

Attached is the agenda packet for the March 20, 2023 Board Meeting. For those of you with Drop Box, the file will be placed in the Drop Box Folder.

**The Village Board meeting will begin at 7:00 PM. With the new Village Board meeting format, all discussions and business will occur at the Village Board meeting. After consideration of the meeting minutes and accounts payable, the meeting will proceed to new and old business.**

Please contact the Mayor if you have any questions or if you wish to attend the meeting electronically.

James McDonald, Mayor  
Mary Konrad, Clerk  
Stacy Michael, Treasurer



Trustees:  
Allena Barbato  
Jake Cramond  
Karen Harms  
Jeff Nielsen  
Tom O'Reilly  
Doug Savell

## VILLAGE BOARD MEETING

March 20, 2023

7:00 pm

1. Call to Order & Roll Call
2. Pledge of Allegiance
3. Public Comment
4. Approval of the Minutes
  - a. March 6, 2023 Regular Village Board Meeting
  - b. March 13, 2023 Village Board Workshop Meeting
5. Accounts Payable – March 20, 2023
6. Mayor
7. Village Board Reports
8. Staff Reports
9. New Business
  - a. Resolution No. 2023-03-01: A Resolution to Induce the Redevelopment of Certain Property within a TIF District (201 Park Avenue)
  - b. Ordinance No. 2023-03-03: An Ordinance Granting Preliminary Approval for the Starling Senior Apartment Development at 0 Deep Lake Rd.
  - c. Authorization to Purchase a Ford F550 from LaFontaine Ford in an amount not to exceed \$121,847, plus a 5% contingency in the amount of \$6,092 for unforeseen or unanticipated vehicle acquisition costs.
  - d. Ordinance No. 2023-03-04: Disposal of Surplus Property
  - e. Resolution No. 2023-03-02: Opposing IDNR Lake Michigan Water Allocation Review Fee.
  - f. Ordinance No. 2023-03-05: An Ordinance Abating a Portion of the Amount of Taxes Levied for General Obligation Refunding Bonds.
10. Old Business
  - a. Ratification of Power Supply Agreement with MC Squared Energy Services, LLC. For Village's Electrical Aggregation Program.
11. Executive Session

## 12. Adjournment

James McDonald, Mayor  
Mary Konrad, Clerk  
Stacy Michael, Treasurer



Trustees:  
Allena Barbato  
Jake Cramond  
Karen Harms  
Jeff Nielsen  
Tom O'Reilly  
Doug Savell

**DATE:** March 14, 2023  
**TO:** Village Board of Trustees  
**FROM:** Michael Strong  
Village Administrator  
**RE:** Agenda Transmittal

**New Business**

**a. Resolution No. 2023-03-01: A Resolution to Induce the Redevelopment of Certain Property within a TIF District (201 Park Avenue)**

Staff Contact: Michael Strong, Village Administrator

The Village Board will discuss and consider approval of a Resolution declaring the Village's intention to fund a proposed redevelopment project using Tax Increment Financing (TIF) funds from the Village's Downtown TIF Fund. The redevelopment project is related to the acquisition of the property located at 201 Park Avenue and renovation of the space to accommodate a manufacturing business that is seeking to relocate to Lake Villa. If the redevelopment project moves forward, the Village and the developer would enter into a formal Redevelopment Agreement that would lay out the amount of TIF Funds eligible for reimbursement, and under what conditions or terms such financing would be reimbursed to the developer.

Suggested Motion: *Motion to approve Resolution 2023-03-01 A Resolution inducing the Redevelopment of Certain Property located within a TIF District*

**b. Ordinance No. 2023-03-03: An Ordinance Granting Preliminary Approval for the Proposed Starling Senior Apartment Development at 0 Deep Lake Rd.**

Staff Contact: Michael Strong, Village Administrator

The Village Board will discuss and consider approval of an Ordinance granting preliminary approval to a proposed senior apartment development located at 0 Deep Lake Road, an approximate 5 acre parcel located in the Lake Tower Crossing



Development. The Developer, Lincoln Avenue Capital, LLC., is seeking rezoning of the property to the Village's UR-4 Zoning District and approval of an amendment to an existing Conditional Use Permit for the Lake Tower Crossing Phase 3 Planned Development that was approved via Ordinance 2020-07-07.

Such amendment would permit a Residential Planned Development for Elderly Housing and to permit the Developer to construct a forty (40) unit senior apartment development which would be age-restricted to persons 55 years of age and older with a mix of one-bedroom and two-bedroom units. The Plan Commission held a Public Hearing on January 19, 2023 which concluded on February 21, 2023, and upon conclusion recommended approval of the Petitioner's application based on Findings of Fact, and conditions, outlined in the attached Ordinance.

Pursuant to the Village Code, the Village Board may approve the Plan Commission's recommendation and adopt the Ordinance, approve with additional conditions, deny the request, and/or remand the matter back to the Plan Commission to further investigate specific matters relative to the development.

Suggested Motion: *Motion to approve Ordinance 2023-03-03 Granting Preliminary Approval for the Proposed Starling Senior Apartment Development at 0 Deep Lake Road*

**c. Authorization to Purchase a Ford F550 from LaFontaine Ford (Birch Run, MI)**

Staff Contact: Ryan Horton, Superintendent of Public Works

Village Staff is seeking Village Board approval to purchase a replacement public works vehicle included in the FY2023 Fleet Replacement Fund budget. The Village obtained competitive pricing from multiple sources relative to a Ford 550 which will replace a 5-yard Dump Truck that is currently used for snow plowing, material hauling, and other public works functions. Below is a list of competitive quotes that were obtained for the purchase of the F550 vehicle:

Company Name	Dollar Amount Cost
Apple Ford (Columbia, MD)	\$137,000
Kunes Ford (Antioch, IL)	\$149,745
<b>LaFontaine Ford (Birch Run, MI)</b>	<b>\$121,847</b>

Village Staff is recommending that the Village Board award the purchase to LaFontaine Ford in Birch Run, Michigan, based on the lowest cost for the vehicle.

Suggested Motion: *Motion to Authorize the Purchase of a Ford F550 from LaFontaine Ford, of Birch Run, Michigan, in an amount not to exceed \$121,847, plus a 5% contingency in the amount of \$6,092 for unforeseen or unanticipated vehicle*

*acquisition costs.*

**d. Ordinance No. 2023-03-04: Disposal of Surplus Property**

Staff Contact: Ryan Horton, Superintendent of Public Works

The Village Board is requested to discuss and consider whether to recommend approval of an Ordinance disposing of surplus Village property. In reviewing our items for disposal, there is various used equipment and vehicles that have been identified as beyond useful life and deemed appropriate for disposal. In addition, the Dump Truck is in the process of being replaced through the capital improvement program, however, prior to disposal the Village must declare it as surplus property. A copy of the Ordinance declaring the property surplus is attached for Village Board consideration.

Suggested Motion: Motion to approve Ordinance 2023-03-04 Authorizing the Sale of Surplus Property Owned by the Village of Lake Villa

**e. Resolution No. 2023-03-02: Opposing IDNR Lake Michigan Water Allocation Review Fee.**

Staff Contact: Jim Bowles, Superintendent of Public Works

Pursuant to discussion that took place with the Village Board during its regular meeting on March 6, 2023, Village Staff has prepared a Resolution for Village Board consideration relative to a proposed Water Allocation Review Fee that the Illinois Department of Natural Resources (IDNR) is proposing to enact for communities that have an allocation for Lake Michigan water.

In order for communities and other agencies to receive Lake Michigan Water, they must be permitted a specific quantity, or allocation, of water dedicated to them for their use. The allocation is determined based on a calculation of the number and types of expected users with a population growth factor applied. IDNR is now proposing possible legislation that would impose a “review fee” of up to \$5,000 from all Lake Michigan water allocation permittees. The fee would be graduated based upon the volume of water granted to an agency in a given year. This proposed legislation would affect approximately 125 municipalities in Illinois as well as other water agencies like CLCJAWA. In response to the proposed legislation, CLCJAWA has prepared a resolution for its membership to object to the imposition of the fee. The Village Board may consider the enclosed resolution opposing the proposed IDNR fee, and if adopted, Village Staff will prepare and supply copies of the resolution to local state legislators and to CLCJAWA.

Suggested Motion: *Motion to approve Resolution 2023-03-02 Opposing the Proposed IDNR Lake Michigan Water Allocation Review Fee*

**f. Ordinance 2020-03-05: Abating a Portion of the Amount of Taxes Levied for General Obligation Refunding Bonds**

Staff Contact: Michael Strong, Village Administrator

The Village Board will discuss and consider approval of an Ordinance abating the property tax dedicated as an alternative revenue to the Village's 2015 series water bonds. Annually, the Village is required to abate the property taxes dedicated as an alternative revenue source for the Village's 2015 series water bonds. The Ordinance states that the Village met its financial obligations to pay the bonds; therefore, the property taxes dedicated as an alternative revenue source can be abated.

Suggested Motion: *Motion to approve Ordinance 2023-03-05 Abating a Portion of Taxes Levied for General Obligation Refunding Bonds*

**Old Business**

**a. Discussion: NIMEC Electric Aggregation Program**

Staff Contact: Michael Strong, Village Administrator

Pursuant to direction provided by the Village Board during their regular meeting on March 6, 2023, the Mayor has executed a 14-month Power Supply Agreement with MC Squared Energy Services, LLC (Chicago, IL) that secures a fixed rate of 7.45 cents per kilowatt-hour for residents and small businesses in Lake Villa. This compares to ComEd's current rate of 9.665 cents per kilowatt-hour. Execution of the Agreement will restart the Village's Municipal Electric Aggregation Program beginning in June 2023. Village Staff will provide an overview and schedule for the aggregation program during the meeting on March 20. A copy of the Power Supply Agreement is included in the agenda packet.

Suggested Motion: *Motion to Ratify an Executed Power Supply Agreement with MC Squared Energy Services, LLC. For a 14-month term the Village's Municipal Electricity Aggregation Program*

**VILLAGE OF LAKE VILLA  
VILLAGE BOARD  
PROPOSED BUDGET WORKSHOP  
March 13<sup>th</sup>, 2023**

***Call to Order:*** Mayor McDonald called the meeting to order at 5:30 p.m.

***Present:*** Mayor McDonald, Clerk Konrad, Trustees: Harms, Nielsen, Barbato, O'Reilly, Cramond and Savell, Village Administrator Michael Strong, Treasurer Stacy Michael, Police Chief Rochelle Tisiani, Public Works Supervisors Ryan Horton and Jim Bowles.

**ROLL CALL VOTE WAS:**

**AYES: 6 (Harms, Nielsen, Barbato, O'Reilly, Cramond, Savell)**

**NAYS: 0**

**ABSENT: 0**

**ABSTAIN: 0**

**MOTION CARRIED**

***Budget:*** The FY23/24 Proposed Budget was presented by the Village Administrator, Treasurer and Department Heads.

***Executive Session:*** At 9:05 pm it was moved by Trustee O'Reilly and seconded by Trustee Savell to convene into executive session for Personnel Overview.

***Adjournment:*** It was moved by Trustee Savell and seconded by Trustee Harms to adjourn at 9:49 pm.

***APPROVED BY ME THIS \_\_\_\_\_ March, 2023***

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***JAMES MCDONALD, MAYOR***

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***MARY KONRAD, CLERK***

**VILLAGE OF LAKE VILLA  
VILLAGE BOARD  
REGULAR MEETING  
March 6<sup>th</sup>, 2023**

***Call to Order:*** Mayor McDonald called the meeting to at 7:00 p.m.

***Present:*** Mayor McDonald, Clerk Konrad, Trustees: Harms, Nielsen, Barbato, O'Reilly, Cramond and Savell, Village Administrator Michael Strong, Treasurer Stacy Michael, Police Chief Rochelle Tisiani, Public Works Supervisors Ryan Horton and Jim Bowles Village attorney James Bateman.

**ROLL CALL VOTE WAS:**

**AYES: 6 (Harms, Nielsen, Barbato, O'Reilly, Cramond, Savell)**

**NAYS: 0**

**ABSENT: 0**

**ABSTAIN: 0**

**MOTION CARRIED**

***Public Comment:*** None

***Minutes:*** It was moved by Trustee Nielsen and seconded by Trustee Harms to approve the February 21<sup>th</sup>, 2023 Village Board meeting minutes.

**ROLL CALL VOTE WAS:**

**AYES: 6 (Harms, Nielsen, Barbato, O'Reilly, Cramond, Savell)**

**NAYS: 0**

**ABSENT: 0**

**ABSTAIN: 0**

**MOTION CARRIED**

***Finance:*** It was moved by Trustee Nielsen and seconded by Trustee Barbato to approve the Accounts Payable Report for March 6<sup>th</sup>, 2023 in the amount of \$280,575.12

**ROLL CALL VOTE WAS:**

**AYES: 6 (Harms, Nielsen, Barbato, O'Reilly, Cramond, Savell)**

**NAYS: 0**

**ABSENT: 0**

**ABSTAIN: 0**

**MOTION CARRIED**

***Mayor:*** The St. Patrick's Day Parade will be held on March 11<sup>th</sup> at noon. Palombi School will be the staging area. Corn Beef and Cabbage will follow at the VFW. The Easter Egg Hunt will be held April 1<sup>st</sup>, 2023

***Staff Reports:*** Ryan Horton, Superintendent of Public Works, gave an update on the playground repairs that are needed at Painted Lakes tot lot. Horton also gave an update on the ice storm clean up.

Chief Tisinai stated that a new full time officer started March 4<sup>th</sup> and he participated in Read Across America.

Administrative Services Director reminded the board that the FY23/24 budget workshop is next Monday, March 13 at 5:50 pm.

Administrator Strong gave an IDOT land bridge update. Strong brief the board on National League of Cities CGI videos.

The board conferred on supporting CLCJawa on opposing the fee to the IDNR for Lake Michigan water,

***New Business:***      **Discussion: NIMEC Electric Aggregation Program**

The Village Board heard a presentation relative to the potential restart of a Village-wide Municipal Aggregation Program that could offer financial savings to residents who chose to participate in the program. The board conferred on going with the Fixed Rate (Civic=25K) 0% green energy at a 14 month fixed rate of 7.45.

**Discussion: Zoning updates relative to Lake Villa Comprehensive Plan**

The Village Board adopted the Village's first Comprehensive Plan in January 2022 which lays the foundation for zoning and future land use planning. As part of the Plan's implementation, Teska & Associates, the Village's land planner, has been working on updating both current and future land use zoning maps and converting them to more flexible Geographic Information System (GIS) maps to enhance accuracy and functionality. Teska & Associates have identified approximately two dozen properties within the Village which are zoned under multiple districts which need to be single zoning district in the future.

**Ordinance No. 2023-03-01: An Ordinance Amending the Village of Lake Villa Official Zoning Map Relative to the Properties Located at 0 Cedar Avenue and 209 Cedar Avenue**

It was moved by Trustee Harms and seconded by Trustee Savell to approve Ordinance 2023-03-01 Amending the Village of Lake Villa Official Zoning Map Relative to the Properties Located at 0 Cedar Avenue and 209 Cedar Avenue.

**ROLL CALL VOTE WAS:**

**AYES: 6 (Harms, Nielsen, Barbato, O'Reilly, Cramond, Savell)**

**NAYS: 0**

**ABSENT: 0**

**ABSTAIN: 0**

**MOTION CARRIED**

**Ordinance No. 2023-03-02: An Ordinance Approving the Village's Participation in the Illinois Public Works Mutual Aid Network (IPWMAN)**

It was moved by Trustee Nielsen and seconded by Trustee Barbato to approve Ordinance 2023-03-02 Authorizing Execution of the Illinois Public Works Mutual Aid Network Agreement

**ROLL CALL VOTE WAS:**

**AYES: 6 (Harms, Nielsen, Barbato, O'Reilly, Cramond, Savell)**

**NAYS: 0**

**ABSENT: 0**

**ABSTAIN: 0**

**MOTION CARRIED**

***Executive***

***Session:*** None

***Adjournment:*** It was moved by Trustee Harms and seconded by Trustee Savell to adjourn at 8:27pm.

***APPROVED BY ME THIS*** \_\_\_\_\_ ***March, 2023***

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***JAMES MCDONALD, MAYOR***

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***MARY KONRAD, CLERK***

03/15/2023 04:34 PM

User: CDENZEL

DB: Lake Villa

## CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

EXP CHECK RUN DATES 03/07/2023 - 03/20/2023

BOTH JOURNALIZED AND UNJOURNALIZED

BOTH OPEN AND PAID

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: ADORAMA ADORAMA		
BANK CODE: 40208		
32807798	NIKON BATTERY/ CHARGER	56.95
TOTAL BANK CODE: 40208		56.95
TOTAL VENDOR ADORAMA ADORAMA		56.95
VENDOR CODE: AEP ENERGY AEP ENERGY		
BANK CODE: 40208		
03152023-3973	0 PAINTED LAKES BI MCKINZIE TC	203.90
TOTAL BANK CODE: 40208		203.90
TOTAL VENDOR AEP ENERGY AEP ENERGY		203.90
VENDOR CODE: AMEGAS AMERICAN GASES CORP		
BANK CODE: 40208		
189516	OXYGEN/ACETYLENE	28.68
TOTAL BANK CODE: 40208		28.68
TOTAL VENDOR AMEGAS AMERICAN GASES CORP		28.68
VENDOR CODE: ANTAUT ANTIOCH AUTO PARTS		
BANK CODE: 40208		
270515	KIA	21.63
272006	TURN HUBLESS ROTOR	29.00
272495	AIR FILTERS	116.58
TOTAL BANK CODE: 40208		167.21
TOTAL VENDOR ANTAUT ANTIOCH AUTO PARTS		167.21
VENDOR CODE: APPTec APPLIED TECHNOLOGIES		
BANK CODE: 40208		
36314	MANHOLE REHABILITATION	4,372.00
36310	STARLING SENIOR LIVING	2,400.00
36310	SEWER/WATER ENGINEERING	2,913.00
36310	STREETS ENGINEERING	2,796.00
TOTAL BANK CODE: 40208		12,481.00
TOTAL VENDOR APPTec APPLIED TECHNOLOGIES		12,481.00
VENDOR CODE: ATIRE A-TIRE COUNTY SERVICE, INC.		
BANK CODE: 40208		
114920	SQUAD #271	686.28
TOTAL BANK CODE: 40208		686.28
TOTAL VENDOR ATIRE A-TIRE COUNTY SERVICE, INC.		686.28
VENDOR CODE: AUSDEM AUSTIN DEMSKI		
BANK CODE: 40208		



03/15/2023 04:34 PM

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DB: Lake Villa

## CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: AUSDEM AUSTIN DEMSKI		
BANK CODE: 40208		
03152023-AUSTIN	TRAINING/TRAVEL -AUSTIN DEMSKI	300.00
TOTAL BANK CODE: 40208		300.00
TOTAL VENDOR AUSDEM AUSTIN DEMSKI		300.00
VENDOR CODE: BILPRE BILLER PRESS & MFG., INC.		
BANK CODE: 40208		
23-23482	WARINING NOTICE BOOKS	468.00
TOTAL BANK CODE: 40208		468.00
TOTAL VENDOR BILPRE BILLER PRESS & MFG., INC.		468.00
VENDOR CODE: CARSER CARDMEMBER SERVICE		
BANK CODE: 40208		
5857	DROPBOX	19.99
3520	SBOC TRAINING EVENT- CORY WESTMAN	175.00
9170	CRAINS CHICAGO BUSINESS SUBSCRIPTION	15.00
6779	EB IRMA: IDOL/ OSHA INSPECTION TRAINING-	50.00
0060	PRE -EMPLOYMENT BACKGROUND CHECK	44.94
6976	SPEED TURTLE ENGINEERING/ LIGHT FOR RYAN	208.45
0020	BACKGROUND CHECK	7.50
9200	IL GOV FINANCE OFFICERS ASSOC/ 2023 MEMB	200.00
0059	PRE EMPLOYMENT BACKGROUND CHECK	44.94
0718	AMAZON- COUNTER PRINTER CARTRIDGE	17.04
2664	TRAINING/TRAVEL- AUSTIN DEMSKI	327.80
1547	AMAZON- CAMERA CASE	69.04
0064	TRAINING/TRAVEL- MICHAEL GARDINER	237.50
0238	NIU OUTREACH	225.00
0167	CREDIT FOR NIU OUTREACH	270.00
2966	TRAINING/TRAVEL- MIKE STRONG	318.08
TOTAL BANK CODE: 40208		2,230.28
TOTAL VENDOR CARSER CARDMEMBER SERVICE		2,230.28
VENDOR CODE: CES CES		
BANK CODE: 40208		
LKV/096164	BOOSTER STATION	23.63
TOTAL BANK CODE: 40208		23.63
TOTAL VENDOR CES CES		23.63
VENDOR CODE: COMCAB COMCAST CABLE		
BANK CODE: 40208		
03102023-2880	65 CEDAR AVE OFC	378.64
03152023-6207	65 CEDAR AVE	2.10
TOTAL BANK CODE: 40208		380.74
TOTAL VENDOR COMCAB COMCAST CABLE		380.74

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: COMED COMED		
BANK CODE: 40208		
03152023-1007	65 CEDAR AVE	127.00
TOTAL BANK CODE: 40208		127.00
TOTAL VENDOR COMED COMED		127.00
VENDOR CODE: CONFV CONSERV FS, INC.		
BANK CODE: 40208		
102025212	407 GAL UNL GAS	1,331.30
TOTAL BANK CODE: 40208		1,331.30
TOTAL VENDOR CONFV CONSERV FS, INC.		1,331.30
VENDOR CODE: CUTWOR CUTLER WORKWEAR		
BANK CODE: 40208		
PS-INV017462	UNIFORM ALLOWANCE- JIM BOWLES	260.92
TOTAL BANK CODE: 40208		260.92
TOTAL VENDOR CUTWOR CUTLER WORKWEAR		260.92
VENDOR CODE: DEJA JAMES DECARO		
BANK CODE: 40208		
03152023-JAMES	TRAINING/TRAVEL- JAMES DECARO	250.00
TOTAL BANK CODE: 40208		250.00
TOTAL VENDOR DEJA JAMES DECARO		250.00
VENDOR CODE: DEKCOM DEKIND COMPUTER CONSULTANTS		
BANK CODE: 40208		
35470	PRINTER REPAIRS	439.20
35458	TREND MICRO WORRY-FREE SERVICES	3,499.30
TOTAL BANK CODE: 40208		3,938.50
TOTAL VENDOR DEKCOM DEKIND COMPUTER CONSULTANTS		3,938.50
VENDOR CODE: EGOV EGOV STRATEGIES		
BANK CODE: 40208		
INV-18169	WEBSITE E-NOTIFICATION SERVICES	2,450.00
TOTAL BANK CODE: 40208		2,450.00
TOTAL VENDOR EGOV EGOV STRATEGIES		2,450.00
VENDOR CODE: EVIINC EVIDENT, INC.		
BANK CODE: 40208		
219045A	SUPPLIES- HEAT SEALER	660.38
TOTAL BANK CODE: 40208		660.38

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## CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: EVIINC EVIDENT, INC.		
TOTAL VENDOR EVIINC EVIDENT, INC.		660.38
VENDOR CODE: FACMOTPAR FACTORY MOTOR PARTS CO.		
BANK CODE: 40208		
162-137600	TRUCK #13	54.99
50-4381790	TRUCK #13	143.98
162-137596	TRUCK #4	27.27
162-137271	TRUCK #20	137.91
162-137089	TRUCK #22	9.27
TOTAL BANK CODE: 40208		373.42
TOTAL VENDOR FACMOTPAR FACTORY MOTOR PARTS CO.		373.42
VENDOR CODE: GALL'S GALL'S, LLC		
BANK CODE: 40208		
023688263	UNIFORM ALLOWANCE- ZACHARY BECK	100.90
023688264	UNIFORM ALLOWANCE- BRIAN DEKIND	249.16
023688265	UNIFORM ALLOWANCE- THOMAS DVORAK	14.78
023654865	UNIFORM ALLOWANCE- AUSTIN DEMSKI	64.25
023648575	UNIFORM ALLOWANCE- THOMAS DVORAK	31.70
TOTAL BANK CODE: 40208		460.79
TOTAL VENDOR GALL'S GALL'S, LLC		460.79
VENDOR CODE: HAVCOM HAVEY COMMUNICATIONS, INC.		
BANK CODE: 40208		
12133	SQUAD #274	904.00
TOTAL BANK CODE: 40208		904.00
TOTAL VENDOR HAVCOM HAVEY COMMUNICATIONS, INC.		904.00
VENDOR CODE: HOMDEP HOME DEPOT CREDIT SERVICES		
BANK CODE: 40208		
9023766	MAGNETIC DISC CERAMIC	4.28
3622890	WHITE SHELF WITH BRACKETS	75.15
TOTAL BANK CODE: 40208		79.43
TOTAL VENDOR HOMDEP HOME DEPOT CREDIT SERVICES		79.43
VENDOR CODE: HYDSEY HYDRAULIC SERVICE & REPAIR INC		
BANK CODE: 40208		
380201	VEHICLE SUPPLIES/ LABOR	1,404.53
380486	TRUCK #2/ TRUCK #8	498.00
TOTAL BANK CODE: 40208		1,902.53
TOTAL VENDOR HYDSEY HYDRAULIC SERVICE & REPAIR INC		1,902.53
VENDOR CODE: ICOPS ICOPS		
BANK CODE: 40208		

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## CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: ICOPS ICOPS		
BANK CODE: 40208		
ICOPS 03092023	PAY PERIOD 02/18-03/03/2023	276.00
TOTAL BANK CODE: 40208		276.00
TOTAL VENDOR ICOPS ICOPS		276.00
VENDOR CODE: ILCMA ILLINOIS CITY/COUNTY MANAGEMENT ASN		
BANK CODE: 40208		
87806	APRIL ILCMA PROF DEVELOPMENT/LUNCHEON	35.00
TOTAL BANK CODE: 40208		35.00
TOTAL VENDOR ILCMA ILLINOIS CITY/COUNTY MANAGEMENT		35.00
VENDOR CODE: JAMBAT JAMES P. BATEMAN, LTD.		
BANK CODE: 40208		
03072023-PINES II	PINES II SUBDIVISION -GENERAL MATTERS	425.00
03072023-POLICE	POLICE COMMISSION MATTERS	95.00
03072022-WATER	WATER AND SEWER MATTERS	1,606.95
03072023-GENERAL	GENERAL MATTERS	4,633.45
03072023-REDWOOD	REDWOOD MATTERS	3,523.60
03072023-LINCOLN	LINCOLN AVENUE CAPITAL MATTERS	3,024.00
TOTAL BANK CODE: 40208		13,308.00
TOTAL VENDOR JAMBAT JAMES P. BATEMAN, LTD.		13,308.00
VENDOR CODE: KUNCOU KUNES' COUNTRY		
BANK CODE: 40208		
39601	TRUCK #13	101.92
TOTAL BANK CODE: 40208		101.92
TOTAL VENDOR KUNCOU KUNES' COUNTRY		101.92
VENDOR CODE: LAKCOUHEA LAKE COUNTY HEALTH DEPT		
BANK CODE: 40208		
INV-00069758	GLACIER PARK/ SEASONAL SWIMMING LICENSE	242.00
INV-00069583	LEHMANN PARK BEACH/ SEASONAL SWIMMING LI	242.00
TOTAL BANK CODE: 40208		484.00
TOTAL VENDOR LAKCOUHEA LAKE COUNTY HEALTH DEPT		484.00
VENDOR CODE: LAKINT LAKESIDE INTERNATIONAL TRUCKS		
BANK CODE: 40208		
2303162P	TRUCK #6	146.48
TOTAL BANK CODE: 40208		146.48
TOTAL VENDOR LAKINT LAKESIDE INTERNATIONAL TRUCKS		146.48
VENDOR CODE: LAKLAR LAKELAND/LARSEN		

03/15/2023 04:34 PM

User: CDENZEL

DB: Lake Villa

## CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

EXP CHECK RUN DATES 03/07/2023 - 03/20/2023

BOTH JOURNALIZED AND UNJOURNALIZED

BOTH OPEN AND PAID

Page: 6/9

INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: LAKLAR LAKELAND/LARSEN		
BANK CODE: 40208		
95653	MONTHLY ELEVATOR MAINT	202.38
TOTAL BANK CODE: 40208		202.38
TOTAL VENDOR LAKLAR LAKELAND/LARSEN		202.38
VENDOR CODE: LAUAME LAUTERBACH & AMEN, LLP		
BANK CODE: 40208		
76170	FINANCIAL SERVICES- FEBRUARY 2023	5,440.00
TOTAL BANK CODE: 40208		5,440.00
TOTAL VENDOR LAUAME LAUTERBACH & AMEN, LLP		5,440.00
VENDOR CODE: LCTREAS LAKE COUNTY TREASURER		
BANK CODE: 40208		
03082023-QUIET ZON	IGRASS LAKE RD- QUIET ZONE	850.00
TOTAL BANK CODE: 40208		850.00
TOTAL VENDOR LCTREAS LAKE COUNTY TREASURER		850.00
VENDOR CODE: LVPOL LAKE VILLA POLICE PENSION FUND		
BANK CODE: 40208		
LVPOL 03092023	PAY PERIOD 02/18-03/03/23	5,681.22
TOTAL BANK CODE: 40208		5,681.22
TOTAL VENDOR LVPOL LAKE VILLA POLICE PENSION FUND		5,681.22
VENDOR CODE: MENANT MENARDS - ANTIOCH		
BANK CODE: 40208		
25417	WATER CHEMICAL CONVERSION	11.99
25253	WATER SUPPLIES- BUILDING LIGHTS	130.23
25240	BRASS PLUG/ TEFLON PASTE	16.97
25825	STACKING BINS	53.41
25824	HOLES AW SET/ HD POLE SOCKETS/ HD CLOSET	46.36
25527	SHOP SUPPLIES	29.47
25529	BALL PARK BATH	28.61
25568	UNIFORM ALLOWANCE- ZACH TURNER	36.21
25661	WATER CHEMICAL CONVERSION	22.26
25567	STREETS	14.95
TOTAL BANK CODE: 40208		390.46
TOTAL VENDOR MENANT MENARDS - ANTIOCH		390.46
VENDOR CODE: NACO NACO RETIREMENT SOLUTIONS		
BANK CODE: 40208		
NACO 03092023	PAY PERIOD 02/18-03/03/2023	2,725.38
TOTAL BANK CODE: 40208		2,725.38

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User: CDENZEL

DB: Lake Villa

## CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

EXP CHECK RUN DATES 03/07/2023 - 03/20/2023

BOTH JOURNALIZED AND UNJOURNALIZED

BOTH OPEN AND PAID

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: NACO NACO RETIREMENT SOLUTIONS		
	TOTAL VENDOR NACO NACO RETIREMENT SOLUTIONS	2,725.38
VENDOR CODE: NCPERS NCPERS GROUP LIFE INSURANCE		
BANK CODE: 40208		
428104202	IMRF LIFE INSURANCE	32.00
	TOTAL BANK CODE: 40208	32.00
	TOTAL VENDOR NCPERS NCPERS GROUP LIFE INSURANCE	32.00
VENDOR CODE: NORTTRU NORTSHORE TRUCK & EQUIPMENT		
BANK CODE: 40208		
32428	TRUCK #4/ FLOOR OVERLAY	1,200.00
	TOTAL BANK CODE: 40208	1,200.00
	TOTAL VENDOR NORTTRU NORTSHORE TRUCK & EQUIPMENT	1,200.00
VENDOR CODE: PADPUB PADDOCK PUBLICATIONS, INC.		
BANK CODE: 40208		
244800	MANHOLE BID	409.40
	TOTAL BANK CODE: 40208	409.40
	TOTAL VENDOR PADPUB PADDOCK PUBLICATIONS, INC.	409.40
VENDOR CODE: PEERLESS PEERLESS NETWORK, INC.		
BANK CODE: 40208		
18464	TELEPHONE	1,192.31
	TOTAL BANK CODE: 40208	1,192.31
	TOTAL VENDOR PEERLESS PEERLESS NETWORK, INC.	1,192.31
VENDOR CODE: PITBOWES PITNEY BOWES BANK IN PURCHASE POWER		
BANK CODE: 40208		
03072023-PITNEY	POSTAGE	157.61
	TOTAL BANK CODE: 40208	157.61
	TOTAL VENDOR PITBOWES PITNEY BOWES BANK IN PURCHASE	157.61
VENDOR CODE: RETAIL COA THE RETAIL COACH		
BANK CODE: 40208		
4139	RETAIL RECRUITMENT AND DEVELOPMENT STRAT	10,000.00
	TOTAL BANK CODE: 40208	10,000.00
	TOTAL VENDOR RETAIL COA THE RETAIL COACH	10,000.00
VENDOR CODE: RUSPOW RUSSO POWER EQUIPMENT		
BANK CODE: 40208		
SP110035073	CREDIT MEMO PCM20003774	(69.99)

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User: CDENZEL

DB: Lake Villa

## CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

EXP CHECK RUN DATES 03/07/2023 - 03/20/2023

BOTH JOURNALIZED AND UNJOURNALIZED

BOTH OPEN AND PAID

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: RUSPOW RUSSO POWER EQUIPMENT		
BANK CODE: 40208		
<a href="#">SPI20097598</a>	SNOW SHOVEL/PUSHER	73.98
TOTAL BANK CODE: 40208		3.99
TOTAL VENDOR RUSPOW RUSSO POWER EQUIPMENT		3.99
VENDOR CODE: SPOTLESS SPOT-LESS		
BANK CODE: 40208		
<a href="#">7703</a>	POLICE DEPT CLEANING- DECEMBER/ JANUARY/	585.00
<a href="#">7702</a>	VILLAGE HALL CLEANING- DECEMBER / JANUAR	1,300.00
TOTAL BANK CODE: 40208		1,885.00
TOTAL VENDOR SPOTLESS SPOT-LESS		1,885.00
VENDOR CODE: STABAN STATE BANK OF THE LAKES		
BANK CODE: 40208		
<a href="#">03152023</a>	STREETSCAPE LOAN PAYMENT	107,672.48
TOTAL BANK CODE: 40208		107,672.48
TOTAL VENDOR STABAN STATE BANK OF THE LAKES		107,672.48
VENDOR CODE: THOELE THOMPSON ELEVATOR		
BANK CODE: 40208		
<a href="#">23-0709</a>	ELEVATOR INSPECTIONS/ CEDAR VILLAGE	96.00
TOTAL BANK CODE: 40208		96.00
TOTAL VENDOR THOELE THOMPSON ELEVATOR		96.00
VENDOR CODE: TIRO ROCHELLE TISINAI		
BANK CODE: 40208		
<a href="#">03152023</a>	TRAINING/TRAVEL- ROCHELLE TISINAI	250.00
TOTAL BANK CODE: 40208		250.00
TOTAL VENDOR TIRO ROCHELLE TISINAI		250.00
VENDOR CODE: TRACON TRAFFIC CONTROL & PROTECTION INC.		
BANK CODE: 40208		
<a href="#">114046</a>	SQUARE TUBE CHUCK	461.35
TOTAL BANK CODE: 40208		461.35
TOTAL VENDOR TRACON TRAFFIC CONTROL & PROTECTION IN		461.35
VENDOR CODE: TRANSUNION TRANSUNION		
BANK CODE: 40208		
<a href="#">484442-202302-1</a>	FEBRUARY 2023	79.40
TOTAL BANK CODE: 40208		79.40

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User: CDENZEL

DB: Lake Villa

CUSTOM INVOICE REPORT FOR VILLAGE OF LAKE VILLA

EXP CHECK RUN DATES 03/07/2023 - 03/20/2023

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BOTH OPEN AND PAID

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INVOICE NUMBER	DESCRIPTION	AMOUNT
VENDOR CODE: TRANSUNION TRANSUNION		
	TOTAL VENDOR TRANSUNION TRANSUNION	79.40
VENDOR CODE: VISMED VISTA MEDICAL CENTER WEST		
BANK CODE: 40208		
00046305-00	EMPLOYMENT PHYSICAL/ JAY JENNINGS/ DEAN	185.00
	TOTAL BANK CODE: 40208	185.00
	TOTAL VENDOR VISMED VISTA MEDICAL CENTER WEST	185.00
VENDOR CODE: WARDIR WAREHOUSE DIRECT		
BANK CODE: 40208		
5453082-0	OFFICE SUPPLIES- C-FOLD TOWELS	167.30
5453028-0	OFFICE SUPPLIES- FLASH DRIVE/ SHARPE/ LE	100.82
5454928-0	OFFICE SUPPLIES- PAPER	258.60
	TOTAL BANK CODE: 40208	526.72
	TOTAL VENDOR WARDIR WAREHOUSE DIRECT	526.72
VENDOR CODE: WATGUA WATCHGUARD VIDEO		
BANK CODE: 40208		
7140191-2013-4	REFUSE PICKUP	55,221.40
	TOTAL BANK CODE: 40208	55,221.40
	TOTAL VENDOR WATGUA WATCHGUARD VIDEO	55,221.40
GRAND TOTAL:		238,778.44



**A RESOLUTION OF THE VILLAGE OF LAKE VILLA,  
LAKE COUNTY, ILLINOIS, TO INDUCE THE REDEVELOPMENT OF CERTAIN  
PROPERTY WITHIN A TAX INCREMENT FINANCING REDEVELOPMENT  
PROJECT AREA**

**WHEREAS**, the Village of Lake Villa, Lake County, Illinois (the “*Village*”) is a duly organized and validly existing non-home rule municipality pursuant to Article VII, Section 6(a) of the Constitution of the State of Illinois of 1970; and,

**WHEREAS**, pursuant to its powers and in accordance with the requirements of the Tax Increment Allocation Redevelopment Act of the State of Illinois, 65 ILCS 5/11-74.4-1, *et seq.*, as from time to time amended (the “*TIF Act*”), the President and Board of Trustees (the “*Corporate Authorities*”) of the Village, on June 22, 2016, by Ordinance Numbers 2016-06-01, 2016-06-02, and 2016-06-02, approved a Redevelopment Project Plan and Eligibility Report for an area designated as the Downtown Tax Increment Redevelopment Project Area (the “*Project Area*”), and adopted tax increment financing for the payment and financing of redevelopment project costs incurred within the Project Area; and,

**WHEREAS**, the Village has been approached by Encore Packaging LLC. (“*Developers*”), who proposes to rehabilitate certain properties located within the Project Area located at 201 Park Avenue (P.I.N.s 06-04-107-006, -007, and -008) (the “*Subject Property*”) to include the purchase of property and building related rehabilitation (the “*Project*”); and,

**WHEREAS**, the Developers have also informed the Village that the ability to undertake the Project on the Subject Property may require financial assistance from the Village for certain improvements that would be incurred in connection with the acquisition and development, which costs would constitute “*Redevelopment Project Costs*” as such term is defined in the TIF Act; and,

**WHEREAS**, the Developers would like to incur certain costs in connection with the Project prior to the adoption of any ordinance authorizing the execution of a redevelopment agreement pertaining to the Subject Property with the Village; wherein reimbursement for such costs may be considered between the parties subject to certain terms and conditions; and,

**WHEREAS**, the Developers desires such costs related to the Project are able to qualify for consideration as redevelopment project costs that can be reimbursed utilizing incremental real estate taxes pursuant to the TIF Act, provided that such costs constitute “*Redevelopment Project Costs*”, as such term is defined in the TIF Act; and,

**WHEREAS**, this Resolution is intended to allow the Developers to incur certain costs relating to the redevelopment of the Subject Property that may be considered “*Redevelopment Project Costs*”, as such term is defined in the TIF Act, prior to adoption of any ordinance authorizing the execution of a redevelopment agreement pertaining to the Subject Property with the Village, subject to the conditions set forth in Section 3 of this Resolution.

**NOW, THEREFORE, BE IT RESOLVED** by the President and Board of Trustees of the Village of Lake Villa, of Lake County, Illinois, as follows:

*Section 1.* That the above recitals are incorporated herein and made a part hereof.

*Section 2.* That the Corporate Authorities may consider expenditures that are “*Redevelopment Project Costs*”, as such term is defined in the TIF Act, in connection with the Project, incurred prior to the approval and execution of a redevelopment agreement with the Developer, to be expenditures that are eligible for reimbursement through the TIF Act to the extent the Project is in furtherance of the redevelopment project and plan for the overall Project Area.

*Section 3.* That all undertakings of the Village set forth in this Resolution are specifically contingent upon the Village approving and executing a redevelopment agreement with the Developer, or a successor or assignee of the Developer, which provides for the redevelopment of the Subject Property in accordance with the terms and conditions to be negotiated by the parties.

*Section 4.* That any financial assistance rendered to the Developer by the Village shall be contingent upon the authority, restrictions, terms, and conditions imposed by the TIF Act.

*Section 5.* That this Resolution shall be in full force and effect from and after its passage and approval as provided by law.

*Passed* by the President and the Village Board of Trustees of the Village of Lake Villa, Illinois, this 20<sup>th</sup> day of March, 2023.

AYES:

NAYS:

ABSENT:

ABSTAIN:

**APPROVED:**

---

Mayor James McDonald

*Attest:*

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Village Clerk

02/28/23  
03/01/23  
03/09/23  
03/10/23  
03/13/23

VILLAGE OF LAKE VILLA

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ORDINANCE NO. 2023-03-03

AN ORDINANCE GRANTING PRELIMINARY APPROVAL  
FOR A REQUEST FOR REZONING AND  
FOR AN AMENDMENT TO AN EXISTING CONDITIONAL USE PERMIT  
FOR A PLANNED DEVELOPMENT PREVIOUSLY GRANTED BY  
VILLAGE OF LAKE VILLA ORDINANCE NO. 2020-07-07  
FOR THE LAKE TOWER CROSSING PHASE 3 PLANNED DEVELOPMENT  
AND A CONDITIONAL USE PERMIT FOR THE PROPOSED  
STARLING SENIOR APARTMENTS PLANNED DEVELOPMENT

(RE: Petition of Lincoln Avenue Capital, LLC -  
0 Deep Lake Road, Lake Villa, IL)

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ADOPTED BY THE  
CORPORATE AUTHORITIES  
OF THE  
VILLAGE OF LAKE VILLA, ILLINOIS  
THIS 20<sup>th</sup> DAY OF MARCH, 2023.

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Published in pamphlet form by authority of the Corporate Authorities of the Village of Lake Villa,  
Lake County, Illinois, this 20<sup>th</sup> day of March, 2023.

AN ORDINANCE GRANTING PRELIMINARY APPROVAL  
FOR A REQUEST FOR REZONING AND  
FOR AN AMENDMENT TO AN EXISTING CONDITIONAL USE PERMIT  
FOR A PLANNED DEVELOPMENT PREVIOUSLY GRANTED BY  
VILLAGE OF LAKE VILLA ORDINANCE NO. 2020-07-07  
FOR THE LAKE TOWER CROSSING PHASE 3 PLANNED DEVELOPMENT  
AND A CONDITIONAL USE PERMIT FOR THE PROPOSED  
STARLING SENIOR APARTMENTS PLANNED DEVELOPMENT

(RE: Petition of Lincoln Avenue Capital, LLC -  
0 Deep Lake Road, Lake Villa, IL)

WHEREAS, the Village of Lake Villa (the “Village”) has received an application from the Petitioner, Lincoln Avenue Capital, LLC or its assigns (hereinafter referred to as the “Petitioner”), the contract purchaser of the property commonly known as 0 Deep Lake Road, Lake Villa, IL which is identified as P.I.N. 02-28-201-178 (the “Property”) requesting rezoning of the Property to the Village’s UR-4 Zoning District and approval of an amendment to an existing Conditional Use Permit for a Planned Development previously granted by Village of Lake Villa Ordinance No. 2020-07-07 for the Lake Tower Crossing Phase 3 Planned Development and a Conditional Use Permit for a Residential Planned Development for Elderly Housing and to permit the Petitioner to construct a forty (40) unit senior apartment development which shall be age-restricted to persons 55 years of age and older, with a mix of one-bedroom and two-bedroom apartments on the Property, as well as other related and/or required improvements which include but are not limited to water mains, sanitary sewers, storm sewers, storm water management facilities, parking, lighting, landscaping, and off-site sidewalks (hereinafter sometimes collectively referred to as the “Development”); and

WHEREAS, the Property consists of approximately 5.208 acres of vacant land located generally on the west side of Deep Lake Road and south of both Grass Lake Road and Tower

Drive in the Village of Lake Villa which is presently zoned and classified as part of the Village's SB (Suburban Business) Zoning District, within the corporate limits of the Village; and

WHEREAS, the Property is legally described as follows:

LOT A IN LAKE TOWER CROSSING PLANNED UNIT DEVELOPMENT PHASE 2, BEING A RESUBDIVISION OF PART OF SECTION 28, TOWNSHIP 46 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN LAKE COUNTY, ILLINOIS ACCORDING TO THE PLAT THEREOF RECORDED MAY 1, 2008 AS DOCUMENT NUMBER 6340408, IN THE VILLAGE OF LAKE VILLA, LAKE COUNTY, ILLINOIS.

P.I.N. 02-28-201-178 (Approx. 5.208 acres)  
; and

WHEREAS, the Village of Lake Villa, Illinois, pursuant to the applicable Illinois statutes, has adopted Zoning Regulations as set forth in Chapter 10 of the Lake Villa Village Code, as amended from time to time (the "Zoning Regulations") and certain subdivision regulations as set forth in Chapter 11 of the Lake Villa Village Code, as amended from time to time (the "Subdivision Regulations") to regulate, among other things, land use and development within the Village; and

WHEREAS, Title 10, "Zoning Regulations", and Title 11, "Subdivision Regulations", of the Lake Villa Village Code provide regulations for the planning, review, and approval of conditional use permits for planned unit developments ("PUDs") within the Village; and

WHEREAS, the Petitioner has proceeded through the preliminary approval phase for rezoning of the Property from the Village's SB (Suburban Business) Zoning District to the Village's UR-4 Zoning District (the "Application") and for a Conditional Use Permit for the establishment of an Elderly Housing development as permitted in the UR-4 Zoning District on property which currently is located within and is part of the Lake Tower Crossing Phase 3 Planned Development, and has also applied to the Village for amendments to the existing Conditional Use for the Lake Tower Crossing Phase 3 Planned Development which was previously authorized by Village of Lake Villa Ordinance No. 2020-07-07 in order to establish said Development; and

WHEREAS, commencing on January 19, 2023 and concluding on February 21, 2023, the Village's Plan Commission, pursuant to proper notice, did conduct a public hearing on the Petitioner's Application; and

WHEREAS, at the conclusion of such public hearing, the Plan Commission did recommend approval of the Petitioner's Application based upon certain findings of fact and subject to certain conditions as follows:

I. FINDINGS OF FACT:

1. The Property consists of approximately 5.208 acres, more or less, is located within the corporate limits of the Village of Lake Villa, is commonly known as 0 Deep Lake Road, Lake Villa, IL (Permanent Index Number 02-28-201-178) and is generally located on the west side of Deep Lake Road and south of both Grass Lake Road and Tower Drive in the Village of Lake Villa and is legally described as follows:

LOT A IN LAKE TOWER CROSSING PLANNED UNIT DEVELOPMENT PHASE 2, BEING A RESUBDIVISION OF PART OF SECTION 28, TOWNSHIP 46 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN LAKE COUNTY, ILLINOIS ACCORDING TO THE PLAT THEREOF RECORDED MAY 1, 2008 AS DOCUMENT NUMBER 6340408, IN THE VILLAGE OF LAKE VILLA, LAKE COUNTY, ILLINOIS.

