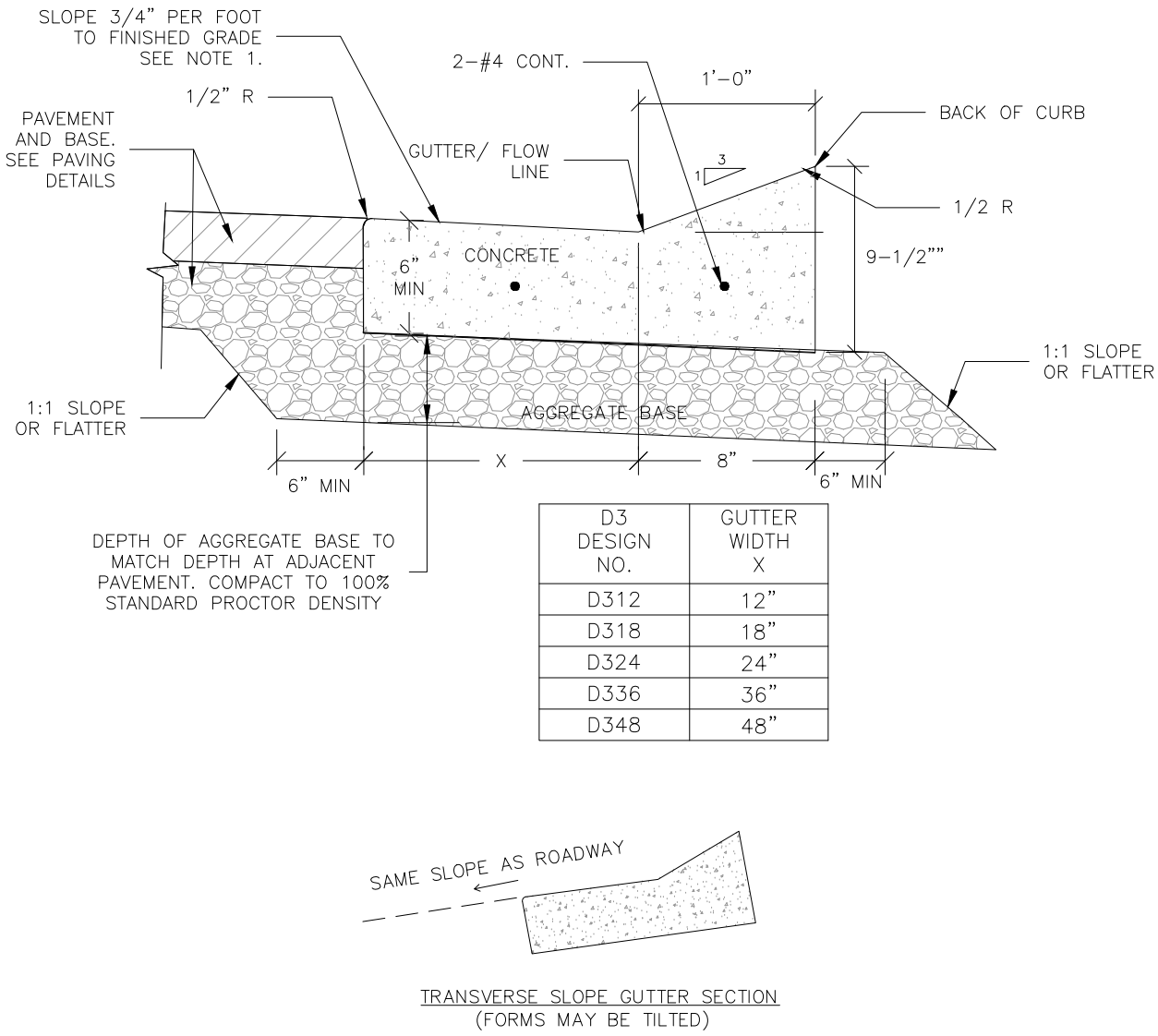


NOTES:  
1. CONFIRM SECTION WITH GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTING

**200 | BITUMINOUS PAVEMENT**  
NOT TO SCALE

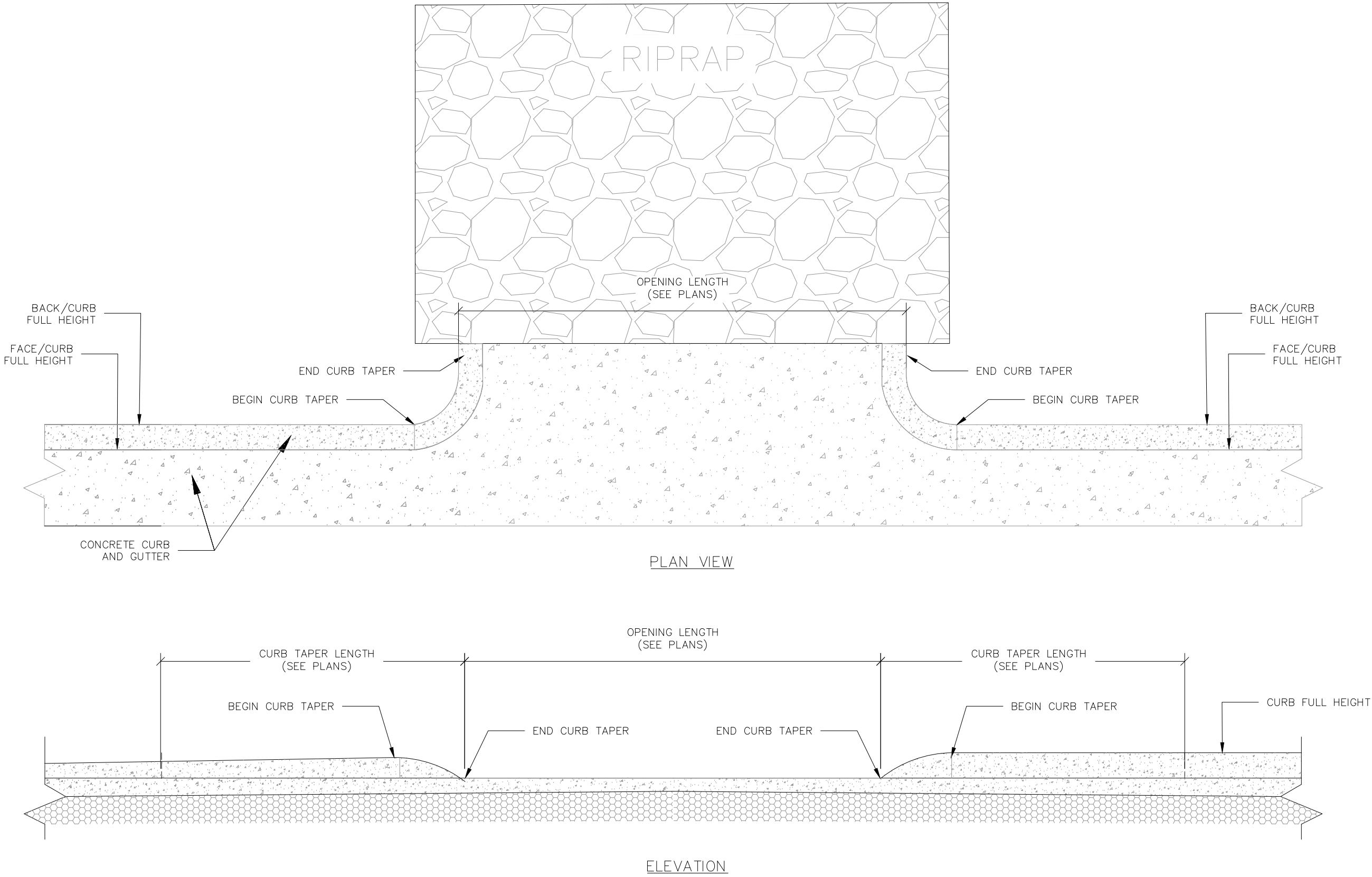


**204 | CONCRETE SIDEWALK**  
NOT TO SCALE



- NOTES:
- SLOPE 3/4" PER FT. NORMAL, UNLESS OTHERWISE SPECIFIED. IF A DIFFERENT GUTTER SLOPE IS PERMITTED, THE GUTTER FORM MAY BE TILTED.
  - LONGITUDINAL JOINT WHEN ADJACENT TO RIGID PAVEMENT OR BASE. SEE STANDARD PLANS MANUAL FOR JOINT INFORMATION.
  - B4 MINIMUM HEIGHT = 10". B5 MINIMUM HEIGHT = 11-1/4".
  - ANY ADDITIONAL BASE MATERIAL REQUIRED IS INCIDENTAL WITH THESE OPTIONAL DESIGNS.
  - CONSTRUCT CURB AND GUTTER PER MNDOT 2531

**211 | D3 STYLE CURB AND GUTTER**  
NOT TO SCALE



**212 | CURB CUT FLOOM**  
NOT TO SCALE

| REV. BY: | DESCRIPTION          | REV. | DATE      |
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| NPCT     | CITY PLANNING REVIEW | B    | 8/6/2020  |
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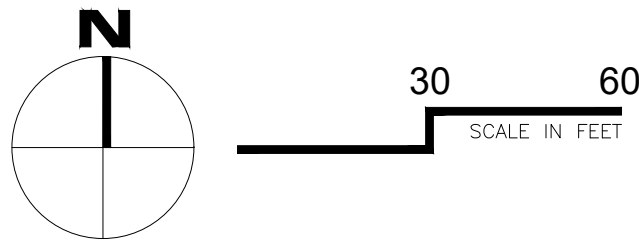
DELAWARE PLACE  
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3RD ST N AND 17TH AVE E  
NORTH SAINT PAUL, MN 55109

DETAILS  
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JOB No: 181076  
DATE: 09/10/19  
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GRADING LEGEND:

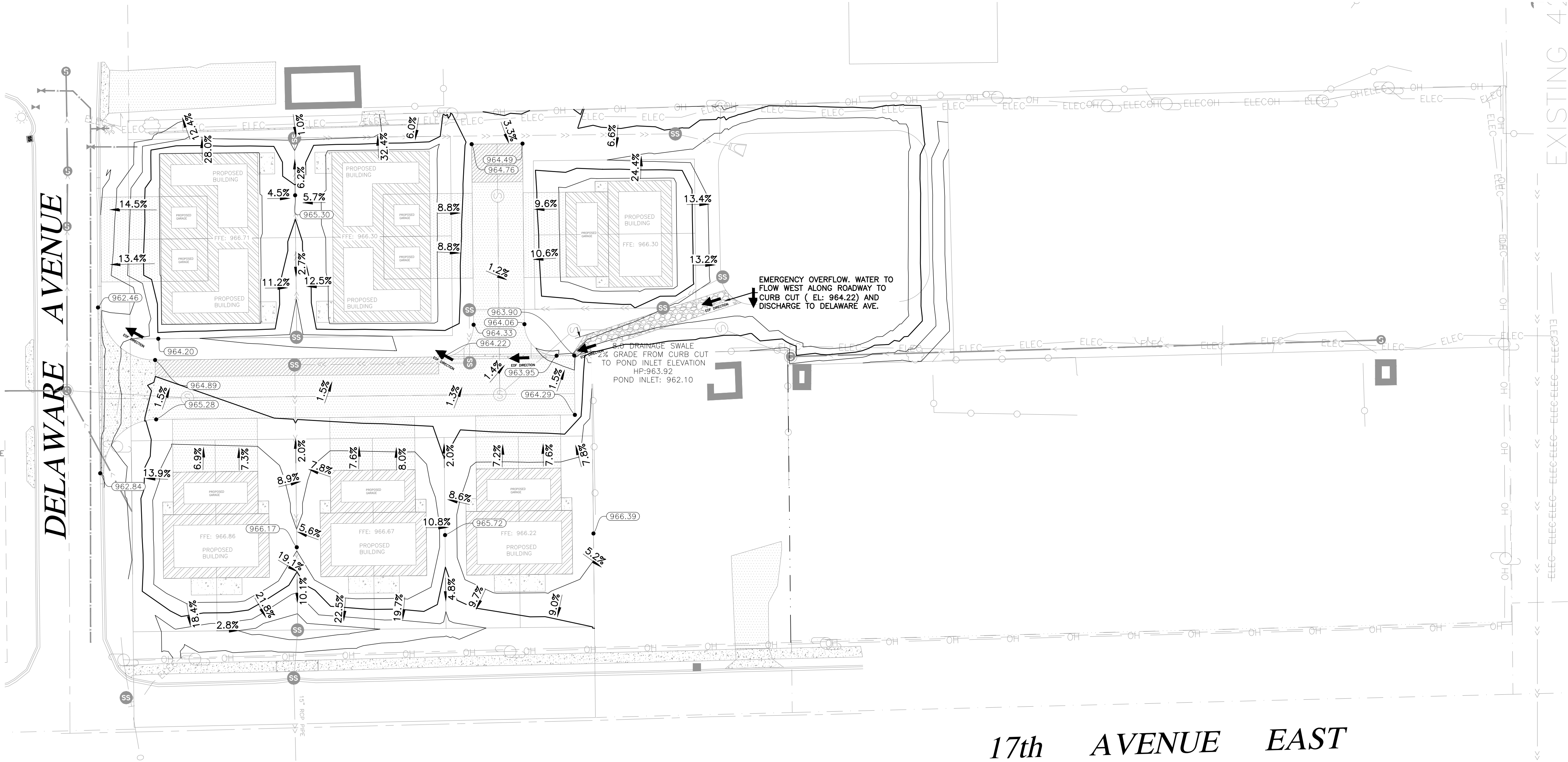
- MANHOLE
- CATCHBASIN
- APRON
- FLOW ARROW
- SPOT ELEVATION
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- TIP-OUT CURB AND GUTTER
- RIPRAP
- VEGETATED SWALE

GENERAL GRADING AND DRAINAGE NOTES:

- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE BEFORE BEGINNING SITE GRADING ACTIVITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIAL TO BE HANDLED, AND FOR THE AMOUNT OF GRADING TO BE DONE. ALL COSTS ASSOCIATED WITH IMPORTING SUITABLE MATERIAL AND EXPORTING UNSUITABLE/EXCESS/WASTE MATERIAL SHALL BE INCLUDED IN THE BID PRICE.
- CONTRACTOR SHALL STRIP, STOCKPILE AND RE-SREAD EXISTING ONSITE TOPSOIL, IF MATERIAL IS APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS. PROVIDE A UNIFORM THICKNESS OF 6" MINIMUM IN ALL DISTURBED AREAS TO BE LANDSCAPED.
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- SEE CIVIL SITE PLAN FOR SITE LAYOUT.
- PROPOSED CONTOURS AND SPOT ELEVATIONS ARE TO FINISHED SURFACE GRADE.
- SPOT ELEVATIONS SHOWN ADJACENT TO CURB REFER TO GUTTER/FLOW LINE. SPOT ELEVATION SHOWN FOR TOP OF CURB ARE LABELED WITH TC (TOP OF CURB). SPOT LABELED ME REFERS TO MATCH EXISTING GRADE. EOF REFERS TO EMERGENCY OVERFLOW ELEVATION, TW REFERS TO TOP OF WALL AND BW REFERS TO BOTTOM OF WALL. HP REFERS TO HIGH POINT AND LP REFERS TO LOW POINT.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL TIMES.
- NO GRADED SLOPES SHALL EXCEED 3:1 (HORIZONTAL TO VERTICAL) UNLESS OTHERWISE NOTED.
- UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
- LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE AND CONDUCT GRADING OPERATIONS IN A MANNER TO MINIMIZE THE POTENTIAL FOR EROSION.
- PIPE LENGTH INCLUDES THE LENGTH OF THE APRON.

| CUT/ FILL SUMMARY                                                                                      |                |
|--------------------------------------------------------------------------------------------------------|----------------|
| TOTAL CUT                                                                                              | 2076 CY        |
| TOTAL FILL                                                                                             | 1648 CY        |
| NET CUT/FILL                                                                                           | 428 CY OF FILL |
| CUT AND FILL IS FROM EXISTING GRADE TO FINISHED GRADE AND DOES NOT ACCOUNT FOR SUB-GRADE MODIFICATIONS |                |
| TOTAL IMPORT FOR BIT. CONCRETE, AND SUB-BASE                                                           | 4263 CY        |

FFE = LOW OPENING, LOW FLOOR, GARAGE THRESHOLD ELEVATION



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AMI

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SUPERIOR - IRON RANGE

THE ENGINEER HAS REVIEWED THIS PLAN, SPECIFICATION, AND RECORDS AND CERTIFIES THAT THE PLAN, SPECIFICATION, OR RECORDS HAVE BEEN 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.

NOT A FINAL CONSTRUCTION

NAME: DATE: SIGNATURE: SCALE: XXX

| REV. BY: | DESCRIPTION          | REV. | DATE      |
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| DELaware PLACE             | DELaware PLACE             |
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| 3RD ST N AND 17TH AVE E    | 3RD ST N AND 17TH AVE E    |
| NORTH SAINT PAUL, MN 55109 | NORTH SAINT PAUL, MN 55109 |
| GRADING PLAN               | GRADING PLAN               |
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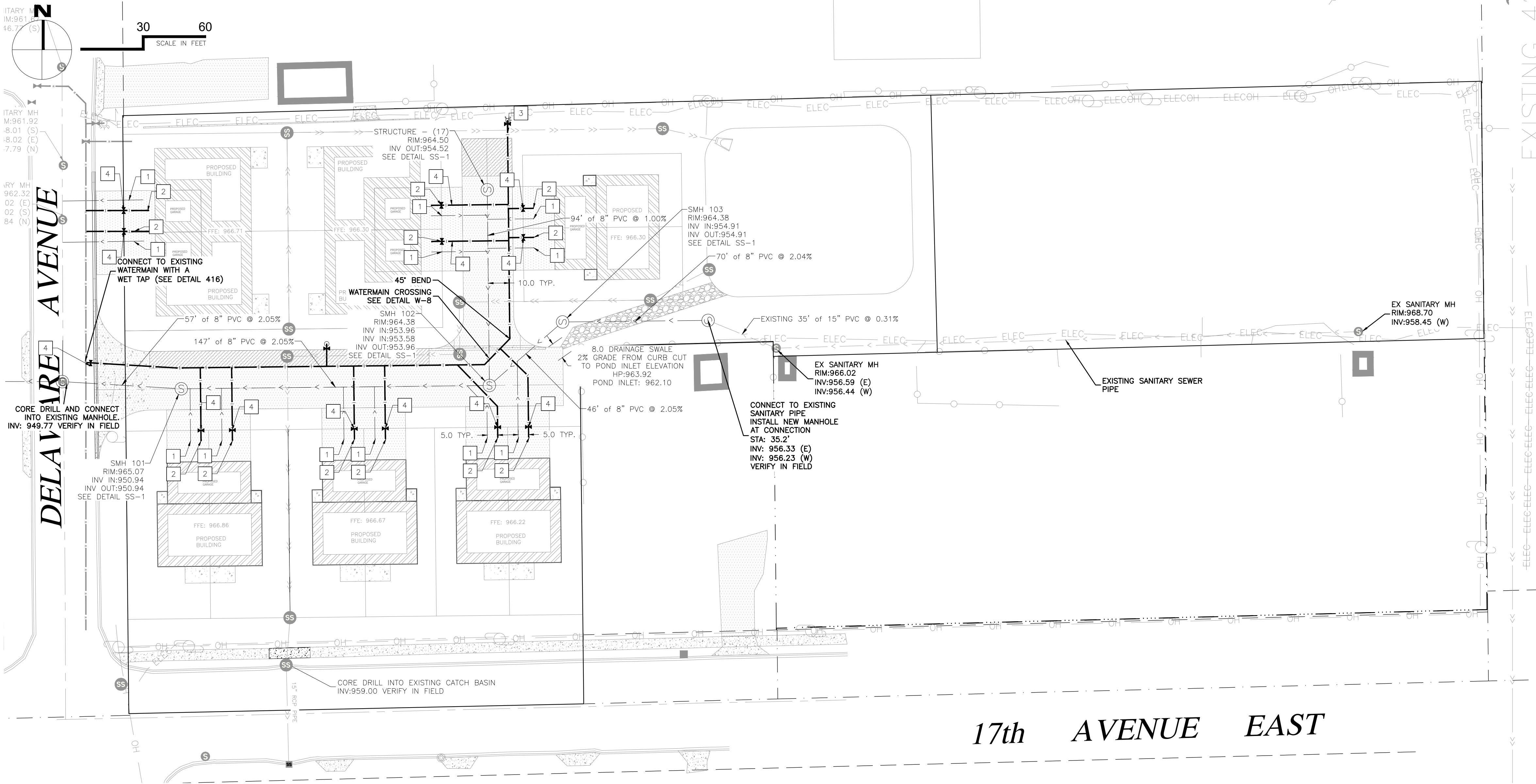
JOB No: 181076  
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DESIGNED BY: NPCT

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GENERAL UTILITY NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITY PROVIDERS FOR REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES AFFECTED BY SITE IMPROVEMENTS, INCLUDING PORTIONS OF WORK WHICH MAY BE PERFORMED BY UTILITY COMPANY'S FORCES. ALL PERMITS, APPLICATIONS, FEES AND CHARGES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- UTILITY DISCONNECTIONS, REMOVALS AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE PROJECT PHASING TO ENSURE NEEDED SERVICES ARE MAINTAINED TO ALL BUILDING FACILITIES.
- REFER TO SITE REMOVALS PLAN FOR LIMITS OF UTILITY PIPE REMOVALS.
- PRIOR TO CONSTRUCTION OF PROPOSED BUILDING UTILITY SERVICES, VERIFY PIPE SIZES, LOCATIONS AND ELEVATIONS WITH MECHANICAL PLANS. COORDINATE CONSTRUCTION AND CONNECTIONS WITH MECHANICAL CONTRACTORS.
- THE CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITIES FOR CONNECTION TO PUBLIC WATER, SANITARY SEWER AND STORM SEWER UTILITIES AND WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING PROVIDING AN APPROVED TRAFFIC CONTROL PLAN AS NECESSARY.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR UTILITY CONNECTIONS AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WATER SERVICES ARE TO HAVE A MINIMUM OF 7.5 FEET AND A MAXIMUM OF 9.0 FEET OF COVER. MAXIMUM COVER MAY CHANGE IF DEFLECTING WATER SERVICE UNDER UTILITIES. ALL VALVES ARE TO HAVE 7.5 TO 9.0 FEET OF COVER.
- WATERMAIN SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY MANHOLE, CATCH BASIN, STORM SEWER, SANITARY SEWER, DRAINTILE OR OTHER POTENTIAL SOURCE OF CONTAMINATION. THIS ISOLATION DISTANCE SHALL BE MEASURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION SOURCE.
- SHOULD WATER SERVICE CONFLICT WITH OTHER UTILITIES, DEFLECT WATER SERVICE DOWN TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18 INCHES BETWEEN BOTTOM OF UTILITY PIPE AND TOP OF WATERMAIN. CENTER SECTION OF WATERMAIN PIPE AT CROSSING TO PROVIDE MAXIMUM DISTANCE OF JOINTS FROM SEWER CROSSING. FOLLOW TEN STATE STANDARDS, CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) AND MINNESOTA DEPARTMENT OF HEALTH STANDARDS FOR UTILITY CROSSINGS. REFER TO DETAIL UTIL-10 FOR DETAILS.
- ALL WATER SERVICE THRUST FORCE POINTS (INCLUDES VALVES, TEES, WYES, CROSSES, REDUCERS, HYDRANTS, DEAD ENDS AND BENDS) ARE TO BE LUGGED (MECHANICAL JOINTS). VERIFY JOINT RESTRAINT METHOD REQUIREMENTS WITH LOCAL GOVERNING AUTHORITY.
- FIRE HYDRANT ASSEMBLY SHALL INCLUDE NECESSARY TEES, STUBS, AND GATE VALVES SHOWN ON THE DRAWING AND DETAILS, AND AS REQUIRED BY THE CITY. VERIFY INSTALLATION REQUIREMENTS WITH LOCAL GOVERNING AUTHORITY REQUIREMENTS.
- CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED GATE VALVES AND MANHOLES TO BE FLUSH WITH FINAL GRADE.
- SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC, SDR 35 FOR PIPES LESS THAN 12-FEET DEEP. SDR 26 FOR PIPES GREATER THAN 12 FEET DEEP UNLESS OTHERWISE NOTED.
- ALL SERVICE CONNECTIONS WITH LESS THAN 5 FEET COVER (TO TOP OF PIPE FOR WATER AND TO INVERT ON SANITARY, ARE TO BE INSULATED.
- INSTALL CLEANOUTS/MANHOLES ALONG SANITARY SEWER SERVICE PER MINNESOTA DEPARTMENT OF HEALTH PLUMBING CODE REQUIREMENTS.
- SANITARY MANHOLES SHALL HAVE WATERTIGHT LIDS.
- THE CONTRACTOR SHALL CLEAN ALL SURFACE FLOW CHANNELS, PIPES AND STRUCTURES AFTER FINAL SURFACES ARE ESTABLISHED AND PRIOR TO PROJECT CLOSEOUT.
- ALL SEWER AND WATER CONSTRUCTION TO COMPLY WITH CITY ENGINEERING DESIGN STANDARDS.
- UTILITY CONSTRUCTION PER MNDOT SPECIFICATIONS 2451, 2501, 2502, 2506, 2506, 2511, 2611, 2621, AND 2625



UTILITY LEGEND:

| EXISTING | PROPOSED |                                        |
|----------|----------|----------------------------------------|
|          |          | APRON                                  |
|          |          | STORM SEWER                            |
|          |          | FIRE HYDRANT ASSEMBLY (SEE DETAIL W-1) |
|          |          | VALVE (SEE DETAIL W-5)                 |
|          |          | PVC WATERMAIN (SEE DETAIL W-4)         |
|          |          | SANITARY SEWER (SEE DETAIL SS-3, 400)  |
|          |          | SANITARY MANHOLE (SEE DETAIL SS-1)     |
|          |          | STORM SEWER MANHOLE (SEE SHEET C 5.0)  |
|          |          | DRAINAGE UTILITY EASEMENT              |

KEY NOTES:

- 4" PVC SANITARY SEWER SERVICE. VERIFY WITH MECHANICAL FOR EXACT INVERT, LOCATION AND CONNECTION INTO BUILDING.
- 1.25" COPPER DOMESTIC SERVICE. VERIFY WITH MECHANICAL FOR EXACT LOCATION AND CONNECTION INTO BUILDING.
- 6" HYDRANT AND VALVE ASSEMBLY (SEE DETAIL SS-3, 400)
- CURB STOP (SEE DETAIL W-5)



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**NOT FOR CONSTRUCTION**  
NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

