

ENVIRONMENTAL BOARD AGENDA

Wednesday, October 30, 2024

Broadcast on Cable TV Channel 16 and northmetrotv.com/lino-lakes-stream

ADVISORY BOARD MEETING, 6:30 P.M. Council Chambers (televised)

- 1. Call to Order and Roll Call
- 2. Pledge of Allegiance
- 3. Public Comment (sign-in prior to start of meeting per Rules of Decorum)
- 4. Setting the Agenda: Addition or Deletion of Agenda Items
- 5. Approval of Minutes: September 25, 2024
- 6. Action Items
 - A. Lino Retail 2.0 Preliminary Plat, Rezoning, CUP, Site and Building Plan Review and Street Vacation
- 7. Discussion Items
 - A. Project Updates

ADJOURNMENT

CITY OF LINO LAKES ADVISORY BOARD MEETING GUIDELINES

Advisory boards are fact-finding bodies established to aid the City Council in specific areas. The decisions of any board are considered advisory only and all final decisions rest with the City Council. Board meetings shall operate in accordance with the procedures established by the City Council. The following meeting guidelines are derived from the City Council Rules of Decorum.

<u>Members of the Audience</u> – No person in the audience shall engage in disorderly or disruptive conduct such as audible commentary during a meeting, hand clapping, stamping of feet, whistling, using profane language, yelling and similar demonstrations, which conduct disturbs the peace and good order of the meeting.

Public Comment– Comments from the public will be accepted on any matter, whether on the agenda or not. Comments will not be accepted during specific agenda items unless a Public Hearing has been noticed. Please remember to be courteous and respectful and abide by the following guidelines:

- Sign-in prior to the start of the meeting
- Step up to the microphone when recognized by the Presiding Officer (Chair or Vice-Chair)
- State your name and address for the record
- State the subject to be discussed
- Limit comments to 4 minutes
- Address comments to the board as a whole, not any specific member
- No question may be asked of a board member or staff member without the permission of the Presiding Officer (Chair or Vice-Chair)
- Elect a spokesperson for a group of persons who wish to address the board on the same subject

Public Hearing – A public hearing is a separate item of business on the agenda. It gives the public an opportunity to comment on the topic identified. Please remember to be courteous and respectful and abide by the guidelines outlined for public comment (although no sign-in required). Typically, a public hearing proceeds as follows:

- 1. The Presiding Officer (Chair or Vice-Chair) will announce the agenda item and staff will present their report.
- 2. Board members have the opportunity to ask staff questions about the item.
- 3. The Presiding Officer (Chair or Vice-Chair) opens the public hearing and will recognize those who want to speak.
- 4. The Presiding Officer (Chair or Vice-Chair) shall close the public hearing.
- 5. The Board will then discuss the item. No further public comments are allowed.
- 6. The Board will make a recommendation and/or decision.

After a motion has been made or a public hearing has been closed, no member of the public shall address the board from the audience on the matter under consideration. The Presiding Officer (Chair or Vice-Chair) shall maintain strict order and etiquette at all meetings.

CITY OF LINO LAKES ENVIRONMENTAL BOARD MEETING

DATE: TIME STARTED: TIME ENDED: MEMBERS PRESENT:

MEMBERS ABSENT: STAFF PRESENT: September 25, 2024 6:30 p.m. 8:17 p.m. John Sullivan, Julia Nelson, Alex Schwartz, Lindsay Buchmeier Jonathan Parsons Michael Grochala, Andrew Nelson, Katie Larsen, Dana Rozan

1. CALL TO ORDER AND ROLL CALL

Chair Sullivan called the Environmental meeting to order at 6:30 p.m. on Wednesday September 25, 2024.

- 2. PLEDGE OF ALLEGIANCE
- 3. PUBLIC COMMENT (sign in prior to start of meeting per Rules of Decorum)

Nobody was present for the public comment period.

4. SETTING THE AGENDA: Addition or Deletion of Agenda Items

The agenda was approved as presented.

5. APPROVAL OF MINUTES: August 28, 2024

Ms. Buchmeier made a motion to approve the August 28, 2024 minutes. Mr. Schwartz seconded. Motion carried 4 – 0.

6. ACTION ITEMS

A. Spargur Estates Preliminary Plat

Mr. Grochala presented the staff report.

The applicant, Mespargur Inc., submitted a land use application for preliminary plat Spargur Estates. The applicant proposed to subdivide the existing parcel located at 559 Lois Lane into four single family lots for the purpose of constructing three new singlefamily homes.

The Board discussed the Spargur Estates preliminary plat.

Mr. Schwartz made a motion to approve the staff recommendations. Ms. Nelson seconded. Motion carried 4 - 0.

B. Wilkinson Waters PUD Concept Plan Review

Mr. Grochala presented the staff report.

Mr. Grochala clarified that a PUD concept plan review is a beginning stage where Board members give feedback on what are some opportunities and concerns of what is proposed for the site.

The applicant, Wilkinson Waters LLC, is proposing a master plan development located on North Oaks Company Inc. property. The development contains four parcels totaling approximately 76 gross acres and consists of a mix of residential housing types and commercial development. The proposed development is called Wilkinson Waters.

The Board discussed the Wilkinson Waters PUD Concept Plan.

Mr. Schwartz asked how the stormwater treatment train would be an amenity of the development.

Mr. Grochala replied that the developer could use rain gardens or construct a creek instead of a traditional storm sewer system to create a natural storm sewer system.

Chair Sullivan asked where the water would come from since it is dry in the area.

Mr. Grochala replied that stormwater will runoff from impervious areas into stormwater catch basins. He also discussed some possibilities of how to migrate stormwater runoff to a creek.

Mr. Schwartz asked if there would be an opportunity to run stormwater piping to the west of the 4-plex and 6-plex area and to start the stormwater treatment train there.

Mr. Grochala responded that yes there are many opportunities for that, to which Mr. Schwartz expressed approval of.

Mr. Schwartz commented that if the developers are allowed to build to the maximum building height, then he would like to see some trees being planted either in the south and west of GRE easement, or along the embankment along the building.

Mr. Schwartz commented that the area lacks in the number of commercial areas in the region and that it would be a great amenity for residents who live around the proposed development.

Chair Sullivan asked for clarification on why the stormwater pond would be dedicated to the city for maintenance.

Mr. Grochala responded that is typical if there is public drainage. If there is private water going in, such as water from the parking lot and the buildings, then it would be the developer's maintenance responsibility.

Ms. Buchmeier asked if the EAW and well investigation should be added to the recommendations.

Mr. Grochala responded that the EAW should be added, but the well investigation would have to happen regardless.

Ms. Buchmeier suggested to add that a tree survey should be required if existing trees are proposed for removal as a recommendation.

Mark Houge, Director of North Oaks Company, provided more information on the development. Mr. Houge pointed out that the purple highlighted area of the proposal map is not going to be disturbed because it is terminal soil due to the corn fields that used to be there. They are hoping to put in trails going west toward Ash Street and connect to developments further west.

Lauren Grouws, Civil Engineer with North Oaks Company, discussed stormwater management. The use of rain gardens could pose as a stormwater treatment and landscaping. A master HOA will maintain the rain gardens in the commercial, residential and multi-family areas.

Don Pereira, Director of Conservation for North Oaks Company discussed what the BMP is. Wilkinson lake is full of nutrients and has a lot of studies done from VLAWMO to maintain the lake. One possibility is to hire ISG to look into water coming in from the

DRAFT MINUTES

north. Water coming from lake amelia somehow gets dirty by the time it gets to Wilkinson Lake.

Mr. Pereira also discussed another project with VLAWMO, North Oaks Company, and the City of Lino Lakes to restore the upland outside of the development.

The Board agreed with staff recommendations as well as to include an EAW, and the preparation of a Tree Survey.

The Board did not make a motion.

7. Discussion Items

A. Project Updates

Mr. Grochala introduced Clarissa Grilley, the new recycling intern. Ms. Grilley gave some background on herself.

Mr. Grochala also updated the Board that the new Environmental Coordinator would be starting at the end of October.

Regarding the Main Street corridor, the City Council authorized the master plan AUAR process, and the consultant is Kimley Horn.

8. ADJOURN

Ms. Buchmeier made a motion to adjourn the meeting at 8:17 p.m. Motion was seconded by Ms./Mr. Motion carried 4 - 0.

Respectfully submitted, Dana Rozan – Office Specialist

ENVIRONMENTAL BOARD AGENDA ITEM 6A

STAFF ORIGINATOR:	Michael Grochala, Community Development Director
MEETING DATE:	October 30, 2024
REQUEST:	Rezoning, Preliminary Plat, Conditional Use Permit, Site and Building Plan Approval and Vacation
APPLICANT:	Java Companies, LLC Mark Krogh, Manager 879 Scheffe Avenue St. Paul, MN 55102
OWNER:	Multiple

BACKGROUND

The applicant, Java Companies, LLC, is proposing to plat and develop three (3) commercial lots near Lake Drive, Marketplace Drive, and 77th Street. 77th Street is proposed to be vacated between Maryland Drive and Lake Drive. A new street (Marketplace Drive) will be dedicated as part of the plat and constructed to replace 77th Street.