2. The Property is presently zoned and classified as part of the Village's SB (Suburban Business) Zoning District, subject to the Lake Tower Crossing Phase 3 Planned Development. The Petitioner is also requesting rezoning to the UR-4 Zoning District to permit the construction, operation and maintenance of one three (3) story building consisting of senior apartment dwelling units, not exceeding forty (40) units in a single building, having a mix of one- or two-bedroom apartments intended for persons 55 years of age and older and other related improvements, including parking, lighting, landscaping, and storm water management facilities which would be in lieu of the 91 apartments previously authorized by the aforesaid Ordinance No. 2020-07-07, which senior apartments proposal will also require a modification of the phasing requirements set forth in Section 4(P) of Ordinance No. 2020-07-07 (collectively referred to as the "Development").
3. The proposed amendments to the Conditional Use Permit previously approved for the Property by Ordinance No. 2020-07-07 (the "existing Conditional Use Permit") and the New Conditional Use Permit requested by the Petitioner to authorize the Development:
  - (a) are consistent with the particular physical surroundings of the Property, the mixed uses on properties in the general vicinity thereof, and the present zoning of the Property, and that the granting of certain relief from the Village's Zoning Regulations will not be detrimental to the public welfare or injurious to other property owners in the vicinity of the Property;

- (b) are consistent with the general purpose and intent of the Lake Villa Zoning Regulations;
- (c) are consistent with the Village's Comprehensive Plan;
- (d) are designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity;
- (e) will not significantly diminish the safety, use and enjoyment of surrounding property;
- (f) will be adequately served by essential public facilities and services such as streets, police and fire service, drainage, refuse disposal, and schools, or such services will be provided by the Petitioner at the Petitioner's sole expense;
- (g) do not create excessive additional requirements at public expense for public facilities and service and will not be detrimental to the economic welfare of the community;
- (h) do not involve uses, activities, processes, materials, equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors;
- (i) will provide vehicular access to the Property designed so that such use does not create any interference with traffic on surrounding public thoroughfares;
- (j) will not result in the destruction, loss, or damage of a natural, scenic, or historic feature of major importance;
- (k) will comply with all additional regulations in this Ordinance specific to the Conditional Use Permit requested.
- (l) will be consistent with the existing zoning of and with the existing uses of nearby properties;
- (m) will not diminish property values by the particular zoning restrictions at issue or by granting of the proposed New Conditional Use;
- (n) will not diminish property values and will promote the general health, safety, and welfare;
- (o) will provide a gain to the public as a result of the establishment of the proposed New Conditional Use for a senior apartment building, and there will be no hardship imposed upon the Petitioner;
- (p) will satisfy a community need for the uses which are the subject of the New Conditional Use Permit requested by the Petitioner;
- (q) will be consistent with the intent and purpose of the Lake Villa Zoning Regulations;



- (r) will be generally compatible with the character of the UR-4 Zoning District and the neighborhood in which it will be located;
  - (s) will preserve the value of the surrounding residential area and will be compatible with surrounding land uses;
  - (t) The Property is suitable for the Development;
  - (u) The Village has undertaken its planning and land use regulations with great care;
  - (v) The Property contains no topographical, environmentally sensitive, or historical features which require preservation;
4. The proposed amendments to the existing Conditional Use Permit as provided by Village of Lake Villa Ordinance No. 2020-07-07 and the New Conditional Use Permit for Elderly Housing would authorize the establishment, operation, and maintenance of a planned development for Elderly Housing in the nature of one 3-story apartment building consisting of not more than forty (40) senior apartment dwelling units in a single building, pursuant to the Village's Zoning Regulations in the UR4 Zoning District to which District the Property will be rezoned and re-classified, and the Village has hereby determined that the proposed Development is compatible with other uses permitted in the UR4 Zoning District;
  5. The proposed Development is consistent with the stated purpose of the planned development regulations set forth in the Village's Zoning Regulations and the proposed preliminary plan meets the requirements and standards for planned developments.
  6. The proposed preliminary plan for this planned development indicates that the New Conditional Use will produce a public benefit meeting the planning objectives and standards of the Village.
  7. The design of the proposed preliminary plan makes adequate provision for public services, provides adequate control over vehicular traffic, provides for and protects areas for common open space and other amenities.
  8. The proposed Development will be compatible with and beneficial to the adjacent properties and to the neighborhood, and the proposed Development is a desirable addition to the Village's available housing options, tax base and economic well being.
  9. In reviewing requests for Conditional Uses, the following standards were reviewed and considered pursuant to the Village's Zoning Code:
    - (a) Location: The site shall be so situated that the proposed use is compatible with the existing or planned future development in the area.

The Plan Commission found that the proposed Development is located along an arterial with compatible commercial development to the north and residential development to the west.

- (b) Zoning District Requirements: All regulations of the zone in which a conditional use is located shall apply to such uses, except where specifically amended by the conditions under which the conditional use permit is granted.

The Plan Commission found that zoning variances may be provided through the adoption of the conditional use for a planned development.

- (c) Lot Area: A conditional use shall be located on a lot or a zoning lot which conforms to the applicable zone regulations, unless the lot area requirement is specified in this section.

The Plan Commission found that the proposed Development is in compliance with minimum requirements of the UR4 Zoning District.

10. In evaluating a Planned Development, the Plan Commission considered the degree to which that development varies from underlying zoning standards of the district in which it will be located, and also considered benefits of the development such as the following (summary of Lake Villa Zoning Ordinance Section 9-1-2):

- (a) The proposed Development will provide a number of off-site connected sidewalks for use by both residents of the Development and other residents of the Village; or
- (b) The amount of landscaping is substantially greater than the minimum required by the Village Code; or
- (c) With the new building elevation, the proposed Development has substantially greater architectural amenities; or
- (d) Other extraordinary site amenities, including the community garden and a dog-run area.

The Plan Commission found that the proposed Development exceeds the amount of landscaping that is required by providing two of the standards:

- (i) The proposed Development provides a number of connected off-site sidewalks for use by residents of the Development and for use by Village residents; and
- (ii) The proposed Development exceeds landscape requirements by providing common open space, a community garden and dog run.

11. The Plan Commission also considered: (a) the degree to which the Development exhibits extra care and attention to details in excess of Village requirements which enhance the character of the Development, (b) the degree to which any requested increase in density reflects an investment in better design, landscaping, or facilities, and (c) the degree to which the developer has gone to better preserve critical natural environments, restore or mitigate degraded or distressed environments, alleviated off-site problems, and/or provided other improvements.

The Plan Commission found that the proposed Development will provide moderate-density senior apartments which are needed in the community, as well as additional open space, in the form of a number of off-site connected sidewalks, community garden and dog run, a sidewalk along Deep Lake Road, and also exceeds requirements for parking and accessible parking spaces.

The proposed Development is located along an easily accessible arterial, complements the commercial development to the north, and serves as a buffer to residential development to the west.

The wet bottom detention basin shall be designed with native wetland vegetation to enhance the natural environment and the abutting wetland to the south.

II. CONDITIONS OF PRELIMINARY APPROVAL: The Plan Commission of the Village recommended that the Petitioner be granted preliminary approval, subject to the following conditions:

1. Prior to commencement of construction:
  - (a) The Petitioner shall construct or pay for the construction of all stormwater management, sanitary sewer, water system improvements required for the Development, all in accordance with the final engineering approved by the Village Administrator and post a letter of credit as a performance guarantee for all required on-site and off-site improvements required for the Development, other than for the senior apartment building itself.
  - (b) The Petitioner shall pay all required developer school and park impact fees prior to the commencement of construction and transition impact fees as provided by Section 8-5-2 of the Lake Villa Village Code prior to the Village's issuance of the building permit for the Development.
  - (c) The Petitioner shall secure in writing all permits and approvals from the Village, from the IEPA, from CLCJAWA, from Fox Lake and Lake County Public Works, for sewer, water and storm sewer service for the Development.
  - (d) The Petitioner shall provide evidence satisfactory to the Village's consultant that adequate water, sanitary sewer and stormwater storage capacity has been reserved to serve the balance of the Lake Tower Crossing Planned Development.
  - (e) The Petitioner shall secure in writing all permits and approvals from the Lake County Division of Transportation for all access, road improvements, or other transportation infrastructure required for the Development.
  - (f) The Petitioner shall file with the Village Treasurer an irrevocable letter of credit approved by the Village Attorneys and in an amount approved by the Village Administrator as a performance guarantee for all required on-site and off-site improvements for the Development, other than for the senior apartment building itself.
2. Within six (6) months of the Petitioner's acquisition of the development site, the Village shall establish a back-up Special Service Area for the Development with a maximum SSA special tax rate not to exceed .10%. The Petitioner's maintenance obligations for the Development will be secured by the back-up Special Service Area and shall be subject to a 30-day notice and cure period for the following maintenance and other purposes:
  - (a) Infrastructure, including but not limited to streets, water and sanitary sewer services, sidewalks, trails, and landscaping. This does not include any water mains and sanitary sewer mains which will be dedicated to and maintained by the Village.
  - (b) Maintenance of common areas and amenities.
  - (c) Snow removal and ice control within the Development.
  - (d) Payment of any unpaid water and sewer bills.

The Village will not levy any special taxes to fund said back-up Special Service Area so long as the Petitioner complies in a timely manner with all of its maintenance obligations for the Development.

3. Prior to the issuance of any temporary or final Certificate of Occupancy for the Development, the Petitioner shall provide to the Village “as built” final plans showing the precise location of all improvements to the Property, including all buildings, utilities, streets, sidewalks, detention or retention ponds and drainage swales, dog run and community garden.
4. The Final Plat for the Development shall include the dedication of an easement over, under, across, and through designated portions of the Property for the purpose of maintenance and reconstruction by the Village of any water and sewer mains to be dedicated to the Village, if any, at such times and in such circumstances as the Village deems expedient, but the Village shall have the right but not the obligations to perform any of such work. The Village shall also have such a blanket easement over the Property, but not the obligation to perform such maintenance as it deems necessary through such a Special Service Area.
5. During both the construction and operation of the Development, the Petitioner shall, at its expense, comply with all of the consultation recommendations of the Illinois Department of Natural Resources relative to Blanding’s Turtles, King Rail and Least Bittern.
6. The following submittals are the subject of this recommendation for preliminary PUD approval:
  - (a) Preliminary Landscape Plan Set dated 02/06/23 by Manhard Consulting;
  - (b) Photometric Plan dated 02/06/23 by Manhard Consulting;
  - (c) Revised Preliminary Engineering Plan Set dated 02/06/23 by Manhard Consulting;
  - (d) Stormwater Brochure dated 02/06/23 by Manhard Consulting;
  - (e) Wetland Report dated 02/06/23 by Gary R. Webber Associated, Inc.;
  - (f) Revised Elevation and Floorplans dated 02/16/23 by North Arrow Architecture;
  - (g) IDNR Consultation EcoCat Review #2306326 dated November 14, 2022
7. At the Plan Commission hearing on the Petitioner’s Application, the Petitioner submitted the following the major revisions:
  - (a) Site Plan Changes and Modifications: The Petitioner has submitted revised preliminary engineering plans and a revised plat that modifies the site plan for the Development which includes, among other things, reducing the size of the building footprint, increasing setbacks from the property lines, relocating the refuse container enclosure to the East side of the senior apartment building and designating the western access road to the parking lot as for emergency vehicular access only.
  - (b) Stormwater Management: The Petitioner has submitted revisions to its preliminary stormwater management report and engineering plans which include the installation of a CDS© Water Quality Structure (Hydrodynamic separator) that will be installed in the outfall pipe adjacent to the parking lot, the purpose of which structure will be to remove garbage, debris, hydrocarbons and other sediment from the stormwater runoff that flows into the on-site detention basin which will be constructed on the Property. This

outfall pipe will now discharge into a level spreader to discharge the stormwater toward the Painted Lakes detention basin.

- (c) Landscape/Tree Preservation: The Petitioner has proposed to preserve additional existing trees on the Property. Additionally, a greater amount of buffer yard shrubs have been proposed by the Petitioner to be planted on the west side of the Development to provide greater landscaping buffering between the Development and the adjacent residential townhome development. Lastly, the Petitioner has removed Round-Up from its specifications for plant material installation, and a more environmentally-friendly alternative, AquaPro Aquatic Herbicide, is now proposed for site preparation and planting preparation purposes.
  - (d) Architectural Elevations: The Petitioner has submitted a new architectural elevation and details for the proposed senior apartment building. Pursuant to direction provided by the Plan Commission, new architectural details to the Building's roofline are now being proposed, including an asphalt shingle mansard roof, face brick along the lower level of the Building, and cementitious fiber lap siding on the second and third floors.
- 8. An accurate elevation of the profile of the north side of the senior apartment building shall be presented to the Plan Commission and reviewed as part of Final P.U.D. approval.
  - 9. The sidewalk proposed by the Petitioner to be located in the public right-of-way of Deep Lake Road shall be extended approximately 100 more feet to the south so it extends along the entire boundary of the Property along Deep Lake Road.
  - 10. The Plan Commission has recommended that the Conditional Use for this Development and the rezoning of the Property to the UR4 Zoning District should both automatically terminate unless the Petitioner commences construction of the Development within four (4) years after Final P.U.D. approval, but this date should be able to be extended by the Corporate Authorities of the Village by a separate ordinance at their sole discretion.
  - 11. An exception from Section 10-2-2 (Definition of "Elderly Housing") of the Village of Lake Villa Zoning Regulations should be granted to the Petitioner by the Ordinance providing for final PUD approval for the Development to allow these senior apartments to be age-restricted, but for persons of 55 years of age and older, notwithstanding the fact that the Zoning Regulations would otherwise require Elderly Housing to be age-restricted to persons 62 years of age and older.

WHEREAS, subject to the terms and conditions hereinafter set forth, the Mayor and Board of Trustees of the Village have determined that it is in the best interests of the Village and its residents to grant preliminary (i.e., conceptual and tentative) approval of the Petitioner's Application for the Property in accordance with the Zoning Ordinance of the Village and the other applicable ordinances of the Village:

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Board of Trustees of the Village of Lake Villa, Lake County, Illinois, as follows:

SECTION 1: The Corporate Authorities of the Village find that the facts stated in the preamble of this Ordinance are true and correct and the same are incorporated into the text of this Ordinance as findings of fact to the same extent as if each had been set forth in its entirety herein.

SECTION 2: The Mayor and Board of Trustees of the Village of Lake Villa hereby accept and tentatively and conceptually approve the Recommendation and Findings of Fact of the Lake Villa Plan Commission dated February 21, 2023, which are hereby incorporated herein by reference.

SECTION 3: Preliminary Approval of Petitioner's Application: Subject to the terms and conditions of this Ordinance, as well as the conditions and limitations in the Zoning Regulations and/or Subdivision Regulations of the Village, the Mayor and Board of Trustees hereby tentatively and conceptually approve the Petitioner's Application for Rezoning to the UR-4 Zoning District, for amendments to the existing Conditional Use Permit, as amended, as provided by Village of Lake Villa Ordinance No. 2020-07-07, and for Preliminary Approval of a Conditional Use for an Elderly Housing Planned Unit Development which consists of the following revised preliminary exhibits, copies of which are attached hereto as Group Exhibit A and thereby made a part hereof:

- (a) Preliminary Landscape Plan Set dated 02/06/23 by Manhard Consulting;
- (b) Photometric Plan dated 02/06/23 by Manhard Consulting;
- (c) Revised Preliminary Engineering Plan Set dated 02/06/23 by Manhard Consulting;
- (d) Stormwater Brochure dated 02/06/23 by Manhard Consulting;
- (e) Wetland Report dated 02/06/23 by Gary R. Webber Associated, Inc.;
- (f) Revised Elevation and Floorplans dated 02/16/23 by North Arrow Architecture;
- (g) IDNR Consultation EcoCat Review #2306326 dated November 14, 2022

Notwithstanding anything shown on or implied by the above preliminary exhibits, no variation, exception or waiver shall be approved or implied by this Ordinance or by the Ordinance which may grant final PUD approval, unless such variation(s), exception(s), or waiver(s) are each specifically and expressly stated in writing in one or both of such ordinances. Any approval of

preliminary exhibits for the purposes of this Ordinance, and/or by the Ordinance hereafter providing for final PUD approval, and/or by any amendments thereto shall not constitute approval of said plans for any other purposes under the Lake Villa Village Code, the Lake Villa Zoning Regulations, or any other applicable ordinances of this Village, and no grant of any variation(s), waiver(s) or exception(s) from any ordinances of the Village are intended or provided unless same are specifically and expressly stated in one or both of said PUD ordinances.

SECTION 4: Express Conditions of Preliminary Approvals: The preliminary approvals for the proposed Development granted pursuant to this Ordinance shall be subject to the following conditions, restrictions, and limitations, and the Petitioner's failure to comply with any of the provisions of this Ordinance may, in the reasonable discretion of the Village Board, and upon adoption of a subsequent Ordinance relative thereto, revoke such preliminary approvals as herein granted:

- (A) No Authorization for Development Activity: The approvals granted by this Ordinance are not and shall not be interpreted in any manner as an authorization for Petitioner and/or its assigns, employee(s), contractor(s), and/or agent(s) to commence any development activity on the Property. The approval(s) granted in this Ordinance are preliminary only and do not authorize and/or imply the authorization of the issuance of any Village permit(s) for the Development, including but not limited to no watershed development permit(s), no building permit(s), no earth-moving permit(s), nor any sewer or water connection permits, which permits shall not occur unless and until the Village Board has first issued its final approval of a Conditional Use Permit for a Planned Development for the Property by a separate and subsequent Ordinance of the Village. The Conditional Use Permit for the Development, as ultimately approved in final form by a separate Ordinance, shall be subject to such reasonable conditions of approval as the Village Board shall determine to be necessary, expedient, desirable, and/or appropriate and may include, at the sole discretion of the Village Board,

such other requirement(s) and/or condition(s) which shall be applicable to the proposed Development.

(B) Prior to commencement of construction of the Development:

- (i) The Petitioner shall obtain and record a permanent access easement to provide the Development access for ingress and egress to and from Tower Road.
- (ii) The Petitioner shall, at its sole expense, construct or pay for the construction of all stormwater management facilities and all sanitary sewer and water system improvements required for the Development as determined by the Village Administrator, all in accordance with the final engineering which will be approved by the Village.
- (iii) The Petitioner shall pay all required developer school and park impact fees prior to the commencement of construction. The Petitioner has also agreed to voluntarily pay builder transition permit fees as provided by Section 8-5-2 of the Lake Villa Village Code at the time individual building permits are issued to the Petitioner.
- (iv) The Petitioner shall secure in writing all permits and approvals from the Village, from CLCJAWA, from Fox Lake and Lake County Public Works, for sewer, water and storm sewer service for the Development.
- (v) The Petitioner shall secure in writing all permits and approvals from the Lake County Division of Transportation for all access, road improvements, or other transportation infrastructure required for the Development, including the sidewalk within the Deep Lake Road right-of-way.
- (vi) The Petitioner shall file with the Village Treasurer an irrevocable letter of credit in a form acceptable to the Village Attorney and in an amount approved by the Village Administrator as a performance guarantee for all required on-site and off-site improvements for the Development, other than the senior apartment building itself.
- (vii) With respect to the Property, the Village shall record a release of that certain Statement of Agreement dated September 14, 2005 by and between DEKA Investments, L.L.C. and the Village Re: Lake Tower Crossing P.U.D. recorded with the Lake County, IL Recorder on October 6, 2005 as Document 5871255.

(C) Within six (6) months of the Petitioner's acquisition of the Property, the Village shall establish a back-up Special Service Area for the Development with a maximum SSA special tax rate not to exceed .10%. The Petitioner's maintenance obligations for the Development will be secured by such back-up Special Service Area and shall be subject to a 30-day notice and cure period for the following maintenance and other purposes:



- (i) Infrastructure, including but not limited to streets, water and sanitary sewer services, stormwater management improvements, sidewalks, and landscaping, and a permanent easement in favor of the Village for such improvements pursuant to which the Village shall have the right but not the obligation to do any such maintenance, should the Petitioner and/or its successor(s) and/or assign(s) fail to do so. However, this does not include any water mains and sanitary sewer mains, which will be dedicated to and maintained by the Village and located in an easement in favor of the Village for such purposes;
- (ii) Maintenance of common areas and amenities;
- (iii) Snow removal and ice control within the Development; and
- (iv) Payment of any unpaid water and sewer bills.

The Village will not levy any special taxes to fund said back-up Special Service Area so long as the Petitioner complies in a timely manner with all of its maintenance obligations for the Development.

- (D) Prior to the issuance of the final Certificate of Occupancy for the Development, the Petitioner shall provide to the Village “as built” final plans showing the precise location of all improvements on or related to the Property, including all buildings, utilities, sewer mains, water mains, streets, sidewalks, detention and/or retention ponds, drainage swales and other stormwater management facilities.
- (E) The Final Plat of Subdivision for the Development shall include the dedication to the Village of a non-exclusive easement over, under, across, and through designated portions of the Property for the purpose of maintenance by the Village of the water and sewer mains to be dedicated to the Village at such times and in such circumstances as the Village deems expedient.
- (F) The Petitioner shall also record in favor of the Village and the Lake Villa Township Fire Protection District, as part of the Final Plat of Subdivision for the Development, a permanent non-exclusive blanket access easement over the Property for police protection, fire and EMS services, and building inspection services.
- (G) Prior to issuance by the Village of a final occupancy permit for the Development, the Petitioner shall cause to be installed in each dwelling unit and in each of the common spaces

of the senior apartment building, smoke and fire detection, and fire suppression pursuant to plans approved in advance in writing by both the Fire Protection District and the Village, and such systems shall each pass operational inspections by the Fire Protection District. The Petitioner shall also install such knock boxes as requested by the Fire Protection District.

- (H) The final engineering for the Development shall include final engineering for the design and construction of all off-site sidewalks, one of which shall be installed from the Development to Tower Road along the West side of the Village Water Tower site, along the North side of such Water Tower site along Tower Road, and South on the West side of Deep Lake Road to where the Property is no longer adjacent to Deep Lake Road, which sidewalks shall be constructed of a hard surface material of either asphalt or concrete. Such sidewalks shall be dedicated to the Village after completion by the Petitioner and acceptance of such sidewalks by the Village.
- (I) During both the construction and operation of the Development, the Petitioner shall, at its expense, comply with all of the endangered species consultation recommendations of the Illinois Department of Natural Resources (“IDNR”) relative to Blanding’s Turtles, King Rail and Least Bittern, as follows, provided, however, these standards may be narrowed or otherwise modified in the Village ordinance granting final approval for the Conditional Use Permit for the proposed PUD if and to the extent that the IDNR modifies its consultation recommendation:
  - a. Blanding’s Turtle:
    - (i) All on-site personnel shall be educated by the Petitioner about this species and be instructed to stop work immediately and contact the Department (Brad Semel, Natural Heritage Division, 815-675-2386, Ext. 216) if any such turtles are encountered in the project area.
    - (ii) Fliers with photos of adult and juvenile Blanding’s turtles, and life-history information, shall be distributed by the Petitioner to personnel and to the Petitioner’s contractors and subcontractors.
    - (iii) Exclusionary fencing as approved by the Village Administrator shall be installed by the Petitioner, at the Petitioner’s expense, around any area disturbed by the

Development during construction and thereafter to partition off any wetland areas before the active season of such turtles (March 1<sup>st</sup> – November 1<sup>st</sup>).

- (iv) Exclusionary fencing shall be trenched into the ground (a minimum of 4 inches), and inspected daily for Blanding's turtles by the Petitioner or by its agent(s).
    - (a) Fencing shall be installed by the Petitioner, at the Petitioner's expense, with turnarounds at open ends and at any access openings needed in the fencing, in order to redirect animals away from openings.
  - (v) Excavations shall be inspected daily by the Petitioner for trapped wildlife and safely covered overnight. Soil or other potential turtle nesting medium stockpiles shall also have exclusionary fencing installed around the perimeter to discourage turtle nesting and potential harm to the animals.
  - (vi) A permanent exclusionary barrier as approved by the Village Administrator between any wetlands and the project site shall be incorporated into project plans and installed by the Petitioner, at the Petitioner's sole expense, to prevent turtles from entering areas where they may be adversely impacted by daily activity. Such barrier shall include turnarounds where needed and shall be trenched by the Petitioner into the soil a minimum of 4 inches.
- b. King Rail and Least Bittern: To avoid adverse impacts to King Rail and Least Bittern, the Petitioner shall be required to take the following steps:
- (i) A 50-foot buffer shall be maintained on all wetlands;
  - (ii) When feasible, work near wetlands shall be avoided between April 1<sup>st</sup> and September 30<sup>th</sup> to avoid the prime nesting and fledgling season for these protected bird species;
  - (iii) All lighting shall be fully shielded fixtures that emit no light upward;
  - (iv) Only "warm-white" or filtered LEDs (CCT < 3,000 K; S/P ratio < 1.2) shall be used to minimize blue emission.
  - (v) The only lighting used on the Property shall be limited to the exact space and those lumens needed to meet the Development's safety requirements.
- c. If additional protected resources are unexpectedly encountered during the Development's construction and operations, the Petitioner must comply with the applicable IDNR and federal statutes and regulations.
- d. No take of an endangered species is permitted without an Incidental Take Authorization or the required permits. Anyone who takes a listed or endangered species without an Incidental Take Authorization or required permit may be subject to criminal and/or civil penalties pursuant to the Illinois Endangered Species Act, the Fish and Aquatic Life Act, the Wildlife Code and other applicable authority.
- (J) Fees and Costs: In compliance with applicable provisions of the Village of Lake Villa Village Code, including but not limited to Title 10, "Zoning Regulations", Title 11, "Subdivision Regulations", and Section 1-5-3, "Debts and Legal Obligations Due to the Village" thereof, Petitioner is and shall be required to timely pay all applicable fees and costs and/or to reimburse the Village for any and all costs incurred by the Village relating to the

proposed development of the Property and any approvals related thereto (including but not limited to review and preparation of documents for granting preliminary and final approvals thereof and enforcement of such approvals), including any costs associated with the review and approval of plans and other documents prepared or to be prepared by Petitioner relative to the proposed Development. Any amount not paid within 30 days after delivery of a demand in writing for such payment shall, along with interest and the costs of collection, become a lien upon the Property, and the Village shall have the right to foreclose such lien in the name of the Village as in the case of foreclosure of liens against real estate, provided, however, that such lien shall be subordinate to any mortgage or regulatory agreement recorded against the Property. The Village shall provide a tax-exempt letter to the Petitioner but only relative to materials used to construct public improvement(s) to be owned by or dedicated to the Village.

- (K) Binding Effect: The rights and obligations set forth in this Ordinance shall be and are binding upon and inure to Petitioner and upon any and all of Petitioner's heirs, successors, and assigns, and upon any and all successor legal or beneficial owners of all or any portion of the Property; provided that the effect of this Ordinance shall be superseded upon passage of an ordinance granting the rezoning and final PUD approval for the Property. To the extent that a successor becomes bound to the obligations created herein pursuant to a transferee assumption agreement acceptable to the Village, and such successor demonstrates to the Village that it has the financial viability to meet the obligations herein, the Petitioner shall be released from its obligations under this Ordinance, but only to the extent of the transferee's assumption of such liability. The failure of the Petitioner to provide the Village with an enforceable transferee assumption agreement as herein provided shall result in the Petitioner remaining fully liable for all of its obligations under this Ordinance but shall neither preclude a transfer nor relieve the transferee of its liability for all such obligations as a successor to

Petitioner. Notwithstanding the foregoing, Petitioner may assign its rights and obligations set forth in this Ordinance to one or more affiliates, which affiliate(s) will become the fee simple owner of the Property, and the Village consents to such assignment to Petitioner's affiliate(s) without the need for a transferee assumption agreement, but the assignment of this Ordinance and the preliminary approval herein provided to any third party other than an affiliate of the Petitioner shall require such a transferee assumption agreement executed by such third-party transferee and the written consent of the Corporate Authorities of the Village.

- (L) Duration and Vacation of Approved Preliminary Plan: The Approved Preliminary Plans shall remain in force subject to the limitations set forth in Section 11-2-2 of the Lake Villa Village Code and 65 ILCS 5/11-12-8, but such preliminary approval may be extended at the sole discretion of the Corporate Authorities of the Village.

(M) Indemnification:

- (1) The Village agrees to cooperate with the Petitioner, and/or its successors and/or assigns, in defending any action which contests any aspect of this Ordinance or of the rezoning of the Property and Conditional Use for a Planned Development which are granted preliminary approval herein. The Petitioner, for itself individually as well as on behalf of its successors and/or assigns, agrees to hold harmless and indemnify the Village, its elected and appointed officials, officers, employees, and other agents (the "Indemnified Village Parties") relative to any such actions and/or costs, claims, or expenses relative thereto, and all costs, including attorneys' fees, incurred by the Village in connection therewith (but excluding any actions, costs, claims, or expenses resulting from the gross negligence or willful misconduct of the Indemnified Village Parties) shall be paid for by the Petitioner or reimbursed to the Village by the Petitioner. The Village may require reasonable deposit(s) by the Petitioner to cover any such

anticipated costs in the event that the Village receives notice of any threatened or actual actions and/or costs, claims, or expenses. The Village shall refund to Petitioner any deposit remaining upon its reasonable determination that no further anticipated costs will be incurred by the Village.

- (2) The Petitioner hereby undertakes and agrees, to the greatest extent permitted by law, only as to its own acts or omissions, to indemnify, defend, save and keep harmless the Indemnified Village Parties from and against any loss, cost, damage, liability, claim or expense, including attorneys' fees, which any of the Indemnified Parties may suffer, incur or sustain from or arising out of any injuries to or death of any person or persons, or damage to or loss of any real or personal property, including but not limited to damage to the Property of the Petitioner and/or to the property of tenants or invitees of the tenants, including but not limited to damages due to or resulting directly or indirectly from the Property and/or from any use and/or occupancy of the Property and/or from the Conditional Use Permit herein granted preliminary approval (but excluding any actions, costs, claims, or expenses resulting from the gross negligence or willful misconduct of the Indemnified Village Parties).

(N) Remedies:

- (1) Any violation of this Ordinance shall also be deemed a violation of the Village of Lake Villa Zoning Code and the Lake Villa Village Code and each day such a violation exists or continues shall constitute a separate offense. As provided in the Village of Lake Villa Village Code, each such offense shall be punishable by a mandatory minimum daily fine of not less than \$100.00 per day and not more than \$750.00 per day as provided by the Village of Lake Villa Zoning Regulations and the Lake Villa Village Code.

(2) In the event the Petitioner, and/or its successors and/or assigns, fails to timely pay or reimburse the Village for any fees and/or expenses due pursuant to this Ordinance, or pursuant to the other applicable ordinances of the Village, or if the Petitioner otherwise violates this Ordinance, or is otherwise in default in its obligations under this Ordinance, and has been notified of and failed to cure such default within forty-five (45) days after receipt of such notice by the Petitioner and/or its successor(s) and/or assign(s) (“Cure Period”), the Village shall be entitled to all remedies available at law and/or in equity and, in addition to all other remedies available including those otherwise set forth in this Ordinance, the Village may suspend, revoke, or decline to issue any building, occupancy and/or other permit, license(s), or approvals required by the ordinances of the Village and/or the Village may suspend or revoke the Conditional Use Permit herein granted; provided, however, that the Village shall not suspend or revoke the Conditional Use Permit herein granted without providing a hearing, if requested by the Petitioner in writing to the Village within the Cure Period, before the Mayor and Board of Trustees of the Village. Such notices as required by this Subparagraph 2 may be sent via U.S. Certified Mail, Return Receipt Requested, and Postage Prepaid.

(O) Severability Clause: It is the intention of the Corporate Authorities that this Ordinance and every provision thereof shall be considered separable and the invalidity of any section, clause, provision, part, or portion of any section, clause, or provision of this Ordinance shall not affect the validity of any other portion of this Ordinance. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Ordinance, or any part thereof. The Corporate Authorities

hereby declare that it would have approved each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, subdivision, paragraphs, sentences, clauses or phrases be declared unconstitutional, invalid or ineffective.

- (P) Exhibits: Attached hereto as Group Exhibit A and thereby incorporated herein by reference, are all the submittals which were reviewed and considered by the Plan Commission and by the Board of Trustees of the Village. All such exhibits attached to this Ordinance are deemed to be and are expressly made a part of and incorporated into this Ordinance to the same extent as if each such exhibit had been set forth in its entirety in the body of this Ordinance, provided, however, the exhibits attached to this Ordinance as herein provided are tentative, conceptual, and preliminary only (i.e., tentative and conceptual), and the incorporation by reference of such exhibits shall not constitute final approval for the purposes of issuance by the Village of building permits, Watershed Development Ordinance permits, or for any other Village permits or approvals.
- (Q) Approval Authority: If any provisions of this Ordinance delegate approval authority to any Village officer, employee, or agent for any aspect of this Ordinance, then either the Petitioner or such officer, employee, or agent of the Petitioner, and/or its successors and/or assigns, as the case may be, shall have the right to have any such decision of such Village officer, employee or agent, or his or her designee, reviewed, reconsidered, and a final decision thereon made by the Board of Trustees of the Village. Any reference in this Ordinance to the authority of the Mayor or the Village Administrator to grant or deny an approval shall, whether or not so specified, include the authority for such decision to be reviewed and made by the Mayor and Board of Trustees as the Corporate Authorities of the Village.



SECTION 5: This Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as provided however, that the approval(s) granted by this Ordinance shall have no force or effect unless and until Petitioner has caused a duly authorized person to execute and thereafter file with the Village the unconditional agreement and consent in the form entitled “Acceptance” attached hereto and by this reference incorporated herein and made a part hereof (the “Acceptance”); provided further that, if the Petitioner does not so file the Acceptance within sixty (60) days following the passage of this Ordinance, the Village Board may, in its discretion and without public notice or hearing, repeal this Ordinance and thereby revoke all preliminary approvals granted in this Ordinance.

SECTION 6: The sidewalk proposed by the Petitioner to be located in the public right-of-way of Deep Lake Road shall be extended approximately 100 more feet to the south beyond that which is shown on Group Exhibit A so it extends along the entire boundary of the Property along Deep Lake Road.

SECTION 7: The Plan Commission has recommended that the Conditional Use for this Development and the rezoning of the Property to the UR4 Zoning District should both automatically terminate unless the Petitioner commences construction of the Development within four (4) years after Final P.U.D. approval, but this date should be able to be extended by the Corporate Authorities of the Village by a separate ordinance at their sole discretion.

SECTION 8: The Village Clerk is hereby directed to publish this Ordinance in pamphlet form and this Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as provided by law but only upon written acceptance thereof by the Petitioner. The Village Clerk is also hereby directed to record a certified copy of this Ordinance, with all attachments, with the Lake County Recorder of Deeds.

Passed by the Corporate Authorities on March 20<sup>th</sup>, 2023, on a roll call vote as follows:

AYES: Trustees

NAYS:

ABSENT:

ABSTAIN:

Approved by the Mayor on March 20<sup>th</sup>, 2023.

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James McDonald, Mayor,  
Village of Lake Villa

ATTEST:

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Mary Konrad, Village Clerk

Published in pamphlet form this 20<sup>th</sup> day of March, 2023.

ACCEPTANCE

The undersigned on behalf of the Petitioner, Lincoln Avenue Capital, LLC as the Petitioner, and its successors and assigns, hereby states that the undersigned is a duly authorized agent of the Petitioner and on behalf of such Petitioner hereby accepts, consents to and agrees to the terms, conditions, and restrictions of the foregoing Ordinance this \_\_\_\_ day of \_\_\_\_\_, 2023.

PETITIONER:

Lincoln Avenue Capital, LLC

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Its Authorized Manager and Authorized Agent

GROUP EXHIBIT A

2023 APPROVED PRELIMINARY PLANS

- (a) Preliminary Landscape Plan Set dated 02/06/23 by Manhard Consulting;
- (b) Photometric Plan dated 02/06/23 by Manhard Consulting;
- (c) Revised Preliminary Engineering Plan Set dated 02/06/23 by Manhard Consulting;
- (d) Stormwater Brochure dated 02/06/23 by Manhard Consulting;
- (e) Wetland Report dated 02/06/23 by Gary R. Webber Associated, Inc.;
- (f) Revised Elevation and Floorplans dated 02/16/23 by North Arrow Architecture;
- (g) IDNR Consultation EcoCat Review #2306326 dated November 14, 2022

EXHIBIT B

FORM OF LETTER OF CREDIT

(Issuer's Letterhead)

IRREVOCABLE LETTER OF CREDIT NO. \_\_\_\_\_

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

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

Amount: \_\_\_\_\_

Applicant/Permittee: \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City, State, Zip Code)

BENEFICIARY: Village of Lake Villa  
65 Cedar Avenue  
Lake Villa, IL 60046

PERMITTEE: \_\_\_\_\_

ADDRESS OF PROJECT: \_\_\_\_\_

BUILDING PERMIT NO. \_\_\_\_\_

Dear Beneficiary:

The undersigned Bank (the "Bank" or the "Issuer") hereby established in your favor our Irrevocable Letter of Credit No. \_\_\_\_\_ which is available for negotiation of your draft at sight, drawn on \_\_\_\_\_, bearing the clause: "Drawn under \_\_\_\_\_ Irrevocable Letter of Credit No. \_\_\_\_\_", and accompanied by:

A signed statement by any officer, or authorized employee, or agent of the Village stating that:

1. The Mayor or Village Administrator has found that the construction, addition, and/or remodeling of the Project as identified above has not been completed in a timely manner and in compliance with the rules, regulations and provisions of the Village of Lake Villa Village Code and with State law; and/or
2. This letter of credit will expire within thirty-five (35) days or less and the Village has not received a renewal letter of credit; and/or
3. The Village has received written notice that this Letter of Credit is about to expire, and no replacement letter of credit in a form satisfactory to the Village of Lake Villa has been received by it on or before thirty-five (35) days prior to the expiration of this letter of credit; and/or
4. The Permittee has not paid, or caused to be paid within forty-five (45) days of the date when billed by the Village, professional expenses incurred by the Village relating to the Project.

Notwithstanding the expiration date stated above, this Letter of Credit shall continue in full force and effect and shall not expire unless and until the Village has been given written notice by

certified mail, return receipt requested, that the Letter of Credit is about to expire. The Letter of Credit shall thereafter expire thirty-five (35) days after said notice, but no sooner than the above-described expiration date.

The undersigned Bank hereby undertakes and engages that all demands made in conformity with this Irrevocable Letter of Credit will be duly honored upon presentation. If, within three (3) business days of the date any demand made in conformity with this Irrevocable Letter of Credit is presented, the undersigned Bank fails to honor the same, we agree to pay all attorneys' fees, court costs, and other expenses incurred by the Village of Lake Villa in enforcing the terms of this Letter of Credit.

We hereby engage with drawers and/or bona fide holders that drafts drawn and negotiated in conformity with the terms of this credit will be duly honored on presentation and that drafts accepted within the terms of this Letter of Credit will be duly honored at maturity. The amount of each draft must be endorsed on the reverse of this Letter of Credit by the Bank. Any demand made on this Letter of Credit may be presented by U.S. mail, overnight courier, or in person to any office or branch of the Bank in Illinois.

Any action to enforce or otherwise relating to this Letter of Credit shall be brought in Lake County, Illinois, and Illinois law shall govern.

Very truly yours,

\_\_\_\_\_  
("Bank")

By: \_\_\_\_\_  
President

[CORPORATE SEAL]

ATTEST:

By: \_\_\_\_\_  
Secretary



<p><b>LAKE VILLA SENIOR LOFTS</b></p>
<p><b>VILLAGE OF LAKE VILLA, ILLINOIS</b></p>
<p><b>TITLE SHEET AND LANDSCAPE SUMMARY</b></p>
<p>PROJ. NO.: <u>MDE</u></p> <p>PROJ. ASSOC.: <u>VED</u></p> <p>DRAWN BY: _____</p> <p>DATE: <u>11-23-22</u></p> <p>SCALE: <u>1"=XX'</u></p>

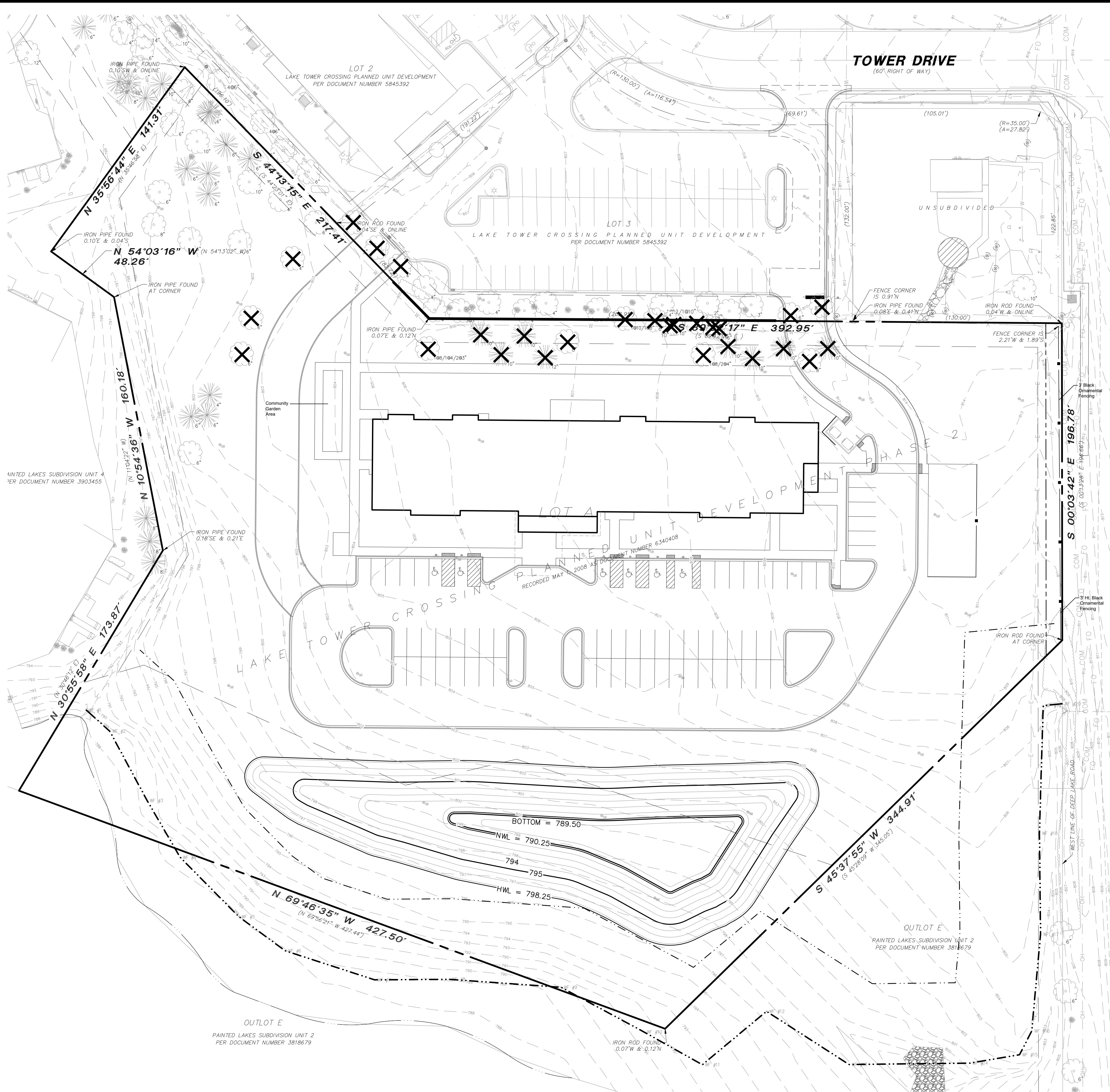
SHEET

**L1** OF **L6**

LAC.LVL01



February 3, 2023 -- 15:14 Draw Name: P:\work\01\Draw\Landscaping\01-Preliminary\Landscaping Plan.dwg Updated By: bethhoff



### TREE AND WOODLAND COMPENSATION/REPLACEMENT

Requirement: The developer or owner(s) shall replace any trees six inches (6") in diameter or greater dbh and/or a significant number of less caliper trees that are to be removed. The developer or owner(s) shall replace these trees including planting, according to the following size schedule:

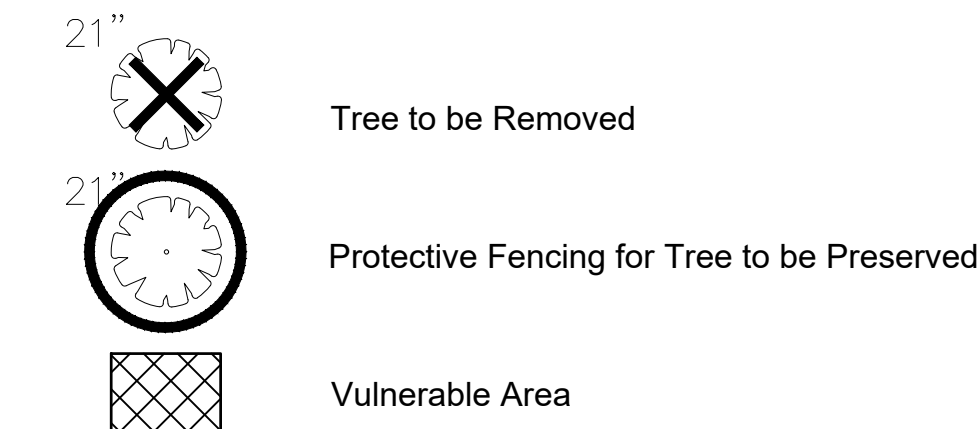
Standards for Replacement of Woodlands:

Trunk size of removed Tree (in DBH) Number of Replacement Trees

3"-8"	1 - 3" Caliper Tree	14 - Total number of Removed 3"-8" Trees = 14 Replacement Trees
9"-15"	2 - 3" Caliper Trees	12 - Total number of Removed 9"-15" Trees = 24 Replacement Trees
16"-23"	3 - 3" Caliper Trees	1 - Total number of Removed 16"-23" Trees = 3 Replacement Trees
24"-35"	3 - 4" Caliper Trees	
36" or greater	5 - 4" Caliper Trees	

Total Number of Replacement Trees Required: 41 Trees

### Legend



### Root Pruning

Existing tree roots greater than one (1) inch in diameter, measured at the edge of excavation, shall be pruned within 24 hours of the time they have been damaged by construction activity. The severed root shall be pruned at the edge of excavation, or one (1) inch beyond the entire damaged portion of the tree root, if damaged root extends beyond the edge of excavation into undisturbed soil.

