City of Lino Lakes
Environmental Board Meeting
September 24, 2014
6:30 p.m.

AGENDA

1. Call to Order
2. Approval of Minutes: July 30, 2014
3. Approval of Agenda
4. Open Mike
5. Action Items

   A. White Pine Senior Living/Rezone to PUD/Preliminary Plat Review

   B. Matttamy Homes/Watermark
6. Discussion/Information Items

   A Blue Heron Days

   B Project Updates

   C. Recycling Assistant K.C. Kye - Recycling Updates, Progress Rep
7. Adjourn

CITY OF LINO LAKES
ENVIRONMENTAL BOARD MINUTES

DATE	**:**	**July 30, 2014**
TIME STARTED	**:**	**6:34 P.M.**
TIME ENDED	**:**	**7:48 P.M.**
MEMBERS PRESENT	**:**	**Barbra Bor, Paula Andrzejewski, Steve Heiskary, Nancie Klebba**
MEMBERS ABSENT	**:**	**Martha DeHaven, Kelly Jo McDonnell**
STAFF PRESENT	**:**	**Marty Asleson, K.C. Kye**

1. CALL TO ORDER AND ROLL CALL:

Chair Ms. Bor called the Lino Lakes Environmental Board meeting to order at 6:34 p.m. on July 30, 2014. It was announced that Nancy Morin was moving out of state so she has resigned from the Environmental Board.

2. APPROVAL OF MINUTES:

May 28, 2014

Mr. Heiskary made a MOTION to approve the May 28, 2014 Meeting Minutes. Motion was seconded by Ms. Andrzejewski**.** Motion carried.

3. APROVAL OF AGENDA

Ms. Bor would like to add to the agenda with the following items:

Add - AUA
-Acknowledge the positive response from Councilman Rafferty pertaining to the changes in front of City Hall.

Ms. Klebba made a MOTION to approve the agenda with the changes. Motion was seconded by Mr. Heiskary.

4. OPEN MIKE

Open 6:42pm.

Close 6:42pm

5. ACTION ITEMS (No Action Items)

6. DISCUSSION ITEMS / INFORMATION ITEMS

A. <u>Recycling Assistant K.C.Kye, Recycling Updates, Progress Reports</u>

Mr. Alseson introduce the Recycling Assistant Intern K.C. Kye. One of the main things that Mr. Kye will be doing is to expand into the business area and improve public awareness about recycling.

At this time some of the projects that Mr. Kye is working on is the recycling portion of the City of Lino Lakes website,a fact sheet for recycling, a twitter feed, and facebook to connect to the residents. He is also working on promotions for recycling with the churches, schools and multi-family units.

Mr. Kye believes that sharing best practices and bringing people together is a very positive thing.

Upcoming events in October will be mattress recycling and paper shredding.

City of Lino Lakes has been recoizes by the Anoka County Board of Commissioners as having one of the most improved drop-off programs. In 2013, the city increased 45% in the amount collected

B. <u>Blue Heron Days</u>

Mr. Asleson stated that we do need people for the Blue Heron Days parade for litter pickup. Meet at 10:30am

C. <u>Peltier Island Heron Rookery Update</u>

Mr. Asleson and Mr. Husveth did a drone fly-over but it was a little too late. Most of the birds had fledged and there was leaf coverage. Mr. Asleson will post the video on the Peliter Lake Facebook page.

On the other hand Mr. Asleson did mention that flashing does seem to help and maybe we can get more volunteers and possibly Anoka County to help with this project.

Ms. Bor would like to see the Heron Task Force reinstated.

Ms. Klebba will email the people at Wargo Nature Center to see if they can help

D. <u>Community Gardens</u>

The Community Garden sign is now finished and looks great and a letter should be sent thanking Ms. DeHaven for her job well done.

E. <u>Project Updates</u>

Wollan's Park- reed canary grass, burn needs to be set up.

Oak wilt is up again.

It was requested that Surface Water Management Plan and AUAR be discuss in the near future.

7. ADJOURNMENT

Ms. Andrzejewski made a MOTION to adjourn the meeting at 7:48 p.m. Motion was supported by Ms. Bor. Motion carried.

Next Environmental Board meeting is Wednesday, August 27, 2014 at 6:30pm.

Respectfully submitted,

Mary Fogarty

ENVIRONMENTAL BOARD
AGENDA ITEM 5A

STAFF ORIGINATOR:	Marty Asleson, Environmental Coordinator
MEETING DATE:	September 24, 2014
PROJECT NAME:	White Pine Senior Living
REQUEST:	Rezoning to R-4, High Density Residential, Preliminary Plat Review, Conditional Use Permit for Nursing Home.
APPLICANT:	Lino Lakes Development, LLC 310 Pinnacle Way, Suite 300 Eau Claire, WI 54071
OWNER:	Same as applicant

PROPOSED DEVELOPMENT

The project site is approximately 2.40 acres, and is located on 77th Street West. This site is guided for mixed use and is currently zoned GB (General Business). There is residential development to the north, Lake Drive to the west, residences to the east, and Market Place Drive and a Kohl's store to the south. The proposed development will consist of an approximately 23,360 square foot, 39 unit senior living facility along with a 28 space parking lot, concrete curb and gutter, driveways, sanitary sewer lateral, water connection to main, storm sewer, and gas, electric and telephone utilities

SITE CHARACTERISTICS

The site has been previously developed, with only some gravel and an asphalt driveway remaining. Also, 77th Street West runs west to east across the northern perimeter of the site. This roadway is to remain.

Topography

Currently, the stormwater runoff from the site drains in three directions: Most of the site, including the southern half of 77th Street, drains to a ditch and the runoff is conveyed to the west by an underground pipe system. The southern portion of the site drains south and this runoff is captured by a curb inlet on the service drive behind Kohl's.

The western part of the site drains west to an inlet on Lake Drive. There are a couple of minor depressions within the site, but any additional infiltration has been ignored due to the well-draining soils.

Surface water

Since the site will have over an acre of disturbance, an MPCA permit is required and a SWPPP that meets the guidelines of the issued permit.

In addition to the SWPPP plan sheet, the SWPPP must include specific requirements of the MPCA permit**.** Items include:

- Proposed erosion prevention and sediment control BMP's to control the discharge of sediment and/or other pollutants from the site, particularity at the point (s) of intended discharge.

- Must provide the knowledgeable person/chain of responsibility information. We need the name of the person that is knowledgeable and experienced in the application of erosion prevention before and during construction. The owner must identify who will have the responsibility for long-term operation and maintenance of the permanent stormwater management system. The owner must include in the SWPPP a chain of responsibility with all operators on the site, or if not known, the title or position of the responsibility of responsible party, to ensure that the SWPPP will be implemented and stay in effect until the construction project is complete, the entire site has undergone Final stabilization and a NOT has been submitted to the MPCA.

- The permitees must provide training documentation that the individuals listed as SWPPP overseers are certified by a MPCA approved training method. With that the City would need names of the person or persons involved with SWPPP management, dates of training and the names of instructors of entity providing training, and the content of the training course or workshop including the numbers of hours training,

- Location of the SWPPP on site and the location of all required weekly, post-rainfall event inspections and follow-up corrections

- The SWPPP must incorporate the requirements (MPCA Stormwater Discharge Design Requirements) including calculations for the project. The submitted SWPPP simply states it will be kept at the construction site.

- Site specific quantities must be included for all erosion prevention and sediment control BMPs.

- Must include maps of all surface waters and wetlands, and stormponds or basins that can be identified on maps such as a USGA 7.5 minute quadrangle map, the NWI maps or equivalent maps within one mile (aerial radius) from the project

boundary that will receive stormwater associated with construction activity during or after construction.

- The SWPPP must describe a maintenance plan identifying who will be performing future maintenance of permanent stormwater treatment systems on the site.

- The SWPPP must identify if the projects stormwater flows to an impaired water within 1 mile of the site (aerial radius), and whether or not there is USEPA-approved TMDL for pollutants or stressors for the site. The permitee must identify those TMDLs applicable to the to the projects stormwater discharge.

Runoff from all proposed impervious surfaces will be collected by downspouts, or drain to one of a series of catch basins in the paved area. Also runoff from open areas will mostly either sheet flow to the pond or be collected by a series of area inlets. The underground pipe system will discharge to the proposed pond generally east to west. Utilities will connect storm water runoff to an existing catch basin on Highway 23

Development standards set forth by the Rice Creek Watershed District require infiltration of the first 1.1 inches of rainfall over the impervious area. The total existing drainage area is approximately 2.40 Acres.

There are 27,084 square feet of existing impervious conditions, and 77,627 square feet of existing pervious conditions. The proposed conditions are 44,158 square feet of impervious and 60,553 square feet of pervious conditions.

The developer proposes to manage the water quality requirements using a surface pond providing infiltration. The "A" soils on the site are conducive to this type of stormwater management. This pond will infiltrate the required water quality volume (first 1.1 inches of rain over the impervious area) and route storms exceeding this runoff volume through a control structure in the pond. A control elevation will be established at the quality volume for discharges above this amount of runoff. The 1-year storm precipitation amount is less than the required quality runoff, thus no discharge from the pond is anticipated from this storm event.

Soils

Soils present on the entire site are Zimmerman fine sands, HSG "A" with an allowable infiltration rate of 0.8 in/hr. This allows runoff to infiltrate well inside the required 72 hour timeframe.

Ground water

The Groundwater is found at 18.5 to 19.5 feet deep on this site.

Land Cover

Land-cover consists of a non-vegetated gravel surface with scattered Siberian Elm. There is a row of Red Pine on the east property line. There are 6 White Spruce Trees on the Northern property line. There is an American Linden on the north central part of the site.

Rare and Unique Resources

There are no unique resources on this site.

Wetlands

There are no wetlands on the site.

Tree Preservation and New Tree Requirements

A tree preservation plan is required for the site.

Floodplain

The property is mapped on FEMA FIRM Panel No. 27001500005B, for the County of Anoka, dated May 17, 1982, and is in Zone "C", areas of minimal flooding.

Well Point

There is record of a 271 foot deep well on the site. The developer must verify the existence of this well or record that it was abandoned and properly sealed. If the developer intends to use this well than it should be added to the project submittals and the area around the well protected during construction. If the well does exist and will no longer be used, then the developer must properly seal the well in conformance with procedures and standards set forth by the Minnesota Department of Health.

Landscape Plan

The landscape plan must show screening on at least 3 sides. Red Pines on the east side are effectively screening the adjacent property. There are new Junipers and Freeman Maples with existing Green ash on the boulevard that is proposed for the south side. The Green ash are about 20 feet tall and are not part of the project but do add to effective screening.

RECOMMENDATION

Staff recommends changes and additions be made in reference to staff comments and Environmental Board review comments.

ATTACHMENTS

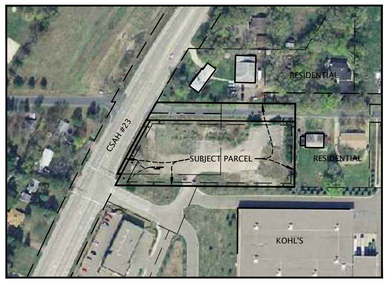
1. Location Map
2. Preliminary Plat
3. Well Point Location Map
4. Landscape Plan
5. Site plan
6. Erosion Control Plan
7. Erosion Control Notes
8. Grading Plan

CITY OF LINO LAKES

White Pine Senior Living Location Map

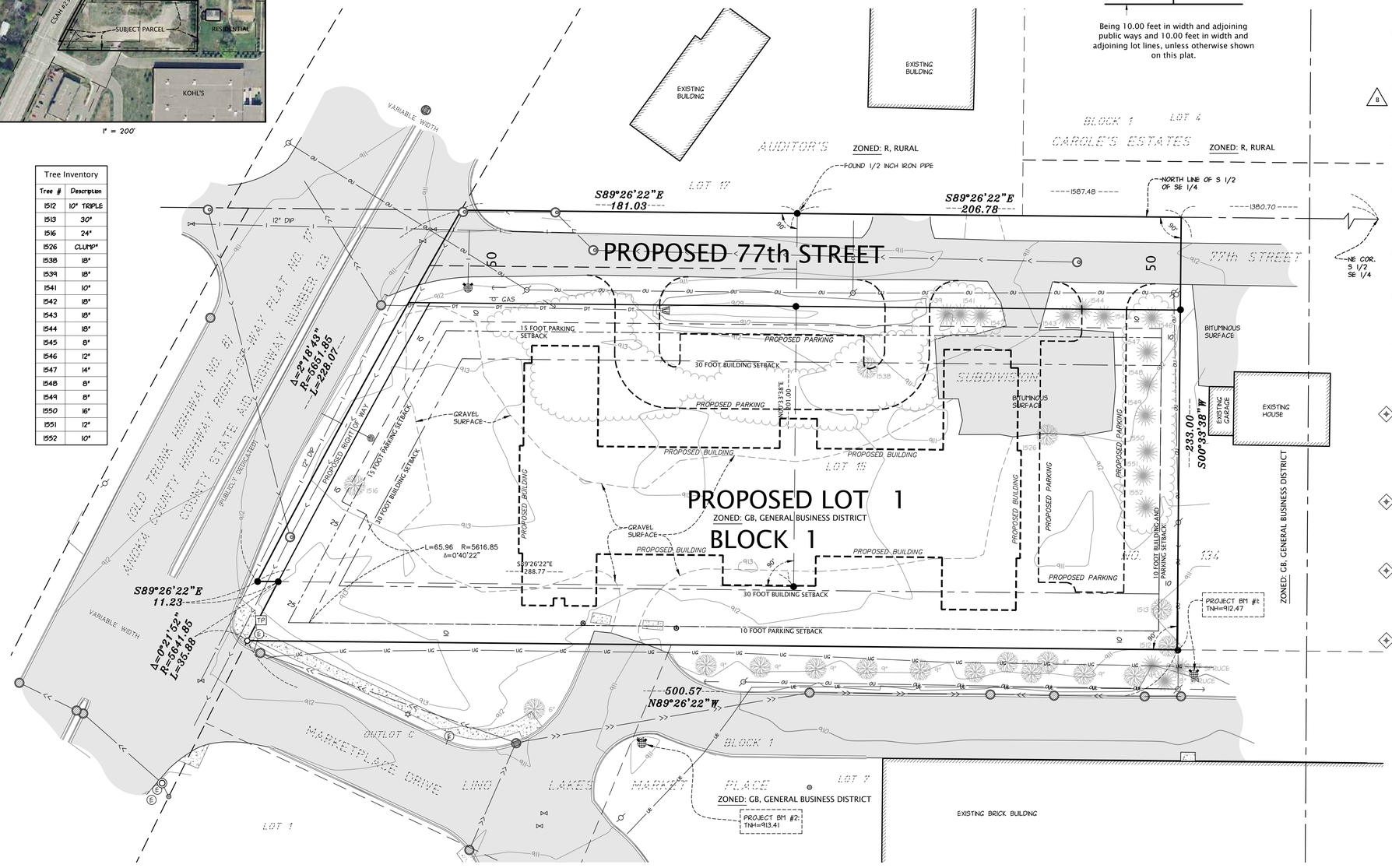
N
W E
S

LINO LAKES DEVELOPMENT
PRELIMINARY PLAT



1" = 200'

Tree Inventory	
Tree #	Description
1512	10" TRIPLE
1513	30"
1516	24"
1526	CLUMP
1538	18"
1539	18"
1541	10"
1542	18"
1543	18"
1544	18"
1545	8"
1546	12"
1547	14"
1548	8"
1549	8"
1550	16"
1551	12"
1552	10"



LEGAL DESCRIPTION:

The following Legal Description is as shown on Commercial Partners Title, LLC as agent for Stewart Title Guaranty Company Title Commitment File No. 38674, dated June 24, 2014.