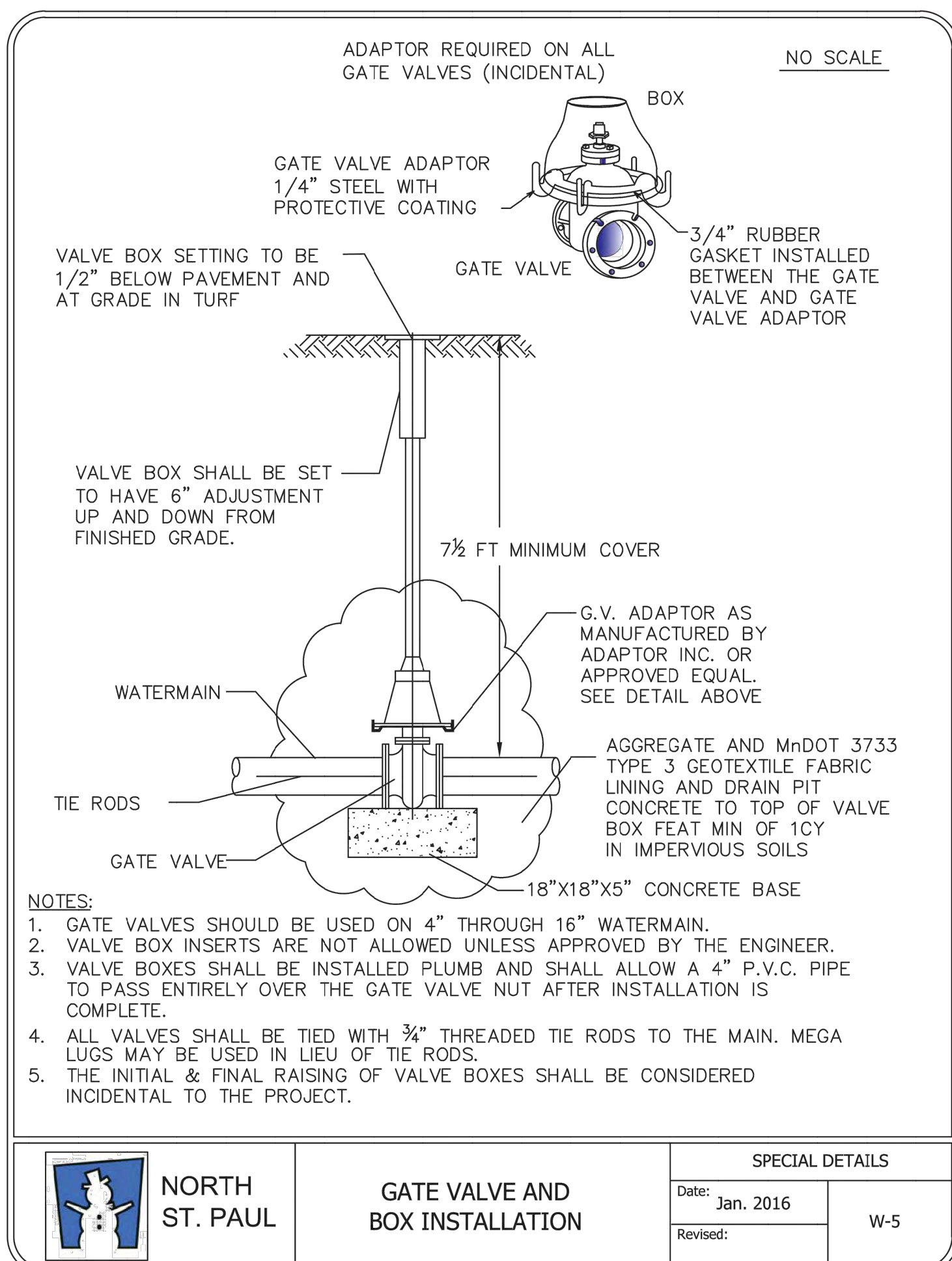
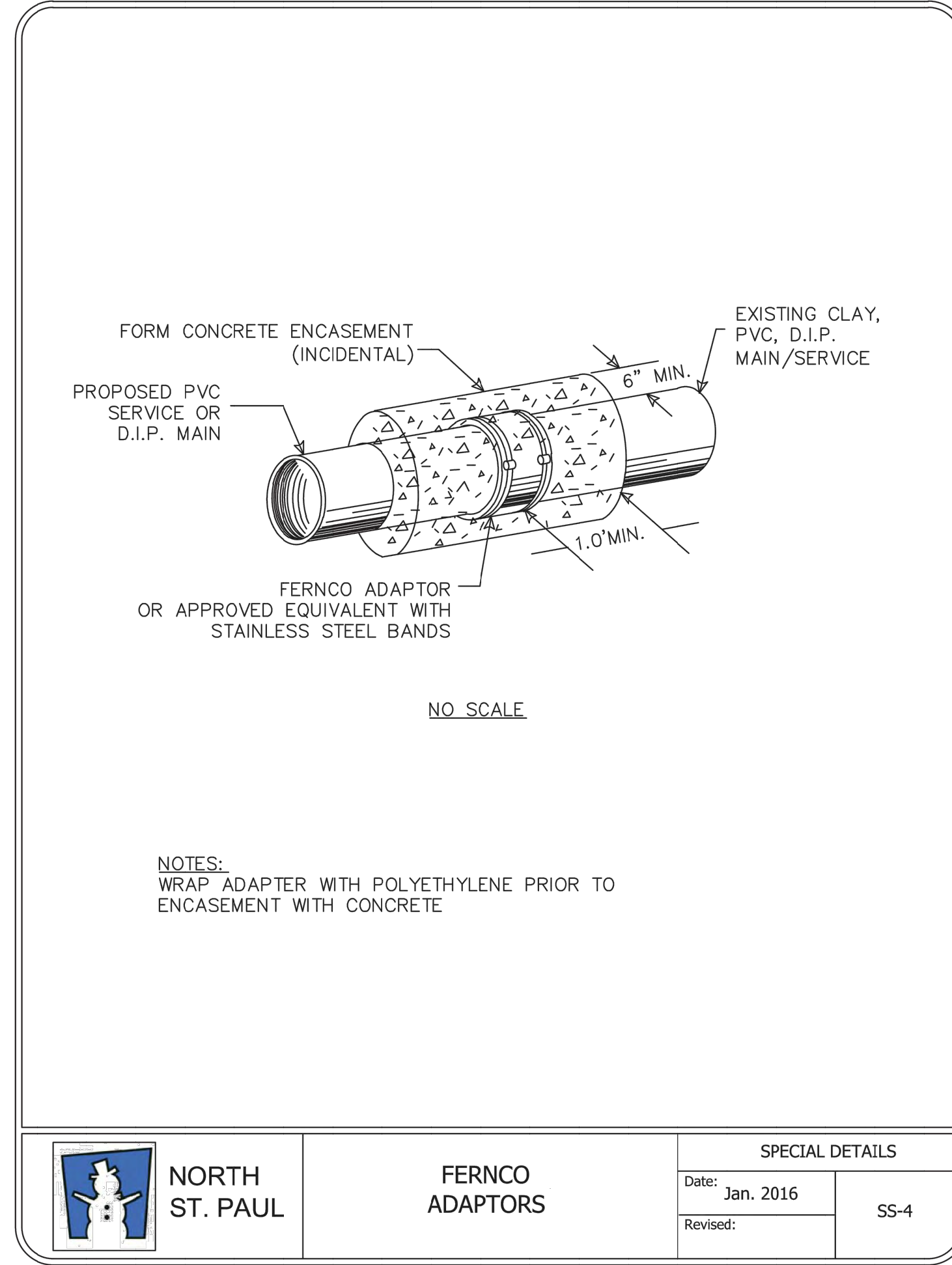
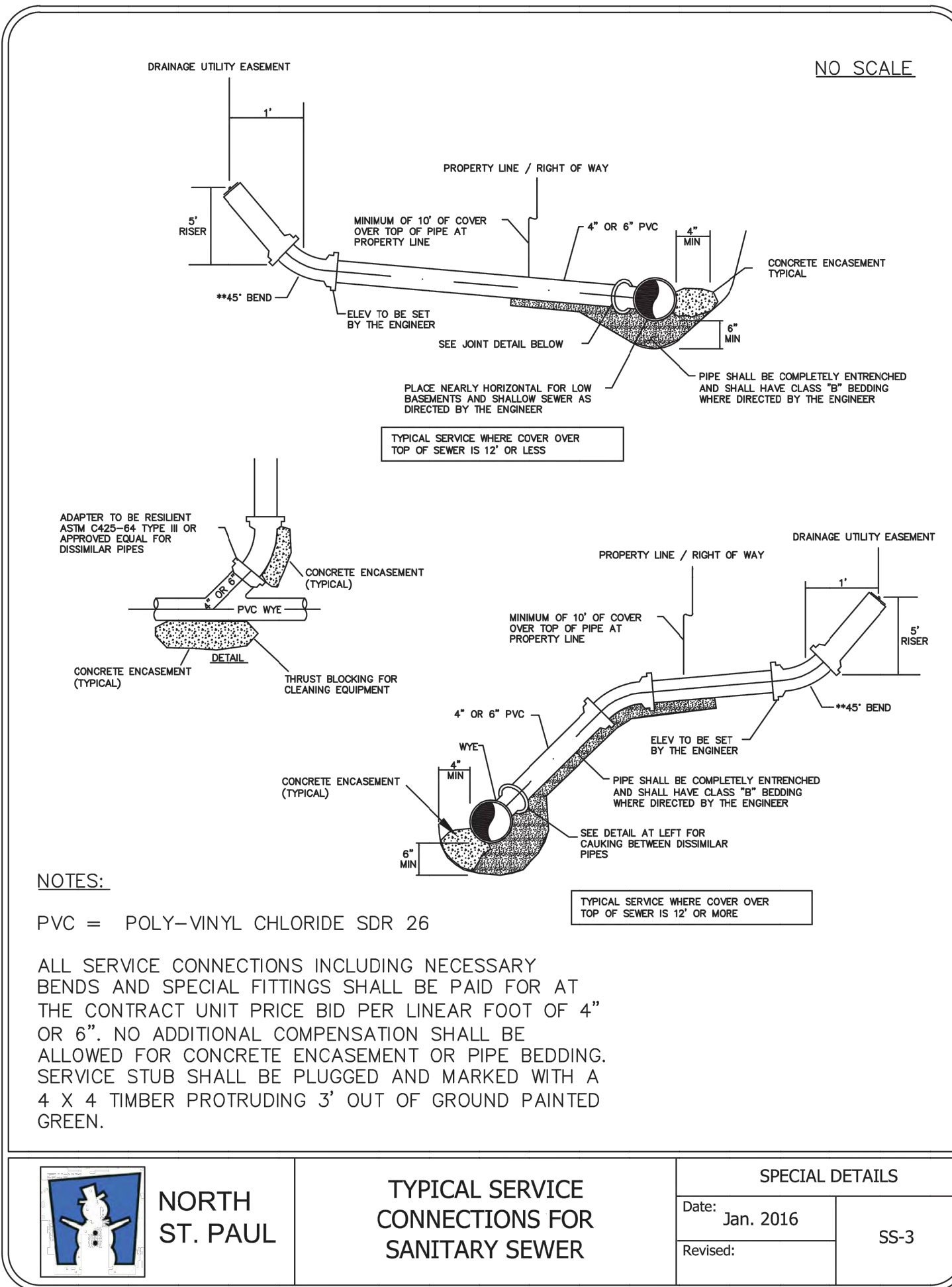
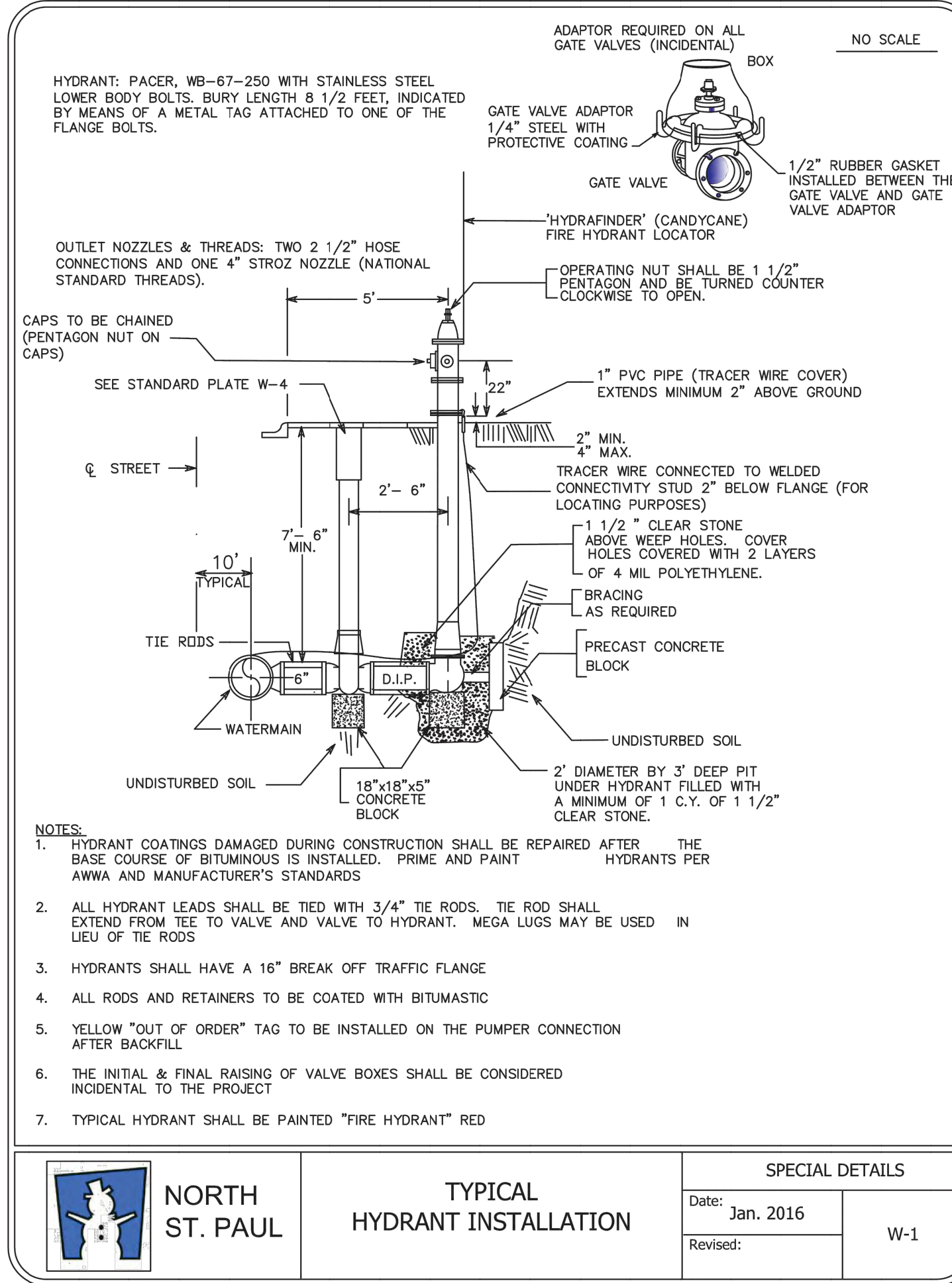
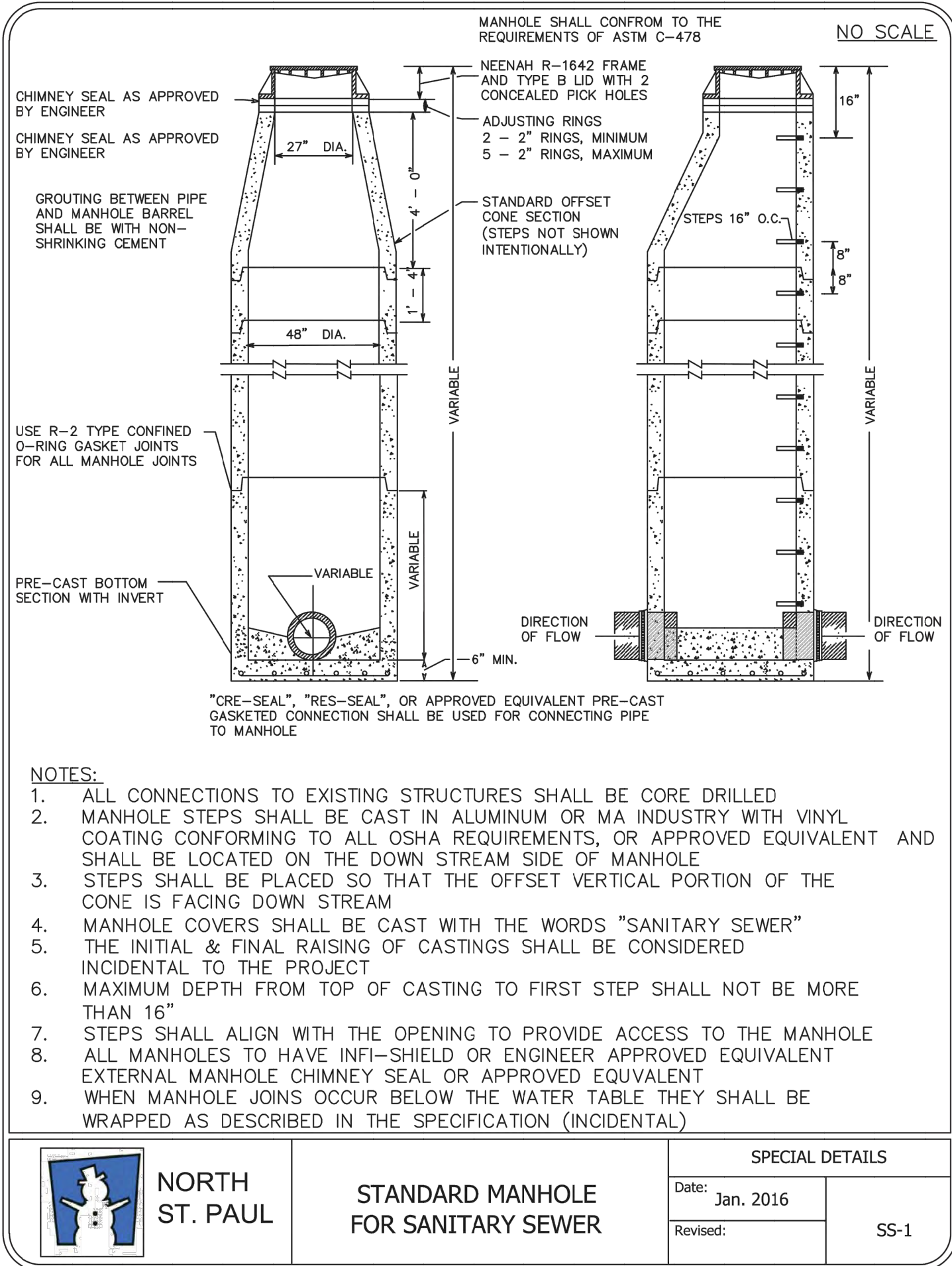
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| ECR      | CITY REVIEW          | A    | 9/10/2019 |
| NPC      | CITY PLANNING REVIEW | B    | 8/6/2020  |

DELAWARE PLACE  
-----  
3RD ST N AND 17TH AVE E  
NORTH SAINT PAUL, MN 55109  
UTILITY PLAN  
----

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: WNW  
DESIGNED BY: NPC

SHEET:  
**C4.0**





| REV. BY: | DESCRIPTION          | REV. | DATE      | ECR | NPCT |
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|          | CITY PLANNING REVIEW | B    | 8/6/2020  |     |      |
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| DELAWARE PLACE | 3RD ST N AND 17TH AVE E    |
|                | NORTH SAINT PAUL, MN 55109 |
| DETAILS        |                            |

JOB No: 181076

DATE: 09/10/19

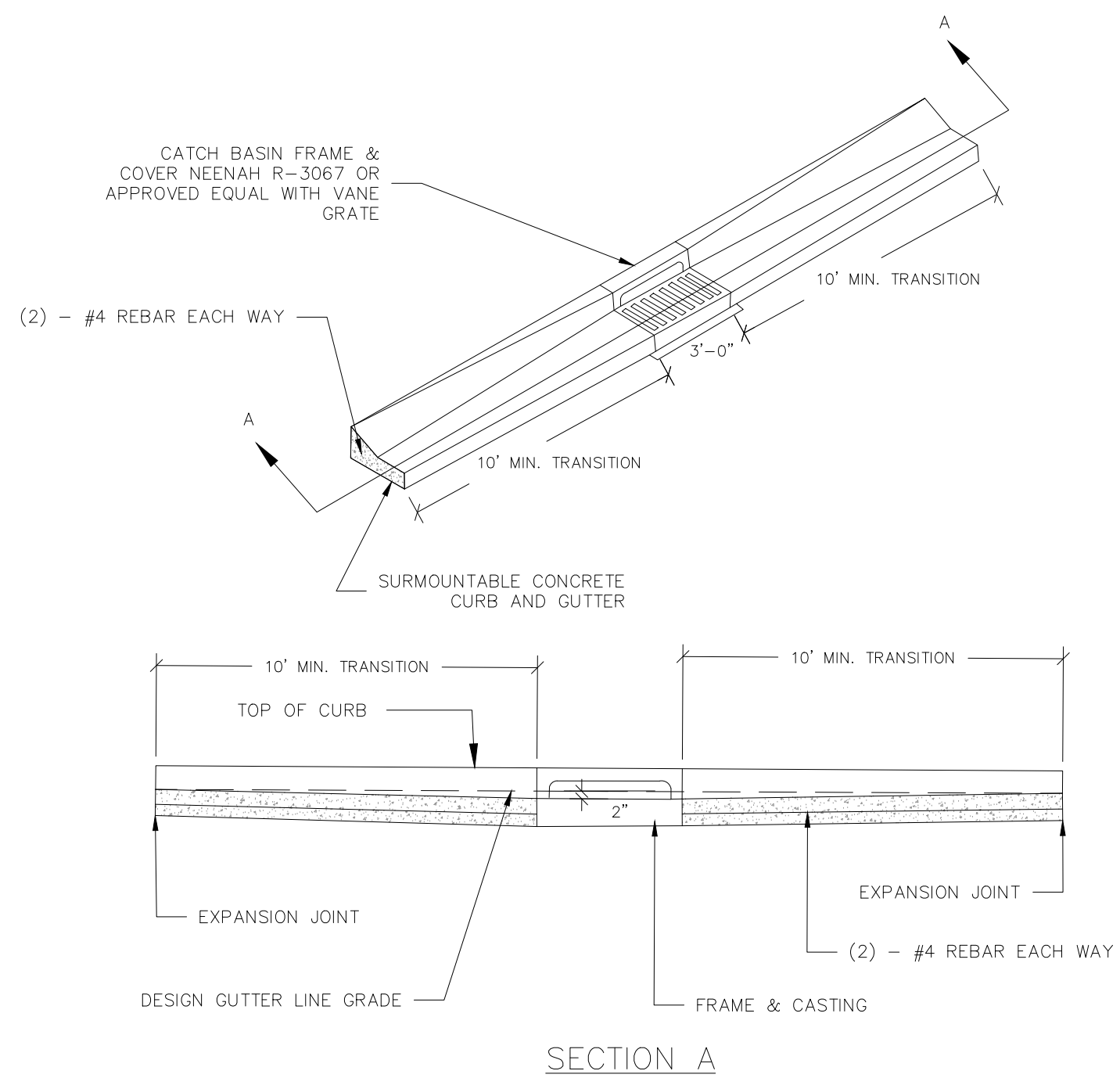
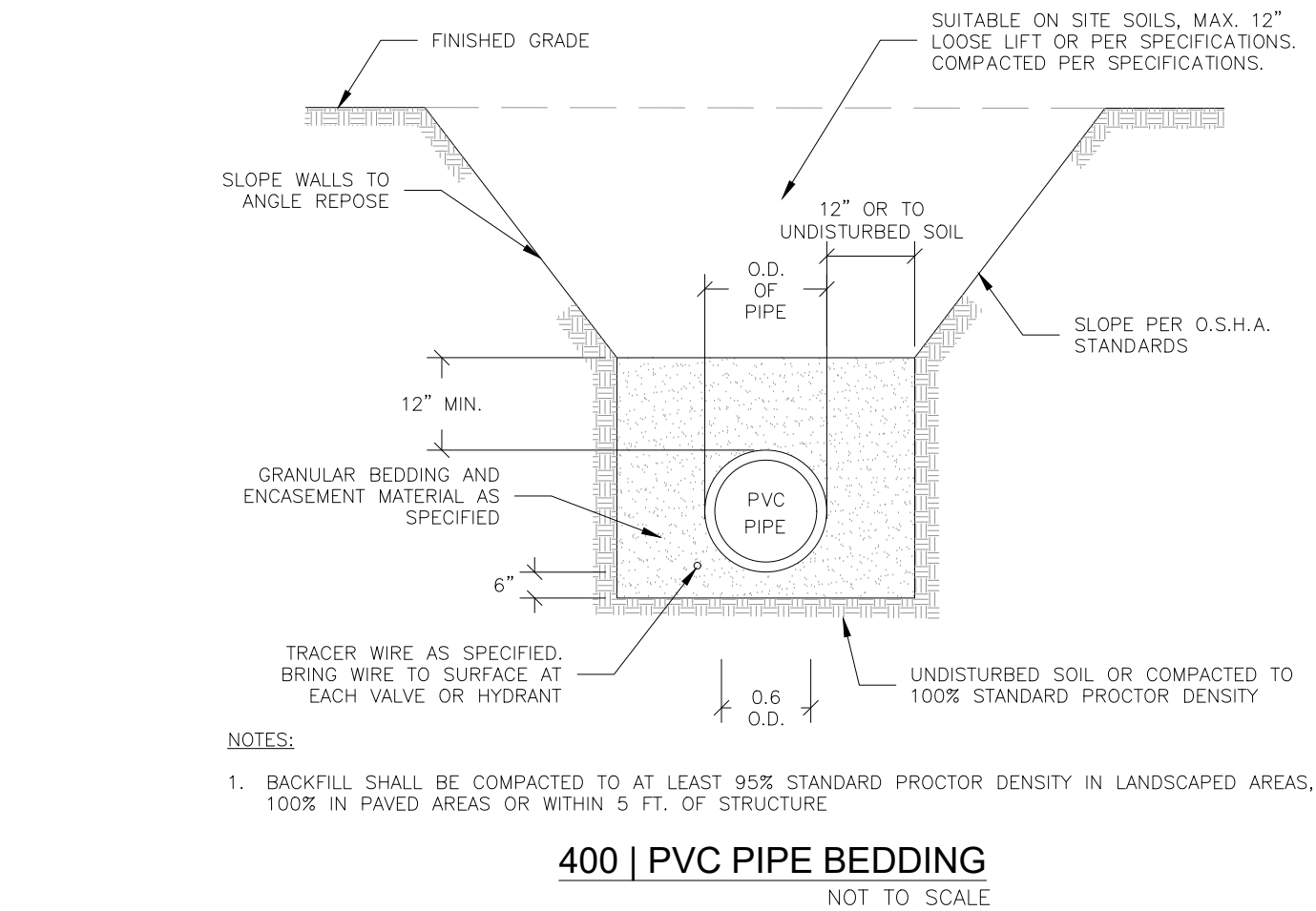
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DESIGNED BY: NPCT

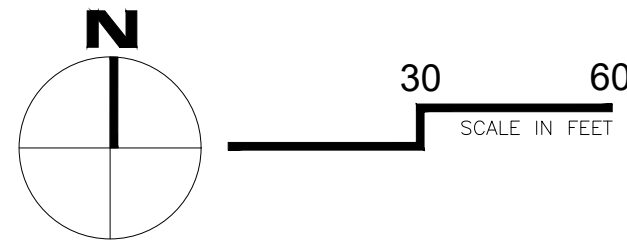
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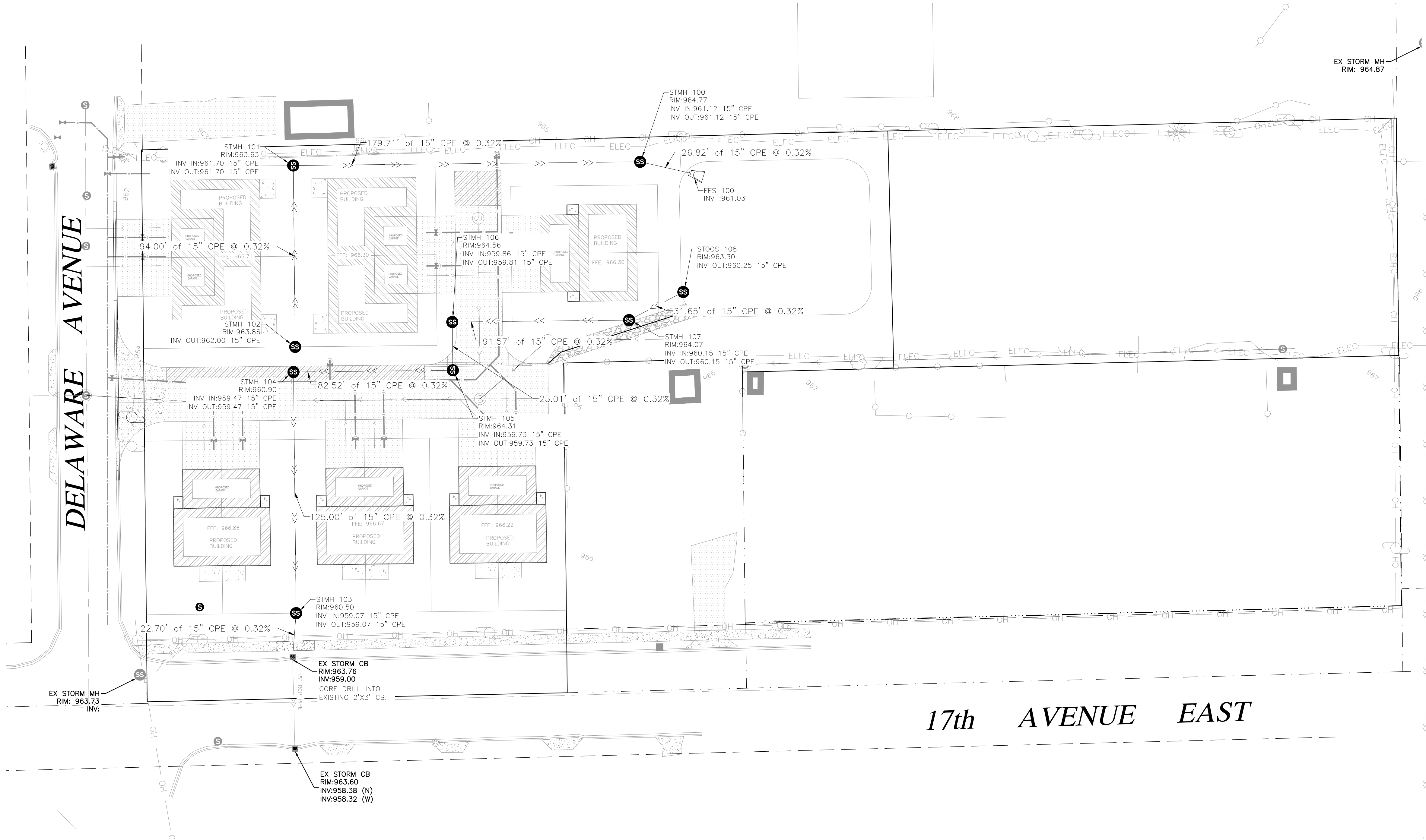


STORMWATER MANAGEMENT LEGEND:

- AREA DRAIN/ MANHOLE (SEE DETAIL STM-5)
- EXISTING CATCH BASIN
- >> — STORM SEWER (SEE DETAIL 543)
- >>> — VEGETATED SWALE
- - - >> - - - DRAIN TILE (SEE DETAIL 522)
- ▨ RIPRAP
- ▨ DRAINAGE AND UTILITY EASEMENT
- 100-HWL — 100 YEAR HIGH WATER LEVEL
- NWL — POND NORMAL WATER LEVEL
- ➡ EMERGENCY OVERFLOW (SEE DETAIL 504)

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITIES FOR CONNECTION TO PUBLIC WATER, SANITARY SEWER AND STORM SEWER UTILITIES AND WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING PROVIDING AN APPROVED TRAFFIC CONTROL PLAN AS NECESSARY.
2. CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED GATE VALVES AND MANHOLES TO BE FLUSH WITH FINAL GRADE.
3. THE CONTRACTOR SHALL CLEAN ALL SURFACE FLOW CHANNELS, PIPES AND STRUCTURES AFTER FINAL SURFACES ARE ESTABLISHED AND PRIOR TO PROJECT CLOSEOUT.
4. STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (CLASS 5 FOR PIPE DIAMETERS 18" AND SMALLER, CLASS 3 FOR PIPE DIAMETERS 21" AND LARGER UNLESS OTHERWISE NOTED) WITH R-4 GASKETS. ROOF DRAIN LEADERS SHALL BE PVC, SCHEDULE 40.
5. ALL SEWER AND WATER CONSTRUCTION TO COMPLY WITH CITY ENGINEERING DESIGN STANDARDS.
6. UTILITY CONSTRUCTION PER MNDOT SPECIFICATIONS 2451, 2501, 2502, 2506, 2506, 2511, 2611, 2621, AND 2625
13. CONTACT NICOLE SODERHOLM, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 PRIOR TO BEGINNING ANY AND ALL ACTIVITY IN ORDER TO SCHEDULE AN INITIAL SWPPP INSPECTION.
14. CONTACT NICOLE SODERHOLM, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION OF THE STORMWATER TREATMENT BASINS.



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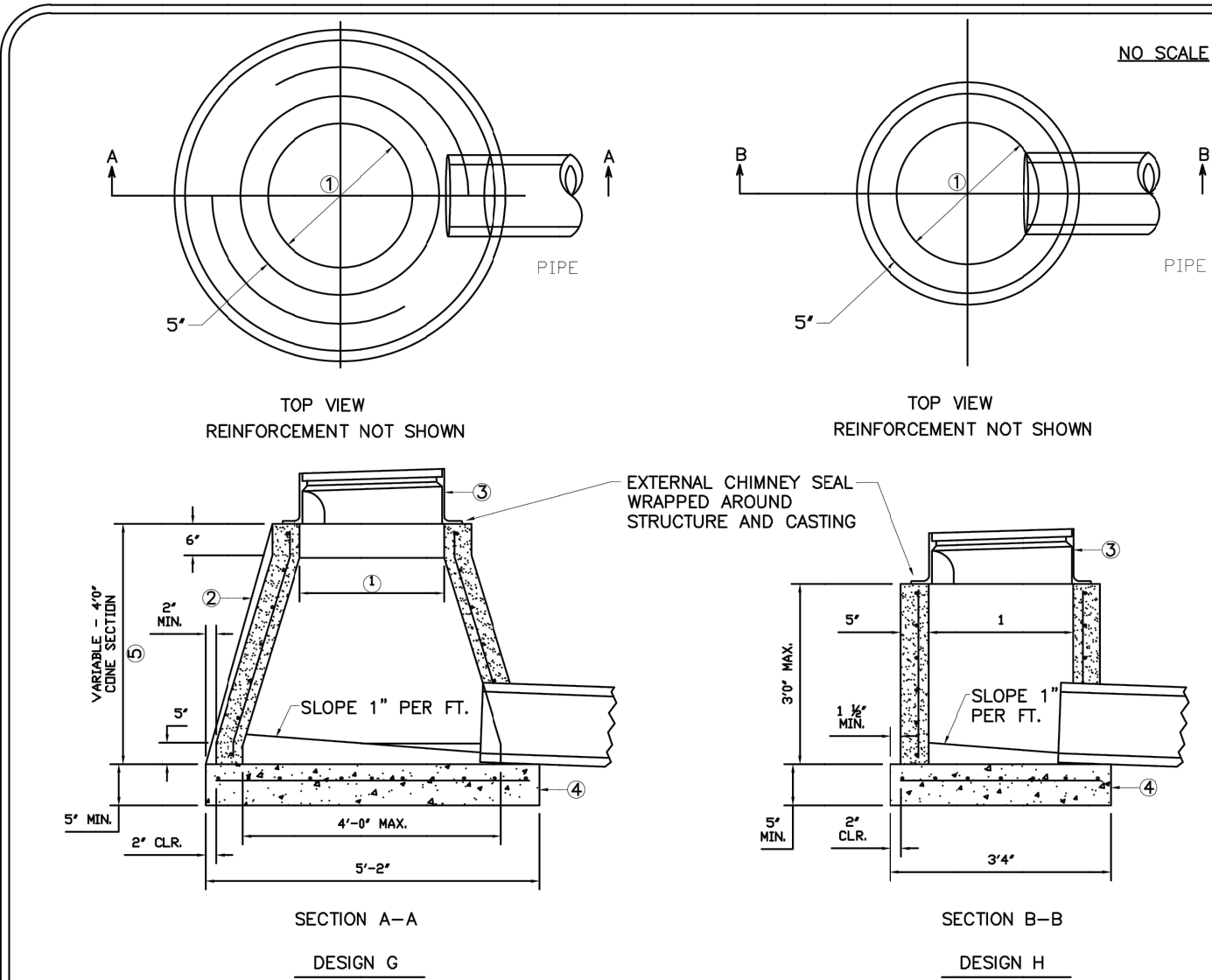
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|      |           |                      | ECR      | NPCT |
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| B    | 8/6/2020  | CITY PLANNING REVIEW |          |      |
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| DELAWARE PLACE             |  |
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| 3RD ST N AND 17TH AVE E    |  |
| NORTH SAINT PAUL, MN 55109 |  |
| STORMWATER MANAGEMENT PLAN |  |
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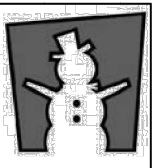
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DATE: 09/10/19  
DRAWN BY: WNW  
DESIGNED BY: NPCT

SHEET:  
**C5.0**





- NOTES:
- REINFORCING: SINGLE LINE STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT.
1. 2'3" NOM. OPENING.
2. A STRAIGHT TAPERED WALL IS ACCEPTABLE.
3. REFER TO PLAN FOR CASTINGS REQUIRED. USE ADJUSTING RINGS WHERE NECESSARY. CASTING AND PRECAST CONC. ADJUSTING RINGS, SHALL BE SET ON FULL MORTAR BEDS. CASTING INCLUDED IN PAYMENT FOR EACH CATCH BASIN.
4. 8 IN. POURED CONCRETE BASE. BASE REINFORCEMENT: 0.12 SQ. IN. PER FT. IN EACH DIRECTION. AN APPROVED ALTERNATE PRECAST CONCRETE BASE MAY BE USED.
- HEIGHT OF STRUCTURE MAY BE INCREASED UP TO 1 FT. BY THE USE OF A PRECAST SECTION OR CONCRETE BLOCK CONSTRUCTION ABOVE THE CONE SECTION.



