



## ACTION OF THE LAND USE SUPERVISOR

**Planning Commission File:** PL12-021

**Applicant:**

Mark Cross – Architect  
Kuepers Inc. Architects and Builders  
17018 Commercial Park Road  
Brainerd, MN 56401

**Date:** June 18, 2015

**Location:** 20 acres at the southeast corner of Grand Avenue and Hullett Avenue lying west of Commonwealth Avenue and north the Duluth Missabe and Iron Range Road

**Proposal:** Redevelop a former industrial site and raw land into a residential neighborhood with two 29-unit apartment buildings and 9 single family and duplexes along a single dead-end roadway with trail connections to surrounding neighborhoods and the permanent protection of 8.4 acres of open space through a conservation easement.

**Findings:**

1. The property was zoned R-1 Residential and was granted a Low Density Planned Development Special Use Permit (Res. #09-0610, FN 09065) for a development with 72 units in 8-unit buildings, 35 parking stalls, 73 garage stalls along a street with a sidewalk, playground, and 8.5 acres of open space.
2. The City of Duluth Zoning Ordinance (Chapter 50 of the Duluth Legislative Code) was amended and a provision in the amended ordinance, Sec. 50-14.7.H, stated ""All residential developments approved prior to November 19, 2010, as low-density planned developments pursuant to Sections 50-36.1 through 50-36.3 of the previous zoning code shall be treated as approved low density R-P developments, and will be rezoned to the R-P zone district."
3. The landowner petitioned to rezone the property to Residential-Planned (R-P) in 2012 (PL12-014) and the Council approved the rezoning (Ord. #10149). The 2009 Special Use Permit plans became the R-P regulating plan. With the rezoning the applicant showed a modified layout for the development with two 30-unit apartment buildings and 9 lots for one- and two-family dwellings.
4. The landowner has applied for approval to modify the approved R-P regulating plan and such approval can be granted by the Land Use Supervisor according to Sec. 50-14.7.J and Sec. 50-37.11 because the amendment to the 2012 R-P regulating plan does not relate to uses, densities or height.

**Decision:** The Land Use Supervisor does approve the amendment to the R-P regulating plan as presented on the following documents:

- Grand Avenue Estates Regulating Plan prepared by Kuepers Inc. Architects & Builders dated March 5, 2015,
- Revised Tree Plan from Todd Armbruster at SEH dated May 18, 2015,
- Site and building plans from Kuepers Architects
- Concept Plan from SEH,
- Site plans and landscape plans from Kuepers Inc. dated 3-5-2015, Sheets C1.1 and C1.2,
- Utility plans from SEH, Exhibits 1-4,
- Typical Street Section from SEH, Exhibit 5.



---

Keith Hamre, Director of Planning and Construction Services (Land Use Supervisor)

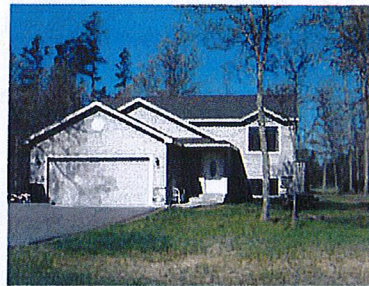


# Regulating Plan for Grand Ave Estates

Grand Ave, Duluth, MN

3-5-2015

*FINAL*



Prepared by: Kuepers Inc. Architects & Builders

## **Purpose\Project Summary**

This project is a redevelopment of the former Westinghouse industrial site into a R-P zoned residential housing development.

It integrates creative site design by integrating 2-29 unit apartment style buildings on the former industrial site with a neighborhood cluster of 9 single family/duplex units east along the buildable ridge of the property. The site design requires careful building placement due to the existing city sanitary sewer and water lines that run through the property along with attempts to avoid the wetlands.

It provides a variety of housing types with proposed apartments, single family and duplex units. The proposed apartment buildings shall have protruding gabled facades that breakup the mass of the buildings into a smaller scale on all sides.

The neighborhood cluster is unique due to the varied side-yard setbacks that provide for the building of a single family home in the middle of a single lot or a duplex unit with zero lot line setbacks for two adjacent lots. All Apartment Units, Duplex Units and Single Family Homes will have "front" porches on a minimum of the street side.

The project provides onsite amenities with a centralized community playground that connects to internal walking and biking sidewalks along the private street to Grand Ave with access to DTA . Bike racks will be incorporated into the project near the apartment buildings and playground.

The project conserves natural features by clustering the buildings on the redevelopment area and the buildable ridge area. This allows for the steeply sloped wooded areas and the two streams with their flood plain areas to remain untouched. The southern portion of the property will be placed under a conservation easement along with a strip next to the northern stream.

This R-P development results in a final product that provides a greater level of public benefit than would be required under the existing lot and block R-1 zoning district by conserving a larger than required percentage of the lot into a green conservation easement while reducing the total allowable density of the site.



## **A. General Layout and Building Parcels**

The general layout is two multifamily lots flanking a private roadway that ends in an elongated cul-de-sac with nine single/duplex lots. Refer to the Concept Site Plan for the general layout and building parcels.

## **B. Lot Sizes / Setbacks and Maximum Building Heights**

Refer to the Concept Site Plan for lot sizes. The following setbacks shall be used within the project.

Lot 1. Front (Along private drive) 25'

Rear (North): 30'

Side (Grand Ave): 30'

Side (East): 10'

Accessory Structure: 10'

Building Height: 35' Max

Lot 2. Front (Along private drive) 25'

Rear (South): 30'

Side (Grand Ave): 30'

Side (East): 10'

Accessory Structure: 10'

Building Height: 35' Max

Lots 3-12. Front (Along private drive) 25'

Rear: 6'

Side : 6'

Accessory Structure: 10'

Building Height: 30' Max

## **C. Base Zone District**

The current zoning for the entire parcel is R-1. Therefore R-1 development standards apply to this R-P district unless specifically altered within this document.

Alterations include the following (Allowed by Table 50-14.7-1);

Lots 1 & 2 - Building Height increase of 5' to a max of 35'. Accessories structure setback reduced to 1' due to row easement.

Lots 3-12 – Distance from Rear Property line reduced to 6' (Due to cluster design of small lots)



## **D. Circulation Plan**

A 26' wide private paved roadway will be provided from Grand Ave east to a large elongated cul-de-sac. It will have 6' wide paved sidewalks connecting from Grand Ave to the existing north/south trail along Grand Ave to each of the building lots. The trail east of the cul-de-sac will be wood chip and intersect with and incorporate an existing utility easement. This will encourage a walkable, bikeable community and provide residents with access to the Duluth Transit Authority, existing trail system and the Conservation Easement area.

Maintenance and access of the private roadway, walks and playgrounds will be governed and defined by a cross-access easement/agreement between the lot owners that will be recorded with the property. Refer to the Site Plan for the layout.

## **E. Natural Resources Inventory**

Wooded slopes and streams are included in the common open space. This area contains a portion of Stewart Creek, an unnamed stream and is heavily wooded. It will be available for hiking and passive recreational use. It contains the following;

Area of Steep slopes = 268,000 sqft

Area of Wetlands = 61,500 sqft

Area of Tree Stands = 559,000 sqft

Length of Streams – 970 lf

Length of Trails – 960 lf

Refer to attached Site Plan and Tree Inventory Plan.

These areas will be protected by utilizing BMP's during construction and maintaining setbacks.

## **F. Common Open Space**

Outlot A, which contains much of the natural site features, will also remain as common open space and be protected by a conservation easement. It consists of approximately 8.4 acres of land area.

## **G. Permitted & Special Uses**

Uses will be limited to permitted and special uses allowed in R-1 with the addition of Multifamily Apartment Buildings with a manager's office as a permitted use and Garages as accessory structures.

There will be no non-residential uses allowed within this development other than incidental office space within the apartment building for the management of the rental units.



## **H. Maximum Densities.**

Maximum residential density is spelled out in R-1 zoning. There is no request to modify the maximum density.

## **I. Water, Sewer and Utility Service**

Water and Sewer services are available to the site. A publicly owned water main will run along the south side of the private drive and public sewer main will run in the drive with services to each building. Water and Sewer will meet city standards and shall be public. Power, gas, phone, cable and fiber will be provided on the north side of the roadway. All proposed and existing utilities will have recorded easements.

## **J. Transitions between Uses**

The site's existing features and topography allow for a transition between the multifamily and the single/duplex units on-site consisting of elevation changes, wetland transition and landscaping. The transition between the multifamily and the single family home to the north consists of a landscaped berm and a 30' building setback.

## **K. Storm Water**

For storm water information refer to the attached preliminary drainage map and design worksheet. Refer to Site Plan for location of treatment areas.

## **L. Parking Standards**

All parking shall be in surface lots, driveways or garages at the minimum rate of 1 space per dwelling unit. Parking stalls will be a minimum of 9' wide and 17' long.

## **M. Amenities**

The amenities within this private development consisting of the streets, sidewalks, trails, playground and the open space conservation easement shall remain private for the use of the residents and guests of the development. If an extension of the city trail system is constructed across this site, that trail will be open to the public.

## **N. Architectural Design Standards**

All construction, remodeling and repair shall meet the following architectural standards.

Exterior building walls shall be finished in a combination of Brick, Stone, Simulated Stone, Wood, Cementitious, or Vinyl siding together with Wood, Cementitious or Vinyl shakes. Installation shall follow applicable codes and manufacturer's instructions.



Roofs shall be pitched and clad with standing metal seam, wood shingles or asphalt shingles. Gutters if installed shall be prefinished and blend with the building colors.

Screening fences shall be constructed of wood pickets, lattice or boards, finished to protect from weather.

Each building shall have a "front porch" facing the street side with a private walk connecting to the sidewalks.

Retaining walls shall be rock, rock face block or rubble materials.

Colors shall be of an earth toned color pallet with a maximum of 10% accent colors.

Architectural standards shall be a part of the development plan, referenced in the covenants and a requirement of the R-P zoning district.

Project shall meet all R-1 landscaping, screening, lighting, and building standards of the UDC that haven't been specifically modified by this document.

## **O. Project Phasing**

The proposed project will be constructed in one phase consisting of multifamily and single/duplex units following the completion of the infrastructure.

## **P. Cross Sections**

Cross sectional drawings of building proportions and relationships are attached.





Building a Better World  
for All of Us®

RECEIVED

MAY 22 2015

CONSTRUCTION SERVICES  
AND INSPECTIONS

## MEMORANDUM

TO: Kelly Fleissner, City of Duluth Forester

FROM: Todd Armbruster, SEH Natural Resources Scientist

DATE: May 18, 2015

RE: Revised Tree Preservation Plan  
SEH No. KEUPC 129020 14.00

The purpose of this memo is to describe the revisions made to the tree preservation plan submitted on October 30, 2014 for the 20-acre Grand Avenue Estates residential development located near the 9400 block of Grand Avenue in West Duluth (Figure 1). The revisions were necessary after the area was platted with two preservation areas (Outlots A and B), instead of one preservation area proposed in the original report. We request your review and approval of this report for tree preservation and replacement requirements in accordance with the Unified Development Chapter (UDC) of the City of Duluth Legislative Code.

After completing the tree survey and calculations for tree replacement requirements, approximately 783 caliper inches of trees will need to be replaced for the proposed project. Credit for tree preservation on the 10.5-acre undisturbed portions of the site will be applied toward the replacement requirements and will yield a credit surplus of 9,821 caliper inches.

If you have any questions or comments, please contact me directly at 218.279.3009 or [tarmbruster@sehinc.com](mailto:tarmbruster@sehinc.com).

ta

Attachment: Tree Preservation Report

c: Dan Hinzmann, SEH Project Manager  
Kuepers Inc., Site Owner

c:\users\tarmbruster\desktop\grand avenue\draft tree preservation plan memo.docx

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 418 West Superior Street, Suite 200, Duluth, MN 55802-1512

SEH is 100% employee-owned | [sehinc.com](http://sehinc.com) | 218.279.3000 | 888.722.0547 | 888.908.8166 fax









City of Duluth  
Planning Division

411 West First Street • Room 208 • Duluth, Minnesota 55802-1197  
218-730-5580 • Fax: 218-730-5904 • [www.duluthmn.gov](http://www.duluthmn.gov)

An Equal Opportunity Employer

RECEIVED

MAY 22 2015

CONSTRUCTION SERVICES  
AND INSPECTIONS

### TREE PRESERVATION REPORT (REVISED MARCH 29, 2013)

A tree preservation report is required for any development or redevelopment activities that impacts trees and is on a lot of more than 10,000 square feet with a multi-family, mixed use, commercial, institutional, industrial, or parking principal use or a lot of record created after 11/19/10. See sections 50-25.6 and 50-25.9 of the UDC. **Note:** before preparation of the tree preservation report, contact the City Forester to discuss the proposed scope and size of the project, and to get any additional information or instructions prior to commencing the tree inventory.

