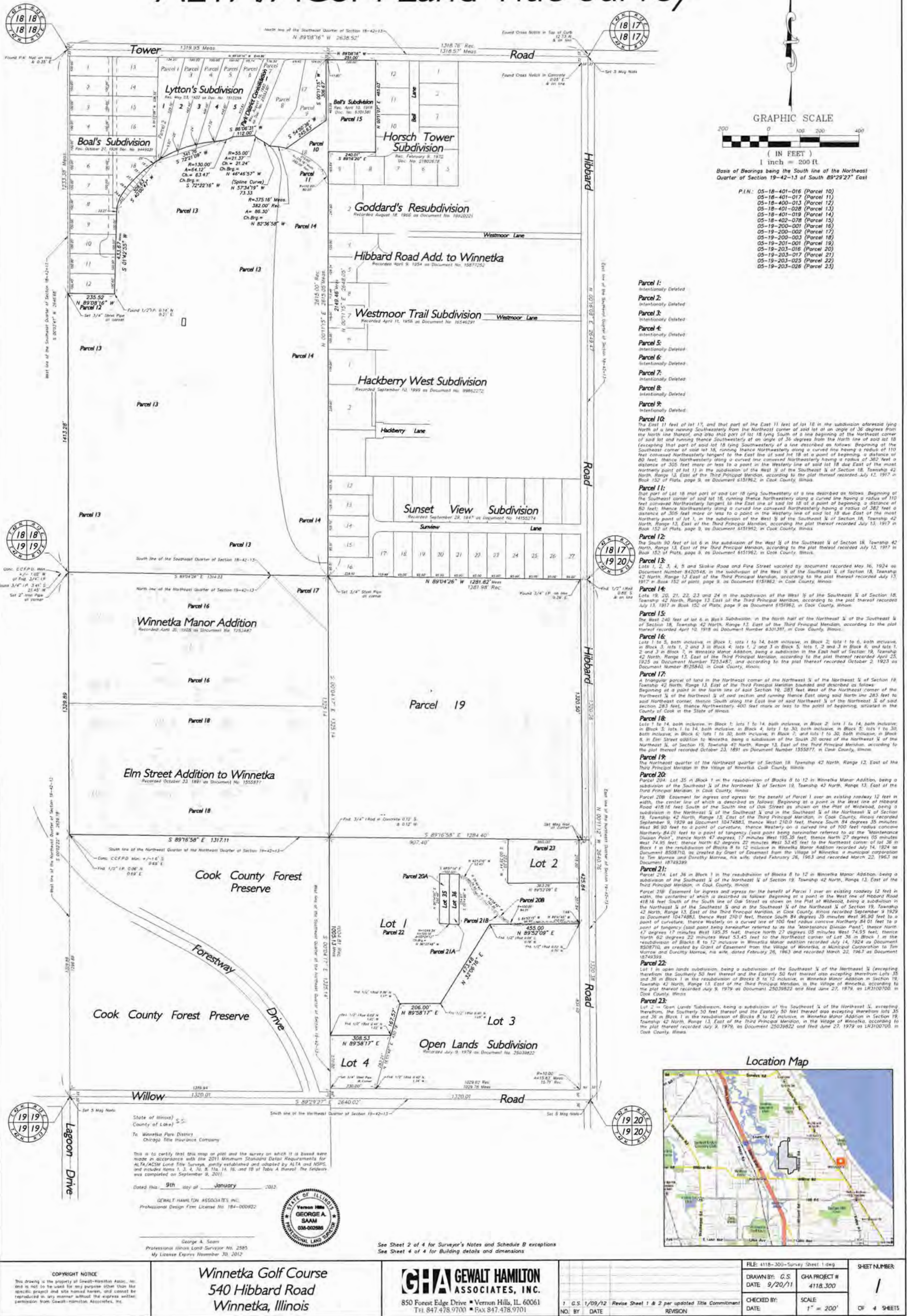
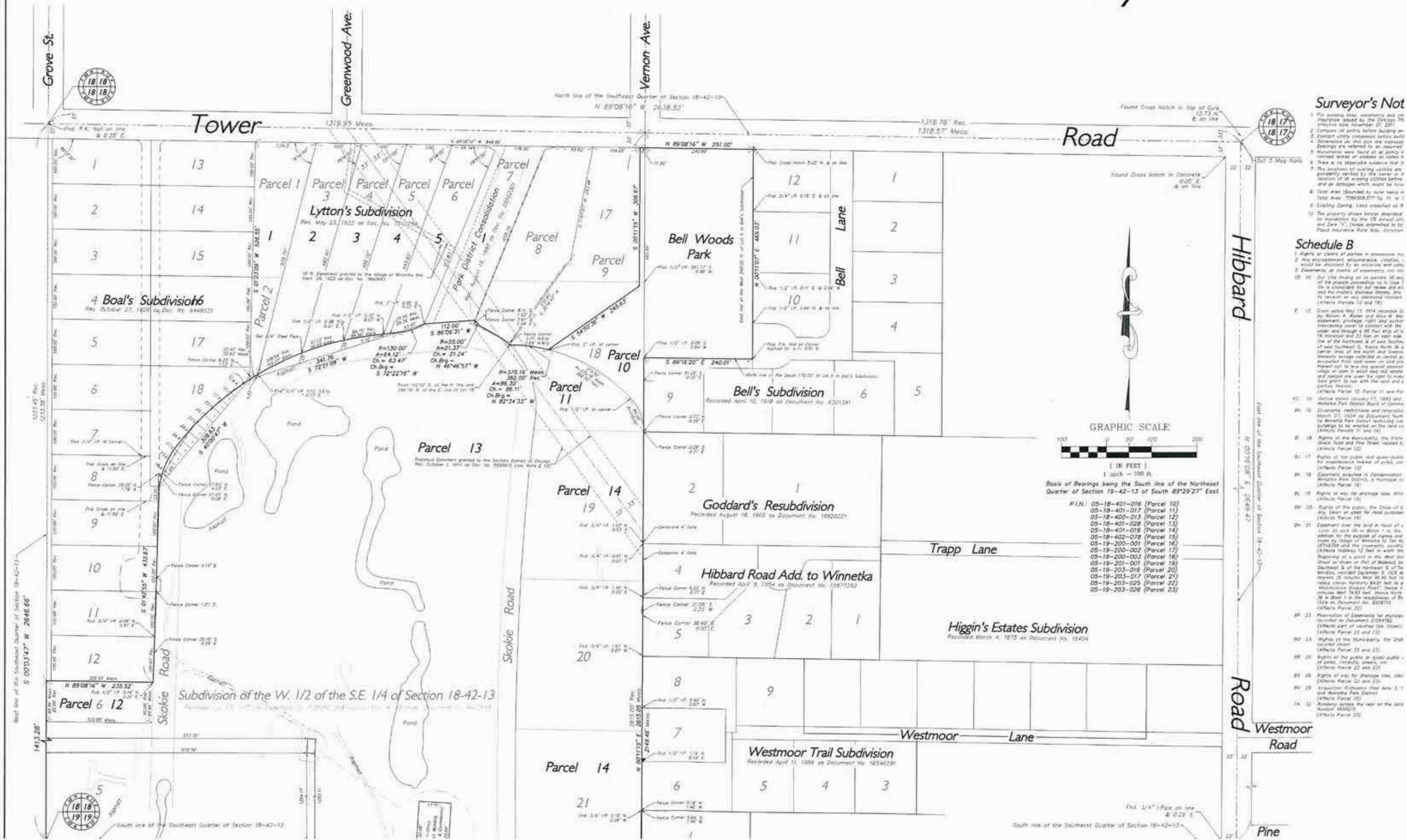


ALTA/ACSM Land Title Survey



ALTA/ACSM Land Title Survey



East line of the Northwest Quarter of Section 19-42-13

Hackberry Lane

Sunview

Lane

Parcel 19

Parcel 18

Parcel 18

West line of the Northeast Quarter of Section 18-42-13
S 00°03'22" W 2659.78'
1529.89

Ellesmere Ave.

Stockton

Crompton

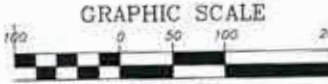
Michigan 48201 3 24,000 \$ Blvd

N 00°11'12" W 1520.50'

ALTA/ACSM Land Title Survey

(See Sheet 3 of 4)

Parcel 19

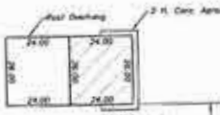


Basis of Bearings being the South line of the Northeast Quarter of Section 19-42-13 of South 89°29'27" East

P.I.N.: 05-18-401-016 (Parcel 10)
05-18-401-017 (Parcel 11)
05-18-400-013 (Parcel 12)
05-18-401-028 (Parcel 13)
05-18-401-019 (Parcel 14)
05-18-402-078 (Parcel 15)
05-19-200-001 (Parcel 16)
05-19-200-002 (Parcel 17)
05-19-200-003 (Parcel 18)
05-19-201-001 (Parcel 19)
05-19-203-016 (Parcel 20)
05-19-203-017 (Parcel 21)
05-19-203-025 (Parcel 22)
05-19-203-026 (Parcel 23)



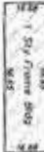
Building Detail No. 2



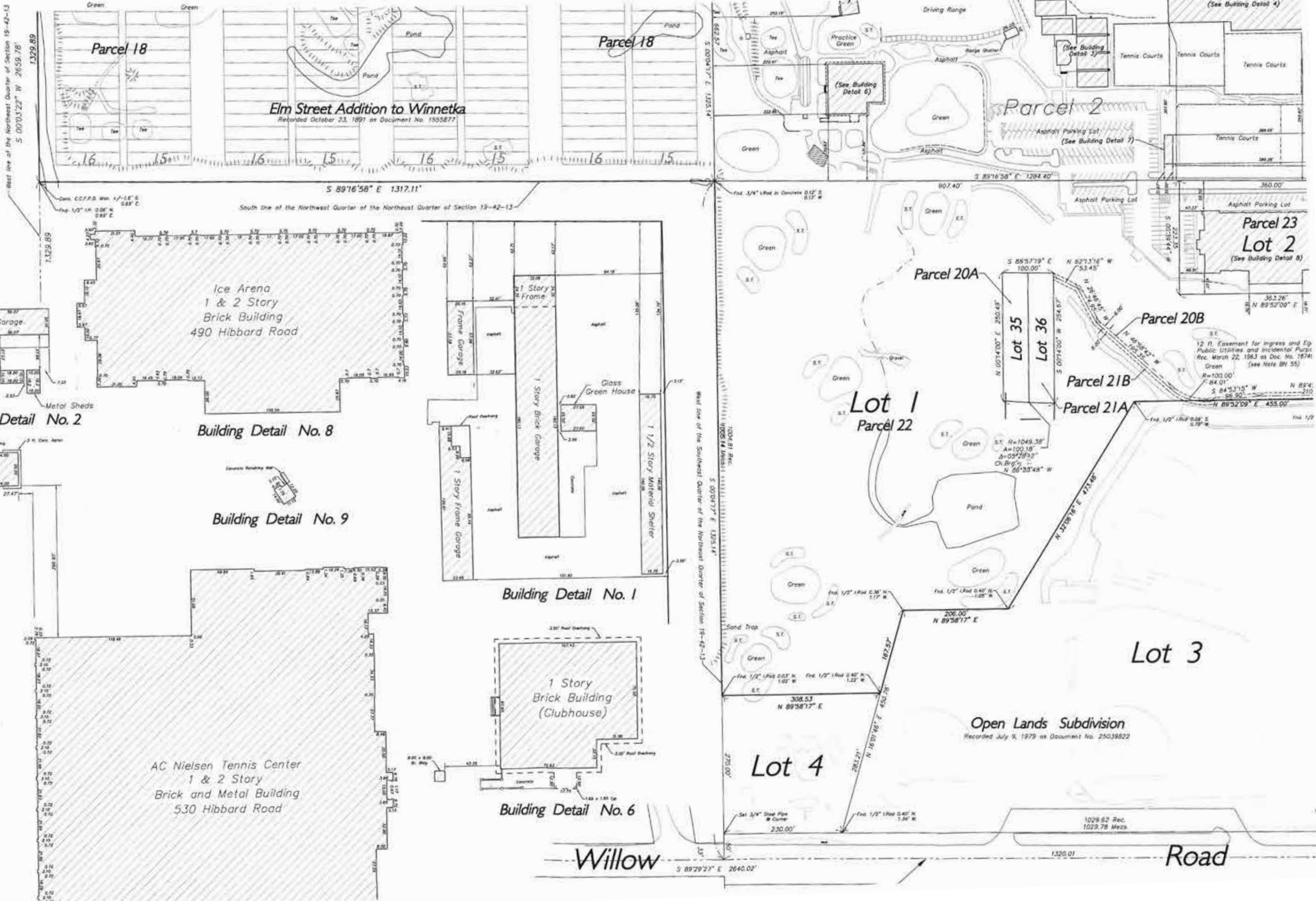
Building Detail No. 5



Building Detail No. 10



Building Detail No. 7



Willow

Road

Exhibit C
Easement Agreement

**PREPARED BY AND AFTER
RECORDING RETURN TO:**

Peter M. Friedman
Holland & Knight LLP
150 N. Riverside Plaza
Suite 2700
Chicago, Illinois 60606

For Recorder's Use Only

NON-EXCLUSIVE EASEMENT AND USE AGREEMENT FOR CONSTRUCTION AND
MAINTENANCE OF STORMWATER INFRASTRUCTURE AND STORMWATER
UTILITY SYSTEMS RELATED TO THE SKOKIE PLAYFIELD

THIS NON-EXCLUSIVE EASEMENT AND USE AGREEMENT FOR CONSTRUCTION AND MAINTENANCE OF STORMWATER INFRASTRUCTURE AND STORMWATER UTILITY SYSTEMS RELATED TO THE SKOKIE PLAYFIELD ("*Agreement*") is dated as of this ____ day of _____, 2020, by and between the **VILLAGE OF WINNETKA**, an Illinois home rule municipal corporation ("*Village*"), and the **WINNETKA PARK DISTRICT**, Cook County, Illinois ("*District*" or "*Park District*").