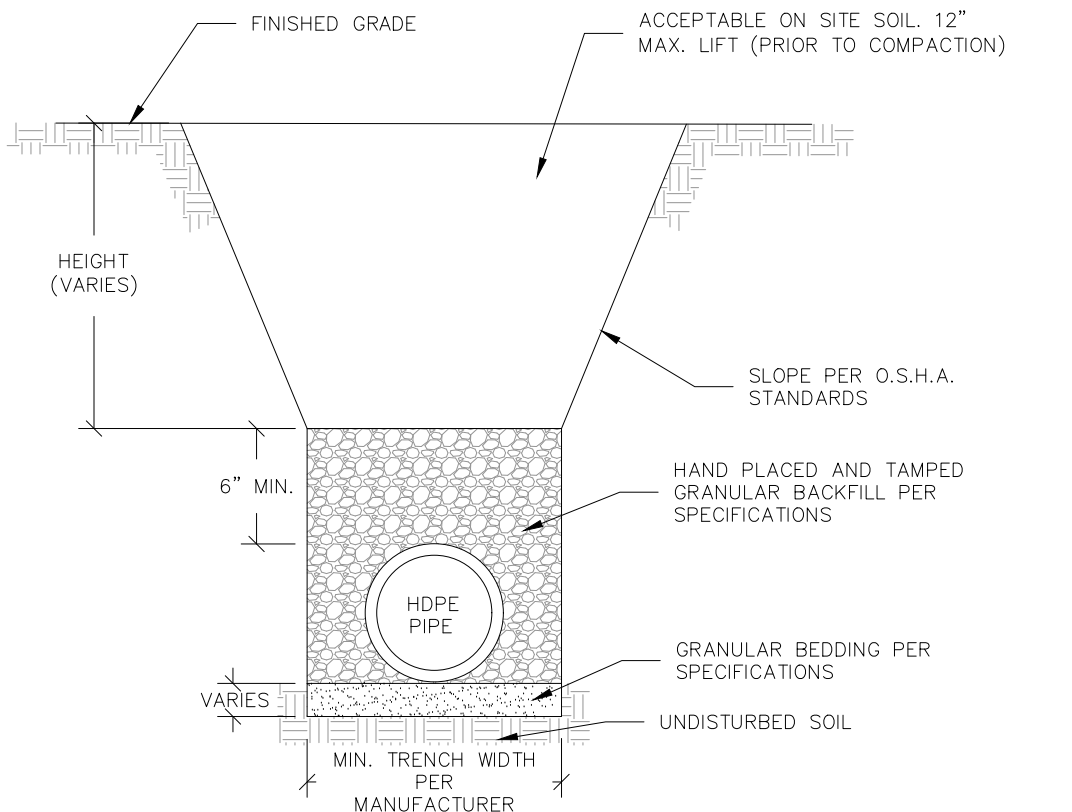
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DESIGN G & H

SPECIAL DETAILS

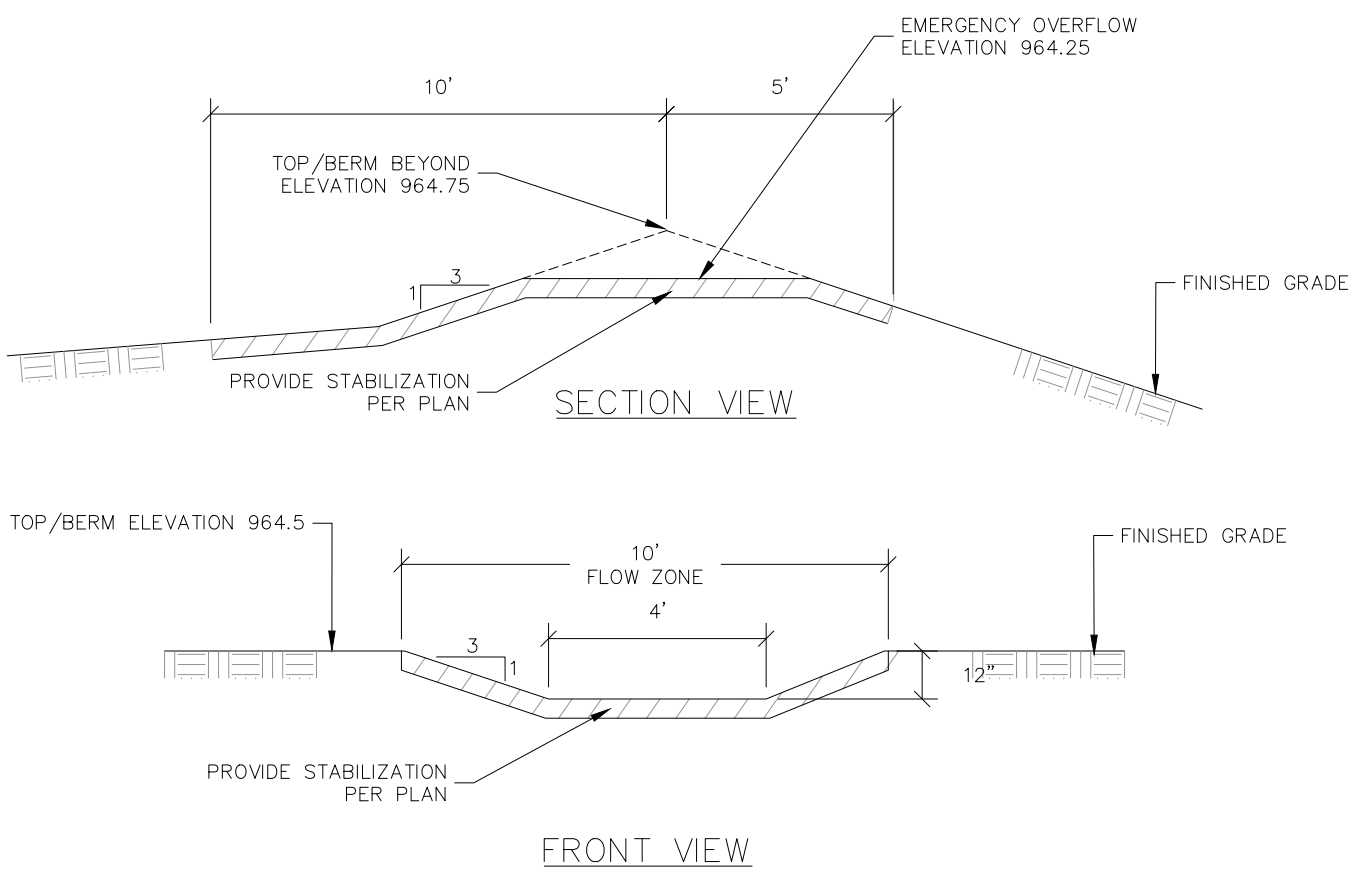
Date: Jan. 2016  
Revised:

STM-5



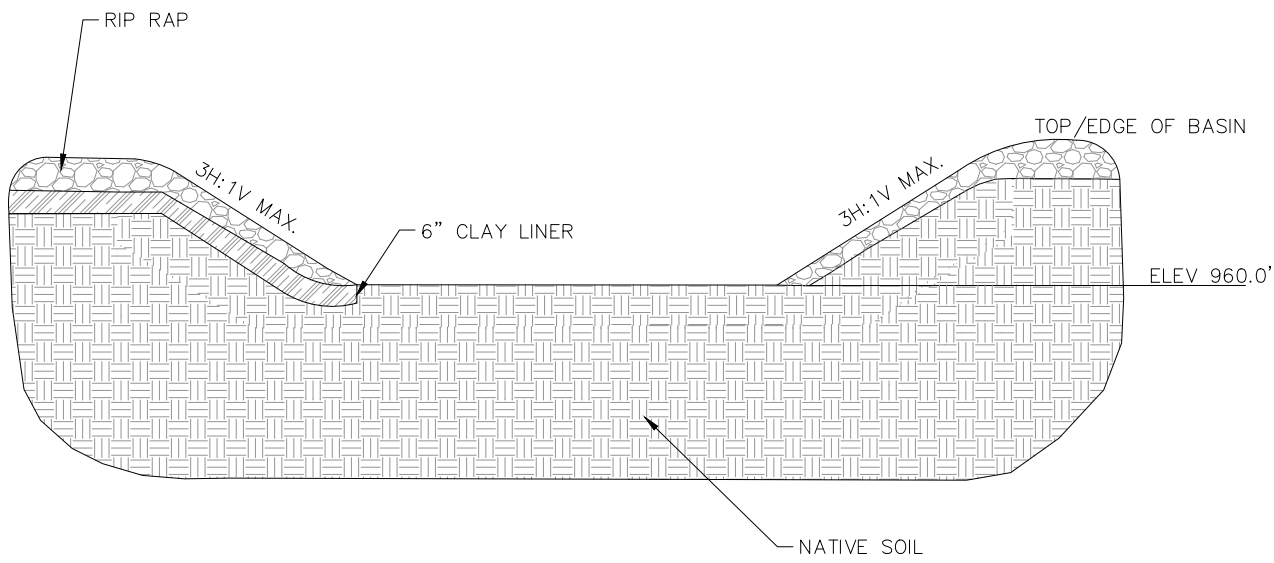
- NOTES:
1. BACKFILL SHALL BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY IN LANDSCAPED AREAS; 100% IN TOP 3' OF SUBGRADE IN PAVED AREAS OR WITHIN 5 FEET OF STRUCTURE; 95% BELOW THE TOP 3' OF SUBGRADE
2. GRANULAR BEDDING DEPTH SHALL BE MIN. 4" FOR PIPE SIZES 4-24"; 6" FOR PIPE SIZES 30" AND GREATER.
3. HDPE PIPE TO BE SMOOTH WALLED INTERNAL WITH MANNING'S N-VALUE 0.013 OR LOWER.

543 | HDPE PIPE BEDDING  
NOT TO SCALE



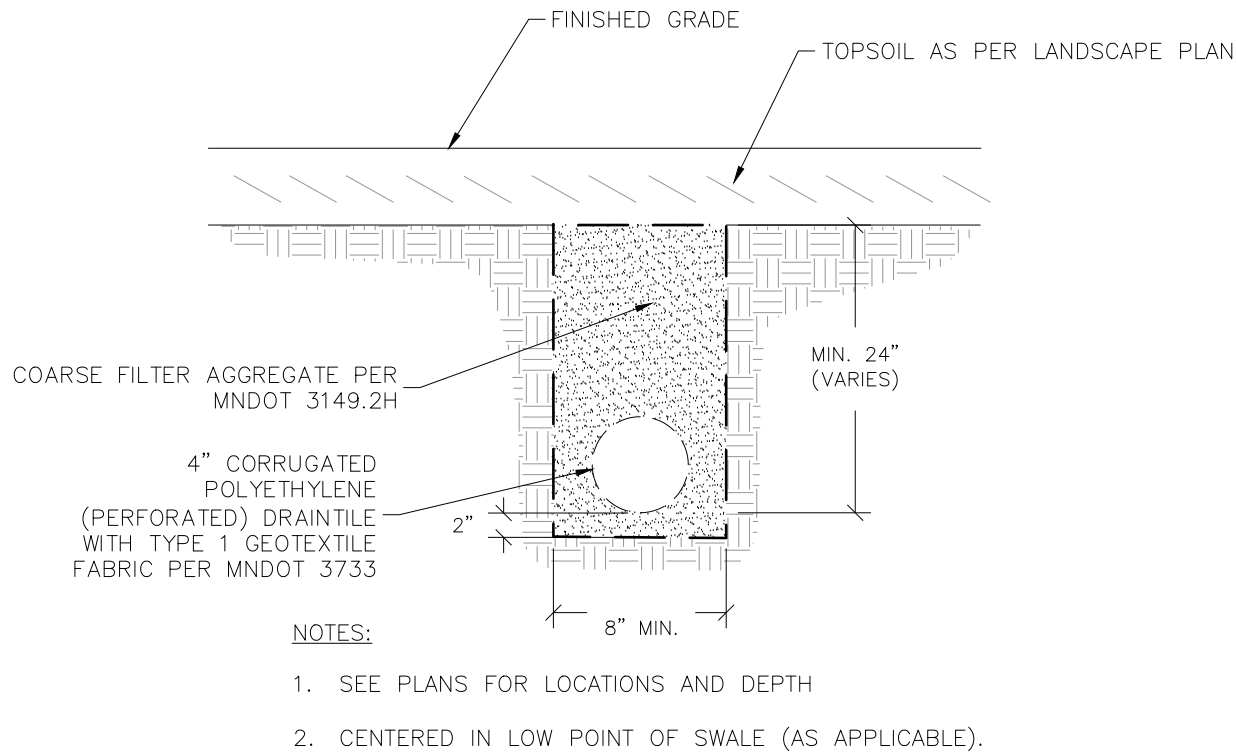
- NOTES:
1. TOP OF STABILIZATION (RIPRAP/TRM) TO BE 12" BELOW TOP OF BERM

504 | EMERGENCY OVERFLOW  
NOT TO SCALE

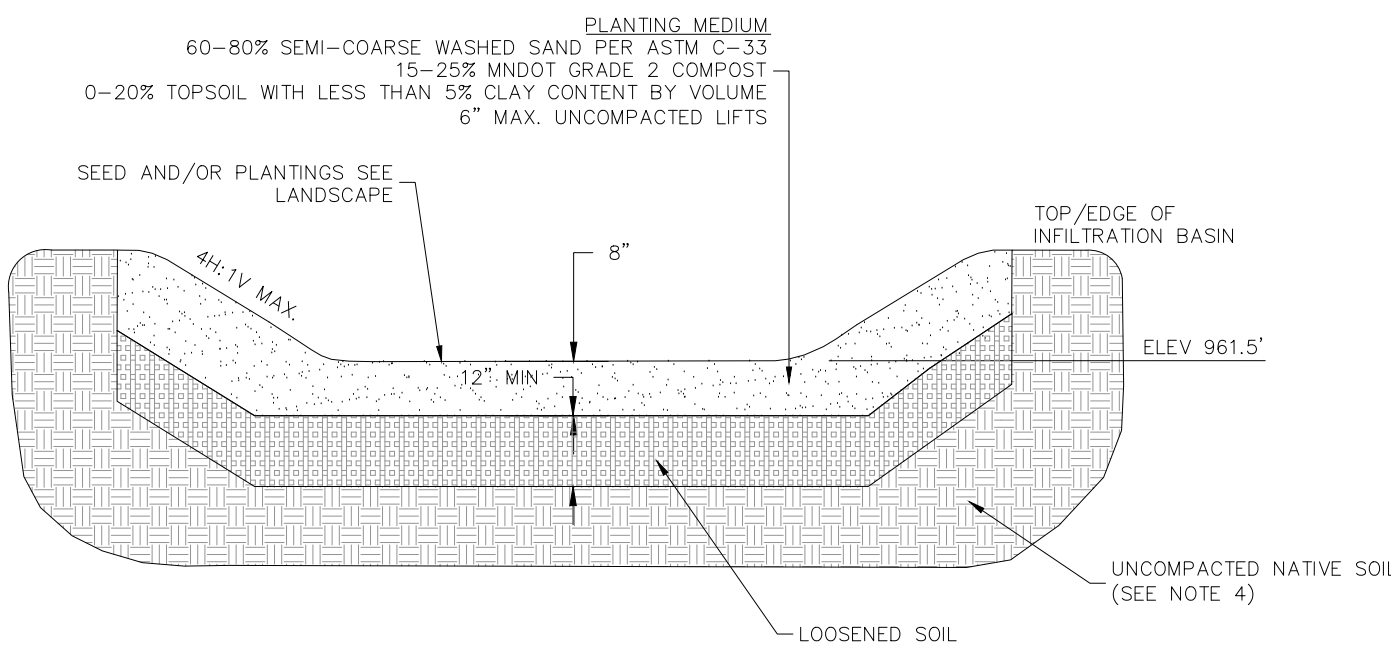


- NOTES:
1. THE FINAL GRADING OF THE BASIN SHOULD BE GRADED FLAT

549 | PRETREATMENT BASIN  
NOT TO SCALE



522 | DRAINTILE TRENCH  
NOT TO SCALE



- NOTES:
1. DO NOT ALLOW CONSTRUCTION TRAFFIC OR SOIL COMPACTION WITHIN BASINS. ONLY LOW COMPACTION EQUIPMENT SHALL BE USED FOR CONSTRUCTION OF BASIN.
2. INFILTRATION AREA MAY ONLY BE EXCAVATED TO NATIVE SOIL AFTER THE CONTRIBUTING WATERSHED IS STABLE
3. THE FINAL GRADING OF THE INFILTRATION BASIN SHOULD BE GRADED FLAT
4. PROVIDE 12" NATIVE SOIL LOOSENING (RIPPING) AS DIRECTED BY ENGINEER IMMEDIATELY PRIOR TO PLACING PLANTING MEDIUM.
5. SUBMIT TESTING OF TOPSOIL IF USED IN PLANTING MEDIUM TO SHOW CLAY CONTENT DOES NOT EXCEED MAX ALLOWABLE.
6. GEOTECHNICAL OR DESIGN ENGINEER TO APPROVE SUBGRADE NATIVE SOIL PRIOR TO PLACEMENT OF COARSE FILTER AGGREGATE.

551 | INFILTRATION BASIN #X  
NOT TO SCALE

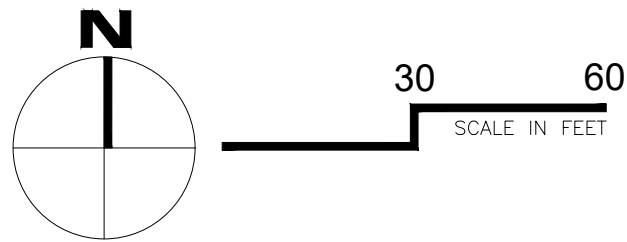
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| DELAWARE PLACE                                        | DETAILS |
| 3RD ST N AND 17TH AVE E<br>NORTH SAINT PAUL, MN 55109 |         |

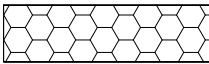
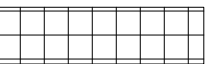
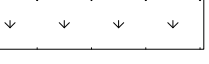
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DESIGNED BY: NPCT

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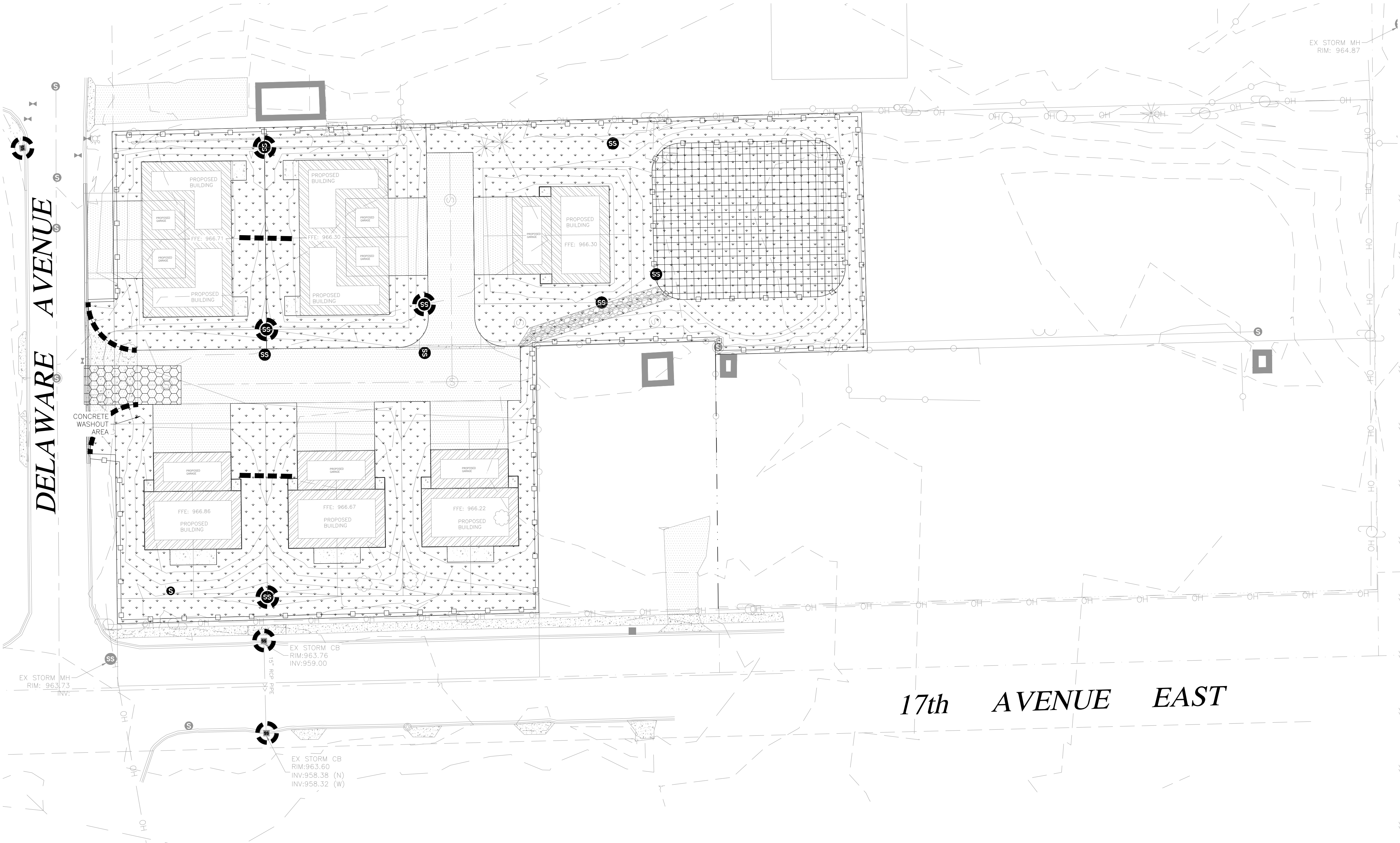


EROSION CONTROL LEGEND:

-  ROCK CONSTRUCTION ENTRANCE (SEE DETAIL EC-1)
-  SILT FENCE (SEE DETAIL EC-3)
-  INLET PROTECTION (SEE DETAIL EC-5)
-  EROSION CONTROL BLANKET
-  SEED/MULCH (PER LANDSCAPE PLAN)
-  BIO ROLL (SEE DETAIL EC-2)

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

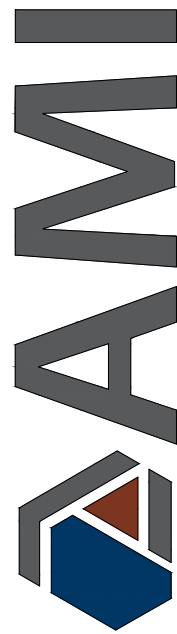
1. INSTALL TEMPORARY EROSION CONTROL DEVICES AT THE LOCATIONS SHOWN ON THE PLANS PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES.
2. MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A WEEKLY BASIS AND DURING RAINFALL EVENTS. REMOVE ACCUMULATED SEDIMENT DEPOSITS FROM EROSION AND SEDIMENT CONTROL DEVICES AND DOWNSTREAM DRAINAGE SYSTEMS AS NEEDED. DO NOT ALLOW SEDIMENT TO ACCUMULATE TO A DEPTH OF MORE THAN ONE-THIRD OF THE CAPACITY OF THE DEVICE. REPLACE DETERIORATED OR DAMAGED EROSION CONTROL DEVICES WITHIN 24 HOURS.
3. PROVIDE ADDITIONAL EROSION CONTROL, WHICH MAY NOT BE SHOWN ON THE DRAWINGS, CONSISTENT WITH THE MEANS, METHODS AND SEQUENCE OF CONSTRUCTION IN ACCORDANCE WITH PERMIT REQUIREMENTS AND AUTHORITIES HAVING JURISDICTION.
4. REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS THROUGHOUT THE DURATION OF THE CONSTRUCTION.
5. STABILIZE ALL AREAS WHICH HAVE BEEN FINISH-GRADED, AND ALL DISTURBED AREAS IN WHICH GRADING OR CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY, AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER WITHIN 14 DAYS. REPAIR ERODED AREAS IMMEDIATELY.
6. LOCATE SOIL OR DIRT STOCKPILES CONTAINING MORE THAN 10 CUBIC YARDS OF MATERIAL WITH A DOWNSLOPE DRAINAGE LENGTH OF NO LESS THAN 25 FEET FROM THE TOE OF THE PILE TO A ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT FENCE BARRIERS AROUND THE PILES.
7. PERFORM ALL EROSION CONTROL PRACTICES AND SEQUENCE CONSTRUCTION IN ACCORDANCE WITH THE METHODS OUTLINED IN THE BEST MANAGEMENT PRACTICES HANDBOOK: "PROTECTING WATER QUALITY IN URBAN AREAS," PUBLISHED BY THE MINNESOTA POLLUTION CONTROL AGENCY.
8. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE ADJACENT FINAL SURFACES ARE PERMANENTLY ESTABLISHED. COORDINATE REMOVAL WITH PERMANENT RESTORATION OF ALL AREAS OCCUPIED BY TEMPORARY DEVICES.
9. PHASED CONSTRUCTION SHALL BE USED TO THE EXTENT PRACTICAL OR AS INDICATED ON THE PLANS TO MINIMIZE EXPOSED SOILS.
10. EROSION CONTROL PLAN, AS WELL AS THE WEEKLY AND POST RAINFALL EVENT INSPECTION REPORTS TO BE KEPT IN THE ON-SITE JOB TRAILER.
11. CONTRACTOR SHALL MAINTAIN ROCK ENTRANCE(S) DURING CONSTRUCTION
12. ALL STORM SEWER CATCH BASINS TO BE PROTECTED FROM SEDIMENT DEPOSITION WITH AN APPROVED INLET PROTECTION DEVICE. CONTRACTOR SHALL CLEAN STORM SEWER SYSTEM OF SEDIMENT AND DEBRIS PRIOR TO COMPLETION.
13. CONTACT NICOLE SODERHOLM, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 PRIOR TO BEGINNING ANY AND ALL ACTIVITY IN ORDER TO SCHEDULE AN INITIAL SWPPP INSPECTION.
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Consulting Engineers P.A.  
3640 TALMAGE CIR. VADNAIS HEIGHTS  
651.344.8783 - am engineers.com  
SUPERIOR - IRON RANGE

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NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

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DELAWARE PLACE  
-----  
3RD ST N AND 17TH AVE E  
NORTH SAINT PAUL, MN 55109

SWPPP  
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JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: BPK  
DESIGNED BY: NPCT

SHEET:

C6.0







RECORD RETENTION:

THE SWPPP, INCLUDING, ALL CHANGES TO IT, PERMITS, AND INSPECTION AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON-SITE VEHICLE DURING NORMAL WORKING HOURS. THE OWNER MUST KEEP THE FOLLOWING RECORDS ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT:

- THE FINAL SWPPP.
- ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT.
- RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION.
- ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT-OF-WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE.
- ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

SWPPP AMENDMENTS:

THE PERMITTEE MUST AMEND THE SWPPP AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS THAT ARE DESIGNED TO CORRECT PROBLEMS IDENTIFIED OR TO ADDRESS ANY OF THE FOLLOWING SITUATIONS:

- THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAVE A SIGNIFICANT EFFECT ON THE STORMWATER DISCHARGE.
- INSPECTION OR INVESTIGATION BY A PARTY (SWPPP COORDINATOR, INSPECTORS, SITE OPERATOR, LOCAL, STATE OR FEDERAL OFFICIALS) INDICATES THE SWPPP IS NOT EFFECTIVE.
- THE SWPPP IS NOT ACHIEVING THE GENERAL OBJECTIVES OF MINIMIZING POLLUTANTS IN STORMWATER DISCHARGES OR THE SWPPP IS DEEMED TO BE NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THE PERMIT.
- THE MPCA DETERMINES THAT DISCHARGE MAY CAUSE OR CONTRIBUTE TO NON-ATTAINMENT OF ANY APPLICABLE WATER QUALITY STANDARDS OR THE SWPPP DOES NOT INCORPORATE THE REQUIREMENTS RELATED TO AN IMPAIRED WATERS OR APPROVED TMDL.