A Parcel A:

That part of the South Half of the Southeast Quarter of Section 8, Township 31, Range 22, Anoka County, Minnesota described as follows: Beginning at a point on the North line of said South Half of the Southeast Quarter distant 1587.48 feet West of the Northeast corner thereof; thence South at right angles a distance of 201 feet; thence West parallel with the North line of said South Half of the Southeast Quarter and to the Easterly right-of-way line of State Trunk Highway No. 8; thence Northeasterly on said Easterly right-of-way line to its intersection with the North line of said South Half of the Southeast Quarter; thence East on said North line of the point of beginning.

B Parcel B:

All that part of the South Half of the Southeast Quarter of Section 8, Township 31, Range 22, Anoka County, Minnesota described as follows: Commencing at the Northeast corner of said South Half of the Southeast Quarter; thence North 89 degrees 41 minutes 23 seconds West (assumed bearing), along the North line of said South Half of the Southeast Quarter, a distance of 1380.70 feet, to the actual point of beginning of tract to be described; thence at a right angle to the North line, South 00 degrees 18 minutes 37 seconds West, 233.00 feet; thence at a right angle, to the left, North 89 degrees 41 minutes 23 seconds West, 500.57 feet, more or less, to the Easterly line of Anoka County Highway Right-of-Way Plat No. 17; thence Northeasterly along said Easterly line, on a curve whose radius is 5641.85 feet, a central angle of 00 degrees 21 minutes 52 seconds, a distance of 35.88 feet, more or less, to its intersection with the South line of the North 201 feet of said South Half of the Southeast Quarter; thence South 89 degrees 41 minutes 23 seconds East, parallel with North line of said South Half of the Southeast Quarter, to a point of intersection, said point of intersection distance 1587.48 feet West of the Northeast corner of said South Half of the Southeast Quarter, and 201.00 feet Southerly at a right angle to said North line; thence North 00 degrees 18 minutes 37 seconds East, on said right angle line, 201.00 feet, to the North line of said South Half of the Southeast Quarter; thence South 89 degrees 41 minutes 23 seconds East, 206.78 feet, to the actual point of beginning.

All being part of Lot 15, Auditor's Subdivision No. 134.

Anoka County, Minnesota

Abstract Property

EXISTING AREA:

PARCEL A = 47,390 SQ. FT.

PARCEL B = 57,321 SQ. FT.

TOTAL AREA = 104,711 SQ.FT.

PROPOSED AREA:

LOT 1, BLOCK 1 = 82,914 SQ.FT.

RIGHT OF WAY = 21,797 SQ. FT.

ZONING:

PER THE CITY OF LINO LAKES ZONING DISTRICT MAP, THE SUBJECT PROPERTY IS ZONED GB, GENERAL BUSINESS DISTRICT.
*TO BE REZONED PLANNED UNIT DEVELOPEMENT-PUD

SETBACKS:

PER THE CITY OF LINO LAKES ZONING ORDINANCE DATED MARCH 2012, THE FOLLOWING SETBACKS APPLY TO PROPERTY ZONED GB, GENERAL BUSINESS DISTRICT.

FROM STREETS:
- PRINCIPAL BUILDING-LOCAL STREET = 30 FEET
- PRINCIPAL BUILDING-COLLECTOR OR ARTERIAL STREET = 40 FEET
- PARKING LOT/DRIVEWAY = 15 FEET

REAR YARD:
- PRINCIPAL BUILDING = 30 FEET
- ACCESSORY BUILDING = 5 FEET
- PARKING LOT = 10 FEET

SIDE YARD:
- PRINCIPAL BUILDING = 10 FEET
- ACCESSORY BUILDING = 10 FEET
- PARKING LOT = 10 FEET

HEIGHT REGULATIONS:
- NO BUILDING SHALL EXCEED 45 FEET IN HEIGHT.

CONTACT:

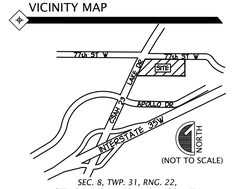
LINO LAKES DEVELOPMENT, LLC
310 Pinnacle Way, Suite 300
Eau Claire, WI 54701
Phone: 715-832-5575

COUNTY/CITY:

ANOKA COUNTY

CITY OF LINO LAKES

VICINITY MAP



SEC. 8, TWP. 31, RNG. 22,
CITY OF LINO LAKES, ANOKA COUNTY, MINNESOTA

REVISIONS:

DATE	REVISION
08-11-14	INITIAL ISSUE
09-04-14	ROW REVISION
09-05-14	D&U EASEMENT

CERTIFICATION:

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

Daniel L. Thurmes Registration Number: 25718

Date: 8/11/14

NORTH

0 30 60

PROJECT LOCATION:

700
77th STREET
PID#083122430018
PID#083122430017

UNDERGROUND UTILITIES NOTES:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPROMISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THIS SURVEY HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. GOPHER STATE ONE CALL LOCATE TICKET NUMBER(S) 142113301. SOME MAPS WERE RECEIVED, WHILE OTHER UTILITIES DID NOT RESPOND TO THE LOCATE REQUEST. ADDITIONAL UTILITIES OF WHICH WE ARE UNAWARE MAY EXIST.

CALL BEFORE YOU DIG!
Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166

LEGEND:

- FOUND MONUMENT (AS NOTED)
- SET MONUMENT (AS NOTED)
- TV CABLE TV PEDESTAL
- E ELECTRIC MANHOLE
- EP ELECTRIC PEDESTAL
- ET ELECTRIC TRANSFORMER
- LIGHT POLE
- GUY WIRE
- POWER POLE
- GAS UNDERGROUND GAS WARNING SIGN
- T TELEPHONE MANHOLE
- TP TELEPHONE PEDESTAL
- S SANITARY MANHOLE
- CB or IB CATCH BASIN
- SD or SD STORM DRAIN
- FLARED END SECTION
- STORM MANHOLE
- HYDRANT
- CURB STOP
- WATER VALVE
- BOLLARD
- TRAFFIC SIGN
- CONIFEROUS TREE
- DECIDUOUS TREE
- UE UNDERGROUND ELECTRIC
- OU OVERHEAD UTILITY
- UG UNDERGROUND GAS
- > SANITARY SEWER
- >> STORM SEWER
- DT DRAIN TILE
- I WATERMAIN
- PROPERTY BOUNDARY
- INTERIOR LOT LINE
- RIGHT OF WAY
- SECTION LINE
- TREE LINE
- CURB [TYPICAL]
- 1230 CONTOURS
- BUILDING LINE

FLOOD INFORMATION:

THIS PROPERTY LIES WITHIN THE UNSHADED ZONE C, AREAS OF MINIMAL FLOODING, AS SHOWN ON COMMUNITY PANEL NUMBER 2700150005B, HAVING AN EFFECTIVE DATE OF MAY 17, 1982.

EXISTING PARKING

THERE ARE 0 VISIBLE PARKING STALLS DESIGNATED ON PARCELS A AND B.

BENCHMARKS

ELEVATIONS BASED ON ASSUMED VERTICAL DATUM USING THE BENCHMARKS SHOWN ON THIS SURVEY. (NAVD 88)

SURVEY NOTES:

1. BEARINGS ARE BASED ON COORDINATES SUPPLIED BY THE ANOKA COUNTY SURVEYORS OFFICE.
2. UNDERGROUND UTILITIES SHOWN PER GOPHER ONE CALL LOCATES AND AS-BUILT PLANS PROVIDED BY THE CITY OF LINO LAKES PUBLIC WORKS DEPARTMENT.
3. THERE MAY BE SOME UNDERGROUND UTILITIES, GAS, ELECTRIC, ETC. NOT SHOWN OR LOCATED.
4. BEARINGS ARE BASED ON THE WASHINGTON COUNTY COORDINATE SYSTEM NAD 1983. BEARING ARE DIFFERENT THAN SHOWN ON THE RECORDED PLAT. ALL INTERIOR ANGLES MATCH THE RECORDED PLAT ANGLES .

SCHEDULE B2 NOTES:

12. Covenants, conditions and restrictions contained in Contract for Private Development Per Document No. 1974364.018. (Parcels A and B) (*Affects subject property. Covers entire parcel.*)

13. Easement for highway purposes, in favor of the State of Minnesota Per Document No. 69902, in Book 117 of Deeds, Page 454.

    Partially assigned to Anoka County by Quit Claim Deed Per Document No.345052, in Book 897, Page 510. (*Does not affect subject property.*)

14. Subject to the right of way of County State Aid Highway No. 23 as depicted on Anoka County Highway Right-of-Way Plat No. 17 Per Document No. 118989. (*Shown on survey*)

15. Easement for the right of way of 77th Street as presently laid out and traveled and as described in the following:
    - 15a a. Deed Per Document No. 20178, in Book 37, Page 545. (*Shown on survey.*)
    - b. Warranty Deed Per Document No. 444953. (*Does not affect subject property.*)
    - c. Warranty Deed Per Document No. 495631. (*Does not affect subject property*)
    - 15d d. Warranty Deed Per Document No. 531230. (*Shown on survey.*)
    - 15e e. Warranty Deed Per Document No. 740535. (*Shown on survey.*)
    - 15f f. Warranty Deed Per Document No. 740536. (*Shown on survey.*)

Suite #1
6750 Stillwater Blvd. N.
Stillwater, MN 55082
Phone 651.275.8969
Fax 651.275.8976
dan@cssurvey.net

CORNERSTONE
LAND SURVEYING, INC.