All cuts shall be cleanly made with sharp tools.

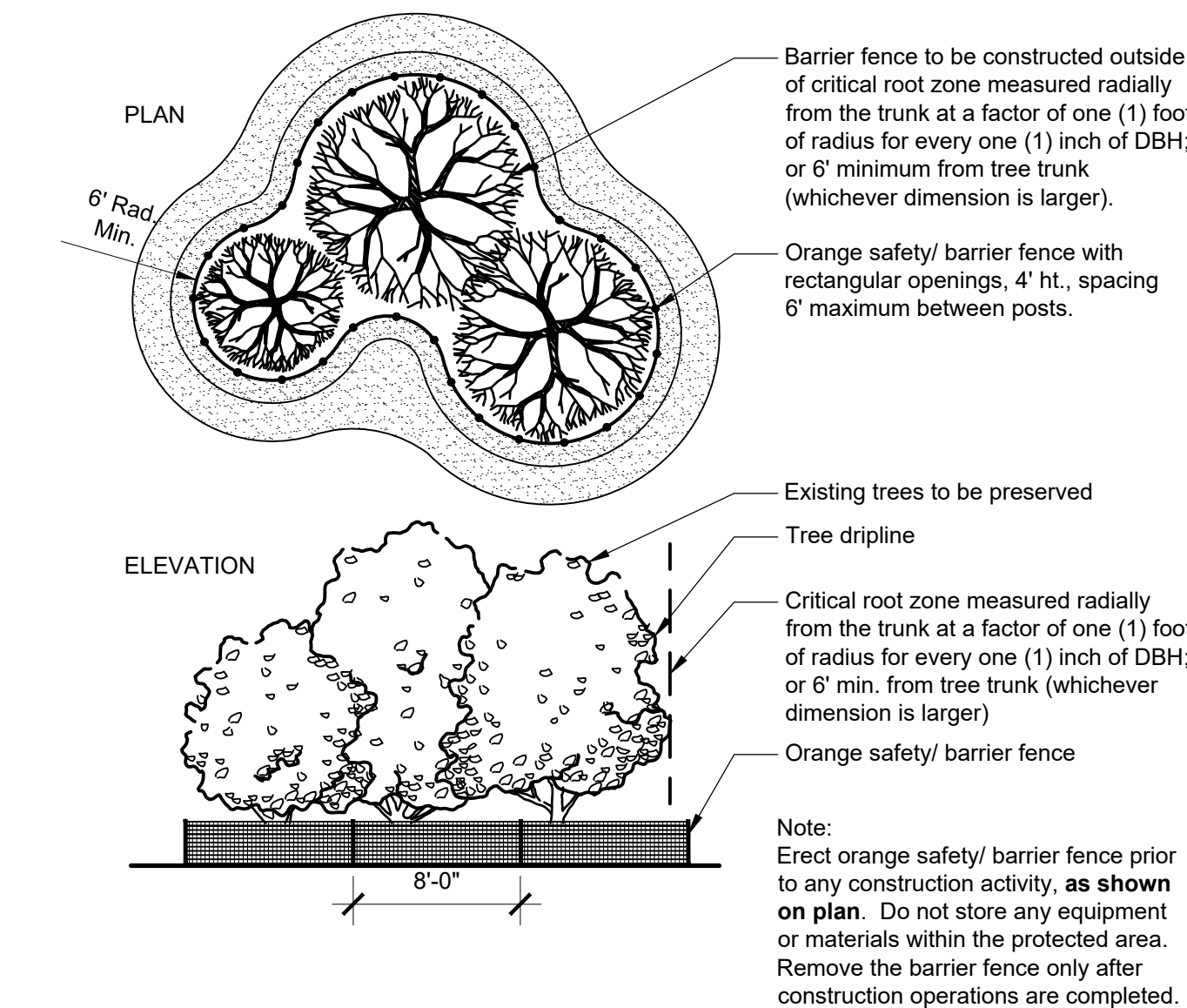
The excavated area around the existing tree roots shall be backfilled as soon as construction activities permit.

Amended existing soil shall be used as backfill material within the disturbed root zone areas not receiving drainage or subbase stone items. Amended existing soil shall be amended with peat or compost in the ratio of one part organic to seven parts existing soil.

### Vulnerable Area Protection Methods

All tree root zones designated as "Vulnerable" shall receive special care and attention during construction. These areas contain roots for large trees that are within the construction area. Since these trees have high value to the project, efforts shall be made to preserve these trees, however the property owner will not be held liable if the trees do not survive.

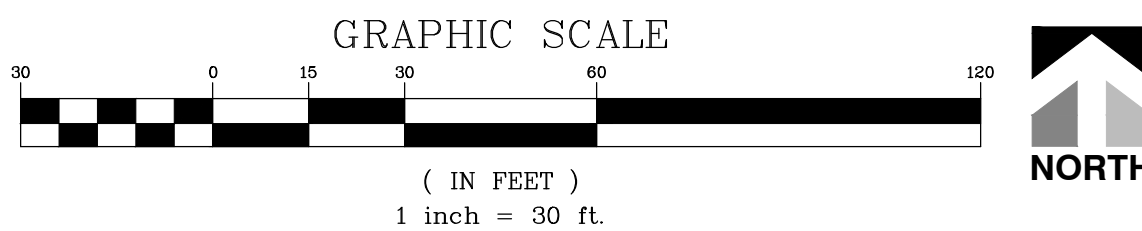
An arborist should be consulted prior to construction to provide advice on preservation techniques. Each tree and construction condition is unique so an arborist is best qualified to provide a recommendation for each tree. Preservations may include root pruning, crown pruning, hormone treatment, fertilizers, soil amendments, excavation techniques, etc.



### 1 TREE PROTECTION PLAN

N.T.S.

320190.33-01



DATE	REVISIONS	COMMENTS
02/05/23		REVISED PER VILLAGE COMMENTS

**Manhard**  
CONSULTING  
One Oakwood Park, Suite 200, Lincolnshire, IL 60069  
630.734.0005  
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers  
Construction Managers • Environmental Scientists • Landscape Architects • Planners

LAKE VILLA SENIOR LOFTS  
VILLAGE OF LAKE VILLA, ILLINOIS  
TREE PRESERVATION PLAN

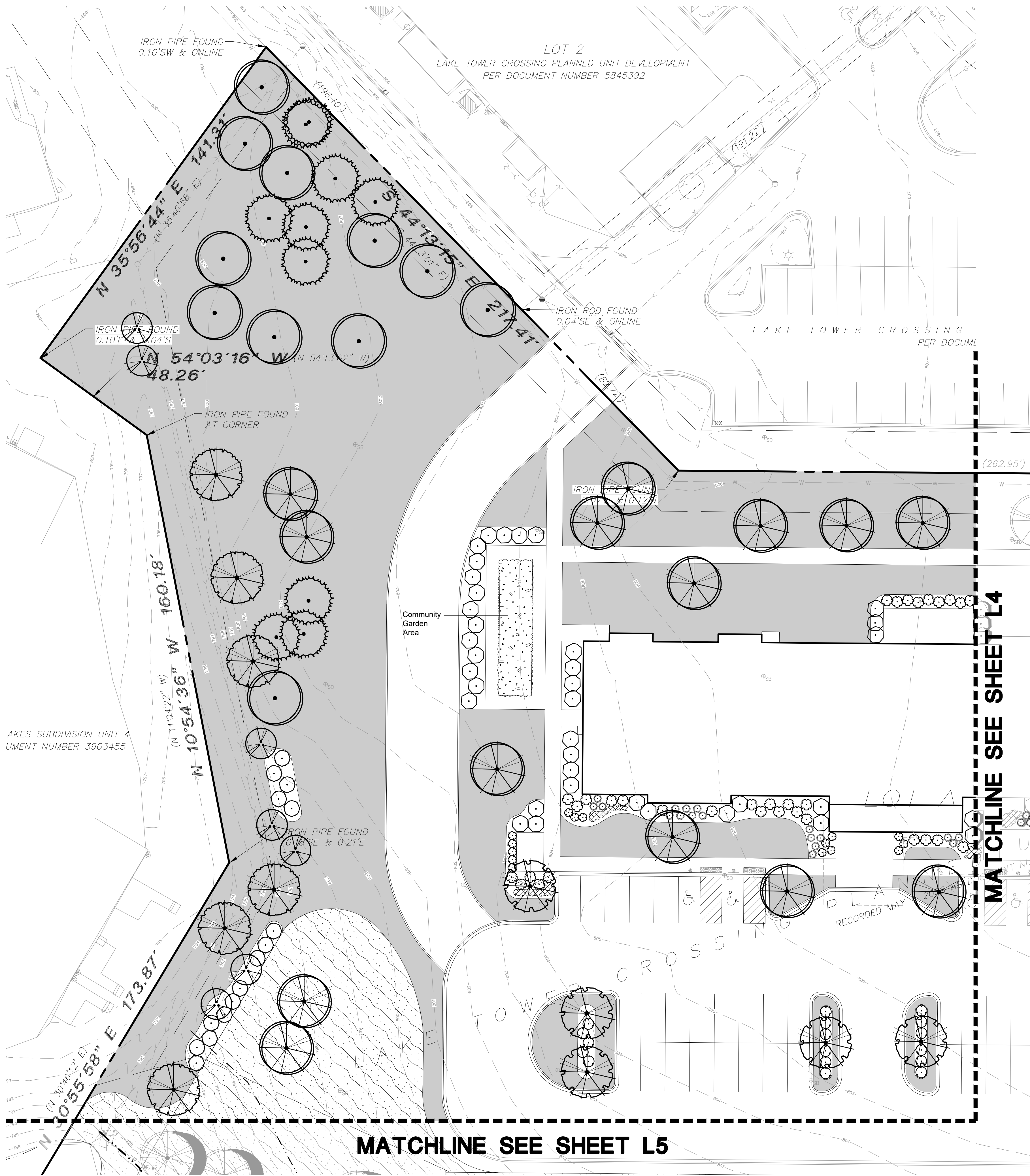
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PROJ. ASSOC.: JBD  
DRAWN BY: JBD  
DATE: 11-23-22  
SCALE: 1"=30'

SHEET  
L2 OF L6  
LAC.LVL01

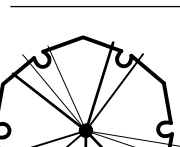
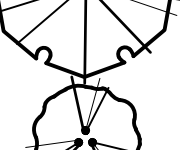
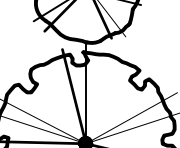
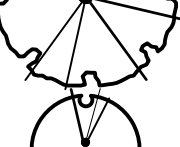
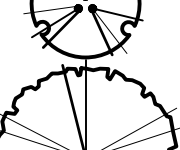
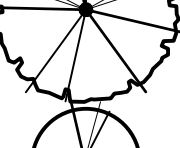
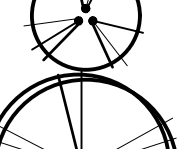
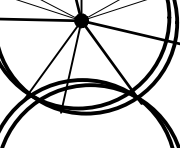
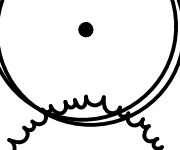
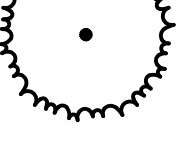
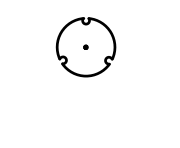
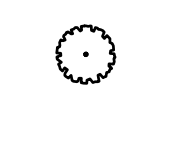
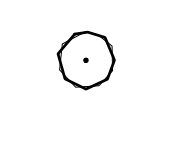
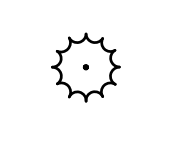
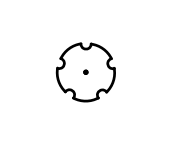
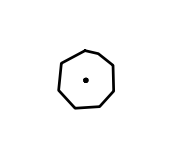
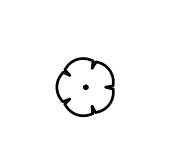
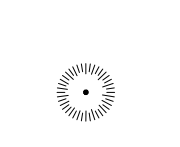
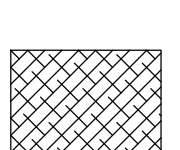
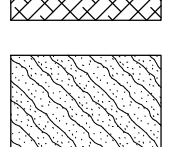
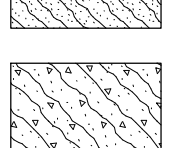
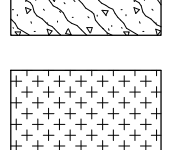
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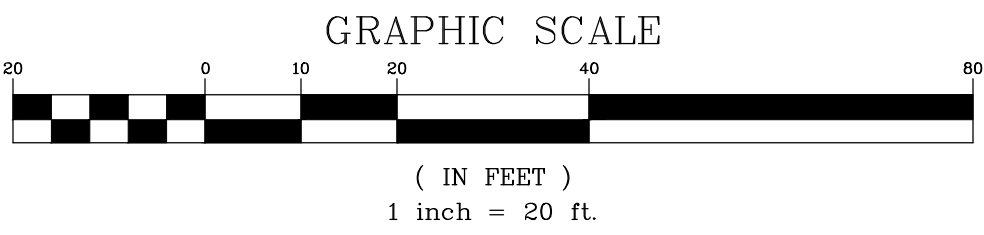


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### CONCEPT PLANT SCHEDULE

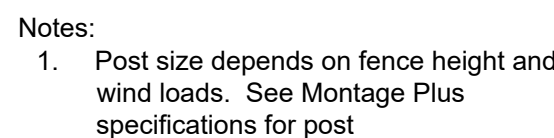
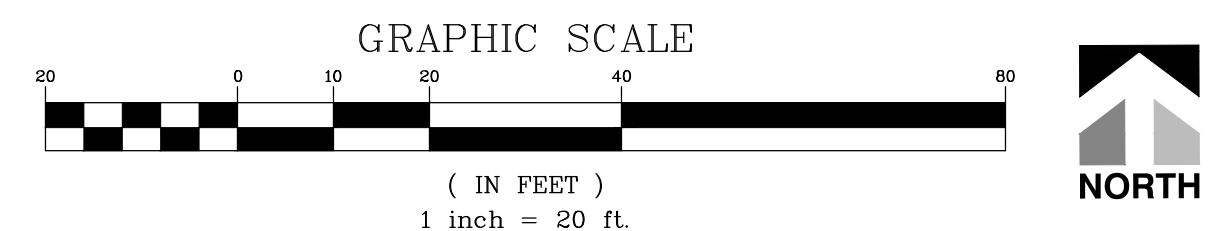
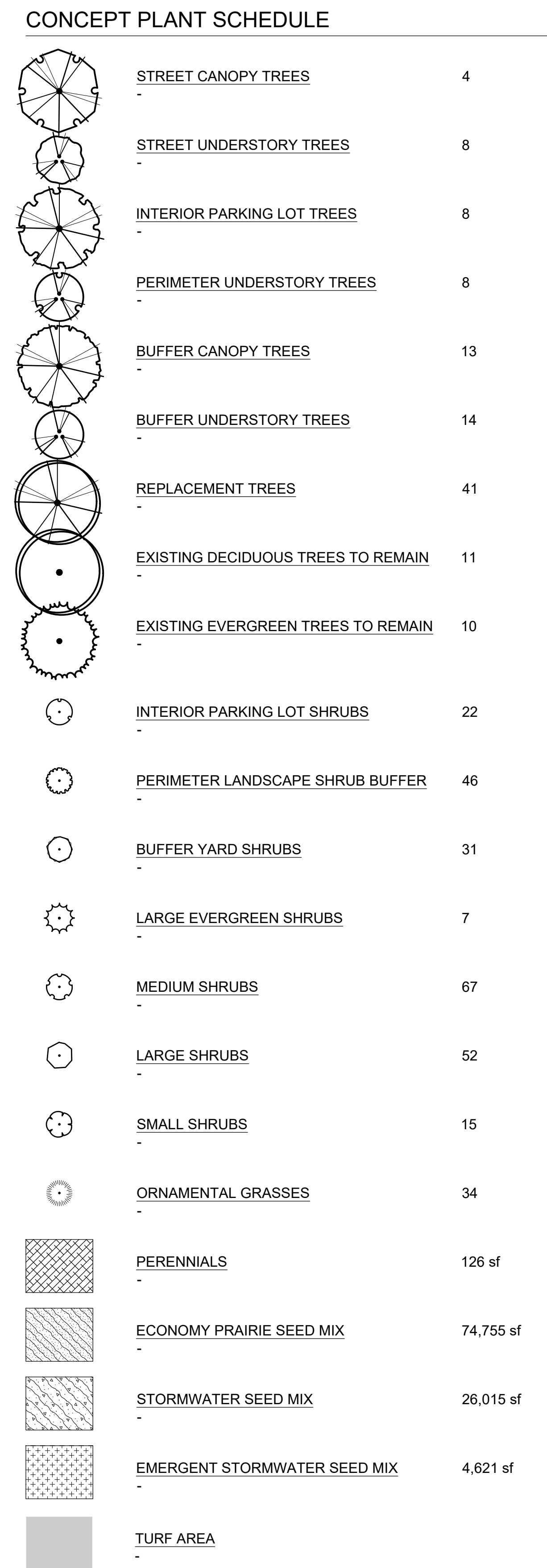
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	STREET UNDERSTORY TREES	8
	INTERIOR PARKING LOT TREES	8
	PERIMETER UNDERSTORY TREES	8
	BUFFER CANOPY TREES	13
	BUFFER UNDERSTORY TREES	14
	REPLACEMENT TREES	41
	EXISTING DECIDUOUS TREES TO REMAIN	11
	EXISTING EVERGREEN TREES TO REMAIN	10
	INTERIOR PARKING LOT SHRUBS	22
	PERIMETER LANDSCAPE SHRUB BUFFER	46
	BUFFER YARD SHRUBS	31
	LARGE EVERGREEN SHRUBS	7
	MEDIUM SHRUBS	67
	LARGE SHRUBS	52
	SMALL SHRUBS	15
	ORNAMENTAL GRASSES	34
	PERENNIALS	126 sf
	ECONOMY PRAIRIE SEED MIX	74,755 sf
	STORMWATER SEED MIX	26,015 sf
	EMERGENT STORMWATER SEED MIX	4,621 sf
	TURF AREA	



DATE	REVISIONS	COMMENTS
02/05/23		REVISED PER VILLAGE COMMENTS



LAKE VILLA SENIOR LOFTS
VILLAGE OF LAKE VILLA, ILLINOIS
PRELIMINARY LANDSCAPE PLAN - NORTHWEST
PROJ. MGR.: MDE
PROJ. ASSOC.: JBD
DRAWN BY: JBD
DATE: 11-23-22
SCALE: 1"=20'
SHEET L3 OF L6
LAC.LVL01



1 3' MONTAGE PLUS ORNAMENTAL FENCE- MAJESTIC  
3/8" = 1'-0" 323119-02





## PART 1 - GENERAL

A. Provide trees, shrubs, perennials and groundcovers as shown and specified. This work includes:

1. Spreading of topsoil or soil preparation
2. Trees, shrubs, perennials and groundcovers
3. Planting mixes
4. Mulch and planting accessories
5. Fertilizer and herbicide
6. Maintenance
7. Warranty of plant material

B. The Contractor shall verify all existing conditions and dimensions in the field prior to bidding and report any discrepancies to the Owner or his/her representative.

- A. Comply with site work requirements
- B. Plant names indicated must comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties which are not listed should conform with those generally accepted by the nursery trade. Stock should be legibly tagged.
- C. All plant materials shall conform to the "American Standards for Nursery Stock" (ASNS), latest edition, published by the American Association of Nurserymen, Washington, D.C.
- D. All plant material shall be grown and supplied within a 50 mile radius of the project for a minimum of two full growing seasons.
- E. Adhere to sizing requirements as listed in the plant list and/or bid form for the project. A plant shall be measured in its natural standing position.
- F. Stock that is furnished shall be at least the minimum size shown. With permission of the landscape architect, substitution from the specified plant list will be accepted only when satisfactory evidence in writing is submitted to the landscape architect, showing that the plant specified is not available. Requests for approval of substitute plant material shall include common and botanical names and size of substitute material. Only those substitutions of at least equivalent size and character to that of the specified material will be approved. Stock which is larger than that which is specified is acceptable with permission of the landscape architect, providing there is no additional cost and that the larger plant material will not be cut down in order to conform to the size indicated.
- G. All shrubs shall be dense in form. Shrub liners do not meet these specifications. Shrubs specified by height shall have a spread that is equal to the height measurement. Shrubs which are specified by spread shall exhibit the natural growth habit of the plant by having a greater spread than height.
- H. All plant materials are subject to inspection and approval. The landscape architect and Owner reserve the right to select and tag all plant material at the nursery prior to planting. The landscape architect and Owner reserve the right to inspect plant material for size and condition of root systems, the presence of insects and diseases, injuries and latent defects (due to Contractor negligence or otherwise), and to reject unacceptable plant material at any time during progress of the project.

- A. Fertilizer shall be delivered in original, unopened and undamaged packaging. Containers shall display weight, analysis and manufacturer's name. Store fertilizer in a manner that will prevent wetting and deterioration.
- B. Take all precautions customary concerning proper trade practice in preparing plants for transport. Plants shall be dug, packed and transported with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order to stock and on arrival, the certificate shall be filed with the landscape architect. All plants must be protected from drying out. No plant material cannot be planted immediately upon delivery, said material should be properly protected in a manner that is acceptable to the landscape architect. Heeled-in plants must be watered daily. No plant shall be bound with rope or wire in a manner that could strip bark or break or shear branches.
- C. Plant material transported on open vehicles should be covered with a protective covering to prevent wind burn.
- D. Dry, loose topsoil shall be provided for planting bed mixes. Muddy or frozen topsoil is unacceptable as working with medium in this condition will destroy its structure, making root development more difficult.

- A. Notify landscape architect at least seven (7) working days prior to installation of plant material.
- B. It shall be the Contractor's responsibility to locate and protect all existing above and below ground utilities. Utilities can be located and marked (in Illinois) by calling J.U.I.E. at (800)892-0123.
- C. The Contractor shall provide, at his/her own expense, protection against trespassing and damage to seeded areas, planted areas, and other construction areas until the preliminary acceptance. The Contractor shall provide barricades, temporary fencing, signs, and written warning or policing as may be required to protect such areas. The Contractor shall not be responsible for any damage caused by the Owner after such warning has been issued.
- D. The Contractor shall be responsible for the protection of crowns, trunks and roots of existing trees, shrubs, lawns, paved areas and other landscaped areas that are to remain intact. Existing trees, which may be subject to construction damage, shall be boxed, fenced or otherwise protected before any work is started. The Owner desires to preserve those trees within and adjacent to the limits of construction except those specifically indicated to be removed on the Drawings. The contractor shall erect protective tree fencing and tree armor at locations indicated on the drawings and around all trees on any tree to be preserved. Protective fencing shall be erected between the limits of construction and which tree preservation areas shown on the Drawings.
- E. A complete list of plants including a schedule of sizes, quantities and other requirements is shown on the Drawings and on the bid form. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

A. All plantings shall be maintained by the Contractor for a period of 90 days after preliminary acceptance by the Owner or his/her representative. Maintenance shall include, but is not limited to: mowing and edging turf, pulling weeds, watering turf and plant material and annual flower maintenance.

A. All plant material (excluding annual color), shall be warranted for one (1) year after the end of the 90 day maintenance period. The end of the maintenance period is marked by the final acceptance of the Contractor's work by the Owner or his/her representative. Plant materials will be warranted against defects including death and unsatisfactory growth, except for defects resulting from abuse or damage by others, or unusual phenomena or incidents which are beyond the control of the Contractor. The warranty covers a maximum of one replacement per item.

**A:** Plants: Provide typical of their species or variety, with normal, densely developed branches and vigorous, fibrous root systems. Only sound, healthy, vigorous plants which are free from sunscald injuries, disfiguring knots, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation shall be provided. All plants shall have a fully developed form without voids and open patches.

1. Balled and burlapped plants shall have a firm natural ball of earth of sufficient diameter and depth to encompass a root system necessary for a full recovery of the plant. Root ball sizes shall comply with the latest edition of the 'American Standards for Nursery Stock' (ASNS). Root balls that are cracked or mushroomed are unacceptable.
2. Container grown stock should be grown for an amount of time that is of sufficient length for the root system to have developed enough to hold its soil together, firm and whole. Plants will not be loose in their containers, nor shall they be pot-bound and all container grown stock will comply with the sizes stated on the plant list.
3. No evidence of wounds or pruning cuts shall be allowed unless approved by the Landscape Architect.
4. Evergreen trees shall be branched to the ground. The height of evergreen trees are determined by measuring from the ground to the first lateral branch closest to the top. Height and/or width of other trees are measured by the mass of the plant not the very tip of the branches.
5. Shrubs and small plants shall meet the requirements for spread and/or height indicated in the plant list. The height measurement shall be taken from ground level to the average height of the top of the plant, not the longest branch. Single stem or thin plants will not be accepted. Side branches shall be flushed with growth and have good form to the ground. Plants shall be in a moist, vigorous condition, free from dead wood, bruises or other root or branch injuries.

**Topsoil:**

1. Topsoil shall be fertile, natural topsoil of a loamy character, without admixture of subsoil material. Topsoil shall be reasonably free from clay, lumps, coarse sand, stones, plants, roots, sticks and other foreign materials with a pH between 6.5 to 7.0.

**B. Topsoil for seed areas shall be a minimum of 6".**

**C. Soil amendments shall be as follows:**

1. For trees and shrubs the plant pit will be backfilled with pulverized black dirt.
2. For perennials and ornamental grasses the soil mixture will be as follows: CM-63 General Purpose Peat Based Mix as supplied by Midwest Trading. Top beds with 8" of CM-63 and till into existing beds to a depth of 8". Soil mixtures are available from Midwest Trading. Midwest Trading, St. Charles, IL 60174 (630) 365-1990

**D. Fertilizer:**

1. For trees and shrubs use: 14-4-6 briquettes 17 g or equivalent available from Arthur Clesen, Inc. Follow manufacturer's recommendation for application. Arthur Clesen, Inc. 543 Diens Drive, Wheeling, IL 60090 (847)537-2177
2. For turf areas use 6-24-16 Clesen Fairway with micronutrients with minor elements 3.0 % S, .02% B, .05% Cu, 1.0% Fe, .0008% Mo, .10% Mn available from Arthur Clesen or approved equal.

**E. Herbicide:**

1. AquaPro Aquatic Herbicide or approved equal

**F. Mulch:**

1. Bark mulch shall be finely shredded hardwood bark which has been screened and is free of any green foliage, twigs, rocks, sawdust, wood shavings, growth or germination inhibiting ingredients, or other foreign materials. Bark mulch is available from Midwest Trading.
2. Mushroom compost as available from Midwest Trading.

**G. Water:**

1. Water service will be available on the site, with the cost of water being paid by the Owner. Transporting of the water from the source to the work areas shall be the responsibility of the Landscape Contractor. All necessary hose, piping, tank truck, etc. shall be supplied by the Landscape Contractor.

**H. Guying:**

1. Stakes: 5/8" x 40" steel eye anchor with 4" helix
2. Cable:
  - a. Trees under 5": flexible 1/8" galvanized aircraft cable, 7x7 strand or approved equal
  - b. Trees 5" and over: flexible 3/16" galvanized aircraft cable, 7x7 strand or approved equal.
3. Turnbuckles: 5/16", eye and eye, with 4" takeup.
4. Hose: new two-ply reinforced rubber hose, minimum 1/2" I.D.

**I. Tree wrap: Burlap tree wrap 4" wide.**

**J. Twine: Soft nursery jute.**

A. Examine proposed planting areas and conditions of installation. Do not start planting work until unsatisfactory conditions are corrected.

**3-02 PREPARATION:**

A. All planting techniques and methods shall be consistent with the latest edition of 'Horticulture Standards of Nurserymen, Inc.' and as detailed on these Drawings.

B. Planting shall be performed by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.

C. All underground utilities must be located and marked clearly.

manufacturer. Do not begin planting operations until prescribed post-application waiting period has elapsed. Take extreme care to avoid chemical drift to adjoining properties of landscape plantings.

- E. Prior to all planting, rototill all areas to be landscaped to prepare for plant installation to a minimum depth of 12". Eliminate uneven areas and low spots. Maintain lines, levels, profiles and contour. Changes in grade are to be gradual. Blend slopes into level areas. Remove all debris, weeds and undesirable plants and their roots from areas to be planted. Remove all concrete slag larger than 2" in diameter.
- F. Topsoil shall be spread over the site at a minimum depth of 6". For those areas which are indicated as prairie or natural areas on the Drawings, a topsoil depth of 18" is recommended where possible.
- G. It shall be the responsibility of the landscape contractor to prepare all seeded areas by disking and raking prior to planting seed. Soil shall be loosened and scarified to a minimum depth of 6". Fine grading of all seeded areas is required. Maximum size of stone or topsoil lump is 1".
- H. Locate all plant material as indicated or as approved in the field by the Landscape Architect. If obstructions are encountered which are not shown on the drawings, then do not proceed with planting operations until alternate plant locations have been selected.
- I. Planting holes shall be constructed as shown on the planting details. Holes shall be hand dug or machine dug. Great care will be taken to not excavate the hole deeper than the root ball and the diameter shall be a minimum of two times the root ball width. Remove any materials encountered in excavation that may be injurious to plant growth, including stones larger than 2" in diameter or other debris. Soil to be used as backfill should be pulverized.
- J. Provide pre-mixed planting mixture for use around root systems and root balls of the plants. The mixtures are outlined in section B of part 2-02.
- K. Prior to planting, provide additional topsoil to all planting beds to bring the finish grade of the bed to 2" above lawn grade and to finish grade of adjacent hard surface grades.
- L. Add 2" thickness of mushroom compost to all annual, perennial and groundcover beds. Finish grade bed and install plants.

- A. Set plant material in the planting hole to proper grade and alignment. Set plants upright and plumb. Set plant material 2" above the adjacent finish grade. Remove burlap from top 1/3 of root ball. Remove treated burlap (green). Cut and remove or cut and fold down upper half of wire basket, dependent upon tree size. Backfill hole by firmly tamping soil to avoid any air pockets or voids.
- B. Set balled and burlapped plants in the planting hole and compact 8" of soil around the base of the ball. Backfill remaining space with planting mixture. Water plants immediately after planting to eliminate all voids and thoroughly soak the plant root ball.
- C. Space groundcover plants according to dimensions given on the plans. Adjust spacing as necessary to evenly fill planting bed with indicated number of plants. Plant to within 18" of the trunks of trees and shrubs or at the edge of the plant ball, whichever is closest. Plant to within 12" of edge of bed.
- D. Mulching:
  1. Install 4" depth of mulch around all tree and shrub beds as indicated on drawings or planting details. Mulch shrub planting areas as continuous beds. Do not place mulch directly against tree trunk; form mulch to create an inverted cone around trunk.
  2. Mulch perennial, groundcover and annual planting beds with 2" mushroom compost. Water mulched areas thoroughly after placing mulch.

- Tree wrapping is not required, unless the Contractor feels it is necessary due to characteristics of a particular species or past experience with the species. The landscaper architect will be notified as to which trees are to be wrapped and shall inspect the trunk(s) before wrapping. Tree wrap will not be used to cover damage or defects. When wrapping is done, trunks will be wrapped spirally with approved tree wrapping tape that is not less than 4" wide, and securely tied with suitable cord at the top, bottom and 2" intervals along the trunk. Wrap from ground to the height of the first branch.
- F. **Staking and guying of trees is optional.** If the Contractor chooses to stake all or part of the trees, he/she shall use the method specified in the planting details. One (1) stake is to be used on trees of 1" caliper and under, or 4' height and under. Two (2) stakes are to be used on trees of 1" to 2 3/4" caliper. Guyes trees of 3" caliper or larger at three (3) per tree. The root ball will not be pierced with a stake. Stake guys are to be driven at least eighteen (18) inches into subsoil below the planting hole. Stakes and wire attachments shall be removed after three months for spring planted material and by the following May for fall planted stock by the Contractor. Staking and guying should be done immediately after lawn seeding or sodding operations.
- G. **Seeding of specified lawn areas on plans will be treated as follows:**
1. Topsoil shall be spread over all areas to be seeded to a minimum depth of 6" when compacted (to be performed by others).
  2. Seed mixture and application rate - use Premium seed mix as supplied by Arthur Clesen, Inc. Apply at a rate of 5 lbs./1000 s.f.
  3. Apply fertilizers and conditioners at the rate specified per soil test findings. In lieu of soil test results, apply two (2) tons of ground agricultural limestone and 1000 lbs. 10-10-10 or equivalent analysis fertilizer per acre. At least 40% of the fertilizer nitrogen shall be of an organic origin.
  4. Soil preparation areas where vehicular traffic has compacted the soil shall be loosened/scarified to a minimum depth of 6" before fertilizing and seeding. Fine grading of all seeded areas is required. Maximum size of stone or topsoil lump is 1".
  5. Watering seeded areas shall be done to ensure proper germination. Once seeds have germinated, watering may be decreased but the seedlings must never be allowed to dry out completely. Frequent watering should be continued approximately four (4) weeks after germination or until grass has become sufficiently established to warrant watering on an "as needed" basis.
  6. Turf is being established on a variety of slope conditions. It shall be the Contractor's responsibility to determine and implement whatever procedures he/she deems necessary to establish the turf as part of his/her work. Seeded areas will be accepted when all areas show a uniform stand of the specified grass in healthy condition and at least 90 days have elapsed since the completion of this work. The Contractor shall submit with his/her bid a description of the methods and procedures he/she intends to use.
- H. **Erosion Control Blanket**
1. Erosion Control Blanket shall be installed per manufacturer's recommendation in all areas shown on the plan.
  2. Install S-75 Erosion Control Blanket as manufactured by North American Green or approved equal.
  3. Blanket should be premarked with staple pattern.
  4. Staples should be 8" wire staples, applied at two (2) per square yard minimum.
  5. Suitable erosion control practices shall be maintained by the CONTRACTOR in accordance with Illinois Urban Manual and all applicable Soil Erosion and Sedimentation Control ordinances and the PLANS.
- I. **Sodding of specified lawn areas on plans will be completed as follows:**
1. Rake soil surface to receive sod to completely remove any soil crust no more than one day prior to laying sod.
  2. Moistened prepared surface immediately prior to laying sod. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.

3. Sod shall be laid within 24 hours from the time of stripping. Do not plant dormant sod or if the ground is frozen.
4. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to offset joints in adjacent courses. Work from boards to avoid damage to subgrade or sod. Work silted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent sod.
5. Place top elevation of sod 1/2 inch below adjoining edging or paving.
6. Water sod thoroughly with a fine spray immediately after planting.
7. After sod and soil have dried, roll seeded areas to ensure a good bond between the sod and soil and to remove minor depressions and irregularities.
8. Sodded slopes 3:1 or greater shall be staked to prevent erosion and washout.
9. Warranty sodding for a period of one (1) year from the end of the 90 day maintenance period. If sod fails or lacks vigor and full growth as determined by the Landscape Architect, the Contractor will repeat site preparation operations and re-sod affected areas at the Contractor's expense.
10. Note: Sod shall be a premium Kentucky Bluegrass blend, and is required in all areas indicated on the plans as well as areas which have been affected by construction. Sod can be placed as long as water is available and the ground surface can be properly prepared. Sod shall not be laid on frozen or snow-covered ground. Sod shall be strongly rooted, not less than two (2) years old and free of weeds and undesirable native grasses. Sod should be machine cut to pad thickness of 3/4" (plus or minus 1/4"), excluding top growth and thatch. Provide only sod capable of vigorous growth and development when planted (viable, not dormant). Provide sod of uniform pad sizes with maximum 5% deviation in either length or width. Broken pads or pads with uneven ends will not be acceptable. Sod pads incapable of supporting their own weight when suspended vertically with a firm grasp on the upper 10% of pad will not be accepted.

- J. Timing of plant material and seeding operations:
1. Seeding of specified areas shall occur when the soil temperature is above 55° F. No seed shall be sown during periods of high winds, or when the ground is not in proper condition for seeding (see section 3-02 (G)). Seeding operations for the specified mixes shall occur in the spring time frame of April 15 through June 30 and in the summer time frame of August 15 through December 1. The mixes containing bluegrass and fescue seed must have six weeks to harden off for winter survival.
  2. Sod shall be installed when the ground is not frozen or snow covered and temperatures are less than 80° F. It shall not be placed during a period of extended drought.
  3. Herbaceous ornamental plants shall be planted between May 1 and June 15 or between August 15 and December 1.
  4. Spring planting of woody ornamental plants shall be performed from the time the soil can be easily worked until June 1, except that evergreen planting shall end on May 15. Oak, hawthorn and red maple species will only be planted during this spring planting period. Fall planting will begin August 15 and will continue until the ground cannot be worked satisfactorily, except that evergreen planting shall be performed between August 15 and December 1.

A. All plantings shall be maintained by the Contractor for a period of 90 days after preliminary acceptance by the Owner or his/her representative. Maintenance shall include but is not limited to: mowing and edging turf, pulling weeds, watering turf areas and plant material plus annual flower maintenance. The Contractor will reset settled plants to proper grade and position. Dead material will be removed. Stakes and guy wires will be tightened and repaired as required.

A. All plant material (excluding annual color), shall be warranted for one (1) year after the end of the 90 day maintenance period. The end of the maintenance period is marked by the final acceptance of the Contractor's work by the Owner or his/her representative.

A. The Contractor shall protect the property of the Owner and the work of other contractors. The Contractor shall also be directly responsible for all damage caused by the activities and for the daily removal of all trash and debris from his/her work area to the satisfaction of the landscape architect .

[illegible]

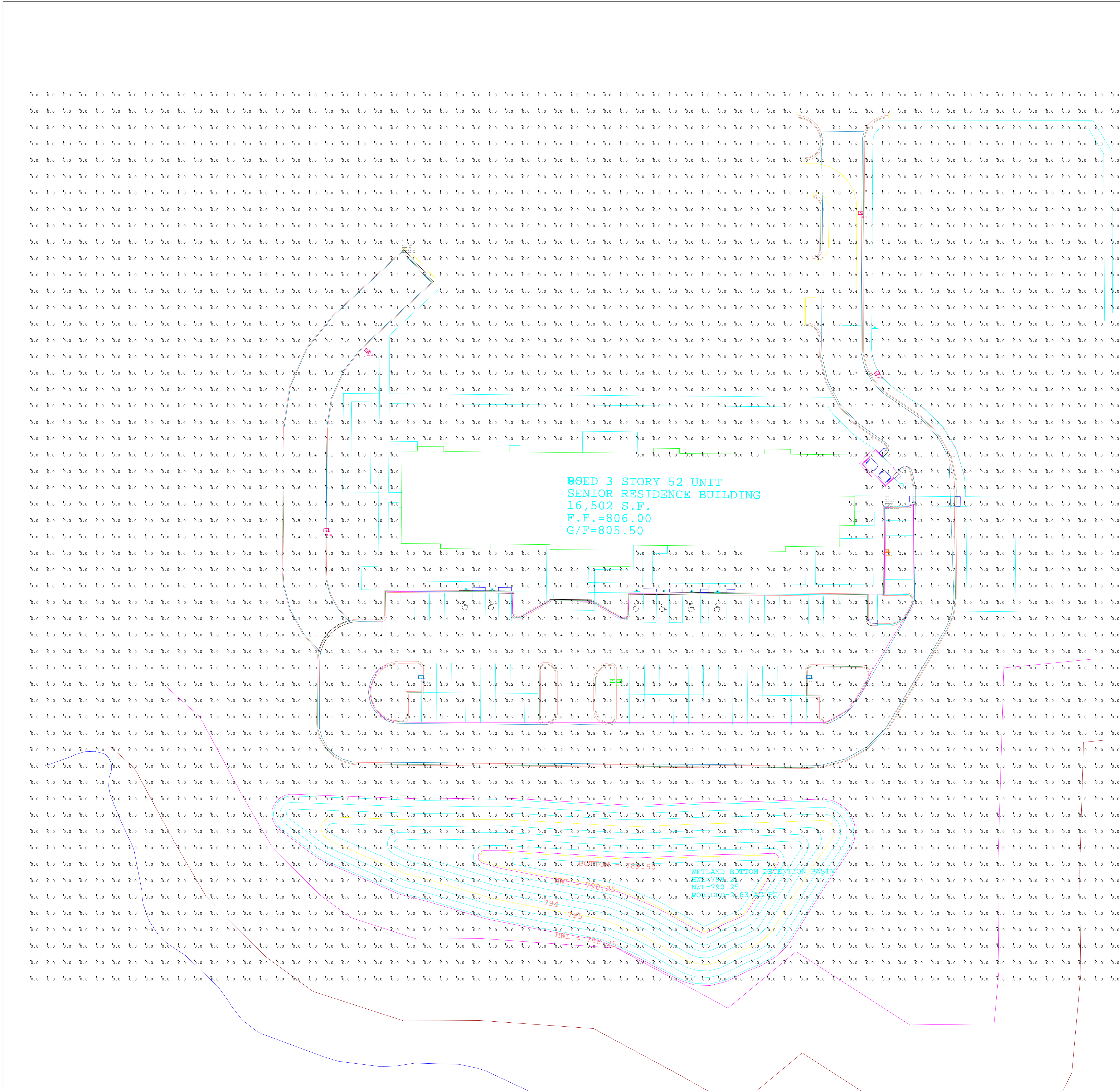
**Manhard**  
CONSULTING

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Engineering & Construction Management  
Environmental Services • Industrial Architecture  
Interior Design • Program Management

LAKE VILLA SENIOR LOFTS	LAKE VILLA SENIOR LOFTS
VILLAGE OF LAKE VILLA, ILLINOIS	VILLAGE OF LAKE VILLA, ILLINOIS
LANDSCAPE SPECIFICATIONS	LANDSCAPE SPECIFICATIONS
PROJ. MGR.: <u>MDE</u>	PROJ. MGR.: <u>MDE</u>
PROJ. ASSOC.: <u>BD</u>	PROJ. ASSOC.: <u>BD</u>
DRAWN BY: <u>-----</u>	DRAWN BY: <u>-----</u>
DATE: <u>11-23-22</u>	DATE: <u>11-23-22</u>
SCALE: <u>1"=XX'</u>	SCALE: <u>1"=XX'</u>
SHEET	
L6 OF L6	
LAC.LVL01	






Chicago Lightworks  
505 Warrenville Rd.  
Suite 101  
Lisle, IL 60532

Prepared By:  
M Brizzell  
(630) 320-2948  
MBrizzell@chicagolightworks.com

Rev	Date	3,000 Kelvin Reduced poles
-	-	-
-	-	-
-	-	-
-	-	-

Project Name: Starling Senior Apartments  
Lake Villa  
NOT TO SCALE  
Date: 2/6/2023

Luminaire Schedule						
Symbol	Label	Qty	Description	LLF	Lum. Watts	Lum. Lumens
	F3H	1	ECF-S-32L-365-VVV-G2-3-HIS	0.900	40	4292
	F4B2B	1	ECF-S-32L-365-VVV-G2-4	0.900	40	5637
	F5VV	2	ECF-S-32L-365-VVV-G2-5VV	0.900	40	5604
	F2H	4	ECF-S-32L-365-VVV-G2-2-HIS	0.900	40	4219

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_I	Illuminance	Fc	0.11	6.3	0.0	NA	NA
Drive	Illuminance	Fc	0.62	4.9	0.0	NA	NA
Parking	Illuminance	Fc	0.71	6.3	0.1	7.10	63.00



Chicago Lightworks  
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Rev	Date	Comments
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Project Name: <b>Starling Senior Apartments Lake Villa</b>  NOT TO SCALE  Date: <b>2/6/2023</b>	
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**Gardco EcoForm Gen-2** combines economy with performance in an LED area luminaire. Capable of delivering up to 27,800 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings. Includes Service Tag, our innovative way to provide assistance throughout the life of the product.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

## Ordering guide

example: ECF-S-64L-900-NW-G2-AR-5-120-HIS-MGY

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distribution	Voltage
ECF-S						
ECF-S EcoForm site and area, small	32L 32 LEDs (2 modules)	365 365mA 530 530mA 700 700mA 1A 1050mA 1.2A 1200mA	WW-G2 Warm White 3000K, 70CRI Generation 2 NW-G2 Neutral White 4000K, 70CRI Generation 2 CW-G2 Cool White 5000K, 70CRI Generation 2	AR² Arm Mount (standard)  The following mounting kits must be ordered separately (See accessories)  SF³ Slip Fitter Mount (fits to 2 3⁄8" O.D. tenon)  WS Wall mount with surface conduit rear entry permitted  RAM² Retrofit arm mount kit	Type 2 2 Type 2 AFR Auto Front Row 2-90 Rotated left 90° AFR-90 Auto Front Row, Rotated left 90° 2-270 Rotated right 270° AFR-270 Auto Front Row, Rotated right 270°  Type 3 3 Type 3 BLC Back Light Control 3-90 Rotated left 90° BLC-90 Back Light Control rotated at 90° 3-270 Rotated right 270° BLC-270 Back Light Control rotated at 270°  Type 4 4 Type 4 LCL¹⁹ LEED Corner Optic Left 4-90 Rotated left 90° RCL¹⁹ LEED Corner Optic Right 4-270 Rotated right 270°  Type 5 5 Type 5 5W Type 5W	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)
	48L 48 LEDs (3 modules)	900 900mA 1A 1050mA 1.2A¹⁹ 1200mA				
	64L 64 LEDs (4 modules)	900 900mA 1A¹⁹ 1050mA				

Options					Finish
Dimming controls	Motion sensing lens	Photo-sensing	Electrical	Luminaire	
<b>DD</b> <sup>4,18</sup> 0-10V External dimming (for controls by others) <b>DCC</b> <sup>4,5,6,18</sup> Dual Circuit Control <b>FAWS</b> <sup>4,5,18</sup> Field Adjustable Wattage Selector <b>LLC</b> <sup>4,6,7,8,18</sup> Integral wireless module <b>BL</b> <sup>1,4,7,18</sup> Bi-level functionality <b>SRDR</b> <sup>4,5,6,8,17</sup> SR driver connected to Zhaga socket  <u>DynaDimmer: Automatic Profile Dimming</u> <b>CS50</b> <sup>4,8</sup> Safety 50% Dimming, 7 hours <b>CM50</b> <sup>4,8</sup> Median 50% Dimming, 8 hours <b>CS30</b> <sup>4,8</sup> Safety 30% Dimming, 7 hours <b>CM30</b> <sup>4,8</sup> Median 30% Dimming, 8 hours	<b>IMRI3</b> <sup>15</sup> Integral with #3 lens <b>IMRI7</b> <sup>16</sup> Integral with #7 lens	<b>PCB</b> <sup>8,9</sup> Photocontrol Button <b>TLRD5</b> <sup>10,17</sup> Twist Lock Receptacle 5 Pin  <b>TLRD7</b> <sup>10,17</sup> Twist Lock Receptacle 7 Pin  <b>TLRPC</b> <sup>9,10,11,17</sup> Twist Lock Receptacle w/ Photocell	<b>Fusing</b> <b>F1</b> <sup>9</sup> Single (120, 277, 347VAC) <b>F2</b> <sup>9</sup> Double (208, 240, 480VAC)  <b>Pole Mount Fusing</b> <b>FP1</b> <sup>9</sup> Single (120, 277, 347VAC) <b>FP2</b> <sup>9</sup> Double (208, 240, 480VAC) <b>FP3</b> <sup>9</sup> Canadian Double Pull (208, 240, 480VAC)  <u>Surge Protection (10kA standard)</u> <b>SP2</b> Increased 20kA	Square Pole Adapter included in standard product  <b>TB</b> <sup>12</sup> Terminal Block <b>RPA</b> <sup>13</sup> Round Pole Adapter (fits to 3"– 3.9" O.D. pole)  <b>HIS</b> <sup>14</sup> Internal House Side Shield	<b>Textured</b> <b>BK</b> Black <b>WH</b> White <b>BZ</b> Bronze <b>DGY</b> Dark Gray <b>MGY</b> Medium Gray  <b>Customer specified</b> <b>RAL</b> Specify optional color or RAL (ex: RAL7024)  <b>CC</b> Custom color (Must supply color chip for required factory quote)

- BL-IMRI3/7 equipped with out-boarded sensor housing when voltage is HVU (347-480V)
- Mounts to a 4" round pole with adapter included for square poles.
- Limited to a maximum of 45 degrees aiming above horizontal.
- Not available with other dimming control options.
- Not available with motion sensor.
- Not available with photocontrol.
- Must specify a motion sensor lens.
- Not available in 347 or 480V
- Must specify input voltage.
- TLRD5, TLRD7 and TLRPC receptacle pins 4 & 5 are capped off when ordered with any of the Dimming controls DD or FAWS or LLC.
- Not available in 480V. Order photocell separately with TLRD5/7.
- Not available with DCC.
- Not available with SF and WS. RPAs provided with black finish standard.
- HIS not available with Type 5, 5W, BLC, BLC-90, BLC-270, LCL or RCL optics.
- Not available with DD, DCC, and FAWS dimming control options.
- Not available with DD, DCC, FAWS and LLC dimming control options.
- When ordering SRDR, controller (by others) to be used on socket must be SR compatible (See specifications for more details). Consult factory for lead time. All 7 pins in NEMA receptacle are connected to SR driver. SRDR not available with TLRD5 or TLRPC.
- 0-10V dimming driver standard.
- LCL and RCL not available with 48L-1.2A or 64L-1A.



