PRELIMINARY LANDSCAPE PLAN
for
MIXED USE DEVELOPMENT AT THREE OAKS

CITY OF CRYSTAL LAKE, ILLINOIS

Village of Crystal Lake Required Landscaping

SIGHT TRIANGLE REQUIREMENT

No planting shall be placed within the clear sight triangle in such a manner as to materially impede vision (Section 4-100-D-1-d). All planting must be minimum 25' from an intersection (Section 4-400-E-3-d).

TREE PRESERVATION REQUIREMENT

A tree removal permit shall be required in connection with the building permit, approved only after review and approval of tree preservation plan (Section 4-300-C).

Replacement ratios: Minimum size of tree that warrants replacement for Groups A & B must have a DBH of 2" or greater, and 6" or greater for Groups C & D. [Species Group: Percentage of DBH to replace]. A:50, B:30, C:10, D:5. No replacement required for dead or dying trees. Tree banking may be used if insufficient space is available for replacements.

MINIMUM PLANT SIZES AT INSTALLATION (Section 4-400-E-1-a)

Deciduous canopy or shade trees: 2.5" caliper

Ornamental trees: 2.5" or 8'

Evergreen trees: 6'

Deciduous shrubs: 3' height for large, 18" spread for small

Evergreen shrubs: 5' height for large, 2' height for small

MISCELLANEOUS PLACEMENT STANDARDS (Section 4-400-E)

Fire hydrants: minimum 8' radius with no plantings over 12" tall

Parkway trees: minimum 25' from light poles, 8' from drives, 5' from manholes and b-boxes and 15' from stop signs. If less than 8' exists between curb and sidewalk, parkway trees shall not be permitted. Parkway plantings shall be planted within 35' and 50' on center, placed alternately along a street rather than opposite one another.

Nothing except ground cover shall be planted or installed within any underground or overhead utility, drainage, or gas easement without the consent of easement owner, as applicable.

PARKING LOT LANDSCAPING (Section 4-400-F-1)

INTERIOR: One 8'x19' landscape island, containing 1 canopy or ornamental tree and 5 shrubs to each 10 parking spaces and at the end of every parking row, OR

A 5' wide center island, containing one tree and 10 shrubs for each 40 lf and islands with one canopy or ornamental tree and 5 shrubs at the ends of each parking row, OR

parallel parking spaces require an 8'x8' island containing 1 canopy or ornamental tree and 5 shrubs every 4 spaces and at the ends of every parking row.

PERIMETER: When abutting ROW, continuous visual screen is required, 15' wide planted in undulating beds with 1 tree and 10 shrubs of various heights and averaging 3', along every 40 lf.

When not abutting ROW, Visual screen shall be 8' wide and undulating with 1 tree and 5 shrubs of various heights along every 40 lf.

Parking lots adjacent to residentially zoned properties shall provide a 6' solid screen either through berm, fence, or evergreen plantings.

FOUNDATION LANDSCAPING (Section 4-400-F-4)

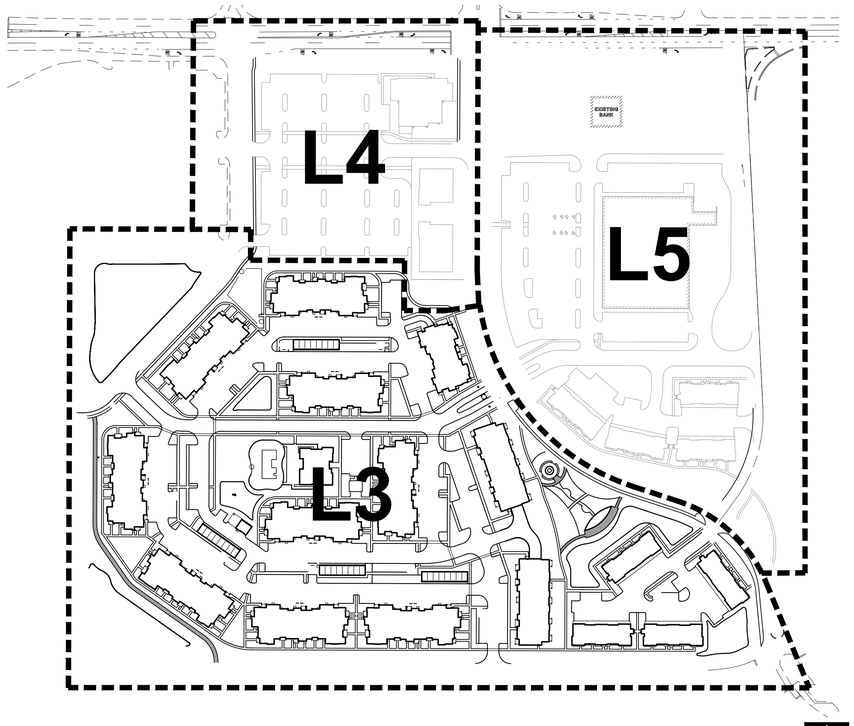
A 5' wide landscape area around all building perimeters is required.

GENERAL BUFFERING REQUIREMENTS (Section 4-400-F-5)

Subject property is multifamily, adjacent to retail to the north and east, multifamily to the west, and manufacturing to the south. Per Table 4-400F(1), no buffer is required.

SIGN LANDSCAPE (Section 4-400-F-6)

All permanent freestanding signs shall have landscaping planted around the base of the sign at 1 sf of landscape area per 1 sf of sign area, and shall be a mix of plants with 50% being trees and/or shrubs.



KEY MAP

Landscape Notes:

1. Seed/ Sod limit line is approximate. Seed/ Sod to limits of grading and disturbance. Contractor responsible for restoration of any unauthorized disruption outside of designated construction area.
2. Contractor responsible for erosion control in all seeded/ sodded areas.
3. Tree mulch rings in turf areas are 5' diameter. Contractor shall provide a mulch ring around all existing trees within the limits of work. Remove all existing grass from area to be mulched and provide a typical spade cut edge. Landscape Fabric shall not be installed under mulch.
4. Bedlines are to be spade cut to a minimum depth of 3". Curved bedlines are to be smooth and not segmented.
5. All planting, beds shall receive top dressing of mulch. Landscape fabric shall not be installed under mulch.
6. Do not locate plants within 10' of utility structures or within 5' horizontally of underground utility lines unless otherwise shown on plans. Consult with Landscape Architect if these conditions exist.
7. For Lump Sum Contracts, plants and other materials are quantified and summarized for the convenience of the Owner and jurisdictional agencies only. Confirm and install sufficient quantities to complete the work as drawn and specified. No additional payments will be made for materials required to complete the work as drawn and specified.
8. For Unit Price Contracts, payments will be made based on actual quantities installed as measured in place by the Owner's Representative.
9. It is the responsibility of the contractor to locate and provide plant material as specified on this plan. The contractor may submit a request to provide substitutions for the specified plant material under the following conditions:
   a. Any substitutions proposed shall be submitted to the project owner's representative within two weeks of the award of contract. Substitutions must meet equivalent design and functional goals of the original materials as determined by the owner's representative. Any changes must have the approval of the owner's representative,
   b. The request will be accompanied by at least three notices from plant material suppliers that the plant material specified is not available and will not be available prior to construction.
10. Verify site conditions and information on drawings. Promptly report any concealed conditions, mistakes, discrepancies or deviations from the information shown in the Contract Documents. The Owner is not responsible for unauthorized changes or extra work required to correct unreported discrepancies. Commencement of work shall constitute acceptance of conditions and responsibility for corrections
11. A minimum of two working days before performing any digging, call underground service alert for information on the location of natural gas lines, electric cables, telephone cables, etc. The contractor shall be responsible for location and protection of all utilities, and repair of any damage resulting from his work at no additional cost to the owner.
12. Contractor shall promptly repair all damages to existing site at no cost to owner.
13. Refer to landscape specifications for additional conditions, standards, and notes.

CONCEPT PLANT SCHEDULE

SHADE TREE	-	404
EVERGREEN TREE	-	43
MEDIUM ORNAMENTAL TREE	-	92
SMALL ORNAMENTAL TREE	-	76
3` DECIDUOUS SHRUB	-	819
4` DECIDUOUS SHRUB	-	712
6` DECIDUOUS SHRUB	-	116
8` DECIDUOUS SHRUB	-	29
4` EVERGREEN SHRUB	-	1,026
5` EVERGREEN SHRUB	-	22
SCREENING EVERGREEN	-	70
ORNAMENTAL GRASS	-	276
SMALL ORNAMENTAL GRASS	-	3,021
LOW PARKING LOT INTERIOR SHRUB	-	844
PERENNIALS	-	6,274 sf
WILDFLOWER SEED MIX	-	5,110 sf
NATIVE STORMWATER SEED MIX	-	49,285 sf

LICENSED LANDSCAPE ARCHITECT
JENNIFER HENDRICKS
157-001253
STATE OF ILLINOIS
SEAL
Date: 12/17/21

Jennifer Hendricks, ASLA, PLA
Illinois Registered Landscape Architect # 157-001253

Call Before You Dig
JULIE
ILLINOIS ONE-CALL SYSTEM
Simply Call 811

DRAWN BY | REVISIONS | DATE

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT THREE OAKS
CRYSTAL LAKE, ILLINOIS
LANDSCAPE COVER SHEET

PROJ. MGR.: JSP
PROJ. ASSOC.: ----
DRAWN BY: JSH
DATE: 12-17-2021
SCALE: AS SHOWN

SHEET
L1 OF L7
FRD.CLIL01

© 2020 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 16:11 Dwg Name: P:\Frd\01\Dwg\Landplan\03 Preliminary\01 Landscape Plan.dwg, Updated by: jhendricks

RESTAURANT
10,655 S.F.
F.F.=899.5
G.F.=899.0

EXISTING BANK

RETAIL 1
5,000 S.F.
F.F.=898.5
G.F.=898.0

RETAIL 2
7,000 S.F.
F.F.=898.0
G.F.=897.5

GROCERY
45,000 S.F.
F.F.=901.5
G.F.=901.0

SW BASIN EXPANSION
SLOT 879.00
HWL 893.00
EX. VOL. 2.95 AC-FT
PROP. VOL. 4.12 AC-FT

DOG PARK
5,422 S.F.

I
F.F.=897.0
G.F.=896.5

GARAGE

H
F.F.=895.5
G.F.=895.0

A
F.F.=895.5
G.F.=895.0

J
F.F.=895.0
G.F.=894.5

R
F.F.=898.5
G.F.=898.0

U
F.F.=897.0
G.F.=896.5

T
F.F.=897.5
G.F.=897.0

S
F.F.=898.0
G.F.=897.5

B
F.F.=894.0
G.F.=893.5

POOL

CLUBHOUSE
F.F.=894.0
G.F.=893.5

G
F.F.=891.0
G.F.=890.5

K
F.F.=894.0
G.F.=893.5

L
F.F.=893.0
G.F.=892.5

MC

GARAGE

M
F.F.=894.5
G.F.=894.0

N
F.F.=894.5
G.F.=894.0

F
F.F.=890.5
G.F.=890.0

C
F.F.=894.0
G.F.=893.5

E
F.F.=892.0
G.F.=891.5

D
F.F.=892.5
G.F.=892.0

P
F.F.=894.5
G.F.=894.0

O
F.F.=894.5
G.F.=894.0

N

0 30 60 120
SCALE: 1"=60'

CONCEPT PLANT SCHEDULE

	SHADE TREE -	347
	EVERGREEN TREE -	46
	MEDIUM ORNAMENTAL TREE -	98
	SMALL ORNAMENTAL TREE -	61
	3` DECIDUOUS SHRUB -	673
	4` DECIDUOUS SHRUB -	599
	6` DECIDUOUS SHRUB -	114
	8` DECIDUOUS SHRUB -	29
	4` EVERGREEN SHRUB -	901
	5` EVERGREEN SHRUB -	22
	SCREENING EVERGREEN -	70
	ORNAMENTAL GRASS -	284
	SMALL ORNAMENTAL GRASS -	2,815
	LOW PARKING LOT INTERIOR SHRUB -	849
	PERENNIALS -	6,119 sf
	WILDFLOWER SEED MIX -	5,110 sf
	NATIVE STORMWATER SEED MIX -	56,329 sf
	TURF	

DRAWN BY:
REVISIONS:
DATE:

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resources Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

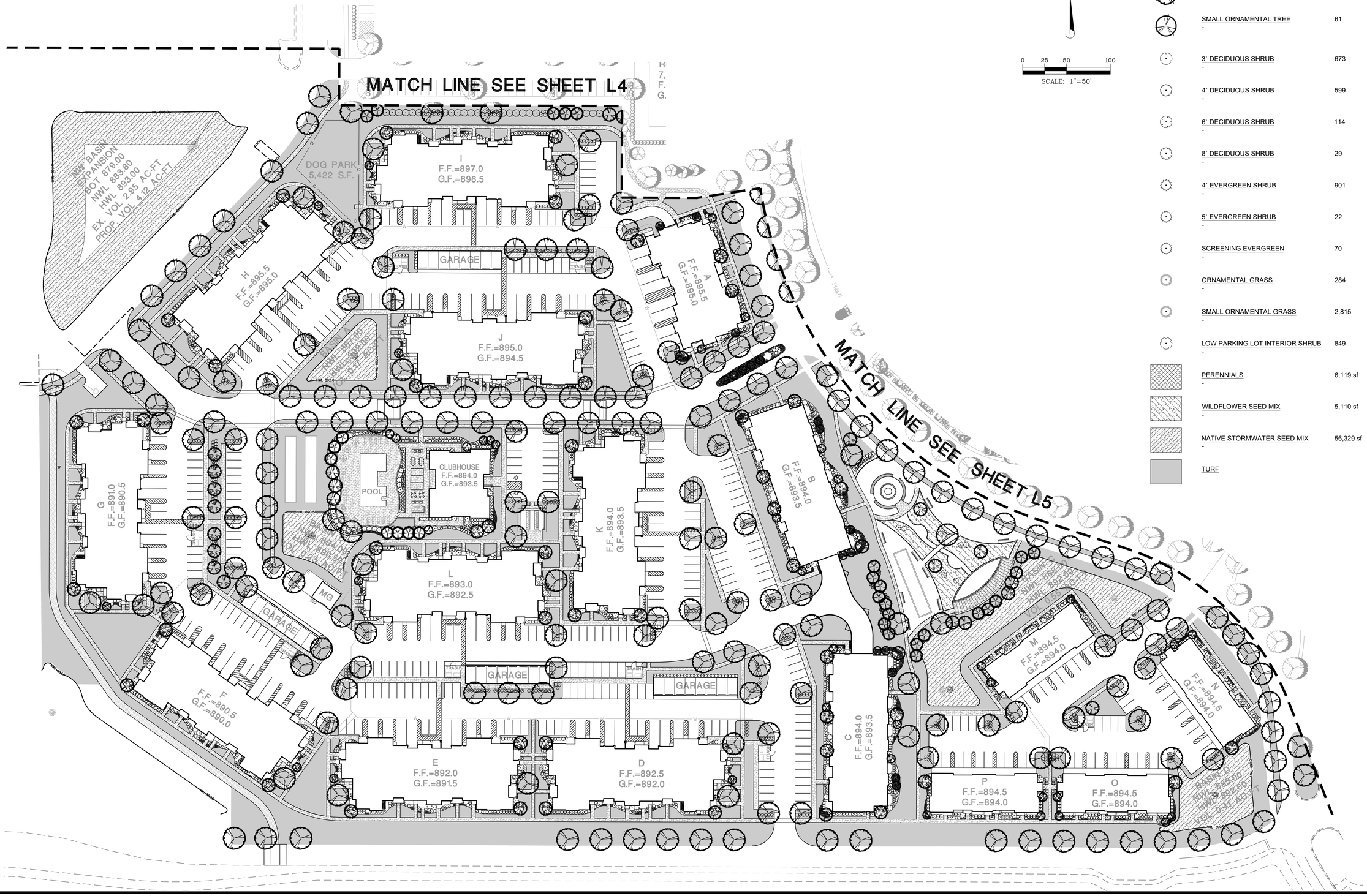
MIXED USE DEVELOPMENT AT THREE OAKS
CRYSTAL LAKE, ILLINOIS
OVERALL LANDSCAPE PLAN

PROJ. MGR.: JSP
PROJ. ASSOC.: ----
DRAWN BY: JSH
DATE: 12-17-2021
SCALE: AS SHOWN

SHEET
L2 OF L7
FRD.CLIL01

© 2020 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 10:11 Dwg Name: P:\Frd\01\Dwg\Landplan\01 Preliminary\01 Landscape Plan.dwg, Updated by: jhendricks



CONCEPT PLANT SCHEDULE

SHADE TREE	-	347
EVERGREEN TREE	-	46
MEDIUM ORNAMENTAL TREE	-	98
SMALL ORNAMENTAL TREE	-	61
3' DECIDUOUS SHRUB	-	673
4' DECIDUOUS SHRUB	-	599
6' DECIDUOUS SHRUB	-	114
8' DECIDUOUS SHRUB	-	29
4' EVERGREEN SHRUB	-	901
5' EVERGREEN SHRUB	-	22
SCREENING EVERGREEN	-	70
ORNAMENTAL GRASS	-	284
SMALL ORNAMENTAL GRASS	-	2,815
LOW PARKING LOT INTERIOR SHRUB	-	849
PERENNIALS	-	6,119 sf
WILDFLOWER SEED MIX	-	5,110 sf
NATIVE STORMWATER SEED MIX	-	56,329 sf
TURF		

DRAWN BY | REVISIONS | DATE

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT THREE OAKS

CRYSTAL LAKE, ILLINOIS

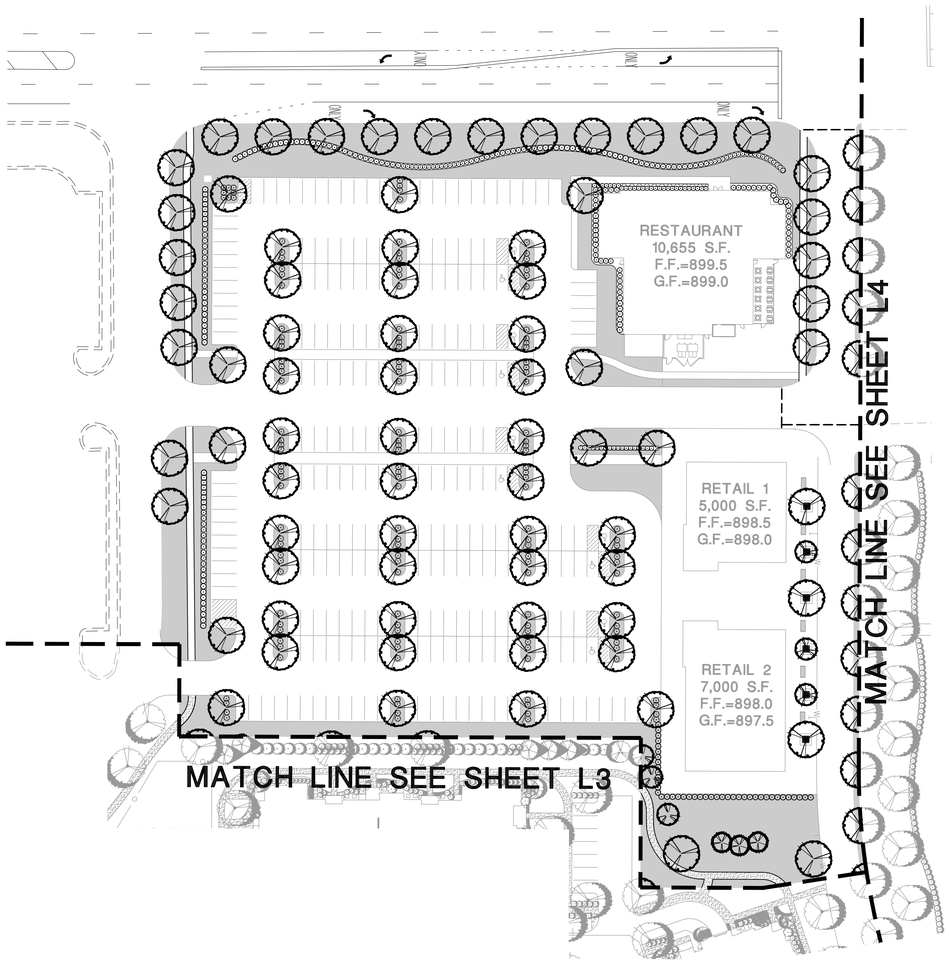
LANDSCAPE PLAN SOUTHWEST

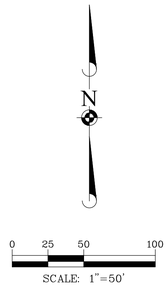
PROJ. MGR.: JSP
PROJ. ASSOC.: ----
DRAWN BY: JSH
DATE: 12-17-2021
SCALE: AS SHOWN

SHEET
L3 OF **L7**
FRD.CLIL01

© MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 16:11 Dwg Name: P:\Projects\013\Dwg\Landplan\03-Preliminary\03-Landscape Plan.dwg Updated By: Jhendricks