ADDITIONAL REQUIREMENTS:

- LEAVE NO SOIL OPEN FOR MORE THAN 48 HOURS TO MEET MINNESOTA B3 REQUIREMENTS.
- PERFORM INSPECTIONS WITHIN SIX (6) HOURS OF EVERY 24 HOUR STORM EVENT THAT IS GREATER THAN OR EQUAL TO 0.75 INCHES TO MEET MINNESOTA B3 REQUIREMENTS

| ESTIMATED QUANTITIES         |      |          |
|------------------------------|------|----------|
| BMP                          | UNIT | QUANTITY |
| SILT FENCE                   | LF   | 1230     |
| BIOROLL                      | LF   | 100      |
| STORM DRAIN INLET PROTECTION | EA   | 7        |
| ROCK CONSTRUCTION ENTRANCE   | EA   | 1        |
| SEED/MULCH                   | AC   | 1.0      |
| EROSION CONTROL BLANKET      | SY   | 800      |
| SOD/LANDSCAPING              | AC   | 0        |

| STORMWATER CALCULATIONS                   |                    |
|-------------------------------------------|--------------------|
| BMP                                       | INFILTRATION BASIN |
| TOTAL TRIBUTARY AREA (AC)                 | 2.48               |
| AREA OF IMPERVIOUS (AC/SF)                | 1.12               |
| NORMAL WATER ELEVATION (FT)               | 961.50             |
| DEAD STORAGE VOLUME (CF)                  | 0                  |
| PRETREATMENT PROVIDED? Y/N                | YES                |
| WATER QUALITY VOLUME ROD (CF)             | 4552               |
| WATER QUALITY VOLUME PRVD (CF)            | 8993               |
| ELEVATION OF WQ VOLUME (FT)               | 963.50             |
| ALLOWABLE DISCHARGE RATE (WQ VOLUME, CFS) | 14.68              |
| PROPOSED DISCHARGE RATE (WQ VOLUME, CFS)  | 11.17              |
| EMERGENCY OVERFLOW, EOF (FT)              | 964.25             |

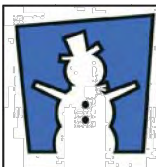
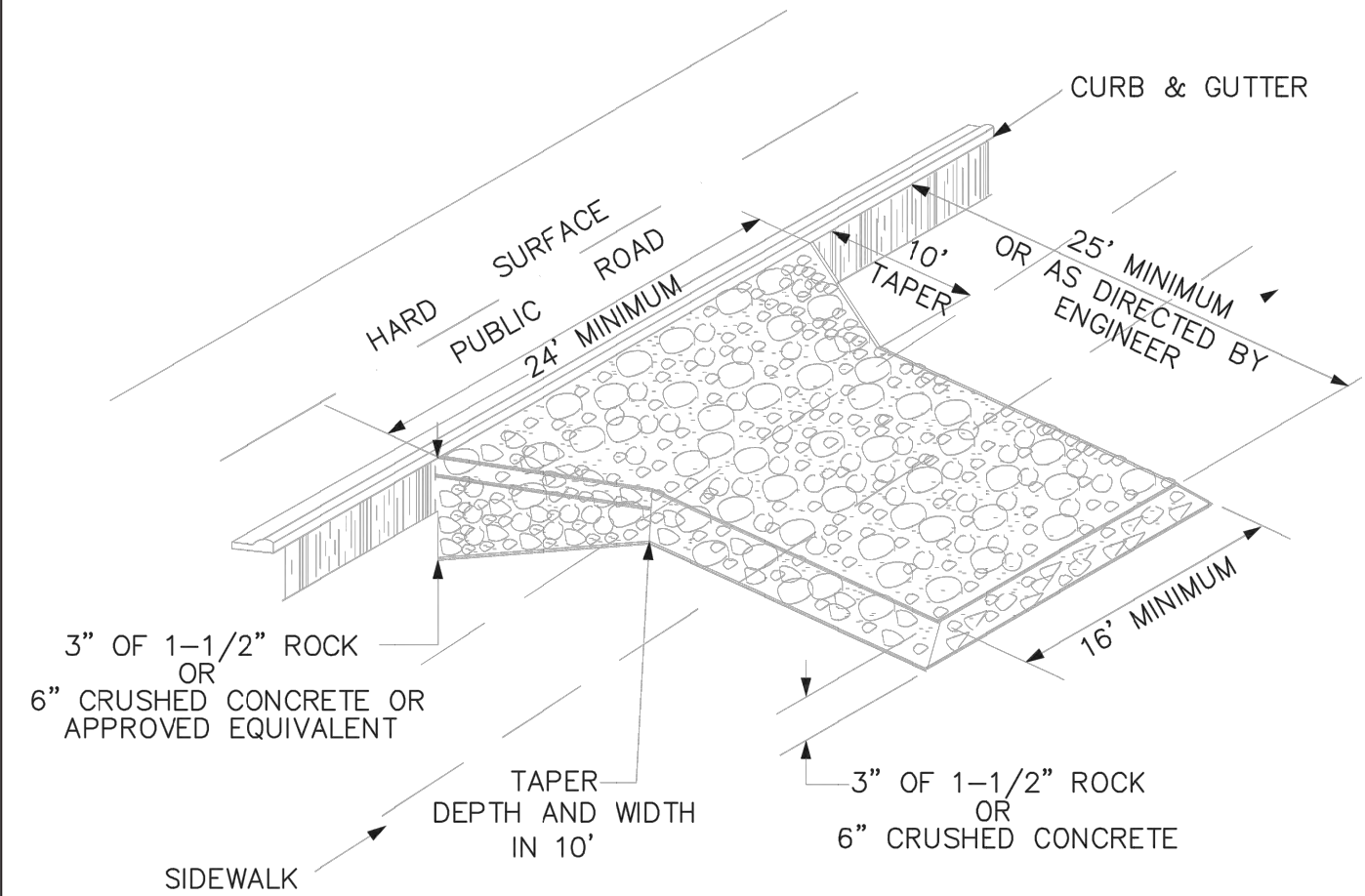


Know what's below.  
Call before you dig.

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

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

**SPECIAL NOTE:**  
SPECIAL ATTENTION SHALL BE PAID WHEN INSTALLING DRIVEWAYS TO NOT UNDERMINE OR DAMAGE EXISTING SIDEWALKS.

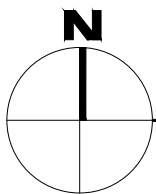


NORTH  
ST. PAUL

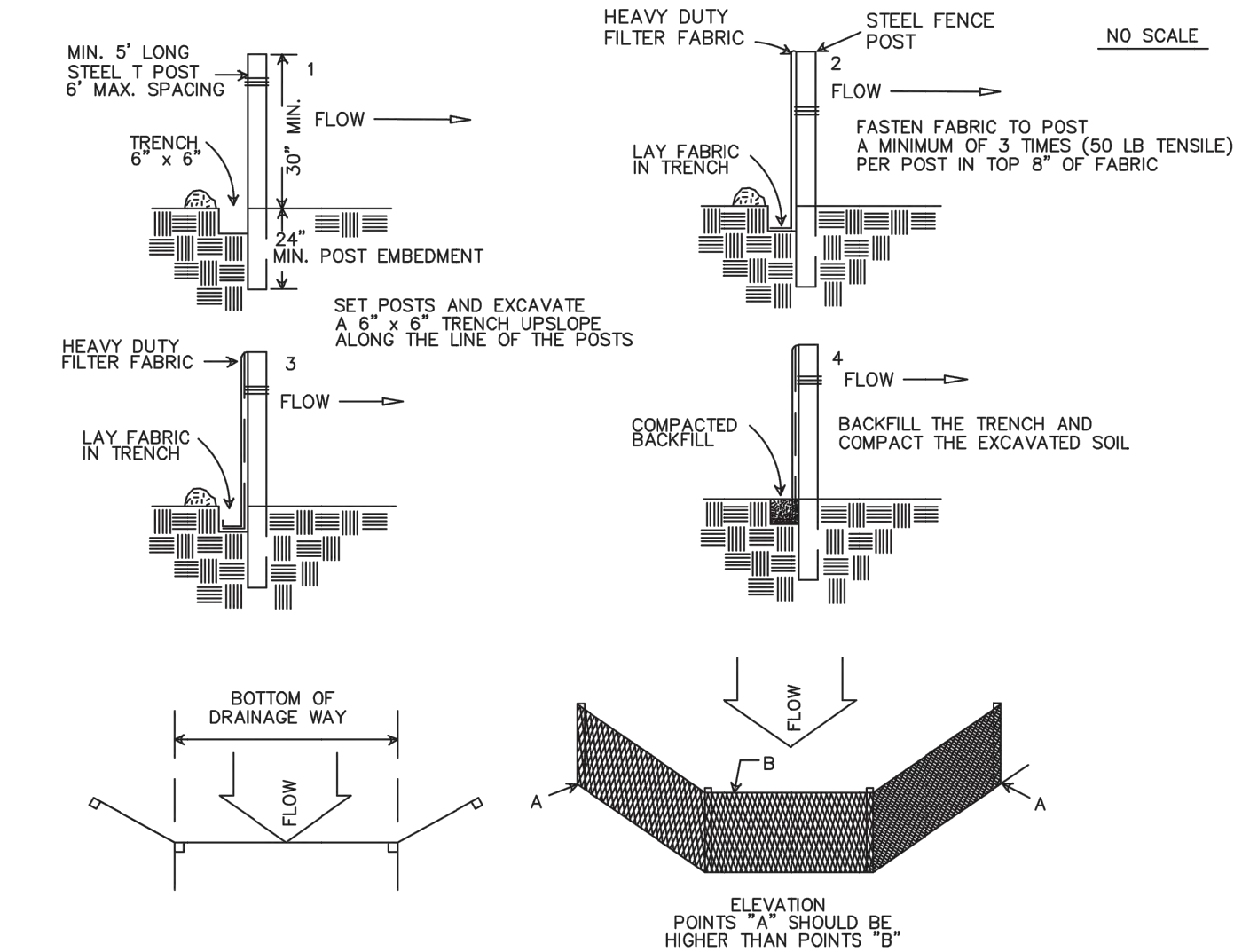
ROCK CONSTRUCTION  
ENTRANCE

SPECIAL DETAILS

Date: Jan. 2016  
Revised: EC-1

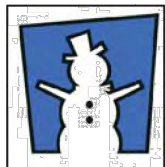


USGS MAP  
NOT TO SCALE



NOTES:

- FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USEABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- WETLANDS ARE TO BE PROTECTED BY TWO ROWS OF H.D. SILT FENCE. DOUBLE H.D. SILT FENCE IS REQUIRED AROUND WATER BODIES, STEEP SLOPES AND HIGHLY ERODIBLE SOILS.
- SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY 1/2 HEIGHT OF THE BARRIER, OR AS DIRECTED BY THE ENGINEER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDDED.
- ALL MATERIAL & INSTALLATION MUST CONFORM TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE MNDOT CONSTRUCTION SPECIFICATIONS TABLE 3896-1.

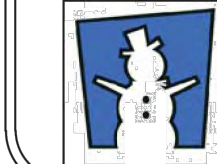


NORTH  
ST. PAUL

PLACEMENT AND  
CONSTRUCTION OF  
SILT FENCE

SPECIAL DETAILS

Date: Jan. 2016  
Revised: EC-3

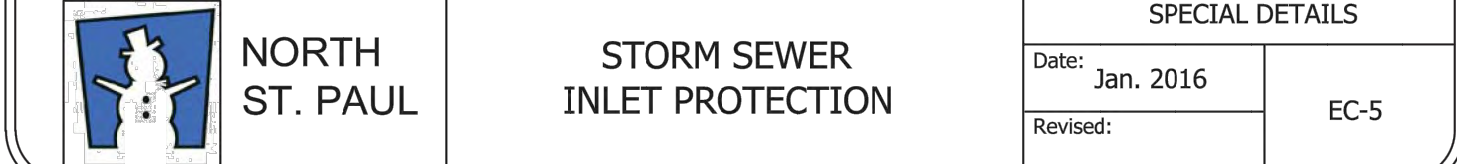


NORTH  
ST. PAUL

STORM SEWER  
INLET PROTECTION

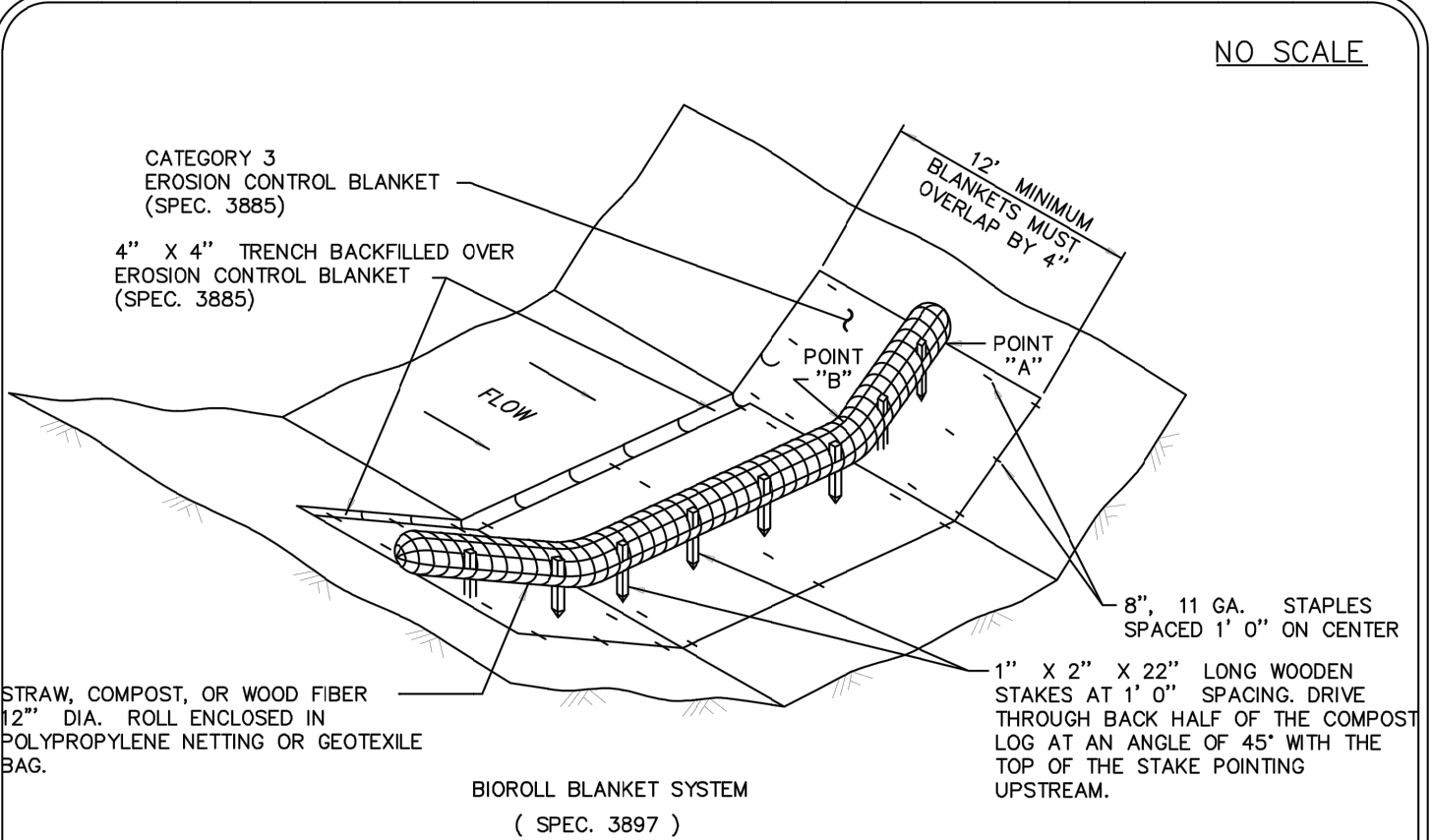
SPECIAL DETAILS

Date: Jan. 2016  
Revised: EC-5



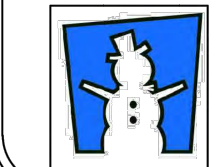
NOTES:

- DEVICES TO BE INSTALL IMMEDIATELY UPON INSTALLATION OF CONCRETE STRUCTURE CONE OR TOP SLAB. CASTING ASSEMBLY MUST ALSO BE AT LEAST TEMPORARILY IN PLACE.
- CHECK FILTER MEDIA AFTER EACH RAIN EVENT & CLEAN AND REPLACE IF SEDIMENT CLOGS FILTER.
- REMOVE SEDIMENT AND DEBRIS FROM RECEIPTCLE AFTER EACH RAIN EVENT.



NOTES

- FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE BIOROLL DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USEABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE BIOROLL SHALL BE PLACED PROMPTLY.
- SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY 1/2 HEIGHT OF THE BARRIER, OR AS DIRECTED BY THE ENGINEER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDDED.
- ALL MATERIAL & INSTALLATION MUST CONFORM TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE MNDOT CONSTRUCTION SPECIFICATIONS SECTION 3897.
- POINT A MUST BE A MINIMUM OF 6" HIGHER THAN POINT B TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
- STAPLE DENSITY SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS.

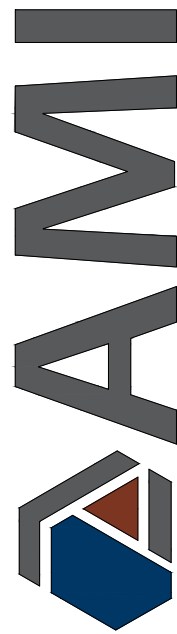


NORTH  
ST. PAUL

BIO-ROLL BLANKET

SPECIAL DETAILS

Date: Jan. 2016  
Revised: EC-2



Consulting Engineers P.A.  
3640 TALMAGE CIR. VADNAIS HEIGHTS  
651.344.8783 - am engineers.com  
SUPERIOR - IRON RANGE

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.  
**NOT A FINAL CONSTRUCTION**  
NAME: DATE: SIGNATURE: SCALE: XX

REV. BY: ECR NPCT

| DESCRIPTION | CITY REVIEW | CITY PLANNING REVIEW |
|-------------|-------------|----------------------|
|             |             |                      |

| REV: | A | B |
|------|---|---|
|      |   |   |

| DATE: | 9/10/2019 | 8/6/2020 |
|-------|-----------|----------|
|       |           |          |

DELAWARE PLACE

3RD ST N AND 17TH AVE E  
NORTH SAINT PAUL, MN 55109

SWPPP

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: BPK  
DESIGNED BY: NPCT

SHEET:

C6.2

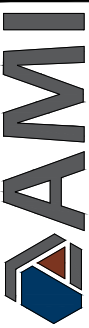




| CATCHMENT | IMPERVIOUS SURFACE (AC) | PERVIOUS SURFACE (AC) |
|-----------|-------------------------|-----------------------|
| E-1       | 0.00                    | 1.12                  |
| E-2       | 0.00                    | 0.50                  |
| E-3       | 0.00                    | 0.47                  |
| E-4       | 0.00                    | 0.27                  |
| E-5       | 0.00                    | 0.12                  |
| E-OFFSITE | 0.00                    | 0.28                  |



60 120  
SCALE IN FEET



Consulting Engineers P.A.  
3640 TALMAGE CIR. VADNAIS HEIGHTS  
651.344.8783 - amlengineers.com  
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NOT FOR CONSTRUCTION

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

| REV. BY:                                                      | DESCRIPTION                                      | REV:                 | DATE:     |
|---------------------------------------------------------------|--------------------------------------------------|----------------------|-----------|
| ECR <td>CITY REVIEW<td>A<td>9/10/2019</td></td></td>          | CITY REVIEW <td>A<td>9/10/2019</td></td>         | A <td>9/10/2019</td> | 9/10/2019 |
| NPCT <td>CITY PLANNING REVIEW<td>B<td>8/4/2020</td></td></td> | CITY PLANNING REVIEW <td>B<td>8/4/2020</td></td> | B <td>8/4/2020</td>  | 8/4/2020  |
|                                                               |                                                  |                      |           |
|                                                               |                                                  |                      |           |
|                                                               |                                                  |                      |           |
|                                                               |                                                  |                      |           |
|                                                               |                                                  |                      |           |
|                                                               |                                                  |                      |           |
|                                                               |                                                  |                      |           |
|                                                               |                                                  |                      |           |

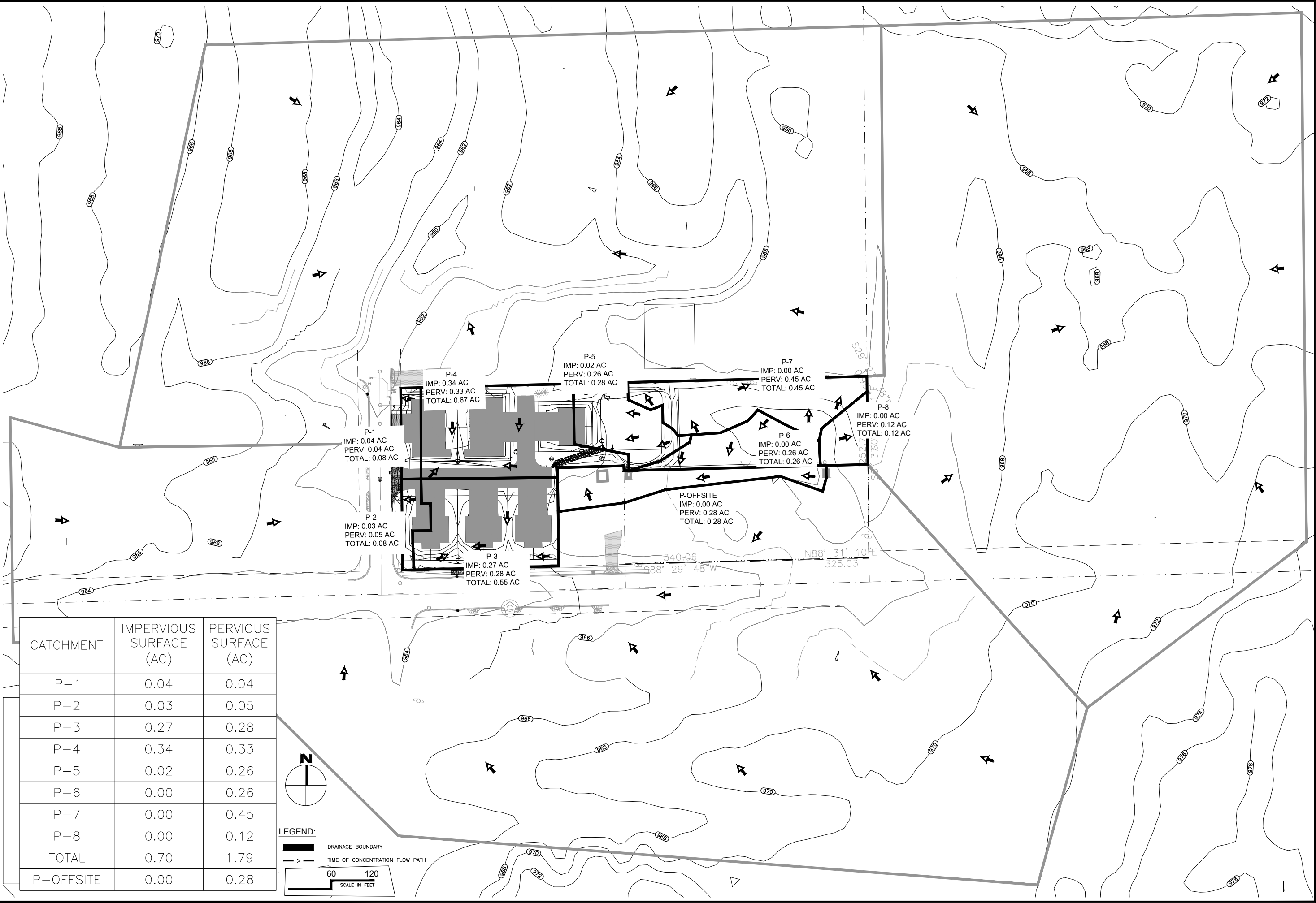
DELAWARE PLACE  
---  
3RD ST N AND 17TH AVE E  
NORTH SAINT PAUL, MN 55109

EXISTING DRAINAGE CONDITIONS  
---

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: VWNW  
DESIGNED BY: NPCT

SHEET:  
**EX-1**





AMIConsulting Engineers P.A.

3640 TALMAGE CIR. VADNAIS HEIGHTS

651.344.8783 - amiengineers.com

AMISuperior - IRON RANGE

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NOT FOR CONSTRUCTION

SIGNATURE: DATE: XXXX

DELaware PLACE

3RD ST N AND 17TH AVE E

NORTH SAINT PAUL, MN 55109

PROPOSED DRAINAGE CONDITIONS

JOB No: 181076

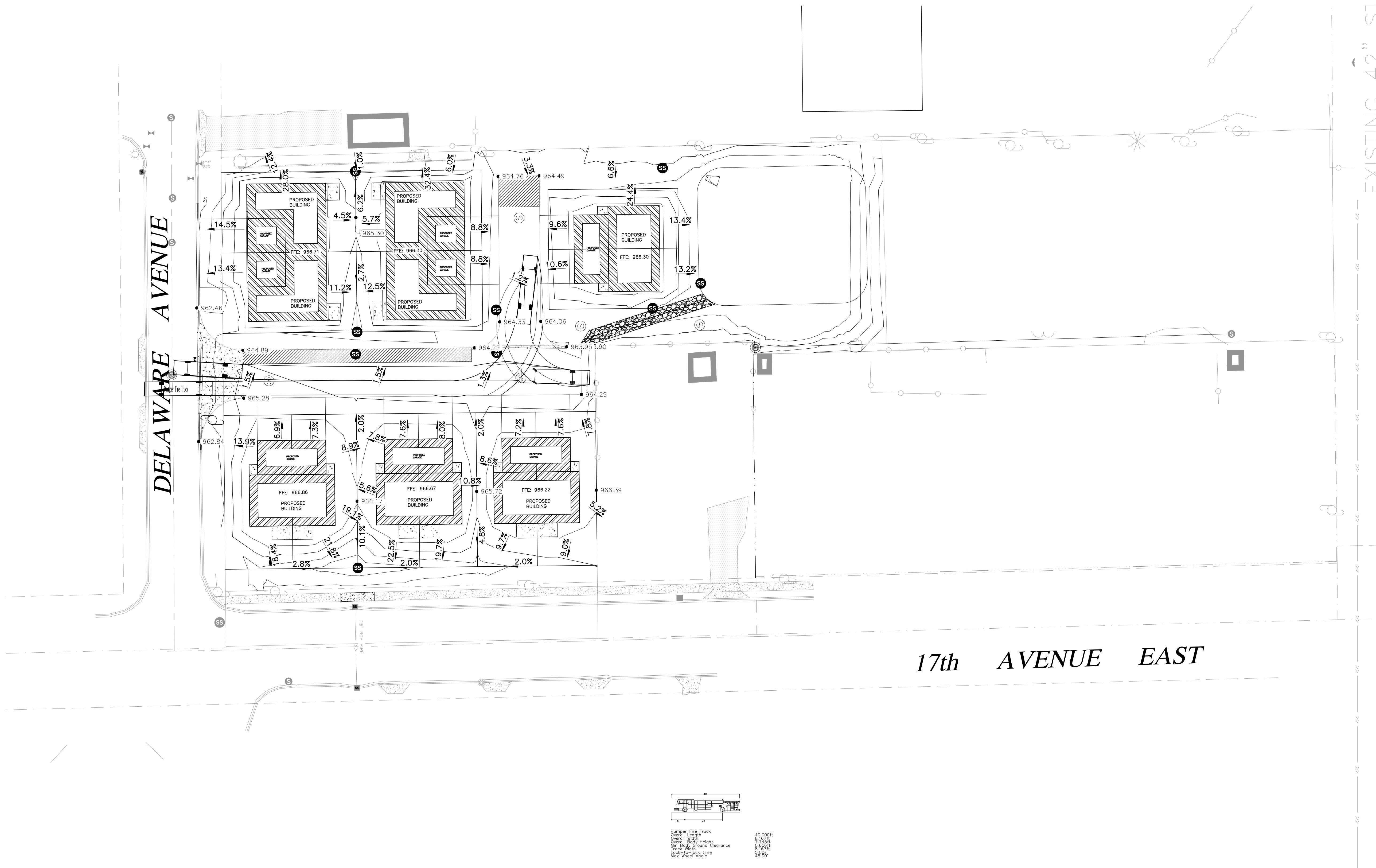
DATE: 09/10/19

DRAWN BY: WNW

DESIGNED BY: NPCT

| REV. | DATE      | DESCRIPTION          | REV. BY: |
|------|-----------|----------------------|----------|
| A    | 9/10/2019 | CITY REVIEW          | ECR      |
| B    | 8/6/2020  | CITY PLANNING REVIEW | NPCT     |
|      |           |                      |          |
|      |           |                      |          |
|      |           |                      |          |
|      |           |                      |          |

EX-2



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

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

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|                                                                                                                                   |           |      |                      |          |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------|------|----------------------|----------|
| DELAWARE PLACE<br><br>3RD ST N AND 17TH AVE E<br><br>NORTH SAINT PAUL, MN 55109<br><br>TURNING EXHIBIT - 36' FIRE SERVICE VEHICLE | DATE:     | REV: | DESCRIPTION          | REV. BY: |
|                                                                                                                                   | 9/10/2019 | A    | CITY REVIEW          | ECR      |
|                                                                                                                                   | 8/6/2020  | B    | CITY PLANNING REVIEW | NPCT     |
|                                                                                                                                   |           |      |                      |          |
|                                                                                                                                   |           |      |                      |          |
| JOB NO: 181076<br>DATE: 08.06.2020<br>DRAWN BY:<br>DESIGNED BY:<br><br>SHEET:                                                     |           |      |                      |          |

**AMI**  
Consulting Engineers P.A.  
33640 TALMAJE CIR. VADNAIS HEIGHTS  
651.344.8783 - amienrange.com  
SUPERIOR - IRON RANGE

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

**NOT FOR CONSTRUCTION**

DATE: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_  
TITLE: \_\_\_\_\_

15-300



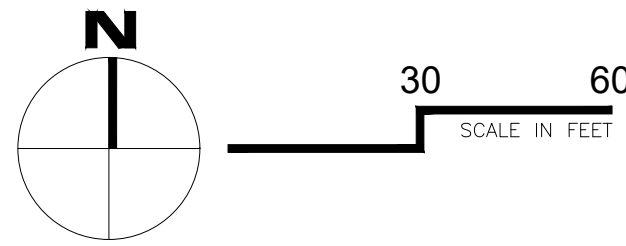
| Block | Lot      | Lot Size (SF) | Lot Size (AC) | Impervious Coverage (SF) |          |       |        | Impervious Coverage (%) | Front Yard Area (SF) (No ROW) | Surafcing Front Yard (SF) | % Surfacing in front yard | Block | Lot      | Setbacks |      |      |
|-------|----------|---------------|---------------|--------------------------|----------|-------|--------|-------------------------|-------------------------------|---------------------------|---------------------------|-------|----------|----------|------|------|
|       |          |               |               | Garage                   | Building | Patio | Drive  |                         |                               |                           |                           |       |          | Front    | Rear | Side |
| 1     | 1        | 3,690         | 0.085         | 440                      | 1,406    | 80    | 300    | 60.3%                   | 705                           | 300                       | 43%                       | 1     | 1        | 14       | 8.5  | 5    |
| 1     | 2        | 3,455         | 0.079         | 440                      | 1,406    | 80    | 200    | 61.5%                   | 470                           | 200                       | 43%                       | 1     | 2        | 9        | 8.5  | 5    |
| 1     | 3        | 3,455         | 0.079         | 440                      | 1,406    | 80    | 200    | 61.5%                   | 470                           | 200                       | 42%                       | 1     | 3        | 9        | 8.5  | 5    |
| 1     | 4        | 3,690         | 0.085         | 440                      | 1,406    | 80    | 300    | 60.3%                   | 705                           | 300                       | 43%                       | 1     | 4        | 14       | 8.5  | 5    |
|       |          |               |               |                          |          |       |        |                         |                               |                           |                           |       |          |          |      |      |
| 2     | 1        | 2,660         | 0.061         | 400                      | 750      | 30    | 300    | 55.6%                   | 525                           | 300                       | 57%                       | 2     | 1        | 14       | 10   | 9    |
| 2     | 2        | 2,660         | 0.061         | 400                      | 750      | 30    | 300    | 55.6%                   | 525                           | 300                       | 57%                       | 2     | 2        | 14       | 10   | 9    |
|       |          |               |               |                          |          |       |        |                         |                               |                           |                           |       |          |          |      |      |
| 3     | 1        | 3,553         | 0.082         | 400                      | 750      | 126   | 300    | 44.4%                   | 592                           | 300                       | 51%                       | 3     | 1        | 14       | 17   | 13.5 |
| 3     | 2        | 3,420         | 0.079         | 400                      | 750      | 126   | 300    | 46.1%                   | 570                           | 300                       | 53%                       | 3     | 2        | 14       | 17   | 12   |
| 3     | 3        | 3,258         | 0.075         | 400                      | 750      | 126   | 300    | 48.4%                   | 543                           | 300                       | 55%                       | 3     | 3        | 14       | 16   | 10   |
| 3     | 4        | 3,042         | 0.070         | 400                      | 750      | 126   | 300    | 51.8%                   | 507                           | 300                       | 59%                       | 3     | 4        | 14       | 16   | 7    |
| 3     | 5        | 3,150         | 0.072         | 400                      | 750      | 126   | 300    | 50.0%                   | 525                           | 300                       | 57%                       | 3     | 5        | 14       | 15   | 9    |
| 3     | 6        | 3,150         | 0.072         | 400                      | 750      | 126   | 300    | 50.0%                   | 525                           | 300                       | 57%                       | 3     | 6        | 14       | 15   | 9    |
|       |          |               |               |                          |          |       |        |                         |                               |                           |                           |       |          |          |      |      |
|       | Outlot A | 33,818        | 0.776         | 0                        | 0        | 0     | 10,182 | 30.1%                   |                               |                           |                           |       | Outlot A | N/A      | N/A  | N/A  |
|       | Outlot B | 32,285        | 0.741         | 0                        | 0        | 0     | 0      | 0.0%                    |                               |                           |                           |       | Outlot B | N/A      | N/A  | N/A  |

Site Totals

105,2842.417

Impervious area total:  
Total lot coverage:

31299.98  
29.7%



CIVIL SITE LEGEND:

- 
- BITUMINOUS PAVEMENT (SEE DETAIL 200)

KEY NOTES

- 1
- BITUMINOUS PAVEMENT (SEE DETAIL 200)

2

3

4

5

6

GENERAL GEOMETRIC AND PAVING NOTES:

1.
- SITE DIMENSIONS SHOWN ON THIS PLAN SHALL BE USED FOR ALL LAYOUT WORK. CHECK ALL PLAN AND DETAIL DIMENSIONS. BUILDING AND SITE IMPROVEMENTS SHALL BE LAID OUT ON SITE BY A REGISTERED LAND SURVEYOR, OR A LICENSED ENGINEER.