# ECF-S EcoForm small

## Area luminaire

EcoForm Accessories<sup>21</sup> (ordered separately, field installed)

Shielding Accessories

FOR F2H & F3H

Footnotes

20. Not available with Type 5 or 5W optics

21. Consult Signify to confirm whether specific accessories are BAA-compliant.

House Side shield

Standard optic orientation:

HIS-32-H<sup>20</sup> Internal House Side Shield for 32 LEDs (2 modules)

HIS-48-H<sup>20</sup> Internal House Side Shield for 48 LEDs (3 modules)

HIS-64-H<sup>20</sup> Internal House Side Shield for 64 LEDs (4 modules)

Optic at 90 or 270 orientation:

HIS-32-V<sup>20</sup> Internal House Side Shield for 32 LEDs (2 modules)

HIS-48-V<sup>20</sup> Internal House Side Shield for 48 LEDs (3 modules)

HIS-64-V<sup>20</sup> Internal House Side Shield for 64 LEDs (4 modules)

Luminaire Accessories

ECF-BD-G2 Bird deterrent

ECF-RAM-G2-(F) Retrofit Arm mount kit

ECF-SF-G2-(F) Slip Fitter Mount (fits to 2 3/8" O.D. tenon)

ECF-WS-G2-(F) Wall mount with surface conduit rear entry permitted

EcoForm PTF2  
(pole top fitter fits 23/8-21/2" OD x 4" depth tenon)

PTF2-ECF-S/L-1-90-(F) 1 luminaire at 90°

PTF2-ECF-S/L-2-90-(F) 2 luminaires at 90°

PTF2-ECF-S/L-2-180-(F) 2 luminaires at 180°

PTF2-ECF-S/L-3-90-(F) 3 luminaires at 90°

PTF2-ECF-S/L-4-90-(F) 4 luminaires at 90°

PTF2-ECF-S/L-3-120-(F) 3 luminaires at 120°

EcoForm PTF3  
(pole top fitter fits 3-31/2" OD x 6" depth tenon)

PTF3-ECF-S/L-1-90-(F) 1 luminaire at 90°

PTF3-ECF-S/L-2-90-(F) 2 luminaires at 90°

PTF3-ECF-S/L-2-180-(F) 2 luminaires at 180°

PTF3-ECF-S/L-3-90-(F) 3 luminaires at 90°

PTF3-ECF-S/L-4-90-(F) 4 luminaires at 90°

PTF3-ECF-S/L-3-120-(F) 3 luminaires at 120°

EcoForm PTF4  
(pole top fitter fits 31/2-4" OD x 6" depth tenon)

PTF4-ECF-S/L-1-90-(F) 1 luminaire at 90°

PTF4-ECF-S/L-2-90-(F) 2 luminaires at 90°

PTF4-ECF-S/L-2-180-(F) 2 luminaires at 180°

PTF4-ECF-S/L-3-90-(F) 3 luminaires at 90°

PTF4-ECF-S/L-4-90-(F) 4 luminaires at 90°

PTF4-ECF-S/L-3-120-(F) 3 luminaires at 120°

(F) = Specify finish

Ready to Go configurations (when ordered with the "RS-" catalog code, the following configurations will ship in 2 weeks):

Catalog Number	12NC	Catalog Number	12NC
RS-ECF-S-32L-1A-NW-G2-AR-3-UNV-BZ	912401466002	RS-ECF-S-64L-1A-NW-G2-AR-3-UNV-BK	912401534560
RS-ECF-S-32L-1A-NW-G2-AR-3-UNV-MGY	912401466003	RS-ECF-S-64L-1A-NW-G2-AR-4-UNV-BZ	912401466016
RS-ECF-S-32L-1A-NW-G2-AR-3-UNV-BK	912401534554	RS-ECF-S-64L-1A-NW-G2-AR-4-UNV-MGY	912401466017
RS-ECF-S-32L-1A-NW-G2-AR-4-UNV-BZ	912401466004	RS-ECF-S-64L-1A-NW-G2-AR-4-UNV-BK	912401534561
RS-ECF-S-32L-1A-NW-G2-AR-4-UNV-MGY	912401466005	RS-ECF-S-64L-1A-NW-G2-AR-5-UNV-BZ	912401466018
RS-ECF-S-32L-1A-NW-G2-AR-4-UNV-BK	912401534555	RS-ECF-S-64L-1A-NW-G2-AR-5-UNV-MGY	912401466019
RS-ECF-S-32L-1A-NW-G2-AR-5-UNV-BZ	912401466006	RS-ECF-S-64L-1A-NW-G2-AR-5-UNV-BK	912401534562
RS-ECF-S-32L-1A-NW-G2-AR-5-UNV-MGY	912401466007	RS-ECF-RAM-G2-DGY	912401466487
RS-ECF-S-32L-1A-NW-G2-AR-5-UNV-BK	912401534556	RS-ECF-RAM-G2-MGY	912401466488
RS-ECF-S-48L-1A-NW-G2-AR-3-UNV-BZ	912401466008	RS-ECF-RAM-G2-WH	912401466485
RS-ECF-S-48L-1A-NW-G2-AR-3-UNV-MGY	912401466009	RS-ECF-RAM-G2-BZ	912401466486
RS-ECF-S-48L-1A-NW-G2-AR-3-UNV-BK	912401534557	RS-ECF-RAM-G2-BK	912401466484
RS-ECF-S-48L-1A-NW-G2-AR-4-UNV-BZ	912401466010	RS-HIS-32-H	912401466489
RS-ECF-S-48L-1A-NW-G2-AR-4-UNV-MGY	912401466011	RS-HIS-48-H	912401466491
RS-ECF-S-48L-1A-NW-G2-AR-4-UNV-BK	912401534558	RS-HIS-64-H	912401466493
RS-ECF-S-48L-1A-NW-G2-AR-5-UNV-BZ	912401466012		
RS-ECF-S-48L-1A-NW-G2-AR-5-UNV-MGY	912401466013		
RS-ECF-S-48L-1A-NW-G2-AR-5-UNV-BK	912401534559		
RS-ECF-S-64L-1A-NW-G2-AR-3-UNV-BZ	912401466014		
RS-ECF-S-64L-1A-NW-G2-AR-3-UNV-MGY	912401466015		

# ECF-S EcoForm small

## Area lumineaire

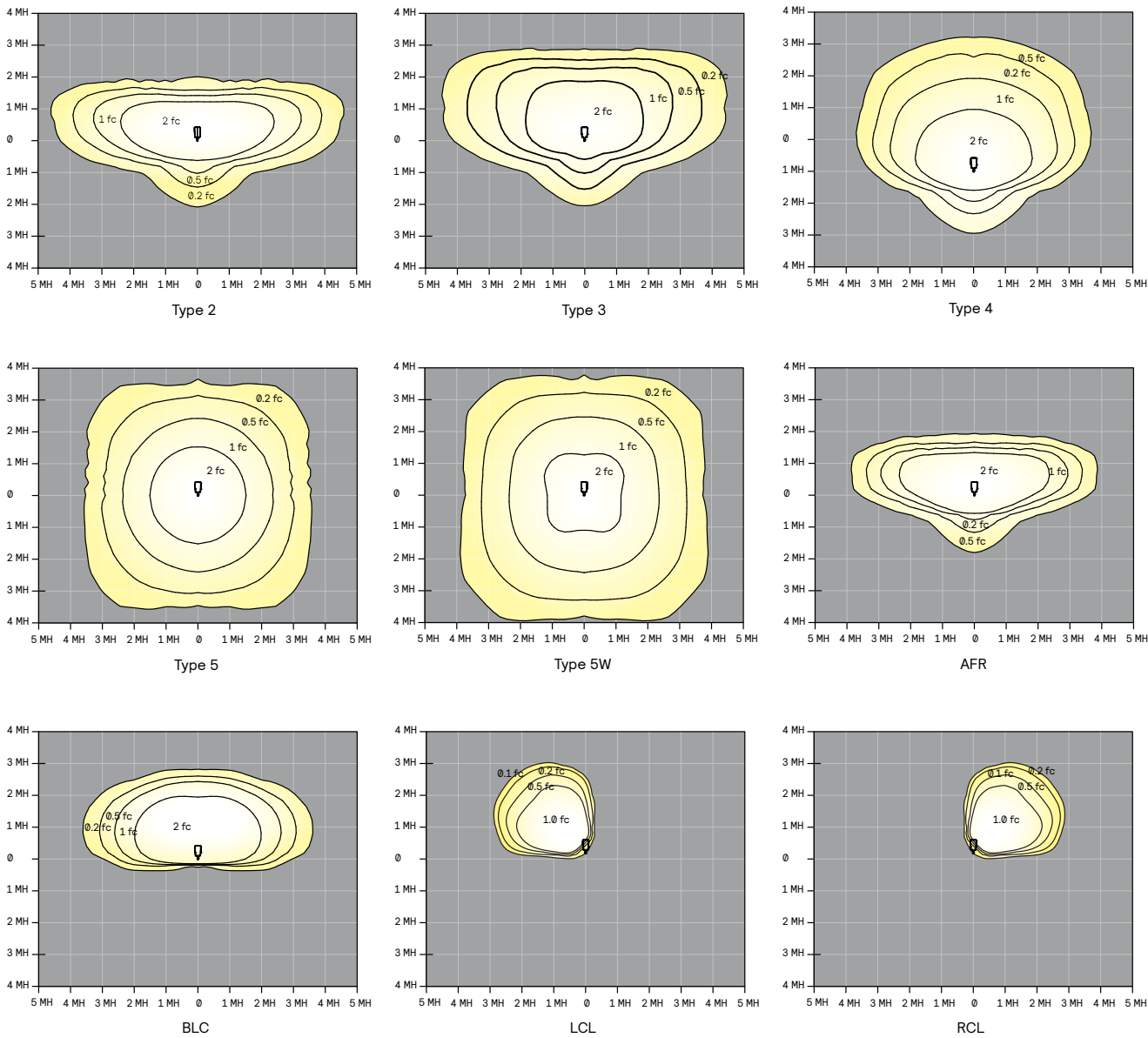
### Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L70 hours limited to 6 times actual LED test hours

Ambient Temperature °C	Driver mA	Calculated L70 Hours	L70 per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1200 mA	>100,000 hours	>120,000 hours	>99%

### Optical Distributions

Based on configuration ECF-S-48L-1A-NW-G2 (159W) mounted at 20ft.



# ECF-S EcoForm small

## Area luminaire

### 3000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-WW-G2-x	32	365	3000	40	5,508	B1-U0-G1	138	5,428	B1-U0-G2	136	5,637	B1-U0-G2	141	5,790	B3-U0-G1	145	5,604	B3-U0-G1	140
ECF-S-32L-530-WW-G2-x	32	530	3000	56	7,159	B2-U0-G2	129	7,055	B1-U0-G2	127	7,327	B1-U0-G2	132	7,526	B3-U0-G2	135	7,284	B3-U0-G2	131
ECF-S-32L-700-WW-G2-x	32	700	3000	73	9,234	B2-U0-G2	127	9,034	B2-U0-G2	124	9,452	B2-U0-G2	130	9,707	B4-U0-G2	133	9,395	B4-U0-G2	129
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	13,001	B3-U0-G2	123	12,719	B2-U0-G2	120	13,306	B2-U0-G3	126	13,665	B4-U0-G2	129	13,227	B4-U0-G2	125
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	14,421	B3-U0-G3	119	14,108	B2-U0-G3	116	14,760	B2-U0-G3	121	15,158	B4-U0-G2	125	14,671	B4-U0-G2	121
ECF-S-48L-900-WW-G2-x	48	900	3000	135	17,115	B3-U0-G3	127	16,744	B3-U0-G3	124	17,518	B2-U0-G3	130	17,990	B4-U0-G2	133	17,413	B5-U0-G3	129
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	19,381	B3-U0-G3	122	18,960	B3-U0-G3	119	19,836	B3-U0-G4	125	20,372	B5-U0-G3	128	19,717	B5-U0-G3	124
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	21,515	B3-U0-G3	118	21,048	B3-U0-G4	115	22,020	B3-U0-G4	121	22,616	B5-U0-G3	124	21,888	B5-U0-G3	120
ECF-S-64L-900-WW-G2-x	64	900	3000	178	22,652	B3-U0-G3	127	22,161	B3-U0-G4	125	23,185	B3-U0-G4	130	23,810	B5-U0-G3	134	23,045	B5-U0-G3	130
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	25,520	B3-U0-G3	124	24,966	B3-U0-G4	121	26,120	B3-U0-G4	127	26,150	B5-U0-G3	127	25,964	B5-U0-G4	126

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			BLC			LCL or RCL		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-WW-G2-x	32	365	3000	40	5,706	B2-U0-G1	143	3,691	B0-U0-G1	94	2,449	B0-U0-G1	62
ECF-S-32L-530-WW-G2-x	32	530	3000	56	7,417	B2-U0-G1	133	5,005	B0-U0-G2	91	3,183	B0-U0-G1	58
ECF-S-32L-700-WW-G2-x	32	700	3000	73	9,567	B2-U0-G2	131	6,409	B0-U0-G2	89	4,106	B0-U0-G1	57
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	13,467	B3-U0-G2	128	9,024	B1-U0-G2	87	5,793	B0-U0-G2	56
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	14,939	B3-U0-G2	123	10,010	B1-U0-G2	84	6,426	B0-U0-G2	54
ECF-S-48L-900-WW-G2-x	48	900	3000	135	17,731	B3-U0-G2	131	11,880	B1-U0-G2	89	7,626	B0-U0-G2	57
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	20,076	B3-U0-G2	127	13,453	B1-U0-G2	86	8,636	B0-U0-G2	55
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	22,288	B3-U0-G2	122	14,934	B1-U0-G3	83			
ECF-S-64L-900-WW-G2-x	64	900	3000	178	23,465	B3-U0-G2	132	15,723	B1-U0-G3	90	10,093	B0-U0-G2	58
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	26,437	B4-U0-G3	128	17,714	B1-U0-G3	87			

### 4000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-NW-G2-x	32	365	4000	40	5,798	B1-U0-G1	145	5,713	B1-U0-G2	143	5,934	B1-U0-G2	148	6,094	B3-U0-G1	152	5,898	B3-U0-G2	147
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,536	B2-U0-G2	135	7,426	B1-U0-G2	133	7,713	B1-U0-G2	138	7,922	B3-U0-G2	142	7,667	B3-U0-G2	138
ECF-S-32L-700-NW-G2-x	32	700	4000	73	9,720	B2-U0-G2	133	9,509	B2-U0-G2	130	9,949	B2-U0-G2	136	10,218	B4-U0-G2	140	9,889	B4-U0-G2	136
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	13,685	B3-U0-G2	130	13,388	B2-U0-G3	127	14,006	B2-U0-G3	133	14,384	B4-U0-G2	136	13,923	B4-U0-G2	132
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	15,180	B3-U0-G3	125	14,851	B2-U0-G3	122	15,537	B2-U0-G3	128	15,956	B4-U0-G2	131	15,443	B4-U0-G2	127
ECF-S-48L-900-NW-G2-x	48	900	4000	135	18,016	B3-U0-G3	133	17,625	B3-U0-G3	130	18,440	B3-U0-G3	136	18,937	B4-U0-G3	140	18,329	B5-U0-G3	136
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	20,401	B3-U0-G3	129	19,958	B3-U0-G4	126	20,880	B3-U0-G4	132	21,444	B5-U0-G3	135	20,755	B5-U0-G3	131
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	22,647	B3-U0-G3	124	22,156	B3-U0-G4	121	23,179	B3-U0-G4	127	23,806	B5-U0-G3	130	23,040	B5-U0-G3	126
ECF-S-64L-900-NW-G2-x	64	900	4000	178	23,844	B3-U0-G3	134	23,327	B3-U0-G4	131	24,405	B3-U0-G4	137	25,063	B5-U0-G3	141	24,258	B5-U0-G4	136
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	26,863	B3-U0-G3	130	26,280	B3-U0-G4	128	27,495	B3-U0-G4	134	27,526	B5-U0-G3	134	27,330	B5-U0-G4	133

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			BLC			LCL or RCL		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-NW-G2-x	32	365	4000	40	6,006	B2-U0-G1	150	3,991	B0-U0-G1	101	2,633	B0-U0-G1	67
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,807	B2-U0-G1	140	5,412	B0-U0-G2	99	3,423	B0-U0-G1	62
ECF-S-32L-700-NW-G2-x	32	700	4000	73	10,070	B2-U0-G2	138	6,930	B0-U0-G2	96	4,415	B0-U0-G1	61
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	14,176	B3-U0-G2	134	9,756	B1-U0-G2	94	6,229	B0-U0-G2	60
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	15,725	B3-U0-G2	129	10,822	B1-U0-G2	90	6,910	B0-U0-G2	58
ECF-S-48L-900-NW-G2-x	48	900	4000	135	18,664	B3-U0-G2	138	12,843	B1-U0-G2	96	8,200	B0-U0-G2	62
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	21,133	B3-U0-G2	133	14,544	B1-U0-G3	93	9,286	B0-U0-G2	59
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	23,461	B3-U0-G2	128	16,145	B1-U0-G3	90			
ECF-S-64L-900-NW-G2-x	64	900	4000	178	24,700	B3-U0-G2	139	16,998	B1-U0-G3	97	10,853	B0-U0-G2	62
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	27,828	B4-U0-G3	135	19,150	B1-U0-G3	94			

# ECF-S EcoForm small

## Area luminaire

### 5000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-CW-G2-x	32	365	5000	40	5,798	B1-U0-G1	145	5,713	B1-U0-G2	143	5,934	B1-U0-G2	148	6,094	B3-U0-G1	152	5,898	B3-U0-G2	147
ECF-S-32L-530-CW-G2-x	32	530	5000	56	7,536	B2-U0-G2	135	7,426	B1-U0-G2	133	7,713	B1-U0-G2	138	7,922	B3-U0-G2	142	7,667	B3-U0-G2	138
ECF-S-32L-700-CW-G2-x	32	700	5000	73	9,720	B2-U0-G2	133	9,509	B2-U0-G2	130	9,949	B2-U0-G2	136	10,218	B4-U0-G2	140	9,889	B4-U0-G2	136
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	13,685	B3-U0-G2	130	13,388	B2-U0-G3	127	14,006	B2-U0-G3	133	14,384	B4-U0-G2	136	13,923	B4-U0-G2	132
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	15,180	B3-U0-G3	125	14,851	B2-U0-G3	122	15,537	B2-U0-G3	128	15,956	B4-U0-G2	131	15,443	B4-U0-G2	127
ECF-S-48L-900-CW-G2-x	48	900	5000	135	18,016	B3-U0-G3	133	17,625	B3-U0-G3	130	18,440	B3-U0-G3	136	18,937	B4-U0-G3	140	18,329	B5-U0-G3	136
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	20,401	B3-U0-G3	129	19,958	B3-U0-G4	126	20,880	B3-U0-G4	132	21,444	B5-U0-G3	135	20,755	B5-U0-G3	131
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	22,647	B3-U0-G3	124	22,156	B3-U0-G4	121	23,179	B3-U0-G4	127	23,806	B5-U0-G3	130	23,040	B5-U0-G3	126
ECF-S-64L-900-CW-G2-x	64	900	5000	178	23,844	B3-U0-G3	134	23,327	B3-U0-G4	131	24,405	B3-U0-G4	137	25063	B5-U0-G3	141	24258	B5-U0-G4	136
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	26,863	B3-U0-G3	130	26,280	B3-U0-G4	128	27,495	B3-U0-G4	134	27526	B5-U0-G3	134	27330	B5-U0-G4	133

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			BLC			LCL or RCL		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-CW-G2-x	32	365	5000	40	6,006	B2-U0-G1	150	3,991	B0-U0-G1	101	2,633	B0-U0-G1	67
ECF-S-32L-530-CW-G2-x	32	530	5000	56	7,807	B2-U0-G1	140	5,412	B0-U0-G2	99	3,423	B0-U0-G1	62
ECF-S-32L-700-CW-G2-x	32	700	5000	73	10,070	B2-U0-G2	138	6,930	B0-U0-G2	96	4,415	B0-U0-G1	61
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	14,176	B3-U0-G2	134	9,756	B1-U0-G2	94	6,229	B0-U0-G2	60
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	15,725	B3-U0-G2	129	10,822	B1-U0-G2	90	6,910	B0-U0-G2	58
ECF-S-48L-900-CW-G2-x	48	900	5000	135	18,664	B3-U0-G2	138	12,843	B1-U0-G2	96	8,200	B0-U0-G2	62
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	21,133	B3-U0-G2	133	14,544	B1-U0-G3	93	9,286	B0-U0-G2	59
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	23,461	B3-U0-G2	128	16,145	B1-U0-G3	90			
ECF-S-64L-900-CW-G2-x	64	900	5000	178	24,700	B3-U0-G2	139	16,998	B1-U0-G3	97	10,853	B0-U0-G2	62
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	27,828	B4-U0-G3	135	19,150	B1-U0-G3	94			

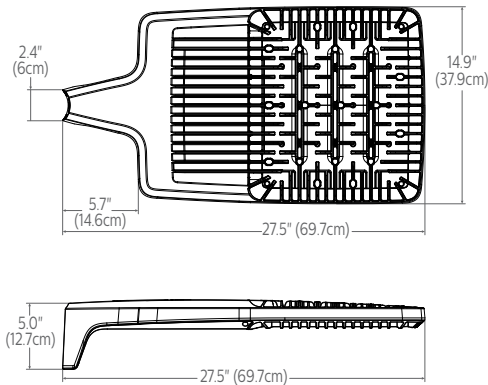
# ECF-S EcoForm small

## Area luminaire

### Dimensions

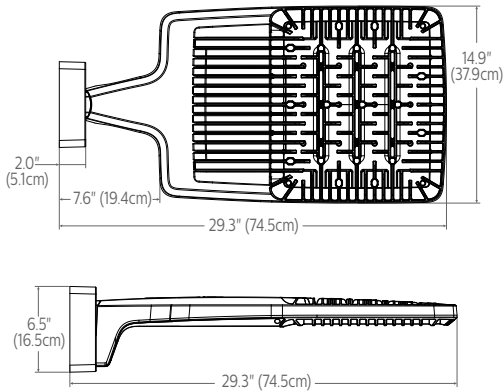
#### Standard Arm (AR)

Weight: 22 Lbs (9.9 Kg) EPA: 0.21ft² (.019m²)



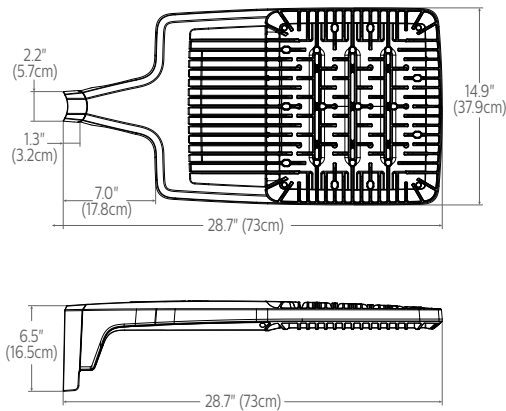
#### Wall (WS)

Weight: 27 Lbs. (12. 2Kg)EPA: 0.27ft² (.025m²)



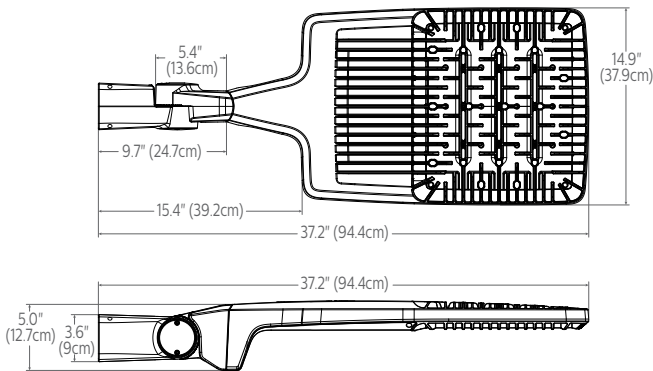
#### Retrofit Arm (RAM)

Weight: 24 Lbs (10.9 Kg) EPA: 0.24ft² (.022m²)

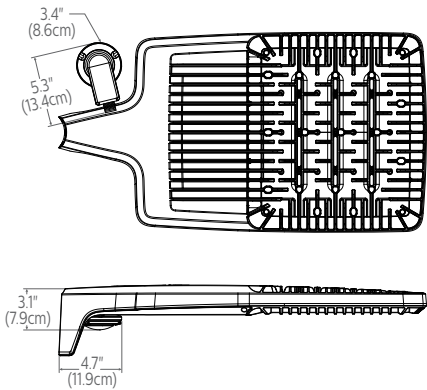


#### Slip fitter (SF)

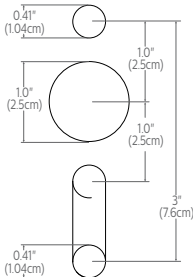
Weight: 27 Lbs (12.2 Kg) EPA: 0.33ft² (.031m²)



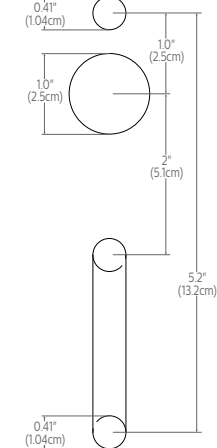
#### Outboard IMR-HVU sensor



#### Standard Arm (AR) drill pattern



#### Retrofit Arm (RAM) drill pattern



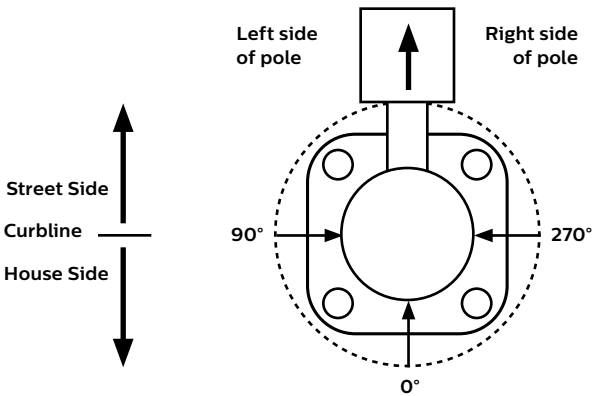
# ECF-S EcoForm small

## Area luminaire

### Optical Orientation Information

#### Standard Optic Position

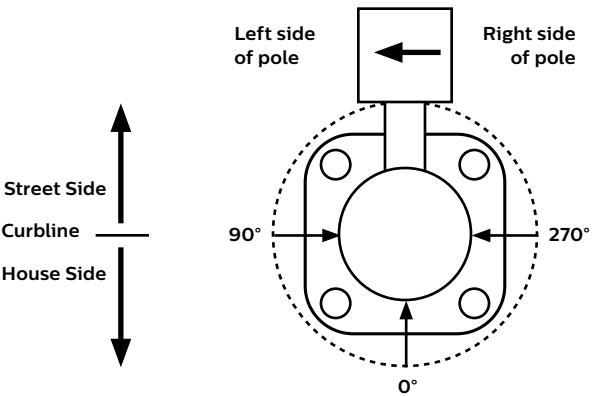
Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:



Note: The hand hole will normally be located on the pole at the 0° point.

#### Optic Rotated Left (90°) Optic Position

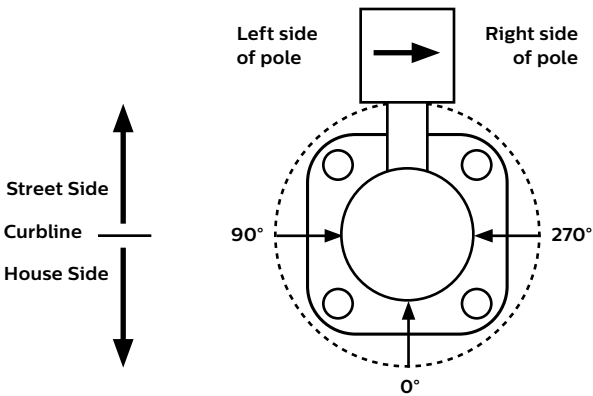
Luminaires ordered with optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



Note: The hand hole will normally be located on the pole at the 0° point.

#### Optic Rotated Right (270°) Optic Position

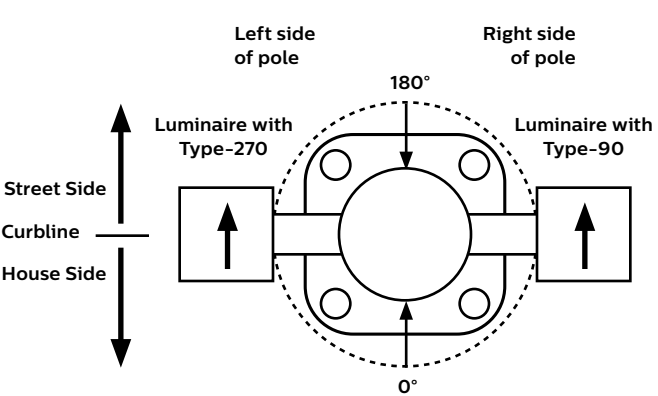
Luminaires ordered with optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



Note: The hand hole will normally be located on the pole at the 0° point.

#### Twin Luminaire Assemblies with Type-90/Type-270 Rotated Optical Systems

Twin luminaire assemblies installed with rotated optical systems are an excellent way to direct light toward the interior of the site (Street Side) without additional equipment. It is important, however, that care be exercised to insure that luminaires are installed in the proper location.



Luminaires with Optic Rotated Right (270°) are installed on the LEFT Side of Pole

Luminaires with Optic Rotated Left (90°) are installed on the RIGHT Side of Pole

Note: The hand hole location will depend on the drilling configuration ordered for the pole.

# ECF-S EcoForm small

## Area luminaire

### Specifications

#### Housing

One-piece die cast aluminum housing with integral arm and separate, self-retained hinged, one-piece die cast door frame. Luminaire housing rated to IP65, tested in accordance to Section 9 of IEC 60598-1.

#### Vibration resistance

Luminaire is tested and rated 3G over 100,000 cycles conforming to standards set forth by ANSI C136.31-2018. Testing includes vibration in three axes, all performed on the same luminaire.

#### Light engine

Light engine comprises of a module of 16-LED aluminum metal clad board fully sealed with optics offered in multiples of 2, 3, and 4 modules or 32, 48, and 64 LEDs. Module is RoHS compliant. Color temperatures: 3000K +/-125K, 4000K, 5000K +/- 200K. Minimum CRI of 70. LED light engine is rated IP66 in accordance to Section 9 of IEC 60598-1.

#### Energy saving benefits

System efficacy up to 152 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

#### Optical systems

Type 2, 3, 4, 5, 5W, and AFR distributions available. Internal Shield option mounts to LED optics and is available with Type 2, 3, 4, and AFR distributions, including a dedicated BLC, LCL, and RCL optics to provide the best backlight control possible for those stringent requirements around property lines. Types 2, 3, 4, AFR, and BLC when specified and used as rotated, are factory set only. Performance tested per LM-79 and TM-15 (IESNA) certifying its photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

#### Mounting

Standard luminaire arm mounts to 4" O.D. round poles. Can also be used with 5" O.D. poles. Square pole adapter included with every luminaire. Round Pole Adapter (RPA) required for 3-3.9" poles. EcoForm features a retrofit arm kit. When specified with the retrofit arm (RAM) option, EcoForm seamlessly simplifies site conversions to LED by eliminating the need for additional pole drilling on most existing poles. RAM will be boxed separately. Also optional are slipfitter and wall mounting accessories. Note that only fixed mounts (AR, RAM, WS) are required to meet IDA compliance. SF mounting will not meet IDA.

#### Control options

**0-10V dimming (DD):** Access to 0-10V dimming leads supplied through back of luminaire (for secondary dimming controls by others). Cannot be used with other control options.

**Dual Circuit Control (DCC):** Luminaire equipped with the ability to have two separate circuits controlling drivers and light engines independently. Permits separate switching of separate modules controlled by use of two sets of leads, one for each circuit. Not recommended to be used with other control options, motion response, or photocells.

**Sensor Ready Zhaga Socket Connector (SRDR):** Product equipped with Sensor Ready drivers connected to 4-pin Zhaga Book 18 compliant receptacle designed for sensor and other control system applications. Receptacle is rated IP66 assembly in a compact design that provides a sealed electrical interface and rated UV resistance, mounted on underside of the luminaire, protective dust cap included. When a controller not provided by Signify is used with Sensor Ready Zhaga socket connector, the controller must be certified to work with the Xitanium SR LED drivers as part of the SR certified program. SRDR can be used with NEMA 7-pin twist lock receptacle, which is mounted on top of the luminaire.

**Automatic Profile Dimming (CS/CM/CE/CA):** Standard dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. Dimming profiles include two dimming settings including dim to 30% or 50% of the total lumen output. When used in combination with not programmed motion response it overrides the controller's schedule when motion is detected. After 5 minutes with no motion, it will return to the automatic dimming profile schedule. Automatic dimming profile scheduled with the following settings:

- **CS50/CS30:** Security for 7 hours night duration (Ex., 11 PM – 6 AM)
- **CM50/CM30:** Median for 8 hours night duration (Ex., 10 PM – 6 AM)

All above profiles are calculated from mid point of the night. Dimming is set for 6 hours after the mid point and 1 or 2 hours before depending of the duration of dimming. Cannot be used with other dimming control options.

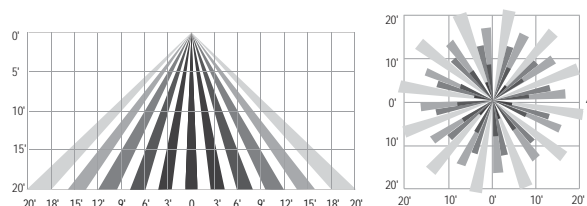
**Field Adjustable Wattage Selector (FAWS):** Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

FAWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

**Note:** Typical value accuracy +/- 5%

**Wireless system (LLC):** Optional wireless controller integral to luminaire ready to be connected to a Limelight system (sold by others). The system allows you to wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely. Based on a high-density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless controls can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor solution. Equipped with motion response with #3 lens for 8-25' mounting heights. Also available with remote pod accessory where pod is mounted separate from luminaire to pole or wall.

#### LLC wireless controller with #3 lens



#### Motion response options

**Bi-Level Infrared Motion Response (BL-IMRI):** Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL-IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minutes default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. Other dimming settings can be provided if different dimming levels are required. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

**Infrared Motion Response with Other Controls:** When used in combination with other controls (Automatic Dimming Profile), motion response device will simply override controller's schedule with the added benefits of a combined dimming profile and sensor detection. In this configuration, the motion response device cannot be re-programmed with FSIR-100 Wireless Remote Programming Tool. The profile can only be re-programmed via the controller.



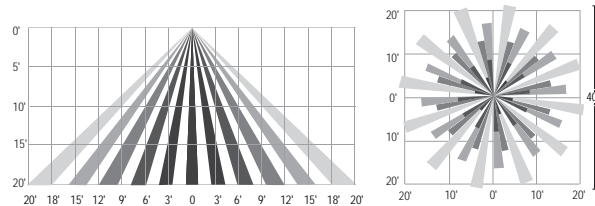
# ECF-S EcoForm small

## Area luminaire

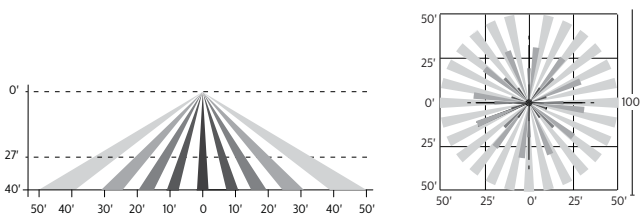
### Specifications

**Infrared Motion Response Lenses (IMRI3/IMRI7):** Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. Lens #7 is designed for higher mounting heights up to 40' with larger coverage areas up to 100' diameter coverage area. See charts for approximate detection patterns:

IMRI3 Luminaire or remote mount controller with #3 lens



IMRI7 Luminaire or remote mount controller with #7 lens



### Electrical

**Twist-Lock Receptacle (TLRD5/TLRD7/ TLRPC):** Twist Lock Receptacle with 5 pins enabling dimming or with 7 pins with additional functionality (by others) can be used with a twistlock photoelectric cell or a shorting cap. Dimming Receptacle Type B (5-pin) and Type D-24 (7-pin) in accordance to ANSI C136.41. Can be used with third-party control system. Receptacle located on top of luminaire housing. When specifying receptacle with twistlock photoelectric cell, voltage must be specified. When ordering 7-pin Twist-lock receptacle (TLRD7), all 7 pins are wired to respective pins with the Sensor Ready (SR) driver, and photocell or shorting cap is not included. When ordering a twist-lock receptacle with a photocell (TLRPC), the receptacle used is a 5-pin receptacle, so pins 6 and 7 are not available (no SR driver). 0-10V dimming leads (pins 4 and 5) are connected if not ordered with any other dimming option.

### Buy American Act of 1933 (BAA):

This product is manufactured in one of our US factories and, as of the date of this document, this product was considered a commercially available off-the-shelf (COTS) item meeting the requirements of the BAA. This BAA designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies. Prior to ordering, please visit [www.signify.com/baa](http://www.signify.com/baa) to view a current list of BAA-compliant products to confirm this product's current compliance.

**Driver:** Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. All drivers are 0-10V dimming to 10% power standard, except when using Sensor Ready (SR) drivers, which uses DALI protocol (options CS50/CM50/CS30/CM30, SRDR, and TR7). Drivers are RoHS and FCC Title 47 CFR Part 15 compliant.

**Button Photocontrol (PCB):** Button style design for internal luminaires mounting applications. The photocontrol is constructed of a high impact UV stabilized polycarbonate housing. Rated voltage of 120V or 208-277V with a load rating of 1000 VA. The photocell will turn on with 1-4Fc of ambient light.

**Surge protection (SP1/SP2):** Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA. 20kV / 10kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

### Listings

UL/cUL wet location listed to the UL 1598 standard, suitable for use in ambient temperatures from -40° to 40°C (-40° to 104°F). Most EcoForm configurations are qualified under Premium and Standard DesignLights Consortium® categories. Consult DLC Qualified Products list to confirm your specific luminaire selection is approved. CCTs 3000K and warmer are Dark Sky Approved.

### Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult factory for specs on optional or custom colors.

### Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away. For more details visit: [signify.com](http://signify.com)

### Warranty

EcoForm luminaires feature a 5-year limited warranty. See [signify.com/warranties](http://signify.com/warranties) for complete details and exclusions.

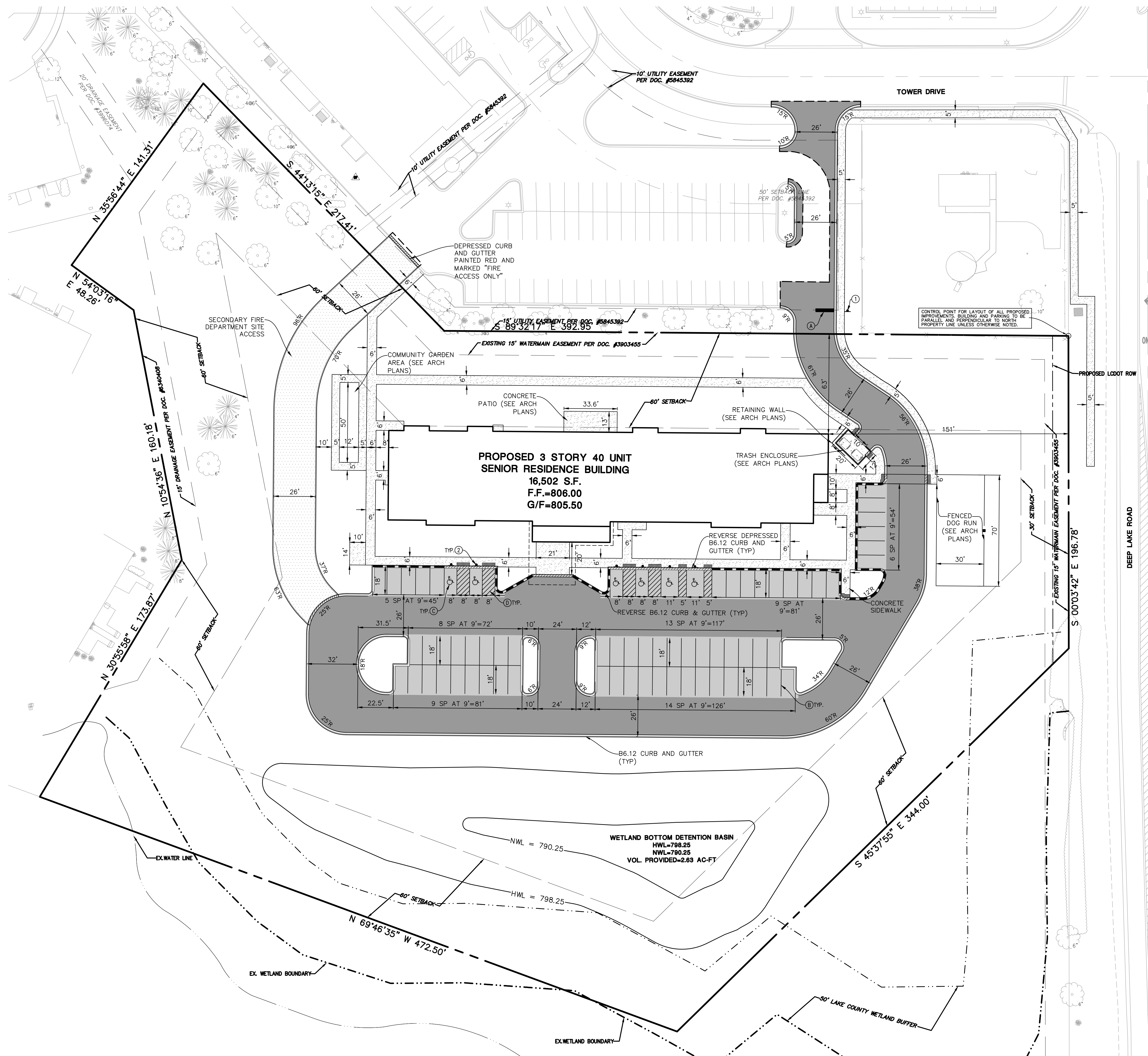














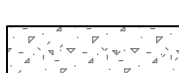

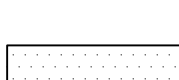
SITE DIMENSIONAL AND PAVING NOTES:

1. ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB OR BUILDING FOUNDATION UNLESS NOTED OTHERWISE.
2. ALL PROPOSED CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
3. ALL CURB RADII SHALL BE 3' MEASURED TO FACE OF CURB UNLESS NOTED OTHERWISE.
4. TIE ALL PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH 2-#6 BARS X 18" LONG DOWELED INTO EXISTING CURB.
5. BUILDING DIMENSIONS AND ADJACENT PARKING HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CONTAINED AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXISTING BUILDING DIMENSIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. BUILDING DIMENSIONS SHOWN SHOULD NOT BE USED FOR CONSTRUCTION LAYOUT OF BUILDING.
6. IMPROVEMENTS ADJACENT TO BUILDING, IF SHOWN, SUCH AS TRUCK DOCK, STAIRWAYS, SIDEWALKS, CURBING, RAMP, CANOPIES, RAMP, HANDICAP ACCESS, PLUMBING, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPACINGS AND DETAILS.
7. LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED SIDEWALK. CONTRACTOR TO VERIFY ACTUAL BUILDING PLAN LOCATIONS WITH ARCHITECT/DEVELOPER PRIOR TO CONSTRUCTING THE SIDEWALKS.
8. ALL ROADWAY AND PARKING LOT SIGNAGE, STRIPING, SYMBOLS, ETC. SHALL BE IN ACCORDANCE WITH LATEST JURISDICTIONAL GOVERNMENTAL ENTITY DETAILS.
9. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
10. PROVIDE DEPRESSED CURB AND RAMP AT ALL HANDICAP ACCESSIBLE SIDEWALK AND PATH LOCATIONS PER FEDERAL AND STATE STANDARDS.
11. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.