**Property address/location:** 9400 Grand Avenue, Duluth, MN

**Name of applicant/agent:** Kuepers Inc./Todd Armbruster

**Phone:** 218-279-3009 **Email:** [tarmbruster@sehinc.com](mailto:tarmbruster@sehinc.com)

**Date of expected tree removal:** October 2015

| Type of Trees            | Removal Threshold                              | Number Impacted by Project |
|--------------------------|------------------------------------------------|----------------------------|
| Special Trees 6"-20" DBH | 10 or more                                     | 21                         |
| Special Trees >20" DBH   | Prohibited unless approved per Section 50-25.9 | 8                          |
| Other Significant Trees  | 20 or more                                     | 628                        |

- **DBH: Diameter at Breast Height.** Diameter is measured in inches 54" above the ground. If the tree splits into multiple trunks at a height below 54 inches, but above the ground, the diameter is measured at the highest point beneath the split.
- **Special Trees:** White pines, red (Norway) pines, white cedars, white spruces, eastern hemlocks, sugar maples, American basswoods, American elms, yellow birches, and all oak species (for identification help, see <http://www.arborday.org/trees/treeGuide/index.cfm>).
- **Significant tree:** All trees of more than 10 inches DBH, and all special tree species of more than 6 inches DBH. Any replacement tree planted as part of a tree replacement plan shall also be considered significant.

#### Map

Attach a map of the property, including locations of structures and trees. Indicate which trees will be preserved and which will be removed (or attach your own map). Preserved trees must be protected during construction through use of a fence around the critical root radius. Attach photos of areas to be impacted by construction.

#### Signature

*I testify that this report is true and accurate to the best of my knowledge.*

Applicant Signature: \_\_\_\_\_

Date: \_\_\_\_\_

5/18/15

#### City Approval

Upon review of all applicable information, I approve the Tree Preservation Report (if with conditions, make note).

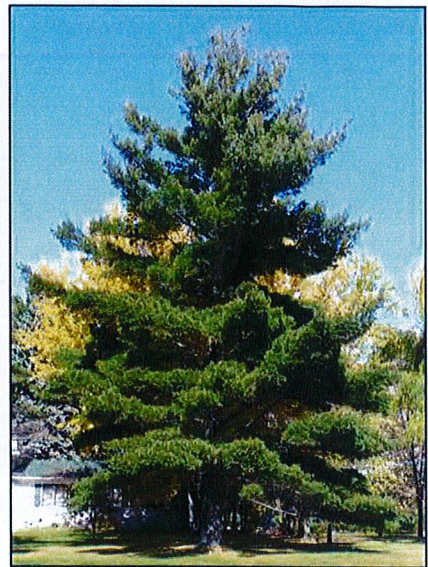
City Forester Signature: \_\_\_\_\_

Date: \_\_\_\_\_



### **White pine** (*Pinus strobes*)

- only five-needle pine native to eastern North America
- distinguished by its commonly "windblown" or asymmetrical look; its large, long cones; and its five needles per cluster



### **Norway Pine** (*Pinus resinosa*)

- also called the red pine because of its pale red wood and reddish bark
- branches on mature trees don't begin until about two-thirds of the way up the tree trunk
- crown of the Norway pine is cone-shaped and the glossy/dark green needles are soft and flexible

Fun Fact: The name Norway comes from early explorers who thought the tree was a pine they had seen back home in Norway. Perhaps because so many Norwegians live here, Minnesota is the only state that still uses the term Norway.





### White Cedar (*Thuja occidentalis*)

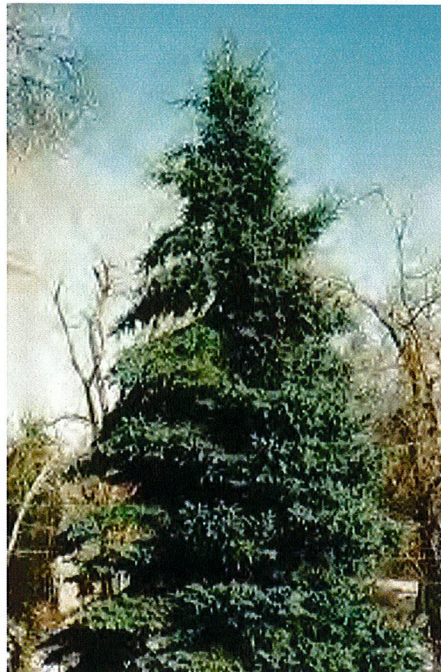
- small evergreen tree (average height 40') with fan-like branches
- leaves are flat and scale like; 3-5cm in length

Fun Facts: This species is threatened where white-tail deer populations are high, since deer commonly use cedars as a winter food source. Oils from this tree are found in organic medications used to eliminate warts.



### White Spruce (*Picea glauca*)

- large evergreen tree (average height: 40' to 60', occasionally 100')
- leaves are needlelike and sharply pointed, four-sided, crowded along branchlets; length 1/3" to 3/4"





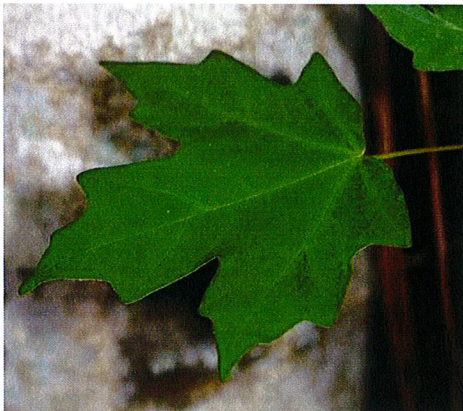
### Eastern Hemlock (*Tsuga Canadensis*)

- typically have a dense pyramidal crown whose lower branches often sweep the ground
- leaves are flat and green above with white, shallow, bands on the underside
- cones are among the smallest of the pine family; 1/2" to 3/4" long



### Sugar Maple (*Acer saccharum*)

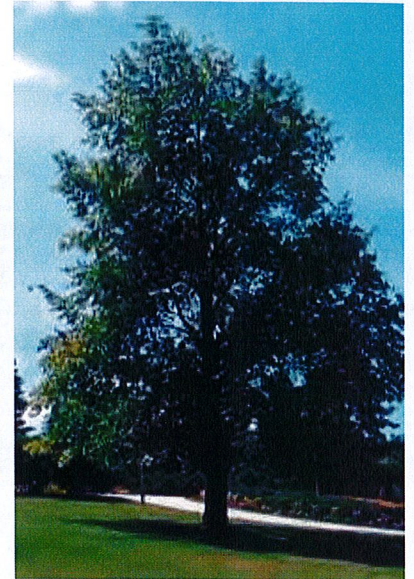
- deciduous tree normally reaching 82'–115' tall
- leaves are simple, opposite on stem, length 3" to 5"; three- to five-pointed, smooth-edged lobes; dark green on upper surface, lighter green below; in autumn turns to brilliant shades of dark red, scarlet, orange, or yellow
- seeds consists of two slightly connected wings (samaras), each containing one seed; length about 1"; easily carried by the wind
- principal source of maple syrup





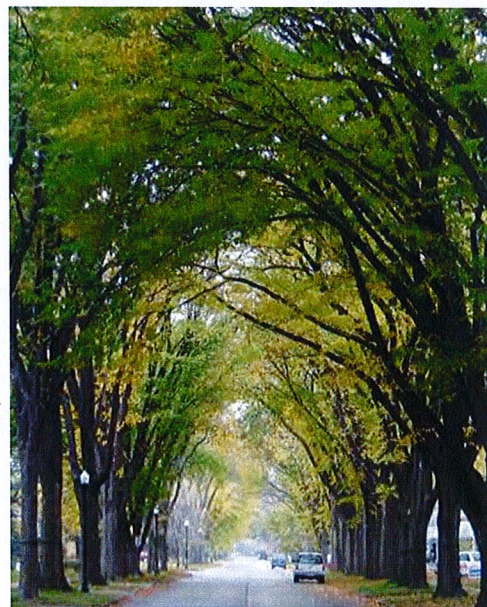
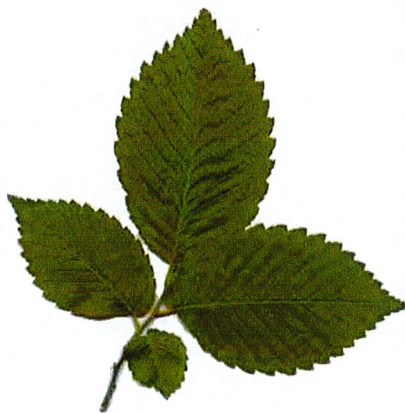
### American Basswood (*Tilia americana*)

- medium-sized to large [deciduous tree](#) reaching a height of 60' to 120'
- leaves are simple, alternate on stem, length 3" to 6", nearly as wide, heart-shaped, saw-toothed, sharp-pointed at tip; at maturity thick, shiny, green above, paler underneath, turns yellow to orange in autumn
- seeds are rounded, nutlike drupe covered with short, thick, brownish wool, attached in clusters to a leafy bract that later acts as a wing to carry seeds away on the wind; fruit often hangs on tree long into winter



### American Elm (*Ulmus Americana*)

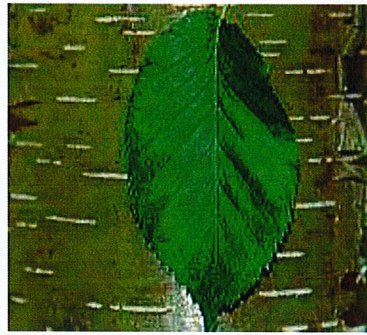
- a [deciduous tree](#) reaching heights of 100' tall
- crown forms a high, spreading canopy with open air space beneath
- [leaves](#) are alternate, 7–20 cm long, with double-serrate margins and an oblique base
- tree is [hermaphroditic](#), having [perfect flowers](#), (i.e. with both male and female parts) and is therefore capable of self-pollination
- wholly insensitive to daylight length ([photoperiod](#)), and will continue to grow well into autumn until injured by frost





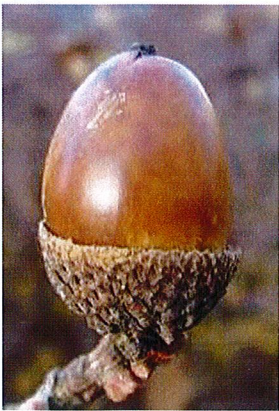
### Yellow Birch (*Betula alleghaniensis*)

- easily recognized by the yellowish-bronze exfoliating bark for which it is named; the bark is smooth, yellow-bronze, flaking in fine horizontal strips, and often with small black marks and scars
- medium-sized deciduous tree reaching 65' tall
- flowers are wind-pollinated catkins 1" to 2 1/2" long