CONCEPT PLANT SCHEDULE

SHADE TREE	-	347
EVERGREEN TREE	-	46
MEDIUM ORNAMENTAL TREE	-	98
SMALL ORNAMENTAL TREE	-	61
3` DECIDUOUS SHRUB	-	673
4` DECIDUOUS SHRUB	-	599
6` DECIDUOUS SHRUB	-	114
8` DECIDUOUS SHRUB	-	29
4` EVERGREEN SHRUB	-	901
5` EVERGREEN SHRUB	-	22
SCREENING EVERGREEN	-	70
ORNAMENTAL GRASS	-	284
SMALL ORNAMENTAL GRASS	-	2,815
LOW PARKING LOT INTERIOR SHRUB	-	849
PERENNIALS	-	6,119 sf
WILDFLOWER SEED MIX	-	5,110 sf
NATIVE STORMWATER SEED MIX	-	56,329 sf
TURF		

DRAWN BY
REVISIONS
DATE

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT THREE OAKS

CRYSTAL LAKE, ILLINOIS

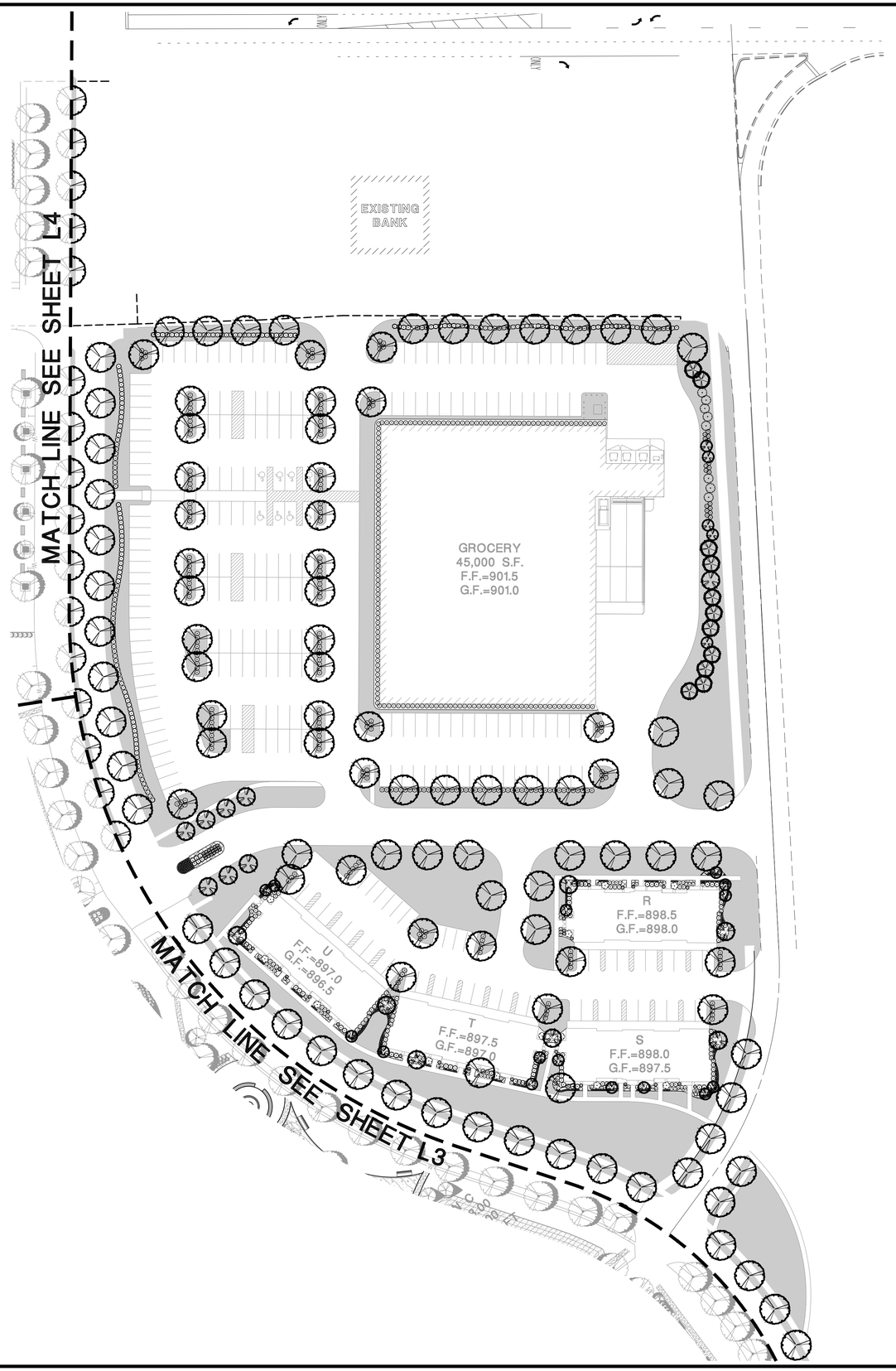
LANDSCAPE PLAN NORTH

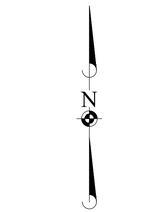
PROJ. MGR.: JSP
PROJ. ASSOC.: ----
DRAWN BY: JSH
DATE: 12-17-2021
SCALE: AS SHOWN

SHEET
L4 OF L7
FRD.CLIL01

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 16:11 Dwg Name: P:\Frd\001\dwg\Landplan\01-Preliminary\05-Landscape-Plan.dwg Updated By: JHendricks





CONCEPT PLANT SCHEDULE

SHADE TREE -	347
EVERGREEN TREE -	46
MEDIUM ORNAMENTAL TREE -	98
SMALL ORNAMENTAL TREE -	61
3` DECIDUOUS SHRUB -	673
4` DECIDUOUS SHRUB -	599
6` DECIDUOUS SHRUB -	114
8` DECIDUOUS SHRUB -	29
4` EVERGREEN SHRUB -	901
5` EVERGREEN SHRUB -	22
SCREENING EVERGREEN -	70
ORNAMENTAL GRASS -	284
SMALL ORNAMENTAL GRASS -	2,815
LOW PARKING LOT INTERIOR SHRUB -	849
PERENNIALS -	6,119 sf
WILDFLOWER SEED MIX -	5,110 sf
NATIVE STORMWATER SEED MIX -	56,329 sf
TURF	

DRAWN BY
REVISIONS
DATE

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resources Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

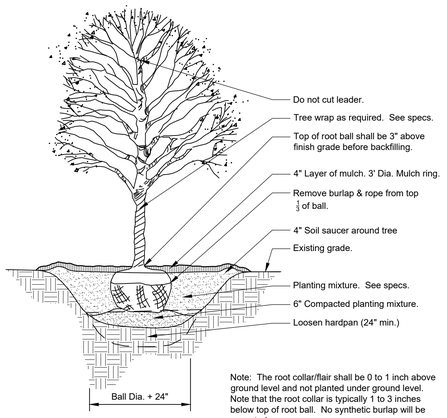
MIXED USE DEVELOPMENT AT THREE OAKS
CRYSTAL LAKE, ILLINOIS
LANDSCAPE PLAN EAST

PROJ. MGR.: JSP
PROJ. ASSOC.: ----
DRAWN BY: JSH
DATE: 12-17-2021
SCALE: AS SHOWN

SHEET
L5 OF L7
FRD.CLIL01

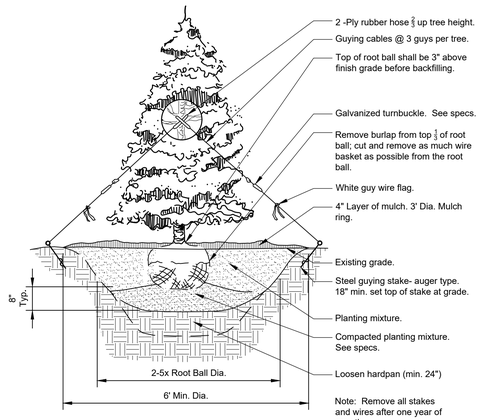
© 2020 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 16:11 Dwg Name: P:\Frd\01\Dwg\Landplan\03-Preliminary\01-Landscape-Plan.dwg Updated By: JHendricks



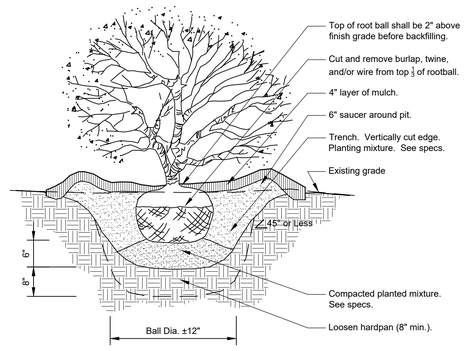
1 DECIDUOUS TREE PLANTING

1/4" = 1'-0" 32 9343.33-20



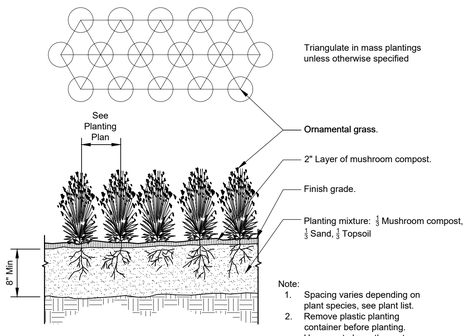
2 CONIFER TREE PLANTING

1/4" = 1'-0" 32 9343.46-01



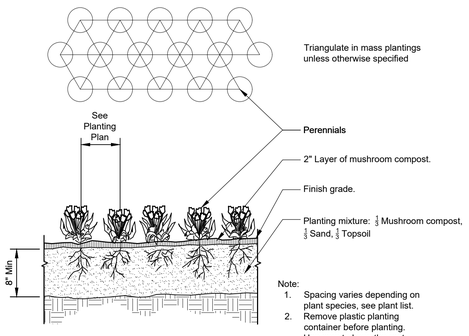
3 SHRUB PLANTING DETAIL

3/4" = 1'-0" 32 9333.16-05



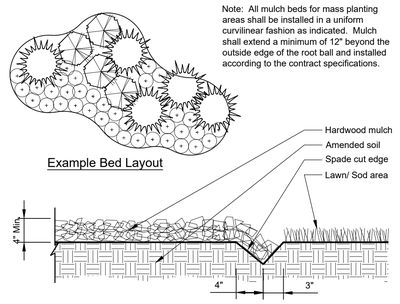
4 ORNAMENTAL GRASS PLANTING

1" = 1'-0" 32 9313-01



5 PERENNIAL / ANNUAL PLANTING

1" = 1'-0" 32 9313-02



6 CONTINUOUS MULCH EDGING

1" = 1'-0" 32 9113.26-01

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

DRAWN BY | REVISIONS | DATE

MIXED USE DEVELOPMENT AT THREE OAKS
CRYSTAL LAKE, ILLINOIS
LANDSCAPE DETAIL

PROJ. MGR.: JSP
PROJ. ASSOC.: ----
DRAWN BY: JSH
DATE: 12-17-2021
SCALE: AS SHOWN

SHEET
L6 OF L7
FRD.CLIL01

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 16:11 Dwg Name: P:\Frd\d01\dwg\Landplan\01-Preliminary\01-Landscape-Plan.dwg Updated By: JHendricks

GENERAL PLANTING SPECIFICATIONS:

PART 1 - GENERAL

1-01 DESCRIPTION:

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.

1-02 QUALITY ASSURANCE:

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.

I. Container grown deciduous and/or evergreen shrubs will be acceptable in lieu of balled and burlapped shrubs subject to specified limitations for container grown stock. Size of container grown material must conform to size/height requirements of plant list.

1-03 DELIVERY, STORAGE & HANDLING:

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. If 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.

1-04 PROJECT CONDITIONS:

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.L.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, plus 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 site which are to be preserved. Protective fencing shall be erected between the limits of construction and any 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.

1-05 PRELIMINARY ACCEPTANCE:

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.

1-06 WARRANTY:

A. All plant material (excluding annual color), shall be warranteed 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 warranteed 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.

PART 2 - PRODUCTS

2-01 PLANT MATERIALS:

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 togehter, 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.

2-02 ACCESSORIES:

A. 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, .0006% Mo, .10% Mn available from Arthur Clesen or approved equal.

E. Herbicide:
   1. Round-Up 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.

PART 3 - INSTALLATION OF PLANT MATERIAL

3-01 FIELD VERIFICATION:

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.

D. Apply Round-Up or approved equivalent to kill any existing vegetation in all areas to be planted. Confirm length of waiting period between chemical application and plant installation with 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". Those areas which are indicated as prairie or natural areas on the Drawings shall have a minimum topsoil depth of 18".

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.

3-03 PLANTING PROCEDURES:

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.

E. 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 landscape 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. Guy trees of 3" caliper or larger at three (3) per tree. The root ball will not be pierced with a stake. Stakes 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. Moisten 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 sifted 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.

3-04 MAINTENANCE:

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.

3-04 ACCEPTANCE:

A. All plant material (excluding annual color), shall be warranteed 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.

3-06 SITE CLEAN-UP:

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 .

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

DRAWN BY | REVISIONS | DATE

MIXED USE DEVELOPMENT AT THREE OAKS
CRYSTAL LAKE, ILLINOIS
LANDSCAPE SPECIFICATIONS

PROJ. MGR.: JSP
PROJ. ASSOC.: ----
DRAWN BY: JSH
DATE: 12-17-2021
SCALE: AS SHOWN

SHEET
L7 OF L7
FRD.CLIL01

©2022MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 16:11 Dwg Name: P:\Frd\d01\Dwg\Landplan\01-Preliminary\01-Landscape-Plan.dwg Updated By: JHendricks

RETAIL 1
5,000 S.F.
F.F.=898.5
G.F.=898.0

RETAIL 2
7,000 S.F.
F.F.=898.0
G.F.=897.5

N

0 25 50 100
SCALE: 1"=50'

46.67
12.33 20.83
Crystal Lake Fire Truck (TR-05)
feet
Width : 8.50
Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 33.3

NW BASIN EXPANSION
BOT 879.00
NWL 883.80
HWL 893.00
EX. VOL 2.95 AC-FT
PROP. VOL 4.12 AC-FT

LIBERTY ROAD

DOG PARK
5,422 S.F.

I
F.F.=897.0
G.F.=896.5

H
F.F.=895.5
G.F.=895.0

GARAGE

A
F.F.=895.5
G.F.=895.0

J
F.F.=895.0
G.F.=894.5

BASIN A
NWL 887.00
HWL 892.00
VOL 0.17 AC-FT

PROPOSED FIRE HYDRANT LOCATION (TYP)

PROPOSED FACE OF CURB (TYP)

WATERS EDGE BOULEVARD

U
F.F.=897.0
G.F.=896.5

T
F.F.=897.5
G.F.=897.0

S
F.F.=898.0
G.F.=897.5

G
F.F.=891.0
G.F.=890.5

POOL

CLUBHOUSE
F.F.=894.0
G.F.=893.5

K
F.F.=894.0
G.F.=893.5

B
F.F.=894.0
G.F.=893.5

BASIN B
NWL 884.00
HWL 890.50
VOL 0.23 AC-FT

L
F.F.=893.0
G.F.=892.5

MG

GARAGE

BASIN C
NWL 888.00
HWL 892.00
VOL 0.55 AC-FT

M
F.F.=894.5
G.F.=894.0

N
F.F.=894.5
G.F.=894.0

F
F.F.=890.5
G.F.=890.0

SW BASIN EXPANSION
NWL 864.00
HWL 883.00
EX. VOL 31.25 AC-FT
PROP. VOL 34.39 AC-FT

E
F.F.=892.0
G.F.=891.5

D
F.F.=892.5
G.F.=892.0

C
F.F.=894.0
G.F.=893.5

P
F.F.=894.5
G.F.=894.0

O
F.F.=894.5
G.F.=894.0

BASIN D
NWL 885.00
HWL 892.00
VOL 0.41 AC-FT

THREE OAKS RECREATION AREA DRIVE

TRASH

March 7, 2022 - 23:50 Dwg Name: P:\Frdcli01\Dwg\Eng\Preliminary\Exhibits Eng\Fire TRUCK TURN.dwg Updated By: KKitowaro

DRAWN BY
REVISIONS
DATE

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MULTIFAMILY DEVELOPMENT AT WATERS EDGE
CITY OF CRYSTAL LAKE, ILLINOIS
FIRE TRUCK TURNING EXHIBIT

PROJ. MGR.: CJP
PROJ. ASSOC.: KRK
DRAWN BY: AM
DATE: 03-07-22
SCALE: 1"=50'

SHEET
1 OF 1
FRDCLIL01

©2022MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

Proposed Improvements
for

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE

5561-5657 NORTHWEST HIGHWAY
CITY OF CRYSTAL LAKE, ILLINOIS

STANDARD SYMBOLS

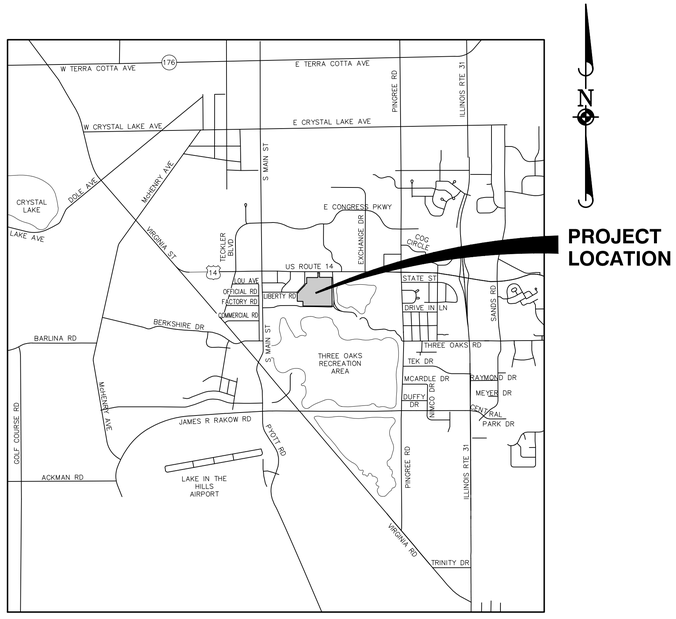
06-01-16

EXISTING		PROPOSED
	STORM SEWER	
	SANITARY SEWER	
	COMBINED SEWER	
FM	FORCEMAIN	FM
	DRAINTILE	
W	WATER MAIN	W
E	ELECTRIC	E
G	GAS	G
T	TELEPHONE	T
OH	OVERHEAD WIRES	OH
	SANITARY MANHOLE	
	STORM MANHOLE	
	CATCH BASIN	
	STORM INLET	
	CLEANOUT	
	HAY BALES	
	RIP RAP	
	VALVE IN VAULT	
	VALVE IN BOX	
	FIRE HYDRANT	
	BUFFALO BOX	
	FLARED END SECTION	
	STREET LIGHT	
	SUMMIT / LOW POINT	S/L
795.20 / 790.25	RIM ELEVATION / INVERT ELEVATION	795.25 / 790.20
	DITCH OR SWALE	
	DIRECTION OF FLOW	
	OVERFLOW RELIEF SWALE	
764	1 FOOT CONTOURS	764
	CURB AND GUTTER	
	DEPRESSED CURB AND GUTTER	
	REVERSE CURB AND GUTTER	
	SIDEWALK	
	DETECTABLE WARNINGS	
	PROPERTY LINE	
	EASEMENT LINE	
	SETBACK LINE	
	MAIL BOX	
	SIGN	
	TRAFFIC SIGNAL	
	POWER POLE	
	GUY WIRE	
	GAS VALVE	
	HANDHOLE	
E / T	ELECTRICAL EQUIPMENT	
	TELEPHONE EQUIPMENT	
	CHAIN-LINK FENCE	
792.8	SPOT ELEVATION	792.8 G
	BRUSH/TREE LINE	
16"	DECIDUOUS TREE WITH TRUNK DIA. IN INCHES (TBR)	16"
25'	CONIFEROUS TREE WITH HEIGHT IN FEET (TBR)	25'
S	SILT FENCE	S
	RETAINING WALL	
	WETLAND	

ABBREVIATIONS

06-01-16

ADJ	ADJUST	F/L	FLOW LINE	R.O.W.	RIGHT-OF-WAY
AGG.	AGGREGATE	FM	FORCE MAIN	RCP	REINFORCED CONCRETE PIPE
ARCH	ARCHITECT	G	GROUND	REM	REMOVAL
B.A.M.	BITUMINOUS AGGREGATE MIXTURE	G/F	GRADE AT FOUNDATION	REV	REVERSE
B-B	BACK TO BACK	GW	GUY WIRE	RR	RAILROAD
B/C	BACK OF CURB	HDWL	HEADWALL	RT	RIGHT
B/P	BOTTOM OF PIPE	HH	HANDHOLE	SAN	SANITARY
B/W	BACK OF WALK	HWL	HIGH WATER LEVEL	SF	SQUARE FOOT
B-BOX	BUFFALO BOX	HYD.	HYDRANT	SHLD.	SHOULDER
BIT.	BITUMINOUS	INL	INLET	SL	STREET LIGHT
BM	BENCHMARK	INV.	INVERT	SMH	SANITARY MANHOLE
B.O.	BY OTHERS	IP	IRON PIPE	ST	STORM
C.E.	COMMERCIAL ENTRANCE	LT	LEFT	STA.	STATION
CB	CATCH BASIN	MAX.	MAXIMUM	STD	STANDARD
℄	CENTERLINE	MB	MAILBOX	SW	SIDEWALK
CMP	CORRUGATED METAL PIPE	M/E	MEET EXISTING	SY	SQUARE YARDS
CNTRL	CONTROL	MH	MANHOLE	TBR	TO BE REMOVED
C.O.	CLEANOUT	MIN.	MINIMUM	T	TELEPHONE
CONC.	CONCRETE	NWL	NORMAL WATER LEVEL	T-A	TYPE A
CY	CUBIC YARD	P.E.	PRIVATE ENTRANCE	T/C	TOP OF CURB
D	DITCH	PC	POINT OF CURVATURE	T/F	TOP OF FOUNDATION
DIA.	DIAMETER	PCC	POINT OF COMPOUND CURVE	T/P	TOP OF PIPE
DIP	DUCTILE IRON PIPE	PGL	PROFILE GRADE LINE	T/W	TOP OF WALK
DIWM	DUCTILE IRON WATER MAIN	PI	POINT OF INTERSECTION	T/WALL	TOP OF WALL
DS	DOWNSPOUT	℗	PROPERTY LINE	TEMP	TEMPORARY
DT	DRAIN TILE	PP	POWER POLE	TRANS	TRANSFORMER
E	ELECTRIC	PROP.	PROPOSED	V.B.	VALVE BOX
E-E	EDGE TO EDGE	PT	POINT OF TANGENCY	VCP	VITRIFIED CLAY PIPE
ELEV.	ELEVATION	PVC	POLYVINYL CHLORIDE PIPE	V.V.	VALVE VAULT
E/P	EDGE OF PAVEMENT	PVC	POINT OF VERTICAL CURVATURE	W.	WATER LEVEL
EX.	EXISTING	PVI	POINT OF VERTICAL INTERSECTION	WM	WATER MAIN
F.E.	FIELD ENTRANCE	PVT	POINT OF VERTICAL TANGENCY		
F-F	FACE TO FACE	P	PAVEMENT		
F.F.	FINISHED FLOOR	P.U.D.E.	PUBLIC UTILITY & DRAINAGE EASEMENT		
FES	FLARED END SECTION	R	RADIUS		



LOCATION MAP

N.T.S.