## SITE DATA

SITE AREA	227,068 S.F. (5.21 ACRES)
PARKING REQUIRED	65 SPACES
STANDARD PARKING PROVIDED	64 SPACES
HANDICAP PROVIDED	6 SPACES
TOTAL PARKING PROVIDED	70 SPACES
BUILDING AREA	16,502 S.F.
EXISTING ZONING	(SB) SUBURBAN BUSINESS

## PAVEMENT LEGEND

	<p><u><b>STANDARD DUTY PAVEMENT</b></u></p> <p>BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50            BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50            AGGREGATE BASE COURSE, TYPE B</p>
	<p><u><b>HEAVY DUTY PAVEMENT</b></u></p> <p>BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50            BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50            AGGREGATE BASE COURSE, TYPE B</p>
	<p><u><b>CONCRETE PAVEMENT</b></u></p> <p>8" PORTLAND CEMENT CONCRETE PAVEMENT W/ 6 X 6 W1.4 WWF            4" COMPACTED AGGREGATE BASE, TYPE B</p>
	<p><u><b>CONCRETE SIDEWALK</b></u></p> <p>4" PORTLAND CEMENT CONCRETE            4" COMPACTED AGGREGATE BASE COURSE, TYPE B</p>
	<p><u><b>GRASSCRETE PAVEMENT</b></u></p>

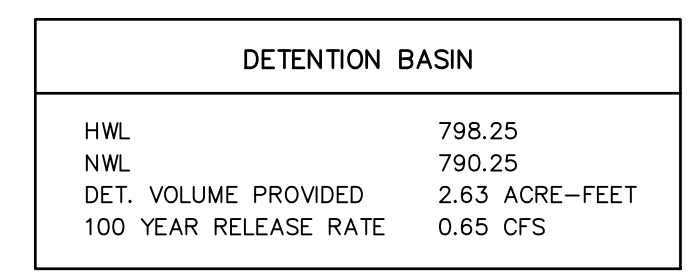
## PAVEMENT MARKING LEGEND

- (A) 24" WHITE STOP BAR
- (B) 4" YELLOW LINE
- (C) LETTERS AND SYMBOLS PAVEMENT MARKINGS
- (D) 4" YELLOW DIAGONAL AT 45° SPACED 2' O.C. W/ 4" YELLOW BORDER

## SIGN LEGEND

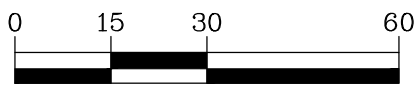
- ① R1-1 STOP SIGN
- ② R7-8 HANDICAP PARKING SIGN ON BOLLARD











06-01-22

UTILITY NOTES:

- [illegible]

## STARLING SENIOR APARTMENTS

**LAKE VILLA, ILLINOIS**

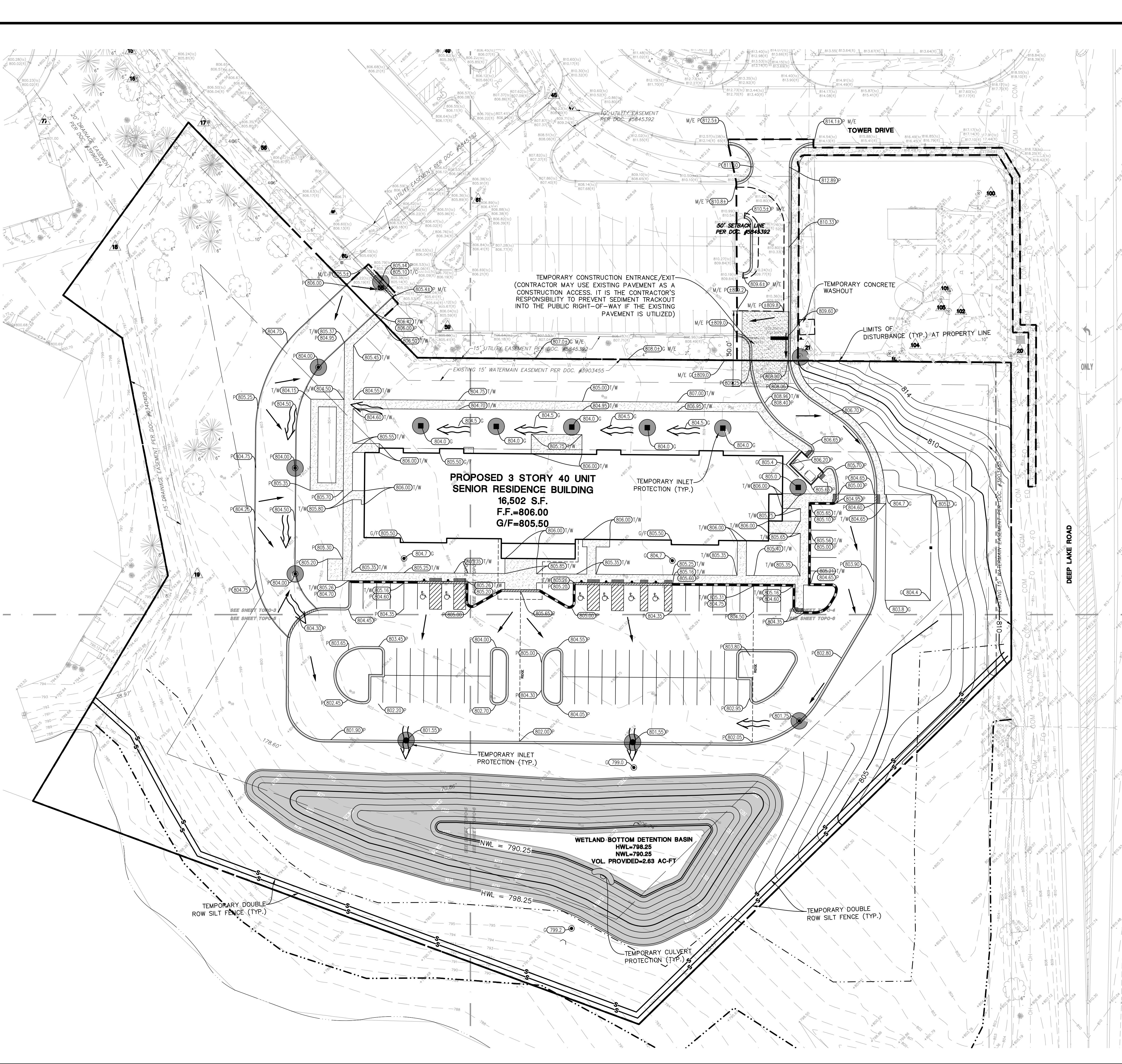
## UTILITY PLAN- SOUTH

SHEET

SHEET  
OF 7

**LAC.LVIL01**





- SOIL EROSION AND SEDIMENTATION CONTROL GENERAL NOTES:**
1. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE ILLINOIS URBAN MANUAL.
  2. MAINTENANCE AND REPLACEMENT OF EROSION CONTROL ITEMS, WHEN DIRECTED BY THE OWNER, SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
  3. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF SAID MEASURES SHALL BE MADE IMMEDIATELY.
  4. INSTALL ALL PERIMETER SILT FENCING PRIOR TO ANY CLEARING OR GRADING. ON-SITE SEDIMENT CONTROL MEASURES AS SHOWN AND SPECIFIED BY THIS EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO INITIATING CLEARING, GRADING, STRIPPING, EXCAVATION OR FILLING ACTIVITIES ON THE SITE.
  5. STORM WATERS FALLING ON THE ENTIRE SITE SHALL BE DIVERTED INTO THE DETENTION BASIN. PRIOR TO BEGINNING MASS EXCAVATION, THE CONTRACTOR SHALL CONSTRUCT SILTATION CONTROL MEASURES AS REQUIRED TO INTERCEPT SURFACE WATERS BEFORE THEY FLOW ONTO ADJACENT PROPERTY AND CONVEY THEM TO THE DETENTION BASIN.
  6. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA.
  7. TEMPORARY SEED MIXTURE SHALL BE APPLIED AT 64 LBS/ACRE.
  8. INLET PROTECTION SHALL BE INSTALLED UNDER THE GRATING OF EACH DRAINAGE STRUCTURE.
  9. STABILIZATION OF TOPSOIL STOCKPILES SHALL BE INITIATED IMMEDIATELY UPON COMPLETION UNLESS THEY WILL BE DISTURBED WITHIN FOURTEEN (14) CALENDAR DAYS. STABILIZATION OF STOCKPILES MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA. ALL SOIL STORAGE PILES SHALL BE PROTECTED FROM EROSION WITH SILT FENCE ON THE DOWN SLOPE SIDE OF THE PILES.
  10. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
  11. WATER PUMPED DURING CONSTRUCTION OPERATION SHALL BE FILTERED.
  12. DUST CONTROL SHALL BE PERFORMED ON A DAILY BASIS USING WATER DISPERSED FROM A TRUCK MOUNTED TANK WITH STANDARD DISCHARGE HEADER TO PROVIDE A UNIFORM RATE OF APPLICATION.
  13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED, ADJUSTED OR RELOCATED AS NECESSARY TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC ROADWAYS. ANY SEDIMENT REACHING A PUBLIC ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING BEFORE THE END OF EACH WORKING DAY.
  14. ANY LOOSE MATERIAL THAT IS DEPOSITED IN THE FLOW LINE OF ANY GUTTER OR DRAINAGE STRUCTURE DURING CONSTRUCTION OPERATIONS SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY.
  15. OVERLAND FLOW SHALL BE DIRECTED TO THE DETENTION BASIN PRIOR TO LEAVING THE SITE.
  16. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE CLIENT OR OTHER JURISDICTIONAL GOVERNMENTAL ENTITIES.
  17. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL JURISDICTIONAL GOVERNMENTAL AGENCY REQUIREMENTS WITHIN 30 DAYS OF FINAL STABILIZATION.

**SOIL PROTECTION CHART**

PERMANENT SEEDINGS	TEMPORARY SEEDINGS	TEMPORARY SEEDINGS	TEMPORARY SEEDINGS
1. KENTUCKY BLUEGRASS 30 LBS./AC. WITH PERMANENT FERTILIZER 30 LBS./AC.	2. KENTUCKY BLUEGRASS 120 LBS./AC. WITH PERMANENT FERTILIZER 45 LBS./AC. 2 TONS STRAW MULCH PER ACRE	3. SPRING OATS 30 LBS./AC. WITH PERMANENT FERTILIZER 30 LBS./AC.	4. SPRING OATS 30 LBS./AC. WITH PERMANENT FERTILIZER 30 LBS./AC.
5. IRRIGATION NEEDED DURING JAN., FEB. AND MARCH	6. IRRIGATION NEEDED DURING APRIL, MAY AND JUNE	7. IRRIGATION NEEDED DURING JULY, AUG. AND SEPTEMBER	8. IRRIGATION NEEDED DURING OCTOBER, NOV. AND DECEMBER

NOTE: THIS CHART IS A GUIDE TO ASSIST THE CONTRACTOR IN UNDERSTANDING OPTIONS FOR SOIL STABILIZATION. THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THIS CHART. ANY CONTACT SHALL BE DECIDED WITH THE LANDSCAPE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.

- CONSTRUCTION SEQUENCE:**
1. INSTALL SILT FENCE AT LOCATIONS AS INDICATED ON THE PLANS.
  2. PROVIDE STABILIZED CONSTRUCTION ENTRANCE.
  3. CONSTRUCT TEMPORARY SEDIMENT TRAPS AND/OR BASINS.
  4. STRIP EXISTING TOPSOIL FROM PROPOSED LIMITS OF DISTURBANCE AND STOCKPILE WHERE SHOWN ON PLANS.
  5. PROVIDE SILT FENCE AROUND THE BASE OF THE STOCKPILES.
  6. CONSTRUCT STORMWATER MANAGEMENT (DETENTION) FACILITIES TO SUB-GRADE AND INSTALL OUTLET PIPES.
  7. COMPLETE TOPSOIL PLACEMENT AND PERMANENT SEEDING AND SOEDING OF STORMWATER MANAGEMENT FACILITIES.
  8. CUT AND FILL SITE TO PLAN SUB-GRADE.
  9. CONSTRUCT UNDERGROUND IMPROVEMENTS, I.E. SANITARY SEWER WATERMAIN AND STORM SEWER\*\*, ETC.
  10. CONSTRUCT PAVEMENT IMPROVEMENTS PER PLAN.
  11. COMPLETE CONSTRUCTION OF SITE WITH PERMANENT STABILIZATION.
  12. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- \*\* INSTALL INLET PROTECTION AROUND DRAINAGE STRUCTURES AS CONSTRUCTED.

**IDNR CONSULTATION #911930**

**BLANDING'S TURTLE**

- BLANDING'S TURTLES LEAVE WATERBODIES TO NEST IN NEARBY UPLAND AREAS. TO AVOID POTENTIAL IMPACTS TO BLANDING'S TURTLES AND THEIR NESTS, THE DEPARTMENT RECOMMENDS NO GROUND DISTURBANCE ACTIVITIES BE INITIATED BETWEEN MAY 1<sup>ST</sup> AND SEPTEMBER 30<sup>TH</sup> TO AVOID TAKING ANY NESTS THAT MAY OCCUR IN THE PROJECT AREA.
- THE DEPARTMENT RECOMMENDS EXCLUSORY SILT FENCING BE INSTALLED AROUND THE WORK AREA DURING CONSTRUCTION (TRENCHED INTO THE GROUND) AND INSPECTED DAILY FOR BLANDING'S TURTLES AND OTHER WILDLIFE. SILT FENCE SHOULD BE STRICTLY MAINTAINED ALL YEAR DURING CONSTRUCTION IN THIS PROJECT LOCATION. EXCAVATIONS SHOULD BE INSPECTED DAILY FOR TRAPPED WILDLIFE AND SAFELY COVERED OVERNIGHT. SOIL STOCKPILES OR OTHER POTENTIAL TURTLE NESTING MEDIUM SHOULD ALSO HAVE EXCLUSORY FENCING INSTALLED AROUND THE PERIMETER TO DISCOURAGE TURTLE NESTING AND POTENTIAL HARM.
- THE DEPARTMENT RECOMMENDS ALL ON-SITE PERSONNEL BE EDUCATED ABOUT THIS SPECIES AND BE INSTRUCTED TO CONTACT THE DEPARTMENT IMMEDIATELY IF THEY ARE ENCOUNTERED IN THE PROJECT AREA. FLIES WITH PHOTOS OF ADULT AND JUVENILE BLANDING'S TURTLES, AND LIFE-HISTORY INFORMATION, SHOULD BE DISTRIBUTED TO PERSONNEL. THE FLYER SHOULD ALSO CONTAIN CONTACT INFORMATION FOR THE DEPARTMENT (CONSULTATION SECTION, 217-785-5500). BE ADVISED, STATE-LISTED SPECIES MAY NOT BE HANDLED WITHOUT APPROPRIATE PERMITS PURSUANT TO THE ILLINOIS ENDANGERED SPECIES PROTECTION ACT.
- AFTER CONSTRUCTION, THE DEPARTMENT RECOMMENDS FENCING BE INSTALLED IN SUCH A MANNER AS TO EXCLUDE TURTLES, INCLUDING HATCHLINGS, FROM ENTERING THE RETAIL AREA WHERE THEY CAN BE HARMED BY VEHICLE TRAFFIC AND MOWING ACTIVITIES. THIS CAN BE ACCOMPLISHED BY BURYING FENCING A MINIMUM OF 6 INCHES IN THE GROUND AND COVERING THE BOTTOM 2 FEET OF FENCING WITH GALVANIZED WIRE MESH OF AN APPROPRIATE DIAMETER TO PREVENT HATCHLING TURTLES FROM ACCESSING THE SITE. THIS FENCE IS MOST NECESSARY ON THE SOUTH AND EAST BOUNDARIES OF THE PROJECT AREA.

**STATE-LISTED MIGRATORY WETLAND BIRD SPECIES**

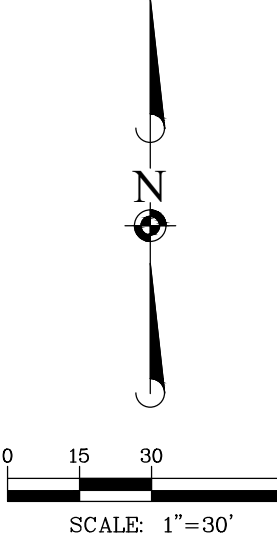
GIVEN THE CURRENT HABITAT TYPE AND PROXIMITY OF THE PROJECT TO THE WETLAND, IT IS POSSIBLE THAT STATE-LISTED MIGRATORY BIRDS AND OTHER MIGRATORY BIRD SPECIES USE THE PROJECT AREA FOR NESTING. TO AVOID HARM TO THESE SPECIES AND POTENTIAL VIOLATIONS OF THE ILLINOIS ENDANGERED SPECIES PROTECTION ACT, THE DEPARTMENT RECOMMENDS:

- NO INITIAL VEGETATION CLEARING, AND GROUND DISTURBANCE ACTIVITIES OCCUR DURING THE NESTING PERIOD OF STATE-LISTED MIGRATORY WETLAND BIRD SPECIES, FROM MAY 1<sup>ST</sup> THROUGH SEPTEMBER 30<sup>TH</sup>. THIS ALSO REFLECTS THE SUGGESTED TURTLE NESTING DATES.
- ALL OUTDOOR LIGHTING SHOULD BE DOWNWARD-POINTING, TO AVOID IMPACTS TO THE NOCTURNAL HUNTING AND NAVIGATION OF STATE-LISTED MIGRATORY WETLAND BIRD SPECIES.

**NATURAL AREAS**

TO AVOID AND MINIMIZE IMPACTS TO THE ADJACENT WETLAND AND NATURAL AREAS IN THE VICINITY, THE DEPARTMENT RECOMMENDS:

- STRICTLY FOLLOW BMPs FOR SEDIMENT AND EROSION CONTROL AND STORMWATER MANAGEMENT ON THE RETAIL PROPERTY. THE DEVELOPER SHOULD CONSIDER INSTALLING PERVIOUS SURFACES AND RAIN GARDENS OR BIOSWALES PLANTED WITH NATIVE VEGETATION TO MANAGE STORMWATER AND IMPROVE WATER QUALITY AND AVOID IMPACTS TO THE ADJACENT WETLANDS.
- THE RETAIL FACILITY IMPLEMENTS A "REFUSE MANAGEMENT PLAN" TO HELP PREVENT REFUSE FROM ENTERING ADJACENT NATURAL AREAS. THIS SHOULD INCLUDE ROUTINE LITTER PICK-UP ON THE PROPERTY AND ADEQUATE REFUSE CONTAINERS ON THE PROPERTY. THE BOUNDARY FENCING MENTIONED FOR TURTLES WILL ALSO HELP WITH REFUSE MANAGEMENT.



MANHARD CONSULTING

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630.447.6542, 630.447.6543, 630.447.6544, 630.447.6545  
manhard.com  
Civil Engineers • Surveyors • Water Resources Engineers • Water & Wastewater Engineers  
Construction Managers • Environmental Scientists • Landscape Architects • Planners

STARLING SENIOR APARTMENTS  
LAKE VILLA, ILLINOIS

SOIL EROSION AND SEDIMENT CONTROL PLAN

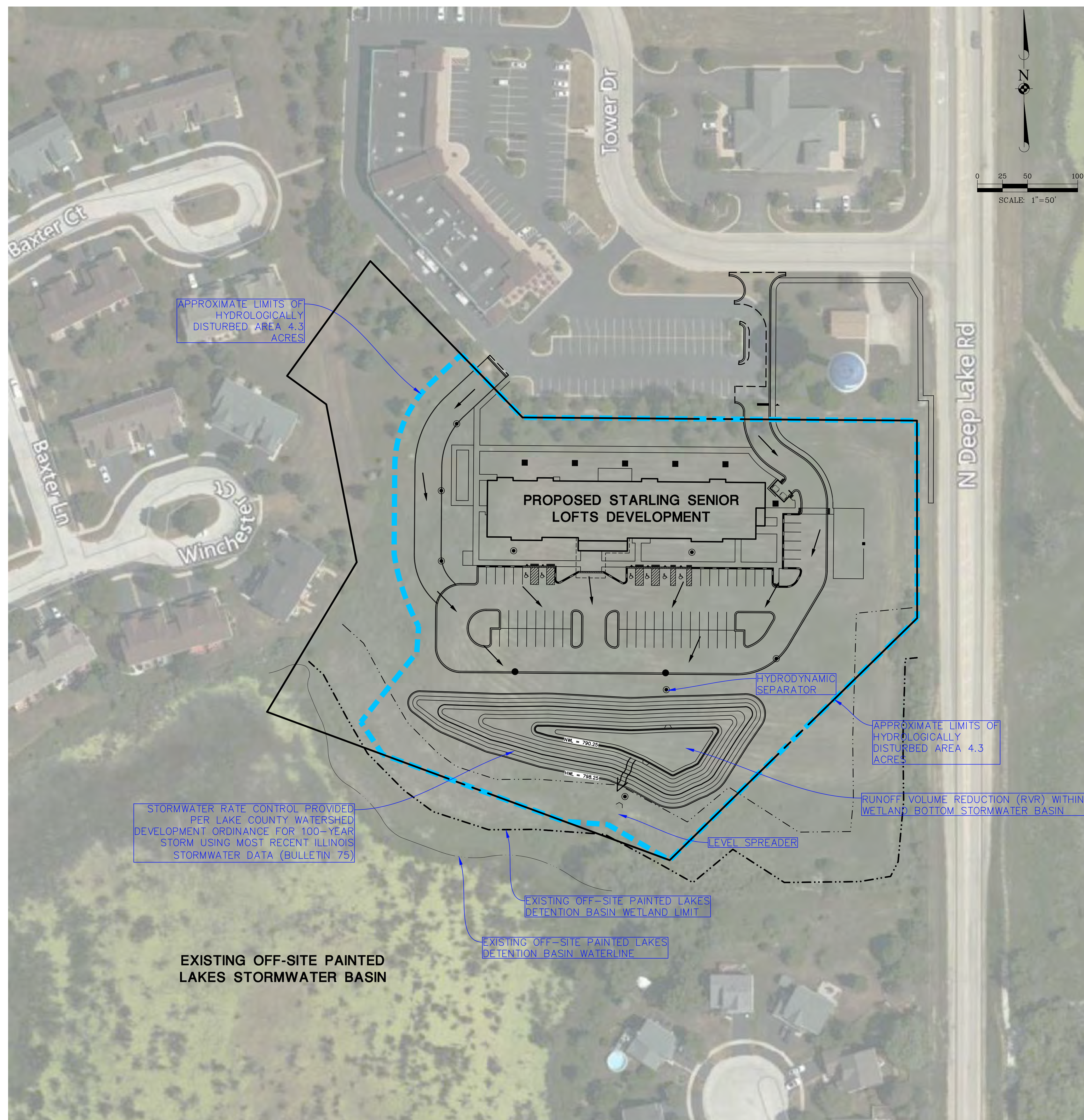
PRELIMINARY PLANS - NOT FOR CONSTRUCTION

PROJ. MGR.: MDE  
PROJ. ASSOC.: MJC  
DRAWN BY: SB  
DATE: 02-06-23  
SCALE: 1"=30'

SHEET  
7 OF 7  
LAC.LVL01

\*THESE EROSION CONTROL PLANS ARE A PORTION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (EPA) TOTAL REQUIREMENTS FOR A COMPLETE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE GENERAL NPDES PERMIT NO. IL010. CLIENT AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT AND COMPLETION OF THE COMPLETE SWPPP.\*





FLOW REDUCTION TO EXISTING OFF-SITE PAINTED LAKES SUBDIVISION STORMWATER BASIN

AS PART OF THE LAKE VILLA MUNICIPAL CODE AND LAKE COUNTY WATERSHED DEVELOPMENT ORDINANCE, PROPOSED REGULATED DEVELOPMENT MUST BE REDUCED TO A MAXIMUM RELEASE OF 0.15 CUBIC FEET PER SECOND (CFS) FOR EVERY ACRE OF HYDROLOGICALLY DISTURBED AREA IN A 100-YEAR STORMWATER EVENT

BASED ON THE CURRENT DEVELOPMENT PLAN:

APPROX. 100-YEAR FLOW RATE FROM HYDROLOGICALLY DISTURBED  
STARLING LOFTS SITE AREA PRIOR TO DEVELOPMENT: 33.5 CFS

APPROX. 100-YEAR FLOW RATE FROM HYDROLOGICALLY DISTURBED  
STARLING LOFTS SITE AFTER DEVELOPMENT: 0.65 CFS

FLOW REDUCTION TO EXISTING OFF-SITE PAINTED LAKES BASIN	>80% REDUCTION
---	----------------

WATER QUALITY AND RUNOFF VOLUME REDUCTION (RVR)

AS PART OF THE LAKE MILLA MUNICIPAL CODE AND LAKE COUNTY WATERSHED DEVELOPMENT ORDINANCE, PROPOSED REGULATED DEVELOPMENT MUST PROVIDE STRATEGIES TO MINIMIZE STORMWATER RUNOFF VOLUMES AND ADDRESS WATER QUALITY IMPAIRMENTS BY INCORPORATED STORMWATER INFILTRATION, EVAPOTRANSPIRATION, REUSE, OR OTHER METHODS.  
BASED ON THE CURRENT DEVELOPMENT PLAN:

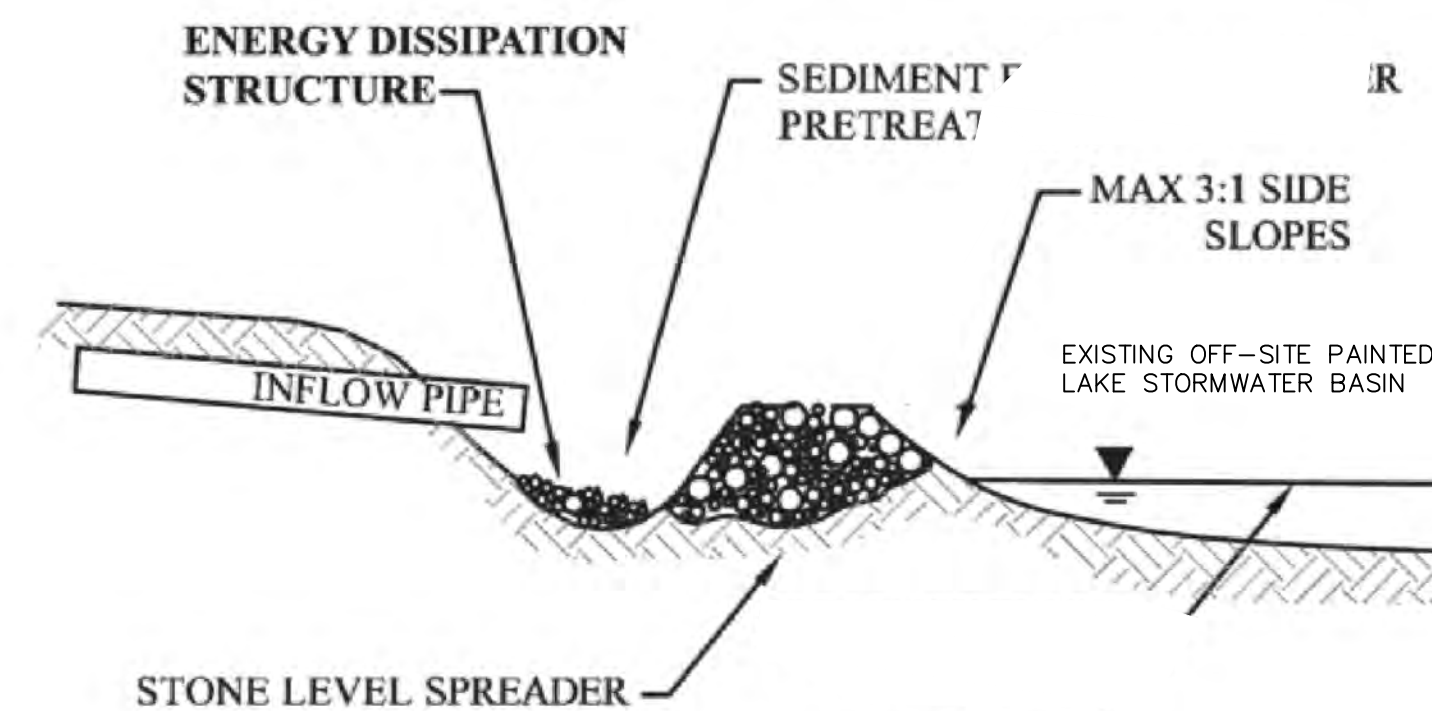
REQUIRED RUNOFF VOLUME REDUCTION	2,400 CUBIC FEET
----------------------------------	------------------

PROVIDED RUNOFF VOLUME REDUCTION	3,900 CUBIC FEET
----------------------------------	------------------

160% OF REQUIREMENT

IN ADDITION TO PROVIDING GREATER RUNOFF VOLUME REDUCTION THAN REQUIRED BY CODE, THE SITE WILL PROVIDE A HYDRODYNAMIC SEPARATOR TO PROVIDE ADDITIONAL FILTRATION OF PARTICULATES PRIOR TO RELEASING STORMWATER INTO THE EXISTING OFF-SITE PAINTED LAKES STORMWATER BASIN.

A LEVEL SPREADER WILL BE PROVIDED AT THE OUTLET OF THE STORMWATER BASIN TO CONVERT CONCENTRATED FLARED END SECTION FLOW TO SHEET RUNOFF.



CONCEPT LEVEL SPREADER SCHEMATIC



### What are underground hydrodynamic separators?

Hydrodynamic separators remove oil, grease, trash, and sediment from stormwater runoff. These underground structures include oil and grit separators and proprietary hydrodynamic separators, such as Baysaver®, Aqua-Swirl®, and Stormceptor®. Please visit the manufacturers' websites for more information about these devices. Underground hydrodynamic separators are commonly located under parking lots at commercial sites or multi-family residential sites (condominium, apartments, etc.).

### How do they work?

During a storm, rainwater collects pollutants as it flows across impervious surfaces, such as rooftops, sidewalks, and roads. Flow splitters are often used to send a certain quantity of untreated water, known as the "first flush," to a hydrodynamic separator. The oil and grit separator captures and treats stormwater by separating oil, grease, trash, and sediment from the captured stormwater through three chambers. The clean water is then returned to the local stream or to the storm drain system.

Proprietary systems such as Baysaver,<sup>®</sup> Aqua-Swirl,<sup>®</sup> and Stormceptor,<sup>®</sup> follow similar processes to remove oil, grease, trash, and sediment from stormwater. The designs of these systems vary.

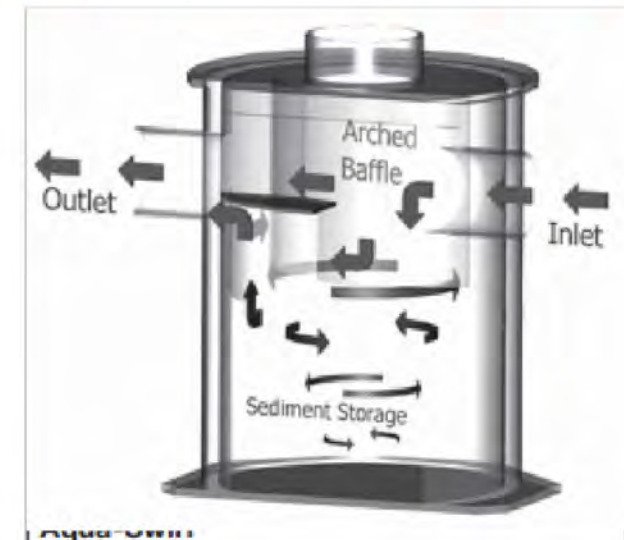
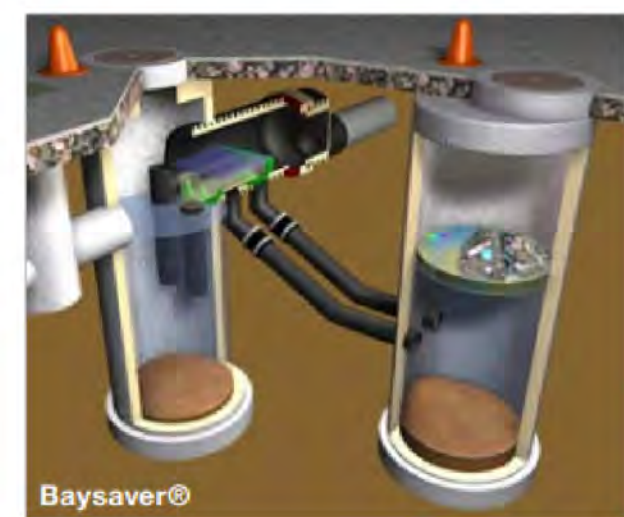
### Why are hydrodynamic separators important?

- Remove pollutants
- Improve the health of streams and rivers
- Help to make our waters fishable and swimmable
- Improve the quality of the Chesapeake Bay

### Why is it important to keep your hydrodynamic separator maintained?

An unmaintained hydrodynamic separator may

- Not remove pollutants as intended, sending polluted water to streams and rivers



HYDRODYNAMIC SEPARATOR INFORMATION (COURTESY OF MONTGOMERY COUNTY DEP)





1

FRONT ELEVATION

SCALE: N.T.S.



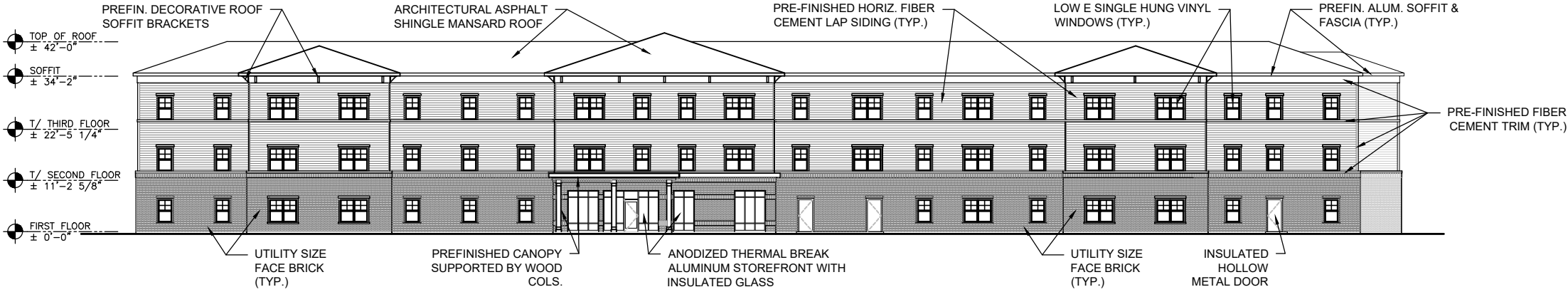
**NORTH ARROW**  
ARCHITECTURE  
524 WEST ST. CHARLES ROAD  
VILLA PARK, ILLINOIS 60181

**STARLING SENIOR APARTMENTS**  
0 DEEP LAKE ROAD  
LAKE VILLA, IL 60046

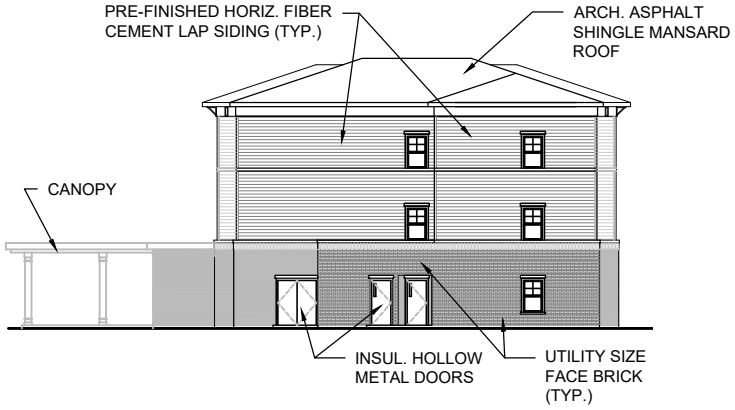
PID #

DATE:  
1/27/2023

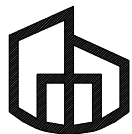
**A0.2**



1 SOUTH (FRONT) ELEVATION  
SCALE: 1/32" = 1'-0"



2 EAST ELEVATION  
SCALE: 1/32" = 1'-0"

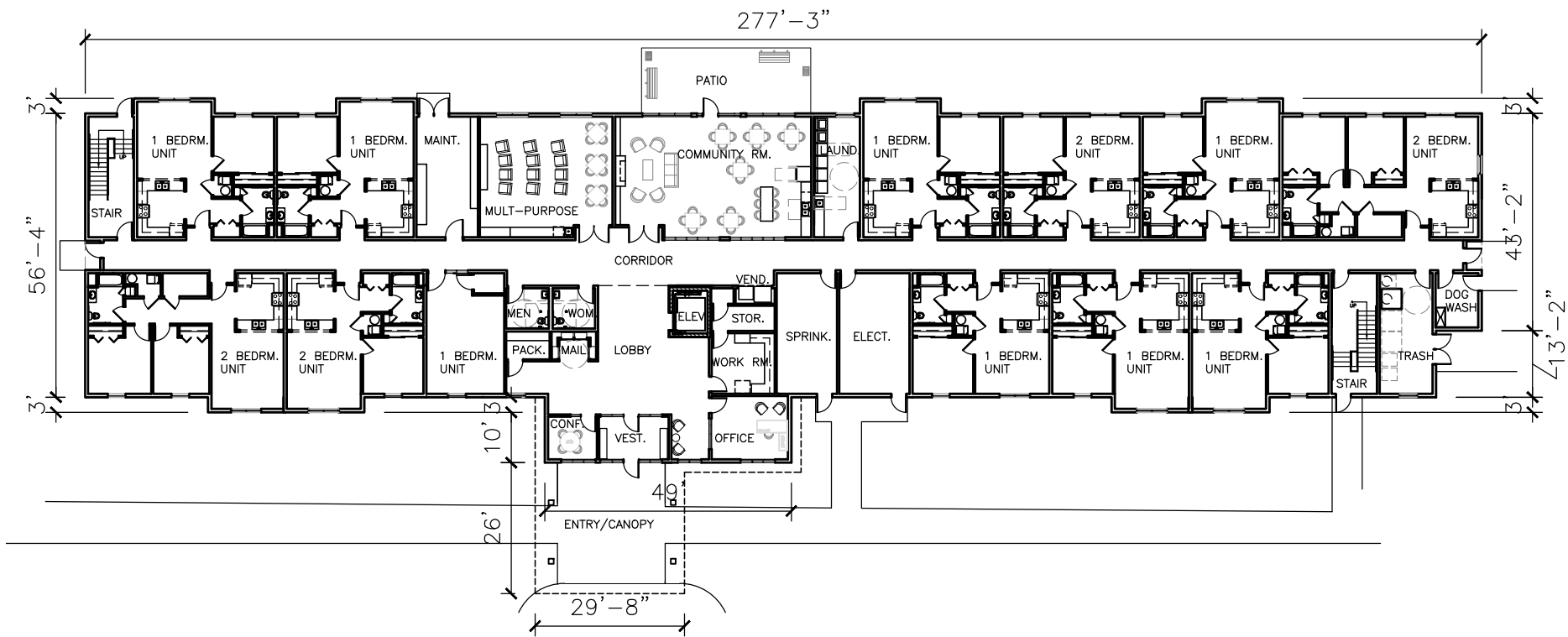


**NORTH ARROW**  
ARCHITECTURE  
524 WEST ST. CHARLES ROAD  
VILLA PARK, ILLINOIS 60181

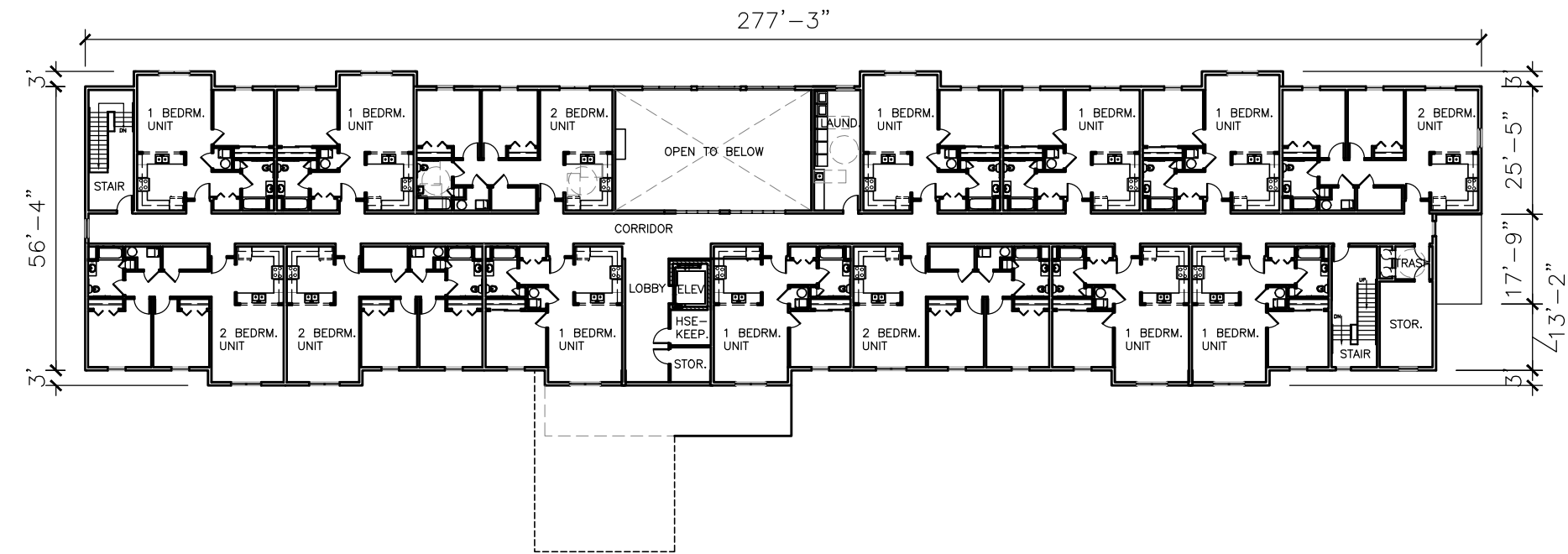
**STARLING SENIOR APARTMENTS**  
0 DEEP LAKE ROAD  
LAKE VILLA, IL 60046

PID #
DATE: 1/27/2023

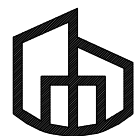
**A3.0**



**1 FIRST FLOOR PLAN**  
SCALE: 1/32" = 1'-0"



**2 SECOND FLOOR PLAN**  
SCALE: 1/32" = 1'-0"



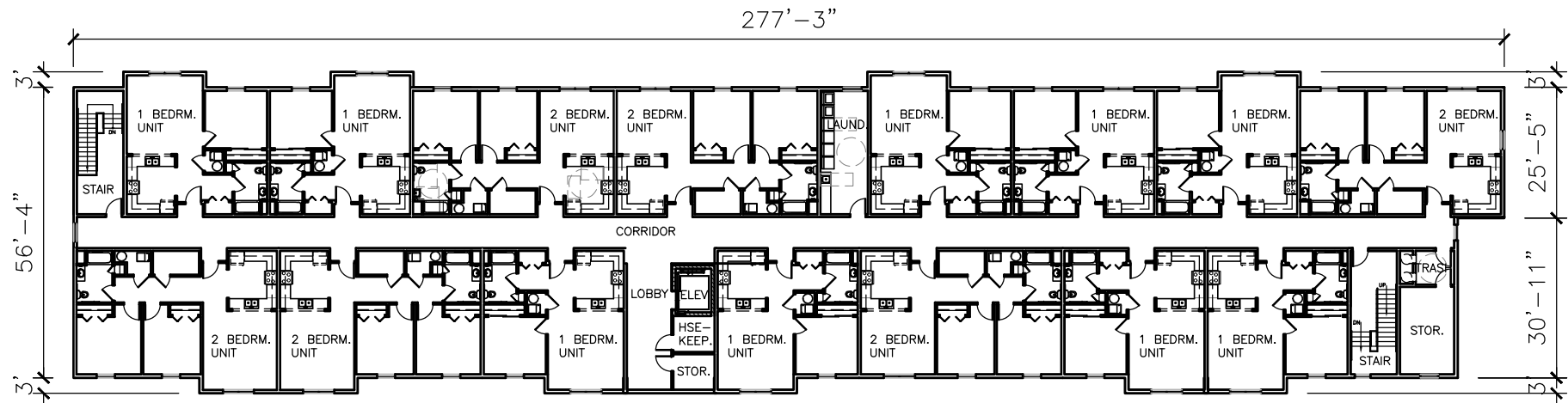
**NORTH ARROW**  
ARCHITECTURE  
524 WEST ST. CHARLES ROAD  
VILLA PARK, ILLINOIS 60181

**LAKE VILLA**  
0 DEEP LAKE ROAD  
LAKE VILLA, IL 60046

PID #

DATE:  
1/27/2023

**A1.0**



1 THIRD FLOOR PLAN  
SCALE: 1/32" = 1'-0"



**NORTH ARROW**  
ARCHITECTURE  
524 WEST ST. CHARLES ROAD  
VILLA PARK, ILLINOIS 60181

**LAKE VILLA**  
0 DEEP LAKE ROAD  
LAKE VILLA, IL 60046

PID #

DATE:  
1/27/2023

**A2.0**

**PROPOSED LAKE VILLA SENIOR LOFTS  
VILLAGE OF LAKE VILLA, ILLINOIS  
PRELIMINARY STORMWATER MANAGEMENT PLAN**

**INTRODUCTION**

The proposed Lake Villa Senior Lofts site is +/- 5.21 acres located at the southwest corner of Grass Lake Road and Deep Lake Road in Lake Villa, Illinois. These improvements will consist of a construction of a building includes car parking, grading and paving activities, installation of underground utilities, and soil erosion control measures. Stormwater Management was previously provided for the developed area north of the site (WT Group Storm Management Report). Stormwater management for the proposed improvements will be provided through additional storm sewers and an additional on-site basin, providing detention per the new Bulletin 75 rainfall data. A Bulletin 75 Nomograph was used to calculate preliminary detention requirements for the proposed improvements and modeled calculations will be performed in the final stormwater phase. This report serves as a Preliminary Stormwater Management Plan for the proposed site stormwater design.

**PROJECT DECSCRIPTION**

The project is located near the southwest corner of Grass Lake Road and Deep Lake Road intersection in the Village of Lake Villa, Illinois. The site is in Section 28, Township 46 North, and Range 10 East. It is bordered on the west by a neighborhood, to the north by the Lake House Restaurant and Water Tower, to the east by Deep Lake Road, and to the south by an existing detention basin. This project will be served by the proposed detention basin.

**EXISTING CONDITIONS**

The existing conditions of the site are an undeveloped site. The existing drainage is through sheet flow to the existing detention basin or to a swale that drains to the basin. The site is free of floodplain but wetland have been identified off-site to the south.

**PROPOSED CONDITIONS**

The proposed conditions are design to contain the proposed site within the proposed detention basin. The onsite project area will drain via proposed storm sewer to a proposed 2.6 ac-ft detention pond with a NWL of 790.25 and HWL of 798.25. The calculations used to size the proposed detention basins using 0.15 cubic feet per second per acre. The proposed

detention was designed using Bulletin 75. The runoff volume reduction quantity was found by using the runoff depth of 0.39 inches, for the 39% impervious site, and finding it in the provided table in the LCWDO. The RVR Quantity found in the table was then multiplied by the total impervious area to find our site RVR of 2,712 cubic feet. Additionally, a hydrodynamic separator will be added in order to provide extra filtration of stormwater particulates.