### Oak Species (*genus Quercus*)

- spirally arranged leaves, with a lobed margin in many species; some have serrated leaves or entire leaves with a smooth margin
- flowers are catkins, produced in spring
- fruit is a nut called an acorn, borne in a cup-like structure known as a cupule; each acorn contains one seed (rarely two or three) and takes 6–18 months to mature, depending on species





| Tree Removal, Replacement, and Preservation Estimates |             |          |                    |                                                                       |                                                                   |
|-------------------------------------------------------|-------------|----------|--------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------|
| Special Trees greater than 20 inches DBH              |             |          |                    |                                                                       |                                                                   |
| Removal                                               |             |          | Replacement        |                                                                       |                                                                   |
| Tree Number                                           | Species     | Diameter | Replacement Ratio  | Total DBH needed<br>if replacing with<br>Special Trees Ratio<br>1:1.5 | Total DBH needed<br>if replacing with<br>other trees Ratio<br>1:1 |
| 35                                                    | Red Oak     | 21       |                    |                                                                       |                                                                   |
| 37                                                    | White Pine  | 22       |                    |                                                                       |                                                                   |
| 40                                                    | White Pine  | 28       |                    |                                                                       |                                                                   |
| 41                                                    | White Pine  | 22       |                    |                                                                       |                                                                   |
| 45                                                    | White Pine  | 21       |                    |                                                                       |                                                                   |
| 46                                                    | White Pine  | 26       |                    |                                                                       |                                                                   |
| 47                                                    | Red Oak     | 24       |                    |                                                                       |                                                                   |
| 224                                                   | White Pine  | 23       |                    |                                                                       |                                                                   |
| Sub-total DBH                                         |             | 187      | 50% of DBH Removed | 62                                                                    | 94                                                                |
| Special Trees 6-20 inches DBH                         |             |          |                    |                                                                       |                                                                   |
| Removal                                               |             |          | Replacement        |                                                                       |                                                                   |
| Tree Number                                           | Species     | Diameter |                    |                                                                       |                                                                   |
| 1                                                     | Sugar Maple | 13       |                    |                                                                       |                                                                   |
| 2                                                     | Sugar Maple | 12       |                    |                                                                       |                                                                   |
| 3                                                     | Sugar Maple | 13       |                    |                                                                       |                                                                   |
| 4                                                     | Sugar Maple | 13       |                    |                                                                       |                                                                   |
| 5                                                     | Sugar Maple | 11       |                    |                                                                       |                                                                   |
| 27                                                    | Basswood    | 9        |                    |                                                                       |                                                                   |
| 28                                                    | Basswood    | 6        |                    |                                                                       |                                                                   |
| 29                                                    | Basswood    | 7        |                    |                                                                       |                                                                   |
| 30                                                    | Basswood    | 13       |                    |                                                                       |                                                                   |
| 31                                                    | Basswood    | 12       |                    |                                                                       |                                                                   |
| 32                                                    | Basswood    | 7        |                    |                                                                       |                                                                   |
| 33                                                    | Sugar Maple | 6        |                    |                                                                       |                                                                   |
| 34                                                    | Sugar Maple | 9        |                    |                                                                       |                                                                   |
| 36                                                    | Sugar Maple | 19       |                    |                                                                       |                                                                   |
| 38                                                    | Red Oak     | 13       |                    |                                                                       |                                                                   |
| 42                                                    | White Pine  | 18       |                    |                                                                       |                                                                   |
| 43                                                    | White Pine  | 20       |                    |                                                                       |                                                                   |
| 210                                                   | Sugar Maple | 11       |                    |                                                                       |                                                                   |
| 216                                                   | Sugar Maple | 9        |                    |                                                                       |                                                                   |
| 217                                                   | Sugar Maple | 6        |                    |                                                                       |                                                                   |
| 225                                                   | Sugar Maple | 18       |                    |                                                                       |                                                                   |
| Sub-total DBH                                         |             | 245      | 25% of DBH Removed | 41                                                                    | 61                                                                |
| Significant Trees greater than 10 inches DBH          |             |          |                    |                                                                       |                                                                   |
| Removal                                               |             |          | Replacement        |                                                                       |                                                                   |
| Species                                               |             |          |                    |                                                                       |                                                                   |
| Quaking Aspen                                         |             |          |                    |                                                                       |                                                                   |
| Green Ash                                             |             |          |                    |                                                                       |                                                                   |



|                                                                                                                                    |                                 |                                                              |                                                          |                                                        |                                                     |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------|
| Paper Birch                                                                                                                        |                                 |                                                              |                                                          |                                                        |                                                     |
| Balsam Poplar                                                                                                                      |                                 |                                                              |                                                          |                                                        |                                                     |
| <b>Sub-total DBH</b>                                                                                                               |                                 | <b>6280</b>                                                  | 10% of DBH Removed                                       | <b>419</b>                                             | <b>628</b>                                          |
|                                                                                                                                    |                                 | <b>Inches removed</b>                                        |                                                          | <b>Replacement inches required using Special Trees</b> | <b>Replacment inches required using other trees</b> |
| <b>DBH TOTALS</b>                                                                                                                  |                                 | <b>6712</b>                                                  |                                                          | <b>522</b>                                             | <b>783</b>                                          |
| <b>Number of 2.5 Inch DBH Trees Required for Replacement</b>                                                                       |                                 |                                                              |                                                          | <b>209</b>                                             | <b>313</b>                                          |
| <b>Preservation Credits</b>                                                                                                        |                                 |                                                              |                                                          |                                                        |                                                     |
| The proposed preservation area is approximately 10.5 acres and contains approximately 2,069 trees with an average DBH of 11 inches |                                 |                                                              |                                                          |                                                        |                                                     |
|                                                                                                                                    |                                 |                                                              |                                                          |                                                        |                                                     |
| <b>Table 50-25-2 in Duluth UDC</b>                                                                                                 |                                 |                                                              |                                                          |                                                        |                                                     |
| <b>DBH of Preserved Tree</b>                                                                                                       | <b>Number of trees credited</b> | <b>Number of Trees in Westwood Heights Preservation Area</b> | <b>DBH Credits in Westwood Heights Preservation Area</b> | <b>DBH replacement required using Special Trees</b>    | <b>Surplus of DBH Credits</b>                       |
| Over 12                                                                                                                            | 3                               | 689                                                          | 5168                                                     |                                                        |                                                     |
| 8 to 11.9                                                                                                                          | 2                               | 690                                                          | 3450                                                     |                                                        |                                                     |
| 5 to 7.9                                                                                                                           | 1                               | 690                                                          | 1725                                                     |                                                        |                                                     |
| <b>Total Preservation</b>                                                                                                          |                                 | <b>2069</b>                                                  | <b>10343</b>                                             | <b>522</b>                                             | <b>9821</b>                                         |



Special Tree List  
Grand Avenue Estates

| Tree Number | Species     | Diameter | Tree Number | Species     | Diameter |
|-------------|-------------|----------|-------------|-------------|----------|
| 1           | sugar maple | 13       | 47          | red oak     | 24       |
| 2           | sugar maple | 12       | 48          | sugar maple | 8        |
| 3           | sugar maple | 13       | 49          | sugar maple | 6        |
| 4           | sugar maple | 13       | 50          | sugar maple | 12       |
| 5           | sugar maple | 11       | 51          | white pine  | 23       |
| 6           | sugar maple | 14       | 52          | white pine  | 25       |
| 7           | red oak     | 13       | 53          | white pine  | 17       |
| 8           | red oak     | 11       | 54          | white pine  | 24       |
| 9           | sugar maple | 12       | 55          | basswood    | 16       |
| 10          | sugar maple | 18       | 56          | basswood    | 17       |
| 11          | sugar maple | 12       | 57          | sugar maple | 14       |
| 12          | white pine  | 23       | 58          | sugar maple | 12       |
| 13          | sugar maple | 16       | 59          | white pine  | 6        |
| 14          | white pine  | 21       | 60          | white pine  | 6        |
| 15          | sugar maple | 11       | 61          | sugar maple | 7        |
| 16          | white pine  | 25       | 62          | sugar maple | 19       |
| 17          | white pine  | 19       | 63          | sugar maple | 12       |
| 18          | white pine  | 17       | 64          | sugar maple | 11       |
| 19          | white pine  | 22       | 65          | sugar maple | 12       |
| 20          | white pine  | 12       | 66          | sugar maple | 18       |
| 21          | white pine  | 18       | 67          | sugar maple | 13       |
| 22          | white pine  | 21       | 68          | white pine  | 26       |
| 23          | white pine  | 22       | 69          | white pine  | 25       |
| 24          | sugar maple | 13       | 70          | sugar maple | 16       |
| 25          | sugar maple | 15       | 71          | sugar maple | 10       |
| 26          | sugar maple | 13       | 72          | sugar maple | 13       |
| 27          | basswood    | 9        | 73          | sugar maple | 11       |
| 28          | basswood    | 6        | 74          | sugar maple | 13       |
| 29          | basswood    | 7        | 75          | sugar maple | 13       |
| 30          | basswood    | 13       | 76          | white pine  | 18       |
| 31          | basswood    | 12       | 77          | sugar maple | 11       |
| 32          | basswood    | 7        | 78          | white pine  | 18       |
| 33          | sugar maple | 6        | 79          | white pine  | 21       |
| 34          | sugar maple | 9        | 80          | white pine  | 22       |
| 35          | red oak     | 21       | 81          | white pine  | 23       |
| 36          | sugar maple | 19       | 82          | sugar maple | 9        |
| 37          | white pine  | 22       | 83          | sugar maple | 14       |
| 38          | red oak     | 13       | 84          | sugar maple | 13       |
| 39          | white pine  | 23       | 85          | white pine  | 27       |
| 40          | white pine  | 28       | 86          | white pine  | 12       |
| 41          | white pine  | 22       | 87          | white pine  | 19       |
| 42          | white pine  | 18       | 88          | white pine  | 21       |
| 43          | white pine  | 20       | 89          | white pine  | 22       |
| 44          | white pine  | 23       | 90          | white pine  | 11       |
| 45          | white pine  | 21       | 91          | white pine  | 29       |
| 46          | white pine  | 26       | 92          | white pine  | 24       |



Special Tree List  
Grand Avenue Estates

| Tree Number | Species     | Diameter | Tree Number | Species     | Diameter |
|-------------|-------------|----------|-------------|-------------|----------|
| 93          | white pine  | 13       | 139         | sugar maple | 8        |
| 94          | sugar maple | 11       | 140         | basswood    | 15       |
| 95          | white pine  | 22       | 142         | sugar maple | 6        |
| 96          | sugar maple | 9        | 143         | sugar maple | 12       |
| 97          | sugar maple | 9        | 144         | sugar maple | 14       |
| 98          | sugar maple | 12       | 145         | sugar maple | 7        |
| 99          | sugar maple | 8        | 146         | sugar maple | 12       |
| 100         | sugar maple | 13       | 147         | sugar maple | 9        |
| 101         | sugar maple | 13       | 148         | white pine  | 24       |
| 102         | sugar maple | 10       | 149         | red oak     | 10       |
| 103         | sugar maple | 9        | 150         | white pine  | 16       |
| 104         | sugar maple | 8        | 151         | white pine  | 28       |
| 105         | sugar maple | 11       | 152         | white pine  | 16       |
| 106         | sugar maple | 12       | 153         | white pine  | 19       |
| 107         | sugar maple | 7        | 154         | white pine  | 19       |
| 108         | sugar maple | 7        | 155         | white pine  | 24       |
| 109         | sugar maple | 9        | 156         | white pine  | 6        |
| 110         | sugar maple | 17       | 157         | red oak     | 7        |
| 111         | sugar maple | 9        | 158         | red oak     | 8        |
| 112         | red oak     | 10       | 159         | red oak     | 8        |
| 113         | sugar maple | 6        | 160         | white pine  | 25       |
| 114         | sugar maple | 6        | 161         | white pine  | 18       |
| 115         | white pine  | 17       | 162         | white pine  | 15       |
| 116         | sugar maple | 7        | 163         | sugar maple | 12       |
| 117         | sugar maple | 12       | 164         | sugar maple | 6        |
| 118         | white pine  | 6        | 165         | white pine  | 22       |
| 119         | white pine  | 8        | 166         | red oak     | 22       |
| 120         | white pine  | 11       | 167         | sugar maple | 11       |
| 121         | sugar maple | 10       | 168         | red oak     | 6        |
| 122         | sugar maple | 12       | 169         | white pine  | 20       |
| 123         | sugar maple | 10       | 170         | white pine  | 23       |
| 124         | sugar maple | 9        | 171         | red oak     | 9        |
| 125         | sugar maple | 8        | 172         | sugar maple | 9        |
| 126         | sugar maple | 6        | 173         | sugar maple | 14       |
| 127         | sugar maple | 10       | 174         | red oak     | 14       |
| 128         | sugar maple | 10       | 175         | red oak     | 13       |
| 129         | white pine  | 16       | 176         | white pine  | 9        |
| 130         | sugar maple | 13       | 177         | red oak     | 14       |
| 131         | red oak     | 12       | 178         | white pine  | 9        |
| 132         | red oak     | 9        | 179         | red oak     | 9        |
| 133         | sugar maple | 12       | 180         | red oak     | 10       |
| 134         | white pine  | 16       | 181         | sugar maple | 11       |
| 135         | white pine  | 11       | 182         | sugar maple | 10       |
| 136         | sugar maple | 8        | 183         | sugar maple | 11       |
| 137         | white pine  | 17       | 184         | white pine  | 13       |
| 138         | sugar maple | 13       | 185         | white pine  | 8        |