The City has been planning for the relocation of 77th Street since the Market Place development was approved in 2002. 77th Street was limited to a right-in/right out access at Lake Drive as part of the Marketplace intersection signal improvements as that time. The City purchased the property at 7685 Lake Drive in 2019 in preparation for the improvements.

Java Companies has entered into a purchase agreement with the City for acquisition of the City's two lots north of existing 77th Street and a remnant of the 7685 Lake Drive property.

The Land Use Application is for the following:

- Rezoning
 - NB, Neighborhood Business to GB, General Business
 - Preliminary Plat
 - 3 commercial lots

- Conditional Use Permit
 - Auto repair-major and minor for fast oil change facility (Lot 1, Block 2)
- Site & Building Plan Review (Lots 1 & 2, Block 1 are administrative reviews)
- Vacation
 - \circ Portion of 77th Street

This staff report is based on the following information:

- Narrative prepared by Java Companies received September 9, 2024
- Preliminary Plat prepared by Design Tree dated September 9, 2024
- Civil Plan Set prepared by Design Tree dated September 4, 2024
- Landscape Plan prepared by Plan-Type dated August 2, 2024
- Final Stormwater Management Study prepared by Design Tree dated July 16, 2024
- Geotech Sketch and Logs prepared by Braun Intertec dated August 27, 2024

<u>ANALYSIS</u>

General Site Characteristics

The 5 acre site includes the redevelopment of six (6) existing lots along the west side of Lake Drive. The lots south of 77th Street are commercially zoned lots that either had or currently have single family dwellings. The developer will be removing the existing dwellings as part of the project. Tree removal within the proposed road right-of-way and utility easements was completed by the City in spring of 2024.

The north two City lots have been temporarily used as community gardens. The site was not used for this purpose in 2024. Staff is looking at potential alternative areas but no site has been identified at this time.

Land Cover

As previously noted the site was predominately developed with single family homes. The two lots north of 77th Street are vacant with short grasses and 4 -10% impervious cover. The site has been temporarily used for community gardens.

Rare, Unique, or Significant Resources

There are no known rare, unique of significant resources on the site.

<u>Soils</u>

The site is relatively flat. The site soils are predominately Zimmerman fine sand, an excessively drained soil type and Soderville fine sand, a moderately well drained soil.

11 soil borings were performed to a depth of 14.5 feet below grade. Borings encountered topsoil to a depth of approximately 0.5 feet. Depth to ground water ranged from 7.5 ' to greater than 14 feet.

Stormwater Management

A stormwater management plan has been submitted and has been reviewed by the City Engineer. The following summary review is based upon the same stormwater management plan.

Existing Conditions

Stormwater management for the Lino Retail 2.0 site consists of infiltration basins for the southern and northern lots. Additionally, some stormwater infrastructure is proposed for the City's realignment of 77th Street. An existing stormwater infiltration pond treating Lake Drive runoff will remain on the site. Existing and proposed discharge rates are summarized below.

Pre- and Post- Development Discharge Rates (cfs)				
Condition	2-Year	10-Year	100-Year	10-Day Snowmelt
Existing	0.00	0.35	5.98	Needed if basins landlocked
Currently Proposed	0.00	0.18	4.90	Needed if basins landlocked

Stormwater is intended to infiltrate on site. Any potential overflow would be conveyed via the County Road ditch or a City drainage swale along the back of the property to storm ponds located to the north of the site.

Based on the engineers comments the infiltration pond between the road and parking lot can be removed as sufficient storage is available in the pond west of the drive aisle

A Rice Creek Watershed District (RCWD) permit will be required.

Stormwater Pollution Prevention

The Stormwater Pollution Prevention Plan (SWPPP) notes the locations of several Best Management Practices (BMPs) that will be installed on the site to minimize erosion and sediment leaving the site.

The site is located within 1 mile of George Watch and Marshan Lake, which are considered impaired waters. Accordingly, the site is required to have additional best management practices. All disturbed soils must be stabilized within 7 days. Inlet protection silt fence, final stabilization, and other BMP's must be implemented prior to allowing water to leave the site.

These BMPs include a rock construction entrance, silt fence inlet protections, and riprap for energy dissipation at pipe outfalls. A concrete washout area should be identified on the plan.

Flood Plain

Site does not fall within the flood management zone.

Shoreland District

Site does not fall within Shoreland District.

<u>Wetlands</u>

There are no wetlands on the property.

Environmental Review

The site is not within the 2005 I-35E Corridor AUAR environmental review boundary. No additional environmental review is required.

Drinking Water Protection

The site is not located within the Drinking Water Supply Management Area (DWSMA). The site will be connected to City water and sewer.

LANDSCAPE PLAN

Tree Preservation and Mitigation Standards

The purpose of these standards is to protect valuable trees and stands of vegetation while not interfering with landowners' reasonable use and development of property. The goal is to minimize unnecessary loss of habitat, biodiversity, and forest resources and to replace removed trees in areas where tree cover is most critical. The site is not located in an Environmenatlly Sensitive Area. A total of 80 trees will be removed of which 12 are dead. All of the trees proposed for removal are within the basic use area and no mitigation is required.

Nine trees located on the south end of the site (Lot 1, Block 2) will be preserved. These will likely be removed with any future development.

A total of 89 trees are proposed to be planted to meet landscaping requirements.

Open Areas Landscape Standards

The purpose of these standards is to provide general site beautification and high aesthetic quality with a mix of plant materials in open areas. Open area landscape standards call for 1 large tree and 3 large shrubs per 2000 sq. ft. Substitutions are allowed based on zoning specifications.

Each lot was reviewed independently for compliance with this requirement.

<u>Lot 1, Block 1</u>

31,323 sq. ft. of open space calls for 16 large trees and 48 large shrubs.

The plan includes 19 large trees that meet open space standards. This leaves a shrub requirement of 42. 42 large shrubs (including 6 small coniferous trees) and 10 medium size shrubs, equivalent to 6 large shrubs, are provided meeting the planting requirement.

<u>Lot 2, Block 1</u>

30,548 sq. ft. of open space calls for 15 large trees and 46 large shrubs.

The plan includes 19 large trees. The plan also includes 3 coniferous trees and 6 smaller birch trees. 30 large shrubs 26 medium shrubs, equivalent to 17 large shrubs meet the planting requirement.

Lot 1, Block 2

35,170 sq. ft. of open space calls for 18 trees and 54 large shrubs. 11 trees are provided and 9 existing trees will remain meeting the tree requirements. 35 large shrubs and 30 medium shrubs, equivalent to 20 large shrubs are provided meeting the planting requirement.

Buffer and Screen Standards

The purpose of this requirement is to separate and buffer different land use types, screen roads and parking, and screen utility and loading areas. The buffer may include a continuous, year-round planting screen, a wall or fence with shrub and tree cover, or a combination of berm and screening.

West property line screening

Due to site constraints and other landscape related requirements, the continuous year round planting screen and the berm options are not suitable for the site.

A a 6' high fence should be installed along the west property line. With the fence provision the proposed landscaping will conform to the screening requirements for Lots 1 & 2, Block 1 and Lot 1, Block 2.

Parking lot screening has been provided on each lot between the public street and parking areas. The proposed screening is in conformance with city requirements.

Canopy Cover

The purpose of this requirement is to mitigate the effects of vehicular hardscape by establishing tree canopy cover to intercept rainfall, protect pavement from sun deterioration, reduce the heat island effect, and improve aesthetics. Canopy cover standards call for a minimum of 40% canopy coverage.

Lot 1, Block 1

Vehicular hardscape planned:	26,826 sq. ft.
Canopy cover requirement:	10,730 sq. ft.
Canopy cover provided:	14,650 sq. ft.

Canopy cover requirements have been met for this lot.

Lot 2, Block 1

Vehicular hardscape planned:	27,042 sq. ft.
Canopy cover requirement:	10,817 sq. ft.
Canopy cover provided:	11,200 sq. ft.

Canopy cover requirements have been met for this lot.

Lot 1, Block 2

Vehicular hardscape planned:	20,121 sq. ft.
Canopy cover requirement:	8,048 sq. ft.
Canopy cover provided:	8,550 sq. ft.

Canopy cover requirements have been met for this lot.

Foundation Landscaping

The purpose of these standards is to soften and enhance building architecture, define access points, add color and seasonal interest, and to blend buildings in with the natural environment. These standards apply to building fronts and sides facing public or private streets.

2 large trees and 6 large shrubs are required per 100 linear feet of building. These plants should be within 30 feet of the building.

Lot 1, Block 1

87 feet of street facing foundation requires 2 large trees and 6 large shrubs. 2 large trees and 9 large shrubs are provided.

<u>Lot 2, Block 1</u>

170 feet of street facing foundation (Lake Drive and Marketplace) requires 4 large trees and 11 large shrubs. 3 large trees on the south elevation along with 6 medium trees along the east elevation and 22 medium shrubs are provided. In addition to potted grasses and other perennial plantings.