All required detention and additional information for the project site is detailed in the stormwater calculations and exhibits provided.

### **ANALYSIS METHODS**

The procedures and assumptions used for the storm sewer and drainage design elements are listed below.

- Onsite curve numbers were calculated using 98 for impervious and 74 for pervious areas in the predeveloped condition and 80 for pervious areas in the postdeveloped condition
- The CN Exhibit and calculation attached to this report show the proposed CN to be 86.
- Required detention volume was found using a B-75 nomograph.
- RVR and water quality requirements were found using the Lake County Watershed Development Ordinance graphs and tables.

### **CONCLUSION**

In our professional opinion the proposed development's stormwater management system as described in this report conforms to the requirements set forth by the Village of Lake Villa Municipal Code.

Sincerely,

MANHARD CONSULTING, LTD

Matt Eagle

## CALCULATIONS



## COMPOSITE RUNOFF CURVE NUMBER (CN)

PROJECT: Starling Senior Apartments PERMIT NUMBER: \_\_\_\_\_

LOCATION: Lake Villa, Illinois DATE: 12/29/2022

### TYPE OF AREA (SELECT WITH DROP-DOWN)

☒ DETAINED AREA ☐ MAJOR STORMWATER SYSTEM  
☐ UNRESTRICTED AREA ☐ OTHER: \_\_\_\_\_  
☐ UPSTREAM AREA

### CONDITION (SELECT WITH DROP-DOWN)

☐ PROPOSED CONDITION ☒ EXISTING CONDITION

### RUNOFF CURVE NUMBER

Surface Description	Hydrologic Soil Group (HSG)	CN	Area (acres)	Product (CN)(Area)
Pervious Surface		74	5.21	385.54

TOTALS:

5.21

385.54

### COMPOSITE RUNOFF CURVE NUMBER

$$\text{Composite CN} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{385.54}{5.21} \rightarrow \text{Composite CN} = 74$$





## COMPOSITE RUNOFF CURVE NUMBER (CN)

PROJECT: Starling Senior Apartments PERMIT NUMBER: \_\_\_\_\_

LOCATION: Lake Villa, Illinois DATE: 2/6/2023

### TYPE OF AREA (SELECT WITH DROP-DOWN)

☒ DETAINED AREA ☐ MAJOR STORMWATER SYSTEM  
☐ UNRESTRICTED AREA ☐ OTHER: \_\_\_\_\_  
☐ UPSTREAM AREA

### CONDITION (SELECT WITH DROP-DOWN)

☒ PROPOSED CONDITION ☐ EXISTING CONDITION

### RUNOFF CURVE NUMBER

Surface Description	Hydrologic Soil Group (HSG)	CN	Area (acres)	Product (CN)(Area)
Impervious Surface	N/A	98	1.68	164.64
Pervious Surface	D (next higher soil group per Lake County WDO)	80	3.50	280.00

TOTALS:

5.18

444.64

### COMPOSITE RUNOFF CURVE NUMBER

$$\text{Composite CN} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{444.64}{5.18} \rightarrow \text{Composite CN} = 86$$



## NOMOGRAPH: BULLETIN 75 RAINFALL DATA

PROJECT: Starling Senior Apartments PERMIT NUMBER: \_\_\_\_\_

LOCATION: Lake Villa, Illinois DATE: 2/6/2023

### DEVELOPMENT INFORMATION

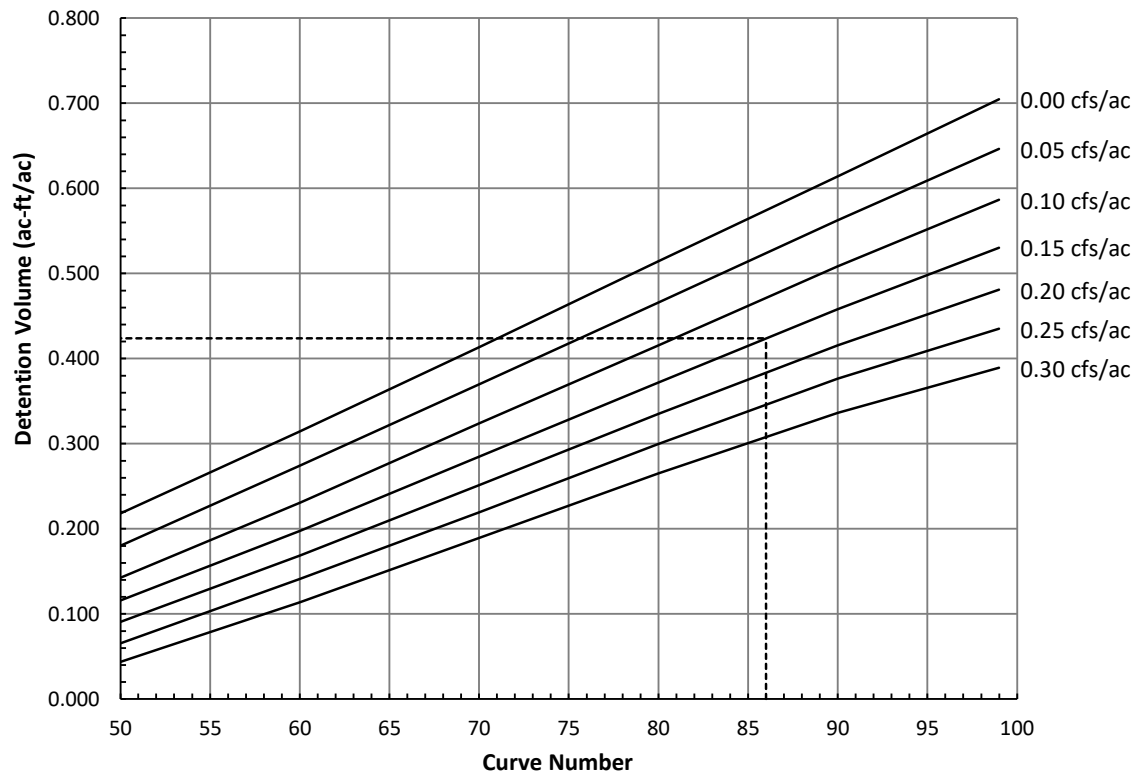
1. Detained Area (Hydrologically Disturbed Area)	4.300	acres
2. Curve Number	86.00	
3. Actual Release Rate	0.65	cfs

### REQUIRED DETENTION VOLUME

4. Required Detention Volume	1.82	ac-ft
------------------------------	------	-------

### NOMOGRAPH

## NOMOGRAPH: BULLETIN 75





## DETENTION VOLUME PROVIDED

PROJECT: Starling Senior Apartments PERMIT NUMBER: \_\_\_\_\_

LOCATION: Lake Villa, Illinois DATE: 1/23/2023

### AREA UNITS (CHOOSE WITH DROP-DOWN)

Units:

### POND / VAULT / SURFACE DETENTION VOLUME

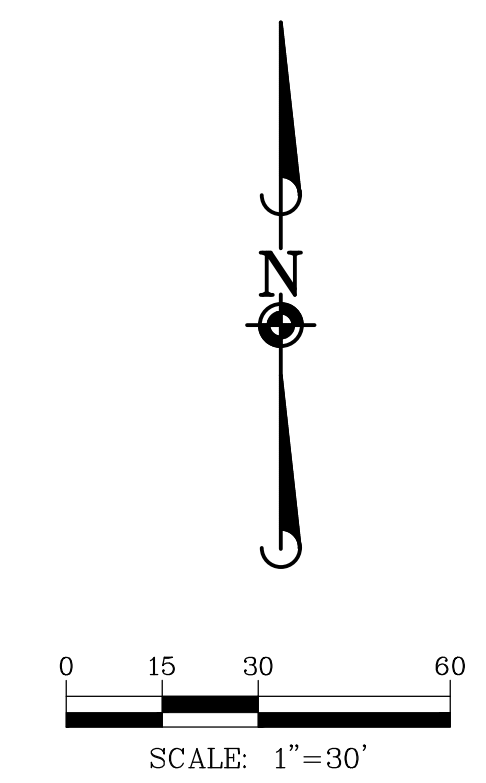
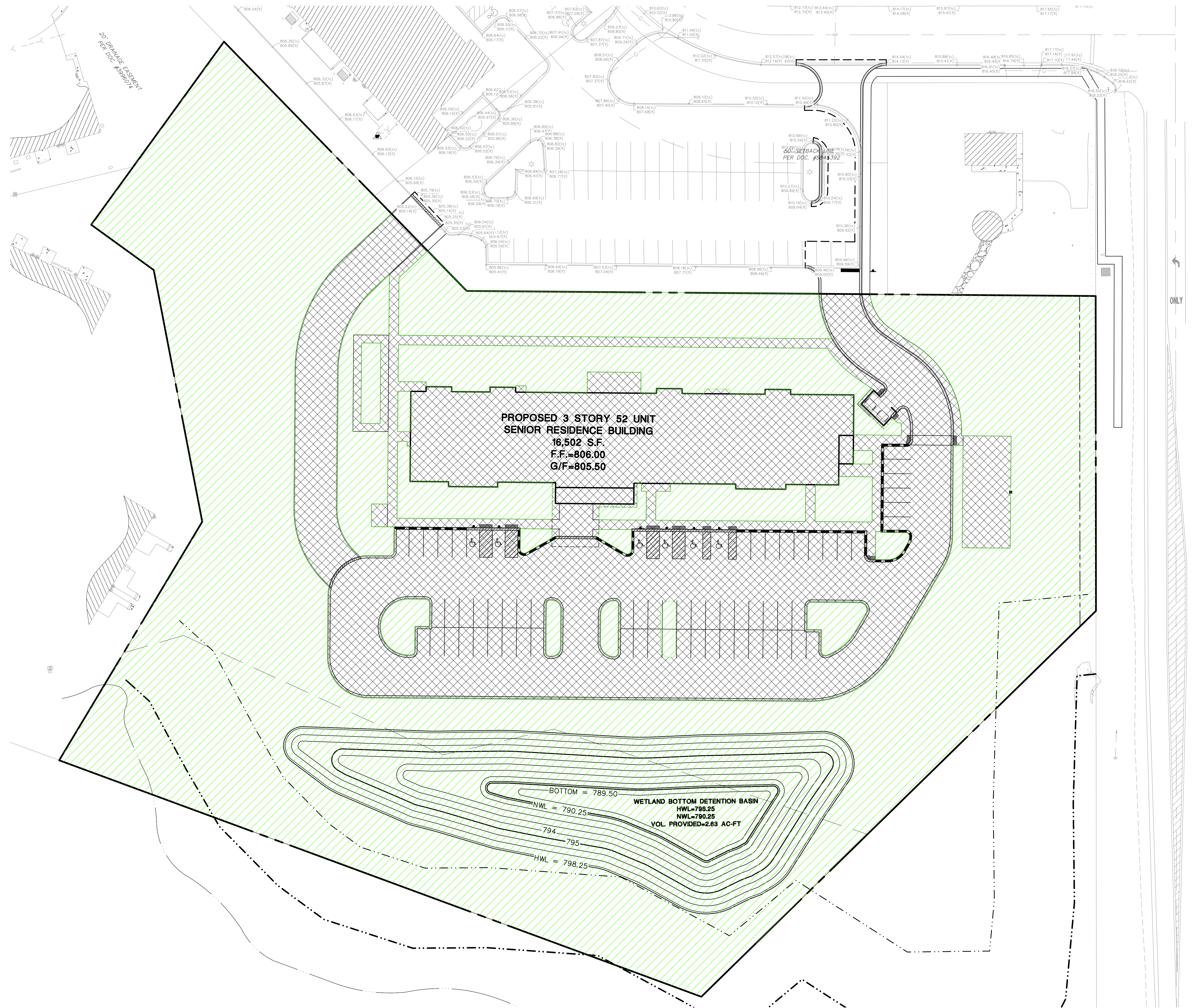
Elevation (ft)	Area (ft²)	Average Area (ft²)	Increment Volume (ac-ft)	Cumulative Volume (ac-ft)
790.25	4520.00			0.00
		5139.50	0.09	
791.00	5759.00			0.09
		6964.00	0.16	
792.00	8169.00			0.25
		9281.00	0.21	
793.00	10393.00			0.46
		11801.50	0.27	
794.00	13210.00			0.73
		14587.00	0.33	
795.00	15964.00			1.07
		17481.00	0.40	
796.00	18998.00			1.47
		20519.00	0.47	
797.00	22040.00			1.94
		23611.50	0.54	
798.00	25183.00			2.48
		25584.00	0.15	
798.25	25985.00			2.63

### TOTAL DETENTION VOLUME

Total Detention Volume (ac-ft)


2.63







**LEGEND**

---

 PROPERTY LINE

 PROPOSED IMPERVIOUS AREA  
 AREA= 1.68 ACRES  
 C = 0.90

 PROPOSED PERVIOUS AREA  
 AREA= 3.50 ACRES  
 C = 0.45

WEIGHTED C = 0.60

[illegible]

**Manhard**  
CONSULTING LTD.  
118 West Hill, Ste. 200, Westborough, MA 01581  
401.338.1100  
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers  
Construction Managers • Environmental Scientists • Landscape Architects • Planners

**LAKE VILLA SENOIR LOFTS**

**LAKE VILLA, ILLINOIS**

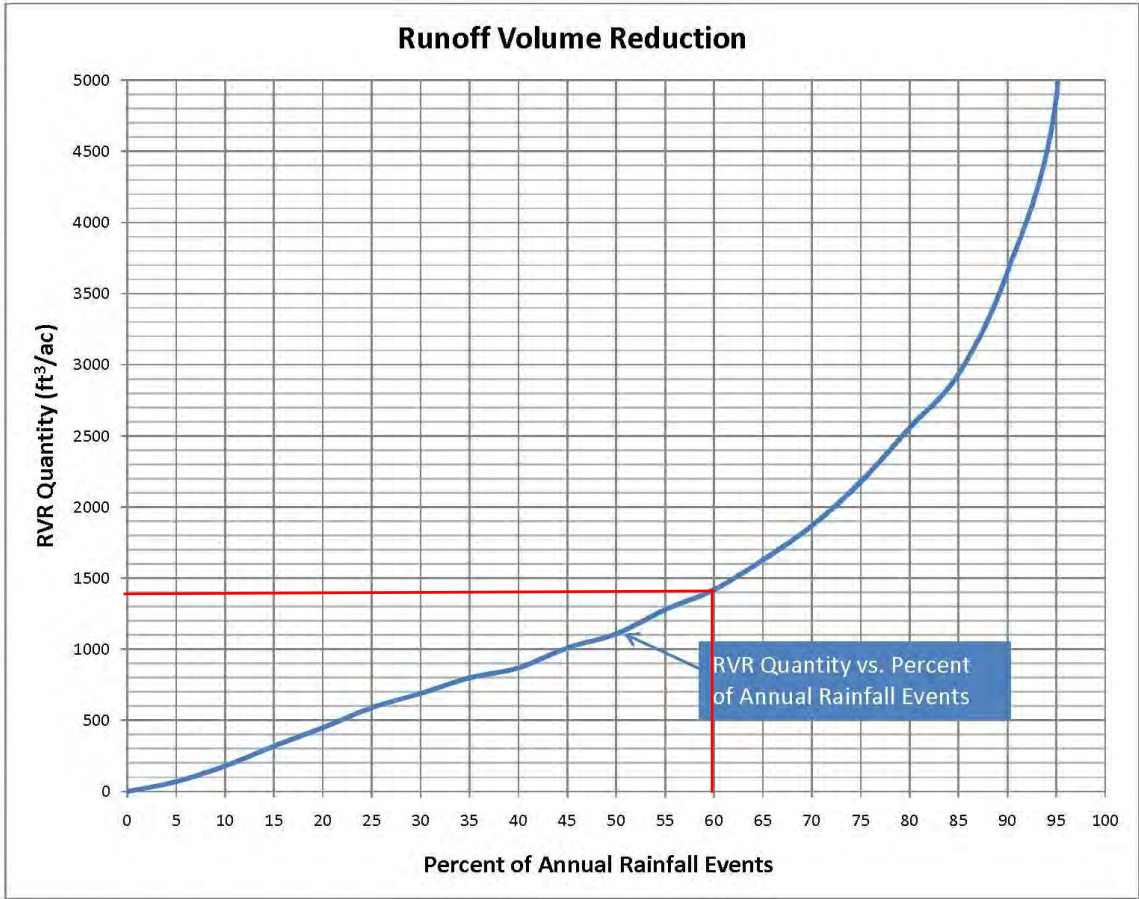
**IMPERVIOUS EXHIBIT**

PROJ. MGR.: KJC  
 PROJ. ASSOC.: MJC  
 DRAWN BY: SB  
 DATE: 02/06/23  
 SCALE: 1"=30'

**NOT FOR CONSTRUCTION**



Percent of Annual Rainfall Events	100% impervious values	
	Runoff Depth (in)	RVR Quantity ft <sup>3</sup> /ac new impervious
0	0	0
5	0.02	70
10	0.05	180
15	0.09	320
20	0.12	450
25	0.16	590
30	0.19	690
35	0.22	800
40	0.24	870
45	0.28	1010
50	0.30	1110
55	0.35	1280
60	0.39	1420
65	0.45	1630
70	0.51	1870
75	0.60	2180
80	0.70	2560
85	0.81	2940
90	1.01	3660
95	1.35	4900
99	2.41	8760



Runoff Depth based on Figure 3 of the Center For Watershed Protection Report.

Runoff Depth = P\*R where:

P = Rainfall Depth (inches)

R=Volumetric Runoff Coefficient = 0.95 for 100% impervious cover [0.05+.009(I), where I is 100% (impervious cover)]

RVR Quantity = Runoff Depth (in) / 12 (in/ft) \* 43560 (ft²/ac)



## RUNOFF VOLUME REDUCTION PROVIDED

PROJECT: Starling Senior Apartments PERMIT NUMBER: \_\_\_\_\_

LOCATION: Lake Villa, Illinois DATE: 1/23/2023

### AREA UNITS (CHOOSE WITH DROP-DOWN)

Units:

### POND / VAULT / SURFACE DETENTION VOLUME

Elevation (ft)	Area (ft²)	Average Area (ft²)	Increment Volume (ac-ft)	Cumulative Volume (ac-ft)
789.25	2906.00			0.00
		3512.50	0.06	
790.00	4119.00			0.06
		4319.00	0.02	
790.25	4519.00			0.09

### TOTAL DETENTION VOLUME

Total RVR Volume (ac-ft)

0.09



# **WETLAND DELINEATION REPORT**

Grass Lake Road & Deep Lake Road

Lake Villa, Lake County, IL

Manhard Consulting, LTD.

MA2242

November 22, 2022  
Revised February 3, 2023



**GARY R. WEBER ASSOCIATES, INC.**

LAND PLANNING ECOLOGICAL CONSULTING LANDSCAPE ARCHITECTURE

# WETLAND DELINEATION REPORT

Grass Lake Road & Deep Lake Road

Pin #0228201178

Lake Villa, Lake County, IL

Prepared for:

---

Manhard Consulting, LTD.  
116 West Illinois St, Floor 7  
Chicago, IL 60654

Attn: Matt Eagle, P.E.

Prepared by:

---

Gary R. Weber Associates, Inc.  
402 W. Liberty Drive  
Wheaton, IL 60187  
(630)668-7197

Project Reference Information

MA2242

November 22, 2022

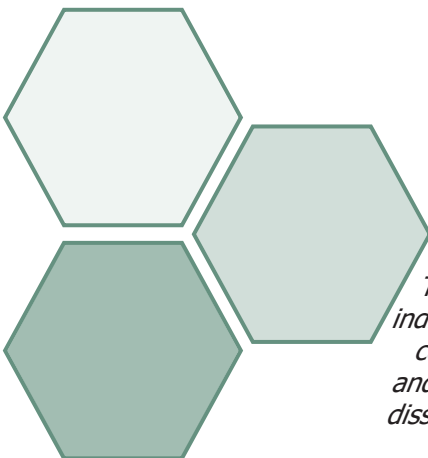
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Carl M. Peterson, CPESC, LEED AP  
GRWA - Managing Principal

Ellen L. Raimondi, CWS, DECI  
GRWA - Senior Ecologist

Project Staff

Lisa Pajon  
GRWA - Natural Resource Consultant



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6.0 Regulatory Statement	8
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APPENDIX A – WATER RESOURCES MAPS: EXHIBIT A-G

APPENDIX B – SITE PHOTOS: EXHIBIT H

APPENDIX C – WETLAND DETERMINATION FORMS

APPENDIX D – THREATENED AND ENDANGERED SPECIES CONSULTATION

## WETLAND DELINEATION REPORT

Project Name:	Grass Lake Road & Deep Lake Road MA2242	Client:	Manhard Consulting, LTD.
Location:	Lake Villa, Lake Villa Township, Lake County, IL, 60046,		
Parcel PIN #	0228201178		
PLSS	NE S28 T46N R10E		
Coordinates	Latitude: 42.439678 Longitude: -88.063754		
Field Ecologist:	Lisa Pajon		
Supervised by:	Ellen Raimondi (CWS)		
Date of site visit:	11/3/2022		

### 1.0 INTRODUCTION

Gary R Weber Associates performed a formal wetland delineation within the study area located on Deep Lake Road, Lake Villa, Lake County, IL (Exhibit A: Location), hereafter referred to as the study area. It is generally bounded by Deep Lake Road to the east, by commercial property to the north, and by wetland and residential properties to the west and south. The study area, as presented in this report, represents the property limits investigated by GRWA for the presence of regulated surface water resources. These limits do not necessarily reflect the boundaries of any proposed development activities. It is within the Sequoit Creek sub-watershed and the Fox River Watershed.

#### 1.1 SITE DESCRIPTION

The study area (approximately 4.97-acres) consists of a turf field with a lightly a scrub-shrub border to the north and east (see Photo 1-2). The field is an elevated building pad that was constructed around 1999.

One (1) wetland complex totaling over 10 acres in size, with approximately 0.06-acres within the study area boundaries was identified. The wetland consists of a mix of emergent vegetation and open water with a connected drainage swale at Deep Lake Road. The wetland extends on-site in the southwest corner of the study area

Wetland acreages provided in this report are estimations; a survey of staked boundaries must be performed to obtain exact size and location information. A summary of regulations is provided in Section 1.2.

#### 1.2 REGULATION SUMMARY

Basic information regarding wetland regulations may be found in the Regulatory Statement portion of this report. Briefly, the U.S. Army Corps of Engineers (USACE) regulates all Waters of the United States that are currently or historically navigable and all wetlands that are connected to or associated with these waterways. In Lake County, isolated wetlands are regulated through implementation of a countywide watershed development ordinance. Lake County requires a minimum buffer width of 50 feet for wetlands greater than 2.5 acres.

Wetland 1 extends to the west and enters a complex that is part of the Sequoit Creek drainage and is likely regulate by the USACE.

At the time of this wetland delineation report, current regulations state that this delineation is valid for 3 years from the date of site verification.

### 1.3 THREATENED AND ENDANGERED SPECIES

Based on a 11/10/2022 review of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website, sensitive (federally threatened or endangered) plant or animal species habitat are not located on or adjacent to the study area (see attached USFWS Review Summary). Further consultation with this agency may not be required for a Section 404 Permit from the USACE

According to the Illinois Department of Natural Resources (IDNR), the following protected resources may be in the vicinity of the project location: Deep Lake INAI Site, Loon Lake INAI Site, Sun Lake INAI Site, Sun, Lake Nature Preserve, Blanding's Turtle (*Emydoidea blandingii*), King Rail (*Rallus elegans*), Least Bittern (*Ixobrychus exilis*) (see INDR EcoCAT correspondence).

The IDNR has provided conservation recommendations for the above listed protected resources. See the below summary and EcoCAT consultation included in Appendix E.

- Deep Lake INAI, Loon Lake INAI, Sun Lake INAI, & Sun Lake Nature Preserve: Adverse effects are unlikely.
- Blandings Turtle: Construction should be completed in inactive season from November 1-March 1. Exclusionary fencing around the construction area and daily checks for turtles should be initiated if time frame cannot be met.
- King Rail and Least Bittern: 50 ft buffer should be maintained on all wetlands, and if possible all work near wetlands should be completed between September 30-April 1 to avoid the prime nesting and fledging season.
- Lighting recommendations have been made for all external fixtures.

## 2.0 PROJECT PURPOSE

The purpose of the site visit was to identify regulated surface wetland, non-wetland water resources or Waters of the United States (WOUS) on, or within 100 feet, of the study area. A floodplain determination was not included as part of our investigation.

On-site wetland areas encountered were delineated using standard methods sanctioned by the United States Army Corps of Engineers in the Corps of Engineers Wetlands Delineation Manual (1987) and 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. Plant observations were made for calculating the Coefficient of Conservatism (Ĉ) and Floristic Quality Index (FQI) for each wetland plant community using the Wilhelm method (Swink and Wilhelm, 1994).

Observations also were made to determine if wetlands present within the study area were high-quality aquatic resources based on the Lake County Watershed Development Ordinance. Observed wildlife and evaluation of resource quality are also reported as required by the Chicago District USACE.

On-site non-wetland water resources encountered were given established Ordinary High Water Mark (OHWM) boundaries using the definitions described in Section 404 of the Clean Water Act (CWA Section 404(b).(1) Guidelines (40CFR230)

### 3.0 EXHIBIT REVIEW

- The **Location Map** identifies approximate location of study area and nearby major roadways (Exhibit A)
- The **National Wetlands Inventory** identifies no wetlands within the study area (Exhibit B).
- The **Lake County Wetland Inventory** identifies a **Wetland** within the southern portion of the study area. This is a designation assigned to areas with a high potential for exhibiting hydric soil, hydrophytic vegetation and required hydrologic conditions (Exhibit C).
- The **Soil Map** identifies the following soils within the study area:

530D2 Ozaukee silt loam – Non-hydric  
840B Zurich and Ozaukee silt loams – Non-hydric  
840C2 Zurich and Ozaukee silt loams – Non-hydric  
979B Grays and Markham silt loams – Non-hydric

Field evaluations are made to determine if a hydric inclusion may be present (Exhibit D).

- The **United States Geologic Survey (USGS) Topographic Map** does not identify any surface drainage within or adjacent to the study area (Exhibit E)
- The **Flood Insurance Rate Map** identifies the study area outside the 500-year floodplain (Exhibit F).
- The **Water Resources Summary** identifies approximately locations and boundaries of water resources within the study area. Location of Wetland 1 is denoted (Exhibit G).
- The **Site Photographs** show conditions exhibited within the study area at the time of the site visit (Exhibit H)

## 4.0 METHODS

Prior to the site visit, a preliminary site evaluation is performed using aerial photography and natural resource mapping. Potential wetland areas and non-wetland waters units identified by these resources are evaluated in the field.

### 1987 USACE Wetland Delineation Manual and 2010 Regional Supplement.

Potential wetland areas were investigated to determine if they meet the requirements for a wetland based on the USACE parameters of vegetation, hydrology, and soils. In general, positive indication of each of the three parameters must be demonstrated to classify an area as wetland. Each of these parameters is discussed below.

**Vegetation** – Three vegetative indicators are applied to plant communities in order to determine if the hydrophytic vegetation criterion is met.

1. More than 50% of the dominant plant species across all strata must be hydrophytic (water tolerant). Wetland plants fall into three indicator classes based on differing tolerances to water level and soil saturation. These indicators are rated obligate wetland (OBL), facultative wetland (FACW), or facultative (FAC).
2. The prevalence index is 3.0 or less. The prevalence index is a weighted-average wetland indicator status of all plant species in a sampling plot. The index is used to determine whether hydrophytic vegetation is present on sites where indicators of hydric soil and wetland hydrology are present but the vegetation initially fails the dominance test.
3. Over 50% of non-wetland plants in a sample area exhibit morphological adaptations for life in wetlands. To apply this indicator, adapted plants must occur in areas where indicators of hydric soil and wetland hydrology are present.

**Hydrology** – To be considered a wetland, an area must have 14 or more consecutive days of flooding or ponding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10. Wetland hydrology indicators are divided into four groups as described below:

- Group A – Observation of Surface Water or Saturated Soils
- Group B – Evidence of Recent Inundation
- Group C – Evidence of Recent Soil Saturation
- Group D – Evidence from Other Site Conditions or Data

**Soils** - To be considered a wetland, an area must contain hydric soil. Hydric soils are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic (lacking oxygen) conditions in the upper part. Soils generally, but not always, will develop indicators that are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. The most current edition of the United States Department of Agriculture, Natural Resource Conservation Service *Field Indicators of Hydric Soils in the United States* is used for identification of hydric soils. Field indicators of hydric soils include but are not limited to the presence of any of the following: histic epipedon, sulfidic odor, at least 2 centimeters of muck, depleted matrix, and/or redoximorphic features. Field indicators are usually examined in the top 20 inches of the soil. Soil colors are determined using *Munsell Soil Color Charts*.

Areas meeting these three criteria are staked in the field for surveying purposes. Boundaries are demarcated in the field with pink flagged pin stakes labeled "WETLAND DELINEATION." Staked boundaries are mapped on an aerial photograph included in this report. Approximate off-site wetland boundaries are

identified on the aerial photograph and were determined using available aerial photographs, wetland maps, and field observation.

#### The Ordinary High Water Mark (OHWM)

Potential non-wetland water resources were investigated to determine if they meet requirements for a regulated WOUS or isolated waters unit based on USACE parameters.

Ordinary High Water Mark (OHWM) boundaries were established using the definition provided in 33 CFT Part 328.3 of the Clean Water Act. The OHWM is defined as the line on the shore established by the fluctuations of water. This line can be identified by physical characteristics such as a clear, natural line on the bank, changes in the character of the soil, shelving, vegetation matted down, bent, or absent, leaf litter disturbed or washed away, sediment deposition, water staining, the presence of litter and debris, destruction of terrestrial vegetation, sediment sorting, scour, multiple observed or predicted flow events, and abrupt change in plant community.

## 5.0 REVIEWED ON-SITE CONDITIONS

### 5.1 WATER RESOURCES SUMMARY

Wetland 1. This wetland (approximately over 10 acres in total size and 0.06 acres on-site) is located outside to the south within the southwestern portion of the study area.

The wetland is a complex characterized by emergent vegetation and portions of open water. A drainage route along Deep Lake Rd connects to the wetland complex and is included in the identified boundaries. A prairie buffer separates the wetland complex from the turf building pad within the study area. The wetland complex appears to provide water flow to Sequoit Creek, west of the study area. See photos 3-7 for reference.

The wetland is identified on the NWI, Lake County Wetland Inventory, and the USGS Topographic map.

Sample points were established within and adjacent to the on-site portion of Wetland 1 to characterize the vegetation, soils, and hydrology (Exhibit G: Aerial Photograph). The on-site wetland boundaries and a portion of the drainageway along Grass Lake Rd. were demarcated with 18 pink flagged pin stakes.

The on-site portion of Wetland 1 was primarily vegetated by Sandbar Willow (*Salix interior*), Narrow-leaved Cattails (*Typha angustifolia*), Awn-Fruit Sedge (*Carex stipata*) and Dark Green Bulrush (*Scirpus atrovirens*). The mapped soil series are 530D2 Ozaukee silt loam, a non-hydric soil, and 840C2 Zurich and Ozaukee silt loams, a non-hydric soil. USDA field indicators A11: Depleted Below Dark Surface, A12: Thick Dark Surface, provided evidence of hydric soil. Saturation, geomorphic position, and the FAC-neutral test provided evidence of persistent hydrology (See Wetland Determination Data Forms).

The field investigation was done outside of the growing season. Floristic dominance was assessed by observing available seed heads, general morphology, and non-dormant vegetation. Floristic quality may need to be assessed in the spring.



## 6.0 REGULATORY STATEMENT

### 6.1 Federal Regulations

The deposition of dredge or fill materials into federally jurisdictional wetlands or Waters of the United States is regulated by the USACE under Section 404 of the Clean Water Act.

The Nationwide Permit authorizes 0.1 acre or less of low quality wetlands to be filled without mitigation. If over 0.1 acre is proposed for filling or is subject to secondary impacts, in-kind mitigation may be required at a ratio of 1.5:1, or greater. The aggregate total loss of waters of the U.S. authorized by NWP cannot exceed 0.5 acre or 300 linear feet of streambed.

Under the existing regulations, secondary impacts (both on-site and off-site) from filling also must be evaluated. Mitigation may be required at a higher rate if a project will significantly alter wetland functions such as stormwater detention, water filtration, sediment trapping, and/or wildlife habitat.

Before mitigation will be approved, reasonable proof that avoidance or minimization of wetland impacts has been attempted must be provided to the Corps.

A USACE permit is not required if the wetlands are avoided and construction erosion near a wetland is controlled.

### 6.2 Municipal and State Regulations

Lake County Watershed Development Ordinance: The Lake County Watershed Development Ordinance regulates the development of all areas within the county. Plans for development must include provisions for stormwater conveyance, and conservation of streams and channels, lakes, ponds, or wetlands that exist on the site. A soil erosion and sediment control plan must be provided. Buffer areas are required for all areas defined as "Waters of the U.S." including isolated wetlands, lakes and ponds. Buffer areas are divided into 2 types, linear buffers and water body buffers.

Linear buffers will be designated along both sides of all channels meeting the definition of "Waters of the U.S" or "Isolated Waters of Lake County". Minimum buffer widths are as follows:

- When the linear water body has a watershed greater than 20 acres but less than 1.0 square mile, the minimum buffer width will be 50 feet on each side of the linear water body;
- When the linear water body has a watershed greater than 1.0 square mile, the minimum buffer width will be 30 feet on each side of the linear water body;
- Linear exceptional functional value wetlands and streams with an Index of Biotic Integrity greater than 40 will have a minimum buffer width of 100 feet on each side of the linear water body.

Water body buffers will encompass all non-linear bodies of water meeting the definition of "Waters of the United States" or "Isolated Waters of Lake County". Minimum buffer widths are as follows:

- For water bodies and wetlands greater than 1/3 acre but less than 1.0 acre in size, the minimum buffer width is 30 feet;
- For water bodies and wetlands greater than 1.0 acre but less than 2.5 acres in size, the minimum buffer width is 40 feet;
- For water bodies and wetlands greater than 2.5 acres in size, the minimum buffer width is 50 feet;
- Non-linear high quality aquatic resources shall have a minimum buffer width of 100 feet.

Mitigation for impacts to isolated wetlands is required within Lake County for:

- Wetland impacts greater than or equal to one-tenth (0.1) acres of Isolated Waters of Lake County that are high-quality aquatic resources (HOAR).
- Wetland impacts greater than or equal to one-quarter (0.25) acres of Isolated Waters of Lake County that are not high-quality aquatic resources.

Mitigation shall provide for the replacement of the Wetland environment lost to development at the following proportional rates (i.e. creation acreage to wetland acreage):

- For wetland impacts to areas that are not high-quality aquatic resources under Categories I, II and III, a minimum of 1.5:1 mitigation ratio for fully certified wetland mitigation bank credits;
- A minimum of 3:1 for wetland impacts that are high-quality aquatic resources
- A minimum of 6:1 for wetland impacts that are high-quality forested wetlands as defined in Appendix L.
- For wetland impacts to open waters that are not high-quality aquatic resources under Categories I, II, and III, a minimum of 1:1 mitigation ratio shall be required.

Illinois Department of Natural Resources Agency Action Plans for Interagency Wetlands Policy Act of 1989: The Illinois Interagency Wetlands Policy Act of 1989 is intended to ensure that there is no overall net loss of the State's existing wetland acres or their functional values resulting from State-supported activities. The Act charges State agencies with a further duty to "preserve, enhance and create wetlands where necessary to increase the quality and quantity of the State's wetland resource base."

The Interagency Wetlands Policy Act of 1989 states that any construction, land management or other activity performed by, or for which financial assistance is administered or provided by, a State agency that will result in an adverse impact to a wetland shall be subject to compliance. This includes, but is not limited to the following:

- The alteration, removal, excavation, or dredging of soil, sand, gravel, minerals, organic matter, vegetation, or naturally occurring minerals of any kind from a wetland;
- The discharge or deposit of fill material or dredged material in a wetland;
- The alteration of existing drainage characteristics, sedimentation patterns, or flood retention characteristics of a wetland;
- The disturbance of water level or water table of a wetland;
- The destruction or removal of plant life that would alter the character of a wetland, except for activities undertaken in accordance with the Illinois Noxious Weed Act;
- The transfer of State owned wetlands to any entity other than another state agency; and
- Other actions that cause or may cause adverse wetland impacts.

The Act is to be implemented through a State Wetland Mitigation Policy. The State Wetland Mitigation Policy requires preservation of wetlands as the primary objective. Where adverse wetland impacts are unavoidable, progressive levels of compensation based upon the level of impact to the existing wetland and the location of compensation wetlands are required.

Archaeological Survey Requirements: An archaeological survey may be required before a Section 404 permit will be issued for wetland impacts. The U.S. Army Corps of Engineers will make this determination as part of the permit application review. The archaeological survey must cover all areas of the study area, not wetlands only. If you already have a letter from the Illinois Historic Preservation Agency (IHPA) stating an archaeological survey is required, you should act on it because the USACE will support this notification.

## 7.0 RECOMMENDATIONS

One (1) wetland complex was identified within the study area. The overall wetland is over 10 acres in size, with approximately 0.006 acres located within the study area boundaries. In Lake County, wetlands over 2.5 acres require a minimum buffer width of 50 feet.

Based on connection with regulated waterways off-site, the Wetland 1 complex may be under USACE jurisdiction.

The U.S. Army Corps of Engineers has the final authority in determining the jurisdictional status of the wetlands identified on site. GRWA recommends that a request for jurisdictional determination be sent to the U.S. Army Corps of Engineers as soon as possible.

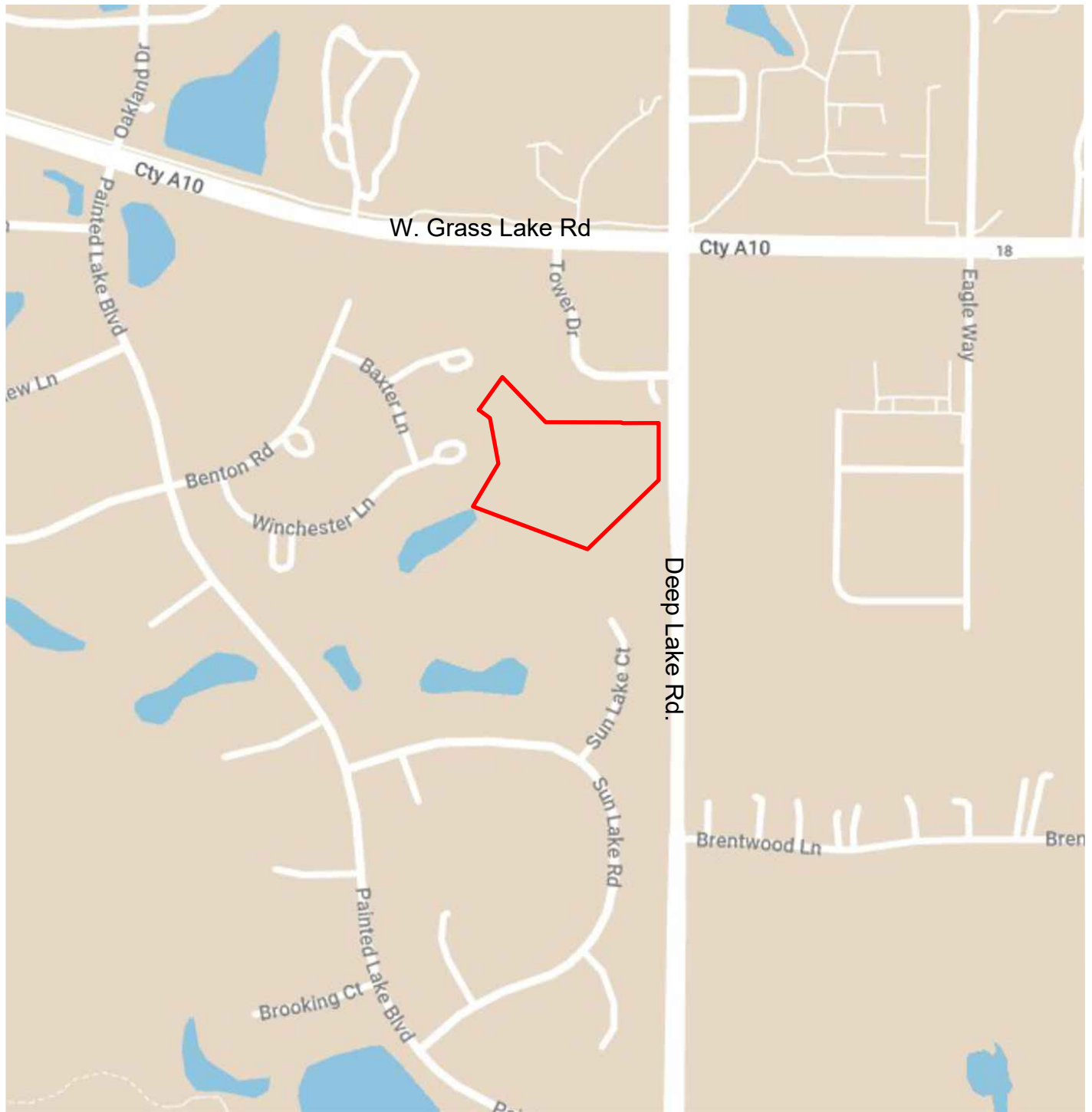
Any impacts to jurisdictional wetland, Waters of the U.S., or associated buffers will require U.S. Army Corps of Engineers and Lake County notification. GRWA can assist you with the request for jurisdictional determination, permit applications, agency negotiations, wetland design plans, and mitigation plans which may be applicable to your project. The wetland consultant should be involved during the planning and design stages of the project to avoid complications with the agencies after the plan has been drafted. Proper planning regarding wetlands can reduce delays caused by the permitting process and costly changes in site plans.

The Corps of Engineers will not perform wetland boundary verifications during the winter season. If an application for a wetland permit will be submitted to the Corps of Engineers during the winter months, we recommend that a request for concurrence of jurisdictional boundaries be sent to the Corps during the growing season. This will prevent a delay in the permitting process. GRWA is available to assist you with obtaining Corps concurrence.

## 8.0 REFERENCES

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## Appendix A: Water Resource Maps (Exhibits A-G)



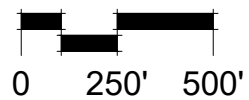
## LEGEND

PLSS: NE S28 T46N R10E

Latitude: 42.439678

Longitude: -88.063754

Study Area



SCALE: 1"=500'



NORTH

Coordinates provided by Earth Point for Google Earth



GARY R. WEBER  
ASSOCIATES, INC.

## Grass Lake Rd & Deep Lake Rd Lake Villa, IL

MA2242  
Manhard Consulting, LTD.