Special Tree List  
Grand Avenue Estates

| Tree Number | Species      | Diameter | Tree Number | Species      | Diameter |
|-------------|--------------|----------|-------------|--------------|----------|
| 186         | white pine   | 7        | 233         | sugar maple  | 8        |
| 187         | white pine   | 6        | 234         | sugar maple  | 15       |
| 188         | white pine   | 9        | 235         | sugar maple  | 14       |
| 189         | white pine   | 6        | 236         | sugar maple  | 11       |
| 190         | white pine   | 7        | 237         | sugar maple  | 11       |
| 191         | white pine   | 10       | 238         | basswood     | 9        |
| 192         | white pine   | 6        | 239         | basswood     | 8        |
| 193         | white pine   | 27       | 240         | basswood     | 9        |
| 194         | white pine   | 25       | 241         | sugar maple  | 11       |
| 195         | white pine   | 25       | 242         | sugar maple  | 12       |
| 196         | white pine   | 20       | 243         | sugar maple  | 8        |
| 197         | white pine   | 13       | 244         | basswood     | 10       |
| 198         | yellow birch | 11       | 245         | sugar maple  | 6        |
| 200         | white pine   | 13       | 246         | sugar maple  | 8        |
| 201         | white pine   | 22       | 247         | sugar maple  | 9        |
| 202         | white pine   | 22       | 248         | sugar maple  | 10       |
| 203         | basswood     | 13       | 249         | sugar maple  | 10       |
| 204         | white pine   | 19       | 250         | sugar maple  | 10       |
| 205         | sugar maple  | 10       | 251         | yellow birch | 9        |
| 206         | sugar maple  | 9        | 252         | basswood     | 10       |
| 207         | white pine   | 23       | 253         | basswood     | 14       |
| 208         | white pine   | 26       | 254         | basswood     | 11       |
| 209         | white pine   | 20       | 255         | basswood     | 13       |
| 210         | sugar maple  | 11       | 256         | basswood     | 14       |
| 211         | sugar maple  | 6        | 257         | basswood     | 6        |
| 212         | white pine   | 23       | 258         | sugar maple  | 10       |
| 213         | basswood     | 10       | 259         | sugar maple  | 8        |
| 214         | basswood     | 10       | 260         | basswood     | 11       |
| 215         | sugar maple  | 8        | 261         | basswood     | 14       |
| 216         | sugar maple  | 9        | 262         | basswood     | 8        |
| 217         | sugar maple  | 6        | 263         | basswood     | 7        |
| 218         | sugar maple  | 12       | 264         | basswood     | 12       |
| 219         | sugar maple  | 18       | 265         | basswood     | 6        |
| 220         | sugar maple  | 21       | 266         | basswood     | 6        |
| 221         | white pine   | 28       | 267         | basswood     | 8        |
| 222         | white pine   | 21       | 268         | basswood     | 8        |
| 223         | sugar maple  | 9        | 269         | basswood     | 8        |
| 224         | white pine   | 23       | 270         | basswood     | 10       |
| 225         | sugar maple  | 18       | 271         | basswood     | 10       |
| 226         | sugar maple  | 11       | 272         | basswood     | 6        |
| 227         | sugar maple  | 7        | 273         | basswood     | 8        |
| 228         | yellow birch | 6        | 274         | sugar maple  | 8        |
| 229         | sugar maple  | 9        | 275         | sugar maple  | 14       |
| 230         | sugar maple  | 14       | 276         | sugar maple  | 12       |
| 231         | sugar maple  | 13       | 277         | sugar maple  | 6        |
| 232         | sugar maple  | 8        | 278         | basswood     | 8        |



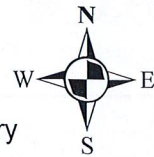
Special Tree List  
Grand Avenue Estates

| Tree Number | Species     | Diameter |  |  |  |
|-------------|-------------|----------|--|--|--|
| 279         | basswood    | 11       |  |  |  |
| 280         | basswood    | 14       |  |  |  |
| 281         | basswood    | 18       |  |  |  |
| 282         | basswood    | 12       |  |  |  |
| 283         | basswood    | 6        |  |  |  |
| 284         | basswood    | 10       |  |  |  |
| 285         | basswood    | 9        |  |  |  |
| 286         | basswood    | 7        |  |  |  |
| 287         | sugar maple | 13       |  |  |  |
| 288         | sugar maple | 8        |  |  |  |



## Legend

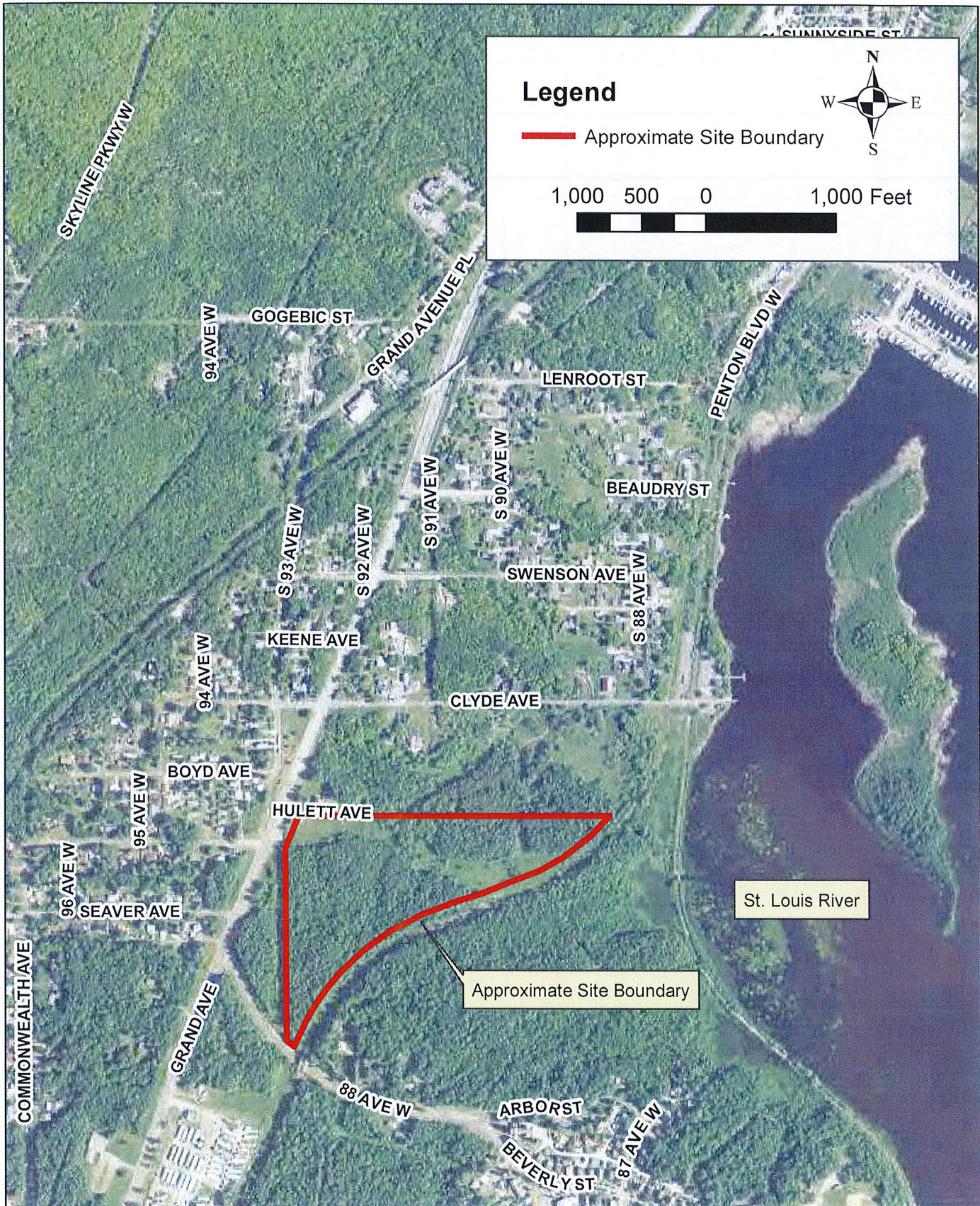
 Approximate Site Boundary



1,000 500 0 1,000 Feet



Path: S:\KOKKUEPC\1290203-env-stud-reg\GIS\Fig-1\_Site Location.mxd



418 W SUPERIOR ST, SUITE 200  
DULUTH, MN 55802  
PHONE: (218) 279-3000  
FAX: (888) 908-8166  
TF: (800) 325-2055  
www.sehinc.com

Project: KUEPC 129020  
Print Date: 8/20/2014

Map by: nwhite  
Projection: UTM 15N, NAD 83  
Source: 2013 NAIP,  
SEH, MNDNR

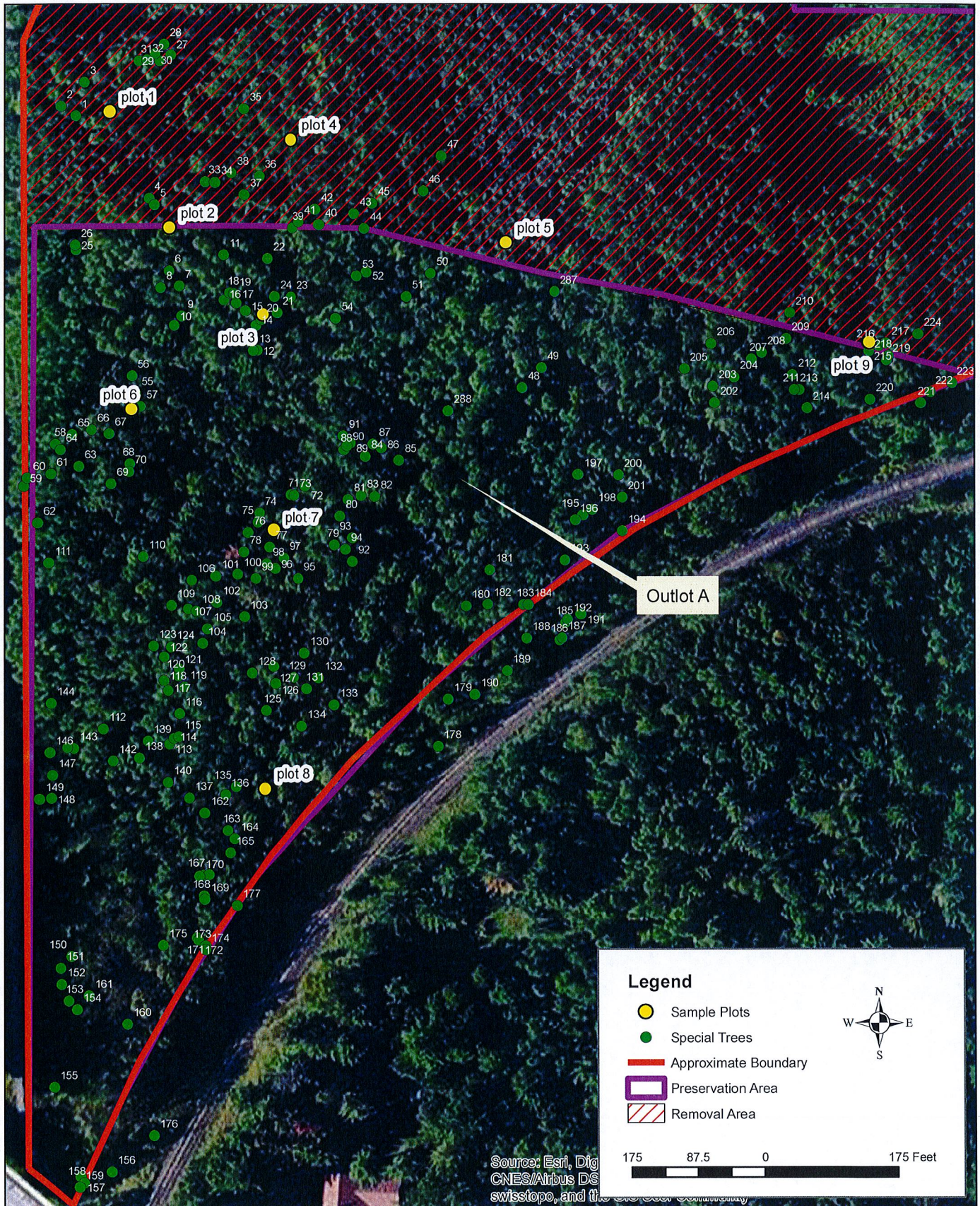
**SITE LOCATION MAP**  
**GRAND AVENUE ESTATES**  
Duluth, MN

Figure  
1

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.