Lot 1, Block 2

86 feet of street facing foundation (Lake Drive and Marketplace) requires 2 large trees and 6 large shrubs. 3 trees are proposed along with 9 medium shrubs. Staff would recommend that one of the trees be relocated to the Lake Drive facing foundation area.

The foundation landscape requirements have been met.

Sod and Ground Cover Standards

All areas not otherwise improved in accordance with the approved site plans shall have a minimum depth of 4 inches of topsoil and be sodded with exception of stormwater management areas which are proposed for seeding. The area around the stormwater basin will be seeded with MN DOT 34-262 wet prarie seed mix, and 35-221 dry prairie general mix. MN DOT 25-131 – a low maintenance turf is also proposed on the site.

The low maintenance turf areas should be identified on the plan sheet.

<u>Lighting</u>

A photometric plan was submitted. The plan indicates that footcandle requirements of 1.0 at street right-of way lines .4 at abutting lot lines will be met around the exterior of the site. All light will be required to have a 90-degree cut off.

The plan will need to be revised for each site application to clearly show property lines, and location of lighting source. Plan should also include proposed drive-through boards for Lot 1, Block 2. Detail sheets showing the fixtures for both overhead lighting and exterior building lighting shall be submitted for review and approval.

RECOMMENDATIONS

Staff recommends the Lino 2.0 Preliminary Plat and associated commercial Site Plan Reviews be forwarded to the City Council with the following comments and any additional comments from the Environmental Board:

- 1. A six (6) foot high maintenance free privacy fence shall be located along the west lot lines of all three (3) lots.
- 2. At least one of the trees on Lot 1, Block 2, planted to meet foundation landscape requirements should be moved to the Lake Drive facing foundation area.
- 3. The location of low maintenance turf areas (MN DOT 34-131) should be identified on the plan sheets.
- 4. The Photometric Plan should be revised to clearly show property lines and location of lighting sources/type.
- 5. Detail sheets showing all fixtures for both overhead lighting and exterior building lighting shall be submitted for review and approval.

ATTACHMENTS

- 1. Site Location Map
- 2. Zoning Map
- 3. Preliminary Plat

- 4. Grading, Drainage and Erosion Control
- 5. Landscape Plans
- 6. Photometric Plans

Lino Retail 2.0



1 in = 200 Ft

Address Labels

Parcels





Zoning Map-Lino Retail 2.0



Address Labels



R-1 - Single Family Residential R-1X - Single Family Executive

R-4 - High Density Residential

GB - General Business

NB - Neighborhood Business

PSP - Public Semi-Public

PUD - Planned Unit Development



1 in = 400 Ft



PRELIMINARY PLAT OF LINO LAKES 2.0

LEGEND

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OF WETLAND		
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OF TREE LINE OR WOODS	\otimes	BEEHIVE CATCH BASIN

BITUMINOUS PAVEMENT

AGGREGATE SURFACING





1. EXISTING CONDITIONS & TOPOGRAPHIC INFORMATION PROVIDED BY: DESIGN TREE ENGINEERING & LAND SURVEYING 120 17TH AVENUE W ALEXANDRIA, MN 56308

2. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS AND REMOVAL LIMITS PRIOR TO ANY CONSTRUCTION.

3. THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREIN ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND/ OR RECORDS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING LOCATION AND ELEVATION TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.

4. GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166. CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATOR TO ASSIST WITH PRIVATE UTILITY LOCATES.

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80'



DRAWING NO.

C101



PROPERTY INFORMATION

NORTH LOT AREA	70,154.8 SF (1.611 AC)
NORTH LOT IMPERVIOUS AREA	33,256.9 SF (0.763 AC)
NORTH LOT IMPERVIOUS COVERA	AGE 47.4%
MIDDLE LOT AREA	61,595.8 SF (1.414 AC)
MIDDLE LOT IMPERVIOUS AREA	36,769.0 (0.844 AC)
MIDDLE LOT IMPERVIOUS COVER	AGE 59.7%
SOUTH LOT AREA	38,470.9 SF (0.883 AC)
SOUTH LOT IMPERVIOUS AREA	22,287.3 (0.512 AC)
SOUTH LOT IMPERVIOUS COVERA	AGE 57.9%



0' 40'

80'



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2. SIDEWALKS SHALL MEET ADA REQUIREMENTS, AND SHALL NOT EXCEED 2.00% CROSS SLOPE, OR 5.00% LONGITUDINAL SLOPE.

3. CONCRETE ENTRANCES AND APPROACHES SHALL NOT EXCEED 2.00% CROSS SLOPE IN SIDEWALK AREAS.

4. ACCESSIBLE PARKING STALLS SHALL MEET ADA REQUIREMENTS, AND SHALL NOT EXCEED 2.00% CROSS SLOPE IN ALL DIRECTIONS.

5. PEDESTRIAN RAMPS SHALL MEET ADA REQUIREMENTS.

6. ALL EXCESS OR WASTE MATERIAL GENERATED AS PART OF CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.

7. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL/SURFACE RESTORATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.

8. IN ADDITION TO THESE PLANS, A STORMWATER MANAGEMENT STUDY HAS BEEN PROVIDED. THE STORMWATER MANAGEMENT STUDY INCLUDES ADDITIONAL INFORMATION REGARDING THE DESIGN OF THE STORMWATER MANAGEMENT BMP. THE CONTRACTOR SHALL REVIEW THE STORMWATER BOOK AND COMPLY WITH ALL STATE AND LOCAL REQUIREMENTS.

9. ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

10. INFILTRATION AREAS SHALL NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND STABILIZED. ONLY LOW IMPACT TRACK EQUIPMENT SHALL BE USED WITHIN INFILTRATION AREAS.

11. SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS & GUTTER FLOW LINE UNLESS OTHERWISE NOTED. PROPOSED CONTOURS ARE TO FINISHED SURFACE GRADE.

GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166. CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATOR TO ASSIST WITH PRIVATE UTILITY LOCATES.

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OPOSED SPOT ELEVATION*

30'

ROPOSED SURFACE FLOW DIRECTION

*SPOT ELEVATIONS ALONG CURB & GUTTER AND OTHER REVEALS ARE TO FLOWLINE, UNLESS OTHERWISE NOTED.

KEY NOTES:

$\langle 1 \rangle$	MATCH INTO EXISTING BITUMINOUS PAVEMENT
2	MATCH INTO EXISTING CURB & GUTTER
3	MATCH INTO LIP OF EXISTING CURB & GUTTER

4 GRADE BREAK



DESIGN TREE

engineering + land surveying

Corporate Office: 120 17th Ave W Alexandria, MN 56308

888-216-1916

JAVA

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

LICENSE #: 56653

LAWS OF THE STATE OF MINNESOTA.

LINO LAKES 2.0

879 Scheffer Avenue St. Paul, MN 55102 Phone: 952-403-9595

PRINTED NAME: MICHAEL J. GERBER

DATE: 09/04/2024



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5. PEDESTRIAN RAMPS SHALL MEET ADA REQUIREMENTS.

5. ALL EXCESS OR WASTE MATERIAL GENERATED AS PART OF CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.

ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL/SURFACE RESTORATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.

8. IN ADDITION TO THESE PLANS, A STORMWATER MANAGEMENT STUDY HAS BEEN PROVIDED. THE STORMWATER MANAGEMENT STUDY INCLUDES ADDITIONAL INFORMATION REGARDING THE DESIGN OF THE STORMWATER MANAGEMENT BMP. THE CONTRACTOR SHALL REVIEW THE STORMWATER BOOK AND COMPLY WITH ALL STATE AND LOCAL REQUIREMENTS.

9. ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

10. INFILTRATION AREAS SHALL NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND STABILIZED. ONLY LOW IMPACT TRACK EQUIPMENT SHALL BE USED WITHIN INFILTRATION AREAS.

11. SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS & GUTTER FLOW LINE UNLESS OTHERWISE NOTED. PROPOSED CONTOURS ARE TO FINISHED SURFACE GRADE.

12. GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166. CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATOR TO ASSIST WITH PRIVATE UTILITY LOCATES.

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- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR EXISTING CONTOUR LABEL
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CONTOUR LABEL
- EXISTING SPOT ELEVATION*

PROPOSED SPOT ELEVATION*

PROPOSED SURFACE FLOW DIRECTION

*SPOT ELEVATIONS ALONG CURB & GUTTER AND OTHER REVEALS ARE TO FLOWLINE, UNLESS OTHERWISE NOTED.

KEY NOTES:

$\langle 1 \rangle$	MATCH INTO EXISTING BITUMINOUS PAVEMENT
$\langle 2 \rangle$	GRADE BREAK
$\langle 3 \rangle$	MATCH INTO EXISTING CURB & GUTTER

4 4' CURB CUT





DRAWING NO.