OWNER:
FIDUCIARY REAL ESTATE DEVELOPMENT, INC.
789 NORTH WATER STREET, SUITE 200
MILWAUKEE, WISCONSIN 53502
(414) 246-8402

NOTES:

THE BOUNDARY LINES AND TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A FIELD SURVEY COMPLETED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY MANHARD CONSULTING AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS.

Manhard™ CONSULTING LTD
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx:630.691.8585 manhard.com
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

MANHARD CONSULTING, LTD. IS NOT RESPONSIBLE FOR THE SAFETY OF ANY PARTY AT OR ON THE CONSTRUCTION SITE. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ANY OTHER PERSON OR ENTITY PERFORMING WORK OR SERVICES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE JOB SITE SAFETY OF PERSONS ENGAGED IN THE WORK OR THE MEANS OR METHODS OF CONSTRUCTION.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN
3	EXISTING CONDITIONS AND DEMOLITION PLAN – NORTHWEST
4	EXISTING CONDITIONS AND DEMOLITION PLAN – EAST
5	EXISTING CONDITIONS AND DEMOLITION PLAN – SOUTHWEST
6	OVERALL GRADING PLAN
7	GRADING PLAN – NORTH
8	GRADING PLAN – EAST
9	GRADING PLAN – SOUTHWEST
10	GRADING PLAN – SOUTHWEST BASIN
11	OVERALL UTILITY PLAN
12	CONSTRUCTION DETAILS
13	CONSTRUCTION DETAILS
14	CONSTRUCTION DETAILS
15	CONSTRUCTION SPECIFICATIONS
H1	PRELIMINARY ROAD PLAN STA 80+00 TO STA 91+50
H2	PRELIMINARY ROAD PLAN STA 91+50 TO STA 100+00
H3	PRELIMINARY ROAD PLAN STA.39+54 TO STA.45+00
H4	GRADING PLAN – WATERS EDGE BLVD
H5	GRADING PLAN – THREE OAKS RECREATIONAL ARE DRIVE

BENCHMARKS:

REFERENCE BENCHMARK:
ELEVATIONS AND SITE BENCHMARKS SHOWN HEREON WERE ESTABLISHED UTILIZING A TRIMBLE RAPID STATIC GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) AND THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S (NOAA'S) ONLINE POSITIONING USER SERVICE (OPUS). THE OBSERVED ELEVATIONS, AS REFINED BY OPUS, IS THE BASIS FOR ALL ELEVATIONS SHOWN HEREON AND THIS INFORMATION HAS NOT BEEN DIRECTLY COMPARED TO ANY OTHER KNOWN OR FIXED BENCHMARK. ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM (GEOID18).

SITE BENCHMARK #1:
CUT SQUARE ON NORTH SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 529 FEET SOUTHERLY OF THE CENTERLINE OF LIBERTY ROAD AND APPROXIMATELY 521 FEET EASTERLY OF THE CENTERLINE OF CRYSTAL POINT ROAD.

ELEVATION=885.17 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #2:
CUT SQUARE ON NORTH SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 1,348 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 998 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD AS MEASURED ALONG THE CENTERLINE OF US ROUTE 14.

ELEVATION=897.67 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #3:
CUT SQUARE ON EAST SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 1,127 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 1,097 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD AS MEASURED ALONG THE CENTERLINE OF US ROUTE 14.

ELEVATION=897.81 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #4:
CUT SQUARE ON EAST SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 277 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 1,056 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD.

ELEVATION= 906.50 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #5:
EAST BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 59 FEET NORTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 1,057 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD AS MEASURED ALONG THE CENTERLINE OF US ROUTE 14.

ELEVATION= 908.68 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #6:
CUT SQUARE ON SOUTH SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 68 FEET NORTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 122 FEET WESTERLY OF THE CENTERLINE OF LIBERTY ROAD.

ELEVATION=903.59 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #7:
EAST BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 277 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 69 FEET WESTERLY OF THE CENTERLINE OF LIBERTY ROAD.

ELEVATION=898.38 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #8:
EAST BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 23 FEET NORTHERLY OF THE CENTERLINE OF LIBERTY ROAD AND APPROXIMATELY 380 FEET EASTERLY OF THE CENTERLINE OF CRYSTAL POINT ROAD.

ELEVATION=896.07 DATUM=NAVD88-GEOID 18

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM
Simply Call 811

UTILITY CONTACTS

ELECTRIC COMMONWEALTH EDISON 350 SOUTH SECOND STREET ELGIN, IL 60123 (630) 639-3532 CONTACT: SUSAN WEYHRAUCH	WATER CITY OF CRYSTAL LAKE 100 W. WOODSTOCK STREET CRYSTAL LAKE, IL 60014 (815) 356-3614 CONTACT: ANDREW RESEK
GAS NICOR GAS 1844 FERRY ROAD NAPERVILLE, IL 60563 (630) 399-0600 CONTACT: FORAM SHAH	TELEPHONE AT&T 2004 MINER STREET DES PLAINES, IL 60016 (847) 888-6864 CONTACT: HECTOR SUAREZ
SEWER CITY OF CRYSTAL LAKE 100 W. WOODSTOCK STREET CRYSTAL LAKE, IL 60014 (815) 356-3614 CONTACT: ANDREW RESEK	

SEAL

DATE	REVISIONS	DRAWN BY
03-08-22	REVISED PER CITY REVIEW COMMENTS	KRK

Manhard™ CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE
CITY OF CRYSTAL LAKE, ILLINOIS
TITLE SHEET

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	N.T.S.

SHEET 1 OF 15

FRDCLIL01

PRELIMINARY

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 7, 2022 - 14:12
Dwg Name: P:\Fdc\001\dwg\Eng\Preliminary\Plan Set\Infrastructure Plan Set (For TITLE SHEET).dwg, Updated By: Kitowers

DEMOLITION LEGEND

- BITUMINOUS PAVEMENT AND BASE TO BE REMOVED
- CONCRETE PAVEMENT AND BASE TO BE REMOVED
- BUILDING TO BE REMOVED
- FOUNDATION TO BE REMOVED
- AGGREGATE TO BE REMOVED
- PAVEMENT MILL AND OVERALY
- SAWCUT LINE
- FENCE, RETAINING WALL, RAILROAD TIES, POLES, CURB AND GUTTER, ETC. TO BE REMOVED
- UTILITY STRUCTURE TO BE REMOVED
- UTILITY LINE REMOVAL, FILL OR ABANDONMENT (REFER TO SPECIFICATIONS)
- TREE TO BE REMOVED
- (TBR) TO BE REMOVED
- (TR) TO REMAIN

SCALE: 1"=60'

DEMOLITION WORK ON LOTS 1 AND 3 TO BE PERFORMED BY OTHERS UNDER SEPARATE COVER.

NORTHWEST HIGHWAY (ROUTE 14)

LIBERTY ROAD

THREE OAKS RECREATION AREA DRIVE

SAWCUT PAVEMENT, 1 1/2"

SAWCUT PAVEMENT FULL DEPTH (TYP)

±78' OF 30" RCP ST TO REMAIN

±9' OF 15" RCP ST TO REMAIN

PARCEL 1 LOT 3 RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION ONE STORY BRICK BUILDING

LOT 1 RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION RECORDED JUNE 21, 1988 AS DOCUMENT NUMBER 88096000

LOT 2 RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION RECORDED JUNE 21, 1988 AS DOCUMENT NUMBER 88096000

CRYSTAL COURT SUBDIVISION RECORDED MAY 25, 1988 AS DOCUMENT NUMBER 88052172

PART OF PARCEL 2 LOT 5

PART OF PARCEL 2 LOT 4

PART OF PARCEL 2 LOT 3

PARCEL 3 LOT 3

SAWCUT PAVEMENT FULL DEPTH (TYP)

EX. LIGHT POLE AND BOX TO BE RELOCATED

EX. CURB AND GUTTER (TBR) (TYP.)

SAWCUT PAVEMENT FULL DEPTH (TYP)

CITY OF CRYSTAL LAKE NOTES:

- ALL EXISTING WATER AND SEWER UTILITIES MUST BE CAPPED/PLUGGED AT CITY MAIN.
- ALL EXISTING VALVES, FIRE HYDRANTS AND AUXILIARY VALVES FOR HYDRANTS TAKEN OUT OF THE SYSTEM SHALL BE GIVEN TO THE CITY OF CRYSTAL LAKE.

06-01-16

EXISTING CONDITIONS AND DEMOLITION NOTES:

1. EXISTING CONDITIONS AND DEMOLITION PLAN REPRESENT SITE CONDITIONS AS OF OCTOBER 22, 2021. CONTRACTOR SHALL INSPECT SITE PRIOR TO BIDDING WORK TO VERIFY ACTUAL FIELD CONDITIONS AS PORTIONS OF THE DEMOLITION WORK MAY HAVE SINCE BEEN COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE ALL DEMOLITION WORK AS PER PLANS TO PREPARE THE SITE FOR CONSTRUCTION OF PROPOSED IMPROVEMENTS.
2. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.
3. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL AND DISPOSAL (IN A LOCATION APPROVED BY ALL JURISDICTIONAL GOVERNING ENTITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, ROAD, PARKING LOTS, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THESE PLANS CAN BE CONSTRUCTED. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
4. REFER TO SPECIFICATIONS SHEET FOR DEMOLITION NOTES.

DRAWN BY	DATE	REVISIONS
KRK	03-08-22	REVISED PER CITY REVIEW COMMENTS

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE
CITY OF CRYSTAL LAKE, ILLINOIS
OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	1"=60'

SHEET 2 OF 15

FRDCLIL01

© 2022 Manhard Consulting, Ltd. All rights reserved

PRELIMINARY

March 7, 2022 - 14:13 Dwg Name: P:\Projects\01\dwg\Eng\Preliminary\Plan Set\Infrastructure Plan Set (for TIF)\OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN.dwg Updated By: KKitowris

01-01-16

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8 G	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.5'	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

09-01-16

GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
6. 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.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
9. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL
11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

0 30 60 120
SCALE: 1"=60'

NORTHWEST HIGHWAY (ROUTE 14)

LIBERTY ROAD

WATERS EDGE BOULEVARD

THREE OAKS RECREATION AREA DRIVE

RESTAURANT
10,655 S.F.
F.F.=899.5
G.F.=899.0

EXISTING BANK

RETAIL 1
5,000 S.F.
F.F.=898.5
G.F.=898.0

RETAIL 2
7,000 S.F.
F.F.=898.0
G.F.=897.5

GROCERY
45,000 S.F.
F.F.=901.5
G.F.=901.0

DOG PARK
5,422 S.F.
F.F.=897.0
G.F.=896.5

GARAGE

CLUBHOUSE
F.F.=894.0
G.F.=893.5

POOL

PUBLIC PARK (REFER TO ARCH. PLANS)

VARIABLE HEIGHT RETAINING WALL (DESIGNED BY OTHERS)

FOR BOULEVARD IMPROVEMENTS, PLEASE SEE SHEETS V2.6H14.

FOR MULTIFAMILY SITE GRADING, SEE PLAN SET TITLED "PROPOSED IMPROVEMENTS FOR MULTIFAMILY DEVELOPMENT AT WATERS EDGE" DATED DECEMBER 17, 2021, PREPARED BY MANHARD CONSULTING.

NW BASIN EXPANSION
BOT 879.00
NWL 888.80
HWL 893.00
EX. VOL 2.95 AC-FT
PROP. VOL 4.12 AC-FT

BASIN A
NWL 887.00
HWL 892.00
VOL 0.17 AC-FT

BASIN B
NWL 884.00
HWL 890.50
VOL 0.23 AC-FT

BASIN C
NWL 888.00
HWL 892.00
VOL 0.55 AC-FT

BASIN D
NWL 885.00
HWL 890.00
VOL 0.41 AC-FT

SEE SHEET 10

SW BASIN EXPANSION
NWL 864.00
HWL 883.00
EX. VOL 31.25 AC-FT
PROP. VOL 34.39 AC-FT

M/E PAVEMENT GRADES

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

DATE	REVISIONS	DRAWN BY
03-08-22	REVISED PER CITY REVIEW COMMENTS	KRK

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE

CITY OF CRYSTAL LAKE, ILLINOIS

OVERALL GRADING PLAN

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	1"=60'

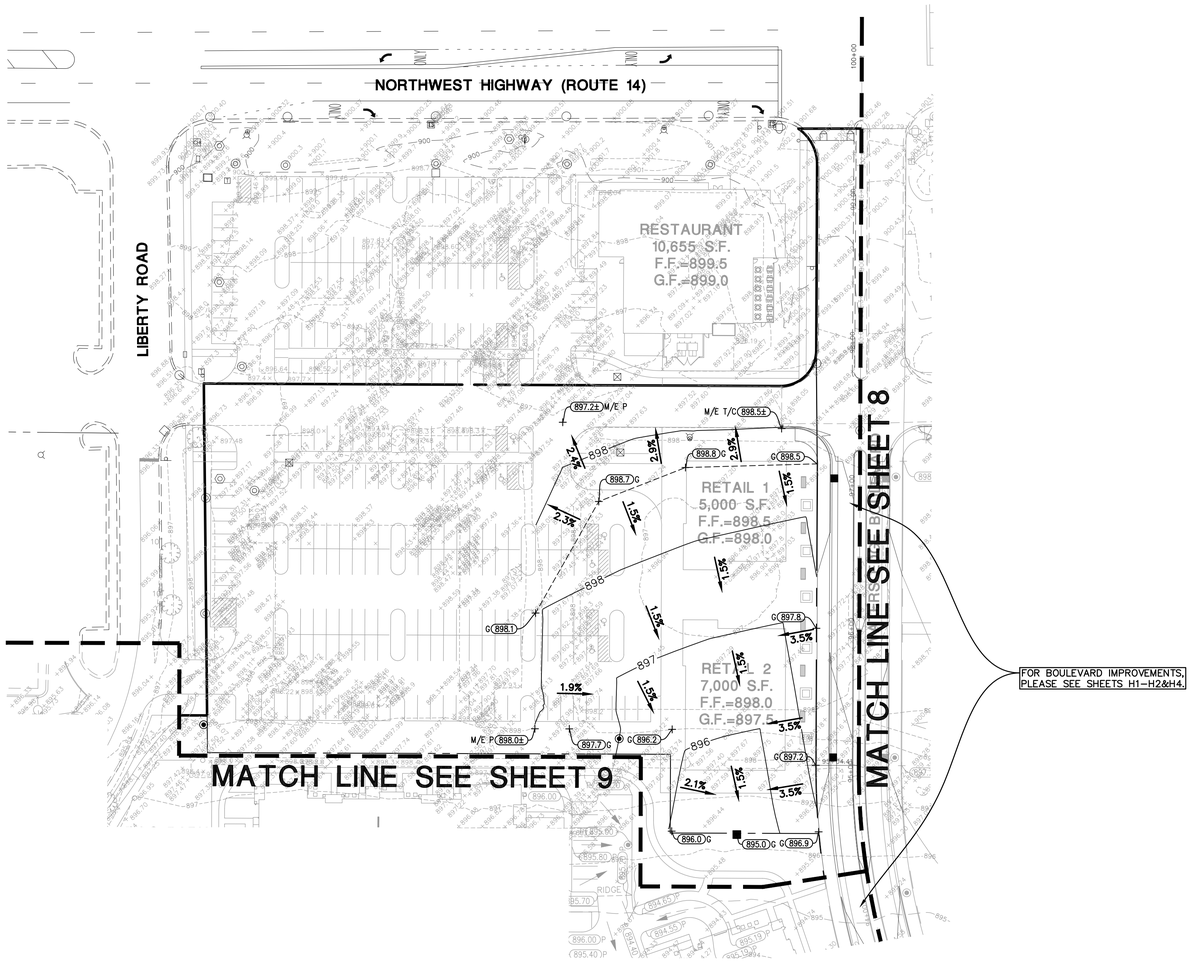
SHEET 6 OF 15

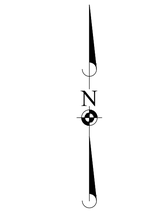
FRDCLIL01

PRELIMINARY

©2021 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 12:40 Dwg Name: P:\Projects\0180\Dwg\Eng\Preliminary\Plan Set\Infrastructure Plan Set (for TIF)\OVERALL GRADING PLAN.dwg Updated By: KKitowski





06-01-16

GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
6. 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.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
9. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

01-01-16

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8 C	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
(0.5')	PROPOSED DEPTH OF PONDING
	RETAINING WALL
(L)	PROPOSED SWALE LOW POINT
(S)	PROPOSED SWALE SUMMIT

DRAWN BY
REVISIONS
DATE

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resources Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE

CITY OF CRYSTAL LAKE, ILLINOIS

GRADING PLAN - NORTH

PROJ. MGR.: JSP
PROJ. ASSOC.: KRK
DRAWN BY: MH
DATE: 12-17-21
SCALE: 1"=50'

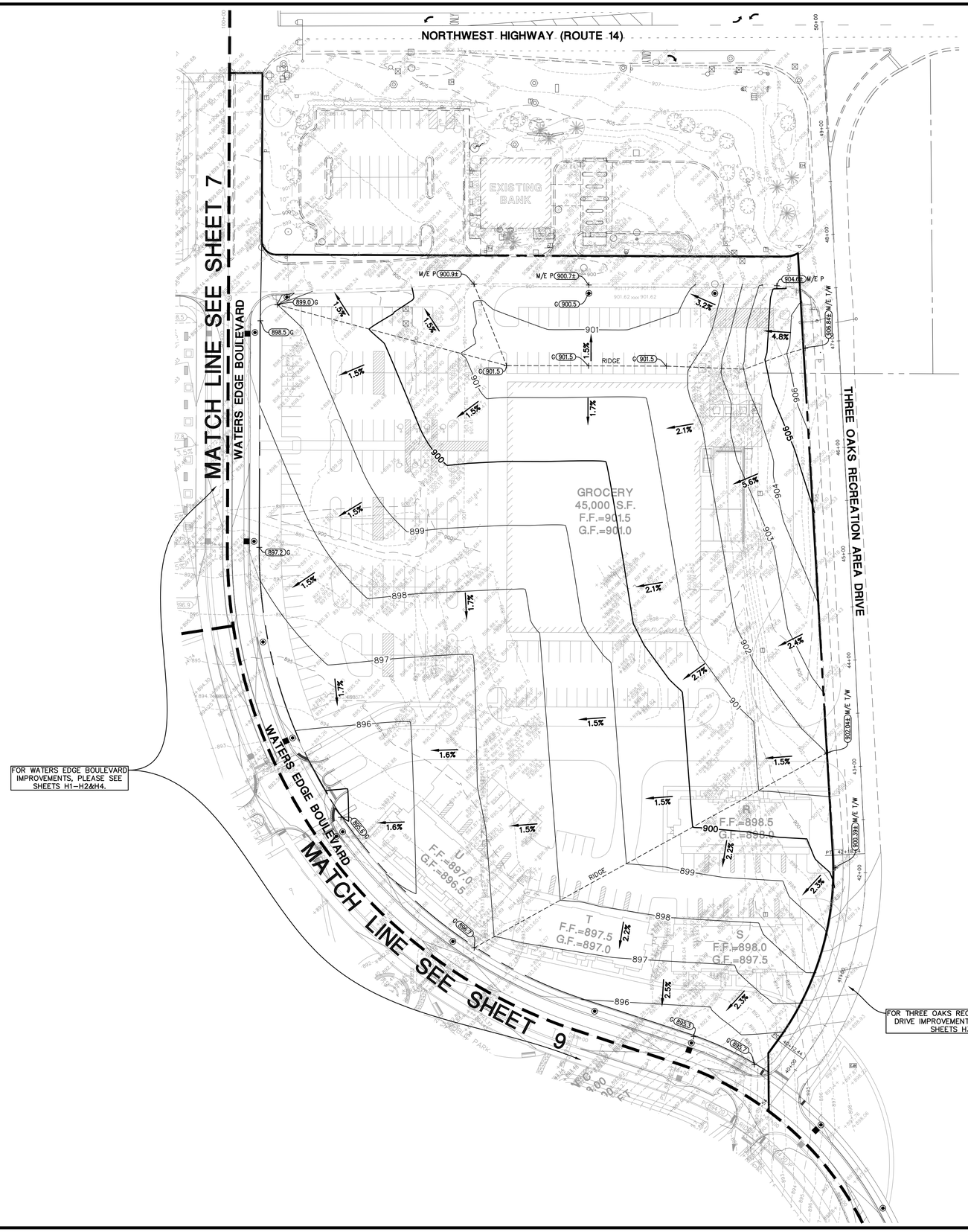
SHEET 7 OF 15

FRDCLIL01

PRELIMINARY

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 10:57 Dwg Name: P:\Fr\d\001\dwg\Eng\Preliminary\Plan Set\Infrastructure Plan Set (For TIF)\GRADING PLAN - EAST.dwg Updated By: KKlowers



N

0 25 50 100

SCALE: 1"=50'

01-01-16

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8 G	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.2'	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

06-21-16

GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
6. 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.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
9. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

DRAWN BY | REVISIONS | DATE

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE

CITY OF CRYSTAL LAKE, ILLINOIS

GRADING PLAN - EAST

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	1"=50'

SHEET 8 OF 15

FRDCLIL01

PRELIMINARY

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 8, 2022 - 16:42 Dwg Name: P:\Projects\Dwg\Engr\Preliminary\Plan Set\Infrastructure Plan Set (for TIF)\GRADING PLAN - EAST.dwg Updated By: KKilworth

01-01-16

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8 G	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.5'	PROPOSED DEPTH OF PONDING
	RETAINING WALL
L	PROPOSED SWALE LOW POINT
S	PROPOSED SWALE SUMMIT

06-01-16

GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
6. 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.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
9. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

N

0 25 50 100

SCALE: 1"=50'

MATCH LINE SEE SHEET 7

MATCH LINE SEE SHEET 8

SEE SHEET 10

DOG PARK
5,422 S.F.