Path: S:\KOKKUEPC\1260203-env-stud-reg\GIS\Tree\_Survey\_Results\_Figure\_2a.mxd



418 W SUPERIOR ST, SUITE 200  
DULUTH, MN 55802  
PHONE: (218) 279-3000  
FAX: (888) 908-8166  
TF: (800) 325-2055  
www.sehinc.com

Project: KUEPC 129020  
Print Date: 5/19/2015  
Map by: lambruster  
Projection: UTM 15N, NAD 83  
Source: NAIP, SEH

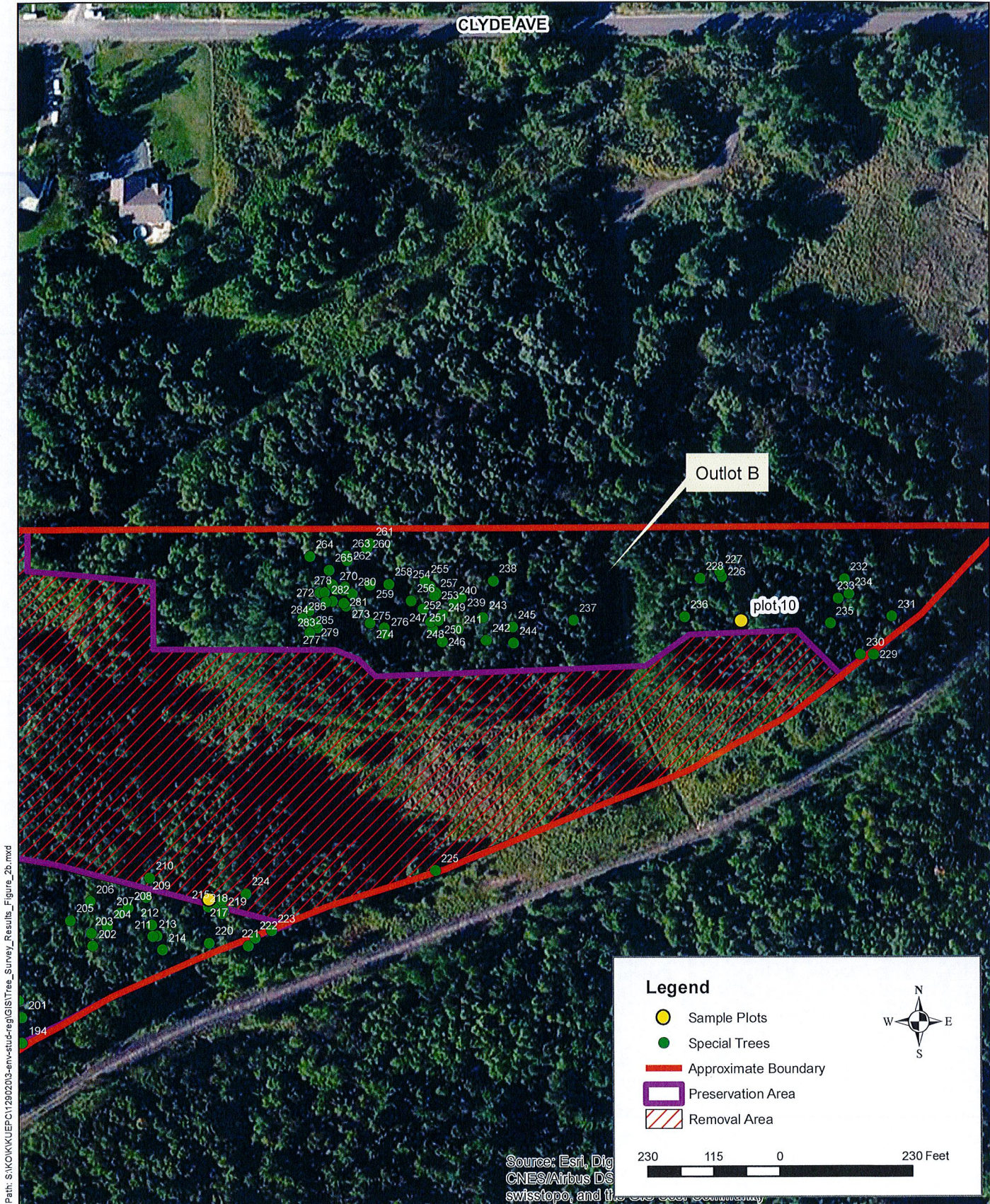
## Tree Survey Results

Grand Avenue Estates  
9400 Grand Ave, Duluth, MN

Figure  
2a

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.





Path: S:\KOVKUEPC1290203-env-stud-reg-GIS\Tree\_Survey\_Results\_Figure\_2b.mxd



418 W SUPERIOR ST, SUITE 200  
DULUTH, MN 55802  
PHONE: (218) 279-3000  
FAX: (888) 908-8166  
TF: (800) 325-2055  
www.sehinc.com

Project: KUEPC 129020  
Print Date: 5/19/2015  
Map by: tambruster  
Projection: UTM 15N, NAD 83  
Source: NAIP, SEH

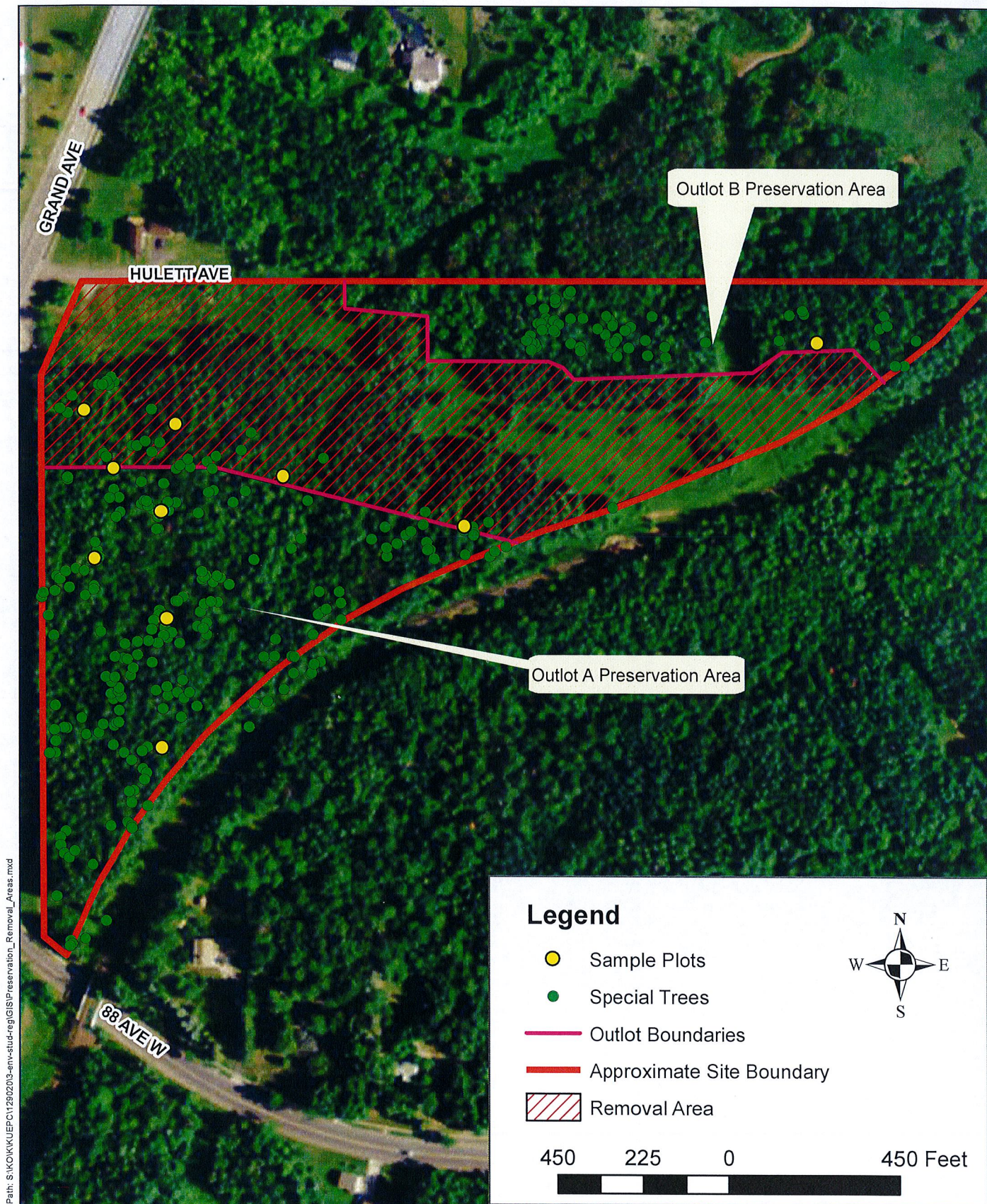
## Tree Survey Results

Grand Avenue Estates  
9400 Grand Ave, Duluth, MN

Figure 2b

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.





418 W SUPERIOR ST, SUITE 200  
DULUTH, MN 55802  
PHONE: (218) 279-3000  
FAX: (888) 908-8166  
TF: (800) 325-2055  
www.sehinc.com

Project: KUEPC 129020  
Print Date: 5/12/2015  
Map by: tambruster  
Projection: UTM 15N, NAD 83  
Source: NAIP, SEH