IN CONSIDERATION OF the mutual covenants and agreements set forth herein and pursuant to the Village's home rule powers, the parties hereto agree as follows:

1. **BACKGROUND.**

A. The District is the owner of the real estate commonly known as the Skokie Playfield generally located north of Willow Road and west of Hibbard Road in Winnetka, Illinois,

which real estate is legally described on *Exhibit 1* to this Agreement ("*Subject Property*"). The District generally uses the Property for recreational and golf activities.

B. In cooperation with the Cook County Forest Preserve District, the Village has determined that it is necessary to construct and maintain underground stormwater storage, conveyance, and water quality improvements on portions of the Property in order to address serious and repetitive flooding in the Village and on the Property.

C. The District and the Village have entered into an "Intergovernmental Cooperation Agreement Regarding Stormwater Improvements at Skokie Playfield" dated _____, 2020 ("*IGA*"). The IGA requires the District and the Village to enter into this Agreement to, among other things, grant an easement to the Village for the Stormwater Improvements and Village Playfield Improvements (both as defined in the IGA and collectively here, "*Stormwater Improvements*") as contemplated and provided in this Agreement.

D. The District and the Village have determined that it is in their respective best interests to enter into this Agreement in order to comply with the terms and conditions of the IGA.

2. **GRANT AND USE OF EASEMENT**. The District grants, conveys and dedicates to the Village a perpetual non-exclusive easement in, at, over, along, across, through, upon and under the locations on the Property as described and depicted on *Exhibit 2* ("*Easement Premises*"), solely to own, survey, design, install, construct, operate, use, test, inspect, improve, maintain, repair, remove, and replace (collectively, "*Work*") the Stormwater Improvements (collectively, "*Permitted Village Uses and Facilities*"). The Permitted Village Uses and Facilities shall be in strict compliance with the engineering and other plans and documents attached as *Exhibit 3* to this Agreement (and defined as the Village Final Plans in the IGA) ("*Final Plans*"), together with all reasonable rights of ingress and egress over, along, across, and upon the Easement Premises necessary for the exercise of the rights granted herein. The Village shall, at its sole cost and expense, complete any Work it undertakes on the Easement Premises related to the Permitted

Village Uses and Facilities in a good and workmanlike manner. The granting of the easement hereunder is conditioned on the requirement that the Work and the Stormwater Improvements will not be materially modified or deviate materially from the Final Plans without the prior written approval of the Park District. Failure of the Village to comply with this Section shall constitute a material breach of this Agreement. The Stormwater Improvements and the Work will comply with all applicable federal, state, and local law.

3. **ACCESS.** Except (i) in the event of a bona fide emergency, in which case the Village shall provide notice as soon as reasonably possible, or (ii) for the Stormwater Improvements, the construction schedule for which is attached as *Exhibit 4* to this Agreement ("*Construction Schedule*"), the Village shall provide the District with at least seven days prior written notice of the dates and times it intends to perform any Work under this Agreement. The Village shall take all appropriate safety measures, including fencing all construction areas, to ensure that District staff and other users of the Property are not at an increased risk for injury from the Work. Regarding the Stormwater Improvements, the Village shall implement the construction fencing and security measures set forth in the Village Final Plans, which fencing and security measures shall not be permanent. During the Work to construct the Stormwater Improvements the Village will have exclusive use of the Easement Premises and the Park District will be prevented from undertaking use of the Easement Premises for any of the Park Purposes, except that (i) the Park District may construct the Park District Playfield Improvements (as defined in the IGA) in accordance with the Park District Construction Schedule (as defined in the IGA); (ii) the Park District shall have the ability to access any portion of the Easement Premises not under construction and the remainder of the Property using the access road located on the Easement Premises or, when the access road is not available as a result of construction activities, other agreed points of ingress and egress. The Village will manage construction of the Stormwater Improvements so that the extent and period of disruption to the Easement Premises is of the

shortest duration reasonable under the circumstances, and minimizes to the extent practicable interference with the Park District's use of the areas of the Property not included within the Easement Premises for Park Purposes.

4. **CONSTRUCTION ACTIVITY.**

A. The Village will properly maintain the Easement Premises as related to the Work and keep those portions of the Easement Premises related to Work in good order. All trees, stumps, and other debris resulting from the Work will be legally disposed of off of the Easement Premises by the Village.

B. The District will not be responsible for or have control over the construction means, methods, techniques or procedures with respect to the Work, the Permitted Village Uses and Facilities, and the Village's use of the Easement Premises.

C. The Village will ensure that the Easement Premises are maintained in a safe condition during the Work. The Village will install all legally required warning signage, barricades and other safety materials appropriate for the Property and the Easement Premises. The Village shall strictly enforce all applicable safety rules and regulations with all of the village's contractors, subcontractors, suppliers and any other third party operating under the direction or control of any of them. All Work by the Village or any contractor, subcontractor, consultant, or other entity hired by the Village to perform Work on the Easement Premises will be performed in a safe and sound manner and in accordance with all applicable federal, state, and local laws. The Village will be the owner of all Stormwater Improvements constructed on the Easement Premises. The Park District will be the owner of all of the Village and Park District Playfield Improvements (as defined in the IGA).

D. The Village will be responsible for the payment of all costs associated with the Village's Work on the Stormwater Improvements on the Easement Premises

5. **HOLD HARMLESS.** To the extent permitted by law, the Village shall indemnify and hold harmless the Park District, its Board of Commissioners, and all Park District elected and appointed officials, officers, employees, agents, representatives, engineers, architects, and attorneys ("*Park District Parties*"), from and against all claims and liability, including reasonable attorneys' fees and costs, that may be asserted at any time by a third party against any of the Park District Parties arising out of or in any way connected with the actions or omissions related to planning, construction, operation, maintenance, repair, and (if applicable) replacement of the Stormwater Improvements or to the Village's performance of its obligations under this Agreement.

6. **VILLAGE INSURANCE.** The Village is self-insured for general liability and workers compensation and does not purchase commercial insurance. The Village has provided the Park District with reasonably detailed information regarding the insurance that the Village maintains and that the Village requires its contractors to maintain ("*Village Insurance Policies*"). The Village Insurance Policies are acceptable to the Park District. The Village shall provide written notice of any material changes to the Village Insurance Policies. Certificates of insurance showing the coverages of the Village Insurance Policies and the Village's requirements for contractor insurance are attached to this Agreement as *Exhibit 4*. The Village and the Village contractors will maintain their respective Insurance Policies (or policies that are substantially the same as their respective Insurance Policies) at all times during the term of this Agreement. The Village Insurance Policies will name the Park District as an additional insured.

7. **RESERVED RIGHTS.** The District reserves the right to occupy, use, and improve the Easement Premises in any manner that will not make impracticable or infeasible the Work or the Permitted Village Uses and Facilities or otherwise materially and unreasonably interfere with or prevent the Village from utilizing the Easement Premises for the Permitted Village Uses and Facilities.

8. **ADDITIONAL EASEMENTS.** The District shall have the right to grant other non-exclusive easements over, along, across or upon the Easement Premises provided such other easements are subject to this Agreement and the rights granted hereby and do not unreasonably interfere with the Village's rights under this Agreement. The Park District will provide advance written notice to the Village of any such other easements.

9. **VILLAGE RESTORATION.** In compliance with the Final Plans, upon completion of any Work, the Village shall: (a) replace and grade any and all topsoil removed by the Village as a result of such Work; (b) restore the Easement Premises to the condition immediately preceding the Work and any roads, paved areas, plantings, and improvements damaged or removed as a result of such Work; (c) replace any and all sod removed as a result of such Work with sod of like quality; and (d) replace any and all natural grass removed as a result of such Work with good quality sod. If after written notice, the Village does not restore the Easement Premises as required by this Agreement and within a commercially reasonable period of time, the Park District may restore the property and the Village shall reimburse the District for its costs within 60 days after the District provides the Village with a detailed invoice.

10. **ABANDONMENT AND REMOVAL.**

A. Except with regard to the initial construction of the Stormwater Improvements (the failure to complete construction of which is covered under Paragraph II.F.6 of the IGA and hereby made expressly applicable to this Agreement), if the Village abandons construction or use of the Permitted Village Uses and Facilities on the Easement Premises, the Park District shall have the right to provide the Village with written notice of abandonment ("*Notice of Abandonment*"). Upon receipt of a Notice of Abandonment, the Village shall, within a commercially reasonable period of time, (i) complete the Permitted Village Use and Facility at issue, or (ii) undertake actions to establish that the Permitted Village Use and Facility has not, in fact, been abandoned, or remove any abandoned

underground improvements and restore the Easement Premises to its condition preceding the abandonment as described in Section 9 above. For purposes of this Agreement, "abandons," "abandonment," or "abandoned" shall mean cessation of construction, installation, or use of the Village Permitted Use and Facility for a period of 75 consecutive calendar days (unless the Village and the Park District agree in writing to a longer period of abandonment) for any reason other than (i) a force majeure or (ii) if and to the extent the cessation is caused by the Park District's material breach of this Agreement. If the Village fails to comply with this Subsection 10.A within a commercially reasonable period of time after the Park District provides written notice, the Park District may remove the abandoned Permitted Village Use and Facility and restore the Easement Premises and the Village shall reimburse the District for the costs the Park District incurs in restoring the Easement Premises within 30 days after the Park District provides the Village with a detailed invoice for such costs. Moreover, upon the abandonment of any Permitted Village Use Facility, this Agreement shall terminate upon the Village's compliance with the provisions of this Subsection without further action and, upon the request of the District, the Village shall promptly record a release of easement releasing all rights hereunder, in a form reasonably acceptable to the Park District.

B. In the event the Village removes the Permitted Village Use and Facility from the Easement Premises, the Village shall restore the Easement Premises to its condition preceding such removal and this Agreement shall immediately terminate after such removal without further action, and, upon the request of the District, the Village shall promptly record a release of easement releasing all rights hereunder, in a form reasonably acceptable to the Park District. If the Village fails to comply with this Subsection 10.B within a commercially reasonable period of time after the Park District provides written notice, the District may restore the Easement Premises and the Village shall reimburse the District for

the costs the District incurs in restoring the Easement Premises within 30 days after the District provides the Village with a detailed invoice for such costs.

11. **COVENANTS RUNNING WITH THE LAND.** The easements and rights granted in this Agreement, the restrictions imposed by this Agreement, the obligations assumed by the Village and the District in this Agreement, and the agreements and covenants contained in this Agreement shall be easements, rights, restrictions, obligations, agreements and covenants which run with the land and be binding upon and inure to the benefit of the District and the Village and their respective heirs, executors, administrators, successors, assigns, agents, licensees, invitees, and representatives, including, without limitation, all subsequent owners of the Subject Property, or any portion thereof, and all persons claiming under them. This Agreement shall be recorded against the Subject Property. If any of the easements, rights, restrictions, agreements or covenants created by this Agreement would otherwise be unlawful or void for violation of (a) the rule against perpetuities or some analogous statutory provision, (b) the rule restricting restraints on alienation, or (c) any other statutory or common law rules imposing time limits, then such easements, rights, restrictions, agreements, or covenants shall continue only until 21 years after the death of the last survivor of the now living lawful descendants of the current Governor of the State of Illinois.

12. **ASSIGNMENT OF RIGHTS.** The Park District agrees that the Village may delegate its duties under this Agreement with written notice to the District or assign this Agreement, with the District's approval (which approval will not be unreasonably withheld), to an assignee: (a) who is reasonably competent to exercise the rights granted herein and perform the obligations imposed herein; and (b) who provides adequate assurances that any Work performed pursuant to such assignment or delegation will be conducted in a good and workmanlike manner and in the manner required by this Agreement. Other than the notice required in Section 3 of this Agreement, nothing in this Section 12 or elsewhere in this Agreement shall require the Village to

provide written notice to, or to obtain the consent of, the District for a Village contractor to perform Work on the Village's behalf.

13. **AMENDMENT**. This Agreement may be modified, amended, or annulled only by the written agreement of the District and the Village.

14. **EXHIBITS**. Exhibits 1-5 attached to this Agreement are incorporated into this Agreement and made a part of this Agreement.

15. **ENFORCEMENT**. The District and the Village may, in law or in equity, by suit, action, mandamus, or any other proceeding, including without limitation specific performance, enforce or compel performance of this Agreement.