2.

3.

4.

5.

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11.

12.

SIGNAGE AND MARKING NOTES:

1.
- ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MN MUTCD, CURRENT VERSION.

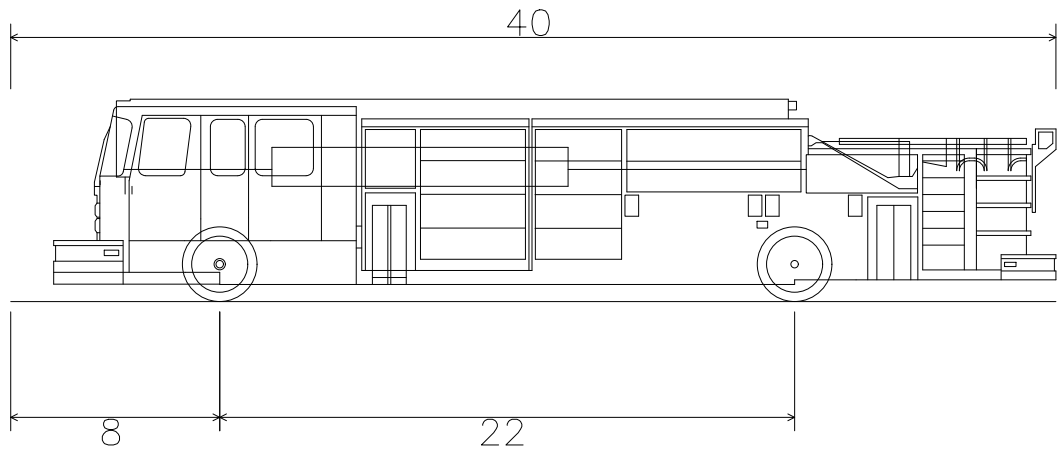
2.

3.

4.

5.

| SITE DATA                 |                          |
|---------------------------|--------------------------|
| SITE/PARCEL SIZE          | 2.48 AC (108,029 SF)     |
| BUILDING AREA             | 14,622 SF (14% COVERAGE) |
| IMPERVIOUS/PERVIOUS AREA  | 0.67 AC/1.81 AC          |
| LAND USE CLASSIFICATION   | R2                       |
| CURRENT ZONING            | R2                       |
| FLOOD ZONE CLASSIFICATION | ZONE X                   |



Pumper Fire Truck  
Overall Length  
Overall Width  
Overall Body Height  
Min Body Ground Clearance  
Track Width  
Lock-to-lock time  
Max Wheel Angle

40.000ft  
8.167ft  
7.745ft  
0.656ft  
8.167ft  
5.00s  
45.00°



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NOT FOR CONSTRUCTION

DATE: 09/10/19

| REV. BY: | DESCRIPTION | REV.: | DATE: |
|----------|-------------|-------|-------|
|          |             |       |       |
|          |             |       |       |
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|          |             |       |       |

|                                                       |                          |
|-------------------------------------------------------|--------------------------|
| 17TH & 3RD TOWNHOMES NSP                              | 17TH & 3RD TOWNHOMES NSP |
| -----                                                 | -----                    |
| 3RD ST N AND 17TH AVE E<br>NORTH SAINT PAUL, MN 55109 | SITE PLAN                |
| -----                                                 | -----                    |

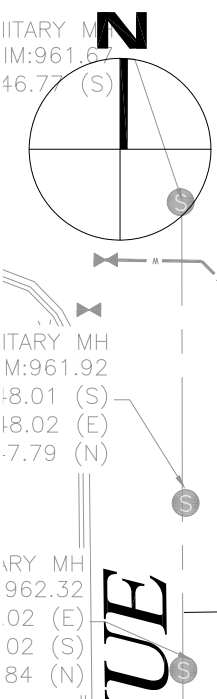
JOB No:181076  
DATE: 09/10/19  
DRAWN BY: WNW  
DESIGNED BY: ECR

SHEET:  
C2.0



GENERAL UTILITY NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITY PROVIDERS FOR REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES AFFECTED BY SITE IMPROVEMENTS, INCLUDING PORTIONS OF WORK WHICH MAY BE PERFORMED BY UTILITY COMPANY'S FORCES. ALL PERMITS, APPLICATIONS, FEES AND CHARGES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- UTILITY DISCONNECTIONS, REMOVALS AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE PROJECT PHASING TO ENSURE NEEDED SERVICES ARE MAINTAINED TO ALL BUILDING FACILITIES.
- REFER TO SITE REMOVALS PLAN FOR LIMITS OF UTILITY PIPE REMOVALS.
- PRIOR TO CONSTRUCTION OF PROPOSED BUILDING UTILITY SERVICES, VERIFY PIPE SIZES, LOCATIONS AND ELEVATIONS WITH MECHANICAL PLANS. COORDINATE CONSTRUCTION AND CONNECTIONS WITH MECHANICAL CONTRACTORS.
- THE CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITIES FOR CONNECTION TO PUBLIC WATER, SANITARY SEWER AND STORM SEWER UTILITIES AND WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING PROVIDING AN APPROVED TRAFFIC CONTROL PLAN AS NECESSARY.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR UTILITY CONNECTIONS AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WATER SERVICES ARE TO HAVE A MINIMUM OF 7.5 FEET AND A MAXIMUM OF 9.0 FEET OF COVER. MAXIMUM COVER MAY CHANGE IF DEFLECTING WATER SERVICE UNDER UTILITIES. ALL VALVES ARE TO HAVE 7.5 TO 9.0 FEET OF COVER.
- WATERMAIN SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY MANHOLE, CATCH BASIN, STORM SEWER, SANITARY SEWER, DRAIN TILE OR OTHER POTENTIAL SOURCE OF CONTAMINATION. THIS ISOLATION DISTANCE SHALL BE MEASURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION SOURCE.
- SHOULD WATER SERVICE CONFLICT WITH OTHER UTILITIES, DEFLECT WATER SERVICE DOWN TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18 INCHES BETWEEN BOTTOM OF UTILITY PIPE AND TOP OF WATERMAIN. CENTER SECTION OF WATERMAIN PIPE AT CROSSING TO PROVIDE MAXIMUM DISTANCE OF JOINTS FROM SEWER CROSSING. FOLLOW TEN STATE STANDARDS, CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) AND MINNESOTA DEPARTMENT OF HEALTH STANDARDS FOR UTILITY CROSSINGS. REFER TO DETAIL UTIL-10 FOR DETAILS.
- ALL WATER SERVICE THRUST FORCE POINTS (INCLUDES VALVES, TEES, WYES, CROSSES, REDUCERS, HYDRANTS, DEAD ENDS AND BENDS) ARE TO BE LUGGED (MECHANICAL JOINTS). VERIFY JOINT RESTRAINT METHOD REQUIREMENTS WITH LOCAL GOVERNING AUTHORITY.
- FIRE HYDRANT ASSEMBLY SHALL INCLUDE NECESSARY TEES, STUBS, AND GATE VALVES SHOWN ON THE DRAWING AND DETAILS, AND AS REQUIRED BY THE CITY. VERIFY INSTALLATION REQUIREMENTS WITH LOCAL GOVERNING AUTHORITY REQUIREMENTS.
- CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED GATE VALVES AND MANHOLES TO BE FLUSH WITH FINAL GRADE.
- SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC, SDR 35 FOR PIPES LESS THAN 12- FEET DEEP, SDR 26 FOR PIPES GREATER THAN 12 FEET DEEP UNLESS OTHERWISE NOTED.
- ALL SERVICE CONNECTIONS WITH LESS THAN 5 FEET COVER (TO TOP OF PIPE FOR WATER AND TO INVERT ON SANITARY, ARE TO BE INSULATED.
- INSTALL CLEANOUTS/MANHOLES ALONG SANITARY SEWER SERVICE PER MINNESOTA DEPARTMENT OF HEALTH PLUMBING CODE REQUIREMENTS.
- SANITARY MANHOLES SHALL HAVE WATERTIGHT LIDS.
- THE CONTRACTOR SHALL CLEAN ALL SURFACE FLOW CHANNELS, PIPES AND STRUCTURES AFTER FINAL SURFACES ARE ESTABLISHED AND PRIOR TO PROJECT CLOSEOUT.
- STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (CLASS 5 FOR PIPE DIAMETERS 18" AND SMALLER, CLASS 3 FOR PIPE DIAMETERS 21" AND LARGER UNLESS OTHERWISE NOTED) WITH R-4 GASKETS. ROOF DRAIN LEADERS SHALL BE PVC, SCHEDULE 40.
- ALL SEWER AND WATER CONSTRUCTION TO COMPLY WITH CITY ENGINEERING DESIGN STANDARDS.
- UTILITY CONSTRUCTION PER MNDOT SPECIFICATIONS 2451, 2501, 2502, 2506, 2506, 2511, 2611, 2621, AND 2625



DELAWARE AVENUE

CORE DRILL AND CONNECT INTO EXISTING MANHOLE. INV: 949.77 VERIFY IN FIELD

CONNECT TO EXISTING WATERMAIN WITH A WET TAP (SEE DETAIL 416)

SITE EOF ELEVATION: 964.25

STORM CROSSING SEE DETAIL W-8

CURB CUT EOF ELEVATION: 964.36

WATERMAIN CROSSING SEE DETAIL W-8

8.0 DRAINAGE SWALE 2% GRADE FROM CURB CUT TO POND INLET ELEVATION HP:963.92 POND INLET: 962.10

EXISTING 35' of 15" PVC @ 0.31%

EX SANITARY MH RIM:966.02 INV:956.59 (E) INV:956.44 (W)

CONNECT TO EXISTING SANITARY PIPE INSTALL NEW MANHOLE AT CONNECTION STA: 35.2' INV: 956.33 VERIFY IN FIELD

EMERGENCY OVERFLOW. WATER TO FLOW WEST ALONG ROADWAY TO CURB CUT (EL: 964.36) AND DISCHARGE TO DELAWARE AVE.

PRETREATMENT BASIN BTM: 956.65 NWL: 960.65 HWL: 961.5

INFILTRATION BASIN BTM: 956.65 HWL: 961.5

TOP OF POND 100' X 80'

EX SANITARY MH RIM:968.70 INV:958.45 (W)

EXISTING SANITARY SEWER PIPE

CORE DRILL INTO EXISTING CATCH BASIN INV:959.00 VERIFY IN FIELD

23' of 15" RCP @ 0.40%

134' of 15" RCP @ 0.40%

63' of 15" RCP @ 0.40%

94' of 15" PVC @ 1.00%

97' of 15" RCP @ 0.40%

106' of 15" RCP @ 0.40%

246' of 15" RCP @ 0.40%

3' MIN.

87' of 15" RCP @ 0.40%

57' of 15" PVC @ 2.00%

123' of 15" PVC @ 2.00%

5.0 TYP.

5.0 TYP.

5.0 TYP.

5.0 TYP.

5.0 TYP.

5.0 TYP.

5.0 TYP.

5.0 TYP.

5.0 TYP.

5.0 TYP.

UTILITY LEGEND:

| EXISTING | PROPOSED |                                        |
|----------|----------|----------------------------------------|
|          |          | APRON                                  |
|          |          | STORM SEWER                            |
|          |          | FIRE HYDRANT ASSEMBLY (SEE DETAIL W-1) |
|          |          | VALVE (SEE DETAIL W-5)                 |
|          |          | WATERMAIN (SEE DETAIL W-4)             |
|          |          | SANITARY SEWER (SEE DETAIL SS-3, 400)  |
|          |          | SANITARY MANHOLE (SEE DETAIL SS-1)     |
|          |          | STORM SEWER MANHOLE                    |
|          |          | DRAINAGE UTILITY EASEMENT              |

KEY NOTES:

- 4" PVC SANITARY SEWER SERVICE. VERIFY WITH MECHANICAL FOR EXACT INVERT, LOCATION AND CONNECTION INTO BUILDING.
- 1.25" COPPER DOMESTIC SERVICE. VERIFY WITH MECHANICAL FOR EXACT LOCATION AND CONNECTION INTO BUILDING.
- 6" HYDRANT AND VALVE ASSEMBLY (SEE DETAIL SS-3, 400)
- CURB STOP (SEE DETAIL W-5)



Know what's below.  
Call before you dig.

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

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



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.

NOT FOR CONSTRUCTION

SIGNATURE: DATE:

| REV. | DESCRIPTION | DATE |
|------|-------------|------|
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17TH & 3RD TOWNHOMES NSP

3RD ST N AND 17TH AVE E

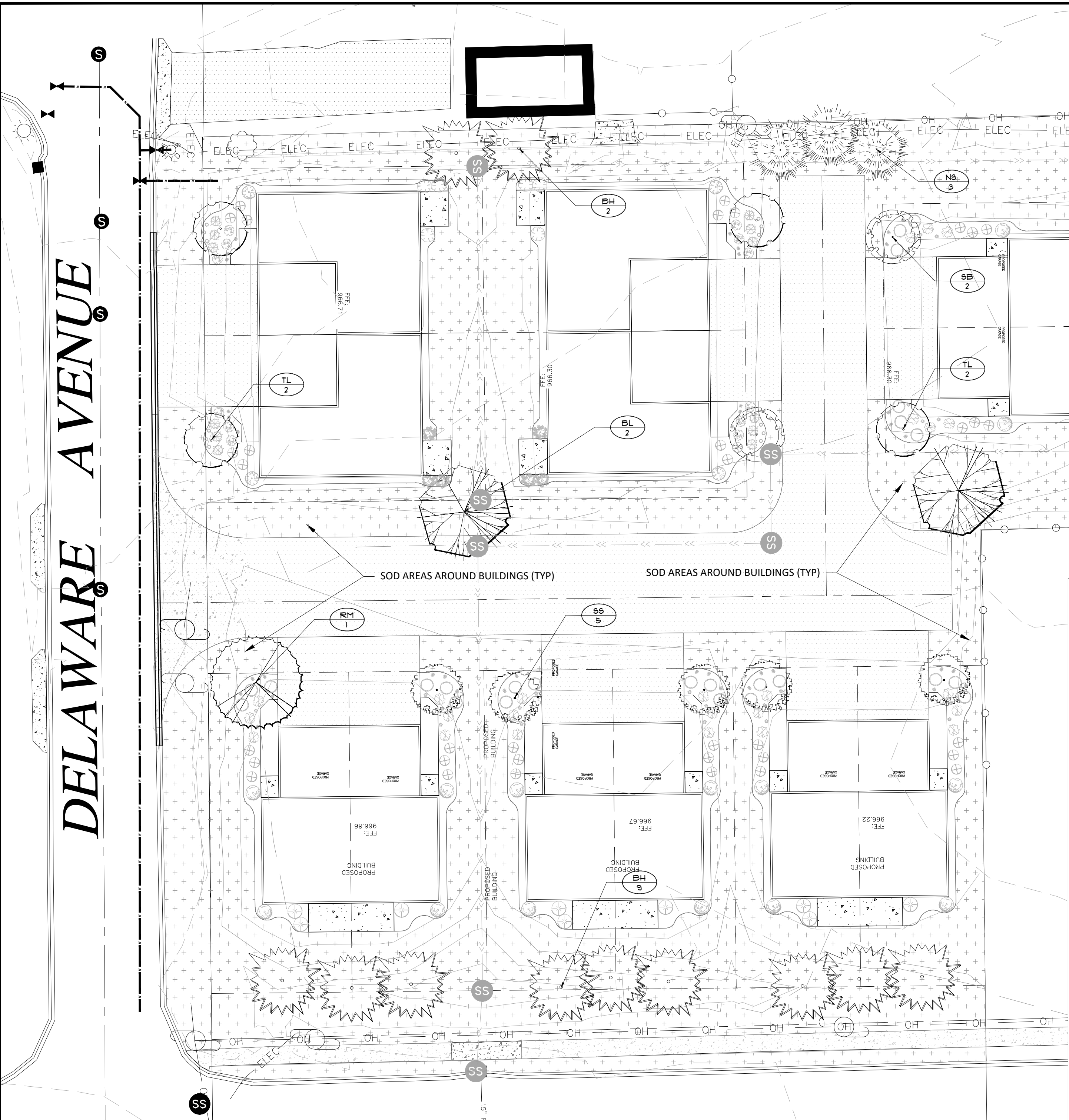
NORTH SAINT PAUL, MN 55109

UTILITY PLAN

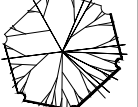
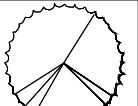
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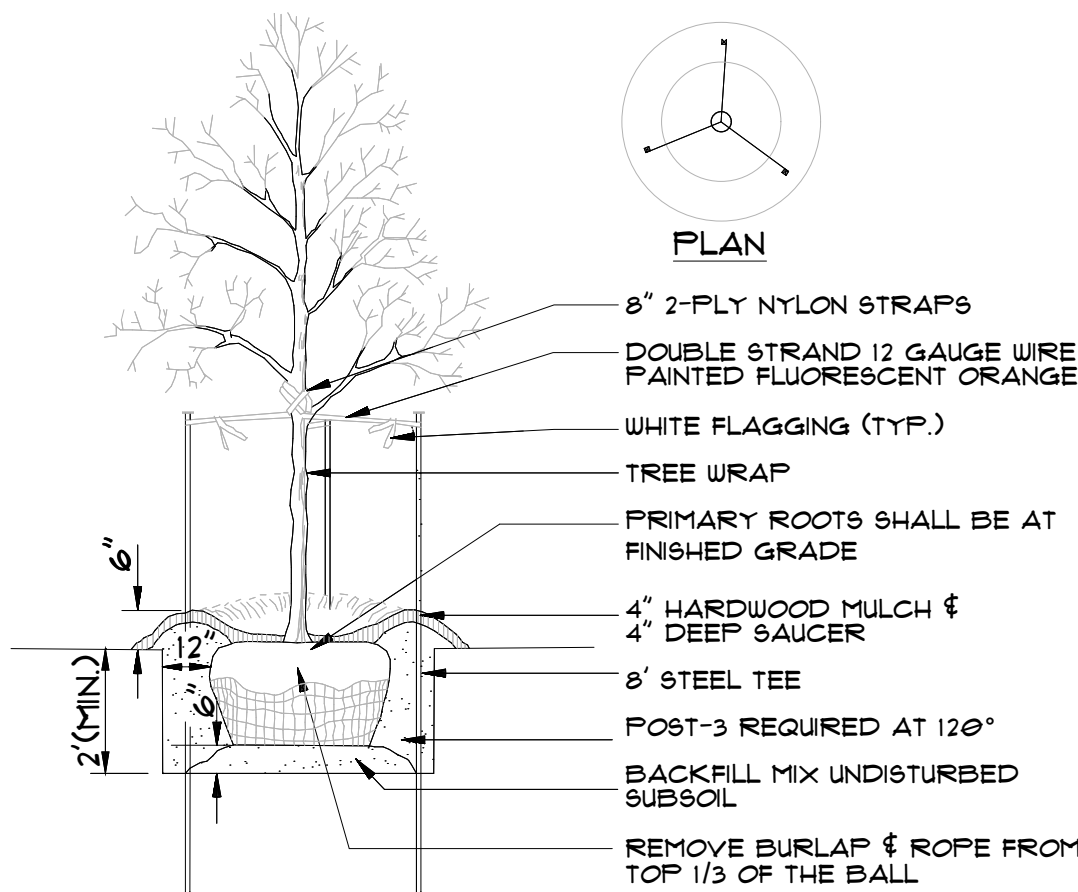


DELAWARE AVENUE<sup>5</sup>

| SEED MIX LEGEND (FOR ALL SHEETS)                                                   |                                                                                                 |                                                                                                          |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| SYM.                                                                               | TYPE                                                                                            | SEED MIX                                                                                                 |
|  | NATIVE WET PRAIRIE                                                                              | MN SEED MIX <b>34-271</b> (OLD BWSR W2)                                                                  |
|  | WETLAND FRINGE                                                                                  | MN SEED MIX <b>35-221</b> (OLD BWSR U6)                                                                  |
|  | COMMERCIAL TURF - SOD                                                                           | HIGHLAND SOD                                                                                             |
|  | MNDOT 260<br>ALL AREAS DISTURBED BY<br>CONSTRUCTION NOT INTENDED<br>SODDED, OR RETENTION BASINS | MN SEED MIX <b>25-131</b> (OLD MINDOT 260) &<br><br>(USE EROSION CONTROL BLANKET<br>FOR SLOPES OVER 3:1) |
|  | MESIC GENERAL ROADSIDE<br>FOR GENERAL STABILIZATION<br>OF PAD AREAS                             | MN SEED MIX <b>25-131</b><br>(USE EROSION CONTROL BLANKET<br>FOR SLOPES OVER 3:1)                        |
|  | HARDWOOD MULCH<br>SHREDDED HARDWOOD MULCH                                                       | (NATURAL COLOR)                                                                                          |
|  | 1/2" CRUSHED GRANITE                                                                            | CRUSHED QUARRY GRANITE                                                                                   |

| LANDSCAPE LEGEND |                                                                                       |                                               |                                |      |      |      |                |     |        |                             |
|------------------|---------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------|------|------|------|----------------|-----|--------|-----------------------------|
| KEY              | BOTANICAL NAME                                                                        |                                               | COMMON NAME                    | SIZE | ROOT | QTY. | INSTALL HEIGHT |     | MATURE |                             |
| DECIDUOUS TREES  |                                                                                       |                                               |                                |      |      |      |                |     |        |                             |
| BL               |    | Tilia americana 'Boulevard'                   | BOULEVARD LINDEN               | 2.5" | BB   | -    |                | 15' | 60"    | STRAIT LEADER NO "V" CROTCH |
| RM               |    | Acer rubrum 'Nothwoods'                       | NORTHWOODS MAPLE               | 2.5" | BB   | -    |                | 14' | 50"    |                             |
| ORNAMENTAL TREES |                                                                                       |                                               |                                |      |      |      |                |     |        |                             |
| SB               |  | Amelanchier x grandiflora 'Autumn Brilliance' | AUTUMN BRILLIANCE SERVICEBERRY | 1.5" | BB   | -    |                | 8'  | 20"    | STRAIT LEADER NO "V" CROTCH |
| SS               |  | Malus x 'Spring Snow'                         | SPRING SNOW CRABAPPLE          | 1.5" | BB   | -    |                | 8'  | 25"    |                             |
| TL               |  | Syringa Reticulata                            | JAPANESE TREE LILAC            | 1.5" | BB   | -    |                | 8'  | 20"    |                             |
| EVERGREEN TREES  |                                                                                       |                                               |                                |      |      |      |                |     |        |                             |
| BH               |  | Picea glauca var. Densata                     | BLACK HILLS SPRUCE             | 6'   | BB   | -    |                | 6'  | 40"    | FULL FORM TO GRADE          |
| NS               |  | Picea abes                                    | NORWAY SPRUCE                  | 6'   | BB   | -    |                | 6'  | 60"    |                             |

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE.  
CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.



## IMPLANTING NOTES

1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE CONTAINER GROWN OR BALLED AND BURLAPED AS INDICATED IN THE LANDSCAPE LEGEND.
2. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
3. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
4. ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
5. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK" (LATEST EDITION), THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
6. ALL LIVING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DIRT LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4" HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL POSTS @ 2' MAXIMUM SPACING.
7. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE CROWDING OF ALL PLANTING BEDS AT BEGINNING SHOW AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR TO INSTALLATION.
8. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
9. MULCH: GROUND COVER, REDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH IN DAY OF INSTALLATION. USE 4" FOR SHRUB BEDS, AND 3" FOR PERENNIAL/GROUND COVER BEDS, UNLESS OTHERWISE DIRECTED.
10. PLACE LANDSCAPE TEXTILE FABRIC OVER ALL ROCK MULCHED AREAS. FILTER FABRIC SHALL BE 100% INTERWOVEN 5.1oz MEET PUNCHED POLYPROPYLENE FABRIC MANUFACTURED BY DEWEE. USE 5.1oz "WEED BARRIER" OR APPROVED EQUIV.
11. PLACE EDGING BETWEEN ALL PLANTING/ROCK BEDS AND TURF. EDGING SHALL BE POLY.
12. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND AND SHALL BE THE BASIS FOR THE SPECIFICATIONS. TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE PROJECT. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE LANDSCAPE LEGEND.
14. LONG-TERM STORAGE OF MATERIALS OR PLANTS ON-SITE WILL NOT BE ALLOWED.
15. THE CONTRACTOR SHALL KEEP PAVEMENTS, PLANTERS AND BUILDINGS CLEAN AND UNDISTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ALL ACCESS SHALL BE PROMPTLY REMOVED FROM THE SITE. ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HELED IN AND WATERED DURING INSTALLATION PERIOD. IF NOT PLANTED IN THIS MANNER WILL BE REJECTED, ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAVED AT THE CONTRACTOR'S EXPENSE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL CITY, STATE, AND FEDERAL REGULATIONS, AND PERMITS GOVERNING THE WORK.
17. LOCATE AND VERIFY ALL UTILITIES, INCLUDING PRIVATE UTILITY, WITH THE CITY AND ALL PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL AT 454-0000 (TWIN CITIES METRO AREA) OR 800-252-1166 (GREATER MINNESOTA) 48 HOURS BEFORE DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY.
18. USE ANTI-DESICCANT (WILTPROOF OR APPROVED EQUIV.) ON DECIDUOUS PLANTS MOVED IN LEAF AND ALL EVERGREENS MOVED ANNUALLY. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY PERIOD.
19. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT LIFE. IT SHALL BE MIXED WITH 10% TOP SPECIFICATION SIFT TYPE B SELECT TOPSOIL MIXTURE SHALL BE FREE FROM HARDPAK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6-1 AND 7 AND 10-20% FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED BY ROTILLATING IN INTO THE TOP 12" DEEP.
20. ALL PLANTS SHALL BE GUARANTEED FOR TWO COMPLETE GROWING SEASON (APRIL 1 - NOVEMBER 1), UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND PLANTS.
21. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.
22. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN THE FOLLOWING SEASONS: 4/1 - 5/1, 6/1, 9/21 - 11/1  
DECIDUOUS POTTED PLANTS: 4/1 - 6/1; 9/21 - 11/1  
DECIDUOUS ~~B&B~~: 4/1 - 6/1; 9/21 - 11/1  
EVERGREEN POTTED PLANTS: 4/1 - 6/1; 9/21 - 11/1  
EVERGREEN ~~B&B~~: 4/1 - 5/1; 9/21 - 11/1  
TURF/LAWN SEEDING: 4/1 - 6/1; 7/20 - 9/20  
NATIVE MIX SEEDING: 4/1 - 7/20; 9/20-10/20
23. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. THE CONTRACTOR SHALL PROTECT AND MAINTAIN UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE. INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCEPTIVE OF THE WORKMANSHIP. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER POSITION AND KEEPING PLANTS IN A PLUMB POSTURE. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE WARRANTY PERIOD.
24. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH THE SAME TYPE OF PLANT, SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.
25. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS AT LEAST ONCE A WEEK IN EXTREMELY HOT WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO AVOID OVERWATERING. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.
26. CONTRACTOR SHALL REQUEST IN WRITING, A HEALTHY REPLACEMENT FOR ANY PLANT WHICH IS NOT ACCEPTED FOR ANY REASON.
27. ALL DISTURBED AREAS TO BE TURF SEEDED, OR TO RECEIVE 4" TOP SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
28. ALL DISTURBED AREAS TO RECEIVE NATIVE WETLAND SEEDING, OR TO RECEIVE ENGINEERED SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

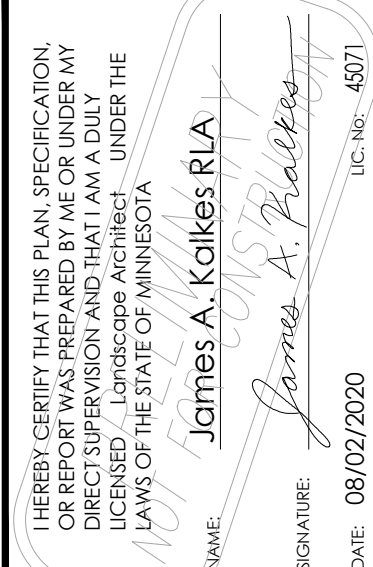
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DELAWARE PLACE  
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33RD ST N AND 17TH AVE E  
NORTH SAINT PAUL, MN 55109

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: JAK  
DESIGNED BY: JAK

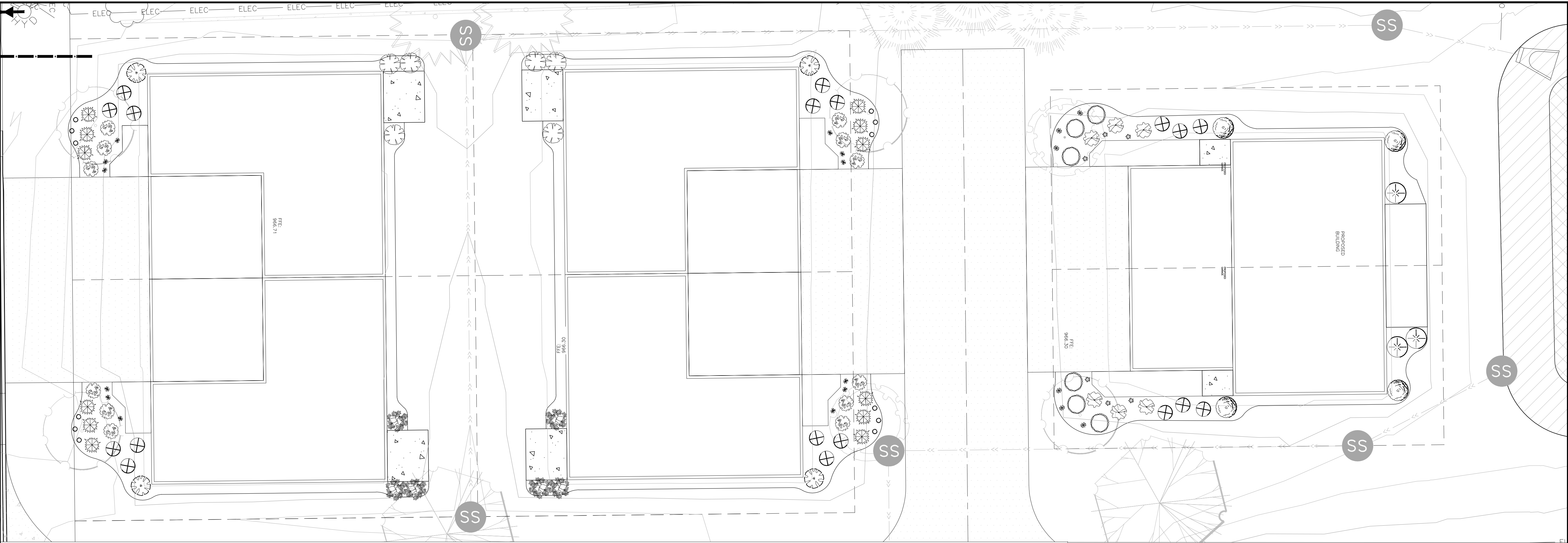
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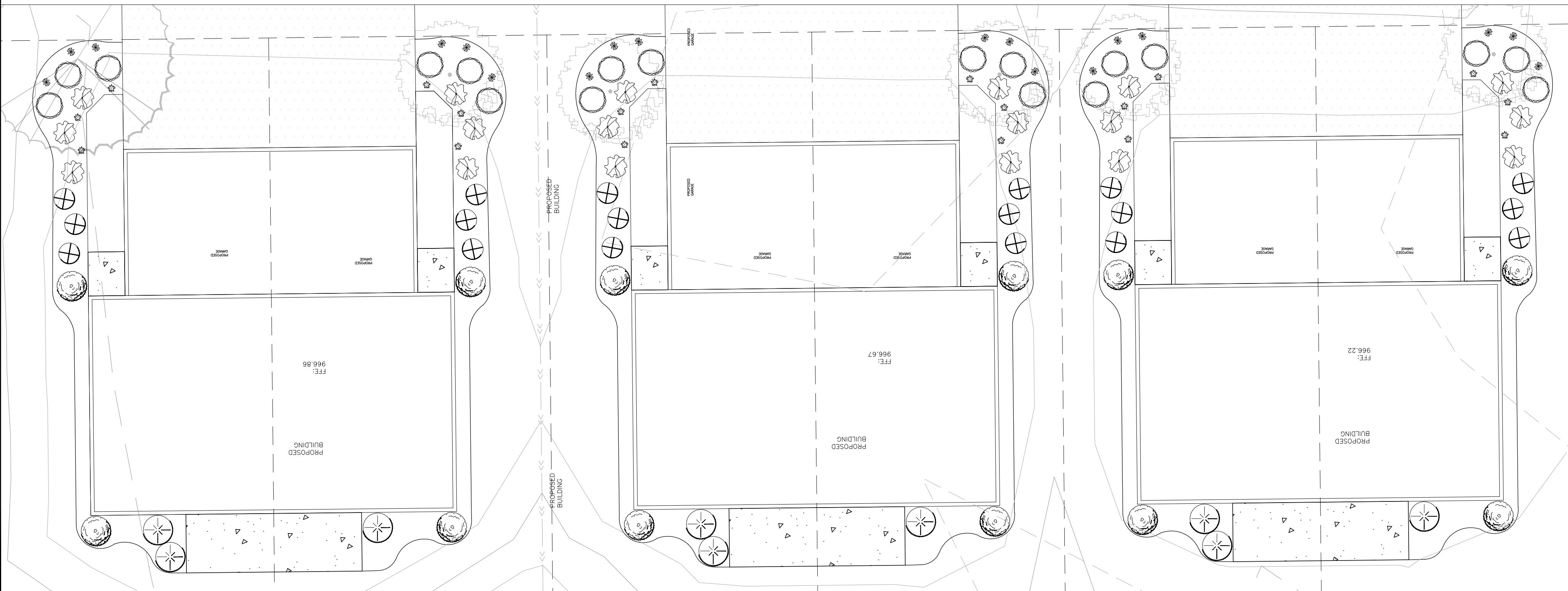
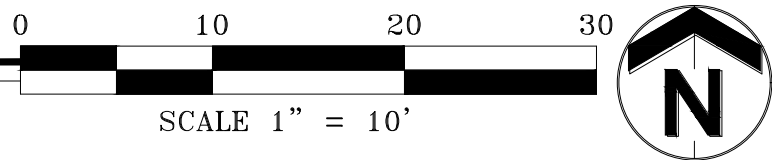