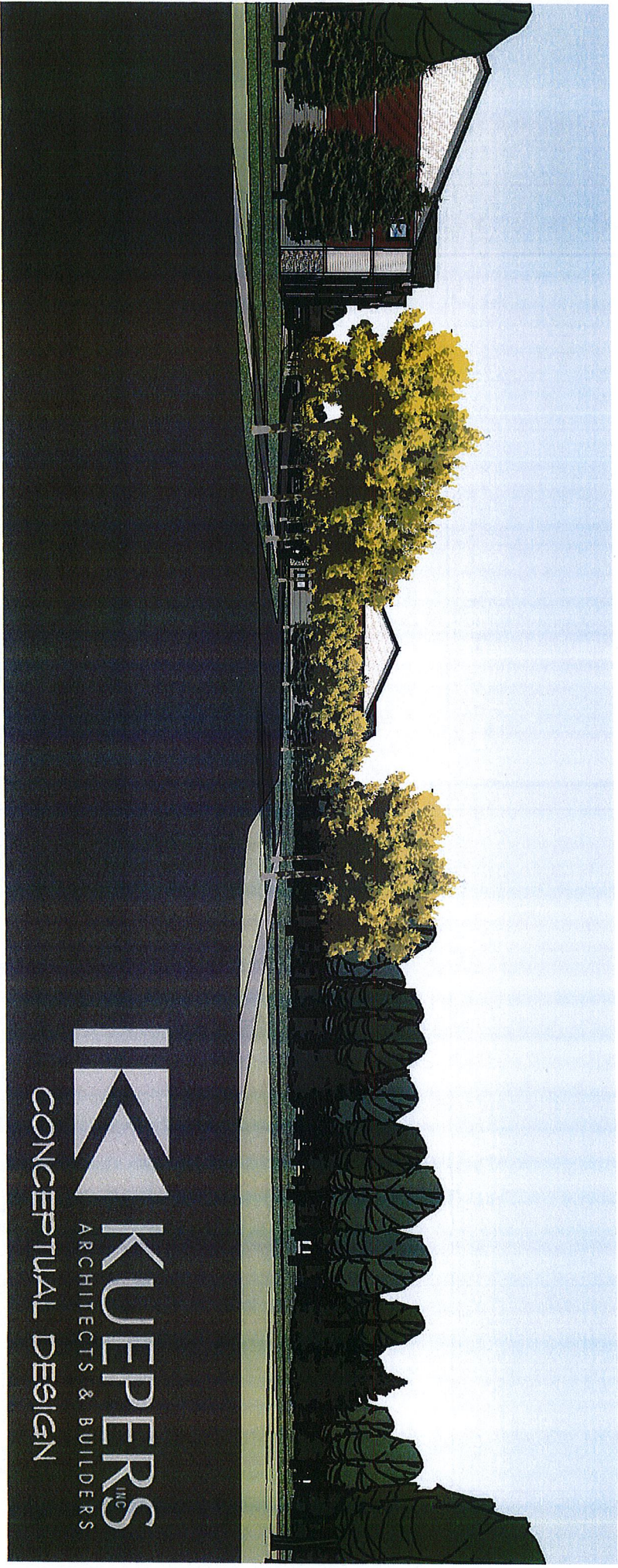
### Removal & Preservation Areas

GRAND AVENUE ESTATES  
9400 Grand Ave, Duluth, MN

Figure  
3

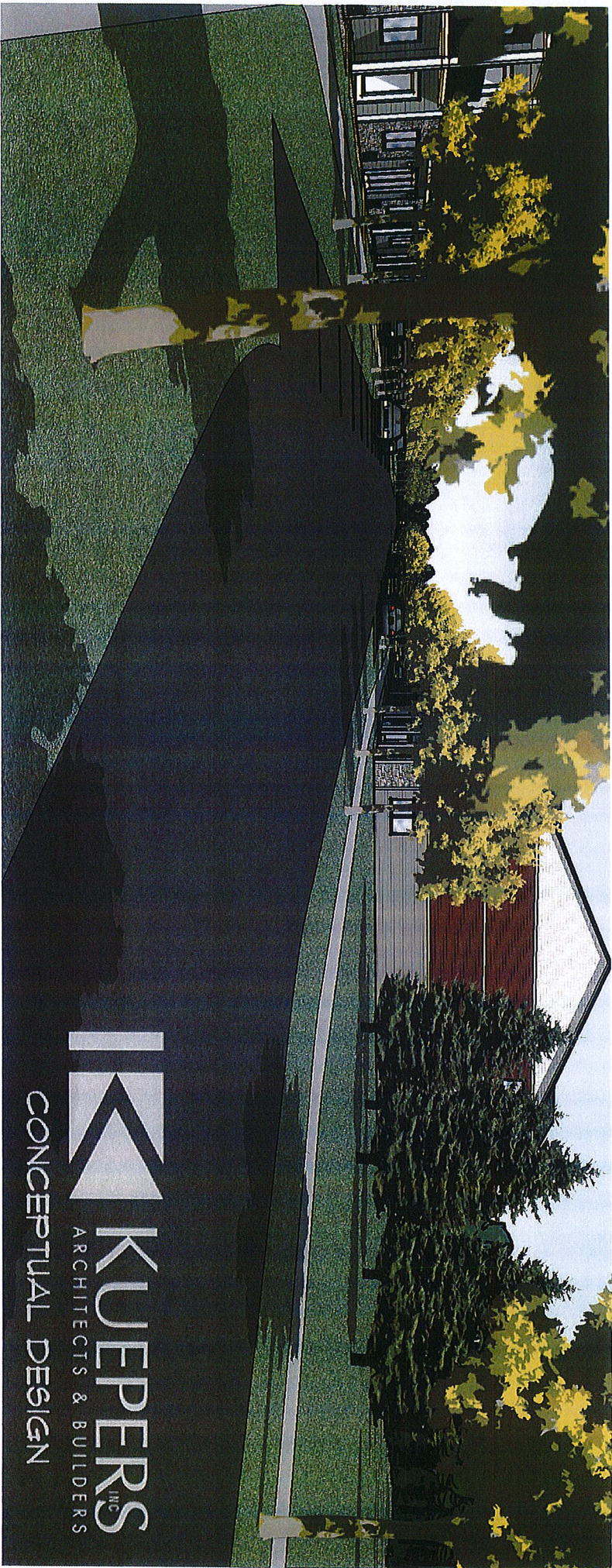
This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.





 **KUIPERS**<sup>INC</sup>  
ARCHITECTS & BUILDERS  
CONCEPTUAL DESIGN





**KUIPERS**  
ARCHITECTS & BUILDERS  
CONCEPTUAL DESIGN





**KOEPEPERS**<sup>INC</sup>  
ARCHITECTS & BUILDERS

CONCEPTUAL DESIGN

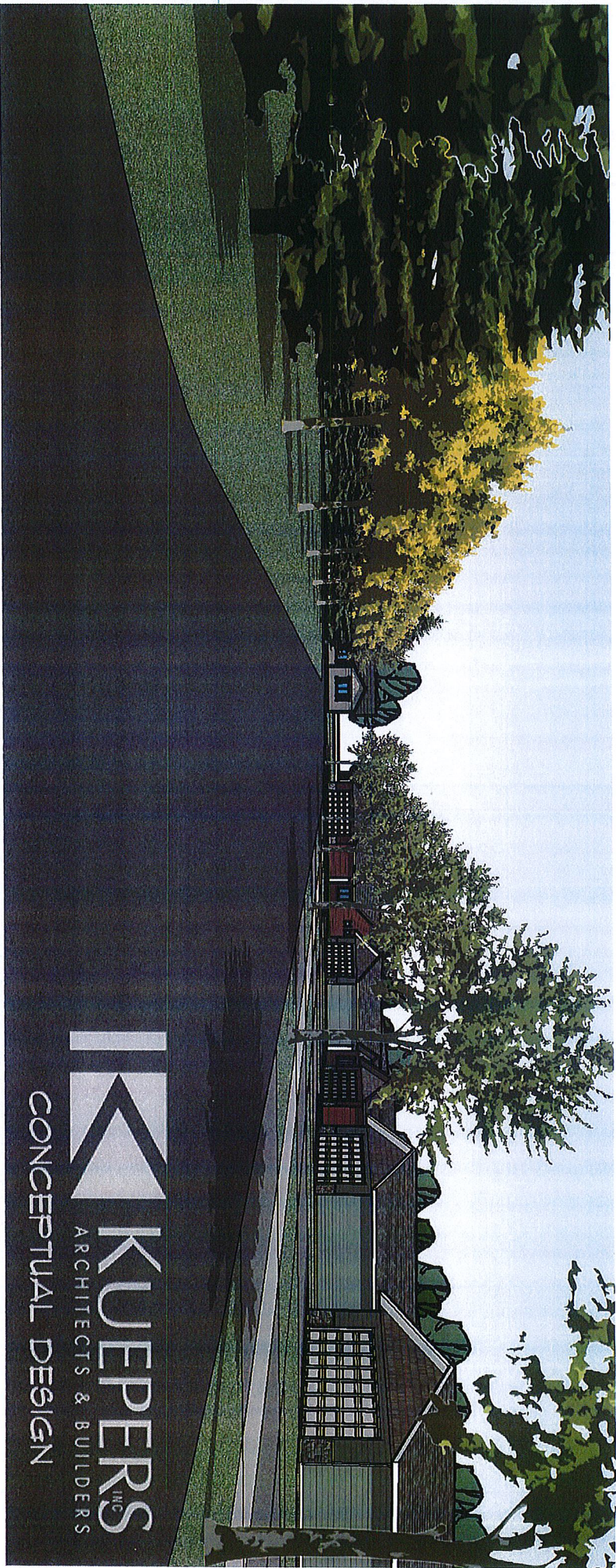




KUIPERS<sup>INC</sup>  
ARCHITECTS & BUILDERS

CONCEPTUAL DESIGN

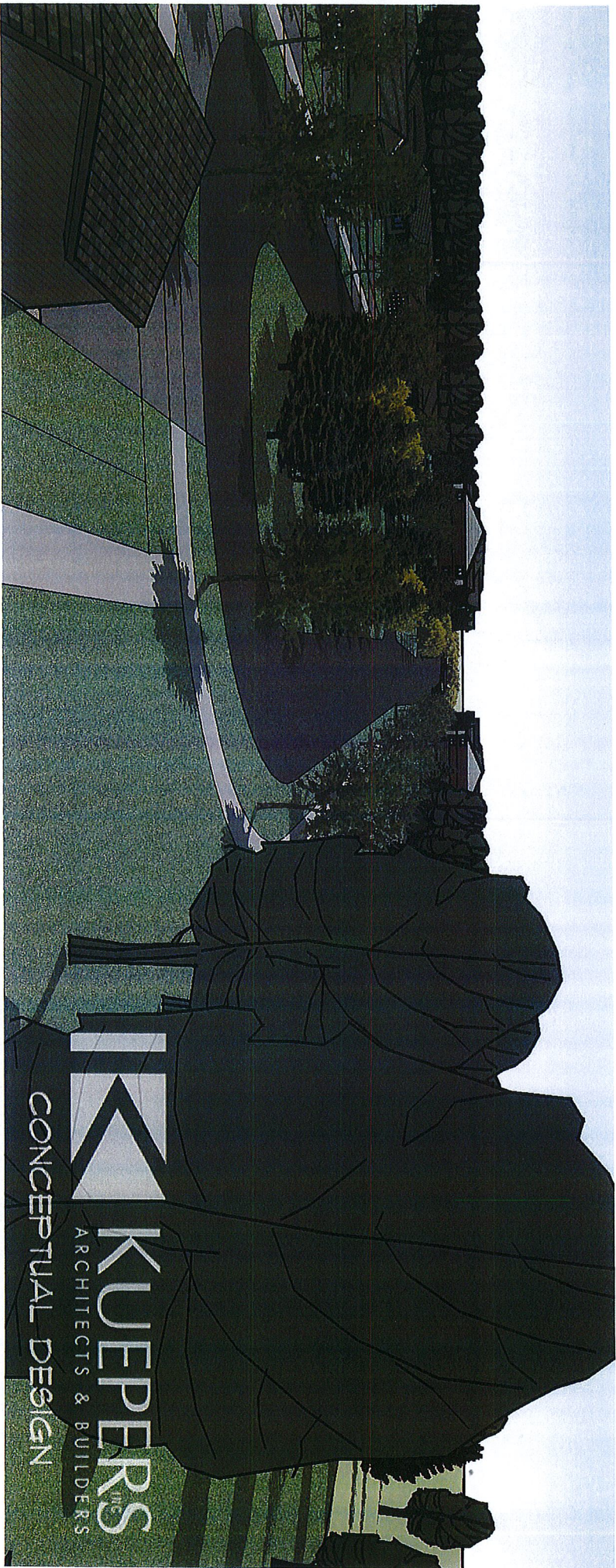




KUEPERS  
ARCHITECTS & BUILDERS

CONCEPTUAL DESIGN









**KUIPERS**  
ARCHITECTS & BUILDERS  
CONCEPTUAL DESIGN



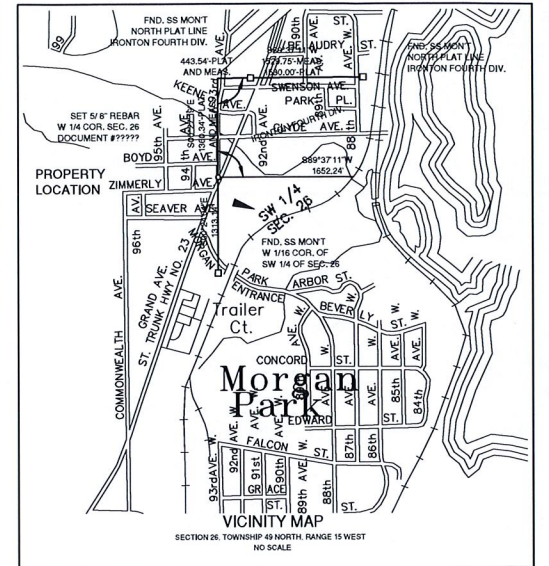
# CONCEPT PLAN

LOCATED IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER AND GOVERNMENT LOT 4 IN SECTION 26,  
TOWNSHIP 49 NORTH, RANGE 15 WEST  
ST. LOUIS COUNTY, MINNESOTA

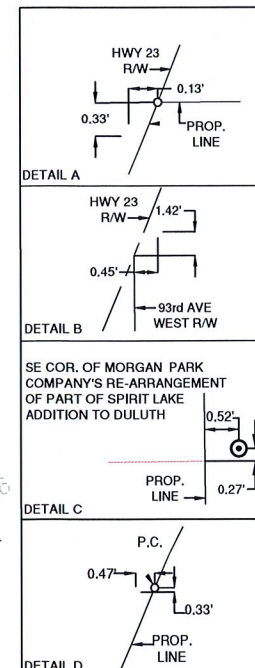


100 0 100 200  
scale 50 feet

| LEGEND |                                         |
|--------|-----------------------------------------|
|        | - Sandstone monument found.             |
|        | - 1 1/2" Pipe found.                    |
|        | - 5/8" Rebar set RLS No. 15294.         |
|        | - Iron spike found.                     |
|        | - T-Bar iron found RLS No. 13794.       |
|        | - Aluminum capped monument found (R/W). |
|        | - Sanitary manhole.                     |