16. **NOTICE**. Any notice or communication permitted or required under this Agreement shall be in writing and shall become effective upon personal delivery or on the third day after mailing by first class mail, registered, or certified mail, postage prepaid, or on the next day after mailing by a national overnight courier, addressed to:

To the Village:

Attention: Village Manager
Village of Winnetka
510 Green Bay Road
Winnetka, Illinois 60093

To the Park District:

Attention: Executive Director
Winnetka Park District
540 Hibbard Road
Winnetka, Illinois 60093

With a copy to:

Village Attorney
Peter Friedman
Holland & Knight LLP
150 North Riverside Plaza
Suite 2700
Chicago, Illinois 60606

With a copy to:

Park District Attorney
Steven Adams
Robbins Schwartz
55 W. Monroe Street,
Suite 800
Chicago, Illinois 60603

Either party may change the person or address to which such notices are to be given by giving prior written notice to the other party in accordance with this Subsection.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed to be effective as of the date first above written.

WINNETKA PARK DISTRICT

By: _____
Arthur Archambault, President

ATTEST:

By: _____
Its: John Muno, Board Secretary

VILLAGE OF WINNETKA

By: _____
Christopher Rintz, Village President

ATTEST:

By: _____
Robert Bahan, Village Clerk

ACKNOWLEDGEMENTS

STATE OF ILLINOIS)
)
COUNTY OF COOK) SS

On _____, 2020, Christopher Rintz, the Village President of the Village of Winnetka, an Illinois home rule municipal corporation, and Robert Bahan, the Village Clerk of said municipal corporation, appeared before in person and acknowledged that they signed the attached Agreement as their free and voluntary act and deed pursuant to the authority of the Village Council of the Village of Winnetka for the uses and purposes set forth therein.

Signature of Notary

SEAL

STATE OF ILLINOIS)
)
COUNTY OF COOK) SS

On _____, 2020, _____, the President of the Board of Education of Winnetka Public Schools District No. 36, and _____ the _____ Secretary of said school district, appeared before me in person and acknowledged that they signed the attached Agreement as their free and voluntary act and deed pursuant to the authority of the Board of Education of Winnetka Public Schools District No. 36 for the uses and purposes set forth therein.

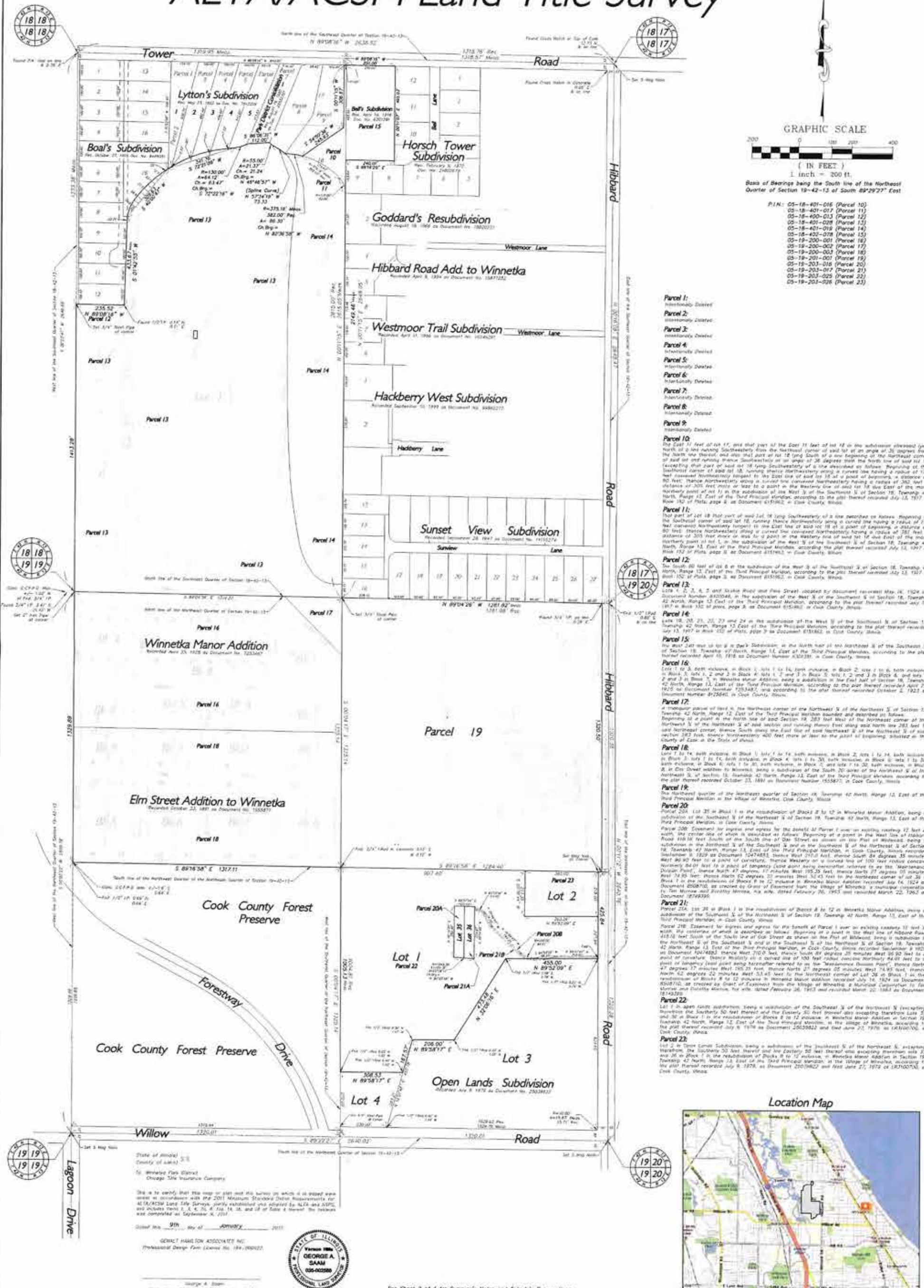
Signature of Notary

SEAL

EXHIBIT 1 TO EASEMENT AGREEMENT

Legal Description of the Subject Property

ALTA/ACSM Land Title Survey



- P.L.N.: 05-18-401-016 (Parcel 10)
05-18-401-017 (Parcel 11)
05-18-401-018 (Parcel 12)
05-18-401-019 (Parcel 13)
05-18-401-020 (Parcel 14)
05-18-401-021 (Parcel 15)
05-18-401-022 (Parcel 16)
05-18-401-023 (Parcel 17)
05-18-401-024 (Parcel 18)
05-18-401-025 (Parcel 19)
05-18-401-026 (Parcel 20)
05-18-401-027 (Parcel 21)
05-18-401-028 (Parcel 22)
05-18-401-029 (Parcel 23)

Parcel 1: Intentionally Deleted
Parcel 2: Intentionally Deleted
Parcel 3: Intentionally Deleted
Parcel 4: Intentionally Deleted
Parcel 5: Intentionally Deleted
Parcel 6: Intentionally Deleted
Parcel 7: Intentionally Deleted
Parcel 8: Intentionally Deleted
Parcel 9: Intentionally Deleted
Parcel 10: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 11: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 12: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 13: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 14: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 15: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 16: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 17: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 18: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 19: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 20: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 21: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 22: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.
Parcel 23: The South 1/2 of lot 17, and that part of lot 18 of the subdivision of Section 18-42-13 of Township 42 North, Range 12 East of the Third Principal Meridian, according to the plat thereof recorded July 15, 1917 in Book 152 of Plats, page 3 as Document 8151862, in Cook County, Illinois.



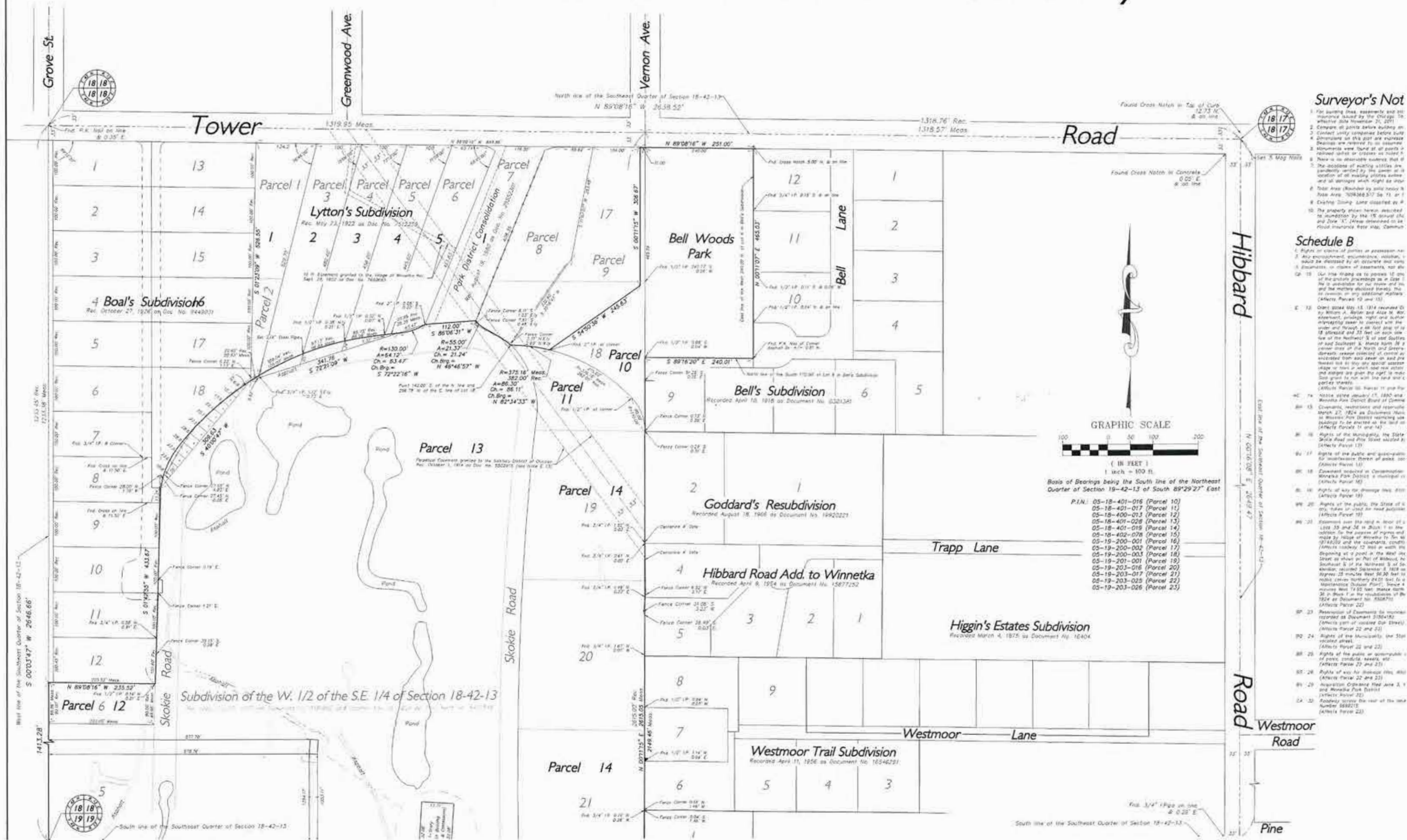
State of Illinois
County of Cook
To: Winnetka Golf Course
Chicago Golf Course Company
We, the undersigned, do hereby certify that this map or plan and the survey on which it is based were made in accordance with the 2011 Minimum Standards for Surveyors for ALTA/ACSM Land Title Surveys, and that the survey was completed on September 8, 2011.
Signed this 9th day of January, 2012.