## LOCATION MAP

Provided by: Google Maps

## EXHIBIT A

Created by: MGK

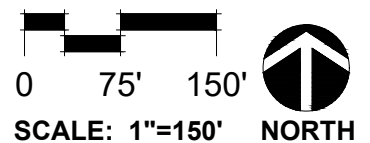
Checked by:





## LEGEND

Estuarine and Marine Deepwater	Freshwater Pond	Study Area
Estuarine and Marine Wetland	Lake	
Freshwater Emergent Wetland	Other	
Freshwater Forested/Shrub Wetland	Riverine	



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## NATIONAL WETLANDS INVENTORY MAP

Provided by: U.S. Fish and Wildlife Service

## EXHIBIT B

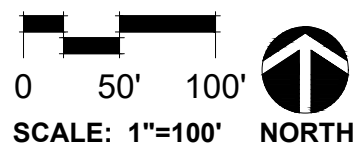
Created by: MGK Checked by:





## LEGEND

- Study Area
- Lake County Wetland
- ADvanced IDentification Wetlands



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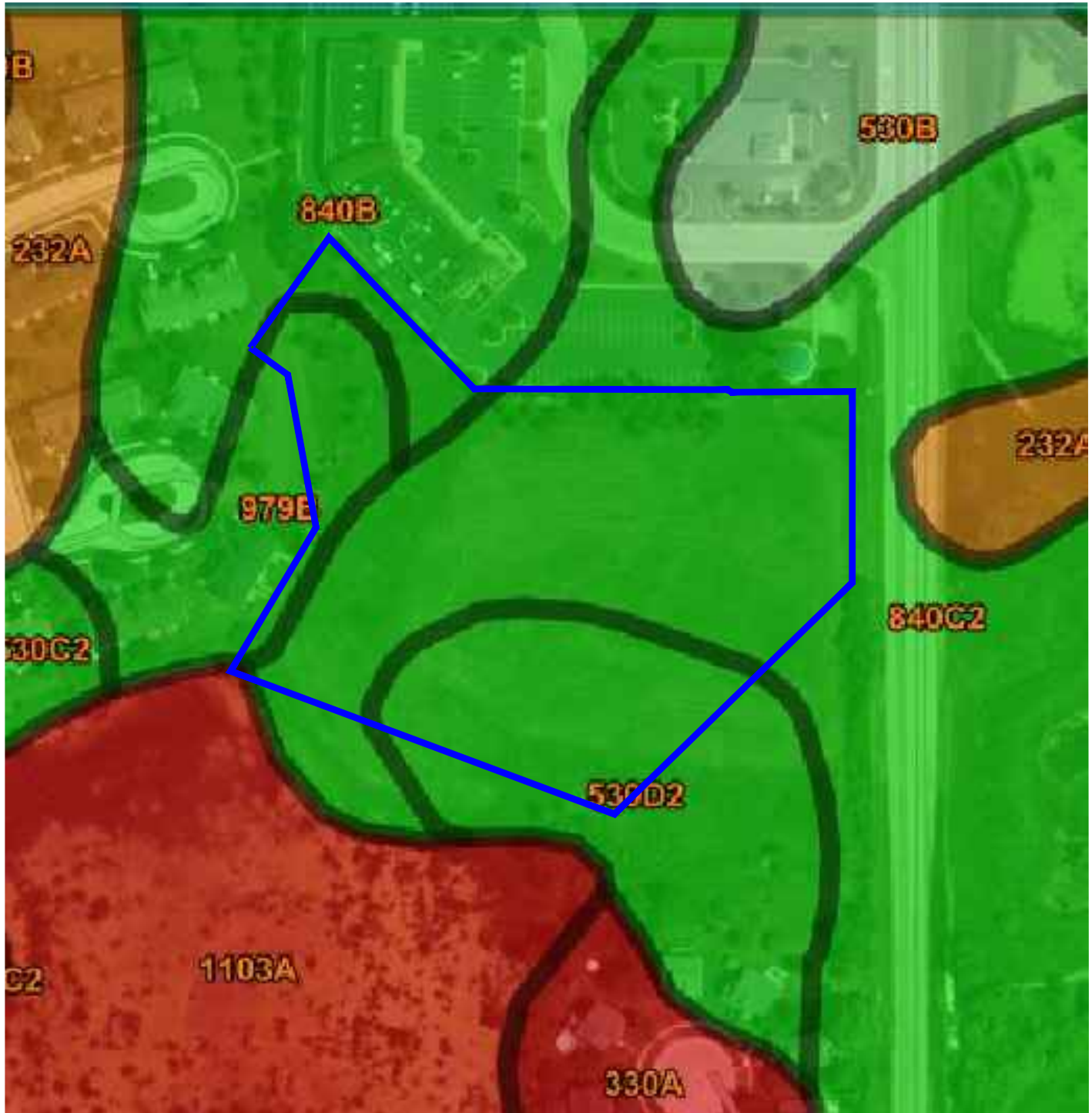
LAKE CO. WETLAND  
INVENTORY MAP

Provided by: Lake County Parcel Viewer

EXHIBIT C

Created by: MGK Checked by:

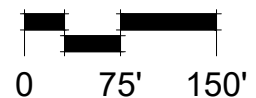




## LEGEND

- Hydric Soil (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Non-hydric (0%)

Study Area



SCALE: 1"=150'



NORTH



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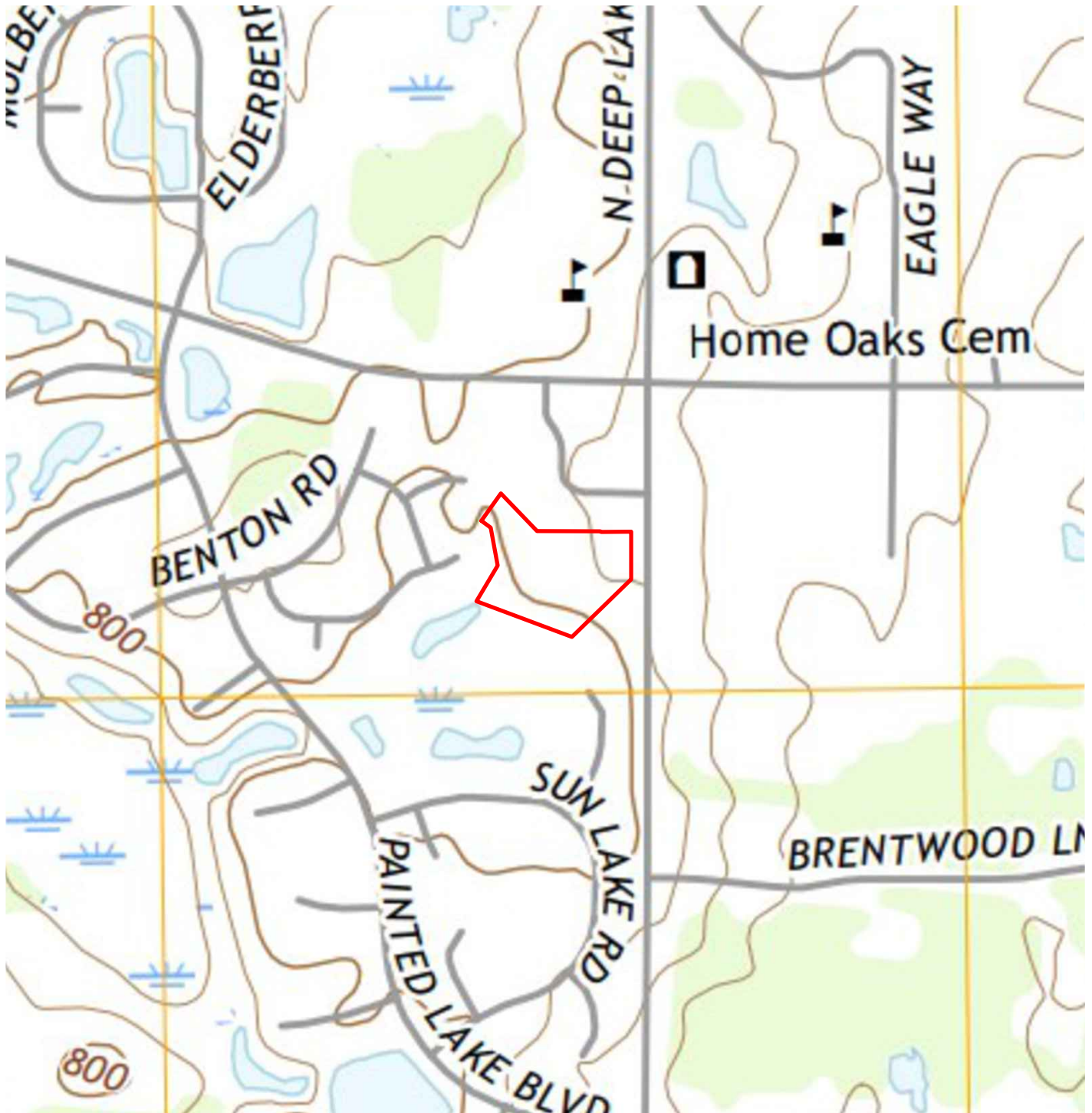
## SOIL SURVEY MAP

Web Soil Survey 3.0 (Lake County)  
USDA Natural Resources Conservation Service

## EXHIBIT D

Created by: MGK

Checked by:

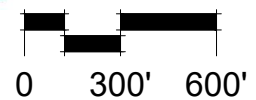


# LEGEND

Perennial Stream	
Perennial River	
Intermittent Stream	
Intermittent River	

Marsh or swamp	
Submerged marsh	
Wooded marsh or swamp	
Submerged wooded marsh or swamp	

Perennial Lake/Pond	
Intermittent Lake/Pond	
Study Area	



SCALE: 1"=600'



NORTH



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USGS TOPOGRAPHIC MAP

Provided by: USGS Topographic (Antioch)

EXHIBIT E

Created by: MGK

Checked by:





## LEGEND

Regulatory Floodway



Special Floodway



1% Annual Chance Flood Hazard



0.2% Annual Chance Flood Hazard



Area of Undetermined Flood Hazard



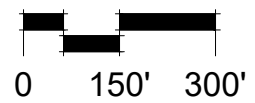
Future Conditions 1% Annual Chance Flood Hazard



Area with Reduced Risk Due to Levee



Study Area



SCALE: 1"=300'



NORTH



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FLOOD INSURANCE MAP

Provided by: Federal Emergency Management Agency

EXHIBIT F

Created by: MGK

Checked by:





# LEGEND

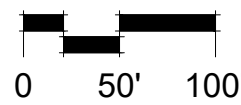
Study Area - 4.97 Acres

Flagged Wetland Boundaries

Off-site Wetland Boundaries (not flagged)



Sample Points A-F



SCALE: 1"=100'



NORTH

Provided by: Google Earth - Image date 4/6/2017



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WATER RESOURCES  
SUMMARY

DATE OF SITE VISIT: 11/3/2022

EXHIBIT G

Created by: MGK

Checked by:

## Appendix B: Site Photographs (Exhibit H)





*Photo 1: View of turf field that encompasses the majority of the site (facing south).*



*Photo 2: View of the southern edge of the turf field and the start of the wetland off-site to the south (facing southwest).*



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SITE PHOTOGRAPHS

11/3/2022

EXHIBIT H





*Photo 3: View of the on-site portion of Wetland 1 and the west stormwater culvert that feeds into it (facing west).*



*Photo 4: Base of prairie slope and edge of wetland (facing north).*



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SITE PHOTOGRAPHS

11/3/2022

EXHIBIT H





*Photo 5: Overview of open water and emergent north edge of wetland. Adjacent to prairie slope (facing west).*



*Photo 6: Stormwater culvert under Deep Lake Rd. Flagged as part of WL1 (facing north).*



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SITE PHOTOGRAPHS

11/3/2022

EXHIBIT H





*Photo 7: View of the drainage swale extending from the Deep Lake Rd culvert. Flagged as part of WL1 (facing south).*



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SITE PHOTOGRAPHS

11/3/2022

EXHIBIT H

## Appendix C: Wetland Determination Data Forms

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Midwest Region</b> See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp:11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
--	---

Project/Site: MA2242 / Grass Lake Rd & Deep Lake Rd City/County: Lake Villa / Lake County Sampling Date: 11/3/2022  
Applicant/Owner: Manhard Consulting, LTD. State: IL Sampling Point: A  
Investigator(s): Lisa Pajon Section, Township, Range: NE S28 T46N R10E  
Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_  
Slope (%): \_\_\_\_\_ Lat: 42.439678 Long: -88.063754 Datum: \_\_\_\_\_  
Soil Map Unit Name: 840C2 Zurich and Ozaukee silt loams NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: In ditch near road	

**VEGETATION – Use scientific names of plants.**

<b>Tree Stratum</b> (Plot size: <u>30</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ =Total Cover	<b>Absolute % Cover</b> _____ _____ _____ _____ _____ _____	<b>Dominant Species?</b> _____ _____ _____ _____ _____ _____	<b>Indicator Status</b> _____ _____ _____ _____ _____ _____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> ) 1. <u>Cornus racemosa</u> 2. _____ 3. _____ 4. _____ 5. _____ _____ =Total Cover	<b>Absolute % Cover</b> <u>10</u> _____ _____ _____ _____ _____	<b>Dominant Species?</b> <u>Yes</u> _____ _____ _____ _____ _____	<b>Indicator Status</b> <u>FAC</u> _____ _____ _____ _____ _____		<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species <u>20</u> x 1 = <u>20</u> FACW species <u>70</u> x 2 = <u>140</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>110</u> (A) <u>230</u> (B) Prevalence Index = B/A = <u>2.09</u>
<b>Herb Stratum</b> (Plot size: <u>5</u> ) 1. <u>Phalaris arundinacea</u> 2. <u>Typha angustifolia</u> 3. <u>Symphyotrichum novae-angliae</u> 4. <u>Solidago altissima</u> 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ _____ =Total Cover	<b>Absolute % Cover</b> <u>50</u> <u>20</u> <u>20</u> <u>10</u> _____ _____ _____ _____ _____ _____	<b>Dominant Species?</b> <u>Yes</u> <u>Yes</u> <u>Yes</u> <u>No</u> _____ _____ _____ _____ _____ _____	<b>Indicator Status</b> <u>FACW</u> <u>OBL</u> <u>FACW</u> <u>FACU</u> _____ _____ _____ _____ _____ _____		
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> ) 1. _____ 2. _____ _____ =Total Cover	<b>Absolute % Cover</b> _____ _____ _____	<b>Dominant Species?</b> _____ _____ _____	<b>Indicator Status</b> _____ _____ _____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____	
Remarks: (Include photo numbers here or on a separate sheet.)					

## SOIL

Sampling Point: A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 2/1	100					Loamy/Clayey	Small Gravel, Wet, Silty
14-20	10YR 4/2	70	10YR 2/1	20		M	Loamy/Clayey	
			10YR 5/4	10	C	M		Distinct redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):		Hydric Soil Present?	
Type: _____		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Depth (inches): _____			

Remarks:

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations:				Wetland Hydrology Present?	
Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches): _____		
Saturation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches): <u>3</u>		
(includes capillary fringe)					

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Midwest Region</b> See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp:11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: MA2242 / Grass Lake Rd & Deep Lake Rd City/County: Lake Villa / Lake County Sampling Date: 11/3/2022  
Applicant/Owner: Manhard Consulting, LTD. State: IL Sampling Point: B  
Investigator(s): Lisa Pajon Section, Township, Range: NE S28 T46N R10E  
Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_  
Slope (%): \_\_\_\_\_ Lat: 42.439678 Long: -88.063754 Datum: \_\_\_\_\_  
Soil Map Unit Name: 840C2 Zurich and Ozaukee silt loams NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Turf upland point	

**VEGETATION – Use scientific names of plants.**

<b>Tree Stratum</b> (Plot size: <u>30</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ =Total Cover	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ =Total Cover	
<b>Herb Stratum</b> (Plot size: <u>5</u> ) 1. <u>Poa pratensis</u> 70 Yes FAC 2. <u>Dactylis glomerata</u> 20 No FACU 3. <u>Taraxacum officinale</u> 10 No FACU 4. <u>Plantago major</u> 10 No FAC 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 110 =Total Cover	
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> ) 1. _____ 2. _____ _____ =Total Cover	
<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>80</u> x 3 = <u>240</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>110</u> (A) <u>360</u> (B) Prevalence Index = B/A = <u>3.27</u>	
<b>Hydrophytic Vegetation Indicators:</b> ____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% ____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____	
Remarks: (Include photo numbers here or on a separate sheet.)	

## SOIL

Sampling Point: B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/1	100					Loamy/Clayey	Silty
6-10	2.5Y 4/4	80	10YR 2/1	20			Loamy/Clayey	Gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>X</u>
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Remarks:

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
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<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present?      Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present?        Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No Hydro

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Midwest Region</b> See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: MA2242 / Grass Lake Rd & Deep Lake Rd      City/County: Lake Villa / Lake County      Sampling Date: 11/3/2022  
 Applicant/Owner: Manhard Consulting, LTD.      State: IL      Sampling Point: C  
 Investigator(s): Lisa Pajon      Section, Township, Range: NE S28 T46N R10E  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_  
 Slope (%): \_\_\_\_\_ Lat: 42.439678      Long: -88.063754      Datum: \_\_\_\_\_  
 Soil Map Unit Name: 530D2 Ozaukee silt loam      NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year?    Yes X    No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?    Are "Normal Circumstances" present?    Yes X    No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?    (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes <u>X</u> No _____ Hydric Soil Present?    Yes <u>X</u> No _____ Wetland Hydrology Present?    Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Remarks: In wetland	

**VEGETATION – Use scientific names of plants.**

<table style="width: 100%;"> <tr> <td style="width: 35%;"> <b>Tree Stratum</b> (Plot size: <u>30</u> )             </td> <td style="width: 15%;">               Absolute % Cover             </td> <td style="width: 15%;">               Dominant Species?             </td> <td style="width: 35%;">               Indicator Status             </td> </tr> <tr><td>1. <u>Salix nigra</u></td><td style="text-align: center;">40</td><td style="text-align: center;">Yes</td><td style="text-align: center;">OBL</td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td colspan="2" style="text-align: right;">40 =Total Cover</td><td></td><td></td></tr> </table> <table style="width: 100%;"> <tr> <td style="width: 35%;"> <b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )             </td> <td style="width: 15%;">               Absolute % Cover             </td> <td style="width: 15%;">               Dominant Species?             </td> <td style="width: 35%;">               Indicator Status             </td> </tr> <tr><td>1. <u>Salix interior</u></td><td style="text-align: center;">30</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td colspan="2" style="text-align: right;">30 =Total Cover</td><td></td><td></td></tr> </table> <table style="width: 100%;"> <tr> <td style="width: 35%;"> <b>Herb Stratum</b> (Plot size: <u>5</u> )             </td> <td style="width: 15%;">               Absolute % Cover             </td> <td style="width: 15%;">               Dominant Species?             </td> <td style="width: 35%;">               Indicator Status             </td> </tr> <tr><td>1. <u>Carex stipata</u></td><td style="text-align: center;">90</td><td style="text-align: center;">Yes</td><td style="text-align: center;">OBL</td></tr> <tr><td>2. <u>Phalaris arundinacea</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">FACW</td></tr> <tr><td>3. _____</td><td></td><td></td><td></td></tr> <tr><td>4. _____</td><td></td><td></td><td></td></tr> <tr><td>5. _____</td><td></td><td></td><td></td></tr> <tr><td>6. _____</td><td></td><td></td><td></td></tr> <tr><td>7. _____</td><td></td><td></td><td></td></tr> <tr><td>8. _____</td><td></td><td></td><td></td></tr> <tr><td>9. _____</td><td></td><td></td><td></td></tr> <tr><td>10. _____</td><td></td><td></td><td></td></tr> <tr><td colspan="2" style="text-align: right;">100 =Total Cover</td><td></td><td></td></tr> </table> <table style="width: 100%;"> <tr> <td style="width: 35%;"> <b>Woody Vine Stratum</b> (Plot size: <u>30</u> )             </td> <td style="width: 15%;">               Absolute % Cover             </td> <td style="width: 15%;">               Dominant Species?             </td> <td style="width: 35%;">               Indicator Status             </td> </tr> <tr><td>1. _____</td><td></td><td></td><td></td></tr> <tr><td>2. _____</td><td></td><td></td><td></td></tr> <tr><td colspan="2" style="text-align: right;">=Total Cover</td><td></td><td></td></tr> </table>	<b>Tree Stratum</b> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Salix nigra</u>	40	Yes	OBL	2. _____				3. _____				4. _____				5. _____				40 =Total Cover				<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Salix interior</u>	30	Yes	FACW	2. _____				3. _____				4. _____				5. _____				30 =Total Cover				<b>Herb Stratum</b> (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Carex stipata</u>	90	Yes	OBL	2. <u>Phalaris arundinacea</u>	10	No	FACW	3. _____				4. _____				5. _____				6. _____				7. _____				8. _____				9. _____				10. _____				100 =Total Cover				<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	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FAC species <u>0</u>	x 3 = <u>0</u>																																																																																																																																																																		
FACU species <u>0</u>	x 4 = <u>0</u>																																																																																																																																																																		
UPL species <u>0</u>	x 5 = <u>0</u>																																																																																																																																																																		
Column Totals: <u>170</u> (A)	<u>210</u> (B)																																																																																																																																																																		
Prevalence Index = B/A = <u>1.24</u>																																																																																																																																																																			
<b>Hydrophytic Vegetation Indicators:</b>																																																																																																																																																																			
<u>  </u> 1 - Rapid Test for Hydrophytic Vegetation																																																																																																																																																																			
<u>X</u> 2 - Dominance Test is >50%																																																																																																																																																																			
<u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>																																																																																																																																																																			
<u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)																																																																																																																																																																			
<u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																																																																																																																																																																			
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																																																																																																																																			
<b>Hydrophytic Vegetation Present?</b>	Yes <u>X</u> No _____																																																																																																																																																																		
Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																																																																																			

## SOIL

Sampling Point:     C    

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 2/1	100					Loamy/Clayey	Small Gravel, Wet, Silty
14-20	10YR 4/2	70	10YR 2/1	20			Loamy/Clayey	
			10YR 5/4	10	C	M		Distinct redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) <input type="checkbox"/> Redox Depressions (F8)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (F22) <input type="checkbox"/> Other (Explain in Remarks)  <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
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<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	



<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Midwest Region</b> See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp:11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: MA2242 / Grass Lake Rd & Deep Lake Rd City/County: Lake Villa / Lake County Sampling Date: 11/3/2022  
Applicant/Owner: Manhard Consulting, LTD. State: IL Sampling Point: D  
Investigator(s): Lisa Pajon Section, Township, Range: NE S28 T46N R10E  
Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_  
Slope (%): \_\_\_\_\_ Lat: 42.439678 Long: -88.063754 Datum: \_\_\_\_\_  
Soil Map Unit Name: 840C2 Zurich and Ozaukee silt loams NWI classification: \_\_\_\_\_  
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: Center of slope	

**VEGETATION – Use scientific names of plants.**

<b>Tree Stratum</b> (Plot size: <u>30</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ =Total Cover	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ =Total Cover	<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>100</u> (A) <u>410</u> (B) Prevalence Index = B/A = <u>4.10</u>
<b>Herb Stratum</b> (Plot size: <u>5</u> ) 1. <u>Sorghastrum nutans</u> 45 Yes FACU 2. <u>Solidago altissima</u> 30 Yes FACU 3. <u>Baptisia alba</u> 15 No FACU 4. <u>Solidago ptarmicoides</u> 5 No UPL 5. <u>Silphium laciniatum</u> 5 No UPL 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 100 =Total Cover	<b>Hydrophytic Vegetation Indicators:</b> ____ 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is >50% ____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> ) 1. _____ 2. _____ =Total Cover	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
Remarks: (Include photo numbers here or on a separate sheet.)	

## SOIL

Sampling Point:     D    

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 2/1	100					Loamy/Clayey	Small gravel, silty
14-20	10YR 4/2	70	10YR 2/1	20		M	Loamy/Clayey	
			10YR 5/4	10	C	M		Distinct redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:  
Same hydric soil but very dry in top 10"

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No hydro

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Midwest Region</b> See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp:11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: <u>MA2242 / Grass Lake Rd &amp; Deep Lake Rd</u>	City/County: <u>Lake Villa / Lake County</u>	Sampling Date: <u>11/3/2022</u>
Applicant/Owner: <u>Manhard Consulting, LTD.</u>	State: <u>IL</u>	Sampling Point: <u>E</u>
Investigator(s): <u>Lisa Pajon</u>	Section, Township, Range: <u>NE S28 T46N R10E</u>	
Landform (hillside, terrace, etc.): _____	Local relief (concave, convex, none): _____	
Slope (%): _____	Lat: <u>42.439678</u>	Long: <u>-88.063754</u>
	Datum: _____	
Soil Map Unit Name: <u>840C2 Zurich and Ozaukee silt loams</u>	NWI classification: _____	
Are climatic / hydrologic conditions on the site typical for this time of year?    Yes <u>X</u> No _____ (If no, explain in Remarks.)		
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed?    Are "Normal Circumstances" present?    Yes <u>X</u> No _____		
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic?    (If needed, explain any answers in Remarks.)		

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?                      Yes <u>X</u> No _____	
Wetland Hydrology Present?            Yes <u>X</u> No _____	
Remarks: In wetland at edge of cattails	

**VEGETATION – Use scientific names of plants.**

<b>Tree Stratum</b> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				<b>Prevalence Index worksheet:</b>  Total % Cover of:                                      Multiply by: OBL species <u>100</u> x 1 = <u>100</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>100</u> (B) Prevalence Index = B/A = <u>1.00</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5</u> )				<b>Hydrophytic Vegetation Indicators:</b>  ____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Typha angustifolia</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Scirpus atrovirens</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Carex stipata</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
100 =Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
=Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

## SOIL

Sampling Point: E

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/1	98	10YR 4/6	2	C	M	Loamy/Clayey	Gravel and Debris in Top 8"
8-20	10YR 4/2	70	10YR 2/1	20	D	M	Loamy/Clayey	
			10YR 5/4	10	C	M		Distinct redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

<b>U.S. Army Corps of Engineers</b> <b>WETLAND DETERMINATION DATA SHEET – Midwest Region</b> See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R	<b>OMB Control #: 0710-0024, Exp: 11/30/2024</b> <b>Requirement Control Symbol EXEMPT:</b> <b>(Authority: AR 335-15, paragraph 5-2a)</b>
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Project/Site: MA2242 / Grass Lake Rd & Deep Lake Rd      City/County: Lake Villa / Lake County      Sampling Date: 11/3/2022  
 Applicant/Owner: Manhard Consulting, LTD.      State: IL      Sampling Point: F  
 Investigator(s): Lisa Pajon      Section, Township, Range: NE S28 T46N R10E  
 Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_  
 Slope (%): \_\_\_\_\_ Lat: 42.439678      Long: -88.063754      Datum: \_\_\_\_\_  
 Soil Map Unit Name: 530D2 Ozaukee silt loam      NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year?    Yes X    No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?    Are "Normal Circumstances" present?    Yes X    No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?    (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?    Yes _____    No <u>X</u> Hydric Soil Present?    Yes <u>X</u> No _____ Wetland Hydrology Present?    Yes _____    No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____    No <u>X</u>
Remarks: On slope north of C	

**VEGETATION – Use scientific names of plants.**

<table style="width: 100%;"> <tr> <th style="text-align: left;">Tree Stratum</th> <th style="text-align: left;">(Plot size: <u>30</u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: right;">=Total Cover</td> </tr> </table> <table style="width: 100%;"> <tr> <th style="text-align: left;">Sapling/Shrub Stratum</th> <th style="text-align: left;">(Plot size: <u>15</u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td><u>Salix interior</u></td><td style="text-align: center;">10</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2.</td><td><u>Pyrus calleryana</u></td><td style="text-align: center;">10</td><td style="text-align: center;">Yes</td><td style="text-align: center;">UPL</td></tr> <tr><td>3.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: right;">20 =Total Cover</td> </tr> </table> <table style="width: 100%;"> <tr> <th style="text-align: left;">Herb Stratum</th> <th style="text-align: left;">(Plot size: <u>5</u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td><u>Equisetum hyemale</u></td><td style="text-align: center;">50</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2.</td><td><u>Solidago altissima</u></td><td style="text-align: center;">20</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACU</td></tr> <tr><td>3.</td><td><u>Sorghastrum nutans</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>4.</td><td><u>Ratibida pinnata</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">UPL</td></tr> <tr><td>5.</td><td><u>Panicum virgatum</u></td><td style="text-align: center;">10</td><td style="text-align: center;">No</td><td style="text-align: center;">FAC</td></tr> <tr><td>6.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: right;">100 =Total Cover</td> </tr> </table> <table style="width: 100%;"> <tr> <th style="text-align: left;">Woody Vine Stratum</th> <th style="text-align: left;">(Plot size: <u>30</u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: right;">=Total Cover</td> </tr> </table>	Tree Stratum	(Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	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Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																																																																																							



## SOIL

Sampling Point: F

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		
<b>Field Observations:</b>			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<input type="text"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<input type="text"/>
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	<input type="text"/>
(includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
No hydro			

## Appendix D: Threatened and Endangered Species Consultation



# Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271  
www.dnr.illinois.gov

JB Pritzker, Governor  
Colleen Callahan, Director

November 14, 2022

Lisa Pajon  
Natural Resources Consultant  
402 W. Liberty Drive  
Wheaton, IL 60187

**RE: Grass Lake Rd & Deep Lake Rd ment  
Consultation Program  
EcoCAT Review #2306326  
Lake County**

Dear Mrs. Pajon:

The Department has received your submission for this project for the purposes of consultation pursuant to the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action consists of the construction of a development with associated stormwater and utilities (42.440°, -88.069°).

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

**Illinois Natural Areas Inventory (INAI) Sites**

**Deep Lake  
Loon Lake  
Sun Lake**

**Illinois Nature Preserves Commission Lands**

**Sun Lake Nature Preserve**

**State Threatened or Endangered Species**

**Blanding's Turtle (*Emydoidea blandingii*)  
King Rail (*Rallus elegans*)  
Least Bittern (*Ixobrychus exilis*)**

Due to the project scope and proximity to protected resources the Department recommends the following actions be taken to avoid adversely impacting listed species in the vicinity of the project:

**Deep Lake INAI, Loon Lake INAI, Sun Lake INAI, & Sun Lake Nature Preserve**

The Department has determined adverse impacts to these protected natural areas are unlikely.

### **Blanding's Turtle**

To avoid adverse impacts to Blanding's Turtles, the Department recommends the following:

- All on-site personnel should be educated about this species and be instructed to stop work immediately and contact the Department (Brad Semel, Natural Heritage Division, 815-675-2386 ext. 216) if they are encountered in the project area. Fliers with photos of adult and juvenile Blanding's turtles, and life-history information, should be distributed to personnel.
- Exclusionary fencing should be installed around the work area, or at a minimum, to partition off any wetland areas before the active season (March 1st - November 1st). Exclusionary fencing should be trenched into the ground (a minimum of 4 inches) and inspected daily for Blanding's turtles. Fencing should be installed with turn-arounds at open ends and at any access openings needed in the fencing, in order to redirect animals away from openings.
- Excavations should be inspected daily for trapped wildlife and safely covered overnight. Soil or other potential turtle nesting medium stockpiles should also have exclusionary fencing installed around the perimeter to discourage turtle nesting and potential harm.
- A permanent exclusionary barrier between any wetlands and the project site should be incorporated into project plans to prevent turtles from entering areas where they may be adversely impacted by daily activity. The barrier should include turn-arounds where needed and be trenched into the soil a minimum of 4 inches.
- If erosion control blanket is to be used, the Department also recommends that wildlife-friendly plastic-free blanket be used around wetlands and adjacent to natural areas, if not feasible to implement project wide, to prevent the entanglement of native wildlife.

### **King Rail & Least Bittern**

To avoid adverse impacts to King Rail and Least Bittern, the Department recommends the following:

- A 50-foot buffer should be maintained on all wetlands.
- When feasible, work near wetlands should be avoided between April 1<sup>st</sup> and September 30<sup>th</sup> to avoid the prime nesting and fledging season for these protected bird species.
- Any required night lighting should follow International Dark-Sky Association (IDA) guidance to minimize the effect of light pollution on wildlife; including shielding fixtures so no light travels upward, using "warm-white" or filtered LEDs (CCT < 3,000 K) to minimize blue emission, and avoiding over-lighting.

Given the above recommendations are adopted the Department has determined that impacts to these protected resources are unlikely. The Department has determined impacts to other protected resources in the vicinity of the project location are also unlikely.

*In accordance with 17 Ill. Adm. Code 1075.40(h), please notify the Department of your decision regarding these recommendations.*

Consultation on the part of the Department is closed unless the applicant desires additional information or advice related to this proposal. Consultation for Part 1075 is valid for two years unless new information becomes available which was not previously considered; the proposed

action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the action has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal and should not be regarded as a final statement on the project being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are unexpectedly encountered during the project's implementation, the applicant must comply with the applicable statutes and regulations.

This letter does not serve as permission to take any listed or endangered species. As a reminder, no take of an endangered species is permitted without an Incidental Take Authorization or the required permits. Anyone who takes a listed or endangered species without an Incidental Take Authorization or required permit may be subject to criminal and/or civil penalties pursuant to the *Illinois Endangered Species Act*, the *Fish and Aquatic Life Act*, the *Wildlife Code* and other applicable authority.

The Department also offers the following conservation measures be considered to help protect native wildlife and enhance natural areas in the project area:

- Good housekeeping practices should be implemented and maintained during and after construction to prevent trash and other debris from inadvertently blowing or washing into nearby natural areas.
- Post construction invasive species control should be considered, especially near any natural areas.

Please contact me with any questions about this review.

Sincerely,



Bradley Hayes  
Manager, Impact Assessment Section  
Division of Real Estate Services and Consultation  
Office of Realty & Capital Planning  
Illinois Department of Natural Resources  
One Natural Resources Way  
Springfield, IL 62702  
Bradley.Hayes@Illinois.gov  
Phone: (217) 782-0031



**Applicant:** Gary R. Weber Associates, Inc.  
**Contact:** Lisa Pajon  
**Address:** 402 W. Liberty Drive  
Wheaton, IL 60187

**IDNR Project Number:** 2306326  
**Date:** 11/10/2022

**Project:** Grass Lake Rd & Deep Lake Rd  
**Address:** Deep Lake Road, Lake Villa

**Description:** Proposed above ground development with associated stormwater and utilities

### Natural Resource Review Results

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Deep Lake INAI Site  
Loon Lake INAI Site  
Sun Lake INAI Site  
Sun Lake Nature Preserve  
Blanding's Turtle (*Emydoidea blandingii*)  
King Rail (*Rallus elegans*)  
Least Bittern (*Ixobrychus exilis*)

**An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.**

#### Location

The applicant is responsible for the accuracy of the location submitted for the project.

**County:** Lake

**Township, Range, Section:**  
46N, 10E, 28



**IL Department of Natural Resources  
Contact**  
Bradley Hayes  
217-785-5500  
Division of Ecosystems & Environment

**Government Jurisdiction**  
U.S. Army Corps of Engineers

#### Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

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3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

## **Security**

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

## **Privacy**

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

November 21, 2022

Matt Eagle  
Manhard Consulting, Ltd.  
116 W. Illinois Street.  
Chicago, IL 60604

RE: USFWS Threatened and Endangered Species IPaC Review Summary  
Grass Lake Rd & Deep Lake Rd, Lake Cook County, Illinois

Dear Mr. Eagle,

Gary R. Weber Associates Inc. reviewed the U.S. Fish and Wildlife Information for Planning and Consultation (IPaC) website on November 10, 2022 for federally listed threatened and endangered species. The IPaC program utilizes known or expected range of species, as well as additional areas outside of the range in which activities may indirectly affect a species. This review represents an informal consultation and further coordination with USFWS may be required for a formal consultation.

According to the IPaC consultation, seven (7) species are thought to be present in this location of Lake County (see below). Based on the 11/3/2022 site review, potential habitat for these species is not present within the project area and therefore would not negatively affect threatened or endangered species.

Site Summary:

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The study area (approximately 4.97-acres) consists of a turf field with a lightly a scrub-shrub border to the north and east. The field is an elevated building pad that was constructed around 1999.

The vegetated areas are entirely maintained, with mowed turf throughout the main area, and a narrow scrub-shrub community at the north boundary. The scrub-shrub consists of a few large trees and dense dogwood around the basin.

Habitat and Requirements:

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Threatened – Northern long-eared bat (*Myotis septentrionalis*): No Affect

According to the USFWS guidance, conditions suitable for the Northern long-eared bat (NLEB) includes wooded areas characterized by the presence of roosting trees and an herbaceous understory community. The bats will spend the summer foraging and roosting before overwintering in caves and mines from late October to April. Summer roosting trees required by the bats are characterized by mature trees containing potential roosting features (PRF) such as peeling and crevice forming bark, cavities, and dead snags. Foraging can occur in a variety of habitats including upland forests, edge habitats, wetlands, riparian buffers, and floodplain forests. An open, herbaceous understory is beneficial to supporting insect abundance for the bats to feed on.

The current site conditions contain few large trees that contain PRF, however no canopy is present and adjacent areas are either paved or maintained turf. These conditions are not suitable as habitat for the NLEB.

Endangered – Piping Plover (*Charadrius melodus*): No Affect

According to USFWS guidance, the piping plover is a summer resident that inhabits shoreline and coastal areas of the Great Lakes during the summer breeding season. The plover is a shorebird that prefers breeding habitat consisting of open, sparsely vegetated areas with alkali or unconsolidated substrates. Foraging habitat consist of mud flats or ephemeral pools with abundant vertebrate populations. Critical habitat has been designated for this species along the Great Lakes shoreline.

Current site conditions are not suitable for the Piping Plover.

Threatened – Red Knot (*Calidris canutus rufa*): No Affect

According to USFWS guidance, the red knot is primarily occurs in Illinois during migration in the spring and fall. Spring migrants arrive in May and fall migrants arrive in July. The red knot is a shorebird that typically uses sandy, open shoreline along Lake Michigan for foraging, but has also been observed at water reservoirs.

Current site conditions are not suitable for the Red Knot.

Endangered – Karner Blue Butterfly (*Lycaeides melissa samuelis*): No Affect

According to USFWS guidance, the karner blue butterfly require environments characterized by dry, sandy areas with open woodlands capable of supporting Wild Blue Lupine populations. The lupine is the only food source for larval butterflies as well as required for adult oviposition. Foraging adults require diverse blooming nectar resources.

Current site conditions are not suitable for the Karner Blue Butterfly due to lack of lupine presence.

Endangered – Monarch Butterfly (*Danaus plexippus*): No Affect

According to USFWS Species Status Assessment Report, Monarch Butterflies require environments containing both diverse blooming nectar resources for foraging during breeding and migration, and sufficient milkweed (*Asclepias spp.*) populations for oviposition and larval feeding.

Due to mowing activity and lack of wildflower presence, current site conditions are not suitable for the Monarch Butterfly.

Threatened – Eastern Prairie Fringed Orchid (*Platanthera leucophaea*): No Affect

According to USFWS guidance, the eastern prairie fringed orchid (EPFO) occurs in a wide variety of habitats. It requires full sun for optimum growth and can occur in tall grass silt-loam or sand prairies, sedge meadows, and fens. It is adaptive to natural patch disturbance and other dynamic disturbance regimes. It is occasionally found in successional environments.

Current site conditions are not suitable for the EPFO as there are no fens, sedge meadows, or sand prairies.

Endangered – Pitcher's Thistle (*Cirsium pitcher*): No Affect

According to USFWS guidance, the Pitcher's Thistle occurs in open sand dunes and beach ridges along Lake Michigan. This species was once extirpated in Illinois but has been reintroduced in Lake County.

Current site conditions are not suitable for the Pitcher's thistle.



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Chicago Ecological Service Field Office  
U.S. Fish And Wildlife Service Chicago Ecological Services Office  
230 South Dearborn St., Suite 2938  
Chicago, IL 60604-1507  
Phone: (312) 485-9337

In Reply Refer To:

November 10, 2022

Project Code: 2023-0014834

Project Name: Grass Lake Rd & Deep Lake Rd

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing



determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and

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recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

### **Chicago Ecological Service Field Office**

U.s. Fish And Wildlife Service Chicago Ecological Services Office  
230 South Dearborn St., Suite 2938  
Chicago, IL 60604-1507  
(312) 485-9337

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## Project Summary

Project Code: 2023-0014834

Project Name: Grass Lake Rd & Deep Lake Rd

Project Type: New Constr - Above Ground

Project Description: Proposed above ground development with associated stormwater and utilities.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.439811750000004,-88.06377054473049,14z>



Counties: Lake County, Illinois

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## Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Birds

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.) There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a>	Endangered
Red Knot <i>Calidris canutus rufa</i> There is <b>proposed</b> critical habitat for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>	Threatened

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## Insects

NAME	STATUS
Karner Blue Butterfly <i>Lycaeides melissa samuelis</i> There is <b>proposed</b> critical habitat for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6656">https://ecos.fws.gov/ecp/species/6656</a>	Endangered
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Follow the guidance provided at <a href="https://www.fws.gov/midwest/endangered/section7/s7process/plants/epfos7guide.html">https://www.fws.gov/midwest/endangered/section7/s7process/plants/epfos7guide.html</a></li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/601">https://ecos.fws.gov/ecp/species/601</a>	Threatened
Pitcher's Thistle <i>Cirsium pitcheri</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8153">https://ecos.fws.gov/ecp/species/8153</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

## **IPaC User Contact Information**

Agency: Gary R Weber Associates  
Name: Michael Kellenberger  
Address: 402 W. Liberty Drive  
City: Wheaton  
State: IL  
Zip: 60187  
Email: mkellenberger@grwainc.com  
Phone: 6306687179

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LAND PLANNING   ECOLOGICAL CONSULTING  
LANDSCAPE ARCHITECTURE

402 W. LIBERTY DRIVE   WHEATON, ILLINOIS 60187  
TELEPHONE: 630-668-7197   FACSIMILE: 630-668-9693

VILLAGE OF LAKE VILLA

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ORDINANCE NO. 2023-03-04

AN ORDINANCE AUTHORIZING  
THE SALE OF SURPLUS PERSONAL PROPERTY  
OWNED BY THE VILLAGE OF LAKE VILLA

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ADOPTED BY THE  
CORPORATE AUTHORITIES  
OF THE  
VILLAGE OF LAKE VILLA, ILLINOIS

THIS 20<sup>th</sup> DAY OF MARCH, 2022

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Published in pamphlet form by the Corporate Authorities of the Village of Lake Villa, Lake County, Illinois, this 20<sup>th</sup> day of March, 2023.

AN ORDINANCE AUTHORIZING  
THE SALE OF SURPLUS PERSONAL PROPERTY  
OWNED BY THE VILLAGE OF LAKE VILLA

WHEREAS, the Village of Lake Villa, Lake County, Illinois (“the Village”) is authorized by 65 ILCS 5/11-76-4 to sell, by various means, surplus personal property which has been determined by a three-fourths vote of the Corporate Authorities of the Village to no longer be necessary or useful to the Village; and

WHEREAS, in the opinion of at least three-fourths of the Corporate Authorities of the Village, it is no longer necessary, useful, or in the best interest of the Village to retain ownership of the surplus personal property hereinafter described; and

WHEREAS, it has been determined by the Mayor and Board of Trustees of the Village to sell said surplus personal property by an on-line auction service for government property or by a private negotiated sale, without advertising for bids:

NOW THEREFORE, BE IT ORDAINED by the Mayor and Board of Trustees of the Village of Lake Villa, Lake County, Illinois, that:

SECTION 1: Pursuant to Chapter 65 ILCS 5/11-76-4 of the Illinois Municipal Code, the Corporate Authorities of the Village find that the following described items of personal property now owned by the Village are no longer necessary or useful to the Village, and the best interests of the Village will be served by the sale thereof, but such sale shall be at not less than the minimum sales prices specified, if any, as set forth below:



<u>DESCRIPTION OF SURPLUS PROPERTY</u>	<u>METHOD(S) OF SALE</u>
Aerator Pumps	Auction through GovDeals.com
Truck #20 – Ford F550 Dump w/ Plow and Spreader VIN: 1FDAF57YX8EE35940	Auction through GovDeals.com
Police Vehicle Aftermarket Lighting and Wiring	Auction through GovDeals.com
Police Recovered Bicycles	Auction through GovDeals.com
Miscellaneous Repair Parts/Filters from Fleet Vehicles	Auction through GovDeals.com
Buyers Salt Spreader	Auction through GovDeals.com

All sales shall be pursuant to a Bill of Sale which indicates that the sales are “AS IS, EXCLUDING ANY WARRANTIES”.

SECTION 2: The Mayor, or his designee, is hereby authorized to direct the sale of the aforementioned personal property through one or more means as specified above as determined by the Mayor, or his designee, and is further authorized to take all steps necessary and/or appropriate to effectuate and implement such sales consistent with the terms and conditions of this Ordinance:

- A. The Mayor, or the Village Administrator, as his designee, are authorized and directed to sell each such item of surplus property by the means specified above.
- B. No bid or offer shall be accepted for the sale of an item of personal property which is less than the minimum required bid price, if any.
- C. Upon payment in full of the agreed price for each said item of personal property, the Mayor, or the Village Administrator, as his designee, is authorized to convey and transfer the title and ownership of said personal property to the purchaser.
- D. Payment in full of the purchase price shall be made directly to the Village by bank check or money order.

SECTION 3: If any section, subsection, paragraph, sentence, clause or phrase of this Ordinance or any part thereof is, for any reason, held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or

effectiveness of the remaining portions of this Ordinance, or any part thereof. The Corporate Authorities hereby declare that they would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional, invalid or ineffective.

SECTION 4: This Ordinance shall be in full force and effect from and after its passage by at least three-fourths of all the Corporate Authorities, and approval in the manner provided by law.

Passed by the Corporate Authorities on March 20<sup>th</sup>, 2023, on a roll call vote as follows:

AYES:

NAYS:

ABSENT:

ABSTAIN:

Approved by the Mayor on March 20, 2023.

---

James McDonald, Mayor  
Village of Lake Villa

ATTEST:

---

Mary Konrad,  
Village Clerk

**A RESOLUTION OPPOSING THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES (IDNR) PROPOSED ANNUAL LAKE MICHIGAN WATER ALLOCATION REVIEW FEES**

**WHEREAS**, the Village of Lake Villa, Lake County, Illinois (the “*Village*”) is a duly organized and validly existing non-home rule municipality pursuant to Article VII, Section 6(a) of the Constitution of the State of Illinois of 1970; and

**WHEREAS**, the Village of Lake Villa is a Member of the Central Lake County Joint Action Water Agency (Agency), an Illinois Municipal Corporation which operates in accordance with the provisions of the statutes of the State of Illinois; and

**WHEREAS**, the Village has an allocation of Lake Michigan water from the IDNR permitting the Village to access the lake as our source of drinking water;

**WHEREAS**, the IDNR is proposing to charge the Village, the Agency and all Lake Michigan water allocation permittees a new fee of up to \$5,000 per year to supplement existing General Revenue Funds; and

**WHEREAS**, the IDNR would deposit all fees into a specially designated portion of the Illinois Boat Fund to finance a community advocate to assist communities to document annual water usage, and among other things, to fund and manage a grant program for smaller and economically distressed communities; and

**WHEREAS**, for decades, the Village has at substantial cost, faithfully accounted for all water withdrawn from Lake Michigan and reported the results to the IDNR; and

**WHEREAS**, the IDNR has changed the annual reporting process and imposed new requirements that make annual reporting more difficult and more costly.

**WHEREAS**, these proposed fees will increase the cost of drinking water.

**NOW, THEREFORE, BE IT RESOLVED:**

*Section 1.* The Village of Lake Villa formally opposes the proposed water allocation fee.

*Section 2.* The Village urges that the annual water allocation process be simplified to reduce the cost of these mandates.

*Passed* by the President and the Village Board of Trustees of the Village of Lake Villa, Illinois, this 20<sup>th</sup> day of March, 2023.

AYES:

NAYS:

ABSENT:

ABSTAIN:

**APPROVED:**

---

Mayor James McDonald

*Attest:*

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Village Clerk

ORDINANCE NO. 2023-03-05

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AN ORDINANCE ABATING  
A PORTION OF THE AMOUNT OF TAXES LEVIED FOR  
GENERAL OBLIGATION REFUNDING BONDS  
(ALTERNATE REVENUE SOURCE, SERIES 2015A)  
AS SET FORTH IN VILLAGE OF LAKE VILLA  
ORDINANCE NO. 2014-11-02 ADOPTED ON NOVEMBER 19, 2014,  
AS SUPPLEMENTED BY A DIRECTION FOR ABATEMENT OF TAXES  
DATED DECEMBER 17, 2014

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ADOPTED BY THE  
CORPORATE AUTHORITIES  
OF THE  
VILLAGE OF LAKE VILLA, ILLINOIS  
THIS 20th DAY OF MARCH, 2023

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AN ORDINANCE ABATING  
A PORTION OF THE AMOUNT OF TAXES LEVIED FOR  
GENERAL OBLIGATION REFUNDING BONDS  
(ALTERNATE REVENUE SOURCE, SERIES 2015A)  
AS SET FORTH IN VILLAGE OF LAKE VILLA  
ORDINANCE NO. 2014-11-02 ADOPTED ON NOVEMBER 19, 2014,  
AS SUPPLEMENTED BY A DIRECTION FOR ABATEMENT OF TAXES  
DATED DECEMBER 17, 2014

WHEREAS, the Village of Lake Villa (“the Village”), by Ordinance No. 2014-11-02, “An Ordinance Authorizing and Providing for the Issuance of Not to Exceed \$3,500,000 General Obligation Refunding Bonds (Alternative Revenue Source), Series 2014, of the Village of Lake Villa, Lake County, Illinois, for the Purpose of Refunding Certain Outstanding Waterworks and Sewerage Alternate Bonds, Prescribing All the Details of Said Bonds and Providing for the Imposition of Taxes to Pay the Same, and for the Collection, Segregation and Distribution of the Revenues of the Waterworks and Sewerage System Operated by Said Village” (hereinafter “the Bond Ordinance”) provided for the levy and collection of a direct annual tax sufficient to pay the principal of and interest on the General Obligation Refunding Bonds (Alternate Revenue Source), Series 2015A (the “Bonds”) as and when the same became due and payable, said ordinance and a related Direction for the Abatement of Taxes Dated December 17, 2014 having been filed with the Lake County Clerk; and

WHEREAS, pursuant to the Bond Ordinance, the Village issued the Bonds in the total amount of \$2,550,000 for the purpose of refunding certain outstanding waterworks and sewerage alternate bonds of the Village, prescribing all the details of said Bonds and providing for the

imposition of taxes to pay the same, and for the collection, segregation and distribution of the revenues of the waterworks and sewerage system operated by the Village (the “Pledged Revenues”); and

WHEREAS, the Village Treasurer has deposited into the Alternate Bond and Interest Subaccount as defined in the Bond Ordinance Pledged Revenues equal to the amount necessary to provide for the payment of interest and principal on the Bonds coming due in the year 2022; and

WHEREAS, it is now appropriate and in the best interests of the Village that all of the taxes levied for levy year 2021 for the Bonds should be abated:

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Board of Trustees of the Village of Lake Villa, Lake County, Illinois, as follows:

SECTION 1: The recitals set forth in the preamble hereof are true and correct and are incorporated by reference as if fully set forth herein.