I
F.F.=897.0
G.F.=896.5

H
F.F.=895.5
G.F.=895.0

J
F.F.=895.0
G.F.=894.5

A
F.F.=895.5
G.F.=895.0

B
F.F.=894.0
G.F.=893.5

C
F.F.=894.0
G.F.=893.5

D
F.F.=892.5
G.F.=892.0

E
F.F.=892.0
G.F.=891.5

F
F.F.=890.5
G.F.=890.0

G
F.F.=891.0
G.F.=890.5

K
F.F.=894.0
G.F.=893.5

L
F.F.=893.0
G.F.=892.5

M
F.F.=894.5
G.F.=894.0

N
F.F.=894.5
G.F.=894.0

O
F.F.=894.5
G.F.=894.0

P
F.F.=894.5
G.F.=894.0

GARAGE
TRASH
MG
POOL
CLUBHOUSE
F.F.=894.0
G.F.=893.5

NW BASIN EXPANSION
BOT. 879.00
NWL 883.00
HWL 893.00
EX. VOL 2.95 AC-FT
PROP. VOL 4.12 AC-FT

BASIN A
NWL 887.00
HWL 892.00
VOL 0.17 AC-FT

BASIN B
NWL 884.00
HWL 890.50
VOL 0.23 AC-FT

BASIN C
NWL 888.00
HWL 892.00
VOL 0.55 AC-FT

BASIN D
NWL 885.00
HWL 892.00
VOL 0.41 AC-FT

FOR MULTIFAMILY SITE GRADING, SEE PLAN SET TITLED "PROPOSED IMPROVEMENTS FOR MULTIFAMILY DEVELOPMENT AT WATERS EDGE" DATED DECEMBER 17, 2021, PREPARED BY MANHARD CONSULTING.

FOR BOULEVARD IMPROVEMENTS PLEASE SEE SHEETS H1-H3&H14

LIBERTY ROAD

WATERS EDGE BOULEVARD

PUBLIC PARK (REFER TO ARCH PLANS)

VARIABLE HEIGHT RETAINING WALL (DESIGNED BY OTHERS)

SW BASIN EXPANSION
NWL 864.00
HWL 883.00
EX. VOL 31.25 AC-FT
PROP. VOL 34.39 AC-FT

THREE OAKS RECREATION AREA DRIVE

M/E PAVEMENT GRADES

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

DATE	REVISIONS	DRAWN BY
	03-08-22 REVISED PER CITY REVIEW COMMENTS	KRK

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resources Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE
CITY OF CRYSTAL LAKE, ILLINOIS
GRADING PLAN - SOUTHWEST

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	1"=50'

SHEET 9 OF 15
FRDCLIL01

PRELIMINARY

March 8, 2022 - 16:42 Dwg Name: P:\Projects\01\dwg\Eng\Preliminary\Plan Set\Infrastructure Plan Set (for TIF)\GRADING PLAN - EAST.dwg Updated By: KKlawiris

01-21-16

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8 TC	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.5'	PROPOSED DEPTH OF PONDING
	RETAINING WALL
(L)	PROPOSED SWALE LOW POINT
(S)	PROPOSED SWALE SUMMIT

06-01-16

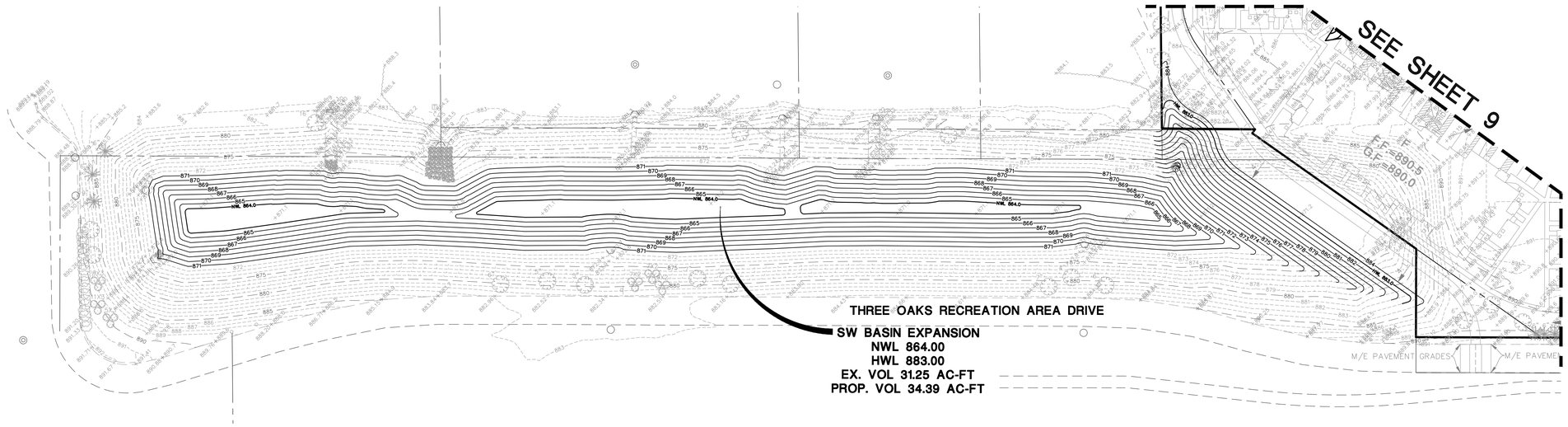
GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
6. 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.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
9. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

N

0 25 50 100

SCALE: 1"=50'



DATE	REVISIONS	DRAWN BY
03-08-22	REVISED PER CITY REVIEW COMMENTS	KRK

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE

CITY OF CRYSTAL LAKE, ILLINOIS

GRADING PLAN - SOUTHWEST BASIN

PROJ. MGR.: JSP
PROJ. ASSOC.: KRK
DRAWN BY: MH
DATE: 12-17-21
SCALE: 1"=50'

SHEET 10 OF 15

FRDCLIL01

©2022MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

PRELIMINARY

March 8, 2022 - 16:42 Dwg Name: P:\Trade\03\dwg\Eng\Preliminary\Plan Set\Infrastructure Plan Set (For TIF)\GRADING PLAN - EAST.dwg Updated By: KStevens

UTILITY LEGEND

MULTIFAMILY IMPROVEMENTS*	INFRASTRUCTURE IMPROVEMENTS
STORM SEWER	
SANITARY SEWER	
WATER MAIN	W
SANITARY MANHOLE	
STORM MANHOLE	
STORM INLET	
CLEANOUT	
VALVE IN VAULT	
VALVE IN BOX	
FIRE HYDRANT	

* FOR ALL MULTIFAMILY UTILITY IMPROVEMENTS, PLEASE REFER TO THE PLAN SET TITLED "MULTIFAMILY DEVELOPMENT AT WATERS EDGE" PREPARED BY MANHARD CONSULTING, DATED DECEMBER 17, 2021.

06-01-16

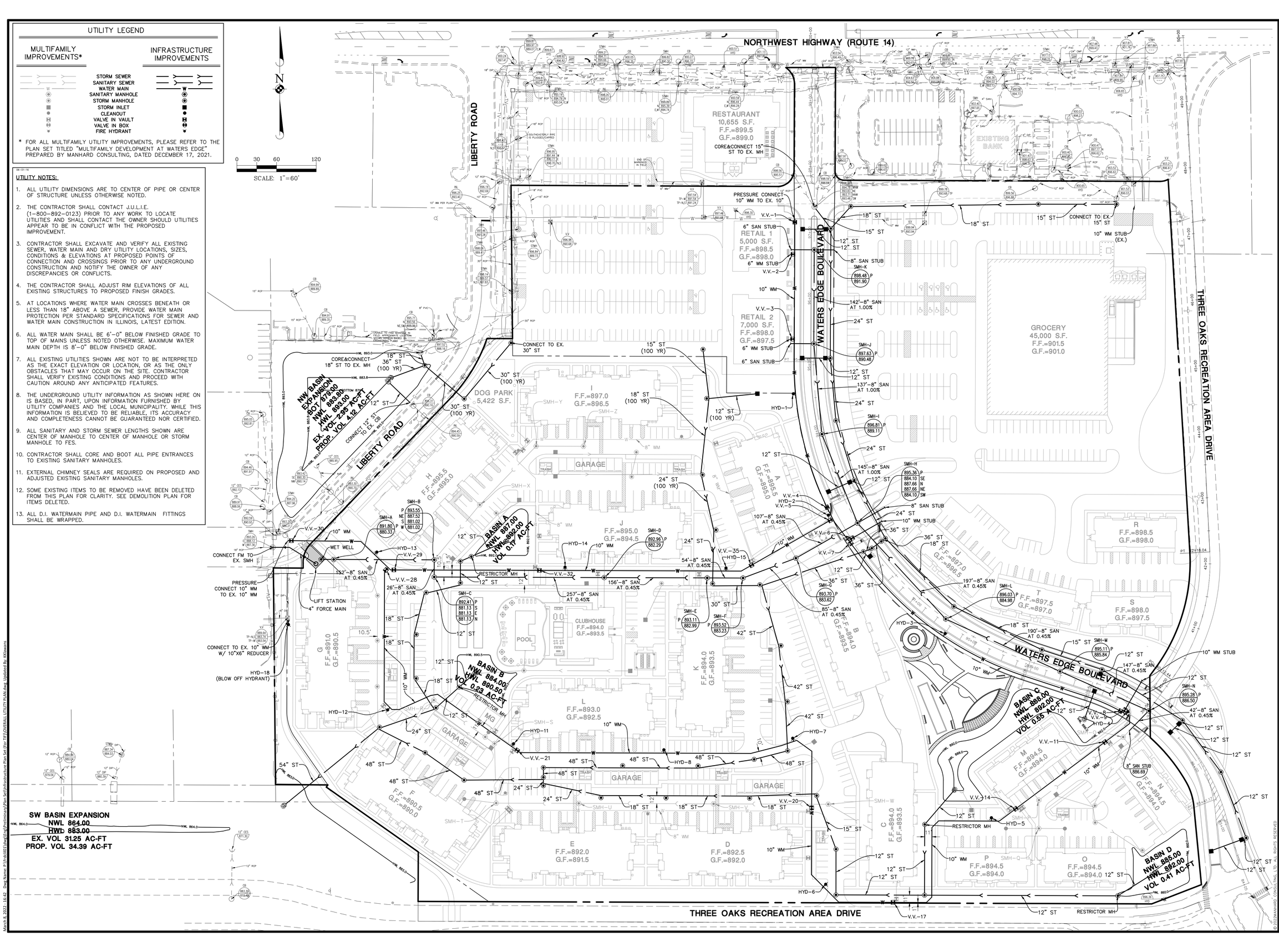
UTILITY NOTES:

1. ALL UTILITY DIMENSIONS ARE TO CENTER OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. 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.
3. CONTRACTOR SHALL EXCAVATE AND VERIFY ALL EXISTING SEWER, WATER MAIN AND DRY UTILITY LOCATIONS, SIZES, CONDITIONS & ELEVATIONS AT PROPOSED POINTS OF CONNECTION AND CROSSINGS PRIOR TO ANY UNDERGROUND CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
4. THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO PROPOSED FINISH GRADES.
5. AT LOCATIONS WHERE WATER MAIN CROSSES BENEATH OR LESS THAN 18" ABOVE A SEWER, PROVIDE WATER MAIN PROTECTION PER STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
6. ALL WATER MAIN SHALL BE 6'-0" BELOW FINISHED GRADE TO TOP OF MAINS UNLESS NOTED OTHERWISE. MAXIMUM WATER MAIN DEPTH IS 8'-0" BELOW FINISHED GRADE.
7. ALL EXISTING UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT ELEVATION OR LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
8. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HERE ON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED.
9. ALL SANITARY AND STORM SEWER LENGTHS SHOWN ARE CENTER OF MANHOLE TO CENTER OF MANHOLE OR STORM MANHOLE TO FES.
10. CONTRACTOR SHALL CORE AND BOOT ALL PIPE ENTRANCES TO EXISTING SANITARY MANHOLES.
11. EXTERNAL CHIMNEY SEALS ARE REQUIRED ON PROPOSED AND ADJUSTED EXISTING SANITARY MANHOLES.
12. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
13. ALL D.I. WATERMAIN PIPE AND D.I. WATERMAIN FITTINGS SHALL BE WRAPPED.

N

0 30 60 120

SCALE: 1"=60'



DRAWN BY	KRK
REVISIONS	
DATE	03-08-22 REVISED PER CITY REVIEW COMMENTS

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE

CITY OF CRYSTAL LAKE, ILLINOIS

OVERALL UTILITY PLAN

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	1"=60'

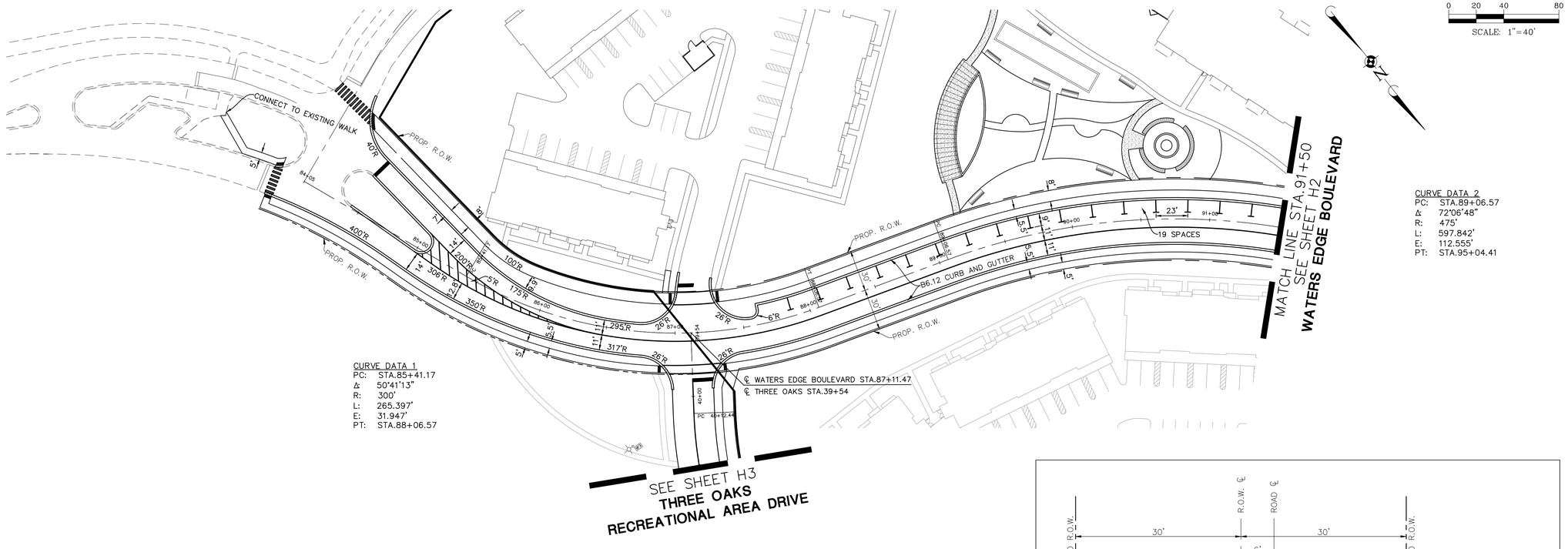
SHEET 11 OF 15

FRDCLIL01

© Copyright Manhard Consulting, Ltd. - All Rights Reserved

PRELIMINARY

March 8, 2022 - 16:42 Dwg Name: P:\Projects\013\Dwg\Eng\Preliminary\Plan Set\Infrastructure Plan Set (Rev TIF)\OVERALL UTILITY PLAN.dwg Updated By: KMowers



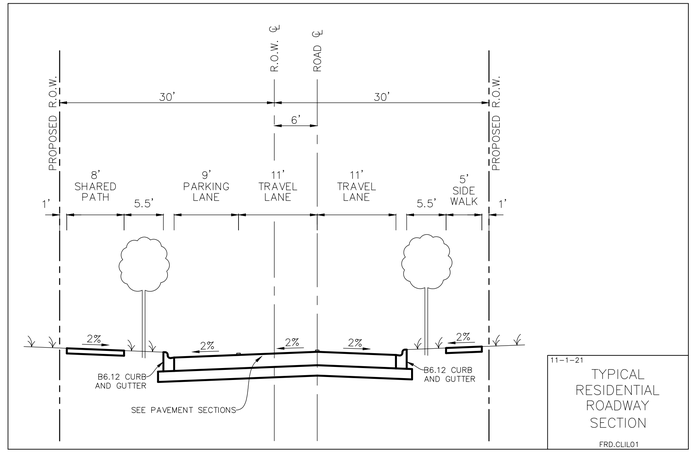
CURVE DATA 1
PC: STA.85+41.17
Δ: 50°41'13"
R: 300'
L: 265.397'
E: 31.947'
PT: STA.88+06.57

CURVE DATA 2
PC: STA.89+06.57
Δ: 72°06'48"
R: 475'
L: 597.842'
E: 112.555'
PT: STA.95+04.41

PAVEMENT SECTIONS

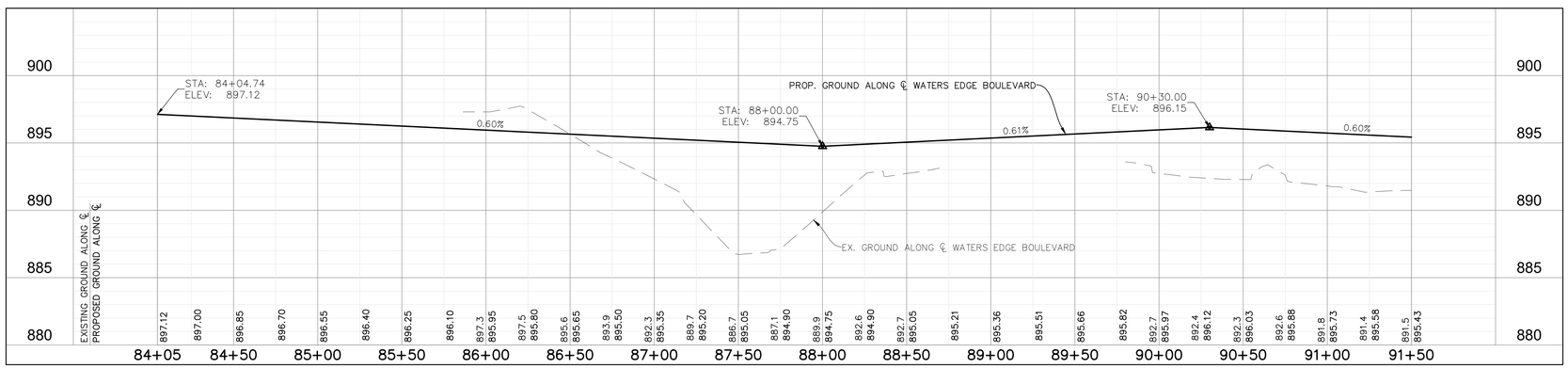
MINOR COLLECTOR ALTERNATE 1
- HMA SURFACE COURSE, 1.5", MIX C, N50
- HMA BINDER COURSE, 2.5", IL 19, N50
- HMA BASE COURSE, 6"
- AGGREGATE BASE COURSE, 4", (CA-6, GRADE #9)

MINOR COLLECTOR ALTERNATE 2
- HMA SURFACE COURSE, 1.5", MIX C, N50
- HMA BINDER COURSE, 4", IL 19, N50
- AGGREGATE BASE COURSE, 12", (CA-6, GRADE #9)