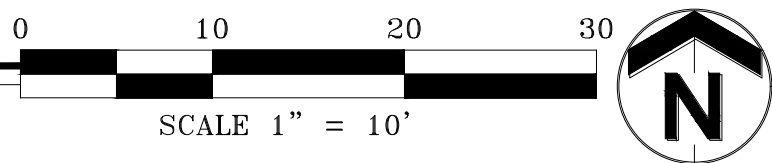
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1 FOUNDATION PLANTINGS



2 FOUNDATION PLANTINGS



| LANDSCAPE LEGEND |                                          |                                  |      |       |      |               |                |               |  |
|------------------|------------------------------------------|----------------------------------|------|-------|------|---------------|----------------|---------------|--|
| KEY              | BOTANICAL NAME                           | COMMON NAME                      | SIZE | ROOT  | QTY. | REMARKS       | INSTALL HEIGHT | MATURE HEIGHT |  |
| SHRUBS           |                                          |                                  |      |       |      |               |                |               |  |
| SVJ              | Juniperus Horizontalis 'Savin'           | SAVIN JUNIPER                    | #5   | CONT. | -    |               | 1'             | 3'x4'         |  |
| BOX              | Buxus 'Glencoe'                          | CHICAGOLAND BOXWOOD              | #5   | CONT. | -    |               | 1.5'           | 3'x3'         |  |
| TAU              | Taxus x media 'Tauntoni'                 | TAUNTON SPREADING YEW            | #5   | CONT. | -    |               | 1'             | 3'x4'         |  |
| DBB              | Euonymus alatus 'Compactus'              | DWARF BURNING BUSH               | #5   | CONT. | -    |               | 1.5'           | 4'x4'         |  |
| GLS              | Rhus aromatica 'Gro-Low'                 | GRO-LOW FRAGRANT SUMAC           | #5   | CONT. | -    |               | 1'             | 2.5'x5'       |  |
| BCA              | Viburnum trilobum 'Bailey Compact'       | COMPACT AMERICAN CRANBERRYBUSH   | #5   | CONT. | -    |               | 1.5'           | 4'x4'         |  |
| AWS              | Spiraea x bumalda 'Anthony Waterer'      | ANTHONY WATERER SPIREA           | #5   | CONT. | -    |               | 1.5'           | 3'x4'         |  |
| SMS              | Spiraea nipponica 'Snowmound'            | SNOWMOUND SPIREA                 | #5   | CONT. | -    |               | 1.5'           | 3'x4'         |  |
| MYS              | Spiraea thunbergii 'Ogon'                | MELLOW YELLOW SPIREA             | #5   | CONT. | -    |               | 1'             | 3'x4'         |  |
| ALP              | Ribes alpinum                            | ALPINE CURRANT                   | #5   | CONT. | -    |               | 1.5'           | 3'x4'         |  |
| GFS              | Spiraea x bumalda 'Gold Flame'           | GOLD FLAME SPIREA                | #5   | CONT. | -    |               | 1.5'           | 3'x4'         |  |
| FOR              | Forsythia 'Sunrise'                      | SUNRISE FORSYTHIA                | #5   | CONT. | -    |               | 1.5'           | 5'x5'         |  |
| SPL              | Syringa x 'Balsugar'                     | SUGAR PLUM LILAC                 | #5   | CONT. | -    |               | 1.5'           | 4'x4'         |  |
| MGH              | Diervilla lonicera                       | DWARF BUSH HONEYSUCKLE           | #5   | CONT. | -    |               | 1.5'           | 4'x4'         |  |
| DBW              | Salix purpurea 'Nana'                    | DWARF BLUE ARCTIC WILLOW         | #5   | CONT. | -    |               | 1'             | 3'x4'         |  |
| RTD              | Cornus Sericea 'Bailey'                  | RED TWIG DOGWOOD                 | #5   | CONT. | -    |               | 1.5'           | 5'x5'         |  |
| BCB              | Aronica melonocarpa elata                | BLACK CHOKEBERRY                 | #5   | CONT. | -    |               | 1.5'           | 4'x4'         |  |
| JDW              | Ilex verticillata 'Jim Dandy'            | JIM DANDY WINTERBERRY            | #5   | CONT. | -    |               | 1.5'           | 3'x3'         |  |
| RSW              | Ilex verticillata 'Red Sprite'           | RED SPRITE WINTERBERRY           | #5   | CONT. | -    |               | 1.5'           | 3'x3'         |  |
| PERENNIALS       |                                          |                                  |      |       |      |               |                |               |  |
| KFG              | Calamagrostis acutiflora 'Karl Foerster' | KARL FOERSTER FEATHER REED GRASS | #1   | CONT. | -    | PLANT 2' O.C. | 6"             | 4'x2'         |  |
| PDS              | Sporobolus heterolepis                   | PRAIRIE DROPSEED                 | #1   | CONT. | -    | PLANT 2' O.C. | 6"             | 2'x2'         |  |
| BDL              | Hemerocallis 'Baja'                      | BAJA DAYLILY                     | #1   | CONT. | -    | RED FLOWER    | 6"             | 2'x1.5'       |  |
| PMD              | Hemerocallis 'Pardon Me'                 | PARDON ME DAYLILY                | #1   | CONT. | -    | YELLOW FLOWER | 6"             | 1.5'x1.5'     |  |
| SDD              | Hemerocallis 'Stella d'Oro'              | STELLA D'ORO DAYLILY             | #1   | CONT. | -    | YELLOW FLOWER | 6"             | 1.5'x1.5'     |  |
| WLC              | Nepeta x faassenii 'Walker's Low'        | WALKER'S LOW CATMINT             | #1   | CONT. | -    | PURPLE FLOWER | 6"             | 1'x1'         |  |
| BES              | Rudbeckia fulgida 'Goldsturm'            | BLACK EYED SUSAN                 | #1   | CONT. | -    | YELLOW FLOWER | 6"             | 1.5'x1.5'     |  |
| KBL              | Liatris spicata 'Kobold'                 | KOBOLD LIATRIS                   | #1   | CONT. | -    | PURPLE FLOWER | 6"             | 1.5'x1.5'     |  |
| LRL              | Ligularia stenocephala 'Lanternchen'     | LITTLE ROCKET LIGULARIA          | #1   | CONT. | -    | YELLOW FLOWER | 6"             | 1.5'x2'       |  |
| PPC              | Heuchera x 'Plum Pudding'                | PLUM PUDDING CORAL BELLS         | #1   | CONT. | -    | PURPLE LEAF   | 6"             | 1'x1'         |  |
| -                | -                                        | -                                | #1   | CONT. | -    | YELLOW FLOWER | 6"             | 1.5'x1.5'     |  |
| -                | -                                        | -                                | #1   | CONT. | -    | PURPLE FLOWER | 6"             | 1.5'x1.5'     |  |
| -                | -                                        | -                                | #1   | CONT. | -    | YELLOW FLOWER | 6"             | 1.5'x2'       |  |

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

12/19/2018 1:57 AM, 2:00, DREAMSCAPES DESIGN PROJECTS, 2020, Jim, 2020 Design, 2020 Delaware Place DINO L1 Delaware Place.dwg

AMI

Consulting Engineers P.A.

3640 TALMAGE CIR. VADNAIS HEIGHTS

651.344.8783 - amientengineers.com

SUPERIOR - IRON RANGE

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

James A. Kalkes RLA

James A. Kalkes

James A. Kalkes

08/02/2020

45071

DREAMSCAPES

Landscaping & Design, Inc.

DreamScapes Landscape and Design

7087 20th Ave S, Centerville MN 55038

www.DreamScapesMN.com

| REV. BY: | REV. | DATE:     | DESCRIPTION          | ECR | NFCT |
|----------|------|-----------|----------------------|-----|------|
|          | A    | 9/10/2019 | CITY REVIEW          |     |      |
|          | B    | 8/6/2020  | CITY PLANNING REVIEW |     |      |
|          |      |           |                      |     |      |
|          |      |           |                      |     |      |
|          |      |           |                      |     |      |

|                            |                |
|----------------------------|----------------|
| DELAWARE PLACE             | LANDSCAPE PLAN |
| 3RD STN AND 17TH AVE E     |                |
| NORTH SAINT PAUL, MN 55109 |                |

JOB No: 181076  
DATE: 09/10/19  
DRAWN BY: JAK  
DESIGNED BY: JAK

SHEET:  
L2

Two-Story Front and Rear Elevations



TOTAL 1897 SQ FT  
Includes mech 26 sq ft

FRONT ELEVATION  
SCALE 1/4" = 1'-0"

TOTAL 1873 SQ FT  
Includes mech 26 sq ft



THIS SIDE 12X12

THIS SIDE 12X14

REAR ELEVATION W/ COVERED PORCHES A  
SCALE 1/4" = 1'-0"

PRELIMINARY PLAN

2 STORY SLAB TWIN DELUX

LARSEN DESIGN & CONSTRUCTION LLC  
4120 SUNFLOWER CIRCLE VADNAIS HEIGHTS MN 55127  
651-351-2421 BRUCE@LARSEN-CONCAST.NET

REVISED:  
8/14/19  
8/25/19  
8/30/19

ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR / HOMEOWNER MUST VERIFY GRADES, FOOTING SIZES, ELEVATIONS, ROUGH OPENINGS, HEADER AND BEAM SIZES, ALL OTHER DIMENSIONS AND SPECS, AND BE RESPONSIBLE FOR THE SAME.

|        |           |              |
|--------|-----------|--------------|
| SHEET: | DRAWN BY: | BRUCE LARSEN |
|        | DATE:     | 8/14/19      |
|        | SCALE:    | 1/4" = 1'-0" |

1a OF X



PRELIMINARY PLAN

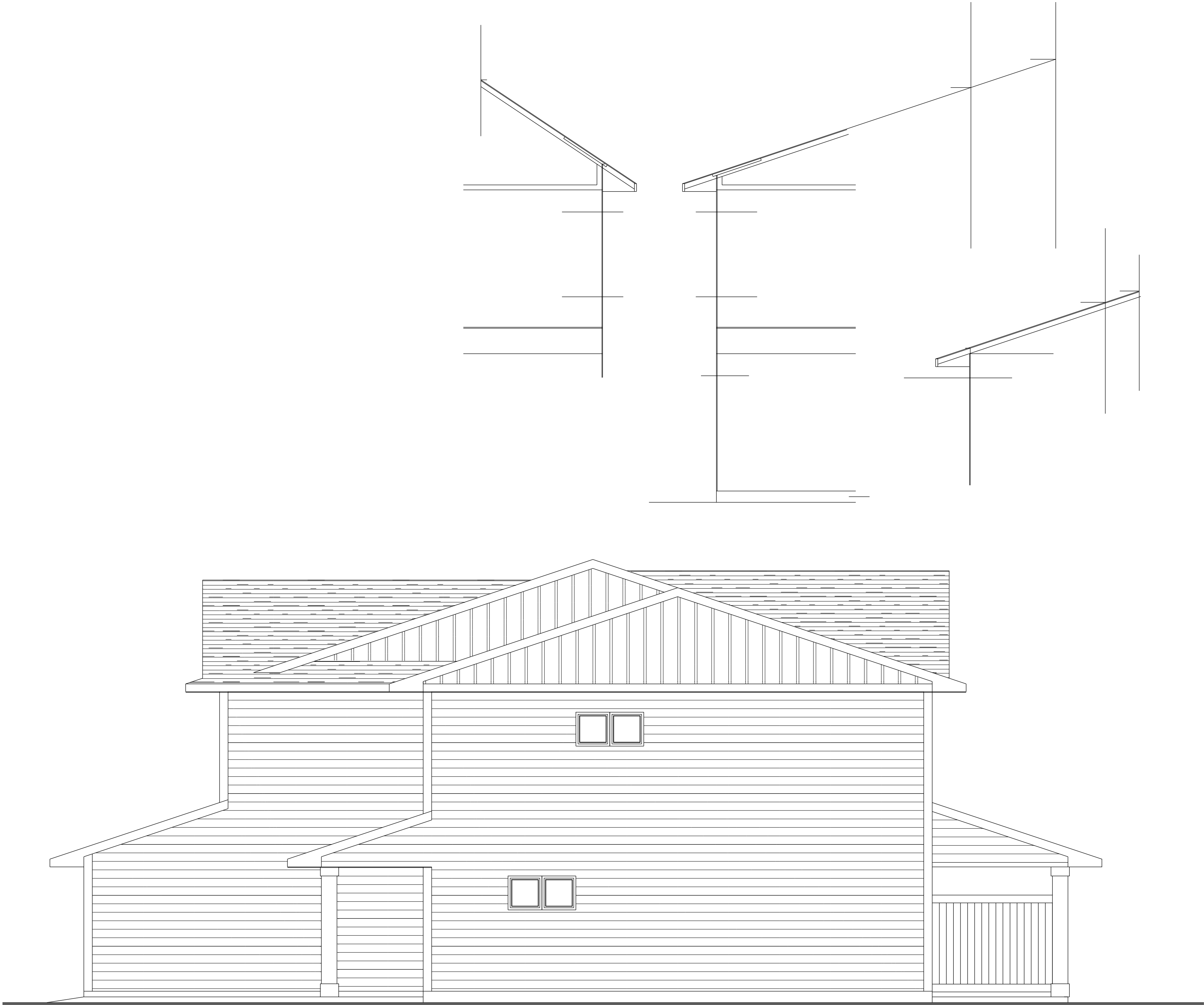
2 STORY SLAB TWIN DELUX

LARSEN DESIGN & CONSTRUCTION LLC  
4100 SUNFLOWER CIRCLE VADNAIS HEIGHTS MN 55121  
651-351-2421 BRUCE@LARSEN.COM/CAST.NET

REVISED:  
8/14/19  
8/25/19  
8/30/19

ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR / HOMEOWNER MUST VERIFY GRADES, FOOTING SIZES, ELEVATIONS, ROUGH OPENINGS, HEADER AND BEAM SIZES, ALL OTHER DIMENSIONS AND SPECS, AND BE RESPONSIBLE FOR THE SAME.

Two-Story Side Elevation



RIGHT SIDE ELEVATION A

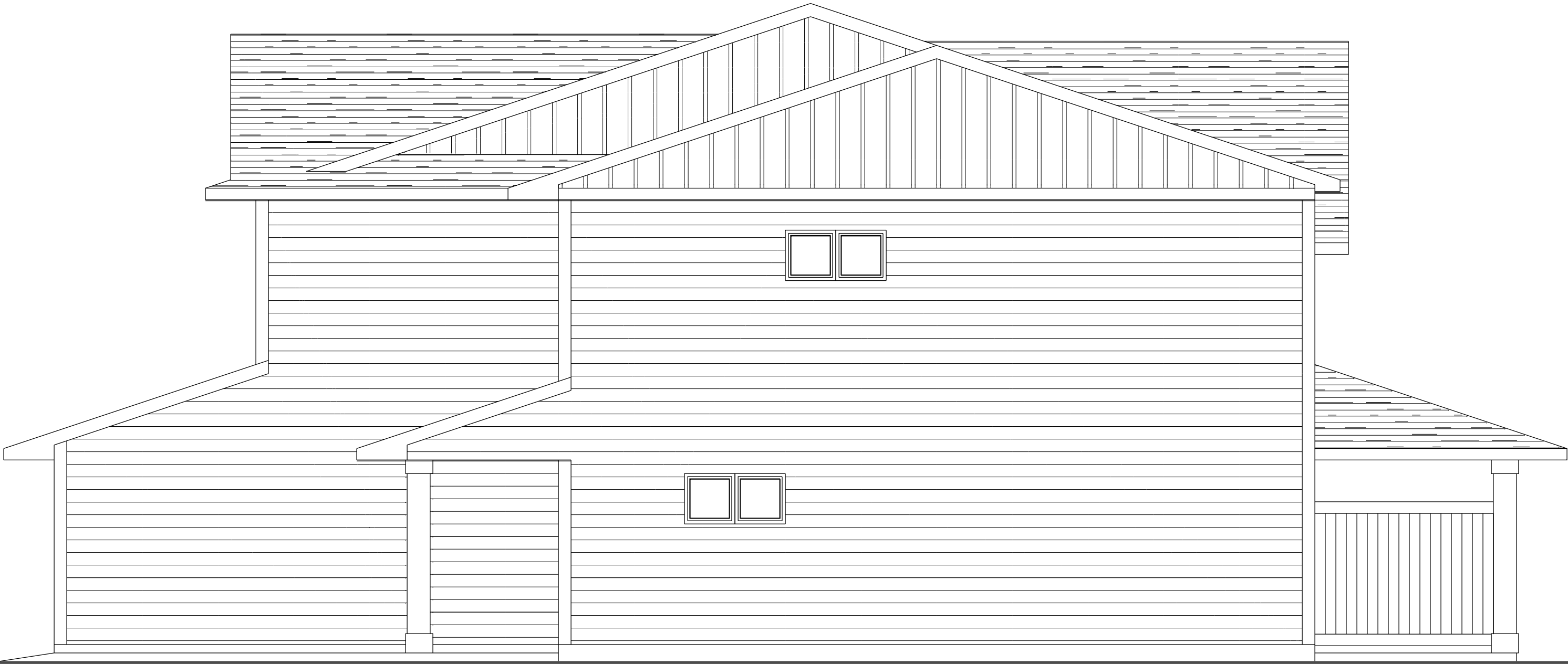
SCALE 1/4" = 1'-0"

Two-Story Alternative B, Side and Rear Elevations



THIS SIDE 12X12 THIS SIDE 12X14

REAR ELEVATION W/ COVERED PORCHES B  
SCALE 1/4" = 1'-0"



RIGHT SIDE ELEVATION B  
SCALE 1/4" = 1'-0"

PRELIMINARY PLAN

2 STORY SLAB TWIN DELUX

LARSEN DESIGN & CONSTRUCTION LLC  
4120 SUNFLOWER CIRCLE VADNAIS HEIGHTS MN 55127  
651-351-2421 BRUCE@LARSENCONCAST.NET

DRAWN BY:  
BRUCE LARSEN  
DATE:  
8/14/19  
SCALE:  
1/4" = 1'-0"

SHEET:  
2b OF X

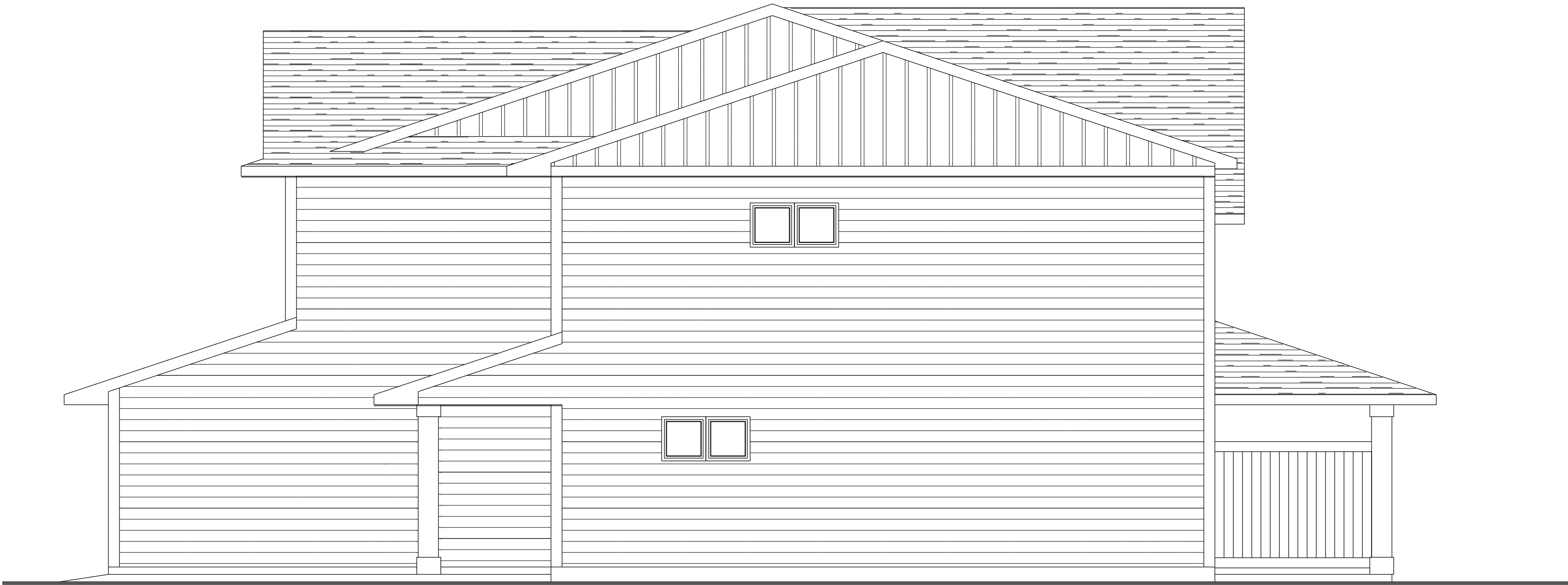
REVISED:  
8/14/19  
8/25/19  
8/30/19  
ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR / HOMEOWNER MUST VERIFY GRADES, FOOTING SIZES, ELEVATIONS, ROUGH OPENINGS, HEADER AND BEAM SIZES, ALL OTHER DIMENSIONS AND SPECS, AND BE RESPONSIBLE FOR THE SAME.



Two Story Alternative C Side and Rear Elevations



REAR ELEVATION W/ COVERED PORCHES C  
SCALE 1/4" = 1'-0"



RIGHT SIDE ELEVATION C  
SCALE 1/4" = 1'-0"

PRELIMINARY PLAN

2 STORY SLAB TWIN DELUX

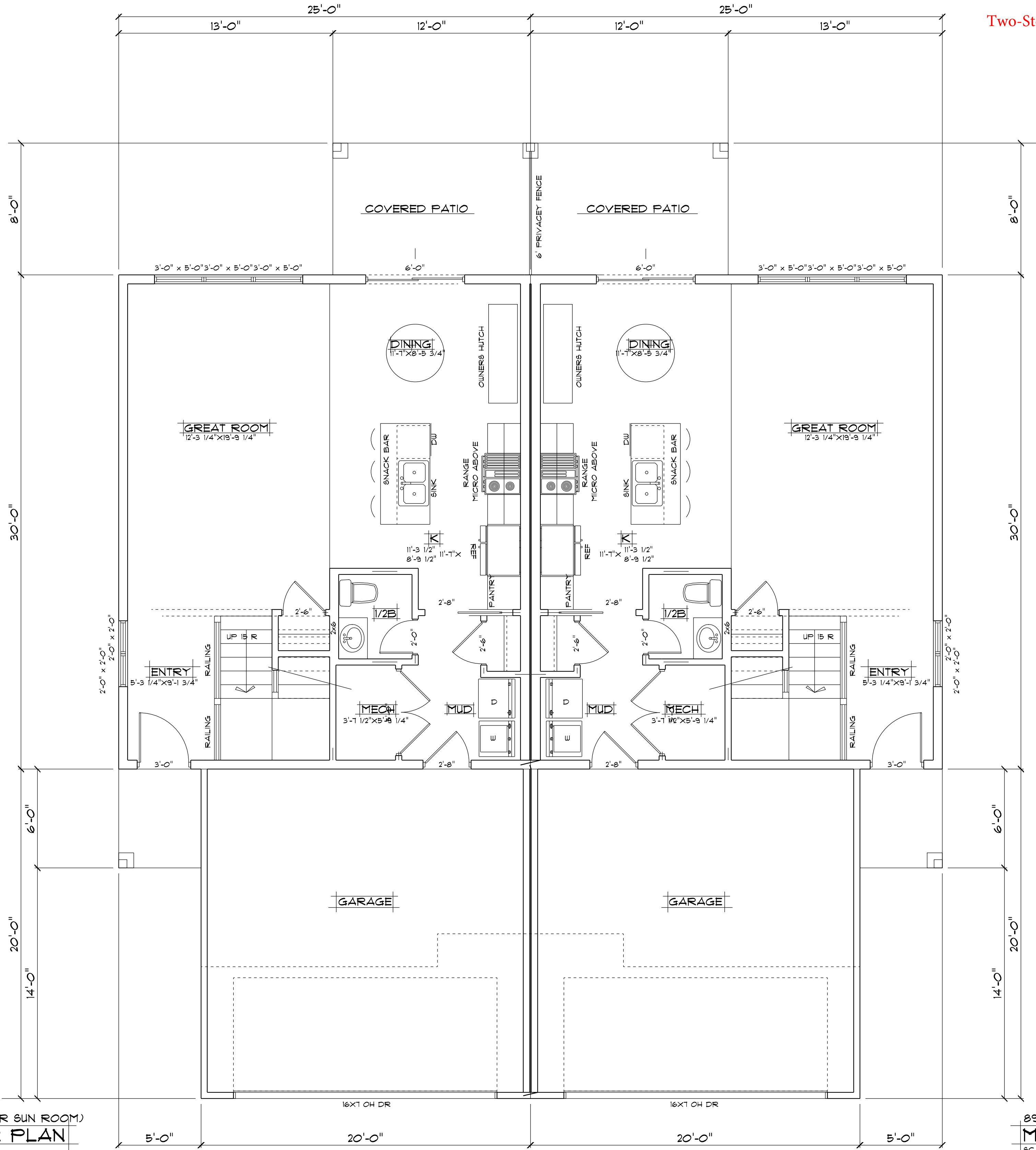
LARSEN DESIGN & CONSTRUCTION LLC  
4120 SUNFLOWER CIRCLE VADNAIS HEIGHTS MN 55127  
651-351-2421 BRUCE@LARSEN.COMCAST.NET

REVISED:  
8/14/19  
8/25/19  
8/30/19

ALTHOUGH EVERY EFFORT HAS BEEN  
MADE IN PREPARING THESE PLANS AND  
CHECKING THEM FOR ACCURACY, THE  
CONTRACTOR / HOMEOWNER MUST VERIFY  
GRADES, FOOTING SIZES, ELEVATIONS,  
ROUGH OPENINGS, HEADER AND BEAM  
SIZES, ALL OTHER DIMENSIONS AND SPECS,  
AND BE RESPONSIBLE FOR THE SAME.

DRAWN BY:  
BRUCE LARSEN  
DATE:  
8/14/19  
SCALE:  
1/4" = 1'-0"

SHEET:  
30 OF X



Two-Story Main Floorplan

918 SQ FT (2' LARGER SUN ROOM)  
**MAIN FLOOR PLAN**  
SCALE 1/4" = 1'-0"

894 SQ FT  
**MAIN FLOOR PLAN**  
SCALE 1/4" = 1'-0"

18X24

PRELIMINARY PLAN

2 STORY SLAB TWIN DELUX

REVISED:  
8/14/19  
8/25/19  
8/30/19

LARSEN DESIGN & CONSTRUCTION LLC  
4120 SUNFLOWER CIRCLE VADNAIS HEIGHTS MN 55127  
651-351-2421 BRUCE@LARSENDC.COM

DRAWN BY:  
BRUCE LARSEN

DATE:  
8/14/19

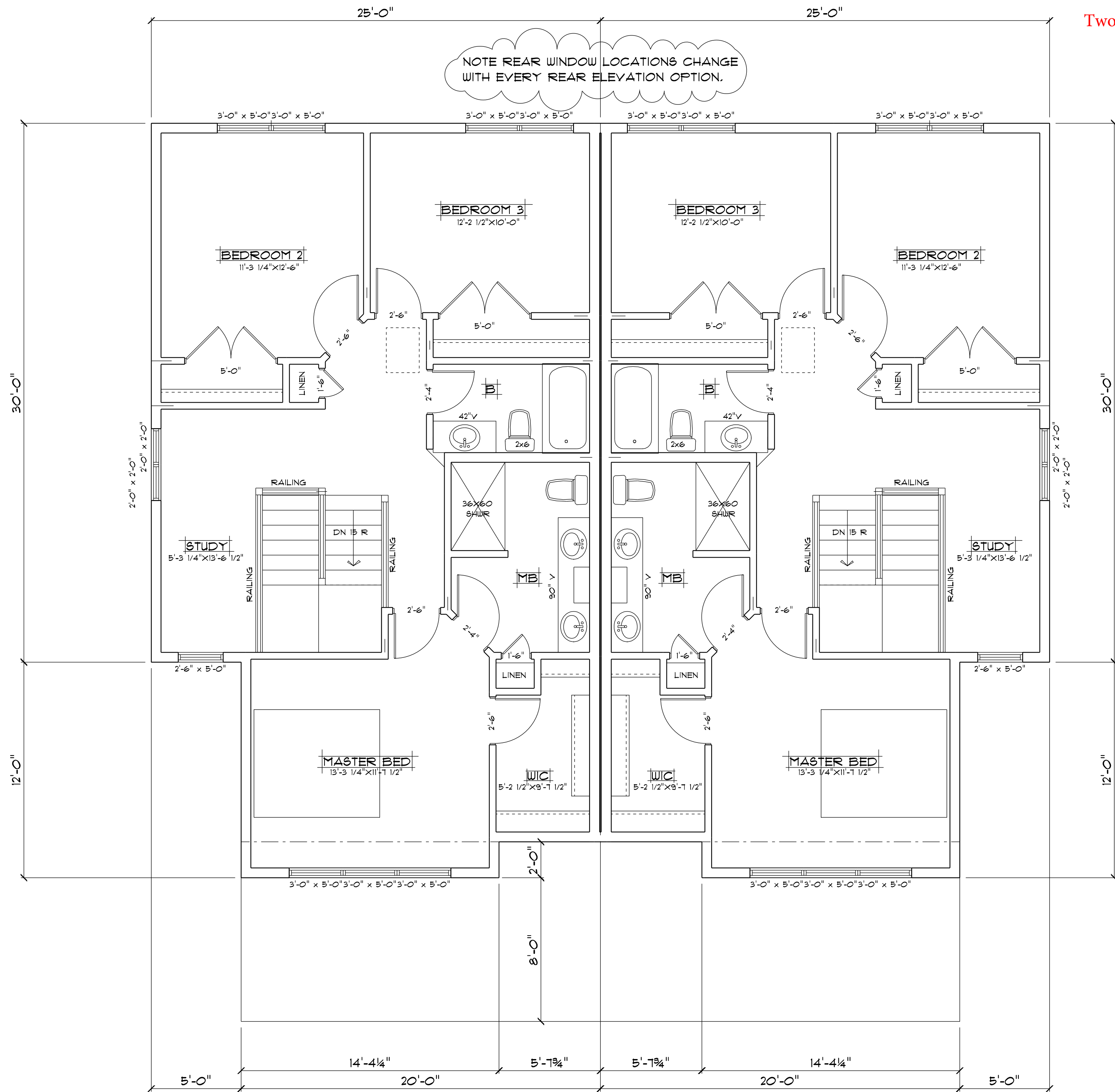
SCALE:  
1/4" = 1'-0"

SHEET:

4 OF X

ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR / HOMEOWNER MUST VERIFY GRADES, FOOTING SIZES, ELEVATIONS, ROUGH OPENINGS, HEADER AND BEAM SIZES, ALL OTHER DIMENSIONS AND SPECS. AND BE RESPONSIBLE FOR THE SAME.