GEORGE A. SAAM
Professional Design Firm License No. 184-1000022
George A. Saam
Professional Design Firm License No. 184-1000022
My License Expires November 30, 2012

See Sheet 2 of 4 for Surveyor's Notes and Schedule B exceptions
See Sheet 4 of 4 for Building details and dimensions

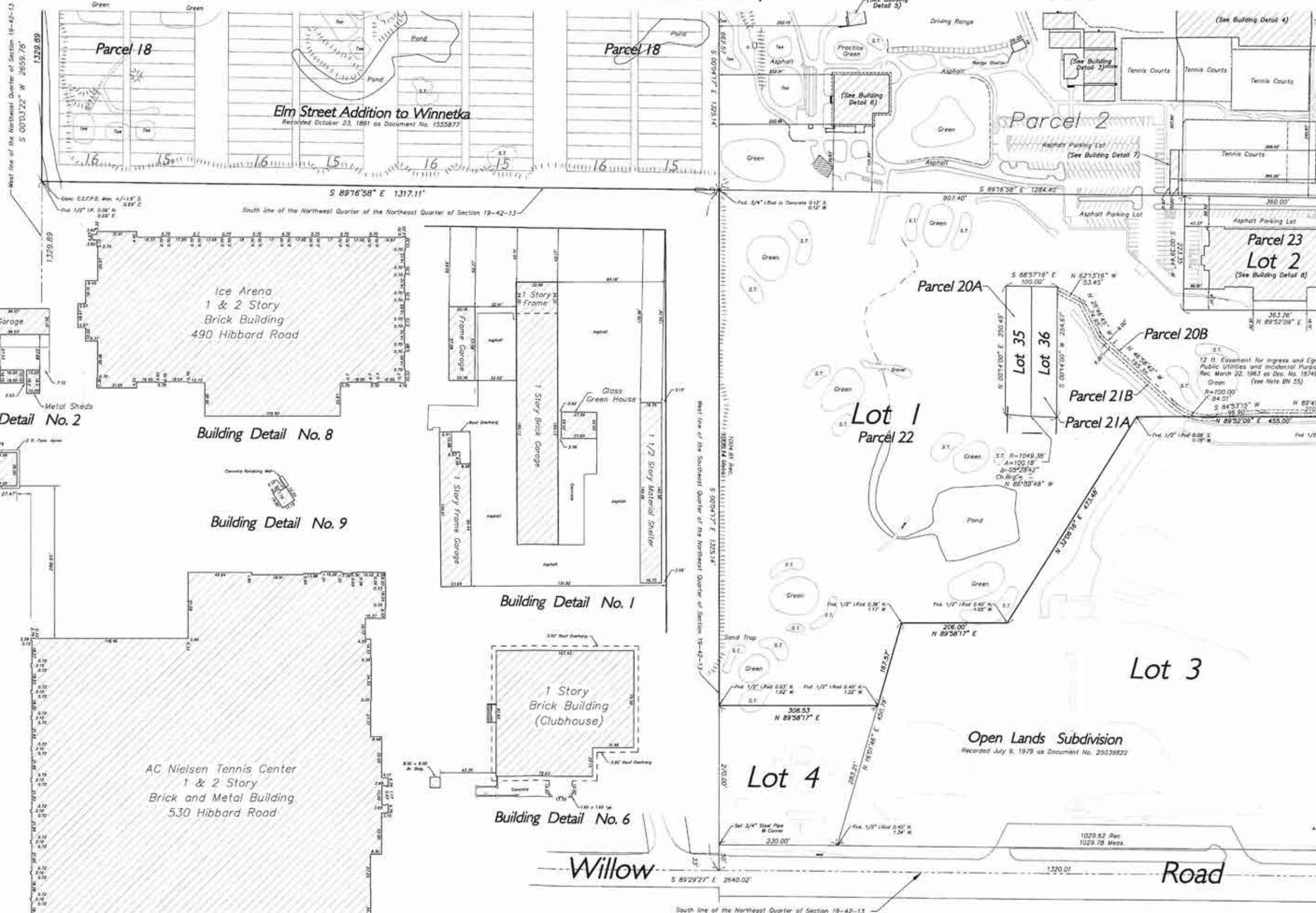
ALTA/ACSM Land Title Survey



ALTA/ACSM Land Title Survey

(See Sheet 3 of 4)

Parcel 19



SYMBOLS

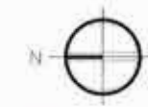
- △ CENTER OF THE FAIRWAY
- CENTER OF GREEN
- DOUGLED POINT (100' FROM CENTER OF BACK TEE)
- 2nd DOUGLED POINT (100' FROM 1st DOUGLED POINT)



The Village of Winnetka is the owner of the property and is responsible for the design and construction of the storm water management system. The Village of Winnetka is not responsible for the design and construction of the storm water management system.



CONCEPTUAL STORM WATER MANAGEMENT PLAN



JACOBSON
GOLF COURSE DESIGN, INC.
100 S. Milwaukee Avenue, Suite 100, Winnetka, Illinois 60093
Phone: (847) 914-1341 Fax: (847) 914-1342
www.jacobsongolfcourse.com

WINNETKA GOLF CLUB WINNETKA, ILLINOIS

BY	DATE
DRAWN	WH 4/15/19
APPROVED	RAF 4/23/19
REVISIONS	RAF 5/13/19

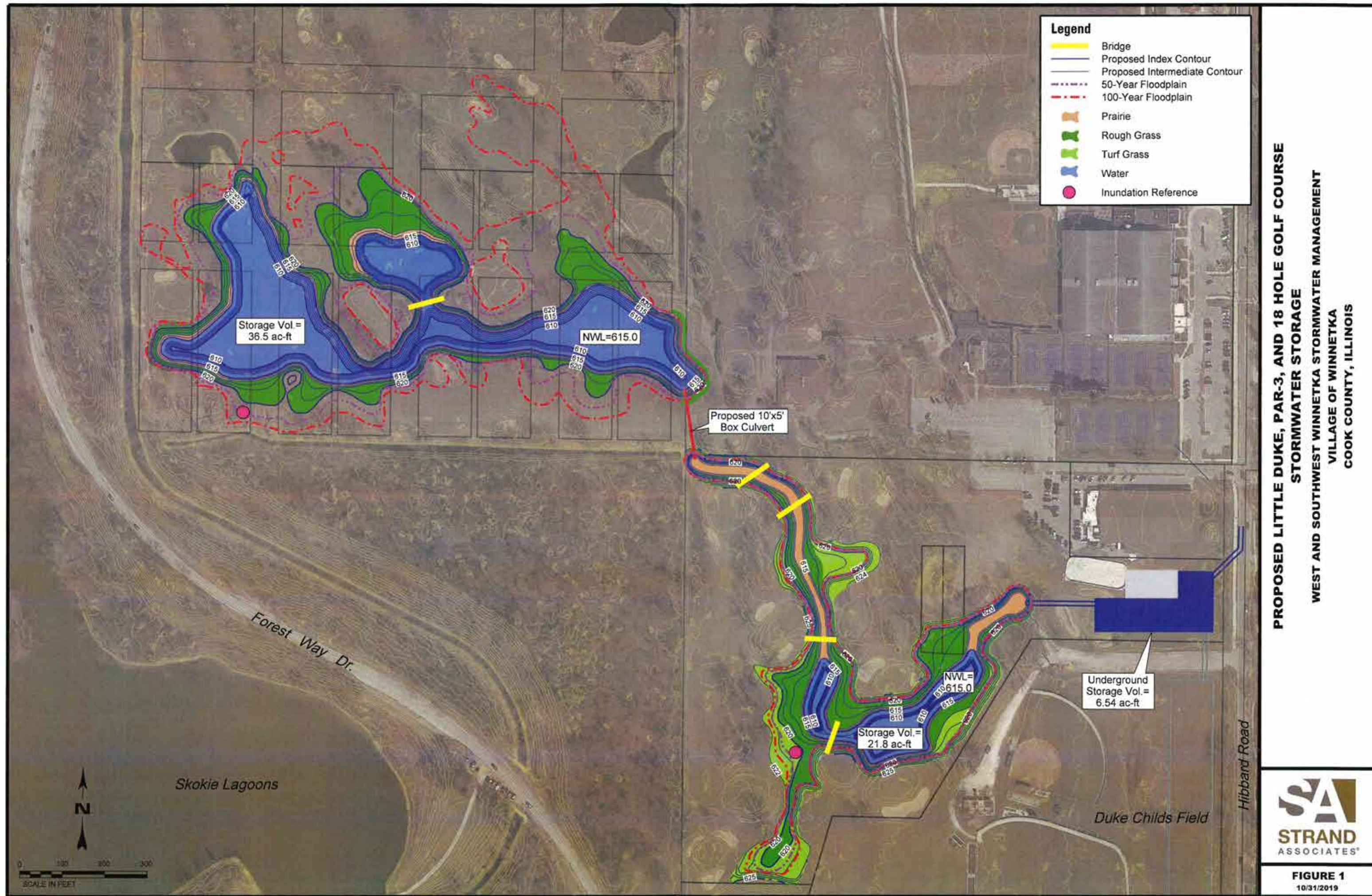
1



PROPOSED PAR 3 GOLF COURSE LAYOUT
DUKE CHILDS FIELD
WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS

Exhibit E

Village Playfield Improvements



**PROPOSED LITTLE DUKE, PAR-3, AND 18 HOLE GOLF COURSE
STORMWATER STORAGE**
WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS

- ☐ CENTER OF VEE
- ☐ CENTER OF ORIGIN
- ☐ (HOCKED POINT) AND INTERSECTIONS OF BOTH TIES
- ☐ (UNHOCKED POINT) AND TIES AND FROM AN EXCLUSIVE POINT



SAMPLE LAKE - SLOPE - GREEN ELEVATION TRANSITION



AFTER
ENHANCED SURFACE SLOPE PROVIDES
ADEQUATE SURFACE DRAINAGE TO
PROPOSED DRAINAGE INLETS



BEFORE:
LACK OF EXISTING FAIRWAY SLOPE DOES NOT
ALLOW SURFACE DRAINAGE FLOW TO
EXISTING DRAINAGE INLETS.



STORM WATER CONVEYANCE CHANNEL



© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 103–110



AFTER
RENOVATED BUNKER



BEFORE
EXISTING BUNGER



PROPOSED WET DETENTION (WET MEADOWS)



PROPOSED WET (WETLAND)
DETENTION TRANSITION INTO DRY
(MANICURED ROUGHED DETENTION)



PROPOSITS WITH INTENTIONAL LAKI

SCALE = 17.92





Map created on January 10, 2020
© 2020 GIS Consortium and MGP Inc. All Rights Reserved
The GIS Consortium and MGP Inc. are not liable for any use, misuse, modification or disclosure of any map provided under applicable law.
Disclaimer: This map is for general information purposes only. Although the information is believed to be generally accurate, errors may exist and the user should independently confirm for accuracy. The map does not constitute a regulatory determination and is not a base for engineering design. A Registered Land Surveyor should be consulted to determine precise location boundaries on the ground.

1144331 4721380174 1982712 236112536&h=1&v=8

EXHIBIT 2 TO EASEMENT AGREEMENT

Depiction of Easement Premises

Execution Copy 1/13/20

EXHIBIT 3 TO EASEMENT AGREEMENT

Village Final Plans

EXHIBIT 4 TO EASEMENT AGREEMENT

Village Construction
Schedule

EXHIBIT 5 TO EASEMENT AGREEMENT

Village Insurance
Policies



VILLAGE OF WINNETKA

Incorporated in 1869

CERTIFICATE OF SELF-INSURANCE

Office of the Finance Director

847.716.3513

March 5, 2018

RE: Village of Winnetka – Self-Insurance

To Whom It May Concern:

The Village of Winnetka is self-insured for General Liability and Workers Compensation and therefore does not purchase commercial insurance.

The Village assumes all risks and liabilities for all occurrences by all employees and Village equipment in the course of normal employment activities.

The Village does purchase excess insurance for worker's compensation exposures. The deductible (self-insured retention) on that policy is \$600,000 and provides full statutory benefits.

In addition, the Village maintains \$13,000,000 of liability coverage after the Village's \$2,000,000 deductible (self-insurance retention) is satisfied.

If you need any further information, feel free to contact me at (847) 716-3513.

Sincerely,

Timothy J. Sloth

Timothy J. Sloth, CPA
Finance Director



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/21/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endors. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Assurance Agency, Ltd 1750 E Golf Road Suite 1100 Schaumburg IL 60173		CONTACT NAME: PHONE (A/C, No, Ext): (847) 797-5700 FAX (A/C, No): (847) 440-9130 E-MAIL ADDRESS: szamora@assuranceagency.com	
INSURED Village of Winnetka 510 Green Bay Road Winnetka IL 60093		INSURER(S) AFFORDING COVERAGE INSURER A: Allied World National Assuranc INSURER B: Allied World Insurance Company INSURER C: Markel American Insurance Comp INSURER D: INSURER E: INSURER F:	
VILLOFW-01		NAIC # 10690 22730 28932	

COVERAGES

CERTIFICATE NUMBER: 1136766786

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A B C	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input checked="" type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$ <input type="checkbox"/>		5111014901 5110009101 MKLM3EUE100569	5/1/2019 5/1/2019 5/1/2019	1/1/2020 1/1/2020 1/1/2020	EACH OCCURRENCE \$ 13,000,000 AGGREGATE \$ 13,000,000 \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N/A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The Village of Winnetka is self-insured for General Liability and Workers' Compensation and therefore does not purchase commercial insurance. The Village assumes all risks and liability for all occurrences by all employees and Village equipment in the course of normal employment activities. The Village does purchase excess insurance for Worker's Compensation exposures. The self-insured retention on that policy is \$600,000 and provides full statutory benefits. In addition, the Village maintains \$13,000,000 of liability coverage after the Village's \$2,000,000 self-insured retention is satisfied. As agreed for the self-insured retention, New Trier Township High School District 203 is an additional insured on the General Liability on a primary and non-contributory basis and a Waiver of Subrogation of the additional insured applies to the Workers' Compensation and General Liability.

CERTIFICATE HOLDER**CANCELLATION**

New Trier Township High School District #203
7 Happ Road
Northfield IL 60093

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.

Village of Winnetka
Bid Contract - Insurance Requirements
VOW / NT IGA Stormwater Project

Insurance Coverage:

A. Worker's Compensation and Employer's Liability with limits not less than:

- (1) Worker's Compensation: Statutory;
- (2) Employer's Liability: \$1,000,000 injury-per occurrence; \$1,000,000 disease-per employee; \$1,000,000 disease-policy limit Such insurance must evidence that coverage applies in the State of Illinois.

B. Comprehensive Motor Vehicle Liability with a combined single limit of liability for bodily injury and property damage of not less than \$1,000,000 for vehicles owned, non-owned, or rented.

All employees must be included as insureds.

C. Comprehensive General Liability with coverage written on an "occurrence" basis and with limits no less than:

- (1) General Aggregate: \$2,000,000. See Subsection F below regarding use of umbrella coverage.
- (2) Bodily Injury: \$1,000,000 per person; \$1,000,000 per occurrence.
- (3) Property Damage: \$1,000,000 per occurrence and \$2,000,000 aggregate.
- (4) Personal & Advertising Injury: \$1,000,000 per occurrence.