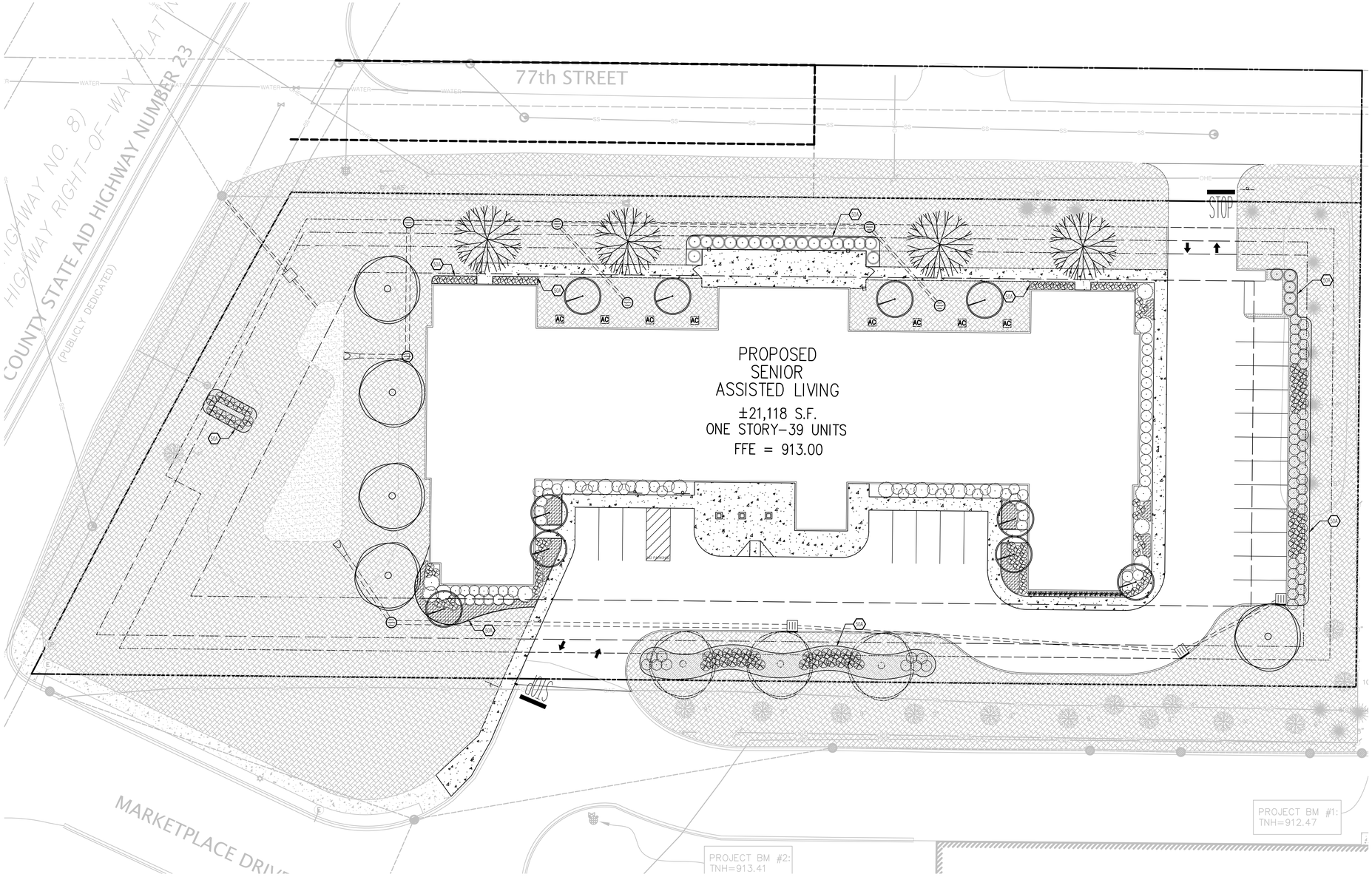
FILE NAME SURVCE063
PROJECT NO. CE14063

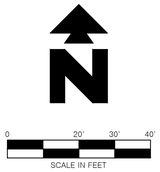
PRELIMINARY
PLAT

CITY OF LINO LAKES

White Pine Senior Living
Well Location

N
W E
S





PROPOSED

- TYPICAL PLANTING WITH QUANTITY AND KEY (SEE PLANT LIST)
- 4" TOPSOIL AND BLUE GRASS BLEND SOD
- 4" HARDWOOD MULCH OVER LANDSCAPE FABRIC
- MnDOT 260 COMMERCIAL TURF SEED MIX

GENERAL LANDSCAPE NOTES

A. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE LANDSCAPE CONSTRUCTION BEGINS.

B. NOTIFY LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE OF ANY LAYOUT DISCREPANCIES PRIOR TO ANY PLANTING.

C. ALL DISTURBED AREAS AS DESIGNATED ON THE GRADING PLAN SHALL HAVE 4" OF TOPSOIL AND BE SODDED.

D. FERTILIZE ALL PLANTS AT THE TIME OF PLANTING WITH A TIME RELEASE FERTILIZER PER MANUFACTURER'S SPECIFIED APPLICATION RATES.

E. SEE GRADING PLAN FOR APPLICATION OF TOPSOIL AND MAINTENANCE OF SODDED/SEEDED AREAS.

F. WOOD MULCH SHALL BE USED AS A FOUR INCH (4") TOP DRESSING IN ALL PLANT BEDS AND AROUND ALL TREES. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF THE ALUMINUM EDGING OR LANDSCAPE ISLAND (SEE PLANTING DETAILS).

G. GENERAL CONTRACTOR TO DESIGN AND INSTALL IRRIGATION SYSTEM CAPABLE OF PROVIDING ADEQUATE COVERAGE TO ALL SODDED AND LANDSCAPE AREAS. SUBMIT PLAN TO ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. IRRIGATION SYSTEM MUST HAVE AN APPROVED BACKFLOW DEVICE INSTALLED AND RAIN SENSOR TO STOP IRRIGATION DURING RAIN EVENTS.

H. IRRIGATION TO EXTEND FROM PROPERTY LINES TO BACK OF CITY SIDEWALKS AND/OR CURBS.

I. INSTALL 3" DIA. PVC PIPE SLEEVES WHERE IRRIGATION LINES CROSS OR ARE UNDER PAVEMENT.

LANDSCAPE NOTES

50A 4" STEEL EDGING

TREE LIST 50A

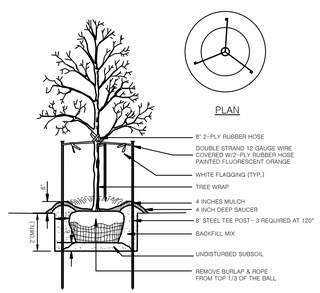
SYB	KEY	QTY	COMMON NAME/ BOTANICAL NAME	ROOT	SIZE	REMARKS
	AS	10	APPLE SERVICEBERRY Amelanchier × grandiflora 'Autumn Brilliance'	B & B	MIN. 1.5" CAL	PLANT AS SHOWN
	HE	7	HYBRID ELM Ulmus x 'New Horizon'	B & B	2-2.5" CAL.	PLANT AS SHOWN
	FM	4	FREEMAN MAPLE Acer x freemanii 'Autumn Blaze'	B & B	2-2.5" CAL.	PLANT AS SHOWN
		21				

SHRUB LIST 50B

SYB	KEY	QTY	COMMON NAME/ BOTANICAL NAME	ROOT	SIZE	REMARKS
	NB	17	NINE BARK Physocarpus opulifolius	CONT.	5 GAL	15" MIN. HEIGHT
	KB	111	KOREAN BOXWOOD Buxus sinica var. insularis 'Wintergreen'	CONT.	B&B	36" MIN. HEIGHT
	JB	67	WEIGELA Wegela Florida 'Dark Horse'	CONT.	3 GAL	PLANT AS SHOWN
	SR	23	SKY ROCKET JUNIPER Juniperus scopulorum 'Skyrocket'	CONT.	7 GAL	MIN. 4' HEIGHT
	LI	54	LILAC Syringa meyeri 'Palibin'	CONT.	7 GAL.	36" MIN. HEIGHT
	DL	19	DAYLILY Hemerocallis 'Stella de Oro'	CONT.	1 GAL.	
	AC	44	ANDORA COMPACT JUNIPER Juniperus 'Andora Compacta'	CONT.	3 GAL	24" O.C.
		278				

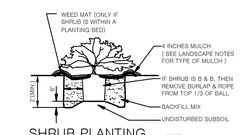
LANDSCAPE REQUIREMENTS

CATEGORY	REQUIREMENT	CALCULATIONS	PROVIDED
FOUNDATION PLANTINGS	(2) LARGE TREE PER 100 LF OF BUILDING PERIMETER (6) LARGE SHRUBS PER 100 LF OF BUILDING PERIMETER	947.88 / 100 = 9.5 X 2 = 19 TREES - ((3) X 3 = 9 EXISTING) = 10 TREES 947.88/100 = 9.5 X 6 = 57 SHRUBS	10 TREES 198 SHRUBS
CANOPY COVER	40% OF VEHICULAR HARDSCAPE	15,500 X 40% = 6,200 SF - (4,275 SF EXISTING) = 1,925 SF	4 LARGE TREES - 4 X 550 = 3,800 SF 5 SMALL TREES - 5 X 250 = 1250 SF TOTAL = 5,050 SF
OPEN AREA	(1) LARGE TREE PER 2,000 SF OF OPEN AREA (3) SHRUBS PER 2,000 SF OF OPEN AREA	40,351 / 2,000 = 21 TREES - ((9) X 3 + (1) X 2 = 29 EXISTING) = 0 TREES 40,351 / 2,000 = 14 X 3 = 61 SHRUBS	0 TREES 61 SHRUBS
TREE MITIGATION	SEE CITY CODE	ALL TREES REMOVED WITHIN BASIC USE AREA, NO MITIGATION REQUIRED	0 TREES



NOTE: SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.

TREE PLANTING 50A
N.T.S.



SHRUB PLANTING 50B
N.T.S.

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28461	9/2/14	ALC	ALC	CMB	CMB
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LANDSCAPE PLAN

REV DATE 9/8/14 REV-0

SHEET NO. C7

JOB # 28461 DRAWING: 28461-LS.dwg LAST SAVED BY: SMCHNO LOCATION: P:\W25000\W28461.0\WD\saw\ngsWDesign\Wlaw-0\W28461-LS.dwg

SITE BENCHMARK

SITE BENCHMARK
ELEVATIONS BASED ON ASSUMED VERTICAL DATUM USING THE BENCHMARKS SHOWN ON THE SURVEY. (NAVD 88)

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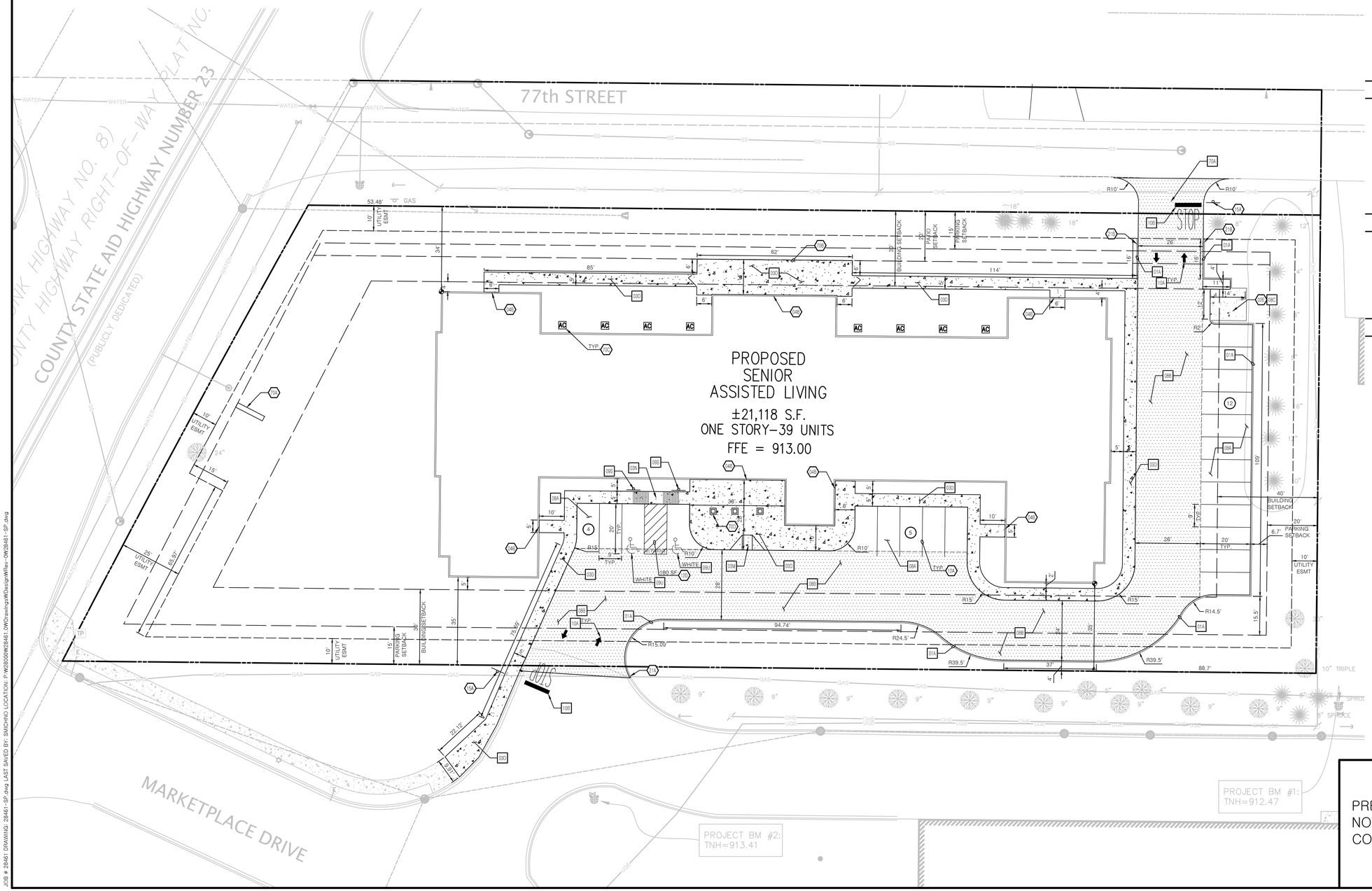
0 20' 30' 40'
SCALE IN FEET



PROPOSED

- PROPERTY LINE/RIGHT OF WAY LINE
- CONCRETE CURB AND GUTTER. SEE DETAIL 01A.
- PROPOSED PARKING SPACES
- BUILDING CONTROL POINT
- LIMITS OF SIDEWALKS AND CONCRETE APRONS (PER ARCH. PLANS)
- LIMITS OF HEAVY DUTY ASPHALT PAVEMENT SECTION

GENERAL SITE NOTES

A. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

B. ALL CURB RETURN RADII SHALL BE 2' OR 10', AS SHOWN TYPICAL ON THIS PLAN, UNLESS OTHERWISE NOTED.

C. UNLESS OTHERWISE SHOWN, CALLED OUT OR SPECIFIED HEREON OR WITHIN THE SPECIFICATIONS: ALL CURB AND GUTTER ADJACENT TO ASPHALT PAVING SHALL BE INSTALLED PER DETAIL 01A. ALL CURBING ADJACENT TO CONCRETE PAVING SHALL BE INSTALLED PER DETAIL 01B. PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL 08A & 08B OVER THE ENTIRE PARKING LOT AREA AND ALL APPROACH DRIVES. ALL PARKING LOT STRIPING INCLUDING ACCESSIBLE AND VAN ACCESSIBLE SPACES SHALL BE PAINTED AS SHOWN ON THE PLAN.