C302



1. ALL DISTURBED AREAS SHALL BE FINAL GRADED AND PERMANENTLY STABILIZED WITH THE SEED MIX IDENTIFIED ON PLANS.

2. THE SITE MUST BE STABILIZED PER THE REQUIREMENTS OF THE MPCA, NPDES, MNDOT, AND CITY.

3. INLET PROTECTION SHALL BE PROVIDED ON ALL CATCH BASINS AND INLETS DOWN GRADIENT OF CONSTRUCTION ACTIVITY.

4. PROVIDE SILT FENCE PERIMETER CONTROL DOWN GRADIENT OF ALL CONSTRUCTION ACTIVITY AND TEMPORARY STOCKPILES.

5. TEMPORARY STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.

NO OFFSITE VEHICLE TRACKING IS PERMITTED. STREETS SHALL BE CLEANED AND SWEPT WHENEVER TRACKING OF SEDIMENTS OCCURS AND BEFORE SITES ARE LEFT IDLE FOR WEEKENDS AND HOLIDAYS.

7. REFER TO THE SWPPP AND THE CITY OF LINO LAKES EROSION CONTROL REQUIREMENTS FOR FURTHER EROSION CONTROL SEQUENCING.

8. IN ADDITION TO THESE PLANS, A STORMWATER MANAGEMENT STUDY HAS BEEN PROVIDED. THE STORMWATER MANAGEMENT STUDY INCLUDES ADDITIONAL INFORMATION REGARDING THE DESIGN OF THE STORMWATER MANAGEMENT BMP. THE CONTRACTOR SHALL REVIEW THE STORMWATER BOOK AND COMPLY WITH ALL STATE AND LOCAL REQUIREMENTS.

9. WHEN INSTALLING END-OF-LINE FLARED END SECTIONS, BRING THE SILT FENCE UP & OVER THE FLARED END SECTIONS & COVER DISTURBED AREAS WITH RIP RAP. THE UPSTREAM FLARED END SECTIONS SHALL HAVE WOOD FIBER BLANKET INSTALLED ON THE DISTURBED SOILS.

10. INFILTRATION AREAS SHALL NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND STABILIZED. ONLY LOW IMPACT TRACK EQUIPMENT SHALL BE USED WITHIN INFILTRATION AREAS.

11. GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166. CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATOR TO ASSIST WITH PRIVATE UTILITY LOCATES.

EROSION CONTROL QUANTITIES:

3	STABILIZED CONSTRUCTION EXIT	(2 EA)
	SILT FENCE	(1295 LF)
, ,	MNDOT SEED MIX 25-151 (HYDROSEED)	(1.28 AC)
	RIPRAP	(27 CY) SEE DETAIL
\mathbb{R}	CATEGORY 20 ECB & MNDOT 25-151	(2564 SY)
	INLET PROTECTION	(10 EA)

NOTE: QUANTITIES SHOWN ARE FOR SWPPP PLAN, AND ARE NOT FOR BIDDING





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Project Description:

The work on the project includes the development of three existing lots within Lino Lakes and coordination with the City of Lino Lakes, as they design and construct Marketplace Drive, and the removal of 77th St. The proposed development will span Marketplace Drive, and include the addition of new buildings, parking lots, curb, walk, landscape space, and stormwater infiltration basins, pipe, and pretreatment devices. The project is located at 7691 Lake Dr, Lino Lakes, MN, 55014. The majority of the underlying soils on the property are in Hydrologic Soil Group "A" and have high infiltration rates when thoroughly wet.

Receiving Waters:

All existing stormwater runoff sheet flows to a culvert, north of the proposed development. All stormwater runoff from proposed impervious surfaces will be treated via infiltration basin BMPs, and perforated storm sewer BMPs. Overflow from these systems will continue to flow to City storm sewer infrastructure, discharging to the culvert, north of the proposed development.

Responsible Parties:

The Owner and the Contractor are responsible co-permittees for the implementation of the SWPPP. The Contractor and Owner shall apply for the NPDES/SDS Construction Permit within 24 hours of award of Contract. The complete application must be submitted prior to start of construction activity. The Contractor is responsible for installation, inspection, maintenance, and repair of all erosion prevention and sediment control BMPs before, during, and after active construction. The Contractor shall amend the SWPPP before beginning construction to include the chain of responsibility of all operators on the site, or if not known, the title or position of the responsible party. The Contractor is responsible for identifying a trained person (as specified in the NPDES/SDS Contruction Permit) knowledgeable and experienced in the application of erosion prevention and sediment control BMPs who will oversee the implementation of the SWPPP before and during construction until the construction project is complete, the entire site has undergone final stabilization, and a Notice of Termination(NOT)/Permit Modification form has been submitted to the MPCA. The Owner must identify who will be responsible for the long-term operation and maintenance of all permanent stormwater management systems. The Contractor is liable until final stabilization of all disturbed areas is achieved and the Notice of Termination (NOT)/Permit Modification form is submitted to the MPCA (as specified in the NPDES/SDS Construction Permit). Once the identity of Responsible Parties is known, the SWPPP must be amended to include this information in the area below.

Project Contacts:	
Project Engineer	
MICHAEL J GERBER	
DESIGN TREE ENGINEERING & LAND SURVEYING	
120 17TH AVE W.	
ALEXANDRIA, MN 56308	
(320) 227-0203	
MJG@DTE-LS.COM	

JAVA PROPERTIES MARK KROGH 879 SCHEFFLER AVE ST. PAUL, MN 55102 Contracto

SWPPP Amendments:

- The Owner or Contractor must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMPs that are designed to correct problems identified or address situations whenever: 1. There is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to surface water or underground waters.
- 2. Inspections or investigations by site owner or operators, USEPA or MPCA officials indicate the SWPPP is not effective in eliminating or significantly minimizing the discharge of pollutants to surface waters or underground waters or that the discharges are causing water quality standard exceedances.
- 3. The SWPPP is not achieving the general objectives of minimizing pollutants in stormwater discharges associated with construction activity, or the SWPPP is not consistent with the terms and conditions of this permit.
- 4. At any time after the permit coverage is effective, the MPCA deems necessary.

Construction Notes:

Construction shall be governed by the MnDOT Standard Specifications for Construction, latest edition, City of Lino Lake's Specifications, special provisions, amendments, and the project specifications and details. Permits and maps relating to this project's SWPPP can be found in the Project Documents. The Contractor shall keep inspection and maintenance logs and NPDES/SDS Construction Permit on-site at all times during active construction. Please refer to the plans and specifications for additional SWPPP information.

Soil Compaction should be minimized and topsoil should be preserved whenever and wherever possible during construction

All soil stockpiling shall include sediment control devices and shall be placed in areas away from surface waters or natural buffers.

Special Waters, Impaired Waters, & TMDL Implementation Plans:

The site is located within 1 mile of George Watch Lake and Marshan Lake, which are considered impaired waters as identified by the MPCA. Both George Watch Lake, and Marshan Lake have an EPA-approved impairment for Nutrients. These impairments are considered to be construction related parameters and require additional best management practices found in items 23.9 and 23.10 of the permit. All disturbed areas not actively being worked must be stabilized within 7 days. The Owner is responsible for the long term maintenance of all stormwater treatment facilities and private storm sewer systems. Inlet protection, silt fence, final stabilization, and other BMPs must be implemented prior to allowing any water runoff from being discharged off-site.

Calculations:

Disturbed Area	3.62 AC
re-Construction Impervious Area	0.34 AC
ost-Construction Impervious Area	1.62 AC
lew and Reconstructed Impervious	1.62 AC
let Increase in Impervious Area	1.28 AC

Sequence of Construction:

- The Contractor shall verify that all applicable permits have been obtained and the NPDES/SDS Construction Permit has been submitted to the MPCA prior to the start of construction. 1. The Contractor must plan for and implement appropriate construction phasing, vegetated buffer strips, horizontal slope grading, and other construction practices that minimize erosion. The location of areas not to be disturbed are shown on the plans.
- 2. The Contractor shall be responsible for full implementation and maintenance required by the SWPPP untill the Notice of Termination (NOT) is approved by the MPCA.
- 3. The Contractor shall construct erosion and sediment control BMPs in the following construction sequence:
- a. Install rock construction entrances where indicated in the plans.
- b. Install silt fence and inlet protection where indicated in the plans.
- c. Install silt fence around proposed infiltration and bioretention BMPs to protect soils from compaction.
- d. Locate portable toilets on flat surfaces away from drainage paths. Position portable toilets so they are secure and will not tip or be knocked over.
- e. Construct concrete washout area and provide signage.
- f. Establish waste control areas.
- g. Construct diversions to sediment basins.
- h. Rough grade site.
- i. Leave disturbed area of site in a roughened condition to limit erosion. Temporarily stabilize areas that will be inactive for a period of 7 days.
- Install storm drainage system and place inlet protection as each inlet is installed. Energy dissipation devices shall be installed and functional within 24 hours of connecting pip outlets to surface waters. k. Protect and repair BMPs, as necessary.
- Perform street sweeping as needed.
- m. Temporarily stabilize areas not actively being worked.
- n. Site construction (Utilities, paving, buildings, etc...)
- o. Final grading.
- p. Final stabilization (seeding, planting). Stabilized soil with the seed mix indicated on the plans..
- q. Construct stormwater infiltration basins and bioretention basins only when contributing drainage area has been constructed and fully stabilized.
- r. Remove erosion control devices upon site establishment in accordance with the NPDES/SDS Notice of Termination (NOT) requirements.