Two-Story Second Floorplan

979 SQ FT PER SIDE  
SECOND FLOOR PLAN  
SCALE 1/4" = 1'-0"

PRELIMINARY PLAN

2 STORY SLAB TWIN DELUX

LARSEN DESIGN & CONSTRUCTION LLC  
4100 SUNFLOWER CIRCLE YADINAIS HEIGHTS MN 55121  
651-351-2471 BRUCE@LARSEN.COM/CAST.NET

REVISED:  
8/14/19  
8/25/19  
8/30/19

DRAWN BY:  
BRUCE LARSEN  
DATE:  
8/14/19  
SCALE:  
1/4" = 1'-0"

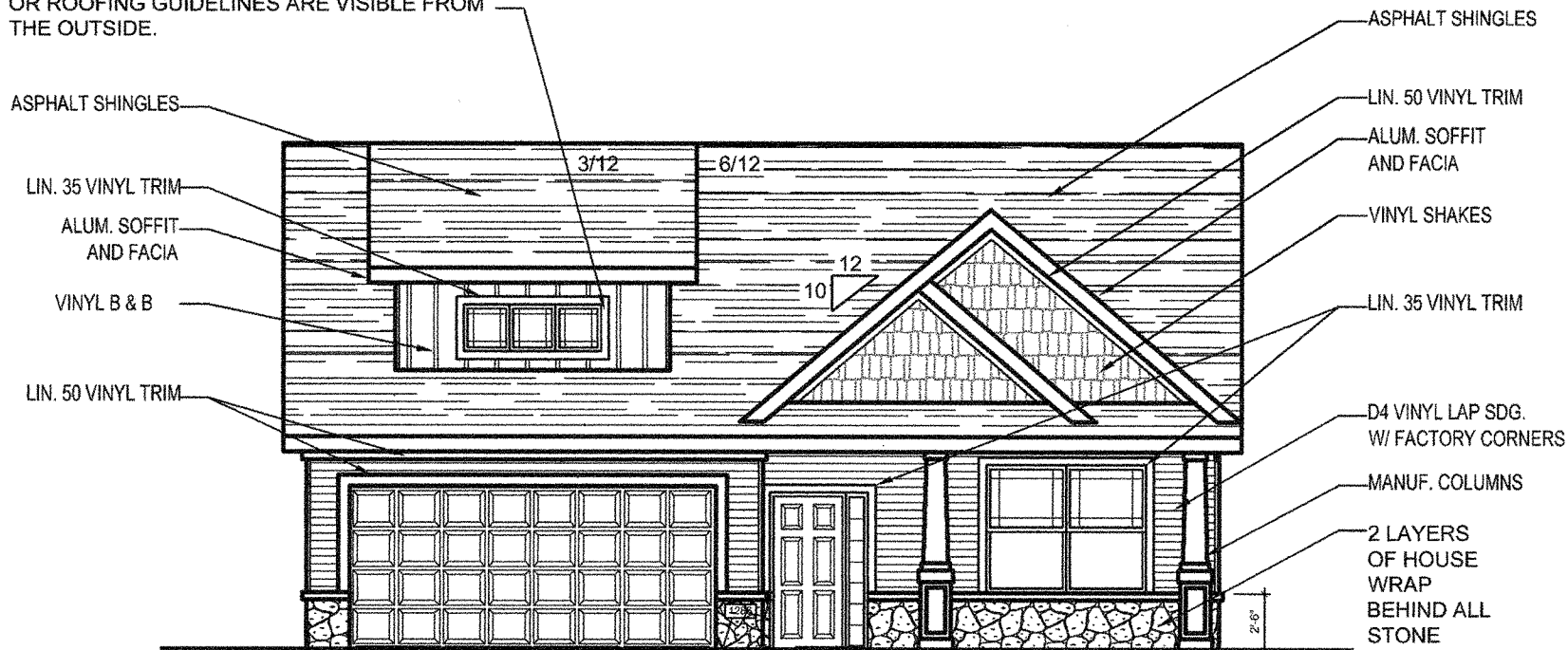
SHEET:  
5 OF X

ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR / HOMEOWNER MUST VERIFY GRADES, FOOTING SIZES, ELEVATIONS, ROUGH OPENINGS, HEADER AND BEAM SIZES, ALL OTHER DIMENSIONS AND SPECS. AND BE RESPONSIBLE FOR THE SAME.



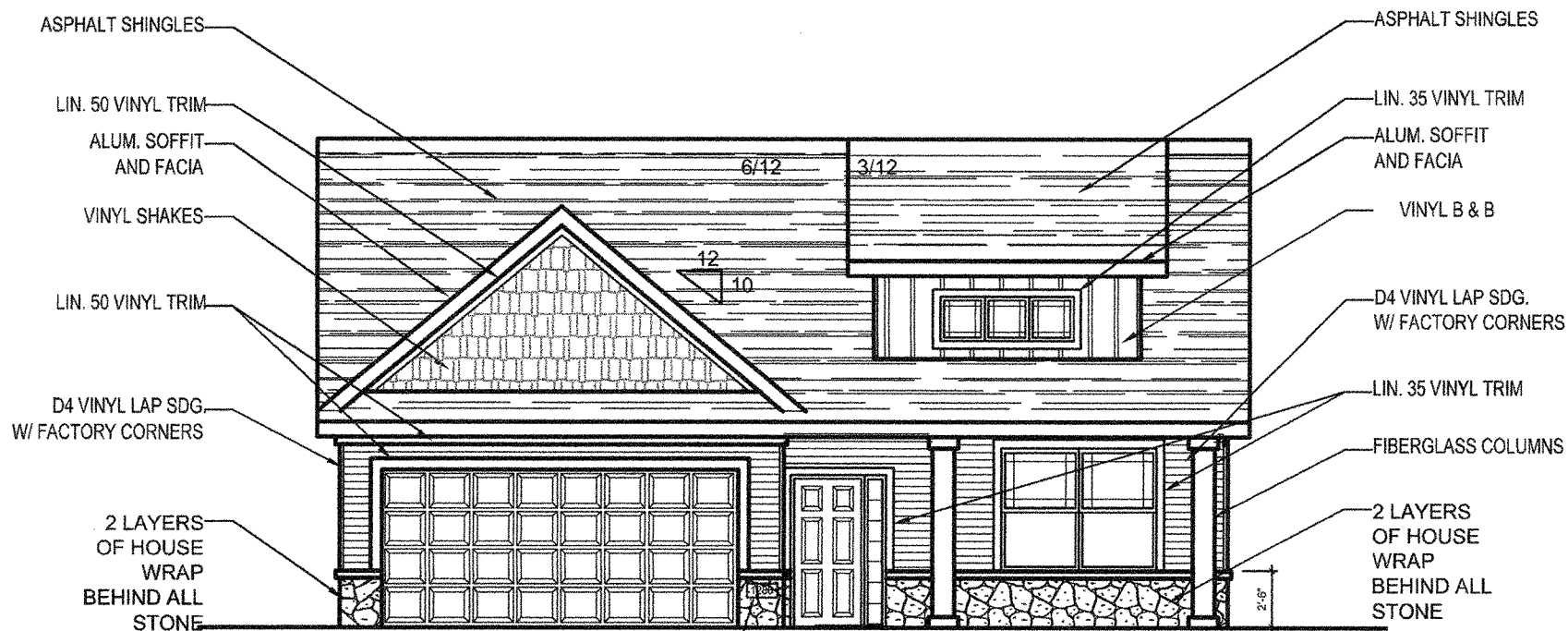
One-Story Elevations

TYPICAL NOTE: VFL3-2020  
6'-0x2'-0 1/2" R.O.  
INSTALL PLYWOOD WITH FELT PAPER  
OVERLAY TO BACK SIDE OF DORMER  
WINDOW. MAKE SURE NO SEAMS, STAPLES  
OR ROOFING GUIDELINES ARE VISIBLE FROM  
THE OUTSIDE.



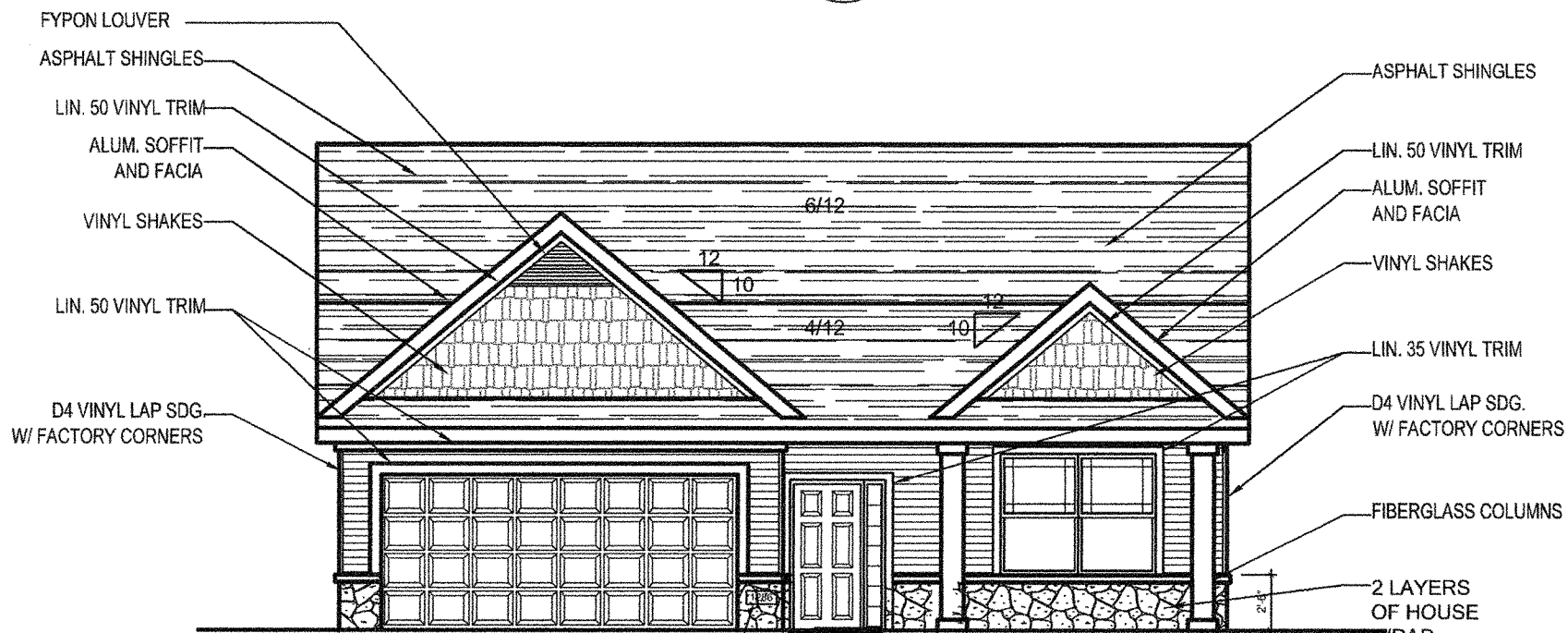
ADDRESS STONE INCLUDED  
WITH 1/2 STONE OPTION

6 ELEVATION 30 W/ OPT/ STONE  
A2.0 1/8"=1'-0"



ADDRESS STONE INCLUDED  
WITH 1/2 STONE OPTION

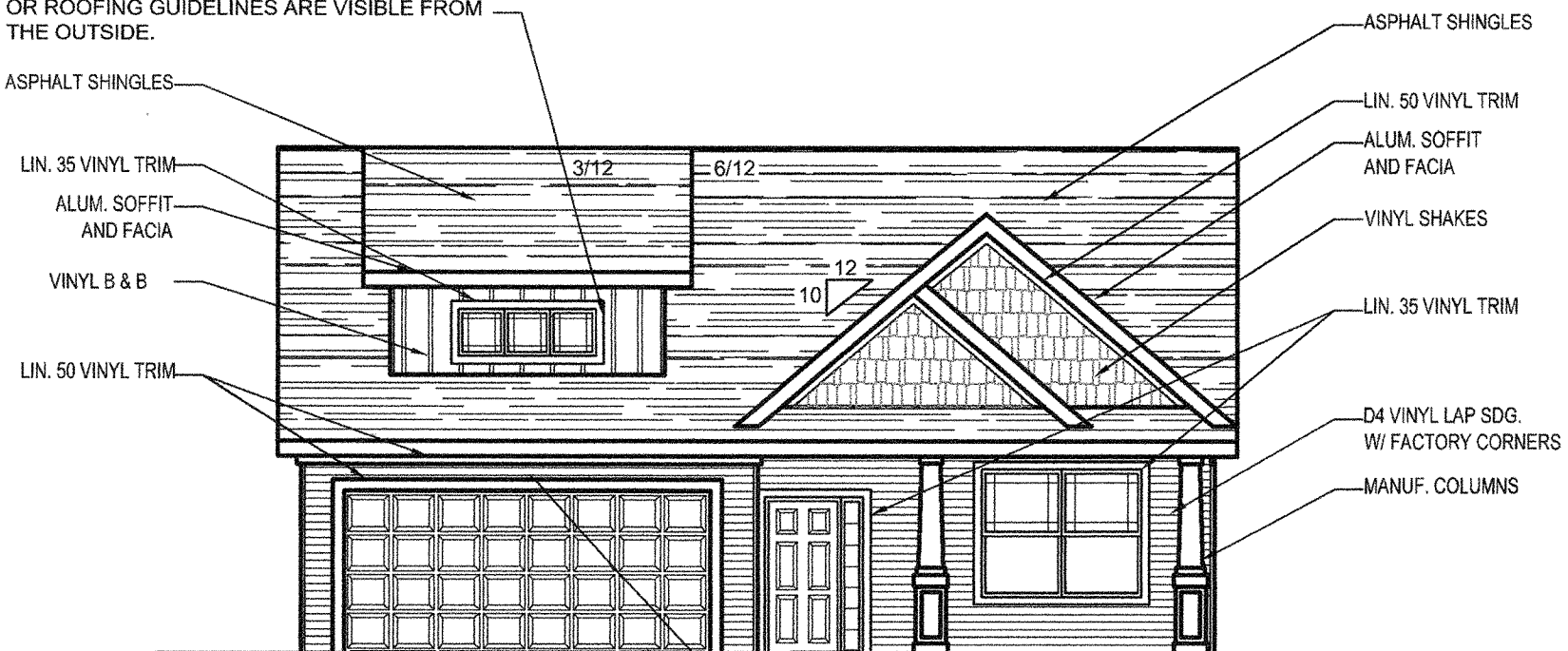
5 ELEVATION 20 W/ OPT. STONE  
A2.0 1/8"=1'-0"



ADDRESS STONE INCLUDED  
WITH 1/2 STONE OPTION

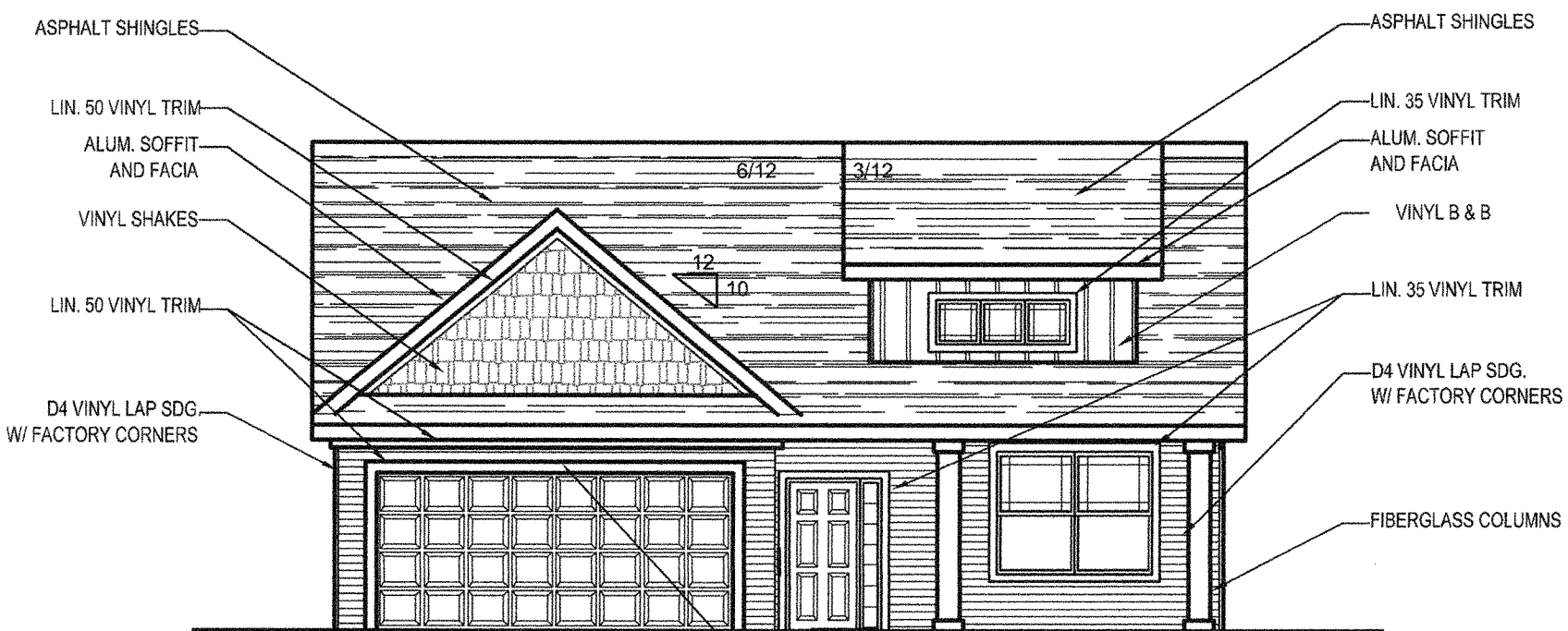
4 ELEVATION 10 W/ OPT. STONE  
A2.0 1/8"=1'-0"

TYPICAL NOTE: VFL3-2020  
6'-0x2'-0 1/2" R.O.  
INSTALL PLYWOOD WITH FELT PAPER  
OVERLAY TO BACK SIDE OF DORMER  
WINDOW. MAKE SURE NO SEAMS, STAPLES  
OR ROOFING GUIDELINES ARE VISIBLE FROM  
THE OUTSIDE.



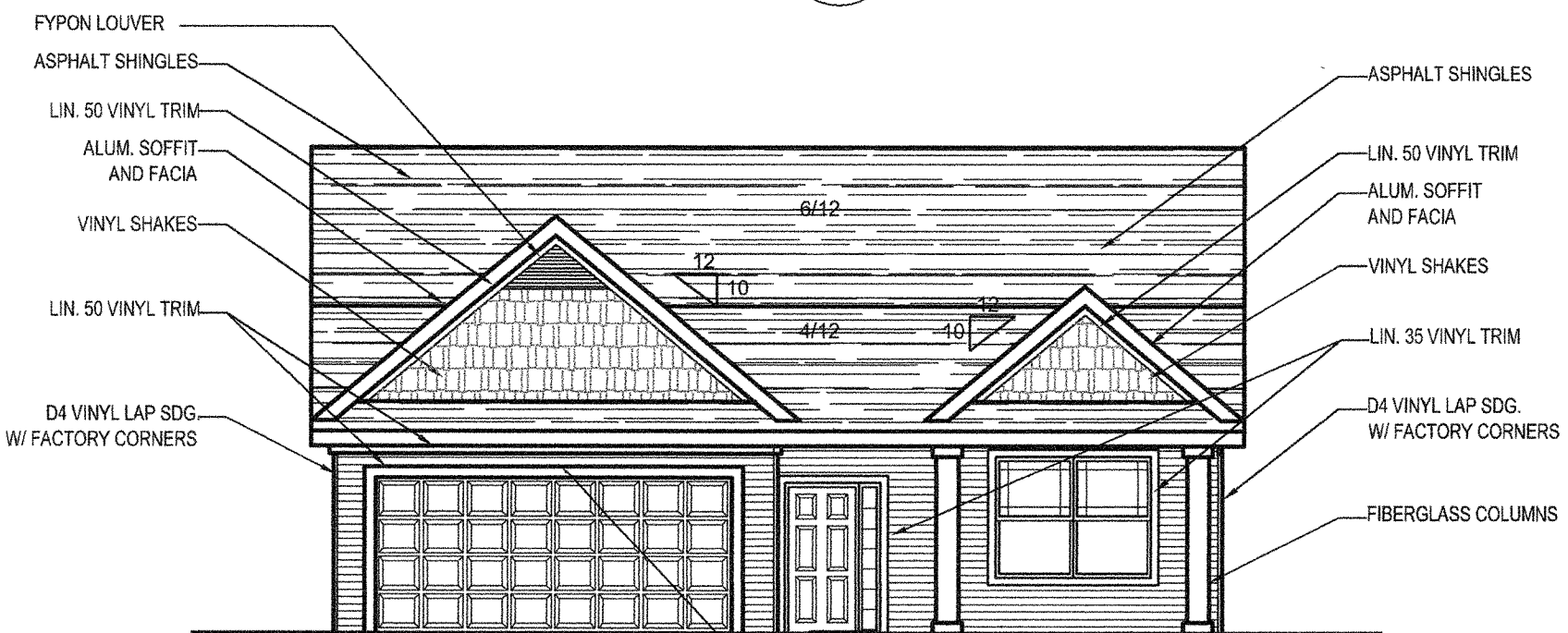
MIN. 3" HIGH HOUSE NUMBERS  
REQUIRED IN A CONTRASTING  
COLOR PLAINLY VISIBLE AND  
LEGIBLE FROM THE STREET

3 ELEVATION 30  
A2.0 1/8"=1'-0"



MIN. 3" HIGH HOUSE NUMBERS  
REQUIRED IN A CONTRASTING  
COLOR PLAINLY VISIBLE AND  
LEGIBLE FROM THE STREET

2 ELEVATION 20  
A2.0 1/8"=1'-0"



MIN. 3" HIGH HOUSE NUMBERS  
REQUIRED IN A CONTRASTING  
COLOR PLAINLY VISIBLE AND  
LEGIBLE FROM THE STREET

1 ELEVATION 10  
A2.0 1/8"=1'-0"

FINISHED TOTAL SQ. FT. 1286 SQ. FT.

|                      |                    |           |     |            |          |
|----------------------|--------------------|-----------|-----|------------|----------|
| PLANS ACCEPTED:      | AS IS              | DRAWN BY: | SLS | DATE       | 11/10/06 |
|                      | WITH NOTED CHANGES | DRAWN BY: | SLS | REVISION A | 01/29/07 |
| CUSTOMER SIGNATURE : |                    | DRAWN BY: | SLS | REVISION B | 02/07/07 |
|                      |                    | DRAWN BY: |     | REVISION C |          |
|                      |                    | DRAWN BY: |     | REVISION D |          |
|                      |                    | DRAWN BY: |     | REVISION E |          |