D. ALL PARKING LOT SIGN BASE SUPPORTS SHALL BE INSTALLED PER DETAIL 12F.

E. ALL ACCESSIBLE PARKING STALLS SHALL HAVE SIGNAGE INSTALLED PER DETAIL 09S.

SITE DETAILS

01A TYPE A CONCRETE CURB AND GUTTER
03D CONCRETE SIDEWALK
03M WHEELCHAIR RAMP IN SIDEWALK
08A STANDARD DUTY ASPHALT PAVING
08B HEAVY DUTY ASPHALT PAVING
08C HEAVY DUTY CONCRETE PAVING
09S ACCESSIBLE / VAN ACCESSIBLE PARKING SIGN
09U ACCESSIBLE PARKING SYMBOL (SEE PAINT COLOR INDICATED AT SYMBOL)
10A TRAFFIC FLOW ARROW (TYP.)
70A DRIVEWAY WITHOUT CURB (PER CITY OF LINO LAKES STANDARD DETAIL)

SITE NOTES

02E TRASH DUMPSTER ENCLOSURE (PER ARCH. PLANS).
04B EXIT PORCH (PER ARCH. PLANS).
12A 4 INCH TRAFFIC WHITE STRIPE (SEE LENGTH INDICATED AT SYMBOL).
12D 4 INCH WIDE PAINTED WHITE STRIPES, 2.0 FOOT O.C. @ 45 DEGREES (SEE SIZE INDICATED AT SYMBOL).
15A STOP SIGN.
21A TAPER CURB TO MATCH EXISTING CURB.
21B TAPER CURB FROM 6 INCHES TO 0 INCHES OVER 2 FEET.
70A MONUMENT SIGN (PER ARCH. PLANS).
70B FENCE ENCLOSED PATIO AREA WITH GATES (PER ARCH. PLANS).
70C AIR CONDITIONING UNITS (PER ARCH. PLANS).
70D COLUMNS AND OVERHEAD CANOPY (PER ARCH. PLANS).

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SITE PLAN

REV DATE	SHEET NO.
9/8/14 REV-0	C2

JOB # 28461 DRAWING: 28461-SP.dwg LAST SAVED BY: SMCHINO LOCATION: P:\W28000\W28461.0\WD\earlyg\WDesign\Wher-DW28461-SP.dwg

GENERAL EROSION NOTES

A. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MINNESOTA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

B. THE TEMPORARY PARKING AND STORAGE AREA SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AREA, EQUIPMENT CLEANING AREA, EMPLOYEE BREAK AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS AND TOILET FACILITIES. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNER'S CONSTRUCTION MANAGER.

C. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE.

D. MAINTAIN ON THE SITE OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS AND LEAKS.

E. DUST ON THE SITE SHALL BE CONTROLLED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

F. NO RUBBISH, TRASH, GARBAGE OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

G. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

H. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL STOP FOR AT LEAST 21 DAYS, SHALL BE TEMPORARILY SEEDED WITHIN 14 DAYS.

I. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE LANDSCAPING PLAN.

J. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNERS CONSTRUCTION MANAGER.

K. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

L. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AFTER THE STABILIZATION OF THE SITE AND ALSO ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS.

M. IF SOIL STOCKPILING IS EMPLOYED ON THE SITE, SILT FENCES SHALL BE USED TO HELP CONTAIN THE SEDIMENT.

N. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

O. SEDIMENT BASINS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.

P. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.

Q. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO HELP PREVENT EROSION AND STORM WATER POLLUTION.

R. ALL OFF-SITE CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR STORM DRAINS & UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

SEQUENCE OF CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
3. CONSTRUCT THE SILT FENCES ON THE SITE.
4. CLEAR AND GRUB THE SITE.
5. BEGIN GRADING THE SITE.
6. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
7. TEMPORARILY SEED DENUDED AREAS.
8. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
9. INSTALL INLET PROTECTION DEVICES.
10. INSTALL RIP RAP AROUND OUTLET STRUCTURES.
11. PREPARE SITE FOR PAVING.
12. PAVE SITE.
13. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
14. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED).

SITE BENCHMARK

SITE BENCHMARK
ELEVATIONS BASED ON ASSUMED VERTICAL DATUM USING THE BENCHMARKS SHOWN ON THE SURVEY.
(NAVD 88)

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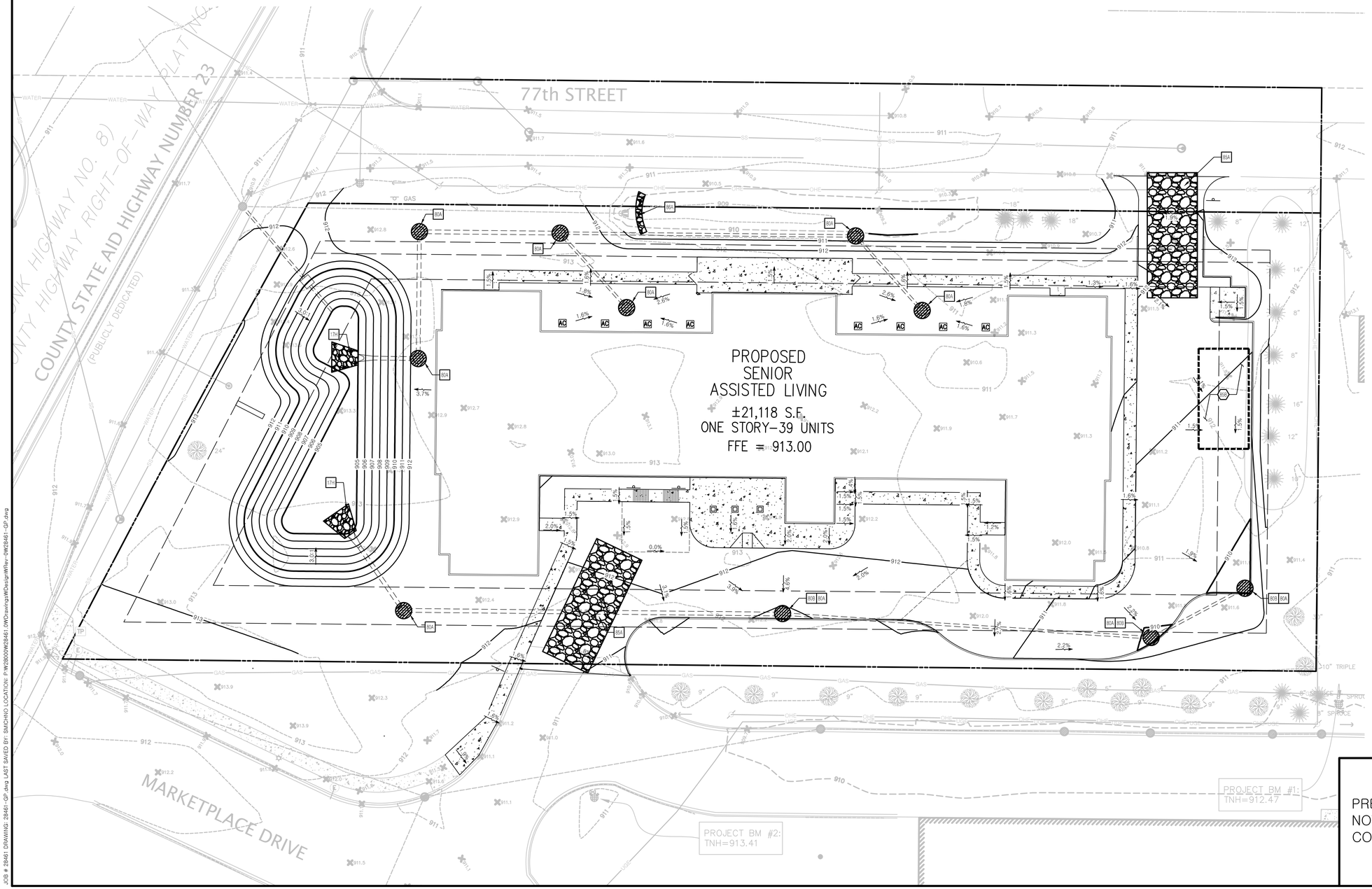

PROPOSED

- PROPERTY LINE/RIGHT OF WAY LINE
- DRAINAGE AREAS
- LIMITS OF DISTURBANCE
- SILT FENCE
- GRADE BREAK
- CONTOUR ELEVATIONS
- STORM DRAIN
- INLET PROTECTION

GENERAL EROSION NOTES CONT'D

MAINTENANCE

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT, AND SHOULD BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR SHALL BE REPLACED IF THEY SHOW SIGNS OF DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD TO ONE-HALF THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

EROSION DETAILS

17H RIP-RAP PAD
80A TEMPORARY SILT FENCE INLET PROTECTION
80B TEMPORARY DANDY SACK INLET PROTECTION
84A TEMPORARY SILT FENCE
85A TEMPORARY STONE CONSTRUCTION ENTRANCE
86A TEMPORARY STRAW BALE BARRIER

EROSION NOTES

85B TEMPORARY STAGING AREA

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EROSION CONTROL PLAN	REV. DATE	SHEET NO.
	9/8/14 REV-0	C5

JOB # 28461 DRAWING: 28461-GP.dwg LAST SAVED BY: SMICHNO LOCATION: P:\W28000\W28461.0\Drawings\Design\Wrev-0\W28461-GP.dwg

NPDES CONSTRUCTION ACTIVITY REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN

THE PERMITTEE(S) MUST IMPLEMENT THE EROSION CONTROL/SWPPP AND THE REQUIREMENTS OF THIS PART. THE BEST MANAGEMENT PRACTICES (BMPS) IDENTIFIED IN THE PLANS AND IN THIS PERMIT MUST BE INSTALLED IN AN APPROPRIATE AND FUNCTIONAL MANNER.

B. EROSION PREVENTION PRACTICES

1. THE PERMITTEE(S) MUST PLAN FOR AND IMPLEMENT APPROPRIATE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION, SO THAT THE INSPECTION AND MAINTENANCE REQUIREMENTS OF PART IV.E. ARE COMPLIED WITH. THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS.

2. ALL EXPOSED SOIL AREAS WITH A CONTINUOUS POSITIVE SLOPE WITHIN 200 LINEAL FEET OF A SURFACE WATER, MUST HAVE TEMPORARY EROSION PROTECTION OR PERMANENT COVER FOR THE EXPOSED SOIL AREAS YEAR ROUND, ACCORDING TO THE FOLLOWING TABLE OF SLOPES AND TIME FRAMES:

TYPE OF SLOPE	TIME (MAXIMUM TIME AN AREA CAN REMAIN OPEN WHEN THE AREA IS NOT ACTIVELY BEING WORKED.)
STEEPER THAN 3:1	7 DAYS
10:1 TO 3:1	14 DAYS
FLATTER THAN 10:1	21 DAYS

THESE AREAS INCLUDE CONSTRUCTED STORM WATER MANAGEMENT POND SIDE SLOPES, AND ANY EXPOSED SOIL AREAS WITH A POSITIVE SLOPE TO A STORM WATER CONVEYANCE SYSTEM, SUCH AS A CURB AND GUTTER SYSTEM, STORM SEWER INLET, TEMPORARY OR PERMANENT DRAINAGE DITCH OR OTHER NATURAL OR MAN MADE SYSTEMS THAT DISCHARGE TO A SURFACE WATER. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) ARE EXEMPT FROM THIS REQUIREMENT BUT MUST COMPLY WITH PART IV.C.5.

3. ADDITIONAL BMP'S TOGETHER WITH ENHANCED RUNOFF CONTROLS ARE REQUIRED FOR DISCHARGES TO SPECIAL AND IMPAIRED WATERS. THE BMP'S IDENTIFIED FOR EACH SPECIAL OR IMPAIRED WATER ARE REQUIRED FOR THOSE AREAS OF THE PROJECT DRAINING TO A DISCHARGE POINT ON THE PROJECT THAT IS WITHIN ONE MILE OF A SPECIAL OR IMPAIRED WATER AND FLOWS TO THAT WATER.

4. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM A CONSTRUCTION SITE, OR DIVERTS WATER AROUND A SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER.

5. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION BEFORE CONNECTION TO A SURFACE WATER.

6. WHEN POSSIBLE, ALL SLOPES MUST BE GRADED IN SUCH A FASHION SO THAT TRACKING MARKS MADE FROM HEAVY EQUIPMENT ARE PERPENDICULAR TO THE SLOPE.

7. ALL AREAS DISTURBED DURING CONSTRUCTION MUST BE RESTORED AS DETAILED IN THESE REQUIREMENTS. THE TYPE OF PERMANENT RESTORATION SHALL BE CLEARLY SHOWN ON THE PLANS INCLUDING BUT NOT LIMITED TO SOD, SEED, IMPERVIOUS COVER AND STRUCTURES. A MINIMUM OF 6 INCHES OF TOPSOIL MUST BE INSTALLED PRIOR TO PERMANENT RESTORATION. AREAS IN WHICH THE TOP SOIL HAS BEEN PLACED AND FINISH GRADED OR AREAS THAT HAVE BEEN DISTURBED AND OTHER GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY MUST BE TEMPORARILY OR PERMANENTLY RESTORED AS SET FORTH IN THE FOLLOWING REQUIREMENTS.