Coverage must include:

- Premises / Operations
- Products / Completed Operations (to be maintained for five years after Final Payment)
- Independent Contractors
- Personal Injury (with Employment Exclusion deleted)
- Broad Form Property Damage Endorsement



Notes:

- 1) An Allowance For New Curbing At Tees And Greens Is Included In The Preliminary Cost Estimate.
- 2) Coordinate Lake N.W.L. With Project Engineer For SWM & Irrigation Supply Storage.
- 3) Remove All Tree Stumps Remaining From Previous Clearing Operations.
- 4) All Final Drainage System Design To Be Coordinated With The Conceptual Storm Water Management Plan Drainage System.
- 5) Green#15,16,17&18 Shall Be Reconstructed To Match The Profile Of Existing Greens(ie. 4"-6" Of Greens Mix And XGD Subsurface Drainage System) .
- 6) Project Engineer Shall Determine Structural Integrity Of Bridges And Repair/Replacement Requirements.

Master Plan

I. Insurance Certificates:

- (1) Must be submitted ten (10) days prior to any work being performed to allow review of certificates.
- (2) Certificates not meeting requirements must be revised and resubmitted within fifteen (15) days or the subcontractor will not be allowed on the jobsite.

J. Minimum Insurance Carrier: All contractors, manufacturers/distributors, and suppliers' insurance carriers must be authorized to do business in Illinois and comply with the minimum A.M Best rating of A, VII for all insurance carriers.

Exhibit D

Stormwater Improvements

Execution Copy 1/13/20

EXHIBIT 3 TO EASEMENT AGREEMENT

Village Final Plans

EXHIBIT 4 TO EASEMENT AGREEMENT

Village Construction
Schedule

EXHIBIT 5 TO EASEMENT AGREEMENT

Village Insurance
Policies



VILLAGE OF WINNETKA

Incorporated in 1869

CERTIFICATE OF SELF-INSURANCE

Office of the Finance Director

847.716.3513

March 5, 2018

RE: Village of Winnetka – Self-Insurance

To Whom It May Concern:

The Village of Winnetka is self-insured for General Liability and Workers Compensation and therefore does not purchase commercial insurance.

The Village assumes all risks and liabilities for all occurrences by all employees and Village equipment in the course of normal employment activities.

The Village does purchase excess insurance for worker's compensation exposures. The deductible (self-insured retention) on that policy is \$600,000 and provides full statutory benefits.

In addition, the Village maintains \$13,000,000 of liability coverage after the Village's \$2,000,000 deductible (self-insurance retention) is satisfied.

If you need any further information, feel free to contact me at (847) 716-3513.

Sincerely,

Timothy J. Sloth

Timothy J. Sloth, CPA
Finance Director



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/21/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endors. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Assurance Agency, Ltd 1750 E Golf Road Suite 1100 Schaumburg IL 60173		CONTACT NAME: PHONE (A/C, No, Ext): (847) 797-5700 FAX (A/C, No): (847) 440-9130 E-MAIL: szamora@assuranceagency.com	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A : Allied World National Assuranc	10690
		INSURER B : Allied World Insurance Company	22730
		INSURER C : Markel American Insurance Comp	28932
		INSURER D :	
		INSURER E :	
		INSURER F :	

COVERAGES

CERTIFICATE NUMBER: 1136766786

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY					
	<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR					EACH OCCURRENCE \$
						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
						MED EXP (Any one person) \$
						PERSONAL & ADV INJURY \$
						GENERAL AGGREGATE \$
						PRODUCTS - COMP/OP AGG \$
						\$
	GEN'L AGGREGATE LIMIT APPLIES PER:					
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					
	OTHER:					
	AUTOMOBILE LIABILITY					
	<input type="checkbox"/> ANY AUTO					COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS					BODILY INJURY (Per person) \$
	<input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY					BODILY INJURY (Per accident) \$
						PROPERTY DAMAGE (Per accident) \$
						\$
A B C	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR		5111014901	5/1/2019	1/1/2020	EACH OCCURRENCE \$ 13,000,000
	X EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE		5110009101	5/1/2019	1/1/2020	AGGREGATE \$ 13,000,000
			MKLM3EUE100569	5/1/2019	1/1/2020	\$
	DED RETENTION \$					
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/>
	If yes, describe under DESCRIPTION OF OPERATIONS below	N/A				E.L. EACH ACCIDENT \$
						E.L. DISEASE - EA EMPLOYEE \$
						E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The Village of Winnetka is self-insured for General Liability and Workers' Compensation and therefore does not purchase commercial insurance. The Village assumes all risks and liability for all occurrences by all employees and Village equipment in the course of normal employment activities. The Village does purchase excess insurance for Worker's Compensation exposures. The self-insured retention on that policy is \$600,000 and provides full statutory benefits. In addition, the Village maintains \$13,000,000 of liability coverage after the Village's \$2,000,000 self-insured retention is satisfied. As agreed for the self-insured retention, New Trier Township High School District 203 is an additional insured on the General Liability on a primary and non-contributory basis and a Waiver of Subrogation of the additional insured applies to the Workers' Compensation and General Liability.

CERTIFICATE HOLDER**CANCELLATION**

New Trier Township High School District #203
7 Happ Road
Northfield IL 60093

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.

Village of Winnetka
Bid Contract - Insurance Requirements
VOW / NT IGA Stormwater Project

Insurance Coverage:

A. Worker's Compensation and Employer's Liability with limits not less than:

- (1) Worker's Compensation: Statutory;
- (2) Employer's Liability: \$1,000,000 injury-per occurrence; \$1,000,000 disease-per employee; \$1,000,000 disease-policy limit Such insurance must evidence that coverage applies in the State of Illinois.

B. Comprehensive Motor Vehicle Liability with a combined single limit of liability for bodily injury and property damage of not less than \$1,000,000 for vehicles owned, non-owned, or rented.

All employees must be included as insureds.

C. Comprehensive General Liability with coverage written on an "occurrence" basis and with limits no less than:

- (1) General Aggregate: \$2,000,000. See Subsection F below regarding use of umbrella coverage.
- (2) Bodily Injury: \$1,000,000 per person; \$1,000,000 per occurrence.
- (3) Property Damage: \$1,000,000 per occurrence and \$2,000,000 aggregate.
- (4) Personal & Advertising Injury: \$1,000,000 per occurrence.

Coverage must include:

- Premises / Operations
- Products / Completed Operations (to be maintained for five years after Final Payment)
- Independent Contractors
- Personal Injury (with Employment Exclusion deleted)
- Broad Form Property Damage Endorsement

- Blanket Contractual Liability (must expressly cover the indemnity provisions of the Contract)
- Bodily Injury and Property Damage

"X", "C", and "U" exclusions must be deleted.

Railroad exclusions must be deleted if Work Site is within 50 feet of any railroad track.

All employees must be included as insured.

D. Pollution Liability: Liability coverage for Pollution/Environmental Contamination in the amount of not less than \$4,000,000 per occurrence.

All employees must be included as insured.

E. Additional Insured: The Village of Winnetka and New Trier Township High School District 203 must be named as an Additional Insured on the Comprehensive General Liability and Comprehensive Motor Vehicle Liability coverage with the following wording appearing on the Certificate of Insurance:

The Village of Winnetka and any official, trustee, director, officer or employee of the Village of Winnetka and the New Trier Township High School District 203 and its Board of Education, both individually and collectively, and all agents, representatives, volunteers and employees are added as Additional Insureds, when required by written contract, on the General Liability and Auto Liability on a primary and non-contributory basis.

A Waiver of Subrogation of the Additional Insureds applies to the Workers' Compensation and General Liability policies.

The General Liability policy shall not contain exclusions for bodily injury or property damage arising out of Explosion Hazard, Collapse Hazard, or Underground Hazard work.

The Umbrella must follow form over the underlying liability with regards to coverage terms and conditions, Additional Insured, and Waiver of Subrogation.

F. Waiver of Subrogation: The Workers' Compensation and General Liability must include a Waiver of Subrogation.

G. Umbrella Policy: The required coverage may be in the form of an umbrella policy with limits of \$5,000,000 per occurrence and \$5,000,000 aggregate above the \$1,000,000 primary coverage. All umbrella policies must provide excess coverage over underlying insurance on a following-form basis so that, when any loss covered by the primary policy exceeds the limits under the primary policy, the excess or umbrella policy becomes effective to cover that loss.

H. Cancellation or Alteration: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

I. Insurance Certificates:

- (1) Must be submitted ten (10) days prior to any work being performed to allow review of certificates.
- (2) Certificates not meeting requirements must be revised and resubmitted within fifteen (15) days or the subcontractor will not be allowed on the jobsite.

J. Minimum Insurance Carrier: All contractors, manufacturers/distributors, and suppliers' insurance carriers must be authorized to do business in Illinois and comply with the minimum A.M Best rating of A, VII for all insurance carriers.

Exhibit D

Stormwater Improvements

Exhibit F

District Playfield Improvements

Winnetka

Golf Club



Notes:

- 1) An Allowance For New Curbing At Tees And Greens Is Included In The Preliminary Cost Estimate.
- 2) Coordinate Lake N.W.L. With Project Engineer For SWM & Irrigation Supply Storage.
- 3) Remove All Tree Stumps Remaining From Previous Clearing Operations.
- 4) All Final Drainage System Design To Be Coordinated With The Conceptual Storm Water Management Plan Drainage System.
- 5) Green#15,16,17&18 Shall Be Reconstructed To Match The Profile Of Existing Greens (ie. 4"-6" Of Greens Mix And XGD Subsurface Drainage System).
- 6) Project Engineer Shall Determine Structural Integrity Of Bridges And Repair/Replacement Requirements.



Scale 1"=120'

0 150 300 600(Feet)

Preliminary Master Plan

JACOBSON
GOLF COURSE DESIGN, INC.



Exhibit G

Performance Standards

EXHIBIT G – PERFORMANCE STANDARDS

The target level of service is the standard by which the effectiveness of identified opportunities for stormwater and flood control would be judged. The target level of service established for this study has two components. The first component is the magnitude of rainfall for which protection from flooding will be provided. The second component is the level of protection or the extent of flooding that will be allowed during that magnitude of rainfall.

In April 2014, the Village Council formally adopted the Village of Winnetka Stormwater Master Plan. This plan documents the Village's stormwater-related goals and objectives and was intended as a guide for Village policy and decision-making over the following five- to ten-year period. Section 3 of the Stormwater Master Plan presents the Village's goal to pursue stormwater capital improvements to reduce the risk of flooding throughout the Village, and generally establishes Village policy to provide protection from a 100-year storm event.

When considering storm events, it is also important to identify the duration of storm that has the greatest impact on the watershed. Some watersheds are more impacted by large volumes of rainfall over an extended period of time, while others are more impacted by short duration, heavy rainfalls. The hydraulic modeling created to analyze the study watershed's existing conditions was used to determine the most critical or impactful duration of 100-year storm event. For this study, it was determined that the target level of service storm will be a 100-year, **three-hour duration** storm event, which produces 4.85 inches of rainfall based on current rainfall statistics.

For the Skokie Playfield area, that produces the attached results:

18-Hole Golf Course

Storm Event	Storm Duration	ISWS Bulletin 70 Rainfall (in.)	Design Water Level Elevation	Max. Depth Above Normal Water Level (615.0)	Drawdown Time (hr.) to Normal Water Level	Max. Depth (ft.) Above Inundation Reference (620.7)	Drawdown Time (hr.) at Inundation Reference
2-year	3 hours	1.94	616.80	1.8	15	0.00	N/A
5-year	3 hours	2.43	617.52	2.52	17	0.00	N/A
10-year	3 hours	2.86	618.34	3.34	19	0.00	N/A
50-year	3 hours	4.14	620.72	5.72	28	0.00	N/A
100-year	3 hours	4.85	621.37	6.37	34	0.67	6 - 8

Par-3

Storm Event	Storm Duration	ISWS Bulletin 70 Rainfall (in.)	Design Water Level Elevation	Max. Depth Above Normal Water Level (615.0)	Drawdown Time (hr.) to Normal Water Level	Max. Depth (ft.) Above Inundation Reference (620.5)	Drawdown Time (hr.) at Inundation Reference
2-year	3 hours	1.94	616.80	1.8	15	0.00	N/A
5-year	3 hours	2.43	617.52	2.52	17	0.00	N/A
10-year	3 hours	2.86	618.34	3.34	19	0.00	N/A
50-year	3 hours	4.14	620.72	5.72	28	0.22	2 - 3
100-year	3 hours	4.85	621.37	6.37	34	0.87	8 - 11