Final Stabilization:

- Final stabilization is not met until all of the following are completed:
 - 1. Stabilization by uniform perennial vegetative cover (70% density of it's expected final growth). The seed mix indicated on the plan or sod shall be used for final stabilization. Permanent stormwater management system is constructed, meets all requirements, and is operational.
 - 3. Drainage ditches are fully stabilized.

 - 4. All temporary synthetic and structural BMPs are removed. 5. Sediment from conveyance systems and sedimentation basins are cleaned out (returned to design capacity).
 - 6. Notice of Termination (NOT) is submitted to the MPCA.

	CONTACTS			
AGENCY	NAME	PHONE NUMBER		
Anoka County	Administrator	(763) 324-4000		R
DNR Waters	Janell Miersch	(218) 739-7576 ext. 232		
ACOE	St. Paul Office	(651) 290-5375		
State Duty Officer	MPCA	(800) 422-0798		
SWPPP Designer	Michael Gerber	(320) 227-0203		E
Erosion Control Review	Michael Gerber	(320) 227-0203		E
Erosion Control Supervisor	TBD			Erosion 8
		-	-	1

LOCATION OF SWPPP REQUIREMENTS					
DESCRIPTION	TITLE	SHEET # OR SPECIFICATION SECTION			
Receiving Surface Water	City of Lino Lakes Stormsewer	C301, C302			
Final Stabilization	Erosion Control Plan	C501			
Drainage Plans	Site Grading & Utility Plan	C201, C202, C401, C402			
Drainage Details	Details	C601, C602, C603			
Erosion Control Sheets	Erosion Control Plan	C501			
Erosion Control Details	Details	C604, C605			
Erosion & Sediment Control Quantities	Erosion Control Plan	C501			
Existing & Proposed Drainage Maps	Final Stormwater Management Plan	Project Manual			

Erosion Control Maintenance and Inspection: BMP inspection and maintenance Responsible Party: 1. Inspect erosion control devices and provide routine maintenance as follows:

a. Inspect erosion control a minimum of once per week and within 24 hours of a rainfall event greater than 0.5" in 24 hours.

b. Records of each inspection and maintenance activity shall include:

•

- Date and time of inspections. • Name of person(s) conducting inspection.
- Accurate findings of inspection, including the specific location where corrective actions are needed.
- Corrective actions taken (including dates, times, and party completing maintenance activities).
- Date and amount of all rainfall events greater than 0.5" in 24 hours, and the amount of rainfall for each event. Rainfall amounts must be obtained by either a properly maintained rain gauge installed onsite, a
- weather station that is within 1 mile of the site, or a weather reporting system that provides site specific rainfall data from radar summaries. • If discharge is observed during the inspection, the inspector must record and should photograph and describe the location of the discharge (i.e. color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutants).

 Documentation of amendments to the SWPPP proposed as a result of the inspection as required by the NPDES/SDS Construction Permit. c. Inspections may be suspended where construction activity has been suspended due to frozen ground conditions. Inspections must resume within 24 hours of runoff occurring, or upon resuming construction, whichever comes first.

- 2. Provide maintenance for all devices as follows:
- a. Silt fences and erosion control devices at storm sewer inlets shall be inspected for depth of sediment, tears, to see if fabric is securely attached to support posts or structure, and to see that posts and devices are securely in place.
- b. Silt fence, inlet protection at storm sewer inlets, and other erosion control devices shall be cleaned when sediment reaches 1/3 of the height of the erosion control device.
- c. Rock construction entrances shall be inspected for clogging of rock. Rock that has become clogged with sediment shall be removed and replaced with clean rock. d. Repairs or replacement of all erosion control devices shall occur within 24 hours of discovery.
- e. Temporary sediment basins shall be cleaned when sediment reaches 1/2 of the outlet's height or 1/2 of the basins storage volume. The basin shall be drained and sediment removed within 72 hours.
- Temporary diversion berms shall be inspected and any breaches shall be promptly repaired.
- Tracked sediment from construction vehicles onto public streets and paved areas (including paved areas on the construction site) shall be removed within 24 hours of discovery. h. The bottom and side slopes of the proposed stormwater treatment basins shall be stabilized within 200 feet of the property lines or point of discharge to any surface water, including curb and gutter, pavement, storm sewer, swales, or other similar stormwater conveyance devices.
- Removal of all deltas and sediment deposited in surface waters and re-stabilization of exposed soils shall be accomplished within 7 days of discovery.

Pollution Prevention Management Measures:

1. Storage, handling, and disposal of construction products, materials and wastes:

- a. The Contractor shall comply with the following to minimize the exposure to stormwater (any of the products, materials, or wastes/products which are either not a source of contamination to strormwater or are designed to be exposed to stormwater are not held to this requirement):
- Building products that have the potential to leach pollutants must be under cover (e.g. plastic sheeting or temporary roofs) to prevent the discharge of pollutants or be protected by a similarly effective means designed to prevent contact with stormwater.
- Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover (e.g. plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by similarly effective means designed to prevent contact with stormwater.
- Hazardous materials, toxic wastes (including oil, diesel fuel, gasoline., hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids), must be properly stored in sealed containers to prevent spills, leaks, or other discharge.
- Restricted access storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste or hazardous materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable.
- Solid wastes must be stored, collected, and disposed of properly in compliance with Minn. R. ch. 7035. • Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. ch. 7041.
- 2. Fueling and maintenance of equipment or vehicles; spill prevention and response:
- a. The Contractor shall take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any areas where chemicals or fuel will be loaded or unloaded including the use of drip pans or absorbents unless infeasible.
- b. The Contractor must conduct fueling in a contained area unless infeasible.
- c. The Contractor must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. d. The Contractor must report and clean up spills immediately as required by Minn. Stat. 115.061, using dry clean up measures where possible. 3. Vehicle and equipment washing:
- a. If the Contractor washes the exterior of vehicles or equipment on the project site, washing must be limited to a defined area of the site.
- b. Runoff from the washing area must be contained in a sediment basin or other similarly effective controls and waste from the washing activity must be properly disposed of. 4. The Contractor must properly use and store soaps, detergents, and solvents.
- 5. No engine degreasing is allowed on site.
- 6. Concrete and other washout waste:
- a. The Contractor must provide effective containment for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds, and other construction materials) related to the construction activity.
- b. The liquid and solid waste must not contact the ground, and the containments must be designed so that it does not result in runoff from the washout operations or areas. c. Liquid and solid wastes must be disposed of properly and in compliance with MPCA rules.
- d. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes

Dewatering and Basin Draining:

Timing of BMP Installation:

Dewatering or basin draining 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. Discharge from the temporary or permanent sedimentation basin must be visually checked to ensure adequate treatment is obtained in the basin and nuisance conditions, impacts to wetlands, and erosion in receiving channels or on down gradient properties will not result from the discharge. Adequate sedimentation control measures are required for discharge water that contains suspended solids. If using using filters with backwash water, either haul the backwash water away for disposal and return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion.

Storm Water Pollution Prevention Plan: The Permitees must implement the entire SWPPP and the requirement of the NPDES/SDS Construction Permit. The BMPs identified in the SWPPP and in the permit must be selected, installed, and maintained in an appropriate and

The area disturbed for construction does not drain more than 5 acres to a common discharge point, therefore a temporary sediment basin is not required.

The owner shall be responsible for performing future operations and maintenance of the permanent stormwater management systems on the property.



controls shall be placed prior to the start of any construction. All disturbed areas not actively being worked must be stabilized within 7 days. Temporary Sediment Basins:

functional manner that is in accordance with manufacturer specifications and accepted engineering practices.

Future Operation and Maintenance (O&M):

The erosion and sediment control BMPs shall be installed as necessary to minimize erosion from disturbed surfaces and capture sediment on site and shall meet the NPDES/SDS Construction Permit part VII requirements. Perimeter





DRAWING NO.