A. AREAS WITH SLOPES THAT ARE LESS THAN 3:1 MUST BE SEEDED AND MULCHED WITHIN 14 DAYS OF THE AREA NOT BEING ACTIVELY WORKED.
B. AREAS WITH SLOPES THAT ARE GREATER THAN 3:1 MUST BE SEEDED AND EROSION CONTROL BLANKET PLACED WITHIN 14 DAYS OF THE AREA NOT BEING ACTIVELY WORKED.
C. ALL SEDED AREAS MUST BE EITHER MULCHED AND DISC ANCHORED, HYDRO-MULCHED, OR COVERED BY EROSION CONTROL BLANKET TO REDUCE EROSION AND PROTECT THE SEED. TEMPORARY OR PERMANENT MULCH MUST BE DISC ANCHORED AND APPLIED AT A UNIFORM RATE OF 2 TONS PER ACRE AND HAVE 90% COVERAGE.
D. IF THE DISTURBED AREA WILL BE RE-DISTURBED WITHIN A SIX MONTH PERIOD, TEMPORARY VEGETATIVE COVER SHALL BE REQUIRED CONSISTING OF AN APPROVED SEED MIXTURE AND APPLICATION RATE.
E. IF THE DISTURBED AREA WILL NOT BE RE-DISTURBED WITHIN A SIX MONTH PERIOD, PERMANENT VEGATATIVE COVER SHALL BE REQUIRED CONSISTING OF AN APPROVED SEED MIXTURE AND APPLICATION RATE.
F. ALL AREAS THAT WILL NOT HAVE MAINTENANCE DONE SUCH AS MOWING AS PART OF THE FINAL DESIGN SHALL BE PERMANENTLY RESTORED USING AN APPROVED SEED MIXTURE AND APPLICATION RATE.
G. RESTORATION OF DISTURBED WETLAND AREAS SHALL BE ACCOMPLISHED USING AN APPROVED SEED MIXTURE AND APPLICATION RATE.

8. ALL EROSION CONTROL MEASURES MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL FINAL STABILIZATION HAS BEEN ACHIEVED IN ACCORDANCE WITH CITY REQUIREMENTS. IF CONSTRUCTION OPERATIONS OR NATURAL EVENTS DAMAGE OR INTERFERE WITH ANY EROSION CONTROL MEASURES, THEY SHALL BE RESTORED TOSERVE THEIR INTENDED FUNCTION.

9. ADDITIONAL EROSION CONTROL MEASURES SHALL BE ADDED AS NECESSARY TO EFFECTIVELY PROTECT THE NATURAL RESOURCES OF THE CITY. THE TEMPORARY AND PERMANENT EROSION CONTROL PLANS SHALL BE REVISED AS NEEDED BASED ON CURRENT SITE CONDITIONS AND TO COMPLY WITH ALL APPLICABLE REQUIREMENTS.

C. SEDIMENT CONTROL PRACTICES

1. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH FINAL STABILIZATION.

2. IF THE DOWN GRADIENT TREATMENT SYSTEM IS OVERLOADED, ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES MUST BE INSTALLED TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES.

3. THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER.

4. ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. THESE DEVICES MUST BE MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED. INLET PROTECTION MAY BE REMOVED IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED.

5.TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS ON THE DOWN GRADIENT SIDE OF THE STOCKPILE AND SHALL NOT BE PLACED AT LEAST TWENTY FIVE (25) FEET FROM ANY ROAD, WETLAND, PROTECTED WATER, DRAINAGE CHANNEL, OR STORM WATER INLETS. STOCKPILE LEFT FOR MORE THAN FOURTEEN (14) DAYS MUST BE STABILIZED WITH MULCH, VEGETATION, TARPS OR OTHER APPROVED MEANS.

6.VEHICLE TRACKING OF SEDIMENT FROM THE PROJECT SHALL BE MINIMIZED BY APPROVED BMP'S. THESE SHALL BE INSTALLED AND MAINTAINED AT THE CITY APPROVED ENTRANCES. INDIVIDUAL LOTS SHALL EACH BE REQUIRED TO INSTALL AND MAINTAIN ENTRANCES THROUGHOUT THE CONSTRUCTION BUILDING UNTIL A PAVED DRIVEWAY IS INSTALLED.

7.SEDIMENT THAT HAS WASHED OR TRACKED FROM THE SITE BY MOTOR VEHICLES OR EQUIPMENT SHALL BE CLEANED FROM THE PAVED SURFACES THROUGHOUT THE DURATION OF CONSTRUCTION.

8.SILT FENCE OF OTHER APPROVED SEDIMENT CONTROL DEVICES MUST BE INSTALLED IN ALL AREAS AS SHOWN ON THE SWPPP.

9.SILT FENCE OR OTHER APPROVED SEDIMENT CONTROL DEVICES SHALL BE REQUIRED ALONG THE ENTIRE CURB LINE, EXCEPT FOR APPROVED OPENINGS WHERE CONSTRUCTION ENTRANCE WILL BE INSTALLED OR DRAINAGE FLOWS AWAY FROM THE CURB. THIS DEVICE MUST BE MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED.

10.DUST CONTROL MEASURES, SUCH AS APPLICATION OF WATER MUST BE PERFORMED PERIODICALLY DUE TO WEATHER, CONSTRUCTION ACTIVITY, AND/OR AS DIRECTED BY THE CITY.

11.FLOWS FROM DIVERSION CHANNELS OR PIPES (TEMPORARY OR PERMANENT) MUST BE ROUTED TO SEDIMENTATION BASINS OR APPROPRIATE ENERGY DISSIPATERS TO PREVENT THE TRANSPORT OF SEDIMENT TO OUTFLOW OR LATERAL CONVEYORS AND TO PREVENT EROSION AND SEDIMENT BUILDUP WHEN RUNOFF FLOWS INTO THE CONVEYORS.

NPDES CONSTRUCTION ACTIVITY REQUIREMENTS (CONT.)

12.A CONCRETE WASHOUT SHALL BE INSTALLED ON PROJECTS THAT REQUIRE THE USE OF CONCRETE. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM OPERATORS TO UTILIZE THE PROPER FACILITIES.

13.ALL SEDIMENT CONTROL MEASURES SHALL BE USED AND MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL FINAL STABILIZATION HAS BEEN ACHIEVED ACCORDANCE WITH CITY REQUIREMENTS. IF CONSTRUCTION OPERATIONS OR NATURAL EVENTS DAMAGE OR INTERFERE WITH ANY EROSION CONTROL MEASURES, THEY MUST BE RESTORED TO SERVE THEIR INTENDED FUNCTION.

14.ADDITONAL SEDIMENT CONTROL MEASURES SHALL BE ADDED AS NECESSARY TO EFFECTIVELY PROTECT THE NATURAL RESOURCES OF THE CITY. THE TEMPORARY AND PERMANENT EROSION CONTROL PLANS SHALL BE REVISED AS NEEDED BASED ON CURRENT SITE CONDITIONS AND TO COMPLY WITH ALL APPLICABLE REQUIREMENTS.

15.RESTRICT CLEARING AND GRADING WITHIN 20 FEET OF AN EXISTING WETLAND BOUNDARY TO PROVIDE FOR A PROTECTIVE BUFFER STRIP OF NATURAL VEGETATION.

D. DEWATERING AND BASIN DRAINING

1. DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) RELATED TO THE CONSTRUCTION ACTIVITY THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPS, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM LANDOWNERS. THE PERMITTEE(S) MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.

2. ALL WATER FROM DEWATERING OR BASIN DRAINING ACTIVITIES MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.

E. INSPECTIONS AND MAINTENANCE

1. THE PERMITTEE(S) (EITHER THE OWNER OR OPERATOR, WHOEVER IS IDENTIFIED IN THE SWPPP) MUST ROUTINELY INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

2. ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP IN ACCORDANCE WITH PART III.D. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:

A. DATE AND TIME OF INSPECTIONS;

B. NAME OF PERSON(S) CONDUCTING INSPECTIONS;

C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;

D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES);

E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCH (0.5 INCHES) IN 24 HOURS; AND

F. DOCUMENTATION OF CHANGES MADE TO THE SWPPP AS REQUIRED IN PART III.A.4.

3. WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS OF THE STABILIZED AREAS MAY BE REDUCED TO ONCE PER MONTH. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE MUST TAKE PLACE AS SOON AS RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.

4. ALL EROSION AND SEDIMENT BMP'S SHALL BE INSPECTED TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUCNTIONAL BMPS' SHALL BE REPAIRED, REPLACED OR SUPPLEMENTED WITH A FUNCTIONAL BMP. THE PERMITTEE SHALL INVESTIGATE AND COMPLY WITH THE FOLLWING INSPECTION AND MAINTENANCE REQUIREMENTS.

5. ALL SILT FENCES SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUCNTIONAL OR THE SEDIMENT REACHES ⅓ OF THE HEIGHT OF THE FENCE. THESE REPAIRS SHALL BE MADE WITH 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

6. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION. THE PERMITTEE SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOILS. THE REMOVAL AND STABILIZATION SHALL TAKE PLACE WITHIN 7 DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. THE PERMITTEE SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION SHALL TAKE PLACE WITHIN 7 CALENDAR DAYS OF OBTAINING ACCESS. THE PERMITTEE IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK.

7. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT SHALL BE REMOVED FROM ALL OFF-SITE PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME.

8. THE PERMITTEE(S) ARE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE. THE PERMITTEE(S) ARE RESPONSIBLE UNTIL ANOTHER PERMITTEE HAS ASSUMED CONTROL ACCORDING TO PART II.B.5 OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED OR THE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOT HAS BEEN SUBMITTED TO THE MPCA.

9. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).

10. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITIES IS REACHING THE INFILTRATION AREA AND THESE AREAS ARE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INFILTRATION AREA.

NPDES CONSTRUCTION ACTIVITY REQUIREMENTS (CONT.)

G. FINAL STABILIZATION

1. THE PERMITTEE(S) MUST ENSURE FINAL STABILIZATION OF THE PROJECT. FINAL STABILIZATION CAN BE ACHIEVED IN ONE OF THE FOLLOWING WAYS.

2. ALL SOIL DISTURBING ACTIVITIES AT THE STIE HAVE BEEN COMPLETED AND ALL SOILS WILLS BE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE OVER WITH A DENSITY OF AT LEAST 70 PERCENT OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSIVE CONDITIONS AND:

A. ALL DRAINAGE DITCHES, CONSTRUCTED TO DRAIN WATER FROM THE SITE AFTER CONSTRUCTION IS COMPLETE, MUST BE STABILIZED TO PRECLUDE EROSION;

B. ALL TEMPORARY SYNTHETIC, AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S (SUCH AS SILT FENCE) MUST BE REMOVED AS PART OF THE SITE FINAL STABILIZATION;

C. THE PERMITTEE MUST CLEAN OUT ALL SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM WASHING BACK INTO THE BASIN, CONVEYANCES OR DRAINAGE WAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEANOUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.

H. TRAINING

1.TRAINING IS REQUIRED FOR THOSE THAT ARE RESPONSIBLE FOR PREPARATION OF THE SWPPP, MANAGEMENT OF THE CONSTRUCTION SITE AND INSPECTIONS.

2.THE SWPPP MUST PROVIDE A CHAIN OF COMMAND SHOWING WHO PREPARED THE SWPPP, WHO IS RESPONSIBLE FOR THE MANAGEMENT OF THE CONSTRUCTION SITE AND INSPECTIONS.

3.THE TRAINING SHALL CONSIST OF A COURSE DEVELOPED BY A LOCAL, STATE, OR FEDERAL AGENCY, PROFESSIONAL ORGANIZATION, WATER MGMT. ORGANIZATION, OR SOIL AND WATER CONSERVATION DISTRICT AND MUST CONTAIN INFORMATION THAT IS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, OR PERMANENT STORMWATER MGMT AND MUST RELATE TO THE WORK THAT YOUR ARE RESPONSIBLE FOR MANAGING.

WHITE PINE SENIOR LIVING SITE INTRODUCTION

PROJECT DESCRIPTION

THE PROJECT SITE IS APPROXIMATELY 2.40 ACRES, CURRENTLY ZONED GB (GENERAL BUSINESS), AND IS LOCATED IN LINO LAKES, ANOKA COUNTY, MINNESOTA. THE PROPOSED DEVELOPMENT WILL CONSIST OF AN APPROXIMATELY 21,118 SQUARE FOOT SENIOR LIVING FACILITY ALONG WITH ASSOCIATED SURFACE PARKING LOT, CONCRETE CURB AND GUTTER, DRIVEWAYS, SANITARY SEWER LATERAL, WATER CONNECTION TO MAIN, STORM SEWER, AND GAS, ELECTRIC AND TELEPHONE UTILITIES.

THE PROPERTY IS MAPPED ON FEMA FIRM PANEL NO. 27001500005B, FOR THE COUNTY OF ANOKA, DATED MAY 17, 1982, AND IS IN ZONE “C”, AREAS OF MINIMAL FLOODING. SOILS ON THE SITE ARE ZIMMERMAN FINE SANDS, IN HYDROLOGIC SOIL GROUP (HSG) “A”.

PER PREVIOUS REVIEW AND APPROVAL OF THIS PROJECT, THE PROJECT SITE DOES NOT INCLUDE SITES OF HISTORIC OR ARCHEOLOGICAL SIGNIFICANCE AND DOES NOT INCLUDE ENDANGERED & THREATENED SPECIES, RARE NATURAL COMMUNITIES, COLONIAL WATERBIRD NESTING SITES, MIGRATORY WATERFOWL CONCENTRATION AREAS, DEER WINTERING AREAS OR WILDLIFE CORRIDORS. WETLANDS EXIST TO THE EAST OF OUR LOT ACCORDING TO THE APPROVED DELINEATION REPORT.

THE IMPLEMENTATION AND MAINTENANCE OF THE SWPPP WILL PROVIDE THE CONTRACTOR AND OWNER WITH THE FRAMEWORK TO REDUCE SOIL EROSION AND MINIMIZE POLLUTANTS IN THE STORM WATER DURING CONSTRUCTION OF THE SENIOR LIVING SITE.