2 YEAR FLOOD DEPTHS

**WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT STUDY
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS**



**FIGURE 1
1619.024**

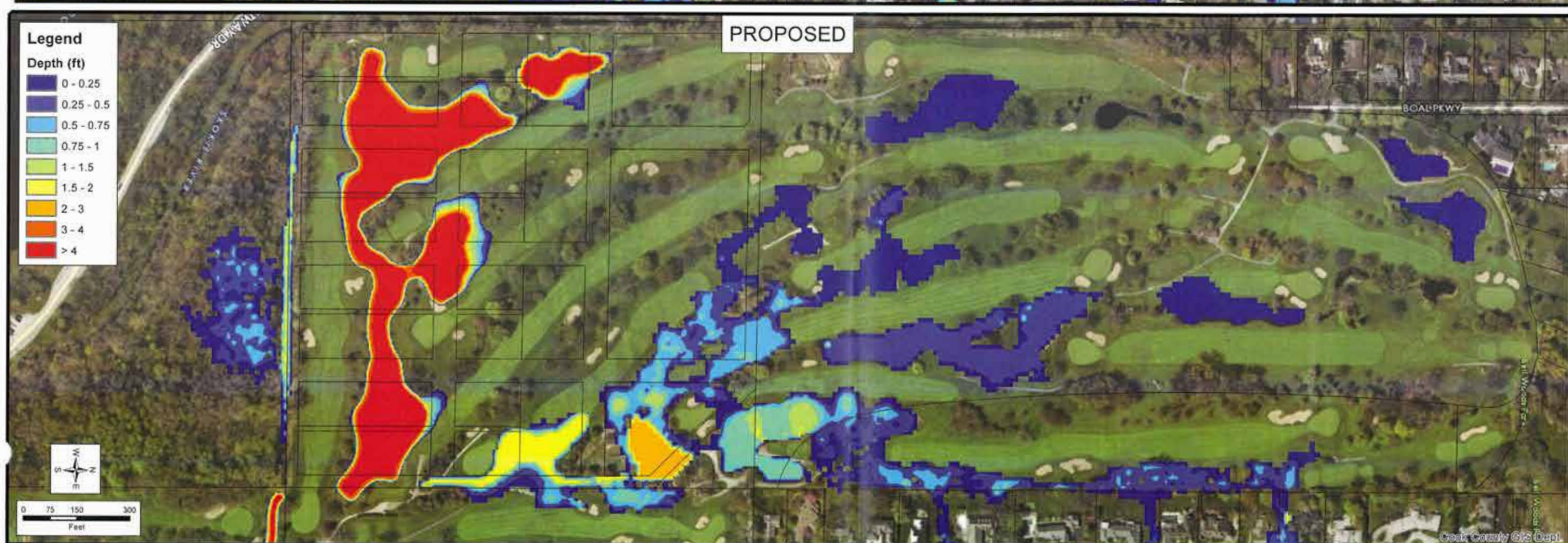


5 YEAR FLOOD DEPTHS

**WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT STUDY
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS**



**FIGURE 1
1619.024**

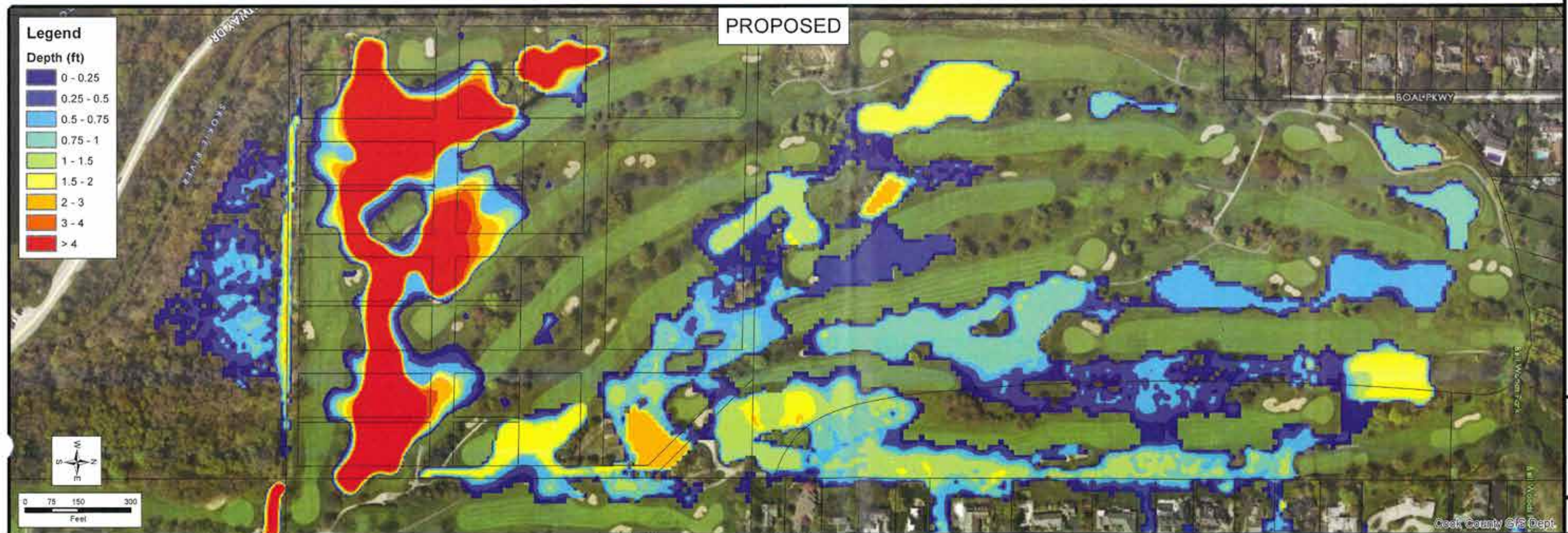
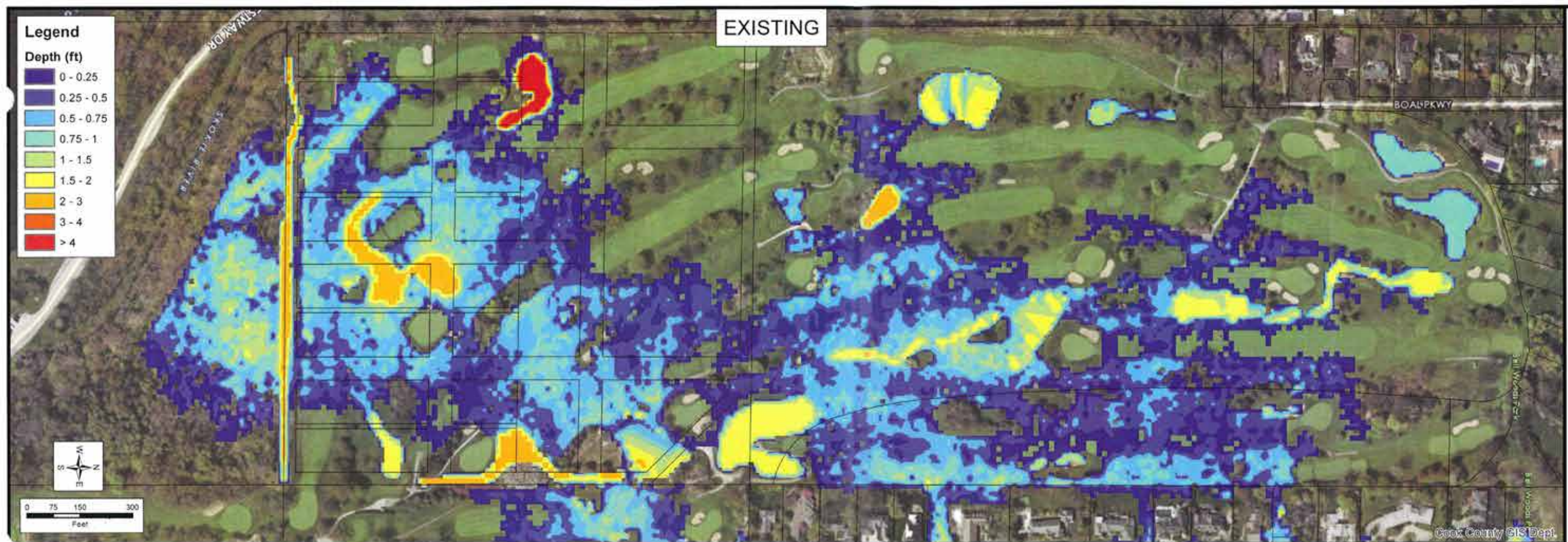


10 YEAR FLOOD DEPTHS

**WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT STUDY
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS**



**FIGURE 1
1619.024**

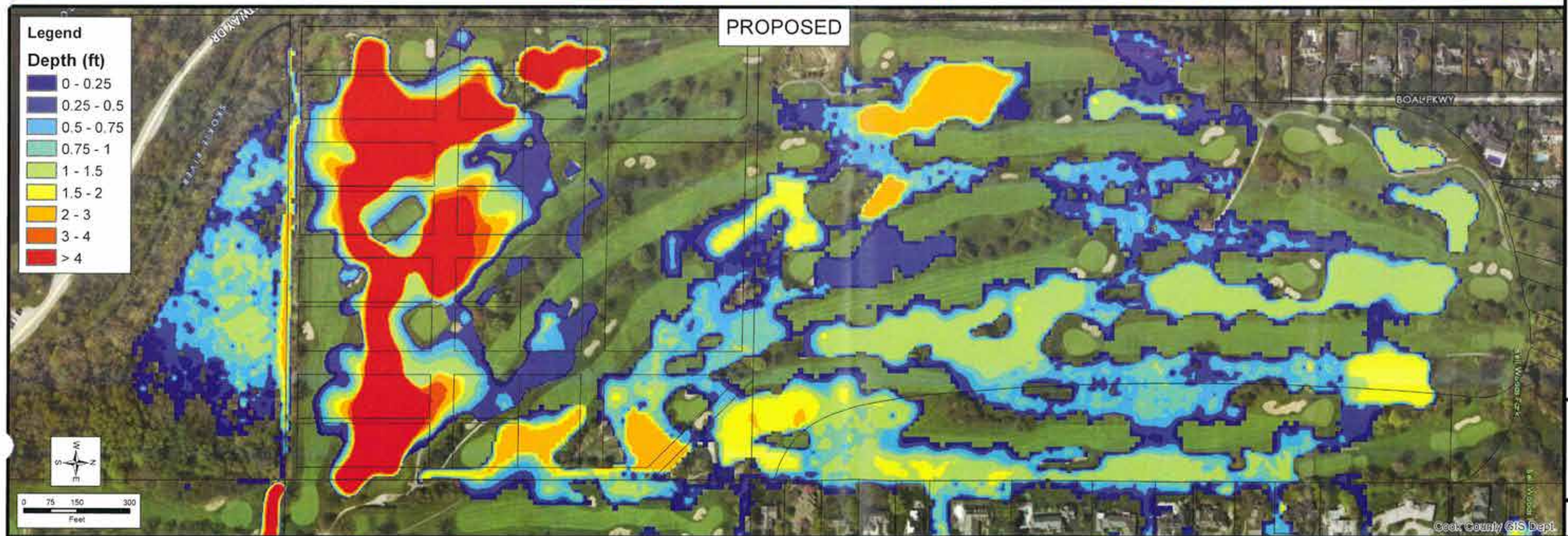
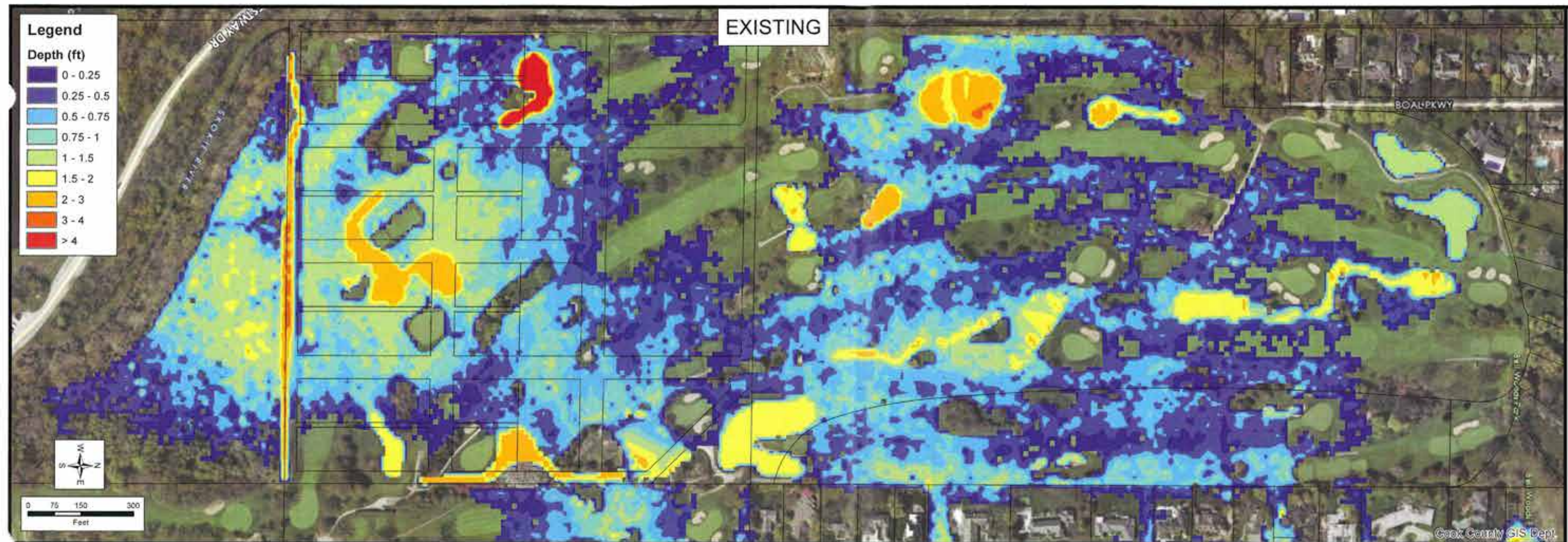