11-1-21
TYPICAL RESIDENTIAL ROADWAY SECTION
FRD.CLIL01

WATERS EDGE BOULEVARD



Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

DRAWN BY	REVISIONS	DATE
KRK	03-08-22 REVISED PER CITY REVIEW COMMENTS	

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE
CITY OF CRYSTAL LAKE, ILLINOIS
PRELIMINARY ROAD PLAN STA 80+00 TO STA 91+50

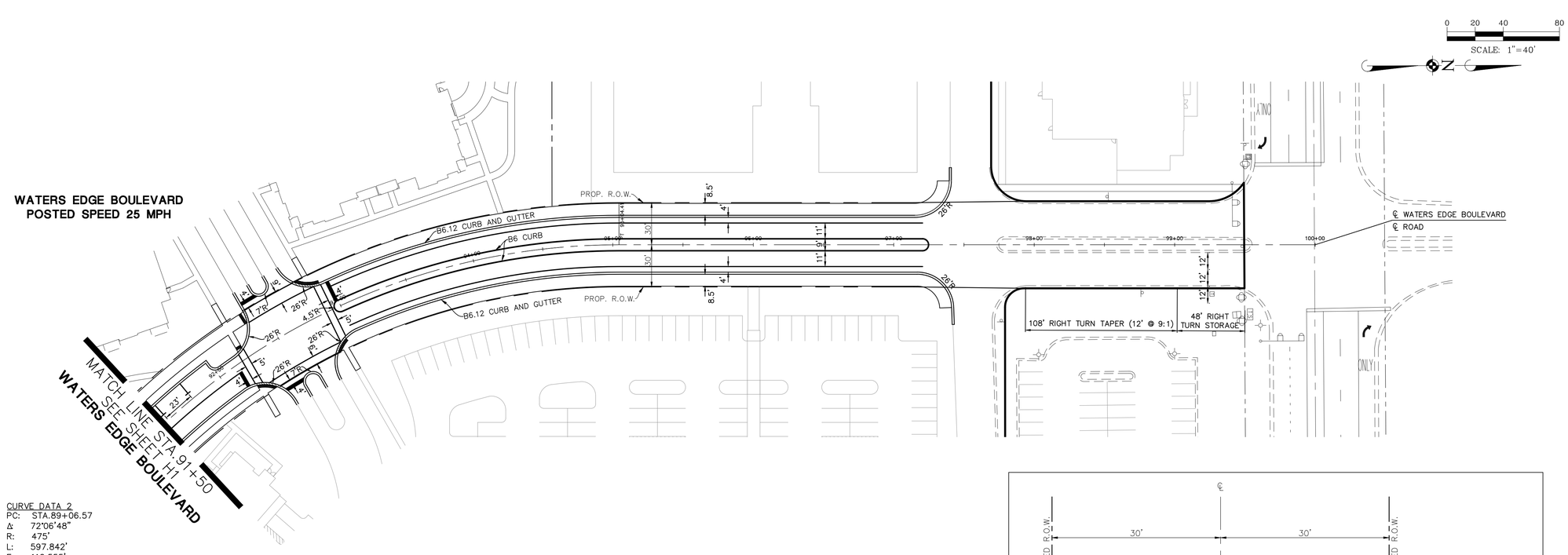
PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	AS
DATE:	12-17-21
SCALE:	H:1"=40',V:1"=5'

SHEET
H1 OF 15
FRDCLIL01

PRELIMINARY

©2022MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 3, 2022 - 12:12 Dwg Name: P:\Fred\H01\dwg\Eng\Preliminary\Vis\dwg\Vis\H1-H4 PRELIMINARY GEOMETRICS.dwg Updated By: ASanchez



0 20 40 80
SCALE: 1"=40'

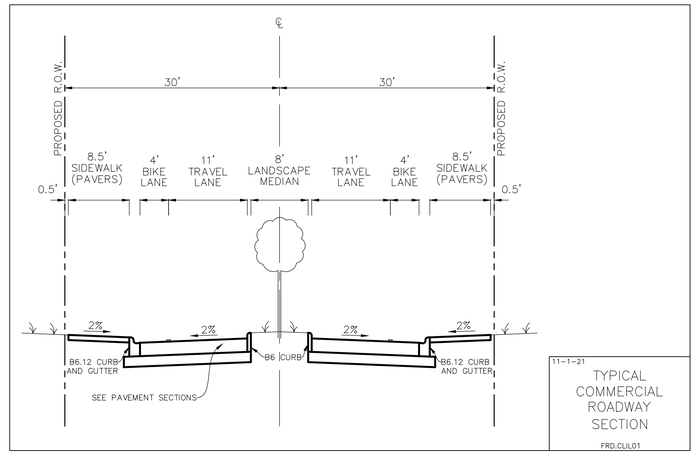
N

CURVE DATA 2
PC: STA.89+06.57
Δ: 72°06'48"
R: 475'
L: 597.842'
E: 112.555'
PT: STA.95+04.41

PAVEMENT SECTIONS

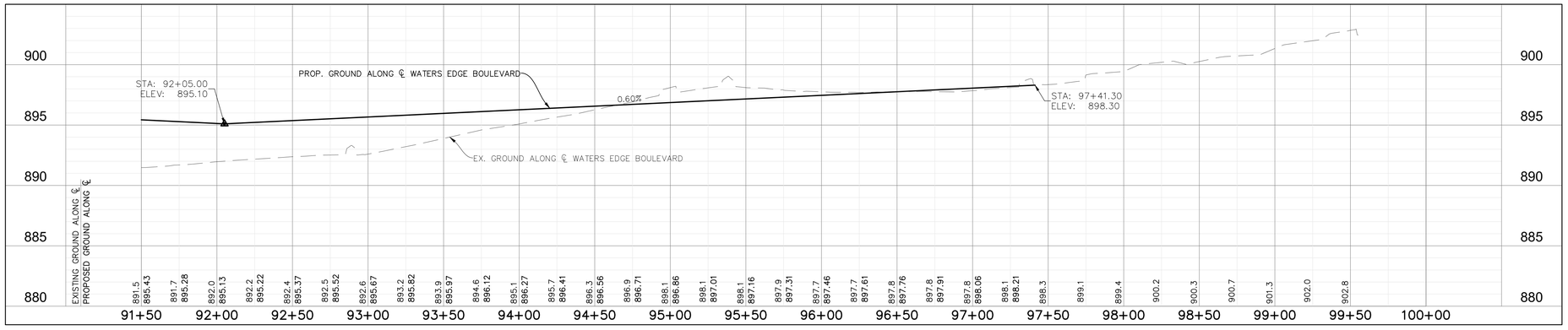
MINOR COLLECTOR ALTERNATE 1
- HMA SURFACE COURSE, 1.5", MIX C, N50
- HMA BINDER COURSE, 2.5", IL 19, N50
- HMA BASE COURSE, 6"
- AGGREGATE BASE COURSE, 4", (CA-6, GRADE #9)

MINOR COLLECTOR ALTERNATE 2
- HMA SURFACE COURSE, 1.5", MIX C, N50
- HMA BINDER COURSE, 4", IL 19, N50
- AGGREGATE BASE COURSE, 12", (CA-6, GRADE #9)



11-1-21
TYPICAL COMMERCIAL ROADWAY SECTION
FRDCLIL01

WATERS EDGE BOULEVARD



DATE	REVISIONS	DRAWN BY
03-08-22	REVISED PER CITY REVIEW COMMENTS	KRK

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MIXED USE DEVELOPMENT AT WATERS EDGE - INFRASTRUCTURE

CITY OF CRYSTAL LAKE, ILLINOIS

PRELIMINARY ROAD PLAN STA 91+50 TO STA 100+00

PROJ. MGR.: JSP
PROJ. ASSOC.: KRK
DRAWN BY: AS
DATE: 12-17-21
SCALE: H:1"=40',V:1"=5'

SHEET
H2 OF 15
FRDCLIL01

PRELIMINARY

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 3, 2022 - 12:12 Dwg Name: P:\Projects\015\dwg\Engr\Preliminary\Highway\H1-H4 PRELIMINARY GEOMETRICS.dwg Updated By: ASanchez

Proposed Improvements for

MULTIFAMILY DEVELOPMENT AT WATERS EDGE

5561-5657 NORTHWEST HIGHWAY
CITY OF CRYSTAL LAKE, ILLINOIS

STANDARD SYMBOLS

06-01-16

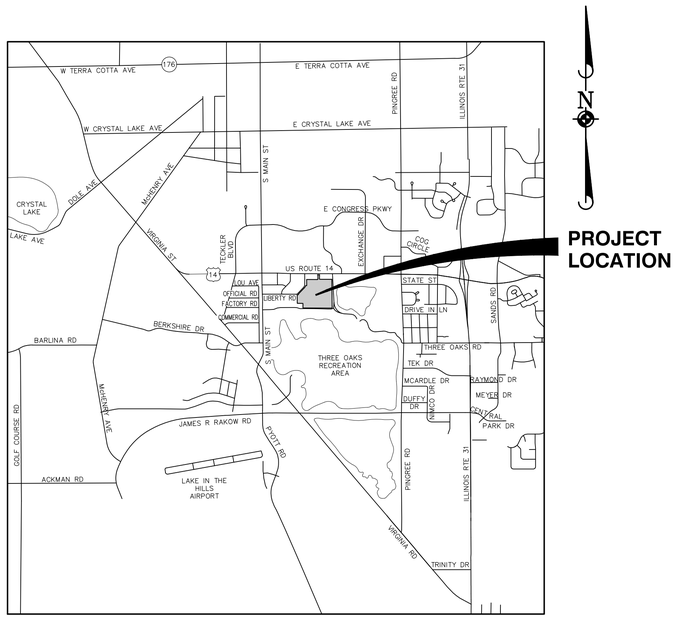
EXISTING		PROPOSED
	STORM SEWER	
	SANITARY SEWER	
	COMBINED SEWER	
FM	FORCEMAIN	FM
	DRAINTILE	
W	WATER MAIN	W
E	ELECTRIC	E
G	GAS	G
T	TELEPHONE	T
OH	OVERHEAD WIRES	OH
	SANITARY MANHOLE	
	STORM MANHOLE	
	CATCH BASIN	
	STORM INLET	
	CLEANOUT	
	HAY BALES	
	RIP RAP	
	VALVE IN VAULT	
	VALVE IN BOX	
	FIRE HYDRANT	
	BUFFALO BOX	
	FLARED END SECTION	
	STREET LIGHT	
	SUMMIT / LOW POINT	S/L
795.20 / 790.25	RIM ELEVATION / INVERT ELEVATION	795.25 / 790.20
	DITCH OR SWALE	
	DIRECTION OF FLOW	
	OVERFLOW RELIEF SWALE	
764	1 FOOT CONTOURS	764
	CURB AND GUTTER	
	DEPRESSED CURB AND GUTTER	
	REVERSE CURB AND GUTTER	
	SIDEWALK	
	DETECTABLE WARNINGS	
	PROPERTY LINE	
	EASEMENT LINE	
	SETBACK LINE	
	MAIL BOX	
	SIGN	
	TRAFFIC SIGNAL	
	POWER POLE	
	GUY WIRE	
	GAS VALVE	
	HANDHOLE	
E	ELECTRICAL EQUIPMENT	
T	TELEPHONE EQUIPMENT	
250.00	CHAIN-LINK FENCE	
	SPOT ELEVATION	792.8 G
	BRUSH/TREE LINE	
16"	DECIDUOUS TREE WITH TRUNK DIA. IN INCHES (TBR)	16"
25'	CONIFEROUS TREE WITH HEIGHT IN FEET (TBR)	25'
S	SILT FENCE	S
	RETAINING WALL	
	WETLAND	

ABBREVIATIONS

06-01-16

ADJ	ADJUST	F/L	FLOW LINE	R.O.W.	RIGHT-OF-WAY
AGG.	AGGREGATE	FM	FORCE MAIN	RCP	REINFORCED CONCRETE PIPE
ARCH	ARCHITECT	G	GROUND	REM	REMOVAL
B.A.M.	BITUMINOUS AGGREGATE MIXTURE	G/F	GRADE AT FOUNDATION	REV	REVERSE
B-B	BACK TO BACK	GW	GUY WIRE	RR	RAILROAD
B/C	BACK OF CURB	HDWL	HEADWALL	RT	RIGHT
B/P	BOTTOM OF PIPE	HH	HANDHOLE	SAN	SANITARY
B/W	BACK OF WALK	HWL	HIGH WATER LEVEL	SF	SQUARE FOOT
B-BOX	BUFFALO BOX	HYD.	HYDRANT	SHLD.	SHOULDER
BIT.	BITUMINOUS	INL	INLET	SL	STREET LIGHT
BM	BENCHMARK	INV.	INVERT	SMH	SANITARY MANHOLE
B.O.	BY OTHERS	IP	IRON PIPE	ST	STORM
C.E.	COMMERCIAL ENTRANCE	LT	LEFT	STA.	STATION
CB	CATCH BASIN	MAX.	MAXIMUM	STD	STANDARD
℄	CENTERLINE	MB	MAILBOX	SW	SIDEWALK
CMP	CORRUGATED METAL PIPE	M/E	MEET EXISTING	SY	SQUARE YARDS
CNTRL	CONTROL	MH	MANHOLE	TBR	TO BE REMOVED
C.O.	CLEANOUT	MIN.	MINIMUM	T	TELEPHONE
CONC.	CONCRETE	NWL	NORMAL WATER LEVEL	T-A	TYPE A
CY	CUBIC YARD	P.E.	PRIVATE ENTRANCE	T/C	TOP OF CURB
D	DITCH	PC	POINT OF CURVATURE	T/F	TOP OF FOUNDATION
DIA.	DIAMETER	PCC	POINT OF COMPOUND CURVE	T/P	TOP OF PIPE
DIP	DUCTILE IRON PIPE	PGL	PROFILE GRADE LINE	T/W	TOP OF WALK
DIWM	DUCTILE IRON WATER MAIN	PI	POINT OF INTERSECTION	T/WALL	TOP OF WALL
DS	DOWNSPOUT	ℙ	PROPERTY LINE	TEMP	TEMPORARY
DT	DRAIN TILE	PP	POWER POLE	TRANS	TRANSFORMER
E	ELECTRIC	PROP.	PROPOSED	V.B.	VALVE BOX
E-E	EDGE TO EDGE	PT	POINT OF TANGENCY	VCP	VITRIFIED CLAY PIPE
ELEV.	ELEVATION	PVC	POLYVINYL CHLORIDE PIPE	V.V.	VALVE VAULT
E/P	EDGE OF PAVEMENT	PVC	POINT OF VERTICAL CURVATURE	WL	WATER LEVEL
EX.	EXISTING	PVI	POINT OF VERTICAL INTERSECTION	WM	WATER MAIN
F.E.	FIELD ENTRANCE	PVT	POINT OF VERTICAL TANGENCY		
F-F	FACE TO FACE	P	PAVEMENT		
F.F.	FINISHED FLOOR	P.U.D.E.	PUBLIC UTILITY & DRAINAGE EASEMENT		
FES	FLARED END SECTION	R	RADIUS		

MANHARD CONSULTING, LTD. IS NOT RESPONSIBLE FOR THE SAFETY OF ANY PARTY AT OR ON THE CONSTRUCTION SITE. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ANY OTHER PERSON OR ENTITY PERFORMING WORK OR SERVICES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE JOB SITE SAFETY OF PERSONS ENGAGED IN THE WORK OR THE MEANS OR METHODS OF CONSTRUCTION.



PROJECT LOCATION

LOCATION MAP

N.T.S.

OWNER:
FIDUCIARY REAL ESTATE DEVELOPMENT, INC.
789 NORTH WATER STREET, SUITE 200
MILWAUKEE, WISCONSIN 53502
(414) 246-8402

NOTES:

THE BOUNDARY LINES AND TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A FIELD SURVEY COMPLETED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY MANHARD CONSULTING AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS.

Manhard™ CONSULTING LTD
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx:630.691.8585 manhard.com
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SITE DIMENSIONAL AND PAVING PLAN
3	GRADING PLAN
4	OVERALL UTILITY PLAN
5	CONSTRUCTION DETAILS
6	CONSTRUCTION DETAILS
7	CONSTRUCTION DETAILS
8	CONSTRUCTION DETAILS
9	CONSTRUCTION SPECIFICATIONS

BENCHMARKS:

REFERENCE BENCHMARK:
ELEVATIONS AND SITE BENCHMARKS SHOWN HEREON WERE ESTABLISHED UTILIZING A TRIMBLE RAPID STATIC GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) AND THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S (NOAA'S) ONLINE POSITIONING USER SERVICE (OPUS). THE OBSERVED ELEVATIONS, AS REFINED BY OPUS, IS THE BASIS FOR ALL ELEVATIONS SHOWN HEREON AND THIS INFORMATION HAS NOT BEEN DIRECTLY COMPARED TO ANY OTHER KNOWN OR FIXED BENCHMARK. ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM (GEOID18).

SITE BENCHMARK #1:
CUT SQUARE ON NORTH SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 529 FEET SOUTHERLY OF THE CENTERLINE OF LIBERTY ROAD AND APPROXIMATELY 521 FEET EASTERLY OF THE CENTERLINE OF CRYSTAL POINT ROAD.

ELEVATION=885.17 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #2:
CUT SQUARE ON NORTH SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 1,348 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 998 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD AS MEASURED ALONG THE CENTERLINE OF US ROUTE 14.

ELEVATION=897.67 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #3:
CUT SQUARE ON EAST SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 1,127 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 1,097 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD AS MEASURED ALONG THE CENTERLINE OF US ROUTE 14.

ELEVATION=897.81 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #4:
CUT SQUARE ON EAST SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 277 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 1,056 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD.

ELEVATION= 906.50 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #5:
EAST BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 59 FEET NORTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 1,057 FEET EASTERLY OF THE CENTERLINE OF LIBERTY ROAD AS MEASURED ALONG THE CENTERLINE OF US ROUTE 14.

ELEVATION= 908.68 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #6:
CUT SQUARE ON SOUTH SIDE OF CONCRETE LIGHT POLE BASE LOCATED APPROXIMATELY 68 FEET NORTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 122 FEET WESTERLY OF THE CENTERLINE OF LIBERTY ROAD.

ELEVATION=903.59 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #7:
EAST BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 277 FEET SOUTHERLY OF THE CENTERLINE OF US ROUTE 14 AND APPROXIMATELY 69 FEET WESTERLY OF THE CENTERLINE OF LIBERTY ROAD.

ELEVATION=898.38 DATUM=NAVD88-GEOID 18

SITE BENCHMARK #8:
EAST BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 23 FEET NORTHERLY OF THE CENTERLINE OF LIBERTY ROAD AND APPROXIMATELY 380 FEET EASTERLY OF THE CENTERLINE OF CRYSTAL POINT ROAD.

ELEVATION=896.07 DATUM=NAVD88-GEOID 18

UTILITY CONTACTS

ELECTRIC COMMONWEALTH EDISON 350 SOUTH SECOND STREET ELGIN, IL 60123 (630) 639-3532 CONTACT: SUSAN WEYHRAUCH	WATER CITY OF CRYSTAL LAKE 100 W. WOODSTOCK STREET CRYSTAL LAKE, IL 60014 (815) 356-3614 CONTACT: ANDREW RESEK
GAS NICOR GAS 1844 FERRY ROAD NAPERVILLE, IL 60563 (630) 399-0600 CONTACT: FORAM SHAH	TELEPHONE AT&T 2004 MINER STREET DES PLAINES, IL 60016 (847) 888-6864 CONTACT: HECTOR SUAREZ
SEWER CITY OF CRYSTAL LAKE 100 W. WOODSTOCK STREET CRYSTAL LAKE, IL 60014 (815) 356-3614 CONTACT: ANDREW RESEK	

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM
Simply Call 811

SEAL

DATE	REVISIONS	DRAWN BY
03-08-22	REVISED PER CITY REVIEW COMMENTS	KRK

Manhard™ CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MULTIFAMILY DEVELOPMENT AT WATERS EDGE
CITY OF CRYSTAL LAKE, ILLINOIS
TITLE SHEET

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	N.T.S.

SHEET 1 OF 9

FRDCLIL01

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

PRELIMINARY

March 7, 2022 - 09:41 Dwg Name: \\ncl-vh-nas1\projects-lo\Fra\0101\dwg\Eng\Preliminary\Plan Set\01-TITLE.dwg, Updated By: KKlawans

06-01-16

PAVEMENT LEGEND

STANDARD DUTY PAVEMENT
1 1/2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50
8" AGGREGATE BASE COURSE, TYPE B

HEAVY DUTY PAVEMENT
1 1/2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
2 1/2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50
10" AGGREGATE BASE COURSE, TYPE B

CONCRETE PAVEMENT
8" PORTLAND CEMENT CONCRETE PAVEMENT W/ 6 X 6 W1.4 WWF
4" COMPACTED AGGREGATE BASE, TYPE B

CONCRETE SIDEWALK
4" PORTLAND CEMENT CONCRETE
4" COMPACTED AGGREGATE BASE COURSE, TYPE B

SHARED-USE PATH
3" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
BITUMINOUS MATERIALS (PRIME COAT)
8" AGGREGATE BASE COURSE, TYPE B

06-01-16

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 CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE 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, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
7. LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAY. 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.

FOR THE MASTER SITE PLAN, PLEASE SEE EXHIBIT A PREPARED BY MANHARD CONSULTING, DATED DECEMBER 17, 2021.