LANDSCAPE NOTES:

- CONTRACTOR TO HAVE ALL UTILITIES ON SITE VERIFIED AND MARKED BEFORE STARTING WORK. CONTRACTOR IS LIABLE FOR ANY DAMAGE TO EXISTING UTILITIES ON SITE AND •• **RESPONSIBLE FOR THE COSTS ASSOCIATED WITH REPAIRING/REPLACING DAMAGE.**
- CONTRACTOR IS LIABLE FOR ALL DAMAGE RELATED TO CONTRACTORS ACTIVITY ON SITE AND **RESPONSIBLE FOR THE COSTS ASSOCIATED WITH REPAIRING/REPLACING DAMAGE.**
- OBTAIN ALL NECESSARY PERMITS FOR PLANTING IN ALL RIGHT-OF-WAY.
- COMPLETE WORK PER OWNERS CONSTRUCTION SCHEDULE AND COORDINATE WORK WITH OTHERS ON SITE.
- PLANT MATERIAL SHALL COMPLY WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND BE FREE OF DISEASE AND DAMAGE.
- •• ALL PLANT MATERIALS TO BE WARRANTIED ONE (1) FULL YEAR FROM THE COMPLETION AND ACCEPTANCE BY OWNER, WITH ONE TIME REPLACEMENT. WATER AND MAINTAIN ALL PLANT MATERIALS UNTIL ACCEPTED BY OWNER.
- IF THERE IS A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOW ON THE PLAN COMPARED TO THE PLANT LEGEND, THE PLAN TAKES PRECEDENCE.
- ALL AREAS DISTURBED DURING CONSTRUCTION TO RECEIVE 6" OF TOPSOIL AND SOD UNLESS **OTHERWISE SPECIFIED ON PLANS.**
- VERIFY TOPSOIL DEPTH AND NOTIFY OWNER OF ANY DEFICIENCY. •• **REPLACEMENT TOPSOIL SHOULD BE CLEAN, FREE OF DEBRIS, SHARP OBJECTS, ROCKS AND** ••
- WEEDS. ALL AREAS TO BE LANDSCAPED AND SODDED SHALL BE GRADED SMOOTH AND EVEN. ••
- SOD TO BE A KENTUCKY BLUEGRASS SEED VARIETY. NO GUARANTEE ON SOD EXCEPT SOD THAT IS NOT ACCEPTABLE AT TIME OF INSTALLATION. •• **STAKE SOD ON SLOPES 3:1 AND GREATER.** ••
- PROVIDE BLANKET ON ALL SEEDED AREAS THAT ARE SLOPED. MULCH APPLICATION FOR ALL OTHER SEEDED AREAS SHALL BE HYDROMULCH OR DISCED STRAW DEPENDING ON SEED TYPE.
- INSTALL BLACK VINYL EDGING AROUND ALL PLANTING BEDS AS SHOWN ON PLAN.
- MULCH TO BE FINELY SHREDDED, UNDYED, HARDWOOD ORGANIC MULCH INSTALLED TO 4"
- DEPTH. NO WEED FABRIC BARRIER BENEATH ORGANIC MULCHES. ••
- TREES SHALL HAVE MULCH PULLED BACK 2" FROM BASE OF TRUNK. ...
- NO EDGING AROUND TREES OUTSIDE OF SHRUB BEDS. ••
- ROCK MULCH SHALL BE 1-1/2" DIAMETER <u>BUFF LIMESTONE ROCK</u> INSTALLED TO 3" DEPTH WITH **APPROVED WEED FABRIC BARRIER.**
- SWEEP AND MAINTAIN ALL PAVEMENT AREAS AFTER LANDSCAPE INSTALLATION IS COMPLETE AND ACCEPTED BY OWNER, DAILY CLEANING TO BE COMPLETED IF REQUIRED BY THE MUNICIPALITY.

SEED NOTES:

- SPRING SEEDING TO BE BETWEEN MARCH 15TH MAY 15TH.
- FALL SEEDING TO BE BETWEEN AUGUST 15TH OCTOBER 15TH. •• NO SUMMER SEEDING ALLOWED.
- PROVIDE EROSION CONTROL BLANKET ON ALL SIDE SLOPES.

IRRIGATION NOTES:

- IRRIGATE ENTIRE SITE, DESIGN SHOULD ENCOMPASS ALL LANDSCAPE AREAS WITH SOD AND PLANTINGS.
- MINIMIZE OVERSPRAY ON BUILDINGS AND PAVEMENT. DRIP IRRIGATION TO BE PROVIDED FOR ALL LANDSCAPE BEDS.
- CONTRACTOR TO REVIEW MECHANICAL AND ELECTRICAL PLANS FOR WATER STUB OUT AND ELECTRICAL LOCATIONS.
- CONTRACTOR TO VERIFY WATER STUB OUT SIZE IS SUFFICIENT, NOTIFY OWNER OF ANY •• **DEFICIENCY**. CONTRACTOR TO VERIFY CONTROLLER LOCATION WITH OWNER BEFORE INSTALLATION.
- **RPZ BACKFLOW PREVENTER TO BE USED AT WATER STUB OUT.** PREFERRED CONTROLLER SHOULD BE A WATERSENSE WEATHER BASED IRRIGATION CONTROLLER (WBIC).
- CONTRACTOR TO HAVE ALL UTILITIES ON SITE VERIFIED AND MARKED BEFORE STARTING WORK. CONTRACTOR IS LIABLE FOR ANY DAMAGE TO EXISTING UTILITIES ON SITE AND •• **RESPONSIBLE FOR THE COSTS ASSOCIATED WITH REPAIRING/REPLACING DAMAGE.**
- CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR IN ORDER TO PROVIDE ALL PVC SLEEVES AT A DEPTH OF 2'-0" BELOW FINISHED GRADE. MARK LOCATIONS OF PLACED PVC SLEEVES.
- CONTRACTOR TO PLACE MAIN LINES MINIMUM 1'-6" BELOW FINISH GRADE, LATERAL LINES MINIMUM 1'-0' BELOW FINISH GRADE.
- WIRES TO BE MINIMUM 16 AWG SOLID COPPER. SPLICE ONLY AT BOXES WITH MOISTURE RATED CONNECTORS.
- VALVES BOXES AND COVERS SHOULD BE BEST COLOR TO MATCH WITH SURROUNDING LANDSCAPE.
- BOXES TO BE SET ON A BASE OF 3" MINIMUM DEPTH 3/4" CLEAR GRAVEL. •• PLACE BOXES IN LANDSCAPE BEDS WHEN POSSIBLE. ••
- TRENCH BACKFILL TO BE CLEAN, FREE OF DEBRIS, SHARP OBJECTS AND ROCKS.

CONTRACTOR TO PROVIDE AS-BUILT DRAW	INGS TO OWNERS UPON COMPLETION OF WORK.	ROCK MULC	
	PROTECT MAIN LEADER, REMOVE DEAD & BROKEN BRANCHES		ES/ SHRUBS OUTS
	STAKE & GUY AS NEEDED		
	WRAP TREE, FALL INSTALLATION ONLY		
	EXPOSE ROOT FLARE, SET AT FINISH GRADE		REMOVE DEAD & BROKEN BRANCHES
			EXPOSE ROOT FLARE, SET AT FINISH GRAD
	NOT PLACE WITHIN 2" OF TRUNK		4" DEPTH MULCH —
			FINISH GRADE ———
			SCARIFY & SPREAD - ROOT MASS
	UNDISTURBED SOIL		OVER-EXCAVATE 6"
	SUBGRADE		SUBGRADE

MASTER LANDSCAPE PLANT LEGEND

ECI	DUOU	IS TREES			
0	3	BUR OAK Quercus macrocarpa	2.5" CAL.	B&B	60'H x 60'W
/0	4	WHITE OAK	2.5" CAL.	B&B	60'H x 60'W
Y	8	EXCLAMATION! SYCAMORE	2.5" CAL.	B&B	60'H x 45'W
- C	4	Platanus x acerifolia 'Morton Circle' HORSE CHESTNUT	2 5" CAL	D 0. D	
-	4	Aesculus hippocastanum URBAN PINNACLE BUR OAK	2.5 CAL.	DQD	55 H X 50 W
Ρ	5	Quercus macrocarpa 'JFS-KW3'	2" CAL.	B&B	55'H x 25'W
H	6	Celtis occidentalis	2.5" CAL.	B&B	50'H x 50'W
G	8	Ginkgo biloba 'Autumn Gold'	2.5" CAL.	B&B	50'H x 30'W
L	7	BOULEVARD LINDEN Tilia americana 'Boulevard'	2.5" CAL.	B&B	50'H x 25'W
Κ	6	STREETKEEPER HONEYLOCUST <i>Gleditsia tricanthos 'Draves'</i>	2.5" CAL.	B&B	45'H x 20'W
RN/	AMEN	TAL TREES			
Ρ	6	PARKLAND PILLAR BIRCH Betula platyphylla 'Jefpark'	1.5" CAL.	B&B	40'H x 7'W
VER	GREE	N TREES			
L	6	AMERICAN LARCH	6' HT	B&B	40'H x 15'W
s	11	SWISS STONE ALGONQUIN PILLAR	4' HT	B&B	25'H x 10'W
F	11	KOREAN SILVER SHOW FIR	18" HT	B&B	12'H x 8'W
-		Abies koreana 'Silver Show'			
		NANNYBERRY VIBURNUM	#E CONT	DOT	20/11 -= 10/11/
V	27	Viburnum lentago	#5 CONT.	РОТ	20'H X 10'W
E	25	Rhus typhina 'Bailtiger'	#2 CONT.	ΡΟΤ	8'H x 8'W
S	17	Amelanchier alnifolia 'Regent'	#5 CONT.	ΡΟΤ	6'H x 6'W
V	17	COMPACT AMERICAN VIBURNUM Viburnum trilobum 'Bailey Compact'	#2 CONT.	ΡΟΤ	6'H x 6'W
L	12	LITTLE LIME HYDRANGEA Hydrangea paniculata 'Jane'	#3 CONT.	ΡΟΤ	5'H x 5'W
F	38	ARCTIC FIRE DOGWOOD Cornus stolonifera 'Farrow'	#2 CONT.	РОТ	4'H x 4'W
H	41	DWARF BUSH HONEYSUCKLE Diervilla lonicera	#2 CONT.	ΡΟΤ	3'H x 3'W
L	6	GRO-LOW FRAGRANT SUMAC Rhus aromatica 'Gro-Low'	#2 CONT.	РОТ	2'H x 8'W
ERE	NNIA	LS			
s	14	RUSSIAN SAGE	#1 CONT.	РОТ	4'H x 3'W
RN/	AMEN	TAL GRASSES			
F	89	KARL FORESTER FEATHER REED GRASS	#1 CONT.	РОТ	4'H x 2.5'W
S	64	NORTHWIND SWITCH GRASS	#1 CONT.	РОТ	4'H x 2.5'W
EED		Panicum virgatum 'Northwind'			
73	1 SY	+ + + + + + MNDOT SEED MIX 33-262 - DRY SW	ALE/POND	(OR A	PPROVED
,20	4 SY	$\begin{array}{c} + + + + + + \\ + + + + + + \\ \end{array} \xrightarrow{\text{ALTERNATE}}.$	AIRIE GENE	RAL (OR
5,85	7 SY	APPROVED ALTERNATE). // // // // // // // // MNDOT SEED MIX 25-131 - LOW MA			F (OR
		# # # # # # # # # # # # # # # # # # #			
OD DGI OCK ULC	- 4,03 NG - 1 (MUL CH (TF	36 SY 1,240 LF CH - 33 CY REES/SHRUBS OUTSIDE OF BEDS) - 13.5 CY			