50 YEAR FLOOD DEPTHS

**WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT STUDY
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS**



**FIGURE 1
1619.024**



100 YEAR FLOOD DEPTHS

WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT STUDY
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS



FIGURE 1
1619.024



PROPOSED PAR 3 GOLF COURSE LAYOUT
DUKE CHILDS FIELD
WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS



FIGURE 1
1619.024



PROPOSED PAR 3 GOLF COURSE LAYOUT
DUKE CHILDS FIELD
WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS



FIGURE 1
1619.024



PROPOSED PAR 3 GOLF COURSE LAYOUT
DUKE CHILDS FIELD
 WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT
 VILLAGE OF WINNETKA
 COOK COUNTY, ILLINOIS



FIGURE 1
1619.024

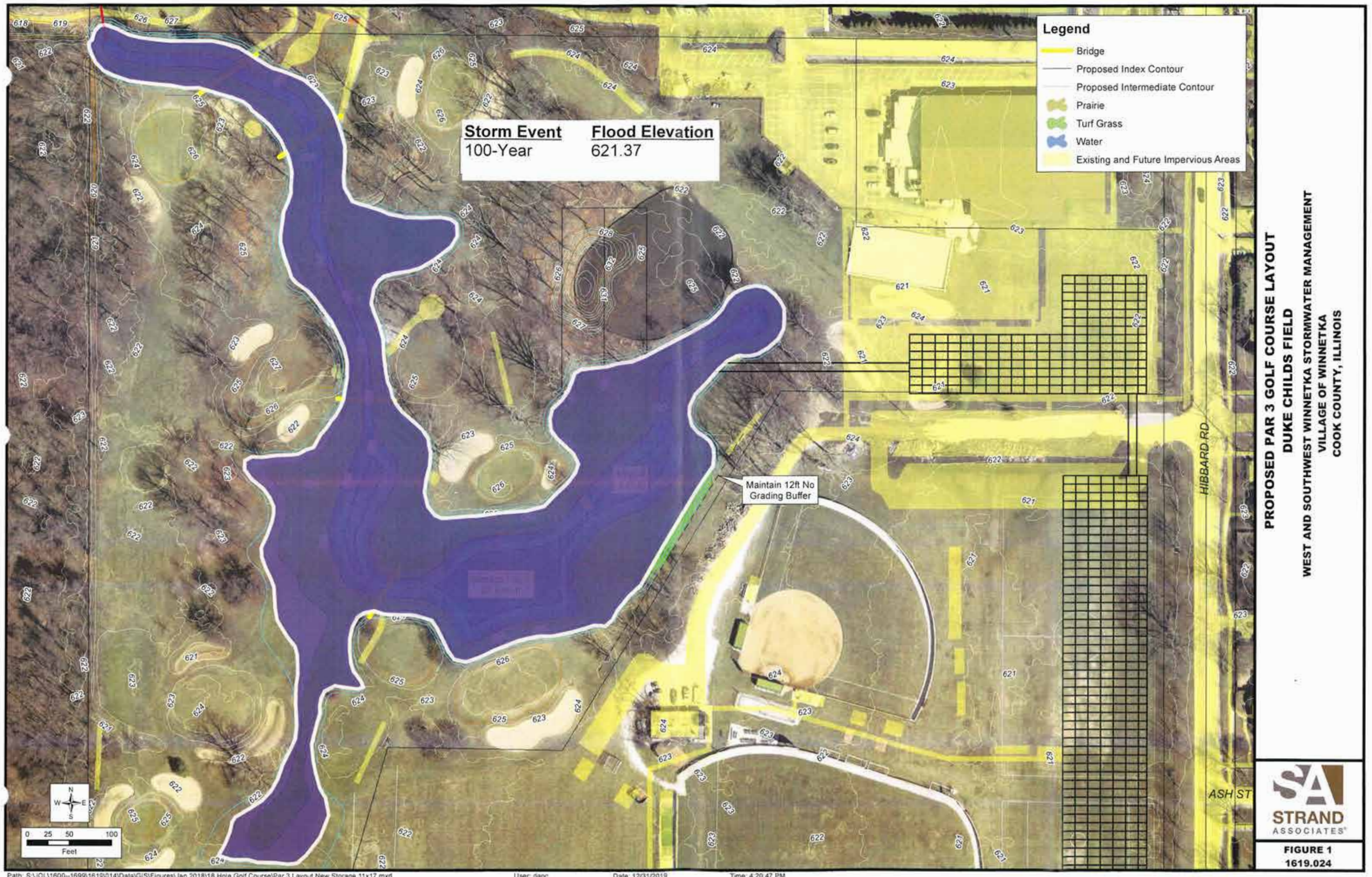


Exhibit H

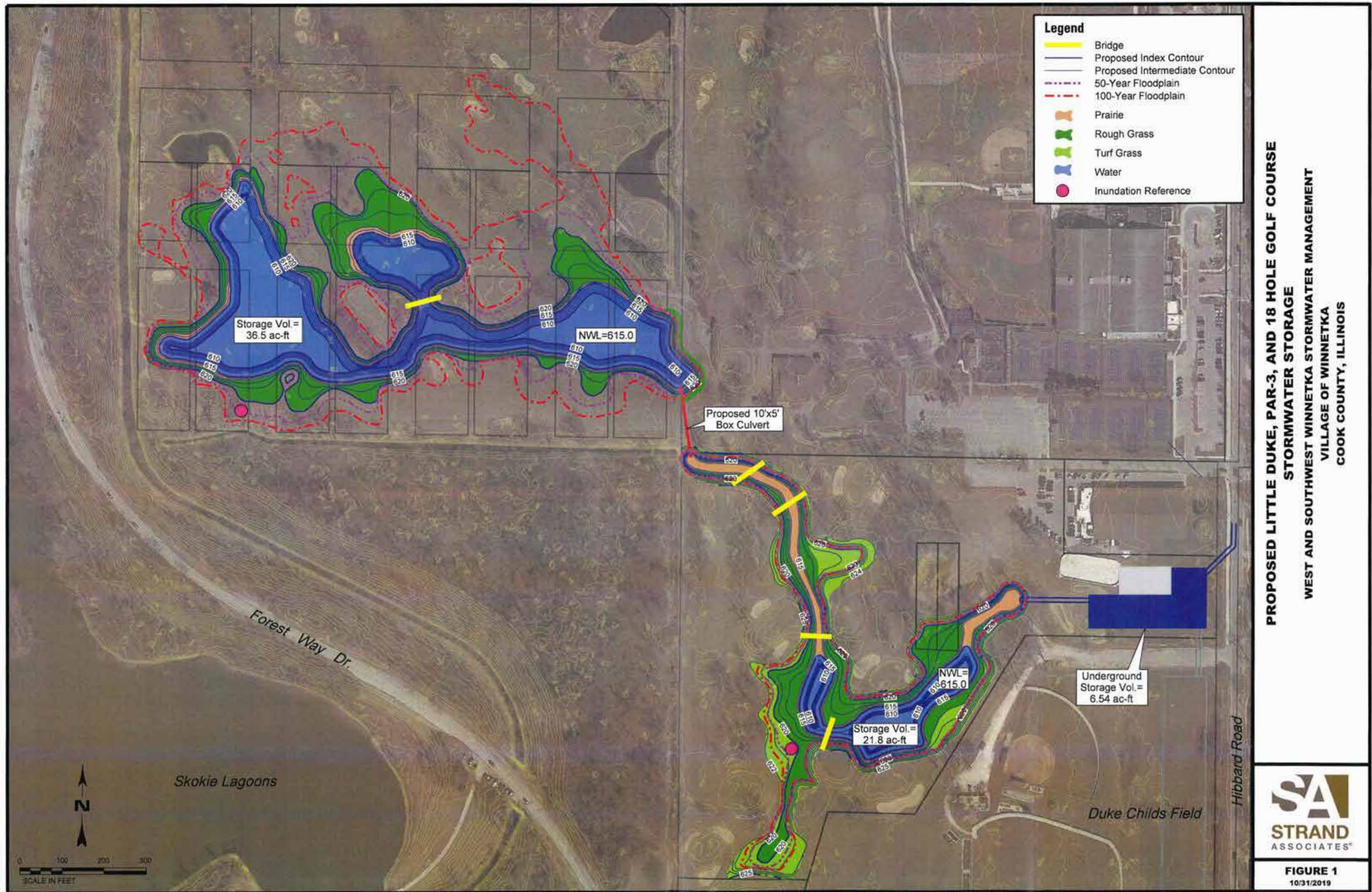
Additional Detention and Compensatory Stormwater Credits

Exhibit H - Additional Detention and Compensatory Stormwater Credits

	Storage Project			
	Little Duke Childs Underground	Par-3 Course Above Ground	18-Hole Course Above Ground	Total
Total Storage Volume Created (ac-ft)	6.54	21.80	36.50	64.84
Volume For Detention (ac-ft)	1.28	0.00	2.76	4.04
- Little Duke Field Improvements	0.76	0.00	0.00	0.76
- Cart Path Improvements	0.00	0.00	2.76	2.76
- Ice Roof Structure Improvements	0.52	0.00	0.00	0.52
Volume for Volume Control Requirement (ac-ft)	0.26	0.00	0.37	0.63
- Little Duke Field Improvements	0.20	0.00	0.00	0.20
- Cart Path Improvements	0.00	0.00	0.37	0.37
- Ice Roof Structure Improvements	0.06	0.00	0.00	0.06
Volume for Compensatory Storage (ac-ft)	0.00	0.00	0.00	0.00
- Little Duke Field Improvements	TBD*	TBD*	0.00	TBD*
- Cart Path Improvements	0.00	0.00	0.00	0.00
- Ice Roof Structure Improvements	0.00	0.00	0.00	0.00
Volume For Village Stormwater Relief (ac-ft)	5.00	21.80	33.37	60.17

* Compensatory floodplain storage cannot be calculated until a grading plan is completed for the Little Duke Field area.

Required volume is expected to be approximately 3 to 4 acre feet, allocated between the underground storage and the par-3 storage.



PROPOSED LITTLE DUKE, PAR-3, AND 18 HOLE GOLF COURSE
STORMWATER STORAGE
 WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT
 VILLAGE OF WINNETKA
 COOK COUNTY, ILLINOIS

Exhibit I

Allocation Table

Exhibit I - Allocation Table

	Storage Project			
	Little Duke Childs Underground	Par-3 Course Above Ground	18-Hole Course Above Ground	Total
Total Storage Volume Created (ac-ft)	6.54	21.80	36.50	64.84
Volume For Detention (ac-ft)	1.28	0.00	2.76	4.04
- Little Duke Field Improvements	0.76	0.00	0.00	0.76
- Cart Path Improvements	0.00	0.00	2.76	2.76
- Ice Roof Structure Improvements	0.52	0.00	0.00	0.52
Volume for Volume Control Requirement (ac-ft)	0.26	0.00	0.37	0.63
- Little Duke Field Improvements	0.20	0.00	0.00	0.20
- Cart Path Improvements	0.00	0.00	0.37	0.37
- Ice Roof Structure Improvements	0.06	0.00	0.00	0.06
Volume for Compensatory Storage (ac-ft)	0.00	0.00	0.00	0.00
- Little Duke Field Improvements	TBD*	TBD*	0.00	TBD*
- Cart Path Improvements	0.00	0.00	0.00	0.00
- Ice Roof Structure Improvements	0.00	0.00	0.00	0.00
Volume For Village Stormwater Relief (ac-ft)	5.00	21.80	33.37	60.17

* Compensatory floodplain storage cannot be calculated until a grading plan is completed for the Little Duke Field area.

Required volume is expected to be approximately 3 to 4 acre feet, allocated between the underground storage and the par-3 storage.

Exhibit J

Village Preliminary Plans

DIVISION 50

**STREET AND UTILITY CONSTRUCTION
SPECIAL PROVISIONS**

PART 1-GENERAL

1.1 REFERENCES

The following specifications are incorporated into this Contract by reference unless otherwise indicated herein. Proposed work, materials, and execution shall be in accordance with applicable portions of these documents:

Standard Specifications for Water and Sewer Main Construction in Illinois, 7th Edition, 2014, and as amended from time to time, referred to herein as SSWSMC.

Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, Latest Edition, and as amended from time to time, referred to herein as IDOT SSRBC.

Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition, referred to herein as MUTCD.

Standard Specifications for Traffic Control Items, Latest Edition, referred to herein as TCI.

1.2 INCONSISTENCIES

In resolving inconsistencies between the SSWSMC and the IDOT SSRBC, the SSWSMC shall take precedence over the IDOT SSRBC for all utility work except electrical utility work for which the IDOT SSRBC shall take precedence. The IDOT SSRBC shall take precedence over the SSWSMC for all work in the roadway or work related to roadways.

1.3 ORGANIZATION

The following special provisions shall amend or supplement requirements of the SSWSMC, or IDOT SSRBC, as applicable. These special provisions shall govern wherever there is a conflict or discrepancy with the SSWSMC or IDOT SSRBC.