N

0 25 50 100
SCALE: 1"=50'

LIBERTY ROAD

DOG PARK
5,422 S.F.

NW BASIN EXPANSION
BOT 879.00
NWL 883.80
HWL 888.00
VOL 2.95 AC-FT
EX. VOL 4.12 AC-FT
PROP. VOL

I
F.F.=897.0
G.F.=896.5

H
F.F.=895.5
G.F.=895.0

J
F.F.=895.0
G.F.=894.5

A
F.F.=895.5
G.F.=895.0

G
F.F.=891.0
G.F.=890.5

F
F.F.=890.5
G.F.=890.0

E
F.F.=892.0
G.F.=891.5

D
F.F.=892.5
G.F.=892.0

K
F.F.=894.0
G.F.=893.5

L
F.F.=893.0
G.F.=892.5

B
F.F.=894.0
G.F.=893.5

C
F.F.=894.0
G.F.=893.5

M
F.F.=894.5
G.F.=894.0

N
F.F.=894.5
G.F.=894.0

P
F.F.=894.5
G.F.=894.0

O
F.F.=894.5
G.F.=894.0

GARAGE
CLUBHOUSE
F.F.=894.0
G.F.=893.5
POOL
MAILBOX PAVILION
(REFER TO ARCH PLANS)
MG
TRASH
GUARD HOUSE
(REFER TO ARCH PLANS)
ENTRY COLUMN
(REFER TO ARCH PLANS)

B6.12 CURB AND GUTTER (TYP)

BASIN A
NWL 887.00
HWL 892.00
VOL 0.17 AC-FT

BASIN B
NWL 884.00
HWL 890.50
VOL 0.23 AC-FT

BASIN C
NWL 888.00
HWL 892.00
VOL 0.55 AC-FT

BASIN D
NWL 885.00
HWL 892.00
VOL 0.41 AC-FT

SW BASIN EXPANSION
NWL 864.00
HWL 883.00
EX. VOL 31.25 AC-FT
PROP. VOL 34.39 AC-FT

CONTROL POINT FOR LAYOUT OF ALL PROPOSED IMPROVEMENTS. BUILDING AND PARKING TO BE PARALLEL AND PERPENDICULAR TO SOUTH PROPERTY LINE UNLESS OTHERWISE NOTED.

8' SHARED-USE PATH
6' SHARED-USE PATH
RAISED CROSSWALK/ SPEED TABLE (SEE DETAIL)

FOR BOULEVARD IMPROVEMENTS, PLEASE SEE PLAN SET TITLED "MIXED USE DEVELOPMENT AT WATERS EDGE INFRASTRUCTURE" PREPARED BY MANHARD CONSULTING, DATED DECEMBER 17, 2021.

FOR PUBLIC PARK IMPROVEMENTS, PLEASE SEE PLAN SET TITLED "MIXED USE DEVELOPMENT AT WATERS EDGE DEVELOPMENT" PREPARED BY MANHARD CONSULTING, DATED DECEMBER 17, 2021.

WATERS EDGE BOULEVARD

THREE OAKS RECREATION AREA DRIVE

DRAWN BY							KRK
REVISIONS							
DATE							03-08-22 REVISED PER CITY REVIEW COMMENTS

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph.630.691.8500 fx. 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MULTIFAMILY DEVELOPMENT AT WATERS EDGE
CITY OF CRYSTAL LAKE, ILLINOIS
SITE DIMENSIONAL AND PAVING PLAN

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	1"=50'

SHEET 2 OF 9
FRDCLIL01

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

PRELIMINARY

March 8, 2022 - 13:09 Dwg Name: \\mch-nas\Projects-LO\Frd6180\Use\Eng\Preliminary\Plan Set\SITE DIMENSIONAL AND PAVING PLAN - SOUTHWEST.dwg Updated By: KKitowaris

01-01-16

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.5'	PROPOSED DEPTH OF PONDING
	RETAINING WALL
(L)	PROPOSED SWALE LOW POINT
(S)	PROPOSED SWALE SUMMIT

06-01-16

GRADING NOTES:

1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
6. 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.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
9. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING, LTD. ON OCTOBER 22, 2021. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
11. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

N

0 25 50 100

SCALE: 1"=50'

DOG PARK 5,422 S.F.

LIBERTY ROAD

NW BASIN EXPANSION BOT 879.00 NWL 883.80 HWL 888.00 EX. VOL 2.95 AC-FT PROP. VOL 4.12 AC-FT

I F.F.=897.0 G.F.=896.5

J F.F.=895.0 G.F.=894.5

H F.F.=895.5 G.F.=895.0

A F.F.=895.5 G.F.=895.0

GARAGE

BASIN A NWL 887.00 HWL 892.20 VOL 0.17 AC-FT

G F.F.=891.0 G.F.=890.5

CLUBHOUSE F.F.=894.0 G.F.=893.5

POOL

BASIN B NWL 884.00 HWL 890.50 VOL 0.23 AC-FT

K F.F.=894.0 G.F.=893.5

B F.F.=894.0 G.F.=893.5

L F.F.=893.0 G.F.=892.5

MG

GARAGE

F F.F.=890.5 G.F.=890.0

E F.F.=892.0 G.F.=891.5

D F.F.=892.5 G.F.=892.0

C F.F.=894.0 G.F.=893.5

GARAGE

GARAGE

VARIABLE HEIGHT RETAINING WALLS (DESIGNED BY OTHERS)

6.0%

BASIN C NWL 888.00 HWL 892.00 VOL 0.55 AC-FT

M F.F.=894.5 G.F.=894.0

N F.F.=894.5 G.F.=894.0

P F.F.=894.5 G.F.=894.0

O F.F.=894.5 G.F.=894.0

BASIN D NWL 885.00 HWL 892.00 VOL 0.41 AC-FT

WATERS EDGE BOULEVARD

THREE OAKS RECREATION AREA DRIVE

SW BASIN EXPANSION
NWL 864.00
HWL 883.00
EX. VOL 31.25 AC-FT
PROP. VOL 34.39 AC-FT

FOR SOUTHWEST BASIN IMPROVEMENTS, PLEASE SEE PLAN SET TITLED "MIXED USE DEVELOPMENT AT WATERS EDGE – INFRASTRUCTURE" PREPARED BY MANHARD CONSULTING, DATED DECEMBER 17, 2021.

FOR BOULEVARD IMPROVEMENTS, PLEASE SEE PLAN SET TITLED "MIXED USE DEVELOPMENT AT WATERS EDGE – INFRASTRUCTURE" PREPARED BY MANHARD CONSULTING, DATED DECEMBER 17, 2021.

M/E PAVEMENT GRADES

M/E PAVEMENT GRADES

M/E P (894.9±)

RIDGE (895.1±) M/E P

M/E P (895.6±)

DRAWN BY							KRK
REVISIONS							
DATE							03-08-22 REVISED PER CITY REVIEW COMMENTS

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MULTIFAMILY DEVELOPMENT AT WATERS EDGE

CITY OF CRYSTAL LAKE, ILLINOIS

GRADING PLAN

PROJ. MGR.:	JSP
PROJ. ASSOC.:	KRK
DRAWN BY:	KRK
DATE:	12-17-21
SCALE:	1"=50'

SHEET 3 OF 9

FRDCLIL01

© 2021 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

PRELIMINARY

March 7, 2022 - 19:38 Dwg Name: \\mcl-vh-nas\Projects-LOT\frdcl\l01\dwg\Eng\Preliminary\Plan Set\GRADING PLAN - SOUTHWEST.dwg Updated By: KKlawiers

UTILITY LEGEND

MULTIFAMILY IMPROVEMENTS		INFRASTRUCTURE IMPROVEMENTS*
	STORM SEWER	
	SANITARY SEWER	
W	WATER MAIN	W
	SANITARY MANHOLE	
	STORM MANHOLE	
	STORM INLET	
	CLEANOUT	
	VALVE IN VAULT	
	VALVE IN BOX	
	FIRE HYDRANT	

* FOR ALL INFRASTRUCTURE IMPROVEMENTS, PLEASE REFER TO THE PLAN SET TITLED "MIXED USE DEVELOPMENT AT WATERS EDGE – INFRASTRUCTURE" PREPARED BY MANHARD CONSULTING, DATED DECEMBER 17, 2021.

06-01-16

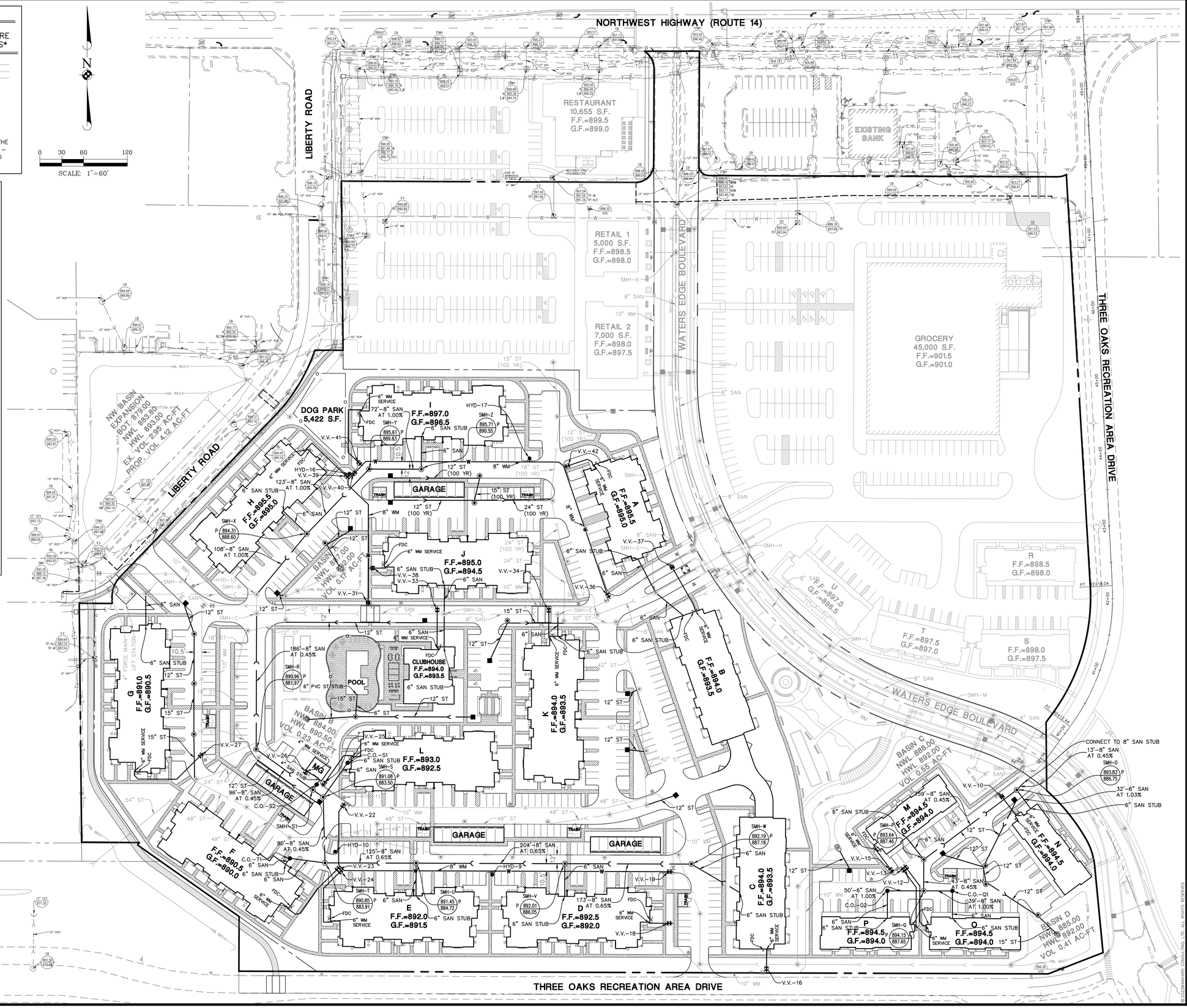
UTILITY NOTES:

1. ALL UTILITY DIMENSIONS ARE TO CENTER OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. 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.
3. CONTRACTOR SHALL EXCAVATE AND VERIFY ALL EXISTING SEWER, WATER MAIN AND DRY UTILITY LOCATIONS, SIZES, CONDITIONS & ELEVATIONS AT PROPOSED POINTS OF CONNECTION AND CROSSINGS PRIOR TO ANY UNDERGROUND CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
4. THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO PROPOSED FINISH GRADES.
5. AT LOCATIONS WHERE WATER MAIN CROSSES BENEATH OR LESS THAN 18" ABOVE A SEWER, PROVIDE WATER MAIN PROTECTION PER STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
6. ALL WATER MAIN SHALL BE 6'-0" BELOW FINISHED GRADE TO TOP OF MAINS UNLESS NOTED OTHERWISE. MAXIMUM WATER MAIN DEPTH IS 8'-0" BELOW FINISHED GRADE.
7. ALL EXISTING UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT ELEVATION OR LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
8. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HERE ON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED.
9. ALL SANITARY AND STORM SEWER LENGTHS SHOWN ARE CENTER OF MANHOLE TO CENTER OF MANHOLE OR STORM MANHOLE TO FES.
10. CONTRACTOR SHALL CORE AND BOOT ALL PIPE ENTRANCES TO EXISTING SANITARY MANHOLES.
11. EXTERNAL CHIMNEY SEALS ARE REQUIRED ON PROPOSED AND ADJUSTED EXISTING SANITARY MANHOLES.
12. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
13. ALL D.I. WATERMAIN PIPE AND D.I. WATERMAIN FITTINGS SHALL BE WRAPPED.

N

0 30 60 120

SCALE: 1"=60'



March 8, 2022 - 13:29 Dwg Name: \\mcl-vh-nas\Projects-CH\Fr60180\Utility\Eng\Preliminary\Plan Set\OVERALL UTILITY PLAN.dwg Updated By: KKrawiarz

DATE	REVISIONS	DRAWN BY
03-08-22	REVISED PER CITY REVIEW COMMENTS	KRK

Manhard CONSULTING
700 Springer Drive, Lombard, IL 60148 ph:630.691.8500 fx: 630.691.8585 manhard.com
Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers
Construction Managers | Environmental Scientists | Landscape Architects | Planners

MULTIFAMILY DEVELOPMENT AT WATERS EDGE
CITY OF CRYSTAL LAKE, ILLINOIS
OVERALL UTILITY PLAN

PROJ MGR.:	JSP
PROJ ASSOC.:	KRK
DRAWN BY:	MH
DATE:	12-17-21
SCALE:	1"=60'

SHEET 4 OF 9

FRDCLIL01

© 2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

PRELIMINARY

PRELIMINARY PLAT
OF
WATERS EDGE SUBDIVISION

BEING A RESUBDIVISION OF LOT 3 IN THE FINAL PLAT OF RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION, LOTS 2, 3, 4 AND 5 IN CRYSTAL COURT SUBDIVISION, AND PART OF NORTHWEST QUARTER AND PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS



LOCATION MAP
NOT TO SCALE

BASIS OF BEARINGS

COORDINATES AND BEARINGS ARE BASED UPON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE (NAD 83), ADJUSTED TO GROUND VALUES, AS ESTABLISHED BY A REAL-TIME KINEMATIC (RTK) GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) UTILIZING THE TRIMBLE VRS NOW NETWORK.

SUBMITTED BY/RETURN TO:

FIDUCIARY REAL ESTATE DEVELOPMENT, INC.
789 NORTH WATER STREET, SUITE 200
MILWAUKEE, WI 53502

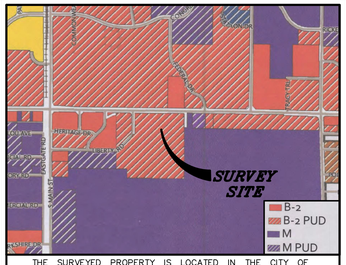
OWNER/DEVELOPER

FIDUCIARY REAL ESTATE DEVELOPMENT, INC.
789 NORTH WATER STREET, SUITE 200
MILWAUKEE, WI 53502

LAND SURVEYOR

ERIC R. VESELY, PLS
MANHARD CONSULTING
ONE OVERLOOK POINT, SUITE 290
LINCOLNSHIRE, ILLINOIS 60069
847-325-7051

EXISTING ZONING



THE SURVEYED PROPERTY IS LOCATED IN THE CITY OF CRYSTAL LAKE "B2-PUD" GENERAL COMMERCIAL DISTRICT AND "M" MANUFACTURING DISTRICT PER THE CITY OF CRYSTAL LAKE 2021 ZONING MAP DATED MARCH 2, 2021.

FLOOD HAZARD NOTE

THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM COMMUNITY PANEL NUMBER 17111C0335J WITH AN EFFECTIVE DATE OF NOVEMBER 15, 2006 INDICATES THAT THE ABOVE DESCRIBED PROPERTY LIES WITHIN AREAS DESIGNATED AS ZONE X(UNSHADED). ZONE X(UNSHADED) IS DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2%ANNUAL CHANCE FLOODPLAIN PER THE FLOOD INSURANCE RATE MAPS. THIS MAP DOES NOT NECESSARILY SHOW ALL AREAS SUBJECT TO FLOODING IN THE COMMUNITY OR ALL PLANIMETRIC FEATURES OUTSIDE SPECIAL FLOOD HAZARD AREAS. THIS DOES NOT GUARANTEE THAT THE SURVEYED PROPERTY WILL OR WILL NOT FLOOD.

BENCHMARKS

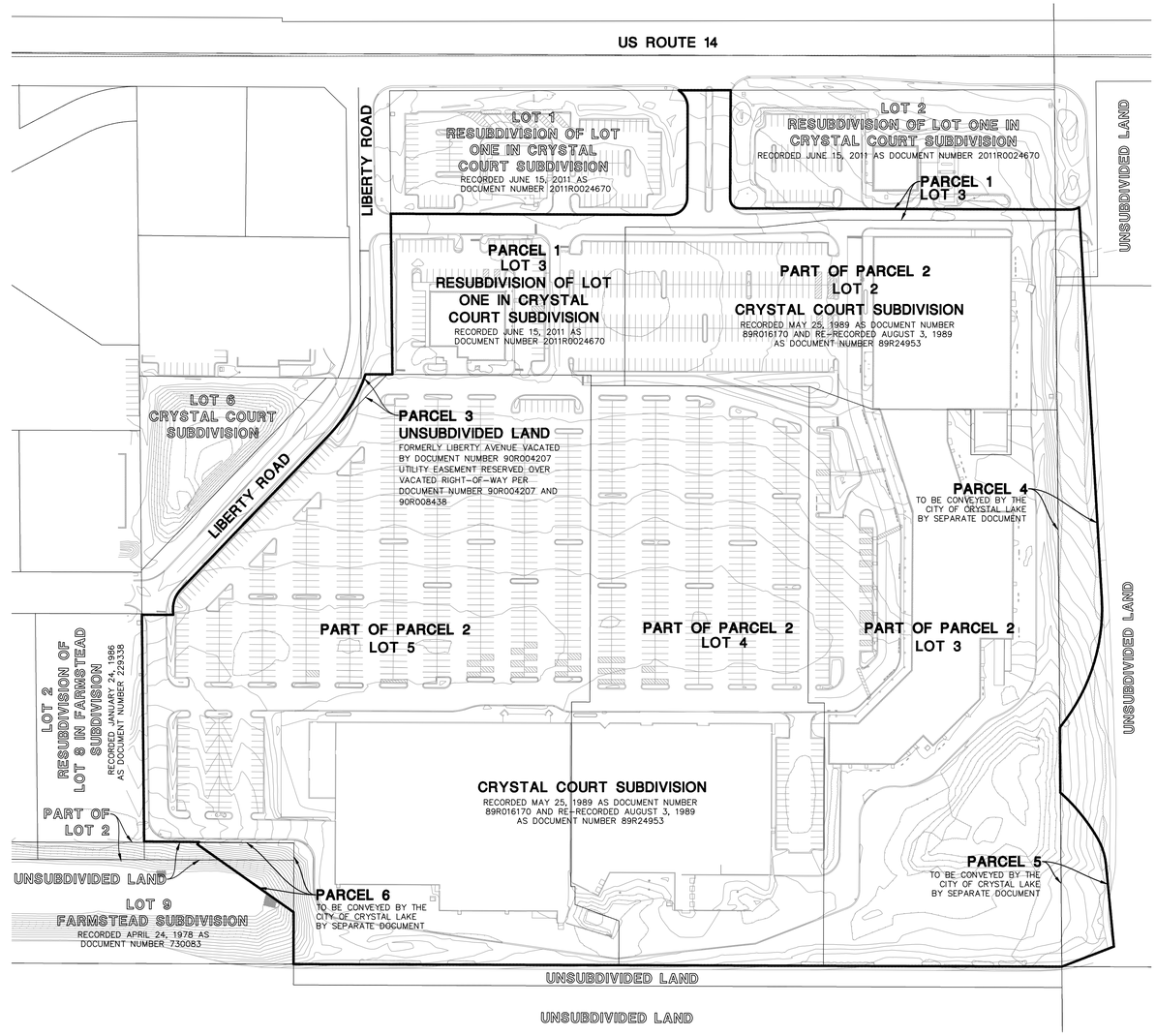
REFERENCE BENCHMARK:
ELEVATIONS AND SITE BENCHMARKS SHOWN HEREON WERE ESTABLISHED UTILIZING A TRIMBLE RAPID STATIC GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) AND THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S (NOAA'S) ONLINE POSITIONING USER SERVICE (OPUS). THE OBSERVED ELEVATIONS, AS REFINED BY OPUS, IS THE BASIS FOR ALL ELEVATIONS SHOWN HEREON AND THIS INFORMATION HAS NOT BEEN DIRECTLY COMPARED TO ANY OTHER KNOWN OR FIXED BENCHMARK. ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM (GEOID18).