SECTION 2: The Lake County Clerk is hereby authorized and directed to abate all of the taxes levied for levy year 2021 to be extended in calendar year 2022 for the purpose of providing revenue for the payment of principal of and interest on the Bonds pursuant to the Bond Ordinance.

SECTION 3: The Village of Lake Villa Village Clerk is hereby directed to present to and file with the Lake County Clerk a copy of this Ordinance duly certified by said Village Clerk.

SECTION 4: This Ordinance shall be in full force and effect from and after its passage and approval.

Passed by the Corporate Authorities on March 20, 2023, on a roll call vote as follows:

AYES:

NAYS:

ABSENT:

ABSTAIN:

Approved by the Mayor on March 20, 2023

---

James McDonald, Mayor  
Village of Lake Villa

ATTEST:

---

Mary Konrad, Village Clerk

[S E A L]

## MASTER POWER SUPPLY AGREEMENT

### AGREEMENT BY AND BETWEEN VILLAGE OF LAKE VILLA AND MC SQUARED ENERGY SERVICES LLC TO PROVIDE FULL-REQUIREMENTS ELECTRICITY SUPPLY AND RELATED SERVICES FOR THE VILLAGE'S ELECTRIC AGGREGATION PROGRAM

This Agreement ("Agreement"), is entered into as of this 7<sup>th</sup> day of March 2023 ("Effective Date") between the Village of Lake Villa, an Illinois municipal corporation ("Municipality") and MC Squared Energy Services, LLC (MC2) ("Supplier") (each a "Party" and collectively, the "Parties").

#### RECITALS

A. The Municipality has established an Electricity Aggregation Program ("Program") pursuant to the Aggregation Ordinance and the Aggregation Statute, and will conduct the Program as an opt-out program pursuant to the Aggregation Ordinance and the Aggregation Statute.

B. The purpose of this Agreement is for the Supplier to provide the Full-Requirements Electricity Supply Services and the Program Implementation Services as defined herein (collectively, the "Services") to all Eligible Customers who choose not to opt out of or choose to opt in to the Program, as the case may be, throughout the Term of this Agreement at the Price established in this Agreement.

C. The Supplier acknowledges and agrees that it has all certifications, authorizations, qualifications, and approvals necessary pursuant to the Requirements of Law to sell Full-Requirements Electricity Supply to Eligible Customers pursuant to this Agreement, including without limitation that:

- a. Supplier is certified by the Illinois Commerce Commission as a Retail Electric Supplier and is authorized to sell Full-Requirements Electricity Supply to customers in the State of Illinois utilizing the existing transmission and distribution systems of ComEd within the service areas of ComEd;
- b. Supplier is currently registered with ComEd to serve residential and small commercial customers under Rate RESS - Retail Electric Supplier Service with Rider PORCB - Purchase of Receivables and Consolidated Billing; and
- c. Supplier has at least three years continuous experience as a Retail Electric Supplier and has provided Full-Requirements Electricity Supply to at least 25,000 residential or commercial customers.
- d. Supplier acknowledges and agrees that it will provide the Services, including without limitation Full-Requirements Electricity Supply to all Participating Customers, pursuant to the Bid Package, the Bid Response, this Agreement, and the Requirements of Law.
- e. The Municipality desires to enter into this Agreement with Supplier for the provision by the Supplier of Full-Requirements Electricity Supply to all Eligible Customers pursuant to the Program.

## AGREEMENT

In consideration of the mutual covenants and agreements contained herein, the Municipality and the Supplier agree as follows:

### ARTICLE 1 RECITALS

1.1 The foregoing recitals are, by this reference, fully incorporated into and made part of this Agreement.

### ARTICLE 2 DEFINITIONS

The following terms shall have the meanings ascribed to them in this section:

2.1. "Aggregate" means the total number of Eligible Customers that are within the jurisdictional boundaries of the Municipality.

2.2. "Aggregation Ordinance" means that certain ordinance adopted by the Municipality authorizing the Program.

2.3. "Aggregation Statute" means Section 1-92 of the Illinois Power Agency Act, 20 ILCS 3855/1-92 and applicable rules and regulations of the Illinois Commerce Commission.

2.4. "Billing Services" means those services described in Section 4.4 of this Agreement, including all subsections of Section 4.4.

2.5. "ComEd" means Commonwealth Edison.

2.6. "Compliance Services" means those services identified in Section 4.5 of this Agreement, including all subsections of Section 4.5.

2.7. "Confidential Information" means the information defined in Section 9 of this Agreement.

2.8. "Customer Information" means that certain information that the Electric Utility or Former Aggregation Supplier is required to provide by statute (including the Aggregation Statute), regulation, tariff or contract to the corporate authorities of the Municipality pursuant to the Aggregation Statute, including without limitation those names and addresses and Electric Utility account numbers of residential and small commercial retail customers in the Aggregate area that are reflected in the Electric Utility or Former Aggregation Supplier's records at the time of the request.

2.9. "Data" means the data defined in Section 9 of this Agreement.

2.10. "Electric Utility" means ComEd.



2.11. "Eligible Customers" means residential and small commercial electricity customers receiving Full-Requirements Electricity Supply within the Municipality who are eligible to participate in the Program pursuant to the Aggregation Statute and the Requirements of Law.

2.12. "Energy" means generated electricity.

2.13. "Enrollment Services" means those services described in Section 4.3 of this Agreement, including all subsections of Section 4.3.

2.14. "Former Aggregation Supplier" means the RES that supplied the Program of the Municipality immediately prior to Supplier under this Agreement. If Former Aggregation Supplier as defined would be Supplier or ComEd, then no former Aggregation Supplier is considered to exist.

2.15. "Force Majeure Event" means the circumstances defined in Section 7.1 of this Agreement.

2.16. "Full-Requirements Electricity Supply" means all services or charges necessary to provide the continuous supply of electricity to all Participating Customers, including, without limitation, Energy, capacity, losses, imbalances, load factor adjustments, transmission costs, congestion charges, marginal losses, ancillary services, Purchase of Receivables and Consolidated Billing (PORCB) charges, taxes applicable only to the Supplier, and any additional necessary services or charges required under Requirements of Law.

2.17. "Full-Requirements Electricity Supply Services" means those portions of the Services described in Section 4.1 of this Agreement, including all subsections of Section 4.1.

2.18. "ICC" means the Illinois Commerce Commission

2.19. "Independent System Operator" or "ISO" means that certain independent system operator for the Electric Utility established pursuant to the Public Utilities Act, 220 ILCS 5/16-626.

2.20. "Joint Power Supply Bid" means the bidding process conducted by NIMEC on behalf of the Municipality to identify the Supplier.

2.21. "New Customers" means the customers defined in Section 4.3.9 of this Agreement.

2.22. "Opt-Out Notice" means the notices described in Section 4.2.1.1 of this Agreement and provided to Eligible Customers informing them of their ability to opt-out of the Program pursuant to the Requirements of Law:

2.23. "Opt-Out Period" means the time prior to the implementation of the Program during which Eligible Customers may choose not to participate in the Program pursuant to the Requirements of Law.

2.24. "Opt-Out Process" means the process defined in Section 4.2.1 of this Agreement.

2.25. "Participating Customers" means those Eligible Customers who do not opt out of the Program and are not Special Billing Customers, and New Customers.

2.26. "Plan of Governance" or "POG" means that certain Plan of Operation and Governance approved by the Municipality pursuant to the Aggregation Statute.

2.27. "Point of Delivery" means the point specified by the Electric Utility at which the Supplier must deliver the Full-Requirements Electricity Supply to the Electric Utility for distribution to Participating Customers.

2.28. "Price" means the fixed price expressed in cents per kilowatt hour at which the Supplier will provide the Services as set forth in Exhibit A to this Agreement.

2.29. "Program" means the electricity aggregation program operated by the Municipality in accordance with the Aggregation Statute and authorized by the Aggregation Ordinance, to aggregate residential and small commercial retail electrical loads located within the corporate limits of the Municipality for the purpose of soliciting and entering into service agreements to facilitate for those loads the sale and purchase of Full-Requirements Electricity Supply and related Services.

2.30. "Program Implementation Services" means those portions of the Services described in Section 4.2 of this Agreement, including all subsections of Section 4.2.

2.31. "Requirements of Law" means the Aggregation Ordinance, the Aggregation Statute, the Illinois Public Utilities Act, the Illinois Consumer Fraud Act, the Plan of Governance, the rules, and regulations and final decisions of the ICC and Illinois Power Agency (including the ICC Final Order in Docket No. 11-0434 issued on April 4, 2012), the rules, regulations and tariffs applicable to the Electric Utility and the Independent System Operator or Regional Transmission Organization, and all other applicable federal, state, and local laws, orders, rules, and regulations, all as may be hereinafter duly amended.

2.32. "Retail Electric Supplier" or "RES" means an "alternative retail electric supplier" as that term is defined in Section 16-102 of the Public Utilities Act, 220 ILCS 5/16-102.

2.33. "RTO: means Regional Transmission Organization.

2.34 "Services" means the Full-Requirements Electricity Supply Services, Program Implementation Services, Enrollment Services, Billing Services, and Compliance Services provided in Article 4 of this Agreement.

2.35. "Special Billing Customers" means the customers defined in Section 4.3.8 of this Agreement.

2.36. "Supplier" means MC Squared Energy Services, LLC and the lawful successor, transferee, designee, or assignee thereof.

2.37. "Tariffed Service" means the applicable tariffed services provided by the Electric Utility as required by 220 ILCS 5/16-103, which includes ComEd's electricity supply charge

plus ComEd's transmission services charge, but does not include ComEd's purchased electricity adjustment.

2.38. "Term" means the period of time defined in Section 5.1 of this Agreement.

2.39 "Municipality" means the Village of Lake Villa.

2.40. "Withdrawing Customer" means a customer defined in Section 4.3.6 of this Agreement.

### ARTICLE 3 PROGRAM RESPONSIBILITIES

#### 3.1 Municipality Responsibilities.

3.1.1 Customer Information. The Municipality shall, with the assistance of the Supplier, pursuant to the Requirements of Law, obtain the Customer Information from ComEd and/or the previous supplier.

3.1.2 Notices and Customer Information from ComEd and/or the previous supplier. The Municipality shall promptly forward to Supplier the Customer Information received from ComEd and/or the previous supplier and each Party will promptly provide to the other Party any notices received by that Party from ComEd and/or the previous supplier concerning the accounts of Eligible or Participating Customers relevant to the Program and/or the Services provided pursuant to this Agreement.

3.1.3 Submittals to ComEd. The Municipality shall, with the assistance of Supplier, submit to ComEd (a) the "Government Authority Aggregation Form", (b) a list of Eligible Customers who are not Participating Customers because they have elected to opt out of the Program, and (c) a list of all Participating Customers, and (d) such other forms as are or may become necessary to access interval data for billing or non-billing purposes to the extent that Supplier is authorized to access such data.

3.1.4 No Municipality Obligations to Provide Services. The Parties acknowledge and agree that the Municipality is not responsible to provide, and this Agreement shall not be construed to create any responsibility for the Municipality to provide, the Services to any person or entity, including without limitation the Supplier, the Electric Utility, the ISO/RTO, Eligible Customers, Special Billing Customers, New Customers or Participating Customers.

3.1.5 No Municipality Financial Responsibility. The Parties acknowledge and agree that this Agreement does not impose or create, and shall not be construed to create, any financial obligation of the Municipality to any other person or entity, including without limitation the Supplier, the Electric Utility, the ISO, Eligible Customers, Special Billing Customers, or Participating Customers.

#### 3.2 Supplier Obligations.

3.2.1 Provision of Services. The Supplier will provide all of the Services described in Article 4 of this Agreement throughout the Term, including but not limited to the provision of sufficient Full-Requirements Electricity Supply to allow the Electric Utility to deliver and

distribute uninterrupted electric service to all Participating Customers. The Supplier acknowledges and agrees that the Municipality is not responsible to provide, and shall not be liable to the Supplier or any Eligible Customer for any failure to provide, any Services pursuant to this Agreement.

3.2.2 Compliance with the Requirements of Law. Supplier shall comply with all Requirements of Law.

3.2.3 Supplier Press Releases. The Supplier may issue press releases concerning the Program that are approved in advance by the Municipality prior to issuance.

3.2.4 That all information provided by the Supplier to Municipality or any of its agents relating to this Agreement in any way shall be true and accurate in all respects at all times to the best of Supplier's knowledge.

#### ARTICLE 4 SUPPLIER SERVICES

4.1 Full Requirements Electricity Supply: The Supplier must supply the following Full-Requirements Electricity Supply Services to Participating Customers as provided in this Section 4.1.

4.1.1 Scheduling, Transmission and Delivery of Full-Requirements Electricity Supply.

4.1.1.1 Generally. The Supplier shall take all actions necessary to arrange for the scheduling, transmission, and delivery of Full-Requirements Electricity Supply to the Electric Utility for distribution to all Participating Customers.

4.1.1.2 Scheduling. Supplier shall schedule the Full-Requirements Electricity Supply for distribution as required by the ISO/RTO and the Electric Utility.

4.1.1.3 Distribution and Transmission Rights. Supplier will arrange for necessary distribution and transmission rights necessary for the delivery of the Full-Requirements Electricity Supply to the Electric Utility hereunder.

4.1.1.4 Transmission and Delivery to Electric Utility.

4.1.1.4.1 Transmission and Delivery. Supplier will cause to be transmitted and delivered to the Electric Utility at the Delivery Point sufficient Energy to provide continuous Full-Requirements Electricity Supply to all Participating Customers. The Municipality acknowledges that the Electric Utility, and not the Supplier, is responsible for the distribution of the Full-Requirements Electricity Supply to the Participating Customers after delivery by the Supplier to the Delivery Point, and that Supplier does not take responsibility for the distribution of the Full-Requirements Electricity Supply to Participating Customers after the Supplier provides Full-Requirements Electricity Supply to the Point of Delivery.

4.1.1.4.2 Failure of Delivery. Supplier acknowledges and agrees that if the Supplier fails to comply with any requirement related to the Full-Requirements Electricity Supply to the Participating Customers pursuant to this Agreement, including without limitation if Supplier fails to schedule all or part of the Full-Requirements Electricity Supply for any Participating Customer, Supplier shall be solely responsible for any additional costs, charges, or fees incurred because of such failure, and shall not pass through any such additional costs, charges, or fees to Participating Customers.

4.1.2 Pricing. Except as provided in Section 4.1.3 of this Agreement, the Supplier shall receive the Price in full payment for all Services, and shall not be entitled to any additional costs, adjustments, charges, fees, or any other payments or compensation except as authorized under the terms of the standard terms and conditions appended as Exhibit A. The Municipality acknowledges that the Price does not include sales or other consumer-based taxes applicable to Participating Customers or other taxes that are not applicable to the Supplier.

4.2 Program Implementation Services. The Supplier must supply the following Program Implementation Services as provided in this Section 4.2:

4.2.1 Opt-Out Process. Supplier, at its sole cost and expense, shall, with the assistance of the Municipality, administer the process by which Eligible Customers are provided with the opportunity to opt-out of the Program prior to its implementation (the "Opt-Out Process"), including, but not limited to, the following:

4.2.1.1 Opt-Out Notices. Supplier, at its own expense, shall be fully responsible to prepare and mail form Opt-Out Notices to all Eligible Customers as required pursuant to the Requirements of Law. Opt-Out Notices must include all information required pursuant to the Requirements of Law, including without limitation including the terms and conditions of participation in the Program, the cost to the Customer of Full-Requirements Electricity Supply under the Program, the methods by which Customers may opt out of the Program, and the length of the Opt-Out Period. The Opt-Out Notices must prominently include the toll-free telephone number and email address to receive Opt Outs. The form and content of the Opt-Out Notices must be approved by the Municipality prior to mailing by the Supplier. In addition to the Opt-Out Notices, the Supplier will provide Participating Customers with terms and conditions for the provision of Full Requirements Electric Supply to those Participating Customers, which terms and conditions shall comply with and accurately reflect all of the requirements of this Agreement and the Requirements of Law.

4.2.1.2 Notices to Special Billing Customers. The Municipality acknowledges that the Supplier may provide notices to Special Billing Customers concerning the Program, the Price, the rates charged to Special Billing Customers under their existing service, and the opportunity for Special Billing Customers to opt in to the Program as provided in Section 4.3.9 of this Agreement.

4.2.1.3 Toll Free Number and Email Address. In addition to receiving completed Opt-Out Notices from Eligible Customers by mail, the Supplier shall, at its own expense, provide, operate, and maintain an email address for the use of Eligible Customers to opt out of the Program. The email address must be operational during normal business hours and the secure



website must be operational 24 hours a day, seven days a week during the Opt-Out Period. The Opt-Out Notices must prominently include both the toll-free number and the email. In addition, Supplier will use reasonable commercial efforts to work with the Village to develop website content and FAQ's appropriate for posting on the Village's website. Supplier will be required to support Spanish speaking residents and customers with disabilities.

4.2.1.4 Reporting. During the Opt-Out Period, Supplier is responsible for receipt of all Opt-Out Notices. Supplier must assemble, track, and report to the Municipality concerning the delivery and receipt of all Opt-Out Notices to and from Eligible Customers, including without limitation providing the Municipality with complete information concerning all Eligible Customers who choose to opt-out of the Program whether by mail, telephone, or email.

4.2.2 Required Disclosures. Supplier shall provide Eligible Customers with all information required to be disclosed to Eligible Customers concerning Full-Requirements Electricity Supply and the Program pursuant to the Requirements of Law, including without limitation all information required to be included in the Opt-Out Notices.

4.2.3 Disclosure to Commission. The Municipality agrees to provide such assistance as is necessary for Supplier to provide to the ICC pursuant to 83 Ill. Admin. Code § 470.200(a) required information within three business days of the signing of this Agreement.

4.3 Enrollment Services. The Supplier must supply the following Enrollment Services as provided in this Section 4.3:

4.3.1 Record of Participating Customers. Following the completion of the Opt-Out Period, the Supplier shall be responsible to compile a complete list of all Participating Customers and those Eligible Customers who have opted out of the Program, and shall ensure that no Eligible Customers who have opted out are enrolled in the Program.

4.3.2 Enrollment. Upon completion of the Opt-Out Process and the identification of all Eligible Customers who have opted out of the Program, the Supplier shall, at its sole cost and expense, take all actions necessary to enroll Participating Customers in the Program pursuant to the Requirements of Law.

4.3.3 Term of Enrollment. Participating Customers who do not opt out of the Program shall be enrolled in the Program by the Supplier and shall remain enrolled in the Program until the end of the Term, unless the Agreement is terminated pursuant to its terms or the Participating Customer withdraws from the Program pursuant to Section 4.3.6 of this Agreement

4.3.4 Direct Access Service Request. The Supplier shall submit a direct access service request to ComEd for each Participating Customer in compliance with the "standard switching" subsection of Rate RDS - Retail Delivery Service, in order to allow Full-Requirements Electricity Supply to commence.

4.3.6 Withdrawal by a Participating Customer. For Participating Customers who notify the Supplier after the completion of the Opt-Out Period that the Participating Customer desires to

withdraw from the Program ("Withdrawing Customer"), the Supplier must, at the direction of the Participating Customer, drop the Participating Customer from the Supplier's Full-Requirements Electricity Supply according to Requirements of Law, which will result in restoring the Participating Customer to Tariffed Service. The Supplier will not assess an early termination fee, but the Participating Customer will be responsible to pay for charges incurred for service prior to the termination.

4.3.7 Customer Service Inquiries. After completion of the Opt-Out Period, Supplier must maintain and operate a toll-free telephone number and an email address for the purpose of receiving questions and comments from Participating Customers concerning the Full-Requirements Electricity Supply. The Supplier may inform Participating Customers that questions about the delivery and billing of the Full-Requirements Electricity Supply should be directed to ComEd. Supplier must promptly and courteously address customer service inquiries in a manner that meets or exceeds the ICC requirements for the operation of call centers.

4.3.8 Special Billing Customers. Subject to the Requirements of Law and due to the minimal and/or fixed nature of their existing billing rates, the following Eligible Customers shall not be automatically enrolled in the Program, but some may subsequently elect to enroll in the Program as New Customers pursuant to Section 4.3.9 of this Agreement:

4.3.8.1. Any Eligible Customer in the residential customer class, as described in Section 4.4.2 of this Agreement, that is taking service under the following ComEd rates:

- Rate BESH – Basic Electric Service Hourly Pricing
- Rate RTOUPP – Residential Time-of-Use Pricing Pilot
- Rate RDS – Retail Delivery Service
- Rider POGNM customers
- Rate BES customers with a utility indicator intended to identify customers currently receiving PIPP or currently or in last 12 months receiving LIHEAP assistance (the "16-115E Flag")

4.3.8.2 Any Eligible Customer in the commercial customer class, as described in Section 4.4.2 of this Agreement, that is taking service under the following ComEd rates:

- Rate BESH – Basic Electric Service Hourly Pricing
- Rate RDS – Retail Delivery Service.

(collectively, the "Special Billing Customers").

4.3.9 New Customers. After the commencement of the Program and the enrollment of Participating Customers, the Supplier shall, at the request of a New Customer, as defined in this Section 4.3.9, immediately enroll the following customers in the Program and provide Full-Requirements Electricity Supply to those customers at the Price:

4.3.9.1. Any Eligible Customer within the Municipality that moves to a new location within the Municipality;

- 4.3.9.2. Any Eligible Customer that moves into an existing location within the Municipality; and
- 4.3.9.3 Any Eligible Customer that previously opted out of the Program during the Opt-Out Period; and
- 4.3.9.4 Any Eligible Customer that was inadvertently omitted from the list of Participating Customers and not enrolled in the Program. (collectively, the "New Customers").
- 4.3.9.5 Any Eligible Customer with the 16-115E Flag.

4.4 Billing Services. The Supplier must supply the following Billing Services as provided in this Section 4.4:

4.4.1 Billing Generally. Supplier shall confirm that billing to Eligible Customers will be provided by ComEd under a consolidated billing format pursuant to "Rider PORCB – Purchase of Receivables and Consolidated Billing," and pursuant to the Requirements of Law. The Municipality acknowledges and agrees that ComEd will bill Participating Customers for the Price of the Full-Requirements Electricity Supply as part of its billing for the distribution of such supply, and that the Supplier shall not be responsible for billing Participating Customers

4.4.2 Customer Classes. Eligible Customers shall be categorized within either the residential or commercial customer classes according to the applicable rates under which they received electricity supply from ComEd prior to participating in the Program.

4.4.2.1 Residential Customer Class. The residential customer class shall include Participating Customers taking service from ComEd under the following rates:

- Residential Single Family Without Electric Space Heat Delivery Class
- Residential Single Family With Electric Space Heat Delivery Class
- Residential Multi Family Without Electric Space Heat Delivery Class
- Residential Multi Family With Electric Space Heat Delivery Class

4.4.2.1 Commercial Customer Class. The commercial customer class shall include those Participating Customers taking service from ComEd under the following rates:

- 15,000 (annual) kWhs or less small commercial customers as defined under the Requirements of Law including the ComEd Rate GAP Tariff
- Notwithstanding the preceding, any customer defined as "Rate Code B93" indicating a special rate with ComEd will be excluded from Participating Customers.

4.5 Compliance Services. The Supplier shall assist the Municipality in complying with any current or future Requirements of Law concerning the operation of the Program, including without limitation the provision of reports or other information as the Municipality may reasonably request from time to time.

4.6 Following the completion of the Opt-Out Period, the Supplier shall be responsible to compile a complete list of all Participating Customers in the Program. Supplier will update this list as new customers are added and deleted. Supplier will make this list available to the Municipality

at any time the Municipality requests the list. Additionally, within 120 days of the end of this agreement, Supplier will make the Program's load data by rate class available to the Municipality. Load data shall include:

- Historical Usage Data
- Capacity Peak Load Contribution (PLC) values and effective start and end dates.
- Network Service Peak Load Contribution (PLC) values and effective start and end dates.
- Meter Bill Group Number.
- Rate Code.

4.7 Upon request of the Municipality, Supplier agrees to implement a second (supplemental) mailing at the Supplier's cost to new residents 12 months after the beginning of a 24-month term agreement, and also a third mailing at 24 months, if a 36-month term is selected. Following the initial opt-out process conducted by the Supplier, each supplemental opt out mailing shall be conducted in the same manner as the initial opt out mailing; provided, however, that no supplemental Opt-Out Notices shall be sent to (i) Participating Customers, (ii) Eligible Customers that have previously (at such customer's same service address or account) opted out of, or rescinded under, the Program, (iii) those residents who have individually selected an electric supplier other than the Supplier, or (iv) Special Billing Customers. The Supplier shall provide Full-Requirements Electricity Supply to such applicable newly Eligible Customers at the same, then-current Price as that applicable to Participating Customers. Supplier will be responsible for all costs associated with the mailing, including ComEd charges.

## ARTICLE 5 TERM

5.1 Term. This Agreement commences as of the Effective Date and is for a term of Fourteen (14) consecutive monthly billing periods starting from the initial meter read date designated by the Municipality in consultation with the Supplier in June 2023 and expires at the end of the last day of the 14th billing cycle for the Participating Customer(s) with the latest billing cycle (the "Term").

5.2 In the event this Agreement is not renewed or terminated for any reason, including expiration according to its terms, the Municipality may choose another RES or Retail Electric Supplier and Supplier shall allow all Participating Customers to be switched to the selected RES, or all Participating Customers shall be switched by the Supplier to service with ComEd in accord with the standard switching rules and applicable notices or as otherwise required by any applicable law or regulation.

## ARTICLE 6 REMEDIES AND TERMINATION

6.1 Municipality's General Remedies. In addition to every other right or remedy provided to the Municipality under this Agreement, if the Supplier fails to comply with any of the provisions of this Agreement (for reason other than a Force Majeure Event pursuant to Section 7.1 of this Agreement or a Regulatory Event pursuant to Section 7.2 of this Agreement, then the Municipality may give notice to the Supplier specifying that failure. The Supplier will have 15 calendar days after the date of that notice to take all necessary steps to comply fully with this Agreement, unless (a) this

Agreement specifically provides for a shorter cure period or (b) an imminent threat to the public health, safety, or welfare arises that requires a shorter cure period, in which case the notice must specify the cure period, or (c) compliance cannot reasonably be achieved within 15 calendar days but the Supplier promptly commences a cure and diligently pursues the cure to completion. If the Supplier fails to comply within that 15-day period, or the shorter period if an imminent threat, or if the Supplier fails to promptly commence a cure and diligently pursue the cure to completion, then the Municipality, subject to the limits of applicable federal or State of Illinois law, may take any one or more of the following actions:

- 6.1.1 Seek specific performance of any provision of this Agreement or seek other equitable relief, and institute a lawsuit against the Supplier for those purposes.
- 6.1.2 Institute a lawsuit against the Supplier for breach of this Agreement and, except as provided in Section 6.3 of this Agreement, seek remedies and damages as the court may award.
- 6.1.3 In the case of noncompliance with a material provision of this Agreement, declare this Agreement to be terminated in accordance with the following:

6.1.3.1 The Municipality will give written notice to the Supplier of the Municipality's intent to terminate this Agreement ("Termination Notice"). The notice will set forth with specificity the nature of the noncompliance. The Supplier will have 30 calendar days after receipt of the notice to object in writing to termination, to state its reasons for that objection, and to propose a remedy for the circumstances. If the Municipality has not received a response from the Supplier, or if the Municipality does not agree with the Supplier's response or any remedy proposed by the Supplier, then the Municipality will conduct a hearing on the proposed termination. The Municipality will serve notice of that hearing on the Supplier at least 10 business days prior to the hearing, specifying the time and place of the hearing and stating the Municipality's intent to terminate this Agreement.

6.1.3.2 At the hearing, the Supplier will have the opportunity to state its position on the matter, present evidence, and question witnesses. Thereafter, the Municipality will determine whether or not this Agreement will be terminated. The hearing must be public and held on record.

6.1.3.3 The decision of the Municipality must be in writing and delivered to the Supplier by certified mail.

If the rights and privileges granted to the Supplier under this Agreement are terminated, then the Supplier, within 14 calendar days after the Municipality's demand, must reimburse the Municipality for all costs and expenses incurred by the Municipality, including, without limitation, reasonable attorneys' fees, in connection with that termination of rights or with any other enforcement action undertaken by the Municipality.

6.2 Actions on Termination or Expiration of this Agreement. This Agreement shall terminate upon the expiration of the Term or an Extended Term, as applicable (with the understanding that the expiration of service for any particular Participating Customer will be tied to that customer's billing cycle), or the Municipality's termination of the Agreement pursuant to Section 6.1 or 4.1.2. Upon termination as a result of expiration of the Term (absent agreement upon an Extended Term), or

upon termination as a result of expiration of an Extended Term, as applicable, Supplier shall return Participating Customers to Tariffed Service upon expiration of the Term or Extended Term, as applicable, on the first available meter read. In the event of the Municipality's termination of the Agreement prior to the end of the Term or Extended Term pursuant to Section 6.1.c, as applicable, Supplier shall return Participating Customers to Tariffed Service on the second available meter read in order to provide the opportunity for Participating Customers to identify alternate sources of electrical supply prior to returning to Tariffed Service. Participating Customers shall not be liable for any termination fee as a result of such termination or expiration in accordance with the preceding sentences of this Section 6.2. Supplier shall not be responsible to any Participating Customer for any damages or penalties resulting from the return to Tariffed Service, including claims relating to the Tariffed Service price being higher than the Price herein.

6.3 Limitation of Liability. Except for the Supplier's failure to provide Full-Requirements Electricity Supply to Participating Customers or the disclosure of Customer Information in violation of the Requirements of Law, or as otherwise specifically provided herein, in no event will either Party be liable to the other Party under this Agreement for incidental, indirect, special, or consequential damages connected with or resulting from performance or non-performance of this Agreement, irrespective of whether such claims are based upon breach of warranty, tort (including negligence of any degree), strict liability, contract, operation of law or otherwise.

## ARTICLE 7 FORCE MAJEURE EVENTS AND REGULATORY EVENTS

7.1 Force Majeure Events. The Supplier shall not be held in default under, or in noncompliance with, the provisions of the Agreement, nor suffer any enforcement or penalty relating to noncompliance or default (including termination, cancellation or revocation of the Franchise), where such noncompliance or alleged defaults occurred or were caused by a "Force Majeure Event," defined as a strike, riot, war, earthquake, flood, tidal wave, unusually severe rain or snow storm, hurricane, tornado or other catastrophic act of nature, labor disputes, or other event that is reasonably beyond the Supplier's ability to anticipate or control. . Non-compliance or default attributable to a Force Majeure Event shall be corrected within a reasonable amount of time after the Force Majeure Event has ceased.

7.2 Regulatory Event. The following shall constitute a "Regulatory Event":

- a. Illegality. It becomes unlawful for a Party to perform any obligation under this Agreement due to the adoption of any new, or change in the interpretation of any existing applicable law by any judicial or government authority with competent jurisdiction.
- b. Adverse Government Action. A regulatory, legislative or judicial body (A) requires a material change to the terms of this Agreement that materially and adversely affects a Party or (B) takes action that adversely and materially impacts a Party's ability to perform, or requires a delay in the performance of this Agreement that either Party determines to be unreasonable or (C) orders a change or modification that affects the Program such that either Party's obligations hereunder are materially changed, and the change is not deemed a Force Majeure Event.



- c. New Charges. Any material increase in generation, energy, or utility taxes or charges enacted and effective after the Effective Date of this Agreement. These charges would not be unique to Supplier's customers, but would apply to all customers in ComEd's rate classifications. The imposition of such tax or charge after the Effective Date of this Agreement is not subject to automatic pass-through in Price, but would only constitute a Regulatory Event if the imposition of the charge materially and adversely affects Supplier's ability to perform.
- d. Occurrence of Regulatory Event. **Within ten (10) days of** the occurrence of a Regulatory Event, the adversely affected Party shall give notice to the other Party that such event has occurred. Within thirty (30) days, or such other period as the Parties may agree in writing, the Parties shall enter into good faith negotiations to amend or replace this Agreement so that the adversely affected Party is restored as nearly as possible to the economic position it would have been in but for the occurrence of the Regulatory Event. If the Parties are unable to agree upon an amendment to this Agreement, within thirty (30) days or such other period as the Parties may agree in writing, the adversely affected Party shall have the right, upon ten (10) days prior written notice, to terminate and close out its obligations under this Agreement.

## ARTICLE 8 INDEMNIFICATION AND INSURANCE

8.1 Indemnification. The Supplier shall indemnify and hold harmless the Municipality, its officers, employees, agents, and attorneys, from and against any third party injuries, claims, demands, judgments, damages, losses and expenses, including reasonable attorney's fees and costs of suit or defense, arising from the Supplier's provision of the Services, except to the extent caused by the sole negligence of the Municipality. This duty shall survive for all claims made or actions filed within one (1) year following either the expiration or earlier termination of this Agreement. The Municipality shall give the Supplier timely written notice of its obligation to indemnify and defend the Municipality after the Municipality's receipt of a claim or action pursuant to this Section. For purposes of this Section, the word "timely" shall mean within a time period that does not cause prejudice to the respective positions of the Supplier and/or the Municipality. Nothing herein shall be construed to limit the Supplier's duty to indemnify the Municipality by reference to the limits of insurance coverage described in this Agreement.

8.2 Insurance. Contemporaneous with the Supplier's execution of this Agreement, the Supplier shall provide certificates of insurance, all with coverages and limits as set forth in Exhibit B to this Agreement. For good cause shown, the Municipality Manager, Municipality Administrator, or his or her designee may extend the time for submission of the required policies of insurance upon such terms, and with such assurances of complete and prompt performance, as the Municipality Manager, Municipality Administrator, or his or her designee may impose in the exercise of his sole discretion. Such certificates and policies shall be in a form acceptable to the Municipality and from companies with a general rating of A minus, and a financial size category of Class X or better, in Best's Insurance Guide. Such insurance policies shall provide that no change, modification in, or cancellation of, any insurance shall become effective until the expiration of 30 days after written notice thereof shall have been given by the insurance company to the Municipality. The Supplier shall, at all times during the term of this Agreement, maintain and keep in force, at the Supplier's expense, the insurance coverages provided above.

## ARTICLE 9 CONFIDENTIAL INFORMATION

9.1 Confidential and Proprietary Information. Notwithstanding anything to the contrary set forth herein, the Parties are not required to disclose information which they reasonably deem to be proprietary or confidential in nature. The Parties agree that any information disclosed by a Party and designated as proprietary and confidential shall only be disclosed to those officials, employees, representatives, and agents of the other Party that have a need to know in order to administer and enforce this Agreement. For purposes of this Section, the terms "proprietary or confidential" include, but are not limited to, information relating to a Party's corporate structure and affiliates, marketing plans, financial information unrelated to the calculation of the Price or rates pursuant to the Requirements of Law, or other information that is reasonably determined by a Party to be competitively sensitive. A Party may make proprietary or confidential information available for inspection but not copying or removal by the other Party's representatives. Compliance by the Municipality with the Illinois Freedom of Information Act, 5 ILCS 140/1 et seq. ("Illinois FOIA"), including compliance with an opinion or directive from the Illinois Public Access Counselor or the Illinois Attorney General under the Illinois FOIA, or with a decision or order of a court with jurisdiction over the Municipality, shall not be a violation of this Section.

9.2 Ownership of Data and Documents. All data and information, regardless of its format, developed or obtained under this Agreement ("Data"), other than the Supplier's Confidential Information, will be and remain the sole property of the Municipality. The Supplier must promptly deliver all Data to the Municipality at the Municipality's request. The Supplier is responsible for the care and protection of the Data until that delivery. The Supplier may retain one copy of the Data for the Supplier's records subject to the Supplier's continued compliance with the provisions of this Agreement.

9.3 Limitations on Customer Information. Both Parties acknowledge and agree that the Customer Information is subject to, and must be maintained in compliance with, the limitations on disclosure of the Customer Information established by the Requirements of Law, including without limitation the Aggregation Statute, Section 16-122 of the Public Utilities Act, 220 ILCS 5/16-102, and Section 2HH of the Consumer Fraud and Deceptive Business Practices Act, 815 ILCS 505/2HH.

9.4 Limitations on Customer Information. Both Parties acknowledge and agree that the Customer Information is subject to, and must be maintained in compliance with, the limitations on disclosure of the Customer Information established by the Requirements of Law, including without limitation the Aggregation Statute, Section 16-122 of the Public Utilities Act, 220 ILCS 5/16-102, Section 2HH of the Consumer Fraud and Deceptive Business Practices Act, 815 ILCS 505/2HH, the ICC Order in Case No. 11-0434 issued April 4, 2012, and the provisions of ComEd's Tariff Rate GAP. Municipality shall warrant to ComEd that customer-specific information provided to the Municipality in accordance with the provisions of ComEd's Tariff Rate GAP shall be treated as confidential. To protect the confidentiality of Customer Information:

9.4.1 Supplier access to Customer Information is limited those authorized representatives of Supplier, or any third party, who have a need to know the information for purposes of this Agreement.

9.4.2 Supplier warrants that it will not disclose, use, sell, or provide Customer Information to any person, firm or entity for any purpose outside of the aggregation program.

9.4.3 Supplier and Municipality acknowledge that Customer Information remains the property of the Municipality and that material breaches of confidentiality will prohibit Supplier from placing any new bids to the Municipality's subsequent Request(s) for Qualifications for a period of one year after termination of this Agreement.

9.4.4 Supplier warrants that it will delete and/or destroy the Customer Information described in Items 18 through 23 of the Company Obligations Section of ComEd's Tariff Rate GAP, and provided by Municipality, within 60 days after ComEd provides the information to Municipality. Municipality will offer its assistance to ensure that Supplier meets these requirements and deadlines.

9.5 Proprietary Rights, Survival. Each Party acknowledges the proprietary rights of the other Party in and to the Confidential Information. The obligations under this Article Nine shall survive the conclusion or termination of this Agreement for two (2) years.

## ARTICLE 10 MISCELLANEOUS

10.1 Notices. Any notices, requests or demands regarding the services provided under this Agreement and the Attachments shall be deemed to be properly given or made (i) if by hand delivery, on the day and at the time on which delivered to the intended recipient at its address set forth in this Agreement; (ii) if sent by U.S. Postal Service mail certified or registered mail, postage prepaid, return receipt requested, addressed to the intended recipient at its address shown below; or (iii) if by Federal Express or other reputable express mail service, on the next Business Day after delivery to such express service, addressed to the intended recipient at its address set forth in this Agreement. The address of a Party to which notices or other communications shall be mailed may be changed from time to time by giving written notice to the other Party.

To Municipality:

Village of Lake Villa  
65 Cedar Avenue, PO Box 519  
Lake Villa, IL 60046-9072  
Attention: Village Manager

To Supplier:

Charles C. Sutton  
President  
MC Squared Energy Services, LLC  
175 W. Jackson Blvd., Suite 240  
Chicago, IL 60604  
Fax: (877) 281-1279

With a copy to:

Village of Lake Villa  
65 Cedar Avenue, PO Box 519  
Lake Villa, IL 60046-9072  
Attention: Village Attorney

With a copy to:

Jeremiah McGair  
Senior Counsel  
Wolverine  
175 W. Jackson Blvd. Suite 200  
Chicago, IL 60604  
Fax: (312) 884-3944

10.2 Mutual Representations and Warranties. Each Party represents and warrants to the other Party, as of the date of this Agreement, that:

- a. It is duly organized and validly existing under the laws of the jurisdiction of its organization or incorporation, and if relevant under such laws, in good standing;
- b. It has the corporate, governmental and/or other legal capacity, authority and power to execute, deliver and enter into this Agreement and any other related documents, and perform its obligations under this Agreement, and has taken all necessary actions and made all necessary determinations and findings to authorize such execution, delivery and performance;
- c. The execution, delivery and performance of this Agreement does not violate or conflict with any law applicable to it, any provision of its constitutional documents, any order or judgment of any court or other agency of government applicable to it or any of its assets or any contractual restriction binding on or affecting it or any of its assets; and
- d. It has reviewed and understands this Agreement; and
- e. It, to the extent applicable, shall comply with all the Requirements of Law.

10.3 Entire Agreement. This Agreement and the response to qualifications referenced in 10.3, including all Attachments hereto, contains all of the terms and conditions of this Agreement reached by the Parties, and supersedes all prior oral or written agreements with respect to this Agreement. This Agreement may not be modified, amended, altered or supplemented, except by written agreement signed by both Parties hereto. No waiver of any term, provision, or conditions of this Agreement, whether by conduct or otherwise, in any one or more instances, shall be deemed to be, or shall constitute a waiver of any other provision hereof, whether or not similar, nor shall such waiver constitute a continuing waiver, and no waiver shall be binding unless executed in writing by the Party making the waiver.

10.4 Exhibits. Exhibits A through B attached to this Agreement are, by this reference, incorporated into and made part of this Agreement.

10.56 Waivers. The failure of either Party to insist upon strict performance of such requirements or provisions or to exercise any right under this Agreement shall not be construed as a waiver or relinquishment of such requirements, provisions or rights.

10.6 Applicable Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Illinois without regard for the conflicts of law provisions thereof.

10.7 Controlling Provisions. In the event of any inconsistency between the terms herein and the terms of the Exhibits hereto, the provisions of the Agreement shall control.

10.8 Severability. Any provision in this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions or affecting the validity or enforceability of such provision in any other jurisdiction. The non-enforcement of any provision by either Party shall not constitute a waiver of that provision nor shall it affect the enforceability of that provision or the remainder of this Agreement.

10.9 Venue. Except as to any matter within the jurisdiction of the ICC, all judicial actions relating to any interpretation, enforcement, dispute resolution or any other aspect of this Agreement shall be brought in the Circuit Court of the State of Illinois, Grundy and LaSalle Counties, Illinois. Any matter brought pursuant to the jurisdiction of the federal court shall be brought in the United States District Court of the Northern District of Illinois.

10.10 No Third-Party Beneficiaries. Nothing in this Agreement is intended to confer third-party beneficiary status on any person, individual, corporation or member of the public to enforce the terms of this Agreement.

10.112 No Waiver of Rights. Nothing in this Agreement shall be construed as a waiver of any rights, substantive or procedural, that the Municipality may have under Federal or state law unless such waiver is expressly stated herein.

10.12 Validity of Agreement. The Parties acknowledge and agree in good faith on the validity of the provisions, terms and conditions of this Agreement, in their entirety, and that the Parties have the power and authority to enter into the provisions, terms, and conditions of this Agreement.

10.13 Authority to Sign Agreement. Each Party warrants to the other Party that it is authorized to execute, deliver and perform this Agreement. The individual signing this Agreement on behalf of each Party warrants to the other Party that he/she is authorized to execute this Agreement in the name of the Party for which he/she is signing.

10.14 Binding Effect. This Agreement shall inure to the benefit of, and be binding upon, the Municipality and the Supplier and their respective successors, grantees, lessees, and assigns throughout the Term of this Agreement.

10.15 Non-Assignability. This Agreement shall not be transferred or assigned by the Supplier without the express written authorization of the Municipality, which consent shall not be unreasonably withheld, provided, that upon adverse written notice to the Municipality, Supplier may assign this Agreement to an affiliate without the express authorization of the Municipality.

10.16 Counterparts. This Agreement may be executed in one or more counterparts (delivery of which may occur by facsimile or electronic mail), each of which shall be deemed an original, but all of which shall together constitute one instrument.

IN WITNESS WHEREOF, the Parties have duly executed this Agreement to be effective on the date first written above.

Supplier: \_\_\_\_\_

Signed: \_\_\_\_\_

Printed/Typed Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

Municipality: Village of Lake Villa

Signed:  \_\_\_\_\_

Printed/Typed Name: James McDonald

Title: Mayor

Date: 3-7-2023

## **EXHIBIT A:**

### **PRICE**

#### **Opt-Out Program:**

##### **Residential and small Commercial Customer Class**

Price: 7.45 cents per KWh

**Term: Fourteen (14) months (June 2023 – August 2024)**

**Civic Payment:** Supplier will provide to the Village of Lake Villa a monthly civic contribution payment of \$1,786 for each month of the fourteen-month term above (14 total payments) for a total of \$25,000. Each monthly payment shall be paid to the Village within thirty (30) days after the last meter read cycle of each delivery month (i.e. June 2023 payment will be paid in August 2023).

#### **Termination Fees:**

**Residential - \$0**

**Commercial - \$0**



## EXHIBIT B

### INSURANCE COVERAGES

- A. Worker's Compensation and Employer's Liability with limits not less than:

(1) Worker's Compensation: Statutory;

(2) Employer's Liability:

\$500,000 injury-per occurrence

\$500,000 disease-per employee

\$500,000 disease-policy limit

Such insurance shall evidence that coverage applies in the State of Illinois.

- B. Comprehensive Motor Vehicle Liability with a combined single limit of liability for bodily injury and property damage of not less than \$1,000,000 for vehicles owned, non-owned, or rented.

All employees shall be included as insureds.

- C. Comprehensive General Liability

- a. with coverage written on an "occurrence" basis with limits no less than:

\$1,000,000 Bodily Injury and Property Damage Combined Single Limit

Coverage is to be written on an "occurrence" bases.

Coverages shall include:

Broad Form Property Damage Endorsement

Blanket Contractual Liability (must expressly cover the indemnity provisions of the Contract)

- b. with coverage written on a "claims made" basis with limits no less than:

\$1,000,000 Bodily Injury and Property Damage Combined Single Limit

Coverage is to be written on an "claims made" bases.

Coverages shall include:

Broad Form Property Damage Endorsement

Blanket Contractual Liability (must expressly cover the indemnity provisions of the Contract)

- D. Professional Liability Insurance. With a limit of liability of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate and covering Consultant against all sums that Consultant may be obligated to pay on account of any liability arising out of the Contract.

- E. Umbrella Policy. The required coverages may be in any combination of primary, excess, and umbrella policies. Any excess or umbrella policy must provide excess coverage over underlying insurance on a following-form basis such that when any loss covered by the primary policy exceeds the limits under the primary policy, the excess or umbrella policy becomes effective to cover such loss.

- F. Owner as Additional Insured. Owner shall be named as an Additional Insured on all policies except for:

Worker's Compensation

Professional Liability

Each such additional Insured endorsement shall identify Owner as follows: Village of Lake Villa, including its Board members and elected and appointed officials, its officers, employees, agents, attorneys, consultants, and representatives.

- G. Other Parties as Additional Insureds. In addition to Owner, the following parties shall be named as additional insured on the following policies:

Additional Insured Policy or Policies