THE SWPPP WILL DEFINE THE CHARACTERISTICS OF THE SITE AND THE TYPE OF CONSTRUCTION TO OCCUR; INCLUDE A SITE PLAN SHOWING THE CONSTRUCTION; DESCRIBE THE PRACTICES THAT WILL BE USED TO CONTROL EROSION AND THE RELEASE OF POLLUTANTS IN THE STORM WATER, INDICATE A SCHEDULE TO HELP ENSURE THAT THE PRACTICES INDICATED ARE IMPLEMENTED AND TO HELP EVALUATE THE EFFECTIVENESS OF THE PRACTICES IN REDUCING EROSION AND POLLUTANTS DISCHARGED FROM THE SITE; AND TO DESCRIBE THE FINAL STABILIZATION MEASURES REQUIRED TO HELP MINIMIZE EROSION AND OTHER STORM WATER IMPACTS AFTER CONSTRUCTION.

STORM WATER POLLUTION PREVENTION PLAN IMPLEMENTATION

PLAN COORDINATION:

THE SITE REPRESENTATIVE FOR THE OWNER, WITH THE ASSISTANCE OF THE FIELD SUPERVISOR FOR THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING AND MONITORING THE STORM WATER POLLUTION PREVENTION PLAN DURING CONSTRUCTION. THIS WILL INCLUDE OVERSEEING THE MAINTENANCE OF THE BMPS THAT ARE IMPLEMENTED, PROVIDE INSPECTIONS AND MONITORING OF THE BMPS, IDENTIFY AND CORRECT ANY DEFICIENCIES IN THE SWPPP, AND MONITOR THAT ANY CHANGES TO THE CONSTRUCTION PLANS ARE ADDRESSED BY THE STORM WATER POLLUTION PREVENTION PLAN.

PROJECT INFORMATION

SITE LOCATION:

THE PROJECT SITE IS LOCATED AT 700A AND 700B 77TH STREET WEST, LINO LAKES, MN 55140.

STORM WATER MANAGEMENT CONTROLS

TEMPORARY AND PERMANENT EROSION CONTROL MEASURES:

A LIST OF STABILIZATION MEASURES HAS BEEN TABULATED BELOW AND THE LOCATIONS OF THESE MEASURES ARE SHOWN ON THE ATTACHED EROSION CONTROL PLAN. THIS PROJECT WILL USE A NUMBER OF BMP'S TO HELP CONTROL EROSION AND SEDIMENT. THOSE MEASURES INCLUDE:

1. STONE CONSTRUCTION ENTRANCE
2. SILT FENCE
3. CATCH BASIN INLET PROTECTION
4. CHECK DAM

DETAILS FOR THESE CAN BE FOUND ON THE DETAILS SHEETS.

THE FOLLOW TABLE PROVIDES A SCHEDULE FOR STABILIZING DISTURBED AREAS DURING CONSTRUCTION:

DISTURBED AREA	WORKING DAYS TO STABILIZE
3 TO1 AND STEEPER SLOPES	7 DAYS
SLOPES FLATTER THAN 3 TO 1	14 DAYS
ALL DITCHES, WITHIN 200' OF OUTLET	1 DAY
ALL OUTLETS	1 DAY
ALL INLETS	1 DAY
TEMPORARY SEDIMENT BASINS AND TRAPS	1 DAY
SOIL STOCKPILES	7 DAYS

SEE THE LANDSCAPE PLAN FOR FINAL PLANT AND TURF COVERAGE OF THE SITE.

CONSTRUCTION TYPE:

THE PROJECT WILL CONSIST OF CONSTRUCTING A ±21,118 SF ONE-STORY BUILDING, ALONG WITH THE ASSOCIATED SURFACE PARKING LOT, ROADWAYS, CONCRETE CURB AND GUTTER, DRIVEWAYS, SANITARY SEWER, WATER MAIN AND STORM SEWER UTILITIES. ALL OF THE RUNOFF FROM IMPERVIOUS SURFACES WILL BE COLLECTED AND ROUTED TO THE EXISTING STORMWATER BASIN NORTH OF OUR SITE PREVIOUSLY DESIGNED/SIZED TO HANDLE OUR SITE.

SITE GRADING AND UTILITY CONSTRUCTION IS ANTICIPATED TO BEGIN IN THE FALL OF 2014 WITH COMPLETION OF THE SITE IN SUMMER 2015.

EXISTING DRAINAGE/SOIL CONDITIONS:

SEE DRAINAGE REPORT AND GEOTECHNICAL REPORT

SITE WIDE CONTROL MEASURES TO PREVENT EROSION SEDIMENTS FROM LEAVING THE SITE, THE FOLLOWING BMPS WILL BE USED:

- SILT FENCE. TO BE MACHINE OR HAND INSTALLED ALONG THE PERIMETER OF AREAS TO BE GRADED BEFORE GRADING BEGINS. ADDITIONAL SILT FENCE SHOULD BE KEPT ON-SITE FOR REPAIRS, REPLACEMENT OR PROTECTION OF ADDITIONAL AREAS. SILT FENCE SHALL BE INSPECTED ONCE A WEEK AND WITHIN 24 HOURS OF ANY ½" RAIN EVENT. SEDIMENT REMOVAL REQUIRED WHEN SEDIMENTS REACH 1/3 THE HEIGHT OF THE SILT FENCE. SILT FENCE CAN BE REMOVED WHEN VEGETATION FOR FINAL STABILIZATION HAS BEEN ADEQUATELY ESTABLISHED (70%).

- ALL EXPOSED AREAS WITHIN 200 FEET OF A SURFACE WATER MUST BE STABILIZED NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

WHITE PINE SENIOR LIVING SITE INTRODUCTION (CONT.)

- AFTER ALL AREAS ARE FINAL GRADED, THE ENTIRE SITE SHALL BE SEEDED AND FERTILIZED. SLOPES WITH GRADES GREATER THAN 3 TO 1, OR WHERE CONCENTRATED FLOWS WILL OCCUR EROSION CONTROL BLANKETS AND FIBER LOGS SHALL BE INSTALLED (MAXIMUM SPACING 75 FEET).

- AREAS FLOWING INTO THE STORM WATER CONVEYANCE SYSTEM WILL BE STABILIZED THE DAY THE STRUCTURES ARE INSTALLED. CATCH BASIN SEDIMENT BAGS WILL BE INSTALLED THE SAME DAY AND LEFT IN PLACE UNTIL THE PROJECT IS COMPLETED. SEDIMENTS SHALL BE REMOVED AND DISPOSED OF WHEN ½ THE CAPACITY IS REACHED.

- TOPSOIL STOCKPILES WILL BE STABILIZED WITH TEMPORARY SEED, MULCH AND FERTILIZER WITHIN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY THAT CREATED THE STOCKPILE.

- DUST WILL BE CONTROLLED BY WATER APPLICATION AND/OR SWEEPING AS NEEDED.

- VEGETATIVE BUFFERS WILL BE MAINTAINED AT THE PERIMETER OF THE SITE.

- GRADING OPERATIONS SHOULD INCORPORATE HORIZONTAL SLOPE TRACKING WHEN POSSIBLE TO HELP REDUCE EROSION.

- CONSTRUCTION ENTRANCE TO BE INSTALLED PRIOR TO START OF CONSTRUCTION.

- ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILILTY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER.

CONSTRUCTION PRACTICES TO MINIMIZE STORM WATER CONTAMINATION:

ALL NON-HAZARDOUS WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURE LOCATION, PREFERABLY A LOCKABLE METAL DUMPSTER, AT THE END OF EACH DAY. ALL TRASH AND CONSTRUCTION DEBRIS SHOULD BE DEPOSITED IN THE DUMPSTER AT THE END OF EACH DAY AND WILL BE EMPTIED AS NECESSARY. NO CONSTRUCTION MATERIALS SHALL BE BURIED ON-SITE. A LICENSED SANITARY WASTE MANAGEMENT COMPANY WILL COLLECT ALL SANITARY WASTE FROM PORTABLE UNITS. GOOD HOUSEKEEPING AND SPILL CONTROL PRACTICES SHOULD BE FOLLOWED TO MINIMIZE STORM WATER CONTAMINATION.

THE FOLLOWING BMPS WILL BE USED:

- FERTILIZER SHALL NOT BE STORED ON-SITE. ALL UNUSED PORTIONS SHALL BE PLACED IN A SEALED BIN AND REMOVED FROM THE SITE BY APPLICATOR.

- ALL VEHICLES AND EQUIPMENT USED ON-SITE SHALL BE IN GOOD WORKING ORDER AND REGULARLY INSPECTED FOR LEAKS.

- PETROLEUM PRODUCTS SHALL BE STORED IN LABELED AND SEALED CONTAINERS.

- SPILL KITS SHALL BE MADE AVAILABLE AT ALL FUELING AREAS. THE CONTRACTOR SHOULD ALSO USE SECONDARY CONTAINMENT MEASURES ON-SITE.

- ALL ASPHALT PRODUCTS USED ON SITE SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

- ALL PAINT CONTAINERS AND CURING COMPOUNDS WILL BE KEPT IN TIGHTLY SEAL CONTAINERS, AND PROPERLY DISPOSED OF AFTER USE. EXCESS PAINT CANNOT BE DISCHARGED INTO THE STORM WATER SYSTEM.

- SPILL CONTAINMENT MATERIALS (SAW DUST, KITTY LITTER OIL ABSORBENT PRODUCTS, GLOVES, TRASH LINERS) SHALL BE KEPT ON-SITE INCASE OF A SPILL. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY UPON DISCOVERY.

- CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT ONLY IN DESIGNATED AREAS, OR ARE NOT ALLOWED TO WASH OUT ON-SITE.

- ALL WORK AREAS SHOULD BE KEPT GRADED RELATIVELY SMOOTH TO PREVENT CONCENTRATED FLOWS AND THE FORMATION OF RUTS AND GULLEYS, AND THE COLLECTION OF STORM WATER.

- A STABILIZED ROCK CONSTRUCTION ENTRANCE SHALL BE MAINTAINED.

- ALL ADJACENT PAVED SURFACES AND STREETS SHALL BE SWEPT DAILY TO REMOVE ALL DUST AND SEDIMENTS. OPEN-AIR BROOMS WILL BE ALLOWED ONLY IF THE DUST AND SEDIMENTS ARE WET.

- TRUCKS HAULING SOILS TO AND FROM THE SITE SHALL COVER THEIR LOADS.

PRELIMINARY,
NOT FOR
CONSTRUCTION

28461	9/2/14	ALC	ALC	SJM	SJM
CEI PROJECT NO.	INITIAL DATE	DPOR	PM	DES	DRW

CEI Engineering Associates, Inc.
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WHITE PINE SENIOR LIVING

700A & 700B 77TH ST W
LINO LAKES MN 55014

EROSION CONTROL NOTES

REV DATE 9/8/14 REV-0
SHEET NO. C6

JOB # 28461 DRAWING: 28461-GP.dwg LAST SAVED BY: SMICHNO LOCATION: P:₩28000₩28461.0₩Drawings₩Design₩Rev-0₩28461-GP.dwg

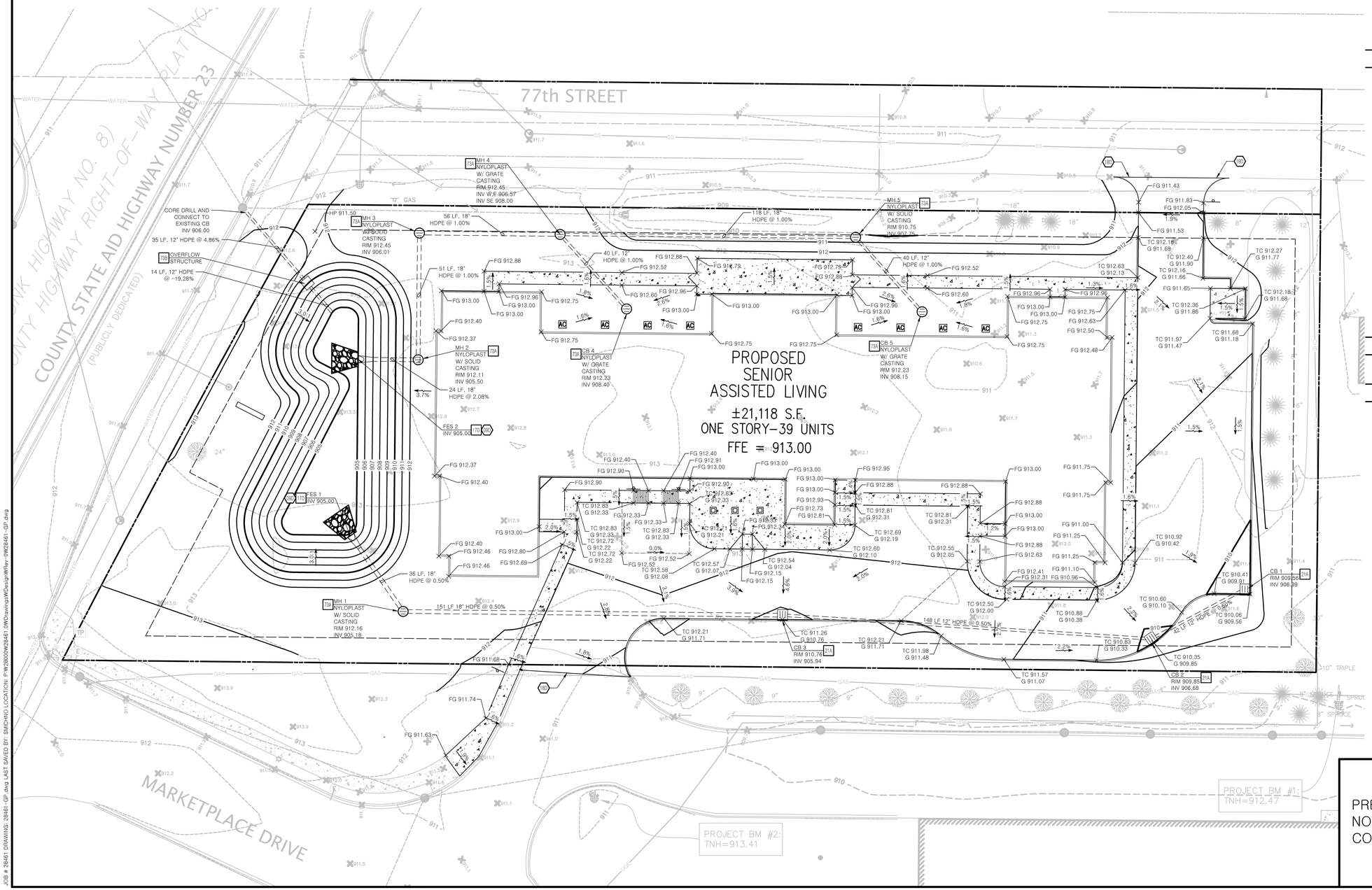
SITE BENCHMARK

SITE BENCHMARK
ELEVATIONS BASED ON ASSUMED VERTICAL DATUM USING THE BENCHMARKS SHOWN ON THE SURVEY. (NAVD 88)

CALL BEFORE YOU DIG 1-651-454-0002 MINNESOTA ONE CALL SYSTEM

N

0 20' 30' 40'
SCALE IN FEET



PROPOSED

- PROPERTY LINE/RIGHT OF WAY LINE
- GRADE BREAK
- XXX — CONTOUR ELEVATIONS
- STORM DRAIN
- x XX.XX — SPOT ELEVATIONS:
  TC = TOP OF CURB
  G = GUTTER
  FG = FINISH GRADE

GENERAL GRADING NOTES

A. PRIOR TO INSTALLATION OF STORM OR SANITARY SEWER, THE CONTRACTOR SHALL EXCAVATE, VERIFY, AND CALCULATE ALL CROSSINGS AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT THE ENGINEER IS NOT NOTIFIED OF DESIGN CONFLICTS.