LANDSCAPE PLANT LEGEND (NORTH)

DECIDUOUS TREES WHITE OAK WO 4 2.5" CAL. B&B 60'H x 60'W Quercus alba **EXCLAMATION! SYCAMORE** 2.5" CAL. B&B 60'H x 45'W SY 4 Platanus x acerifolia 'Morton Circle' URBAN PINNACLE BUR OAK UP 5 2" CAL. B&B 55'H x 25'W Quercus macrocarpa 'JFS-KW3' COMMON HACKBERRY CH 2 2.5" CAL. B&B 50'H x 50'W Celtis occidentalis AUTUMN GOLD GINKGO AG 3 2.5" CAL. B&B 50'H x 30'W Ginkgo biloba 'Autumn Gold' STREETKEEPER HONEYLOCUST SK 3 2.5" CAL. B&B 45'H x 20'W Gleditsia tricanthos 'Draves' **EVERGREEN TREES** AMERICAN LARCH AL 3 6' HT B&B 40'H x 15'W Larix laricina SWISS STONE ALGONQUIN PILLAR SS 3 4' HT B&B 25'H x 10'W Pinus cembra 'Algonquin Pillar' KOREAN SILVER SHOW FIR SF 3 18" HT B&B 12'H x 8'W Abies koreana 'Silver Show' SHRUBS NANNYBERRY VIBURNUM NV 9 #5 CONT. POT 20'H x 10'W Viburnum lentago TIGER EYES CUTLEAF STAGHORN SUMAC #2 CONT. POT 8'H x 8'W TE 10 Rhus typhina 'Bailtiger' **REGENT SERVICEBERRY** RS 7 #5 CONT. POT 6'H x 6'W Amelanchier alnifolia 'Regent' COMPACT AMERICAN VIBURNUM CV 10 #2 CONT. POT 6'H x 6'W Viburnum trilobum 'Bailey Compact' ARCTIC FIRE DOGWOOD AF 10 #2 CONT. POT 4'H x 4'W Cornus stolonifera 'Farrow' **DWARF BUSH HONEYSUCKLE** BH 9 #2 CONT. POT 3'H x 3'W Diervilla lonicera PERENNIALS **RUSSIAN SAGE** RS 6 #1 CONT. POT 4'H x 3'W Salvia yangii **ORNAMENTAL GRASSES** KARL FORESTER FEATHER REED GRASS #1 CONT. POT 4'H x 2.5'W KF 32 Calamagrotis x acutiflora 'Karl Forester' SEED

- HARDSCAPE SF
- COVER REQUIRED
- **10,800 SF CANOPY COVER PROVIDED**

- SHRUBS PER 2,000 SF OPEN SPACE
- SHRUBS REQUIRED
- SUBSTITUTED AS SHRUBS)
- **BETWEEN PUBLIC ROW**
- ••

- **7 LARGE TREES PROVIDED & BUFFER**





LANDSCAPE PLANT LEGEND (MIDDLE)

SEED

DEC	IDUOL	JS TREES			
SY	4	EXCLAMATION! SYCAMORE <i>Platanus x acerifolia 'Morton Circle'</i>	2.5" CAL.	B&B	60'H x 45'W
нс	4	HORSE CHESTNUT Aesculus hippocastanum	2.5" CAL.	B&B	55'H x 50'W
СН	4	COMMON HACKBERRY Celtis occidentalis	2.5" CAL.	B&B	50'H x 50'W
BL	4	BOULEVARD LINDEN Tilia americana 'Boulevard'	2.5" CAL.	B&B	50'H x 25'W
SK	3	STREETKEEPER HONEYLOCUST Gleditsia tricanthos 'Draves'	2.5" CAL.	B&B	45'H x 20'W
ORN	AMEN	TAL TREES			
PP	6	PARKLAND PILLAR BIRCH Betula platyphylla 'Jefpark'	1.5" CAL.	B&B	40'H x 7'W
EVEI	RGREE	N TREES			
AL	3	AMERICAN LARCH Larix laricina	6' HT	B&B	40'H x 15'W
SS	3	SWISS STONE ALGONQUIN PILLAR Pinus cembra 'Algonquin Pillar'	4' HT	B&B	25'H x 10'W
SF	5	KOREAN SILVER SHOW FIR Abies koreana 'Silver Show'	18" HT	B&B	12'H x 8'W
SHR	UBS				
TE	6	TIGER EYES CUTLEAF STAGHORN SUMAC Rhus typhina 'Bailtiger'	#2 CONT.	РОТ	8'H x 8'W
RS	10	REGENT SERVICEBERRY Amelanchier alnifolia 'Regent'	#5 CONT.	РОТ	6'H x 6'W
с٧	7	COMPACT AMERICAN VIBURNUM Viburnum trilobum 'Bailey Compact'	#2 CONT.	РОТ	6'H x 6'W
LL	12	LITTLE LIME HYDRANGEA Hydrangea paniculata 'Jane'	#3 CONT.	РОТ	5'H x 5'W
AF	10	ARCTIC FIRE DOGWOOD Cornus stolonifera 'Farrow'	#2 CONT.	РОТ	4'H x 4'W
BH	20	DWARF BUSH HONEYSUCKLE Diervilla lonicera	#2 CONT.	РОТ	3'H x 3'W
GL	6	GRO-LOW FRAGRANT SUMAC <i>Rhus aromatica 'Gro-Low'</i>	#2 CONT.	РОТ	2'H x 8'W
ORN	AMEN	TAL GRASSES			
KF	36	KARL FORESTER FEATHER REED GRASS <i>Calamagrotis x acutiflora 'Karl Forester'</i>	#1 CONT.	РОТ	4'H x 2.5'W
NS	34	NORTHWIND SWITCH GRASS Panicum virgatum 'Northwind'	#1 CONT.	РОТ	4'H x 2.5'W

- HARDSCAPE SF
- COVER REQUIRED

- & 11 LARGE SHRUBS REQUIRED
- SHRUBS PER 2,000 SF OPEN SPACE
- SUBSTITUTED AS SHRUBS)

- INTENSIVE USE PARCEL

REMOVE DEAD & ---**BROKEN BRANCHES** EXPOSE ROOT FLARE, -SET AT FINISH GRADE 4" DEPTH MULCH -FINISH GRADE -SCARIFY & SPREAD ROOT MASS **OVER-EXCAVATE 6**"



PLANDALTZABO SITE PLANNING & LANDSCAPE ARCHITECTURE Minneapolis, MN info@plan-type.com
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR PERORT WAS PREPARED BY ME OR UNDER IN DIRECT SUPERVISION AND THAT I AM A DUNCLOENCED DANDSCAPE ARCHITECT UNCENTIFIE LAWS OF THE STATE OF MINUIESOTA. SIGNATURE: JOSEPH L. SCHEFFLER Expiration: 06-30-2026 License #: 55597 Date: 08-02-2024
PROJECT MANAGER LOUIE DRAWN BY J + L
PROJECT NAME 77TH & LAKE LINO LAKES, MN
08-02-2024 SUBMITTAL
JAVA PROPERTIES 879 Scheffer Avenue St. Paul, MN 55102
Phone: 952-403-9595 SHEET TITLE LANDSCAPE PLAN
SHEET NUMBER

LANDSCAPE PLANT LEGEND (SOUTH)