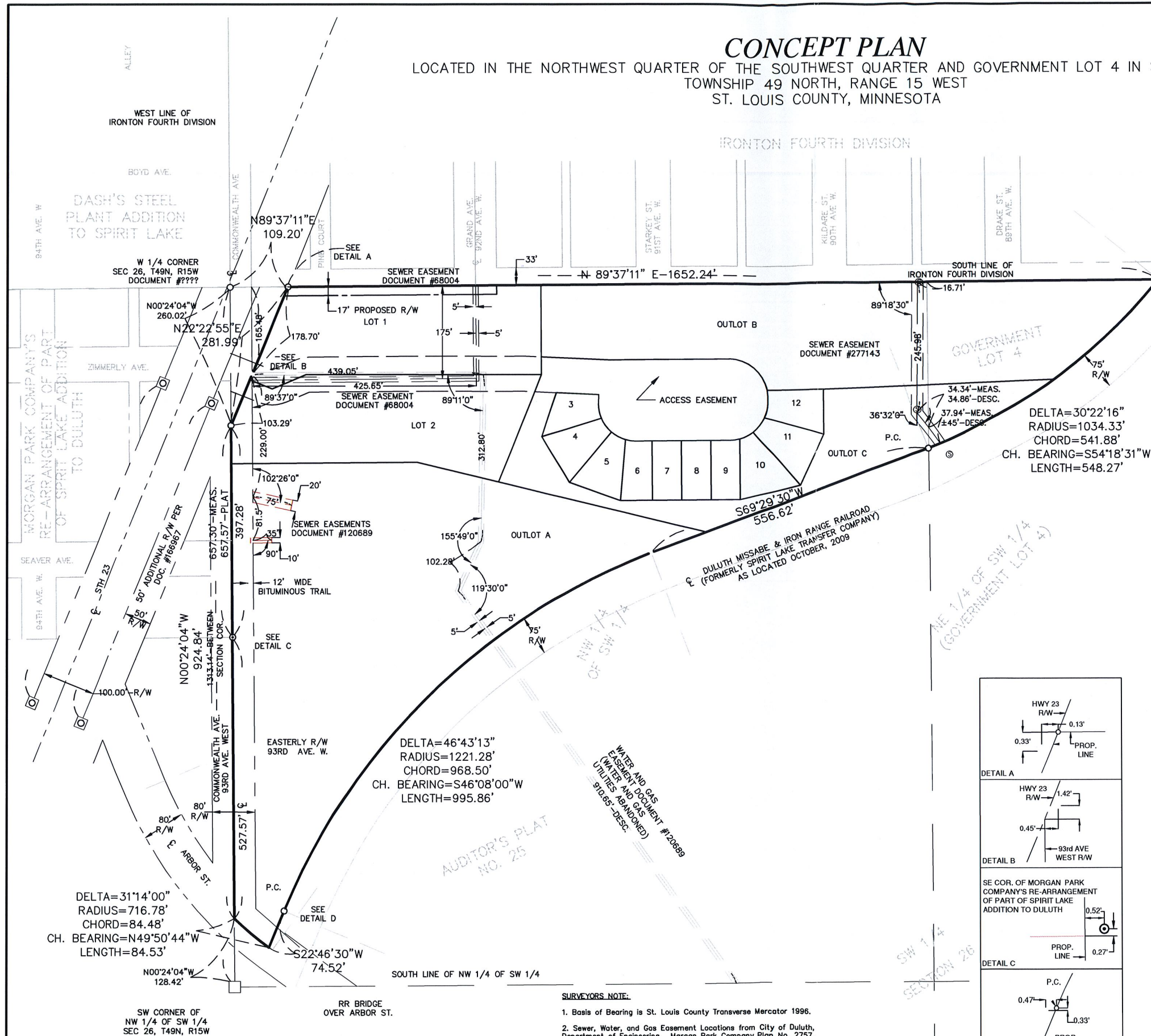


| LOT      | LOT SIZE (ACRES) | STREET FRONTAGE (FEET) |
|----------|------------------|------------------------|
| OUTLOT A | 8.1              | N/A                    |
| OUTLOT B | 4.3              | N/A                    |
| OUTLOT C | 3.0              | N/A                    |
| 1        | 2.0              | 512                    |
| 2        | 2.1              | 561                    |
| 3        | 0.1              | 125                    |
| 4        | 0.2              | 33                     |
| 5        | 0.2              | 30                     |
| 6        | 0.1              | 52                     |
| 7        | 0.1              | 55                     |
| 8        | 0.1              | 55                     |
| 9        | 0.1              | 55                     |
| 10       | 0.2              | 28                     |
| 11       | 0.2              | 35                     |
| 12       | 0.2              | 53                     |



## SURVEYORS NOTE:

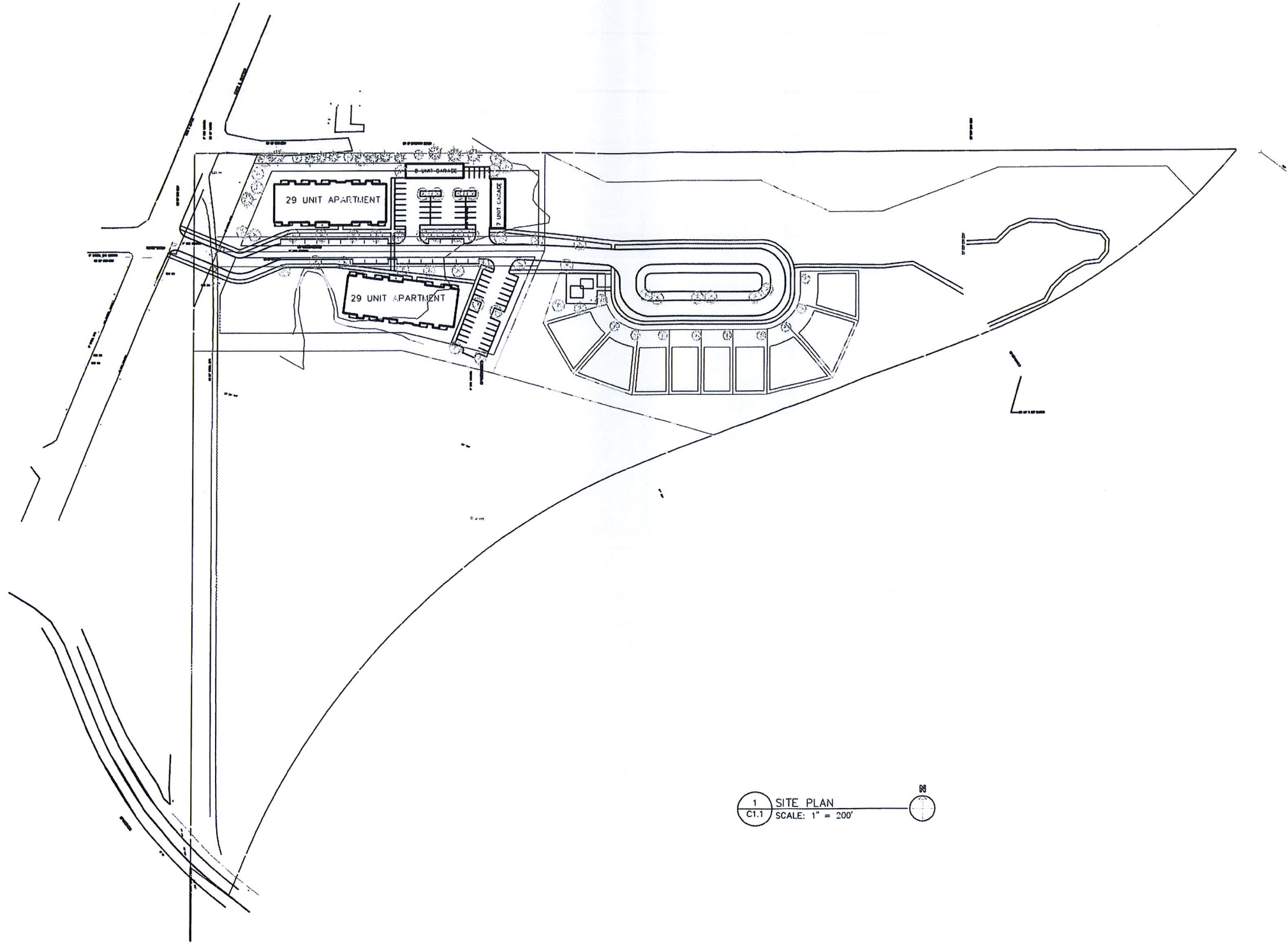
1. Basis of Bearing is St. Louis County Transverse Mercator 1996.
2. Sewer, Water, and Gas Easement Locations from City of Duluth, Department of Engineering, Morgan Park Company Plan No. 2757, Easement Sheet No. 7, Tracing No. 28-A, Dated Jan. 6, 1933.
3. Arbor Street Centerline Established by Using MN/DOT Right of Way Map S.P. 6910 (T.H. 23=185)
4. The Easement Dimensions Along the Easterly Right of Way of 93rd Ave. W. are to the Centerline of Easement.
5. The City of Duluth Has No Record of 93rd Avenue West Being Abandoned or Vacated.



PHONE: 218.279.3000  
418 W SUPERIOR ST STE 200  
DULUTH, MN 55802-1512  
www.sehinc.com

FILE NO.  
KEUPC-129020





1 SITE PLAN  
C1.1 SCALE: 1" = 200'

|        |            |
|--------|------------|
| JOB    | XX-XX-XXXX |
| DRAWN  | CHECKED    |
| MYC    | MYC        |
| DATE   | SCALE      |
| 3-5-15 | AS SHOWN   |

C1.1

DWG. #

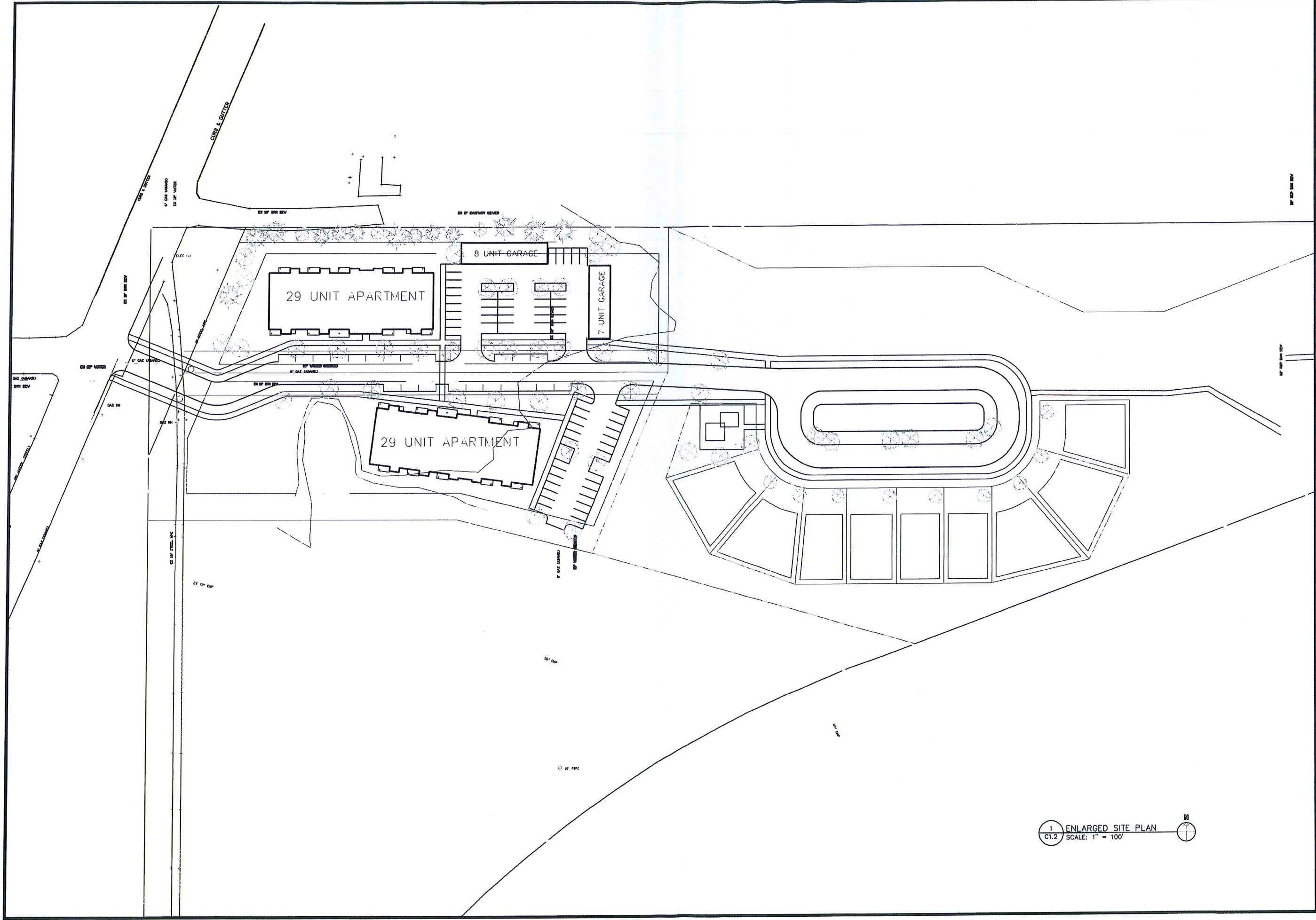


GRAND AVE ESTATES  
GRAND AVE  
DULUTH, MN  
copyright kuepers, 2014

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 Architect under the laws of the State of MN.  
Name: \_\_\_\_\_  
Signed: \_\_\_\_\_  
Date: \_\_\_\_\_ License # \_\_\_\_\_

| REVISIONS | DATE |
|-----------|------|
|           |      |
|           |      |
|           |      |
|           |      |
|           |      |





1 ENLARGED SITE PLAN  
C1.2 SCALE: 1" = 100'



| REVISIONS |  | DATE |
|-----------|--|------|
|           |  |      |
|           |  |      |
|           |  |      |
|           |  |      |