B. CONTRACTOR HAS THE OPTION TO BID THE FOLLOWING MATERIAL FOR THE STORM SEWER SYSTEM EXCEPT WHERE OTHERWISE NOTED: HDPE OR PVC AS INDICATED ON THIS PLAN WHERE THE WORD PIPE IS USED. ALL PIPES SHALL HAVE A MAXIMUM ROUGHNESS COEFFICIENT ("N") OF 0.011 AND SHALL MEET OR EXCEED THE PIPE MANUFACTURERS REQUIREMENTS FOR MINIMUM AND MAXIMUM COVER. CONTRACTOR SHALL REFER TO THE SITEWORK SPECIFICATION SECTION FOR STORM SEWER SYSTEMS FOR ACCEPTABLE TYPE AND MATERIAL.

C. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND 4" OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS (SEE LANDSCAPE PLAN FOR SEED MIX AND PROPER APPLICATION RATE). ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

D. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.

E. UNLESS OTHERWISE SHOWN, CALLED OUT OR SPECIFIED HEREON OR WITHIN THE SPECIFICATIONS: ALL STORM DRAIN PIPE BEDDING SHALL BE INSTALLED PER DETAIL 28A. ALL STORM DRAIN PIPES ARE MEASURED FROM CENTER OF STRUCTURES AND ENDS OF FLARED END SECTIONS.

GRADING NOTES

69D FLARED END SECTION.
18D MATCH EXISTING PAVEMENT ELEVATIONS.

GRADING DETAILS

17D RIP RAP PAD
21A CURB INLET
73A NYLOPLAST DRAIN BASIN
73B OUTLET CONTROL STRUCTURE

STORMWATER SUMMARY
TOTAL PROPERTY AREA =82,914 SF
TOTAL DISTURBED AREA = 78,338 SF > 1 ACRE THEREFORE A NPDES SWPPP PERMIT WILL BE REQUIRED.

PRE-DEVELOPMENT
PERVIOUS AREA = 29,617 SF
IMPERVIOUS AREA = 53,297 SF
2-YEAR STORM = 1.06 CFS
10-YEAR STORM = 3.29 CFS
100-YEAR STORM = 9.53 CFS

POST-DEVELOPMENT
PERVIOUS AREA = 43,175 SF
IMPERVIOUS AREA = 39,739 SF
2-YEAR STORM = 0.19 CFS
10-YEAR STORM = 0.70 CFS
100-YEAR STORM = 3.77 CFS

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PRELIMINARY, NOT FOR CONSTRUCTION

WHITE PINE SENIOR LIVING
700A & 700B 77TH ST W
LINO LAKES MN 55014

GRADING PLAN

REV DATE	SHEET NO.
9/8/14 REV-0	C3

JOB # 28461 DRAWING: 28461-GP.dwg LAST SAVED BY: SMICHNO LOCATION: P:\W28000\W28461.0\Drawings\Design\Wrev-0\W28461-GP.dwg

ENVIRONMENTAL BOARD
AGENDA ITEM 5B

STAFF ORIGINATOR:	Marty Asleson, Environmental Coordinator
MEETING DATE:	September 24, 2014
PROJECT NAME:	Mattamy Homes/Watermark
REQUEST:	Concept Plan Review
APPLICANT:	Mattamy Homes Limited

PURPOSE

The purpose of the Concept Plan review is to allow the developer to describe the basic intent and general nature of the entire development at an early stage in the process. The concept plan provides an opportunity for the boards and councils to provide informal review and comment on the project's acceptability in relation to the comp plan and development regulations. Comments received would then be incorporated into the development stage plans as the next step.

PROPOSED DEVELOPMENT/LANDUSE

Watermark is a proposed master planned development to be built on 372 acres. The site is located between County Road 21 and Highway 35E, just north of County Road 14. The development is proposed to consist of 876 Units, made up of attached row townhouses and detached single family homes on various lot sizes. The proposal contains a central neighborhood park, a network of public open spaces, an extensive stormwater management system, Wetland, and wetland mitigation is located in the open space system. Please see Mattamy Homes narrative dated September 8th 2014.

The Comprehensive Plan guides this area as mixed use. This designation allows for up to 20% Commercial. Residential land is allowed to have a net density of 4.5 units per acre, with 2/3 of the residential area reserved for low density not exceeding 3.0 units per acre. Watermark has a gross density of 2.5 units per acre. The net density of the site which is calculated by deducting arterial road right-of-way, wetlands, parks and open space, will need to be determined. It appears however, that the proposal falls below the allowable density for the site, and below the density for Hardwood Creek. Hardwood Creek was a 2005 development proposal for this site.

SITE DEVELOPMENT DISCUSSION

As the Mattamy Homes narrative states, “there are two driving forces that guide the design of this site, stormwater management and project scope/location”. Staff also notes that the 35E Corridor AUAR will also guide design. Probably the greatest hurdle is stormwater management. There are however, numerous focus issues as listed in the AUAR table of contents that must be addressed in discussion and design of the preliminary plat

Present day rule requirements are more restrictive than the AUAR recommendations. Stormwater management for this site is complicated with non-pervious soils, and an underlying tile drainage system that empties into a restrictive, piped county ditch system. There are perched water tables, and requirements for mitigating the first 1.1 inches of rain over design impervious soils. The discharge of volume rates under a limited ditch system, and the phosphorous loaded storm water mitigation create challenges.

Setting up a stormwater treatment train was previously explored in the Hardwood Creek Project, and is addressed in the AUAR. Creation of infiltration swales, and a system of evapo-transpiration devices may be a part of this train. Soil amendments in proposed greenways and planting trees would further reduce runoff volumes. Watermark should incorporate into their plan narrowing street widths which may help to mitigate water volume issues. We will need cross section drawings for each type of street section that identifies street width, sidewalks, boulevard widths, street tree planting locations, and utility service locations.

OPEN SPACE CORRIDORS

The City of Lino Lakes Parks, Open Space and Trails Corridors Manual sets up a system of parks adjacent to open space corridors. The Lino Lakes Resources Management Plan (LL RMP) provides for a system of resource management corridors or open space greenways in identified locations to treat stormwater, protect wetlands and provide and area for wetland replacement. The LL RMP is a watershed based resource plan for preliminary planning of the Lino Lakes Comprehensive Plan. High Priority wetlands are set aside in corridors. There are no high priority wetlands in this development area; however, there are protected wetlands, proposed wetland impacts, and new proposed wetlands created in a proposed open space corridor. The corridor is designed mostly on the north side of the proposal

Corridor development to the south on the east side of the proposal, and along a proposed sound barrier (berm) should be enhanced to provide a more interesting meandering system on greenway with opportunities for tree plantings, and trail amenities such as benches. If possible, the proposed central park should be adjacent to the corridor and in tune with the Lino lakes Open Space and Trails and corridor plan. Increasing upland

areas along these corridors, with the reduction of pond areas might be offset by the reduction of impervious surfaces (street widths for example).

FISH, WILDLIFE, ECOLOGICALLY SENSITIVE RESOURCES

The corridor development through the proposed Mattamy project will help as a corridor to mitigate potential impacts to ecologically sensitive areas. Implementing Conservation Design Framework of the AUAR is a requirement for this mitigation as well. Conservation design framework includes core and outlier habitat areas, buffering these natural resources, and providing for connectivity. A section on Ecologically Sensitive Resources in the AUAR should be addressed in detail for preliminary plat.

HISTORIC PRESERVATION/SENSITIVE RESOURCES

The National Heritage Database with the Minnesota Department of Natural Resources should be a part of the AUAR review for this site. Archaeological findings of the AUAR identify at least one site that would require more investigation.

Cultural resources include attempting if possible preserving or integrating the historic community rural history. The Hardwood Creek project had a small area on the North and west area set aside to use as community gardens. This opportunity should be evaluated in the open space areas of the Watermark project.

LANDSCAPING

Greenway corridors should be extensively landscaped with abundant trees and native plantings in all surface water treatment areas. Native plant use is another element that could be used in the stormwater treatment train. The sound barrier berm as well as screening along 21st avenue, and boulevard trees must be adequately addressed with a landscape plan.

NOISE

A noise analysis must be provided. Appropriate design must be incorporated to meet state acceptable noise levels. A berm is proposed along 35E.

CONSTRUCTION STORMWATER MANAGEMENT/SWPPP

The Storm Water Pollution Prevention Plan must be written with specific reference to the site. The SWPPP must all aspects of the Construction Stormwater Permit requirements. Required site specific details must be included.

WELLS

All private wells must be identified on the site.

RECOMMENDATION

1. Address the focus issues of the AUAR.
2. Incorporate Conservation Design Framework imposed by the AUAR to mitigate. potential impacts to ecologically sensitive areas.
3. Design Stormwater management plan with a Treatment-Train approach.
4. Provide a noise Analysis.
5. Expand the Open Space Corridor to the south by creating meandering open space next to the earthen berm.
6. Locate the central park adjacent to the corridor if possible
7. Perform a more detailed Cultural evaluation of areas highlighted in the AUAR
8. Investigate the potential for creating a cultural site, that may include space for community gardens on the site.
9. Submit landscape plans for screening the west edge, the open space areas, and the earthen berm.
10. Provide a SWPPP that is site specific and in conformance with the MPCA construction site permit requirements.
11. Investigate and map all private wells, weather operational or abandoned on the site.
12. Provide a street cross-section with detail for utilities, sidewalks, and boulevard trees.

ATTACHMENTS

1. Mattamy Homes Narrative dated September 8, 2014
2. Watermark Concept Plan
3. AUAR Table of Contents

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Minneapolis Division

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WATERMARK

Lino Lakes, Minnesota
September 8, 2014

RECEIVED
SEP 08 2014
CITY OF LINO LAKES

Background

Watermark (previously named Ingleside), is a proposed master planned community proposed on 372 acres generally located between County Road 21 and Highway 35E, just north of County Road 14. The neighborhood is proposed to consist of approximately 876 units, made up of attached row townhomes and detached single family homes on various lot sizes at different price points. The proposal contains a central neighborhood park integrated into network of public open spaces, an extensive storm water management system and a variety of different wetland complexes, both natural and created. The concept plan and proposed house plans have been reviewed by the City Council on two previous occasions; first in the context of the overall Lino Lakes market and secondly with a focus on the house plans themselves.

Guiding Considerations

While there are many considerations to take into account on a proposal of this size, it is necessary understand two factors that drive the design – stormwater management and project scope/location.

Often, streets and blocks are designed to create sub-neighborhoods by limiting streets that cut through sub-neighborhoods (connectivity) and building cul-de-sacs. In this proposal, it is done primarily to create naturally draining rear yard areas, minimize City stormwater facilities, minimize gas line crossings and allow for an extensive drainage/ponding system to meet requirements set forth by the Rice Creek Watershed District. While decreasing the number of homes that can be constructed, the plan allows for many more walkouts and sub-neighborhoods – allowing for higher priced homes and more desirable (to the market) pockets of development.

Secondly, this is a large project located on a site with little amenity other than its ease of access. To be successful, for both Mattamy and the City of Lino Lakes, a variety of products must be introduced to address a broad spectrum of buyers while also speeding absorption. Offering a variety of products not only makes it possible to move up the housing chain within the same neighborhood but also gives the development a more diverse look, different architectural styles

and a blend of residents at different points in their life. To design a neighborhood this size with two or three different products would create too much "sameness".

Relationship to Comprehensive Plan

Land Use. The City's Comprehensive Land Use Plan has a designation of Mixed Use. Within this designation, there was allowed up to be 20% commercial with the residential land allowed to have 4.5 du/net acre with no more than 2/3 of the residential area being 3.0 du/acre or less. Excluding wetlands, Watermark has a net density of 2.5 du/acre. If all the stormwater ponds, parks, open space, screening and wetland (natural and mitigation) areas were removed, a density of 3.75 du/acre is achieved. The proposal falls well below what is allowed under the Comprehensive Plan and significantly below the previous proposed Hardwood Creek.