Bruggeman  
HOMES

Where Style Comes to Life

PARKSIDE AT ANDOVER STATION  
THE AFTON

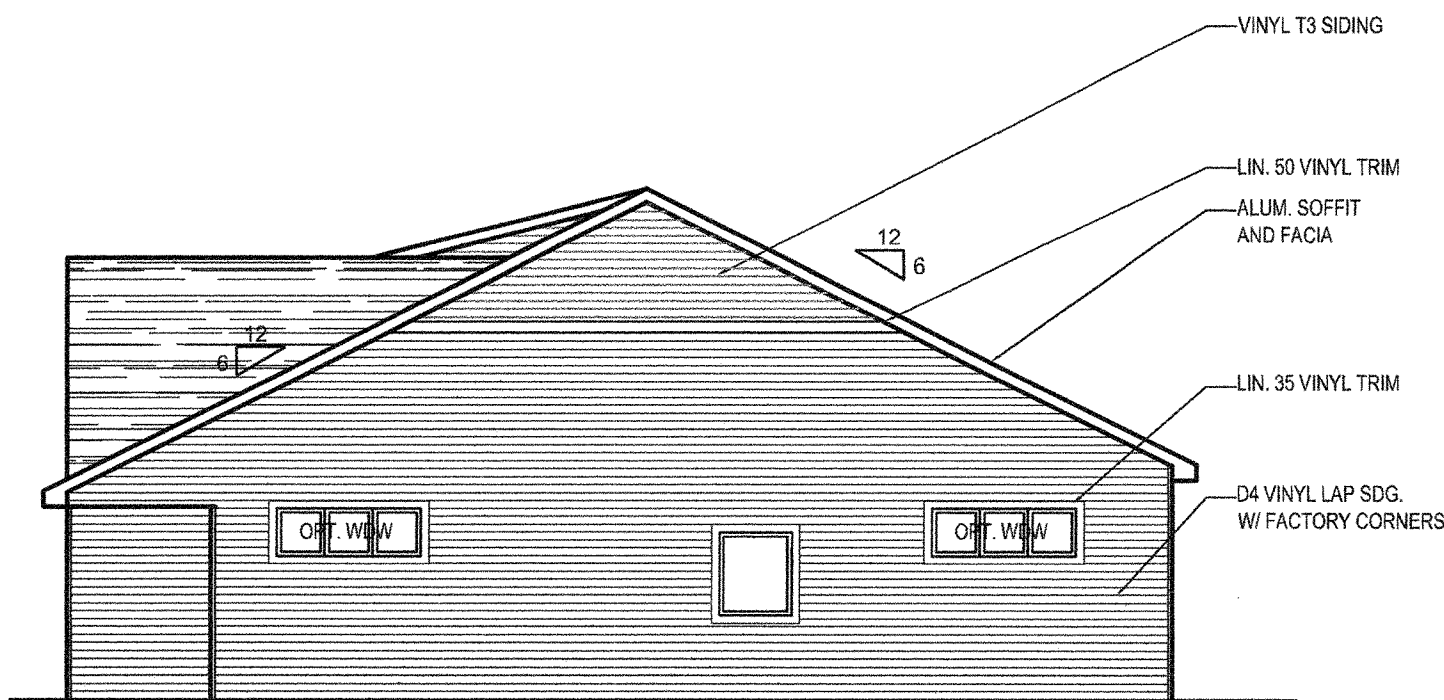
1400611

A2.0

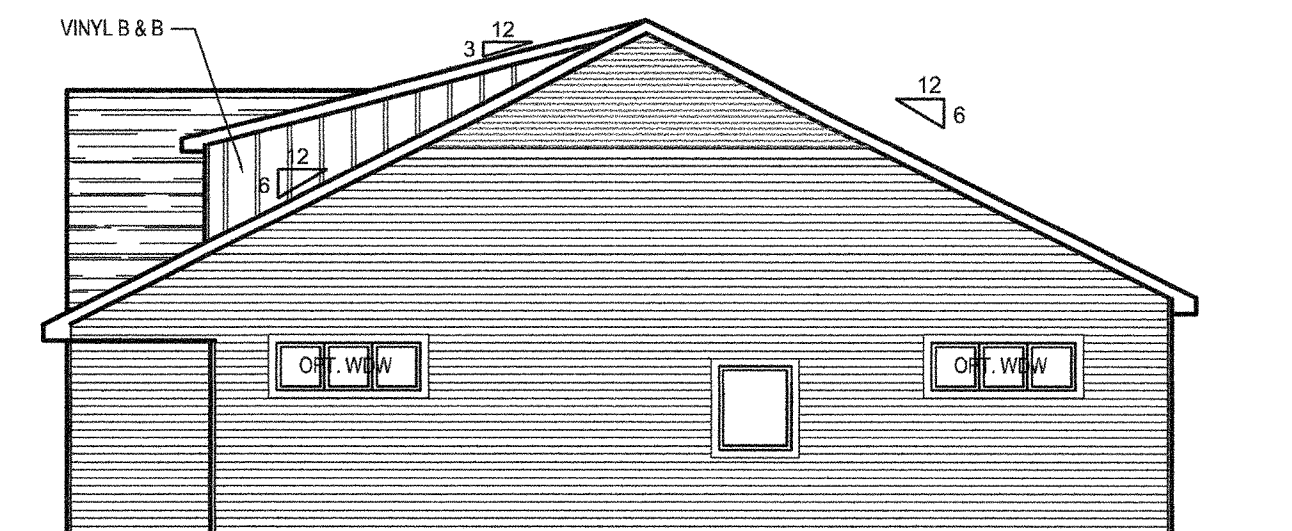
FRONT ELEVATIONS



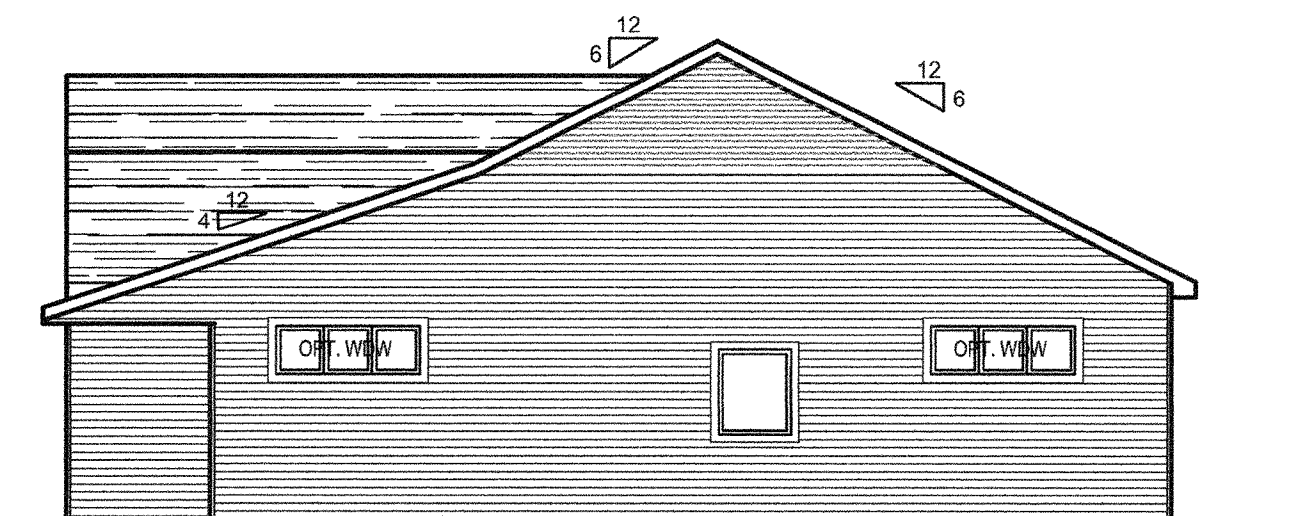
One Story Side and Rear Elevations



ELEVATION 30

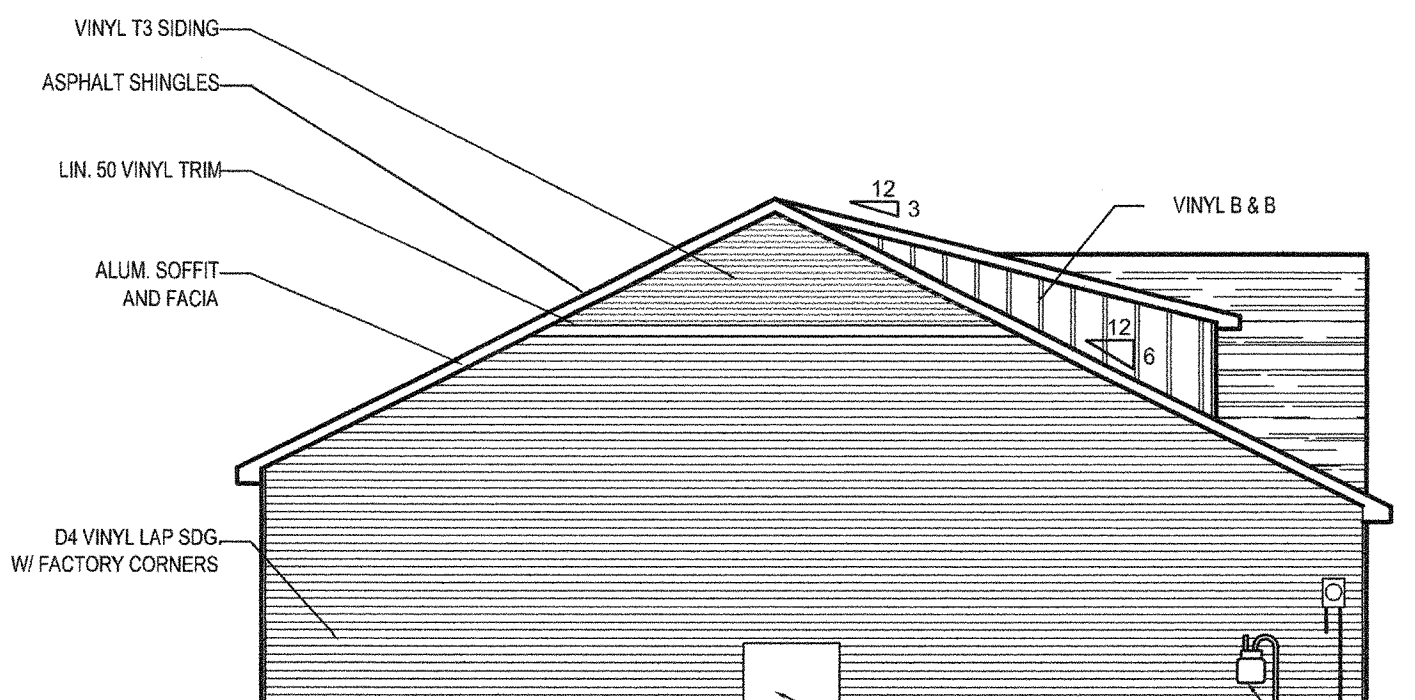


ELEVATION 20

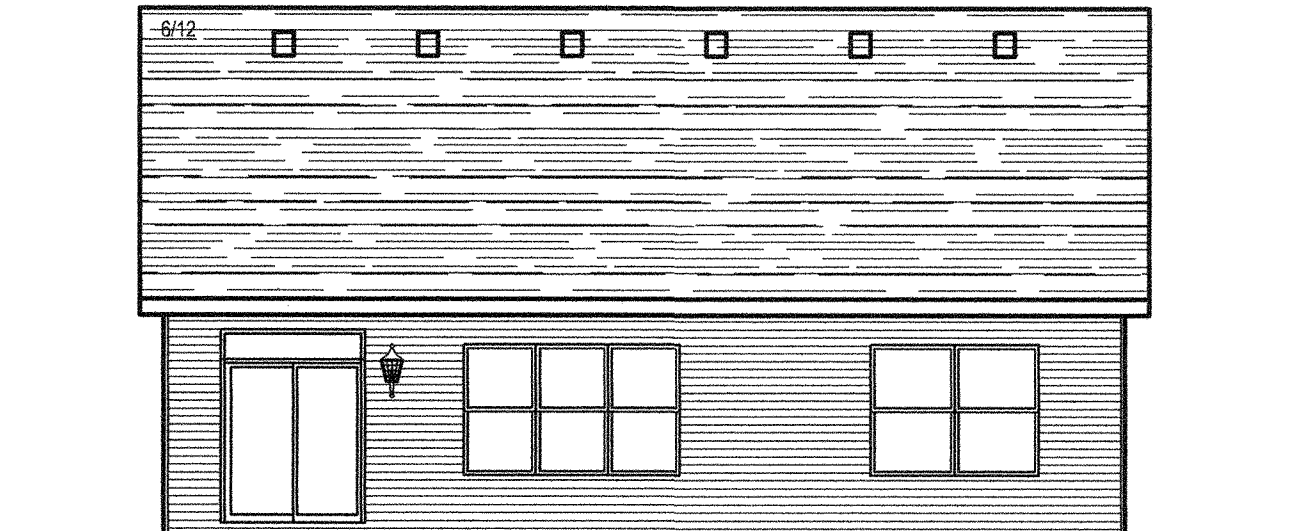


ELEVATION 10

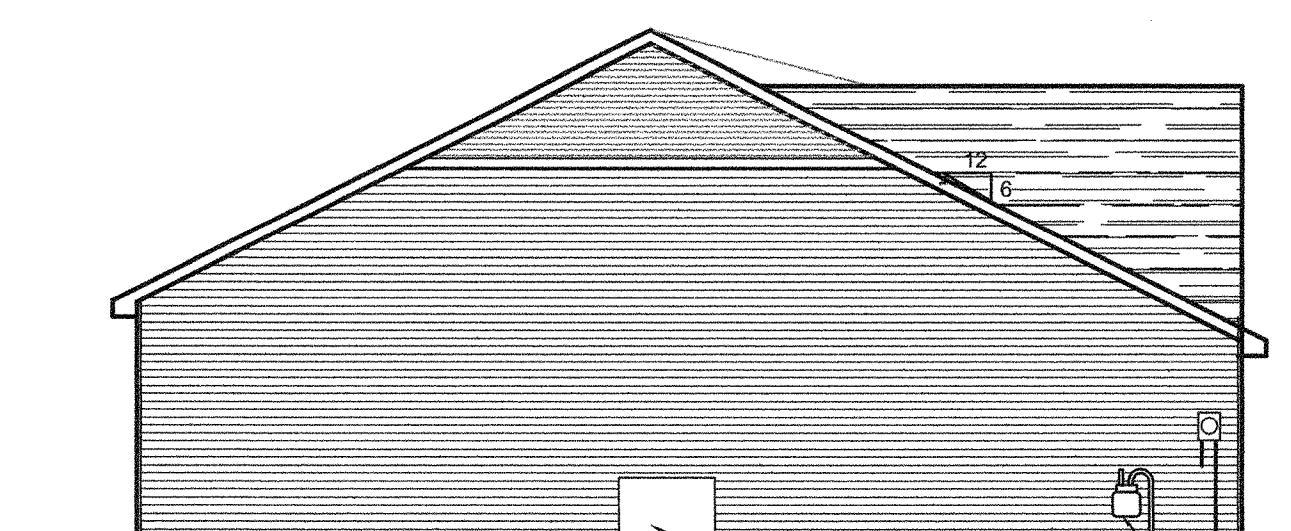
1  
A2.1  
RIGHT SIDE ELEVATION  
3/32"=1'-0"



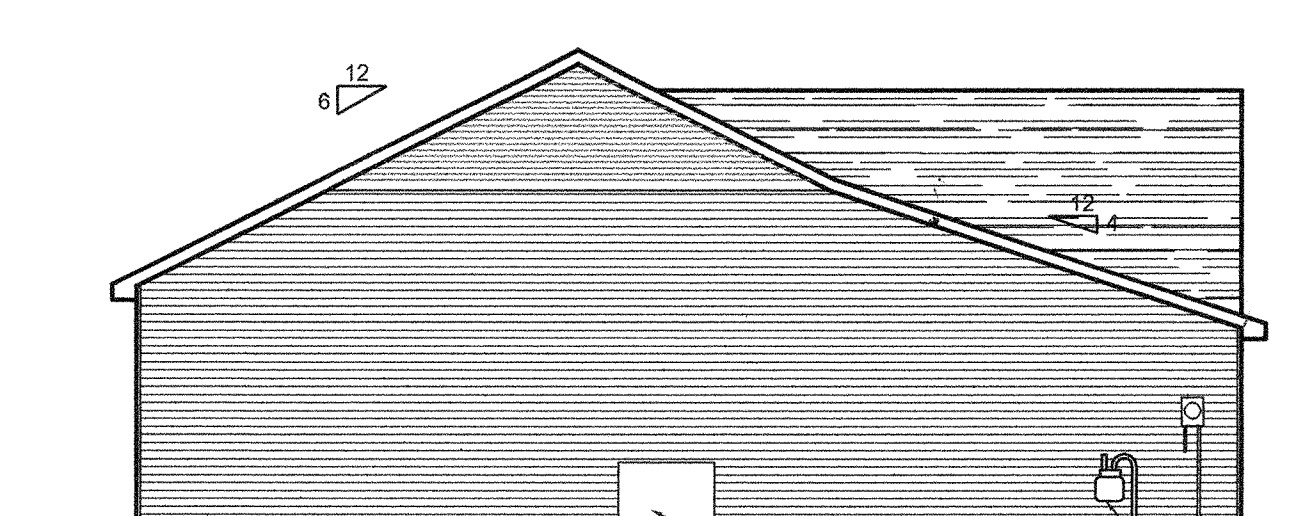
ELEVATION 30



2  
A2.1  
REAR ELEVATION  
3/32"=1'-0"



ELEVATION 20



ELEVATION 10

3  
A2.1  
LEFT SIDE ELEVATION  
3/32"=1'-0"

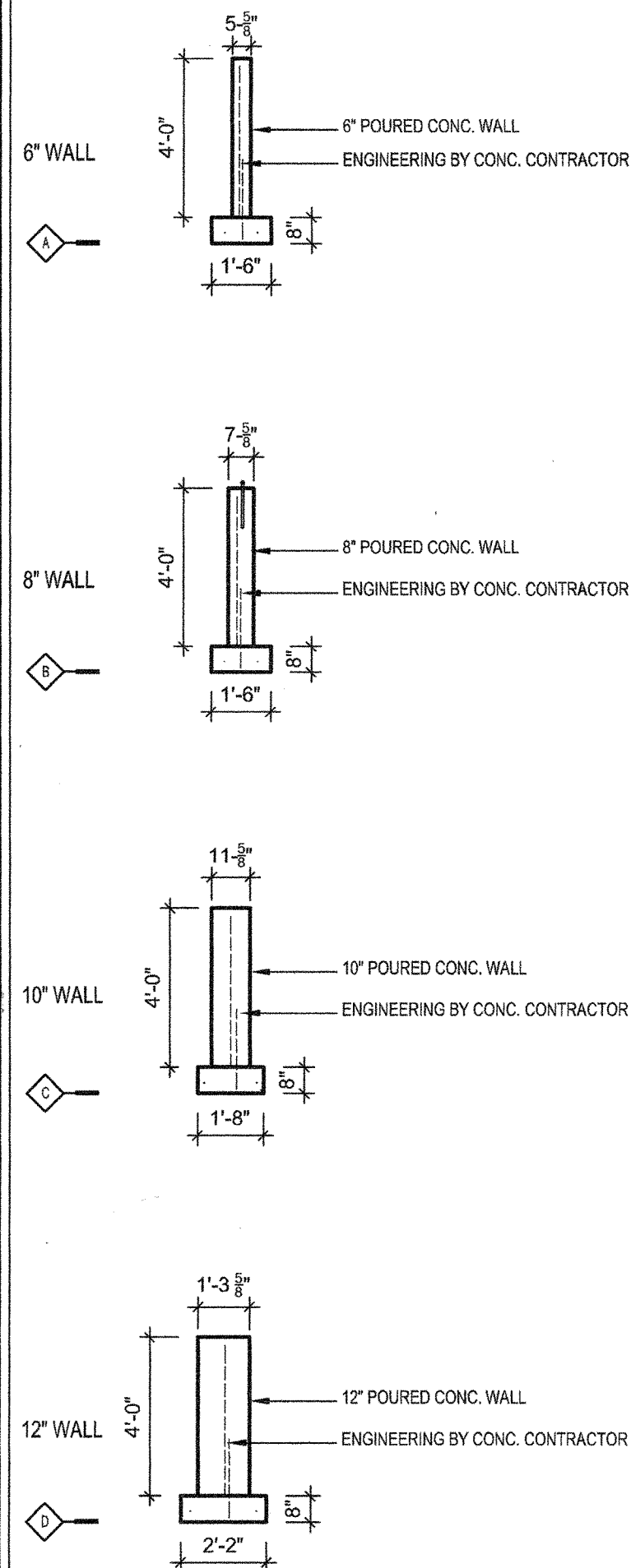
|                      |  |                    |               |                     |                                                                                                  |                                                                                                     |  |
|----------------------|--|--------------------|---------------|---------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--|
| PLANS ACCEPTED:      |  | AS IS              | DRAWN BY: SLS | DATE 11/10/06       | <div></div> | PARKSIDE AT ANDOVER STATION<br>THE AFTON 1400611<br><small>© COPYRIGHT 2006 BRUGGEMAN HOMES</small> |  |
|                      |  | WITH NOTED CHANGES | DRAWN BY: SLS | REVISION A 01/29/07 |                                                                                                  |                                                                                                     |  |
| CUSTOMER SIGNATURE : |  |                    | DRAWN BY: SLS | REVISION B 02/07/07 |                                                                                                  |                                                                                                     |  |
|                      |  |                    | DRAWN BY:     | REVISION C          |                                                                                                  | A2.1                                                                                                |  |
|                      |  |                    | DRAWN BY:     | REVISION D          |                                                                                                  |                                                                                                     |  |
|                      |  |                    | DRAWN BY:     | REVISION E          |                                                                                                  |                                                                                                     |  |
|                      |  |                    |               |                     | EXTERIOR ELEVATIONS                                                                              |                                                                                                     |  |



# One-Story Foundation Plan

## TYPICAL FOUNDATION WALL TYPES:

NOTE:  
SEE LEDGE TYPE KEY  
FOR TYPICAL LEDGE CONDITIONS  
-S.O.G. TYPICAL WALL HEIGHT = 4'-0"



## LEDGE TYPE KEY:

3/4" x 9-1/4" LEDGE

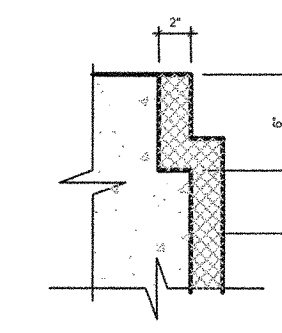
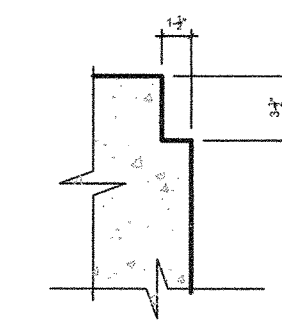
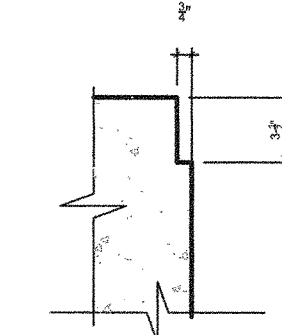
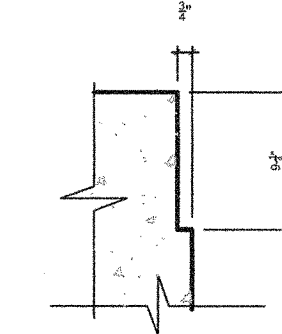
3/4" x 3-1/2" LEDGE

1-1/2" LEDGE

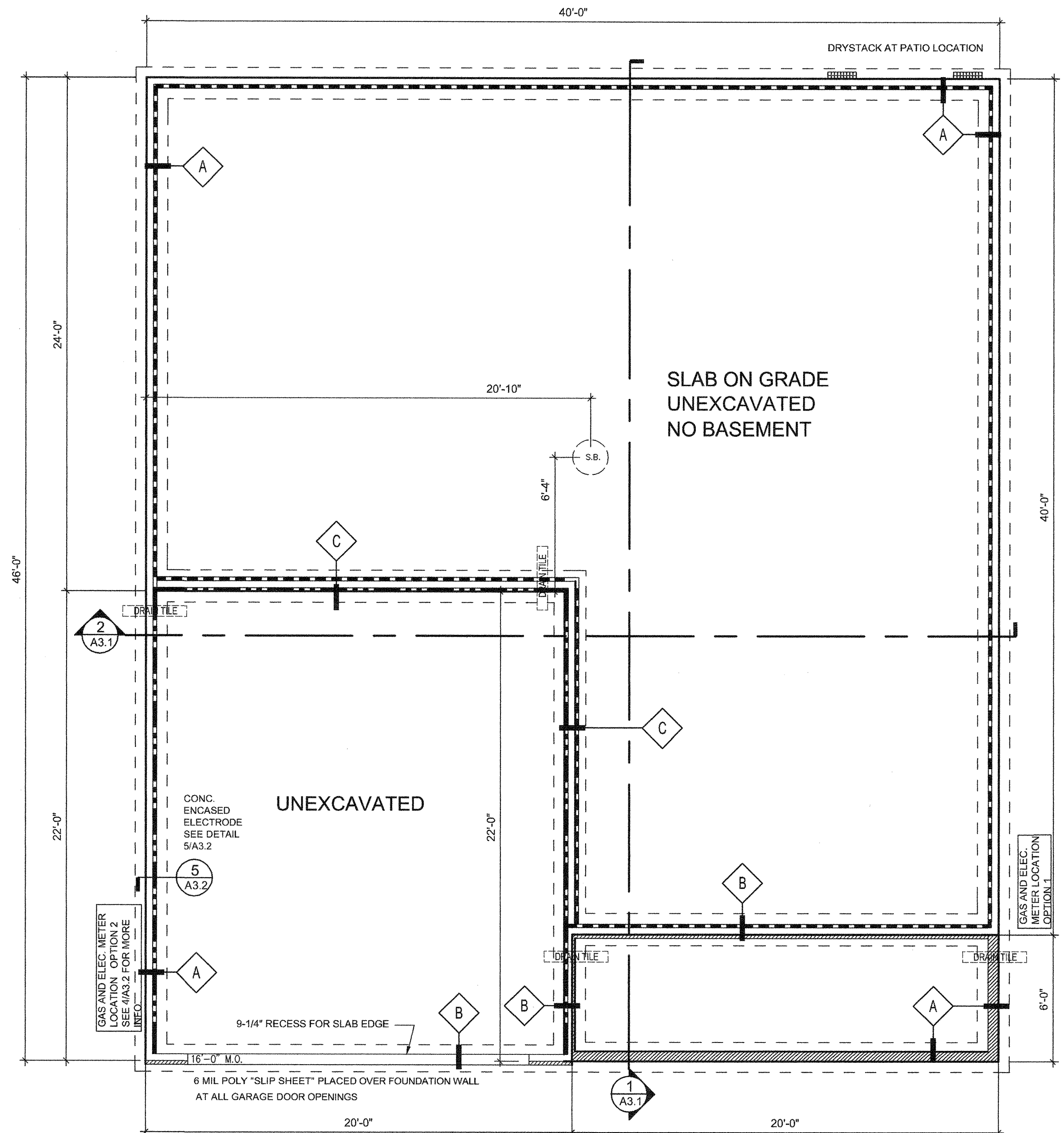
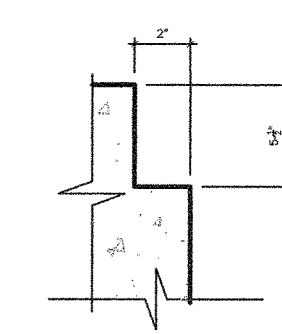
2" LEDGE

BRICK LEDGE

## TYPICAL LEDGE TYPES (N.T.S.)

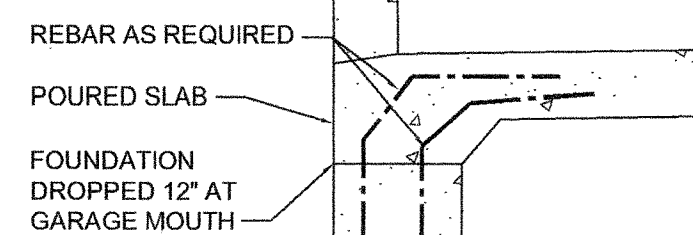


## TYPICAL BRICK LEDGE (N.T.S.)



1 FOUNDATION PLAN  
A1.0 1/4"=1'-0"

## GARAGE WALL



2 TYP. GARAGE MOUTH DETAIL  
A1.0 SCALE: 1"=1'-0"

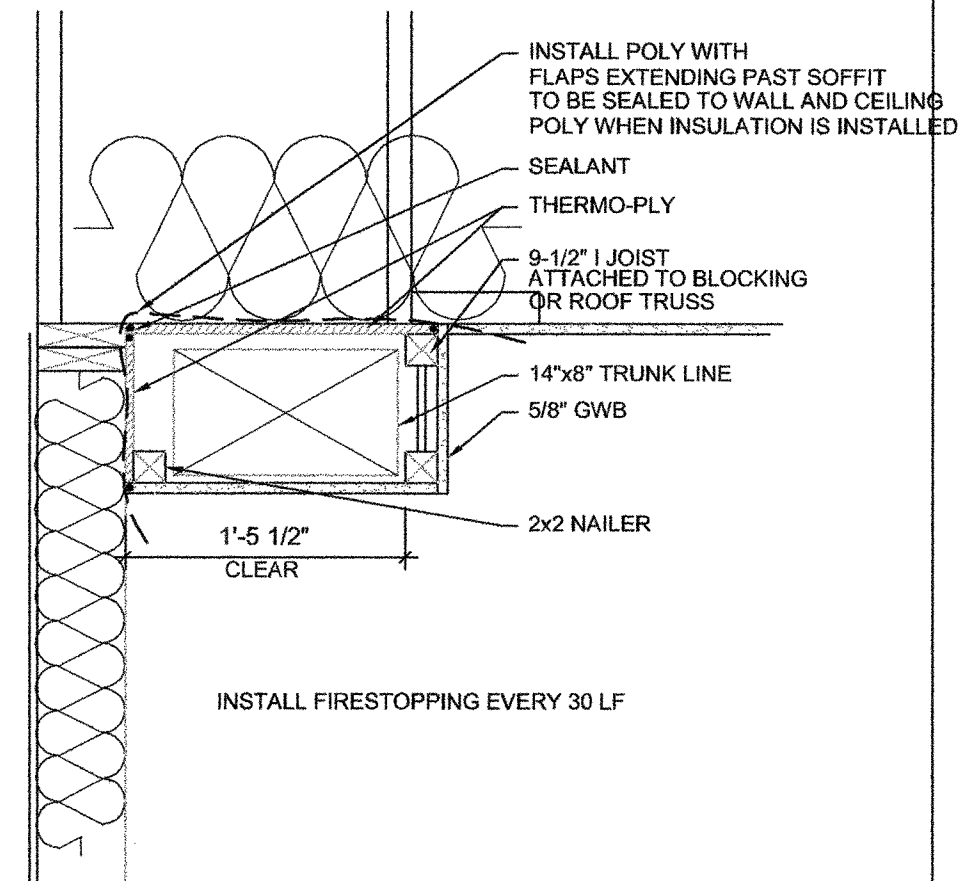
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| PLANS ACCEPTED:     | AS IS              | DRAWN BY: SLS | DATE: 11/10/06       |
|                     | WITH NOTED CHANGES | DRAWN BY: SLS | REVISION A: 01/29/07 |
| CUSTOMER SIGNATURE: |                    | DRAWN BY: SLS | REVISION B: 02/07/07 |
|                     |                    | DRAWN BY:     | REVISION C:          |
|                     |                    | DRAWN BY:     | REVISION D:          |
|                     |                    | DRAWN BY:     | REVISION E:          |

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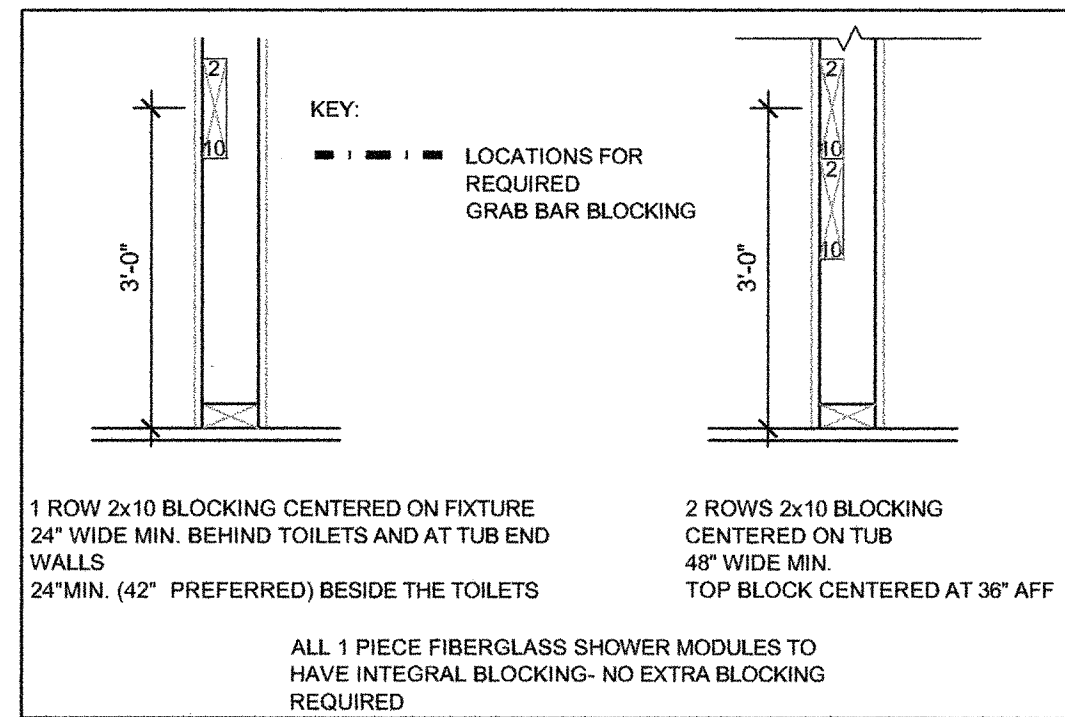
PARKSIDE AT ANDOVER STATION  
THE AFTON 1400611  
SLAB ON GRADE FOUNDATION PLAN A1.0



# One-Story Main Floorplan

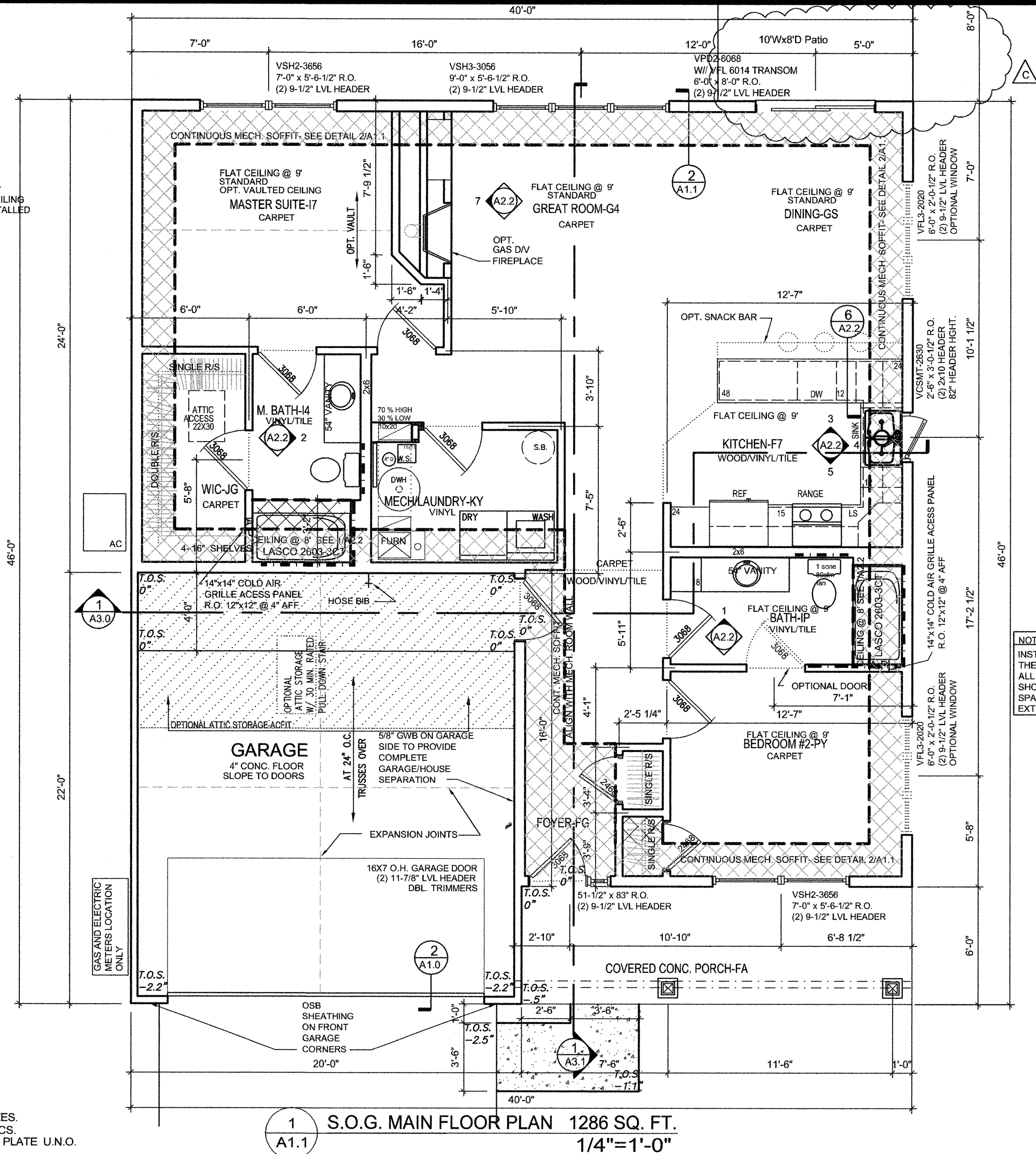


2 MECH. SOFFIT DETAIL  
1"=1'-0"



NOTE:  
ALL INTERIOR WALLS  
TO BE FRAMED AT 19.2" O.C.

NOTE:  
9'-1-1/8" PLATE HEIGHT FIRST FLOOR  
TRUSS MFG. TO VERIFY ALL HEADER SIZES.  
WINDOW TO BE HAYFIELD VINYL CLASSICS.  
HOLD WINDOW HEADERS TIGHT TO TOP PLATE U.N.O.



NOTE:  
INSTALL POLY AND  
THERMO PLY BEHIND  
ALL BATHTUBS,  
SHOWERS AND DEAD  
SPACES ON  
EXTERIOR WALLS

|                      |                    |           |     |            |          |
|----------------------|--------------------|-----------|-----|------------|----------|
| PLANS ACCEPTED:      | AS IS              | DRAWN BY: | SLS | DATE       | 11/10/06 |
|                      | WITH NOTED CHANGES | DRAWN BY: | SLS | REVISION A | 01/29/07 |
| CUSTOMER SIGNATURE : |                    | DRAWN BY: | SLS | REVISION B | 02/07/07 |
|                      |                    | DRAWN BY: | SLS | REVISION C | 05/02/07 |
|                      |                    | DRAWN BY: |     | REVISION D |          |
|                      |                    | DRAWN BY: |     | REVISION E |          |

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THE AFTON 1400611  
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SLAB ON GRADE A1.1  
FIRST FLOOR PLAN