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 Architect under the laws of the State of MN.  
Name: \_\_\_\_\_ Signed: \_\_\_\_\_ License #: \_\_\_\_\_  
Date: \_\_\_\_\_

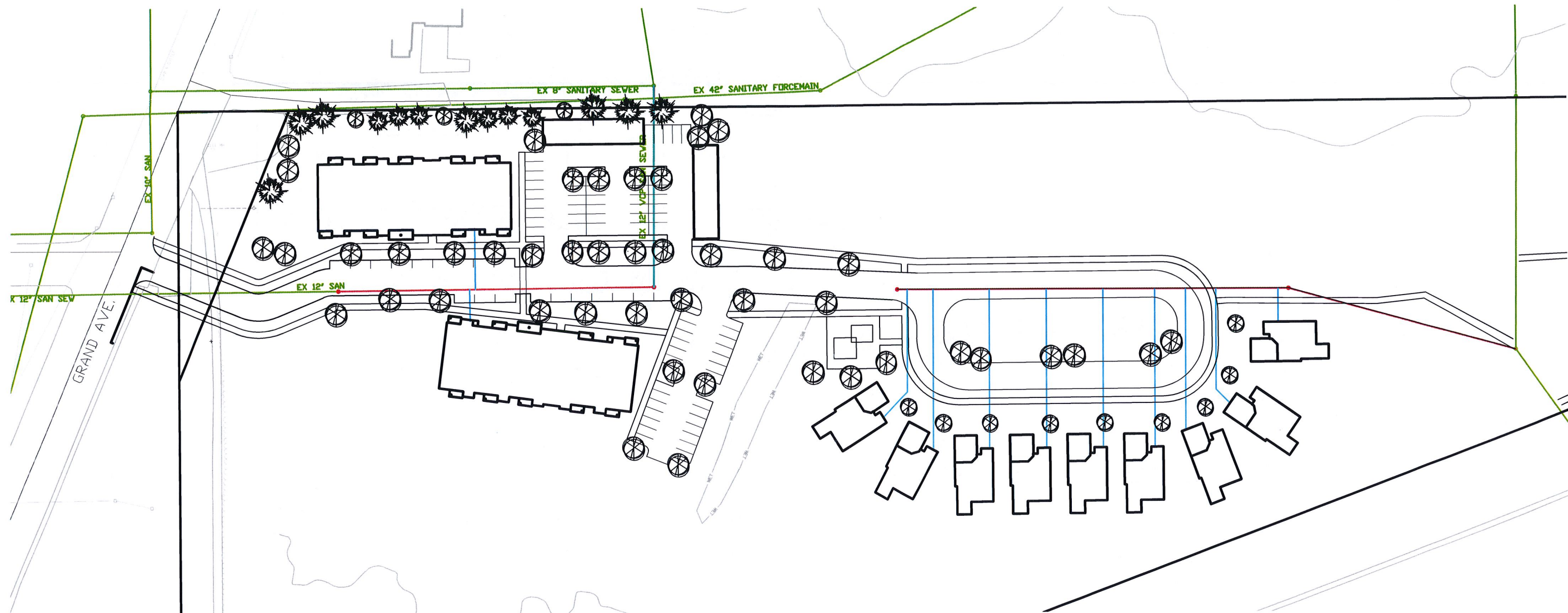
GRAND AVE ESTATES  
GRAND AVE  
DULUTH, MN  
copyright kuepers, 2014

**KUEPERS** INC.  
ARCHITECTS & BUILDERS  
BRainerd/BAXTER, MN 218-829-0707

|                |                |
|----------------|----------------|
| JOB XX-XX-XXXX |                |
| DRAWN MYC      | CHECKED MYC    |
| DATE 3-5-15    | SCALE AS SHOWN |

C1.2  
DWG. #

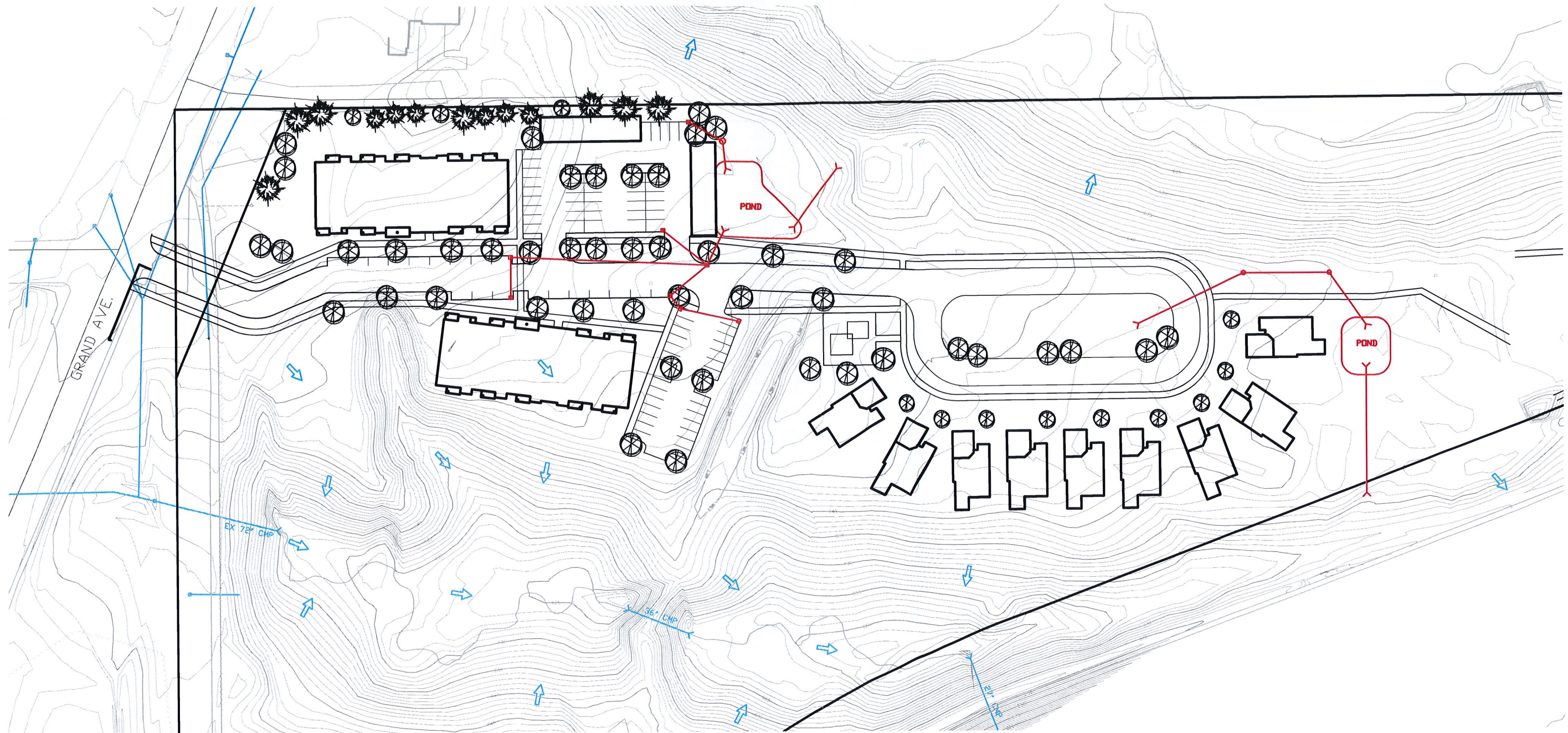




# LEGEND

- EXISTING PUBLIC SEWER
- PROPOSED PRIVATE SERVICE
- PROPOSED SEWER MAIN
- LINE EXISTING 12" VCP PUBLIC SEWER





# LEGEND

- EXISTING PUBLIC STORM SEWER
- PROPOSED PRIVATE STORM SYSTEM
- ⇒ EXISTING DRAINAGE FLOW DIRECTION



PHONE: 218.279.3000  
418 W SUPERIOR ST STE 200  
DULUTH, MN 55802-1512

FILE NO.  
KUEPC 129020  
DATE:

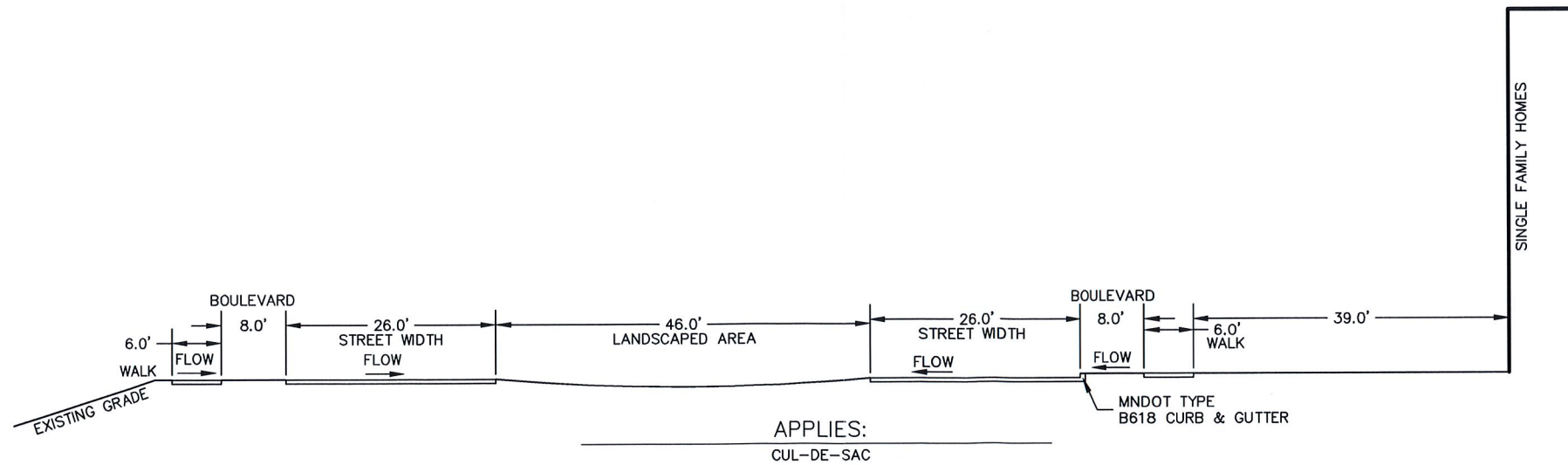
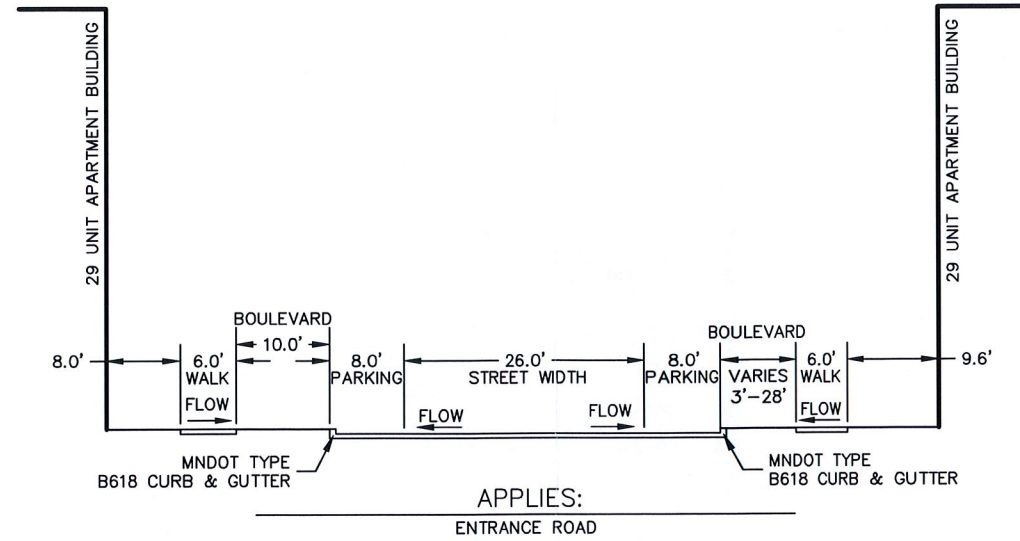
STORM SEWER  
WESTWOOD HEIGHTS  
DULUTH, MINNESOTA

EXHIBIT  
NO. 4



# TYPICAL ROADWAY SECTION

NO SCALE



PHONE: 218.279.3000  
418 W SUPERIOR ST STE 200  
DULUTH, MN 55802-1512  
www.sehinc.com

FILE NO.  
KUEPC 129020  
DATE:  
11/03/2014

TYPICAL SECTION  
WESTWOOD HEIGHTS  
DULUTH, MINNESOTA

EXHIBIT  
NO. 5