Environment. Contained within the City's Comprehensive Plan is a Resource Management Plan; this was a joint effort between the City and the RCWD. Incorporated into this was a system of trail corridors, wetland corridors, stormwater facilities and neighborhood parks. Watermark incorporates all these concepts into its design. The RCWD is currently considering removing its WMC designation from the site in order to allow greater creativity and flexibility in design of the open space/stormwater/trail corridor concepts; this should allow for Additional open space not designated as buffers or replacement wetlands. At this point in the design of the neighborhood, the details of all these facilities remain to be decided but Mattamy has provided a generous land use framework within which to accomplish the intent of the RMP.

Parks. The Comprehensive Plan contemplates a 5 acre neighborhood park integrated into an open space system that will contain trails/sidewalks that go throughout the neighborhood as well as continue north and west as indicated in the Comprehensive Plan. Mattamy has designed its stormwater system to allow for the possibility of a trail corridor being combined with it as it crosses County Road 21 and travels west to the lake.

As part of the neighborhood park, Mattamy would like to work with the City to explore the potential of building a small recreational building (built by Mattamy with park fees) within or adjacent to the neighborhood park. This could be used by city residents for meetings, large picnics, or other events. This had once been considered as a private facility however a private recreational building in the proximity of a public park seemed inefficient.

The townhouse portion of the community will have a ½ acre private park/playground to serve the residents of the townhouse neighborhood.

Open Space. As discussed above, there is approximately 50 acres of park/open space surrounding all the stormwater ponds, existing and created wetlands that is intended to be dedicated to the City. In total, nearly 37% of the site will be stormwater management ponds, parks/open space, or wetlands.

Transportation. The City's Comprehensive Plan contains a collector road that runs north/south through the middle of the site connecting County Road 14 and land to the north of Watermark. Rather than divide the entire property with this road, creating breaks in the open space/surface water management plan and park system, the development proposal suggests looping the collector road to the west to line up with 73rd. (Street A). This also eliminates having a significant road run through the neighborhood where the view from the street is the back of houses. Note that even though Street A is a limited access road, we have designed the adjacent uses to be buffered by either water features, open space or deep, landscaped lots. If allowed, this road would have landscaped medians.

In place of the full, north/south collector, it is suggested that a minor collector be built. This street would have sidewalks, and a slightly wider street section if needed. Lots would have access to this street.

Mattamy would like to explore the possibility of having narrower streets and rights-of-way in select locations to slow traffic and add to the open space. Reduced setbacks could also be used to allow more of the yards to be incorporated into the public open space. This would be addressed in the design of the preliminary plat.

House Styles/Lot Sizes

House plans and lots sizes have been reviewed with the Council previously but will generally be discussed again as part of this narrative. The intent of proposing many different homes and lot sizes is to:

1. Provide different price points. The cost of a developed lot in this project is about $1400/front foot. For each 10' of lot width, we can expect at least a $14,000 difference in price.

2. Provide different floor plans and overall square footages. Many people are chosing smaller, more energy efficient homes. Family sizes are getting smaller, kids are active in many out-of-the-neighborhood activities; the yard is less important (except in the case of the rear yard as we indicated in a previous presentation).

3. Help prevent monotony in the development. In addition to varying house facades, density and lot size helps create more variety and, in many cases, sub-neighborhood identity.

4. Increase absorption. NAHB statistics state that for every $1000 you raise the price of a home, you lose 1500 buyers. Offering a long continuum of price ranges capture more of the overall market, increases sales and puts more homes on the tax rolls sooner. A struggling project is bad for both the City and Mattamy.

The single family product line will come in 4 different sizes and corresponding lot sizes – 42' wide lot, 55' wide lot, 65' wide lot and 75' wide lot. Home sizes range approximately from 2000 square feet to 3500+ square feet. The 42' and 55' wide lot will accommodate a 2 car garage; the rest will all accommodate a 3-4 car garage. Interestingly, in a project we recently opened near Lake Minnetonka, the strong majority have been with a 2-car garage. We may be seeing some generational changes in housing preference.

All homes with the exception of the 42' wide lots are proposed to have 25' front yard setbacks, 7.5 side yard setbacks (both) and minimum 25' rear yard setbacks. In keeping with the market analysis, all the lots have been designed to have a 40' or greater rear yard. At this point we are proposing the same front and rear setback for the 42' wide product but with a 5'sideyard setback. Since all our homes are built "to the side setbacks" (as are most builders), it is interesting to note that the percentage of open space along a block of homes actually decreases as the lot size goes up. What is critical with narrower lots is the design of the façade; we hope that we have illustrated that our designs take this into consideration in past presentations.

The plan concentrates the more dense detached units and the townhomes on the south end of the site where commercial uses are more likely to occur, the park-and-ride is located, and existing townhomes are present.

Maximum Yield Plan Comparison

It is difficult to accurately compare this proposal against the zoning ordinance in that it is guided for mixed use and zoned agricultural. The Comprehensive Plan allows for a net residential density of 4.5 du/acre or 1,575 units; Watermark contains 876 units. With the limiting density requirement that on 2/3 of the site can be no greater than 3.0 du/acre, a maximum yield would have a unit type mix that is 44% detached (varying lot sizes) and 56% attached. Watermark's unit type mix is 81% detached and 19% attached. The proposed net density is 2.5 du/acre excluding

wetlands. Even if all ponds, parks, stormwater ponds, wetlands and proposed open space are excluded, the proposed density is still only 3.75 per acre; well below the 4.5 du/acre threshold.

The Comprehensive Plan allows for 70 acres of commercial. As has been discussed with the City Council, the likelihood of this parcel becoming a type of commercial that would be acceptable to the City is remote. 70 acres will allow for four big-box type centers; if this intensity of commercial is interested in this intersection, it will be on any of the other three corners of CR 14 and 35E; these corners have direct access and visibility from County Road 14. For the sake of analyzing yield, even if the 70 acres of commercial were taken out of the density calculation, Watermark is still only 70% of the allowable density.

Phasing

Trunk sewer and water serve the site from the south. As can be seen from the development plan, the part of the site that offers the highest amenity (parks, open space, wetland complexes) and greatest potential for creating an exciting arrival is in the center of the site.

It is Mattamy's intent to build a model center at the center entrance from County Road 21 offering all 4 detached home products. It is anticipated that the central pond will be constructed along with the park and community center (discussed earlier). Ideally, this part of the neighborhood would open in the fall of the year (Phase 1). At the same time, construction would start on the southern end of the project, allowing us to open the more dense part of the project in the Spring or Summer of the following year. Screening from 35E will be accomplished with berming (15') and landscaping and be constructed along with Phase 1 and 1a.

The absorption rate of the various product types will determine exact phasing but the likely scenario is that phasing will fill in the area between the central park and townhouse area, making use of the infrastructure installed to serve the central park area.

We expect to complete the project 8-9 years after sales start, assuming a construction pace of 100 units per year.

Summary

Watermark is a unique solution to the natural and regulatory challenges that this site presents. Its proximity to transportation and the rest of the metro area, the surrounding open space and recreational areas, quality schools and a broad buyer profile offer a unique locational advantage. At the same time, these very attributes present challenges to site planning, water resource management, and regulatory approvals.

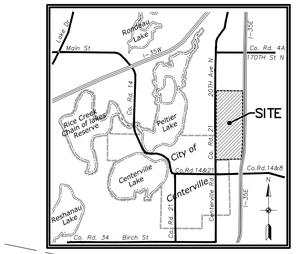
We believe that this plan is a solid framework with which to proceed to preliminary plat. The plan designates the necessary land area with which to address stormwater management, construct the desired recreational corridors and provide connectivity to future planned recreational areas. Based on sound market analysis, our plan responds to the broad range of home buyers looking to reside in Lino Lakes by offering a broad range of housing options and price points.

We look forward to advancing the proposal and addressing more details of the design as we prepare for preliminary PUD approvals.

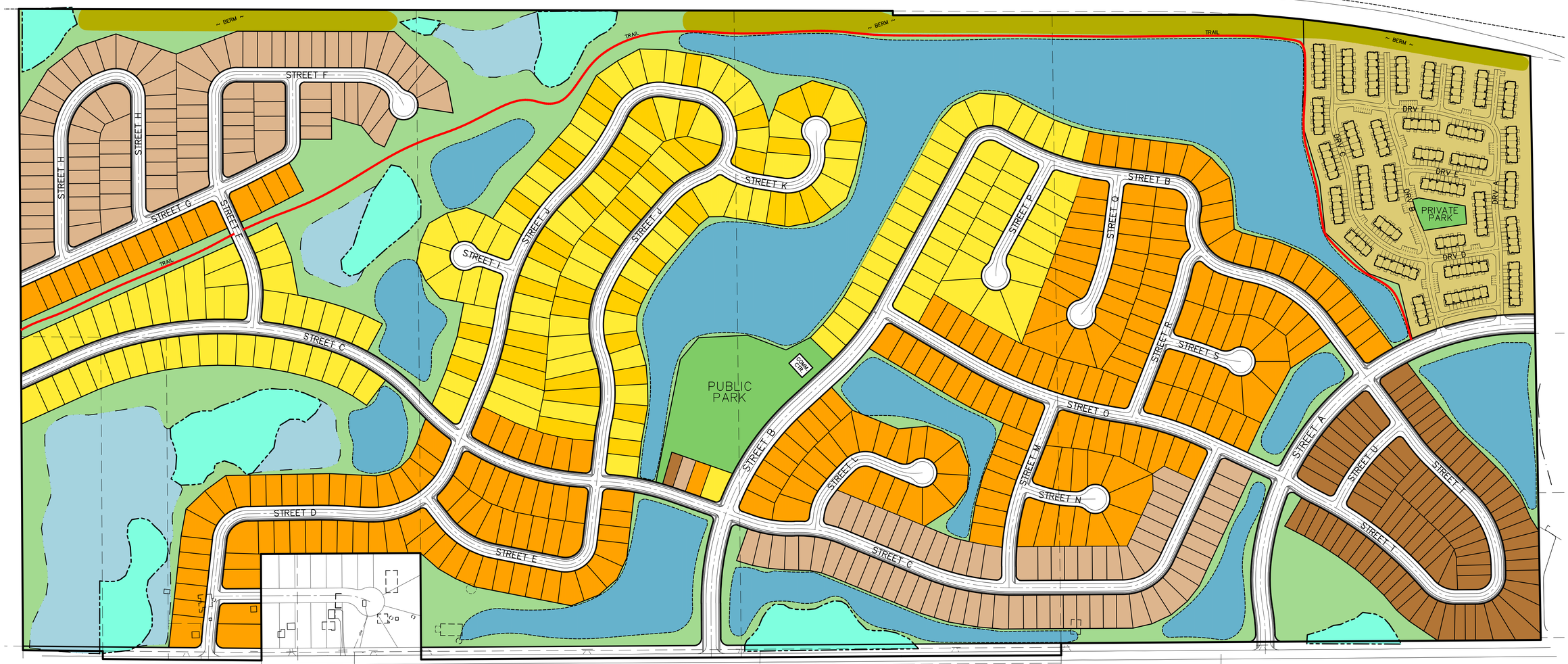
Respectfully submitted,

Mattamy Homes
Rick Packer
Land Development Manager

WATERMARK
CONCEPT PLAN



LOCATION MAP
(NO SCALE)



LEGEND

75' SINGLE FAMILY LOTS	153
65' SINGLE FAMILY/PREMIUM LOTS	49
65' SINGLE FAMILY LOTS	261
55' SINGLE FAMILY LOTS	162
42' SINGLE FAMILY LOTS	86
30' TOWNHOME UNITS	165

- PARK
- GREEN SPACE
- BERMS
- STORM POND (HWL)
- EXISTING WETLAND
- WETLAND REPLACEMENT (MITIGATION)

SITE DATA

TOTAL SITE AREA	**±372.0 AC.**
TOTAL ROW AREA	**±51.11 AC.**
20TH AVENUE NORTH	±3.92 AC.
INTERNAL ROW	±47.19 AC.
TOTAL OUTLOT AREA	**±138.63 AC.**
PUBLIC PARK	±5.58 AC.
PRIVATE PARK	±0.49 AC.
GREEN SPACE & BERMS	±49.53 AC.
WETLANDS, MITIGATION & PONDS	±83.03 AC.
TOTAL LOT AREA	**±182.26 AC.**
65'-75' LOTS	±114.35 AC.
55' LOTS	±31.79 AC.
42' LOTS	±14.06 AC.
TOWNHOME LOTS	±22.06 AC.

TOTAL NUMBER OF LOTS/UNITS	**876**
SINGLE FAMILY LOTS	711
TOWNHOME UNITS	165
AVERAGE LOT SIZES:	
75' LOTS	±10,125 S.F.
65' LOTS	±8,775 S.F.
55' LOTS	±7,425 S.F.
42' LOTS	±5,670 S.F.
MINIMUM HOUSE SETBACK DATA:	
FRONT	25 FT.
SIDE (GARAGE)	5 FT.
SIDE (HOUSE)	10 FT.
SIDE CORNER	20 or 25 FT.
REAR SETBACK	25 FT.

N

0 100 200 400
(IN FEET)

SOIL BORINGS
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WETLANDS
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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

Print Name: Brian J. Krystofiak, P.E.
Signature:
Date: 09/05/14 License #: 25063

Drawn: C#
Designed: BJK
Date: 09/05/14

Revisions:

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WATERMARK
Lino Lakes, Minnesota

CONCEPT PLAN

Save Date: 09/08/14 f:\jobs\4721 - 4740\4724 - lino lakes property\cad\survey\layouts\4724_layout 4 concept.dwg

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