во	3	BUR OAK Quercus macrocarpa	2.5" CAL.	B&B	60'H x 60'W
AG	5	AUTUMN GOLD GINKGO Ginkgo biloba 'Autumn Gold'	2.5" CAL.	B&B	50'H x 30'W
BL	3	BOULEVARD LINDEN Tilia americana 'Boulevard'	2.5" CAL.	B&B	50'H x 25'W
EVE	RGRE	EN TREES			
SS	5	SWISS STONE ALGONQUIN PILLAR Pinus cembra 'Algonquin Pillar'	4' HT	B&B	25'H x 10'W
SF	3	KOREAN SILVER SHOW FIR Abies koreana 'Silver Show'	18" HT	B&B	12'H x 8'W
SHR	UBS				
NV	18	NANNYBERRY VIBURNUM Viburnum lentago	#5 CONT.	РОТ	20'H x 10'W
TE	9	TIGER EYES CUTLEAF STAGHORN SUMAC Rhus typhina 'Bailtiger'	#2 CONT.	РОТ	8'H x 8'W
вн	12	DWARF BUSH HONEYSUCKLE Diervilla lonicera	#2 CONT.	РОТ	3'H x 3'W
AJ	9	AMBER JUBILEE NINEBARK Physocarpus opulifolius 'Jefam'	#2 CONT.	РОТ	5'H x 4'W
AF	18	ARCTIC FIRE DOGWOOD Cornus stolonifera 'Farrow'	#2 CONT.	РОТ	4'H x 4'W
PER	ENNIA	ALS			
RS	8	RUSSIAN SAGE Salvia yangii	#1 CONT.	РОТ	4'H x 3'W
ORNAMENTAL GRASSES					
KF	21	KARL FORESTER FEATHER REED GRASS Calamagrotis x acutiflora 'Karl Forester'	#1 CONT.	РОТ	4'H x 2.5'W
NS	30	NORTHWIND SWITCH GRASS Panicum virgatum 'Northwind'	#1 CONT.	РОТ	4'H x 2.5'W
SEED					
73 SY + + + + + + + + + MNDOT SEED MIX 33-262 - DRY SWALE/POND (OR APPROVED <u>ALTERNATE</u>).					

- HARDSCAPE SF

- 6 LARGE SHRUBS REQUIRED
- SHRUBS PER 2,000 SF OPEN SPACE
- SHRUBS REQUIRED
- •• 1 LARGE TREE FOR EVERY 50 FT OF BUFFER
- **INTENSIVE USE PARCEL**
- ••

						BOXELDER MAPLE
EXIST	ING TREE LEGEND				118	Acer nedundo
TD //	0050050	SI7F	0747110	REMOVAL	119	BOXELDER MAPLE
ID#	SPECIES	(CAL.")	STATUS	(CAL.")	115	Acer nedundo
12	RED PINE	16	DEMOVE	16	120	BOXELDER MAPLE
12	Pinus resinosa	10	REMOVE	10		BOXELDER MAPLE
13	SILVER MAPLE	56	REMOVE	56	121	Acer nedundo
15	Acer saccharinum	50	RENOVE	50		BOXELDER MAPLE
14	SILVER MAPLE	43	REMOVE	43	122	Acer nedundo
					172	BOXELDER MAPLE
15	Pinus resinosa	16	REMOVE	16	125	Acer nedundo
	SILVER MAPLE			~~	124	BOXELDER MAPLE
16	Acer saccharinum	33	REMOVE	33		
17	SILVER MAPLE	100	DEMOVE	100	125	Acer pedupdo
1/	Acer saccharinum	109	REMOVE	109		AMERICAN FLM
18	RED PINE	12	REMOVE	12	127	Ulmus americana
	Pinus resinosa				100	BOXELDER MAPLE
19	RED PINE	24	REMOVE	24	128	Acer nedundo
	SILVER MAPLE				129	BLUE SPRUCE
20	Acer saccharinum	58	REMOVE	58	125	Picea pungens
24	SILVER MAPLE	60	DEMONE	6.0	130	COMMON HACKBERRY
21	Acer saccharinum	60	REMOVE	60		
22	RED PINE	16	REMOVE	16	131	Ulmus americana
22	Pinus resinosa	10	REMOVE	10		BLUE SPRUCE
23	RED OAK	18	REMOVE	18	132	Picea pungens
	Quercus rubra				122	BLUE SPRUCE
24	NED OAK Ouercus rubra	9	REMOVE	9	155	Picea pungens
	RED PINE				134	AMERICAN ELM
25	Pinus resinosa	22	REMOVE	22	101	Ulmus americana
26	WHITE POPLAR	•			135	BOXELDER MAPLE
26	Populus alba	8	REMOVE	8		
27	WHITE POPLAR	13	REMOVE	13	136	Tilia americana
27	Populus alba	15	REMOVE	15		GREEN ASH
28	RED PINE	17	REMOVE	17	137	Fraxinus pennsylvanica
					120	RED PINE
87	RED PINE Pinus resinosa	21	REMOVE	21	130	Pinus resinosa
	BOXFLDER MAPLE				139	RED PINE
89	Acer nedundo	11	REMOVE	11	100	Pinus resinosa
00	RED PINE		DEMOVE	4 5	140	RED PINE
90	Pinus resinosa	15	REMOVE	15		BOXELDER MADLE
91	RED PINE	17	REMOVE	17	141	Acer nedundo
51	Pinus resinosa	1,	INEL TO VE	17		BOXELDER MAPLE
92	RED PINE	29	REMOVE	29	142	Acer nedundo
	RED PINE				143	BLUE SPRUCE
93	Pinus resinosa	16	REMOVE	16	145	Picea pungens
	BLUE SPRUCE	10	DEMONIE	10	144	RED PINE
94	Picea pungens	12	REMOVE	12		
95	BLUE SPRUCE	9			145	Pinus resinosa
55	Picea pungens	5	DEND			BLUE SPRUCE
97	BLUE SPRUCE	12	DEAD		146	Picea pungens
					147	BLUE SPRUCE
98	Picea pungens	9	DEAD		147	Picea pungens
	BLUE SPRUCE				148	BLUE SPRUCE
99	Picea pungens	20	REMOVE	20		Picea pungens
101	GREEN ASH	1 /	DEMOVE	14	149	BLUE SPRUCE
101	Fraxinus pennsylvanica	14	REMOVE	14		
102	BLUE SPRUCE	17	REMOVE	17	150	Picea pungens
102	Picea pungens	17	KEI IOVE	17		WHITE POPLAR
103	BLUE SPRUCE	10	REMOVE	10	151	Populus alba
					152	GREEN ASH
104	Picea pungens	15	DEAD		152	Fraxinus pennsylvanica
	AMERICAN ARBORVITAE				153	BLUE SPRUCE
105	Thuja occidentalis	6	REMOVE	6		Picea pungens
100	AMERICAN ARBORVITAE	6			155	BOXELDER MAPLE
106	Thuja occidentalis	6	DEAD			
107	AMERICAN ELM	8	REMOVE	8	156	Acer nedundo
107	Ulmus americana	U	KEI IOVE	U		BOXELDER MAPLE
108		13	REMOVE	13	15/	Acer nedundo
					159	BOXELDER MAPLE
109	Picea nungens	9	DEAD		130	Acer nedundo
	BLUE SPRUCE				159	AMERICAN ELM
110	Picea pungens	12	DEAD			
	SUGAR MAPLE	10	DEMOVE	10	160	
111	Acer Ssaccharum	10	REMOVE	10		BOXELDER MAPLE
112	RED PINE	10	DEAD		161	Acer nedundo
	Pinus resinosa	10				BUCKTHORN
113		12	REMOVE	12	165	Rhamnus cathartica
	AMERICAN ELM				162	SILVER MAPLE
114	Ulmus americana	13	REMOVE	13	102	Acer saccharinum
	WHITE POPLAR				164	BLACK ALDER
115	Populus alba	21	REMOVE	21		Alnus glutinosa
116	AMERICAN ELM	Q		Q	165	Rhampus cathartica
110	Ulmus americana	0	REMOVE	U		n nannus vainariiva
117	AMERICAN ELM	9	REMOVE	9		
	Ulmus americana	-		-		

Calcu	lation Sur	nmary											
Labe		CalcTy	/pe		Units	Avg	Max		Min	Avg/Mir	Max/	Min	
Grou	pr	Illumin;	ance		СU	0.53	13.4		0.0	N.A.	N.A.		
Plane	١٢												
Lumii	naire Sche	dule				-							
Symb	<u>o</u>	Qty	Label	Arrangeme	ant Des	cription			ЦЛ	Luminaire	Luminaire	Total	
•		•)						Lumens	Watts	Watts	
		5	AA	Single	PRV	/-C40-D-UNV-T4-	BZ-HSS		0.910	15518	131	655	
		20	МР	Single	XTC)R6B-W			0.910	6038	58	1160	
Pa					Drawn By: Daniel Budke	0	#	Date Con	nments		111		
age	77th	& Lak	é		Checked By:		Re						
M					Date:9/19/2024		evisi				VIV V	52	
of							ion						
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