EXISTING PROPERTY AREA

PARCEL 1:	101,665 SQUARE FEET	(2.334 ACRES)
PARCEL 2:	1,159,822 SQUARE FEET	(26.626 ACRES)
PARCEL 3:	1,002 SQUARE FEET	(0.023 ACRES)
PARCEL 4:	35,255 SQUARE FEET	(0.809 ACRES)
PARCEL 5:	13,633 SQUARE FEET	(0.313 ACRES)
PARCEL 6:	7,207 SQUARE FEET	(0.165 ACRES)
TOTAL AREA:	1,318,584 SQUARE FEET	(30.271 ACRES)

EXISTING PIN'S

PARCEL 1: 19-09-126-018
PARCEL 2 (LOT 2): 19-09-126-010 AND 19-09-126-011
PARCEL 2 (LOT 3): 19-09-126-012 AND 19-09-126-013
PARCEL 2 (LOT 4): 19-09-126-006
PARCEL 2 (LOT 5): PART OF 19-09-126-014
PARCEL 3: PART OF 19-09-126-014
PARCEL 4: PART OF 19-09-200-036 AND PART OF 19-09-300-023
PARCEL 5: 19-09-300-023
PARCEL 6: PART OF 19-09-104-003 AND PART OF 19-09-104-017



SHEET INDEX

SHEET 1:	LEGAL DESCRIPTION, PROPERTY INFORMATION, OVERALL SITE, FEMA
SHEETS 2-3:	EXISTING LOT AND EASEMENT DETAILS
SHEETS 4-5:	PROPOSED LOT DETAILS

LEGAL DESCRIPTION

PARCEL 1:
LOT 3 IN THE FINAL PLAT OF RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION, BEING A RESUBDIVISION OF LOT 1 IN CRYSTAL COURT SUBDIVISION, BEING A PART OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JUNE 15, 2011 AS DOCUMENT NUMBER 2011R0024670, IN MCHENRY COUNTY, ILLINOIS.

PARCEL 2:
LOTS 2, 3, 4 AND 5 IN CRYSTAL COURT SUBDIVISION, BEING A PART OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 25, 1989 AS DOCUMENT NO. 89R16170 AND RE-RECORDED AUGUST 3, 1989 AS DOCUMENT NO. 89R24953, IN MCHENRY COUNTY, ILLINOIS.

PARCEL 3:
THAT PART OF LIBERTY AVENUE VACATED BY DOCUMENT NUMBER 90R004207 LOCATED IN NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN IN MCHENRY COUNTY, ILLINOIS DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF LOT 5 CRYSTAL COURT SUBDIVISION RECORDED MAY 25, 1989 AS DOCUMENT NO. 89R16170 AND RE-RECORDED AUGUST 3, 1989 AS DOCUMENT NO. 89R24953; THENCE SOUTH 43 DEGREES 50 MINUTES 18 SECONDS WEST, ALONG THE NORTHWEST LINE OF SAID LOT 5, A DISTANCE OF 119.46 FEET TO A NON-TANGENT CURVE; THENCE NORTHEASTERLY, ALONG A CURVE, CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 241.87 FEET, AN ARC DISTANCE OF 101.15 FEET, CHORD BEARING OF NORTH 30 DEGREES 46 MINUTES 22 SECONDS EAST AND A CHORD DISTANCE OF 100.42 FEET TO THE WESTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 5; THENCE SOUTH 89 DEGREES 47 MINUTES 33 SECONDS EAST, ALONG SAID LINE, A DISTANCE OF 31.36 FEET TO THE POINT OF BEGINNING.

PARCEL 4:
THAT PART OF THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN IN MCHENRY COUNTY, ILLINOIS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST EASTERLY NORTHEASTERLY CORNER OF LOT 3 IN THE FINAL PLAT OF RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION RECORDED JUNE 15, 2011 AS DOCUMENT NUMBER 2011R0024670; THENCE SOUTH 89 DEGREES 47 MINUTES 33 SECONDS EAST, ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 3, A DISTANCE OF 22.00 FEET TO A POINT OF CURVATURE; THENCE EASTERLY, ALONG A CURVE, CONCAVE TO THE NORTH, HAVING A RADIUS OF 25.00 FEET, AN ARC DISTANCE OF 12.66 FEET, A CHORD BEARING NORTH 75 DEGREES 41 MINUTES 48 SECONDS EAST, AND A CHORD DISTANCE OF 12.53 FEET TO A POINT OF NON-TANGENCY; THENCE SOUTH 03 DEGREES 19 MINUTES 01 SECONDS EAST, A DISTANCE OF 564.84 FEET TO A POINT OF CURVATURE; THENCE SOUTHERLY, ALONG A CURVE, CONCAVE TO THE WEST, HAVING A RADIUS OF 270.00 FEET, AN ARC DISTANCE OF 186.72 FEET, A CHORD BEARING SOUTH 16 DEGREES 29 MINUTES 40 SECONDS WEST, AND A CHORD DISTANCE OF 183.02 FEET TO A POINT OF TANGENCY; THENCE SOUTH 36 DEGREES 18 MINUTES 22 SECONDS WEST, A DISTANCE OF 14.39 FEET TO THE EAST LINE OF LOT 3 IN CRYSTAL COURT SUBDIVISION RECORDED MAY 25, 1989 AS DOCUMENT NO. 89R16170 AND RE-RECORDED AUGUST 3, 1989 AS DOCUMENT NO. 89R24953, SAID LINE ALSO BEING THE WEST LINE OF THE SAID NORTHEAST QUARTER; THENCE NORTH 00 DEGREES 29 MINUTES 07 SECONDS WEST, ALONG SAID LINE, A DISTANCE OF 747.99 FEET TO THE POINT OF BEGINNING.

PARCEL 5:
THAT PART OF THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN IN MCHENRY COUNTY, ILLINOIS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF LOT 3 IN CRYSTAL COURT SUBDIVISION RECORDED MAY 25, 1989 AS DOCUMENT NO. 89R16170 AND RE-RECORDED AUGUST 3, 1989 AS DOCUMENT NO. 89R24953; THENCE NORTH 00 DEGREES 29 MINUTES 07 SECONDS WEST, ALONG SAID LINE, A DISTANCE OF 251.40 FEET TO A POINT ON A NON-TANGENT CURVE; THENCE SOUTHEASTERLY, ALONG A CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 270.00 FEET, AN ARC DISTANCE OF 86.03 FEET, A CHORD BEARING SOUTH 39 DEGREES 01 MINUTES 12 SECONDS EAST, AND A CHORD DISTANCE OF 85.66 FEET TO A COMPOUND CURVE; THENCE SOUTHEASTERLY, ALONG A CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 92.00 FEET, AN ARC DISTANCE OF 39.15 FEET, A CHORD BEARING SOUTH 17 DEGREES 42 MINUTES 00 SECONDS EAST, AND A CHORD DISTANCE OF 38.86 FEET TO A POINT OF TANGENCY; THENCE SOUTH 05 DEGREES 30 MINUTES 27 SECONDS EAST, A DISTANCE OF 119.30 FEET; THENCE SOUTH 68 DEGREES 49 MINUTES 50 SECONDS WEST, A DISTANCE OF 80.50 FEET TO THE POINT OF BEGINNING.

PARCEL 6:
THAT PART OF LOT 9 IN FARMSTEAD SUBDIVISION RECORDED APRIL 14, 1978 AS DOCUMENT NUMBER 730083 AND THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 43, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN IN MCHENRY COUNTY, ILLINOIS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST SOUTHERLY SOUTHWEST CORNER OF LOT 5 IN CRYSTAL COURT SUBDIVISION RECORDED MAY 25, 1989 AS DOCUMENT NO. 89R16170 AND RE-RECORDED AUGUST 3, 1989 AS DOCUMENT NO. 89R24953; THENCE NORTH 00 DEGREES 12 MINUTES 28 SECONDS WEST, ALONG SAID LINE, A DISTANCE OF 74.88 FEET TO THE POINT OF BEGINNING; THENCE NORTH 54 DEGREES 48 MINUTES 30 SECONDS WEST, A DISTANCE OF 170.14 FEET; THENCE NORTH 35 DEGREES 11 MINUTES 30 SECONDS EAST, A DISTANCE OF 4.07 FEET TO A POINT ON A SOUTH LINE OF SAID LOT 5; THENCE SOUTH 89 DEGREES 28 MINUTES 28 SECONDS EAST, ALONG SAID LINE, A DISTANCE OF 137.06 FEET TO SAID WEST LINE OF LOT 5; THENCE SOUTH 00 DEGREES 12 MINUTES 28 SECONDS WEST, ALONG SAID LINE, A DISTANCE OF 100.12 FEET TO THE POINT OF BEGINNING.

SURVEYOR'S NOTES

1. DISTANCES ARE MARKED IN FEET AND DECIMAL PLACES THEREOF. NO DIMENSION SHALL BE ASSUMED BY SCALE MEASUREMENT HEREON. DISTANCES AND/OR BEARINGS SHOWN IN PARENTHESIS (456.67') ARE RECORD OR DEED VALUES.)

2. THIS SUBDIVISION MAY BE SUBJECT TO MATTERS OF TITLE, WHICH MAY BE REVEALED BY A CURRENT TITLE REPORT. PRE-EXISTING EASEMENTS, SETBACKS AND OTHER RESTRICTIONS WHICH MAY BE FOUND IN A CURRENT TITLE REPORT, LOCAL ORDINANCES, DEEDS OR OTHER INSTRUMENTS OF RECORD MAY NOT BE SHOWN.

3. THIS SUBDIVISION PLAT SHALL BE SUBJECT TO DECLARATION RECORDED AS SEPARATE DOCUMENT.

4. PARCELS 4, 5 AND 6 SHALL BE CONVEYED FROM CITY OF CRYSTAL LAKE TO THE OWNER BY SEPARATE DOCUMENT PRIOR TO THE RECORDING OF WATER EDGE FINAL PLAT OF SUBDIVISION.

5. OUTLOTS A, B AND C SHALL BE CONVEYED TO THE CITY OF CRYSTAL LAKE VIA SEPARATE DOCUMENT

6. EXISTING TOPOGRAPHY HAS BEEN SHOWN HEREON BASED ON BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY MANHARD CONSULTING LTD DATED NOVEMBER 11, 2021.

5. MANHARD CONSULTING, LTD. IS A PROFESSIONAL DESIGN FIRM, REGISTRATION NUMBER 184003350, EXPIRES APRIL 30, 2023.

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

DATE	REVISIONS	DRAWN BY
03/09/22	REVISED PER SITE PLAN CHANGES	AAS

Manhard CONSULTING LTD
One Overlook Point, Suite 290, Lincolnshire, IL 60069 p:847.634.0066 manhardcom
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

WATERS EDGE SUBDIVISION
CRYSTAL LAKE, ILLINOIS
PRELIMINARY PLAT OF SUBDIVISION

PROJ. MGR.:	JP
PROJ. ASSOC.:	ERV
DRAWN BY:	AAS
DATE:	12/17/21
SCALE:	1"=100'

SHEET
1 OF 5
FRDCLIL01

©2022 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

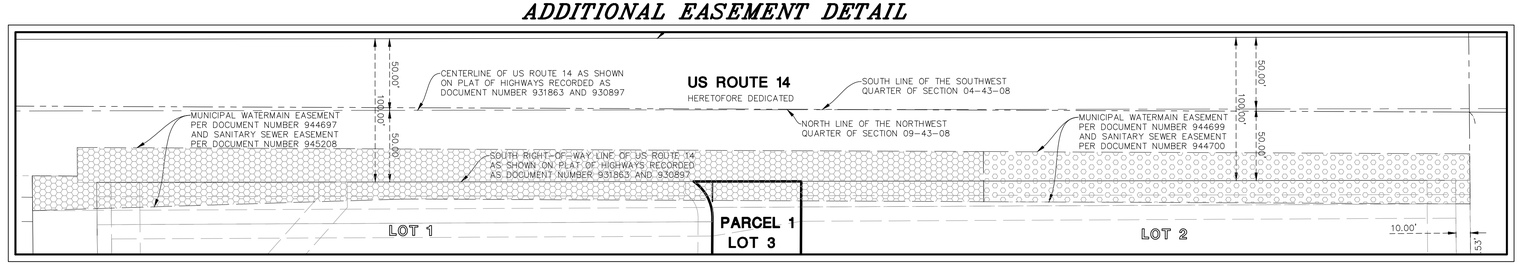
March 9, 2022 - 14:00 Dwg Name: P:\Projects\Land\Surv\Final Drawings\Plat of Subdivision\Preliminary Plat\01-FRDCLIL01-PR.dwg Updated By: AShaver

PRELIMINARY PLAT
OF
WATERS EDGE SUBDIVISION

BEING A RESUBDIVISION OF LOT 3 IN THE FINAL PLAT OF RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION, LOTS 2, 3, 4 AND 5 IN CRYSTAL COURT SUBDIVISION, AND PART OF NORTHWEST QUARTER AND PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS

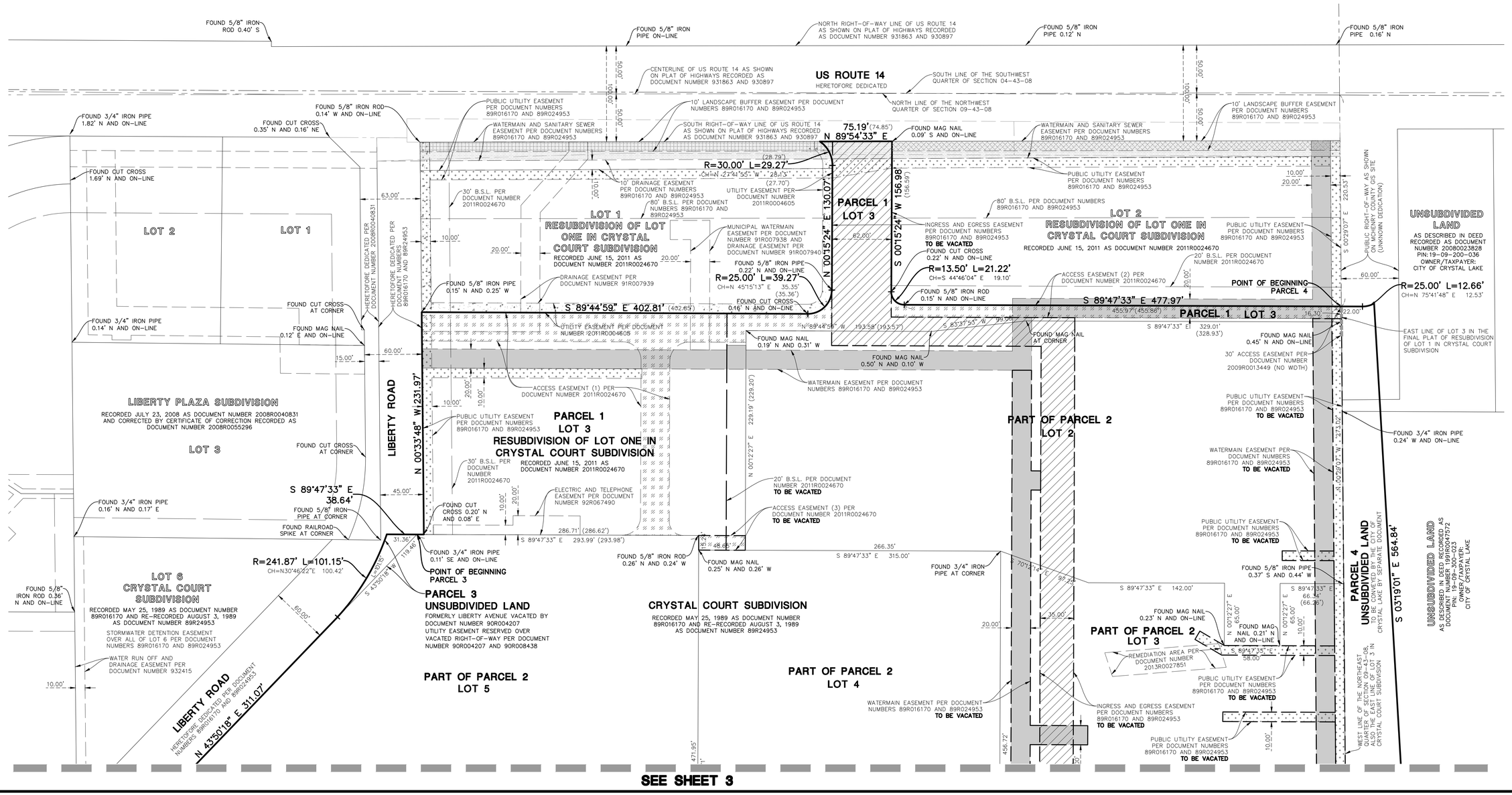
GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

ADDITIONAL EASEMENT DETAIL



EASEMENT HATCH LEGEND

- INGRESS AND EGRESS EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- LANDSCAPE BUFFER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- WATERMAIN AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- UTILITY EASEMENT PER DOCUMENT NUMBER 2011R0004605
- ACCESS EASEMENT PER DOCUMENT NUMBER 2011R0024670
- WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944697 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 945208
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944699 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 944700



SEE SHEET 3

DATE	REVISIONS	DRAWN BY
03/09/22	REVISED PER SITE PLAN CHANGES	AAS

Manhard CONSULTING LTD
One Overlook Point, Suite 250, Lincolnshire, IL 60069 p:847.634.5500 f:847.634.0066 manhard.com
Civil Engineers • Surveyors • Water Resource Engineers • Water/Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

WATERS EDGE SUBDIVISION
CRYSTAL LAKE, ILLINOIS
PRELIMINARY PLAT OF SUBDIVISION

PROJ. MGR.:	JP
PROJ. ASSOC.:	ERV
DRAWN BY:	AAS
DATE:	12/17/21
SCALE:	1"=50'

SHEET 2 OF 5
FRDCLIL01

© 2021 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 9, 2022 - 13:35 Data Name: P:\Projects\Vlas\Survey\Final Drawings\Plat of Subdivision\Preliminary Final\02-03-FRDCLI01-PR.dwg Updated By: ASchaver

EASEMENT HATCH LEGEND

- INGRESS AND EGRESS EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- LANDSCAPE BUFFER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- WATERMAIN AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- UTILITY EASEMENT PER DOCUMENT NUMBER 2011R0004605
- ACCESS EASEMENT PER DOCUMENT NUMBER 2011R0024670
- WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944697 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 945208
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944699 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 944700

PRELIMINARY PLAT
OF
WATERS EDGE SUBDIVISION

BEING A RESUBDIVISION OF LOT 3 IN THE FINAL PLAT OF RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION, LOTS 2, 3, 4 AND 5 IN CRYSTAL COURT SUBDIVISION, AND PART OF NORTHWEST QUARTER AND PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS

N

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SEE SHEET 2

NUMBERS 89R016170 AND 89R024953
NUMBER 90R004207 AND 90R008438
WATER RUN OFF AND DRAINAGE EASEMENT PER DOCUMENT NUMBER 932415
10.00'
LOT 6
STORMWATER DETENTION EASEMENT OVER ALL OF LOT 6 PER DOCUMENT NUMBERS 89R016170 AND 89R024953
LIBERTY ROAD
HERETOFORE DEDICATED PER DOCUMENT NUMBERS 89R016170 AND 89R024953
N 43°50'18" E 311.07'
60.00'
FOUND 5/8" IRON ROD AT CORNER
LIBERTY ROAD
HERETOFORE DEDICATED
60.00'
FOUND 5/8" IRON ROD 0.07' NE AND 0.09' SE
R=40.00' L=31.00'
CH=N 21°38'15" E 30.23'
FOUND 5/8" IRON ROD 0.16' S AND ON-LINE
N 00°33'48" W 8.51' (8.48')
FOUND 5/8" IRON ROD AT CORNER
S 89°41'30" E 45.01'
LOT 2 RESUBDIVISION OF LOT 8 IN FARMSTEAD SUBDIVISION RECORDED JANUARY 2, 1936 AS DOCUMENT NUMBER 229338
N 00°34'11" W 327.47'
PART OF LOT 2 DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1986R0946822 PIN: 19-09-104-016 OWNER/TAXPAYER: CITY OF CRYSTAL LAKE
FOUND 5/8" IRON ROD AT CORNER
1.26'
N 89°28'28" W 79.11'
N 35°11'30" E 4.07'
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1986R0946822
PIN: 19-09-104-017
OWNER/TAXPAYER: CITY OF CRYSTAL LAKE
LOT 9 FARMSTEAD SUBDIVISION
RECORDED APRIL 24, 1978 AS DOCUMENT NUMBER 730083
DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1986R0946822
N 54°48'30" W 170.14'
POINT OF BEGINNING PARCEL 6
N 00°12'28" E 74.88'
POINT OF COMMENCEMENT PARCEL 6
FOUND 5/8" IRON ROD 0.13' S AND ON-LINE
SOUTH LINE OF THE NORTH HALF OF NORTHWEST QUARTER OF SECTION 09-43-08
N 89°28'28" W 246.24' (246.24')
137.06'
FOUND 5/8" IRON ROD 0.18' S AND 0.27' E
PARCEL 6
TO BE CONVEYED BY THE CITY OF CRYSTAL LAKE BY SEPARATE DOCUMENT
175.00'
175.00'
PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 2013R0026522 (20'X10') TO BE VACATED
10.00'
30.00'
20.00'
PERMANENT LANDSCAPE EASEMENT PER DOCUMENT NUMBER 20109R0018569 TO BE VACATED
469.58'
30.00'
PART OF PARCEL 2 LOT 5
PART OF PARCEL 2 LOT 4
PART OF PARCEL 2 LOT 3
WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
INGRESS AND EGRESS EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
35.00'
20.00'
45.00'
30.00'
45' DRAINAGE EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
GAP BETWEEN LOT 5 IN CRYSTAL COURT SUBDIVISION AND LAND DESCRIBED IN DEED 1986R0946822
FOUND 5/8" IRON ROD AT CORNER
N 00°12'27" E 471.95'
456.71'
N 00°12'27" E 456.72'
20.00'
WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
INGRESS AND EGRESS EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
REMEDIATION AREA PER DOCUMENT NUMBER 2013R0027851
S 89°47'33" E 58.00'
PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
10.00'
PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
WEST LINE OF THE NORTHEAST QUARTER OF SECTION 09-43-08, ALSO THE EAST LINE OF LOT 3 IN CRYSTAL COURT SUBDIVISION
N 00°29'07" W 747.99'
PARCEL 4 UNSUBDIVIDED LAND
TO BE CONVEYED BY THE CITY OF CRYSTAL LAKE BY SEPARATE DOCUMENT
PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953 TO BE VACATED
10.00'
N 00°29'07" W 604.72'
S 00°29'07" E 603.72'
R=270.00' L=186.72'
CH=S36°24'40"W 183.02'
S 36°18'22" W 14.39'
S 00°29'07" E 93.66'
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1991R0047572 PIN: 19-09-300-023 OWNER/TAXPAYER: CITY OF CRYSTAL LAKE
R=270.00' L=86.03'
CH=S39°01'12"E 85.66'
R=92.00' L=39.15'
CH=N17°42'00"W 38.86'
N 00°29'07" W 251.40'
PARCEL 5 UNSUBDIVIDED LAND
TO BE CONVEYED BY THE CITY OF CRYSTAL LAKE BY SEPARATE DOCUMENT
S 05°30'27" E 119.30'
80.50'
S 66°49'50" W
POINT OF BEGINNING PARCEL 5
SOUTH LINE OF THE NORTH HALF OF NORTHEAST QUARTER OF SECTION 09-43-08
FOUND DISC AT CORNER AS DESCRIBED IN MONUMENT RECORD RECORDED AS 2012R0047912
FOUND MAG NAIL 0.11' W AND ON-LINE
FOUND MAG NAIL 0.16' N AND 0.10' W
FOUND MAG NAIL 0.05' N AND 0.12' W
FOUND MAG NAIL 0.12' N AND ON-LINE
S 89°47'33" E 26.38'
S 89°47'33" E 23.48' (23.49')
CRYSTAL COURT SUBDIVISION
RECORDED MAY 25, 1989 AS DOCUMENT NUMBER 89R016170 AND RE-RECORDED AUGUST 3, 1989 AS DOCUMENT NUMBER 89R24953
N 00°12'27" E 266.43'
S 89°47'33" E 6.00'
N 00°12'27" E 26.04'
S 89°47'33" E 67.66' (67.67')
N 00°12'27" E 379.66' (380.00')
10.00'
10.00'
10.00'
10.00'
10.00'
20.00'
30.00'
FOUND 5/8" IRON ROD 0.15' S AND 0.09' E
N 89°48'30" W 1109.06' (1108.97')
265.28'
PERMANENT LANDSCAPE EASEMENT PER DOCUMENT NUMBER 2009R0046437 TO BE VACATED
PERMANENT LANDSCAPE EASEMENT PER DOCUMENT NUMBER 2010R0013590 TO BE VACATED 344.20' (344.10')
MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 2010R0013589 TO BE VACATED
SOUTH LINE OF THE NORTH HALF OF NORTHWEST QUARTER OF SECTION 09-43-08
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 2008R0023829
PIN: 19-09-100-027
OWNER/TAXPAYER: CITY OF CRYSTAL LAKE
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 2006R0039182
PIN: 19-09-100-026
OWNER/TAXPAYER: CITY OF CRYSTAL LAKE
OWNER CORNER 9 16 T 43 N R 8 E

DATE	REVISIONS	DRAWN BY
		AAS
03/09/22	REVISED PER SITE PLAN CHANGES	

Manhard CONSULTING LTD
One Overlook Point, Suite 250, Lincolnshire, IL 60069 p:847.634.0066 f:847.634.0066
Civil Engineers • Water Resource Engineers • Structural Engineers • Surveyors
Construction Managers • Environmental Scientists • Landscape Architects • Planners

WATERS EDGE SUBDIVISION
CRYSTAL LAKE, ILLINOIS
PRELIMINARY PLAT OF SUBDIVISION

PROJ. MGR.:	JP
PROJ. ASSOC.:	ERV
DRAWN BY:	AAS
DATE:	12/17/21
SCALE:	1"=50'

SHEET 3 OF 5
FRDCLIL01

© 2021 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 9, 2022 - 11:35 Data Name: P:\Projects\Work\Civil\Final Drawings\Plat of Subdivision\Preliminary Plat\02-03-FRDCLIL01-PR.dwg Updated By: ASchuver

PRELIMINARY PLAT
OF
WATERS EDGE SUBDIVISION

BEING A RESUBDIVISION OF LOT 3 IN THE FINAL PLAT OF RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION, LOTS 2, 3, 4 AND 5 IN CRYSTAL COURT SUBDIVISION, AND PART OF NORTHWEST QUARTER AND PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS

EASEMENT HATCH LEGEND

- INGRESS AND EGRESS EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- LANDSCAPE BUFFER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- WATERMAIN AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- UTILITY EASEMENT PER DOCUMENT NUMBER 2011R0004605
- ACCESS EASEMENT PER DOCUMENT NUMBER 2011R0024670
- WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944697 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 945208
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944699 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 944700

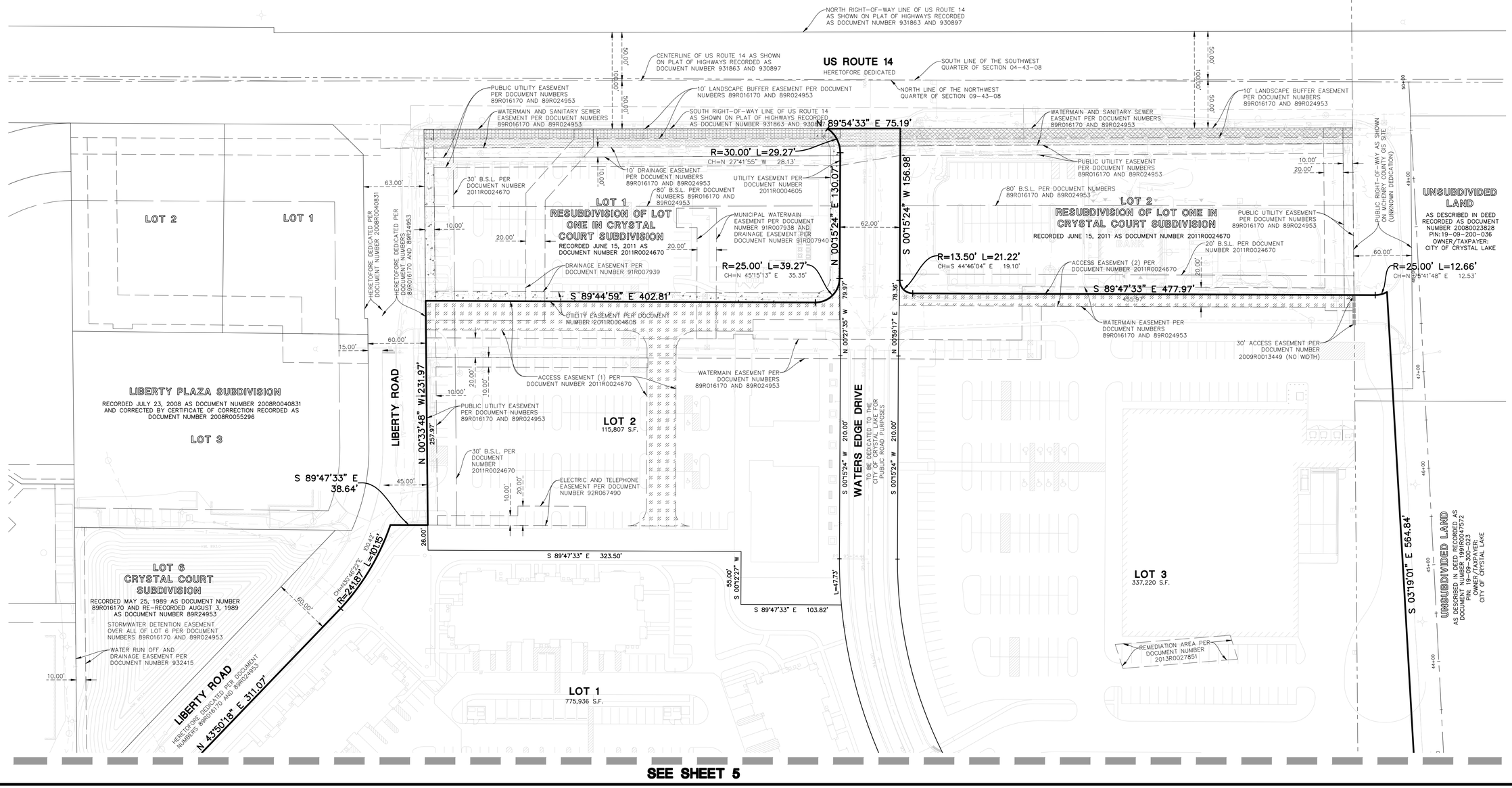
PROPOSED PROPERTY AREA

LOT 1:	775,936 SQUARE FEET	(17.813 ACRES)
LOT 2:	115,807 SQUARE FEET	(2.659 ACRES)
LOT 3:	337,220 SQUARE FEET	(7.742 ACRES)
OUTLOT A:	1,826 SQUARE FEET	(0.042 ACRES)
OUTLOT B:	8,839 SQUARE FEET	(0.203 ACRES)
OUTLOT C:	4,005 SQUARE FEET	(0.092 ACRES)
PROPOSED ROW:	74,951 SQUARE FEET	(1.721 ACRES)
TOTAL AREA:	1,318,584 SQUARE FEET	(30.271 ACRES)

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



SEE SHEET 5

REVISIONS	DATE	DRAWN BY

Manhard CONSULTING LTD
One Overlook Point, Suite 250, Lincolnshire, IL 60069 p:847.634.5500 f:847.634.0066 manhard.com
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

WATERS EDGE SUBDIVISION
CRYSTAL LAKE, ILLINOIS
PRELIMINARY PLAT OF SUBDIVISION

PROJ. MGR.:	JP
PROJ. ASSOC.:	ERV
DRAWN BY:	AAS
DATE:	12/17/21
SCALE:	1"=50'

SHEET
4 OF 5
FRDCLIL01

© 2021 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 9, 2022 - 13:41 Dwg Name: P:\Projects\Data\Surv\Final Drawings\Plat of Subdivision\Preliminary Plat\04-05-FRDCLIL01-PP.dwg Updated By: ASkover

PRELIMINARY PLAT
OF
WATERS EDGE SUBDIVISION

BEING A RESUBDIVISION OF LOT 3 IN THE FINAL PLAT OF RESUBDIVISION OF LOT ONE IN CRYSTAL COURT SUBDIVISION, LOTS 2, 3, 4 AND 5 IN CRYSTAL COURT SUBDIVISION, AND PART OF NORTHWEST QUARTER AND PART OF THE NORTHEAST QUARTER OF SECTION 9, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN MCHENRY COUNTY, ILLINOIS

EASEMENT HATCH LEGEND

- INGRESS AND EGRESS EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- LANDSCAPE BUFFER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- WATERMAIN AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- PUBLIC UTILITY EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- UTILITY EASEMENT PER DOCUMENT NUMBER 2011R0004605
- ACCESS EASEMENT PER DOCUMENT NUMBER 2011R0024670
- WATERMAIN EASEMENT PER DOCUMENT NUMBERS 89R016170 AND 89R024953
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944697 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 945208
- MUNICIPAL WATERMAIN EASEMENT PER DOCUMENT NUMBER 944699 AND SANITARY SEWER EASEMENT PER DOCUMENT NUMBER 944700

PROPOSED PROPERTY AREA

LOT 1:	775,936 SQUARE FEET	(17.813 ACRES)
LOT 2:	115,807 SQUARE FEET	(2.659 ACRES)
LOT 3:	337,220 SQUARE FEET	(7.742 ACRES)
OUTLOT A:	1,826 SQUARE FEET	(0.042 ACRES)
OUTLOT B:	8,839 SQUARE FEET	(0.203 ACRES)
OUTLOT C:	4,005 SQUARE FEET	(0.092 ACRES)
PROPOSED ROW:	74,951 SQUARE FEET	(1.721 ACRES)
TOTAL AREA:	1,318,584 SQUARE FEET	(30.271 ACRES)

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SEE SHEET 4

NUMBERS 89R016170 AND 89R024953
WATER RUN OFF AND DRAINAGE EASEMENT PER DOCUMENT NUMBER 932415
10.00'
LOT 6
STORMWATER DETENTION EASEMENT OVER ALL OF LOT 6 PER DOCUMENT NUMBERS 89R016170 AND 89R024953
LIBERTY ROAD
HERETOFORE DEDICATED PER DOCUMENT NUMBERS 89R016170 AND 89R024953
N 43°50'18" E 311.07'
60.00'
R=40.00' L=31.00'
CH=N 21°38'15" E 30.23'
N 00°33'48" W 8.51'
LIBERTY ROAD
HERETOFORE DEDICATED
S 89°41'30" E 45.01'
60.00'
8.31'
S 46°09'42" E 65.00'
N 89°48'30" W 102.87'
21.00'
81.87'
OUTLOT A
1,826 S.F.
TO BE CONVEYED TO THE CITY OF CRYSTAL LAKE BY SEPARATE DOCUMENT
LOT 1
775,936 S.F.
LOT 3
337,220 S.F.
REMEDIATION AREA PER DOCUMENT NUMBER 2013R0027851
R=445.00' L=360.08'
L=387.87' R=505.00' Ch=N35°35'50"E
WATERS EDGE DRIVE
TO BE DEDICATED TO THE CITY OF CRYSTAL LAKE FOR PUBLIC ROAD PURPOSES
S 71°51'23" E 100.00'
R=330.00' L=85.30'
17.86'
S 71°51'23" E 100.00'
R=270.00' L=186.72'
Ch=N87°04'40"E 183.02'
S 36°18'22" W 14.39'
S 00°29'07" E 93.66'
75.85'
R=270.00' L=87.73'
R=270.00' L=86.03'
Ch=S80°00'07"E 85.66'
R=92.00' L=39.15'
CH=S17°42'00"E 38.86'
S 05°30'27" E 119.30'
80.50'
S 68°49'50" W
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1991R0047572
PART OF LOT 2
DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1986R0946822
LOT 2
RESUBDIVISION OF LOT 8 IN FARMSTEAD SUBDIVISION
RECORDED JANUARY 24, 1986 AS DOCUMENT NUMBER 229338
N 00°34'11" W 327.47'
319.16'
N 00°11'30" E 208.49'
OUTLOT B
8,839 S.F.
TO BE CONVEYED TO THE CITY OF CRYSTAL LAKE BY SEPARATE DOCUMENT
R=10.00' L=16.76'
N 54°48'30" W 86.63'
79.11'
N 89°28'28" W
N 35°11'30" E 4.07'
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1986R0946822
N 54°48'30" W 170.14'
300.89'
LOT 9
FARMSTEAD SUBDIVISION
RECORDED APRIL 24, 1978 AS DOCUMENT NUMBER 730083
DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 1986R0946822
74.85'
N 00°12'28" E
N 54°48'30" W 130.55'
OUTLOT C
4,005 S.F.
TO BE CONVEYED TO THE CITY OF CRYSTAL LAKE BY SEPARATE DOCUMENT
106.96'
1002.10'
N 89°48'30" W 1109.06'
30.00'
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 2008R0023829
UNSUBDIVIDED LAND
AS DESCRIBED IN DEED RECORDED AS DOCUMENT NUMBER 2006R0039182
SOUTH LINE OF THE NORTH HALF OF NORTHWEST QUARTER OF SECTION 09-43-08
FOUND DISC AT CORNER AS DESCRIBED IN MONUMENT RECORD RECORDED AS 2012R0047912
CORNER 9 16 CORNER
T43 N R 8 E

DATE	REVISIONS	DRAWN BY
03/09/22	REVISED PER SITE PLAN CHANGES	AAS

Manhard CONSULTING LTD
One Overlook Point, Suite 250, Lincolnshire, IL 60069 p:847.634.0066
Civil Engineers • Water Resource Engineers • Structural Engineers • Surveyors
Construction Managers • Environmental Scientists • Landscape Architects • Planners
manhard.com

WATERS EDGE SUBDIVISION
CRYSTAL LAKE, ILLINOIS
PRELIMINARY PLAT OF SUBDIVISION

PROJ. MGR.:	JP
PROJ. ASSOC.:	ERV
DRAWN BY:	AAS
DATE:	12/17/21
SCALE:	1"=50'

SHEET 5 OF 5
FRDCLIL01

© 2021 MANHARD CONSULTING, LTD. ALL RIGHTS RESERVED

March 9, 2022 - 13:41 Dwg Name: P:\Projects\Data\Survey\Final Drawings\Plat of Subdivision\Preliminary Plat\01-09-FRDCLIL01-PP.dwg Updated By: ASlover

Traffic Impact Study

Crystal Court
Multi-Use Re-Development
Crystal Lake, Illinois

February 11, 2022

Prepared for:

Prepared by:

Dan Brinkman, P.E., PTOE
Assistant Director of Transportation Services

GHA GEWALT HAMILTON ASSOCIATES, INC.



Executive Summary

The following documents our approach, methodology and findings for a Traffic Impact Study of the proposed re-development of Crystal Court. The former "big box" regional shopping complex is proposed to be re-developed by the Fiduciary Real Estate Development, Inc, into a multi-use development consisting of a mix of retail and restaurant opportunities that are buffered from the Three Oaks Recreation Area by a combination of residential uses.

Some key considerations and findings of the updated study include:

- Traffic has been projected out to 2032 to reflect a 5-year buildout beyond the estimated buildout of the proposed re-development.
- The TIS considers a group of "fast casual" restaurants versus a single larger sit-down restaurant as the "fast casual" restaurants generally represent a more intense traffic generation. No drive-through restaurants are currently proposed or considered in our analyses.
- The proposed re-development is expected to generate considerably fewer Peak Hour and Daily (24-hour) trips than the previous regional shopping complex.
- The study scope includes the impacts of the recently approved *AMAZON* facility north of Congress Parkway on the study area intersections.
- Recommendations to accommodate traffic impacts have been made as part of our analyses and include:
  - Install a traffic signal at the Main Street Intersection with Liberty Road. This signal should be interconnected to US Rte 14 along Main Street.
  - Add a third exit lane, marked for right turns only to the Crystal Court approach to the US Rte 14 signalized intersection and provide a right turn overlap (green arrow) phase for exiting traffic. This could be accomplished by shifting the median to the west slightly to minimize the Right of Way impacts on adjacent parcels.
  - Restrict the Liberty Road at US Rte 14 intersection to ¾ movements (no left out) on the south leg. These minimal volumes can be accommodated at other locations.
  - Maintain the current alignment and operations of Three Oaks Recreation Area Drive and curve the new "spine road" for the development to intersect Three Oaks Recreation Area Drive at a "T" intersection. A separate right turn lane from the new "spine road" to Three Oaks Recreation Area Drive should be provided.
  - A pedestrian connection from Three Oaks Recreation Area Drive should be added along the east side of Main Street from Berkshire Lane to Three Oaks Recreation Area Drive. The new traffic signal at Main Street and Liberty Road should include pedestrian signals with a connection to the west to the existing Prairie Trail. Buffered bike lanes and completion of the missing sidewalks should be added along Liberty Road from Main Street to the Crystal Court development. A multi-use path should be added along Liberty Road to Three Oaks Recreation Area Drive along the west side of the development with a raised crosswalk for the resulting mid-block crossing of Three Oaks Recreation Area Drive would also include pedestrian signals to connect the existing and proposed path along the east side of Main Street to the existing path on the west side.
  - Consider some form of traffic calming (e.g., speed tables or raised crosswalks) within the residential component between the future grocery / restaurant area and Liberty Road.

- The north-south and east-west portions of Three Oaks Recreation Area Drive shall be signed as a public street with pavement markings. Relocate the existing security gates to the park entrance near the gate house.
- Overall, the impacts of the proposed development can be accommodated by the area roadways through the implementation of the recommended traffic improvements summarized above. Given the regional nature of US Route 14 and IDOT's desire to prioritize through movements along the corridor, some traffic movements, specifically unsignalized left turns in and out of the development will have longer than desirable wait times and associated queues. These delays and queues however are typical and to be expected for side streets and minor access points located along major arterials such as US Route 14.
- City Staff will continue to work with the developer regarding the parking requirements.

This Summary and Study have been prepared by



Daniel P Brinkman, PE, PTOE
Assistant Director of Transportation Services