Special provisions are organized to reference specific SSWSMC paragraph numbers. For example, Special Provision 20-2.01A shall modify Section 20-2.01A of the SSWSMC, and Special Provision 201.11 shall modify Article 201.11 of the IDOT SSRBC.

1.4 EXCLUSIONS

Only the following section of Division 1 of the SSWSMC shall apply to this Contract:

- All reference to Division 1, Section 9-4 of the Standard Specifications, Payment For Extra Work, shall refer to the Standard General Conditions in this Contract.

Wherever provisions in Divisions II through VII of the Standard Specifications conflict with Division I of this document, provisions in Division I of this document shall govern.

The following articles of IDOT SSRBC shall not apply to this Contract:

- Articles 102 through 109.
- All reference to Article 109.04 of the IDOT SSRBC, Payment for Extra Work, shall refer to the Standard General Conditions in this Contract.

PART 2-STANDARD SPECIFICATIONS

SECTION 20. EXCAVATION AND BACKFILL FOR PIPES

20-1A METHOD OF PAYMENT

Add the following section:

All trench excavation, except rock excavation as defined in Section 20-2, shall be considered incidental to the cost of the pipe or associated structure being installed and will not be measured separately for payment.

20-2 DEFINITIONS

Rock Excavation-Revise the wording from "one-half (1/2) cubic yard (0.4 cubic meter)," to "one (1) cubic yard."

Final Backfill-Final backfill shall consist of backfilling from the top of initial backfill to the natural or finished surface line or to the underside of proposed pavement base.

20-3.01 FOUNDATION, BEDDING, AND HAUNCHING

Replace this section with the following:

Foundation, bedding and haunching material shall be gradation CA-6 or CA-7 meeting the requirements of IDOT SSRBC. For polyethylene encased piping foundation, bedding and haunching shall be gradation FA-2 meeting the requirements of IDOT SSRBC.

20-3.02 INITIAL BACKFILL

Initial backfill material shall be gradation CA-6 or CA-7 meeting the requirements of IDOT SSRBC. For polyethylene encased pipe, initial backfill shall be gradation FA-2 meeting the requirements of IDOT SSRBC.

20-4.01 SURFACE REMOVAL AND TOPSOIL PRESERVATION

Section 201 of the IDOT SSRBC shall also apply to all operations on the project.

20-4.04 REMOVAL OF WATER

Add the following paragraphs to this section:

CONTRACTOR shall take all necessary precautions during the dewatering operation to protect adjacent structures against subsidence, flooding, or other damage. Prior to dewatering, CONTRACTOR shall take into account the effect of his proposed dewatering operation on existing private water supply systems and shall make arrangements with property owners for protecting their supplies or providing alternative supply.

In areas where continuous operation of dewatering pumps is necessary, CONTRACTOR shall avoid noise disturbance to nearby residences to the greatest extent possible.

Any permits necessary for the dewatering operations shall be obtained and paid for by CONTRACTOR.

No extra payment will be made for dewatering of the trench.

The expense for making all extra excavations necessary to prevent water from interfering with the proper construction of the work, and for forming of all dams, digging sumps or pump wells, bailing, and pumping shall be borne by CONTRACTOR.

Dewatering discharges shall be provided with erosion control filters to remove sediments and to protect open drainage ways and surface waters. Erosion control filters required for dewatering operations shall not be paid for separately, but shall be considered incidental to the work.

20-4.05 TRENCH EXCAVATION, FOUNDATION, BEDDING AND HAUNCHING

Replace the second sentence in the ninth paragraph in this section with the following:

Haunching shall extend for the entire width of the trench and length of the pipe for all pipe materials at all locations.

Add the following to the fourth paragraph of this section:

Unsuitable soils shall be brought to the attention of ENGINEER prior to removal. No payment shall be made for foundation material where the unsuitable soils have not been viewed by ENGINEER.

Add the following to the end of this section:

Excavation By Hand Or Machine

The elevations shown for existing work and ground are reasonably correct, but are not guaranteed to be absolutely accurate. No extras will be allowed because of variations between Drawings and actual grades.

The trench shall be excavated so the pipe can be laid to the alignment and depth required. The trench shall not be excavated more than 100 feet in advance of pipe laying.

Prior to all excavating, CONTRACTOR shall become thoroughly familiar with the site and site conditions.

Notification by letter explaining the nature of work, time of completion, and inconvenience shall be delivered to all property owners affected by excavation at least 72 hours prior to commencing excavation.

Deviations Occasioned by Structures or Utilities

CONTRACTOR shall accurately locate and record abandoned and active utility lines re-routed or extended on project record Drawings.

20-4.06B FINAL BACKFILL

Delete the table in paragraph (1), Method 1, and add the following to the end of this paragraph:

Consolidation shall be achieved by use of vibratory plate compactors, self-propelled hydrostatic drum compactors, or backhoe operated hydraulic compactors. The lift height shall not exceed 8 inches for vibratory plate compactors. Lift height shall not exceed the following for self-propelled hydrostatic drum compactors and backhoe operated hydraulic compactors: For loam clay soils (18 inches), for loam soils (24 inches), and for granular soils (36 inches). Smaller lift heights shall be provided as necessary to achieve the degree of compaction required.

Compaction density shall be a minimum of 95% of the maximum dry density as determined by the Modified Proctor Test (ASTM D1557).

Backfill material not meeting compaction requirements shall be re-compacted by CONTRACTOR at no cost to OWNER. Cost for additional testing required on re-compacted materials shall be at CONTRACTOR's expense.

Delete Method 2 in its entirety. Jetting or depositing backfill in water shall not be allowed and is not an acceptable method for compaction unless allowed in writing by OWNER.

Add to paragraph (3)-Method 3, the following:

In locations shown on the Drawings, utility trenches shall use flowable fill as final backfill. Flowable fill shall meet the requirements of IDOT Recurring Special Provision for Controlled Low-Strength Material (CLSM).

Add the following paragraphs to the beginning of this section:

All trenches shall be backfilled using specified material so that excessive lengths of trench are not left open. In general, the backfilling operation shall proceed so that no more than 100 feet of trench is open behind the pipe laying operation.

In all areas, the backfill shall be left below the original surface to allow for placement of topsoil, sod, or crushed aggregate surfacing, plus any pavement replacement required. If settlement occurs, CONTRACTOR shall restore the surface improvements at its own expense to maintain the finished surface.

If during the progress of work, existing mains, sewer, and conduits or pipes are exposed in an unsupported condition, either the backfill beneath them shall be mechanically consolidated, or bedding material conforming to the Standard Specifications shall be placed beneath, around, and to a point six (6) inches over them to provide full support.

CONTRACTOR may backfill with the excavated material, provided that such material consists of loam clay, sand, gravel or other materials, which, in the opinion of ENGINEER, are suitable for backfilling.

All backfill material shall be free from cinders, ashes, refuse, vegetable or organic matter, boulders, rocks or stone, frozen lumps, or other such deleterious, unsuitable material. However, from one foot above the top of the pipe to the street subgrade, material containing stones up to eight inches in their greatest dimension may be used, unless otherwise specified.

20-4.11 EROSION CONTROL

Add the following paragraph:

Erosion controls shall be installed as shown on the Drawings and at all storm water inlets and flared end sections. Filter fabric shall be installed under inlet grates.

Erosion control barriers shown on the Drawings shall consist of hay bales, jute net rolls, or silt fencing. Erosion control barriers shall be paid for per each at the unit price bid for Erosion Control Barriers.

20-5 MEASUREMENT AND PAYMENT

Add the following at the end of this section:

Bedding and haunching for all piping on the project shall be considered incidental to the pipe and will not be measured separately for payment.

20-5.03A SELECT GRANULAR BACKFILL AS INITIAL BACKFILL

Replace this section with the following:

Regardless whether flexible or rigid pipes are used, the selected granular material required for initial backfill will not be eligible for payment but shall be considered as included in the cost of the flexible pipe being installed.

SECTION 21: RESTORATION OF SURFACES

21-2.01A(1) TEMPORARY SURFACE OVER TRENCH

Add the following:

(3) The temporary surface shall consist of aggregate surface course, constructed in accordance with Section 402 of the IDOT SSRBC.

21-2.01B MEASUREMENT

Delete this section.

21-2.01C PAYMENT

Replace this section with the following:

The cost of providing and maintaining the temporary surface over trench shall be included in the bid prices for the respective pipe and will not be paid for separately.

21-2.03 REPLACEMENT OF PERMANENT TYPE PAVEMENT, SIDEWALKS, DRIVEWAYS, CURBS, GUTTERS, AND STRUCTURES

Add the following paragraphs to this section:

All existing catch basins, inlets, manholes, and valve vaults within the paving limits of the street, which require adjustment, shall be adjusted to match the finished surface. Adjustments shall not be made

greater than 48 hours prior to the anticipated time of paving. Adjustments shall be performed as called for in Sections 602 and 603 of the IDOT SSRBC. CONTRACTOR shall furnish Class 1 barricades with flashers on all adjusted castings until paving has been completed. Upon completion of paving operations, CONTRACTOR shall check all castings and grates to insure that the lids are clean and operational. Valve box adjustment shall be considered an incidental item of work.

CONTRACTOR shall remove existing pavement as a part of the pipe or structure installation. The width of pavement removed shall be the minimum possible, in accordance with Section 21-2.02 of the Standard Specifications.

All pavement shall be cut on neat, straight lines and shall not be damaged beyond the limits of the excavation. Should the cut edge be damaged, a new cut shall be made in neat, straight lines parallel to the original cut encompassing all damaged areas. Pavement removal shall be extended to a seam or joint if seam or joint is within three feet of damaged pavement.

Concrete pavement shall be removed in accordance with Article 442.05 of the IDOT SSRBC.

All concrete and asphaltic sawcuts shall be considered incidental to related work.

21-2.03D HOT-MIX ASPHALT OR BITUMINOUS TREATED SURFACE OVER A FLEXIBLE BASE

Add the following to this section:

Where pavement removal and replacement are indicated on the Drawings, the replacement pavement shall be the same as the removed pavement as detailed on the drawings, or, at a minimum, shall consist of the following:

Aggregate Base Course Type B	8 inches
Geotextile Fabric (public roadways only)	SUPAC-N5, or equal
Hot-Mix Asphalt Binder Course, IL-19, N50	1 1/2 inches
Hot-Mix Asphalt Bituminous Concrete Surface Course, Mix C, N50	1 1/2 inches

CONTRACTOR is to furnish mix design information and shall be responsible for obtaining nuclear density testing to confirm compaction in accordance with the IDOT SRBC.

21-2.03F CONCRETE SIDEWALKS, DRIVEWAYS, CURB, CURB AND GUTTER

Add the following to this section:

All pavement replacement is to be coordinated with property owners and ENGINEER on drives and parking lots. In general, access must be maintained to all properties at all times. This will require CONTRACTOR to take measures such as:

- Replace one drive, cure, and open traffic before beginning work on second drive in areas with alternate means of access.
- Replace one-half of a drive at a time.
- Provide a temporary aggregate access drive until the permanent drive is completed.

Immediately upon completion of pipe laying, all paved surfaces are to be brought up to the grade of the adjoining surface with IDOT Gradation CA-6 aggregate. This aggregate surface is to be maintained until CONTRACTOR completes permanent pavement replacement. Property owners are to be notified

by CONTRACTOR at least 48 hours before any access is restricted, either for initial pipe installation or pavement replacement.

All concrete surfaces shall be saw cut at termination unless an existing joint exists. All concrete shall be placed on a 4-inch compacted aggregate base, Gradation CA-6. Base course to be constructed in accordance with Section 301 of the IDOT SSRBC. All concrete shall be high early strength, air-entrained conforming with Section 1020 of the IDOT SSRBC.

CONTRACTOR is to furnish mix design information, as well as test cylinder results for approval before concrete work begins. Mixing, transportation, placement, jointing, curing, and protection of all concrete surfaces shall be in conformance with the pertinent section of the IDOT SSRBC.

The class of concrete for all concrete shall be PV, as described in Article 1020.04 of the IDOT SSRBC.

21-2.05C PREPARATION OF SEED BED

Add the following to this section:

Topsoil shall be placed to a uniform depth of 4 inches in place. Topsoil placement shall be incidental to Restoration-Seed or Restoration-Sod. Any deficiencies in the salvaged topsoil quantity shall be supplemented with topsoil furnished by CONTRACTOR at CONTRACTOR'S expense.

21-2.05D SEEDING METHODS

Add the following to this section:

All seeded areas shall be covered by excelsior blanket.

21-2.05.J MEASUREMENT AND PAYMENT

Surfaces to be sodded or seeded shall not be measured separately. Payments shall be made at the Contract lump sum unit price bid for Restoration-Seed or Restoration-Sod. Topsoil, fertilizer, excelsior blanket, and mulch shall be considered incidental to sodding or seeding and will not be paid separately.

ENGINEER has estimated the following quantities for restoration:

Restoration-Seed		SY
Restoration-Sod		SY

If OWNER requests additional work requiring restoration, the above quantities will be used along with the lump sum bid to determine a unit price for restoration.

21-2.06 DISPOSAL OF SURPLUS EXCAVATED MATERIAL

Add the following paragraph to this section:

Cost for removal, disposal, and abandonment of existing utilities shall be considered incidental to the work unless otherwise specified by these special provisions.

21-3 MEASUREMENT AND PAYMENT

Delete the list of pay items for "Restoration of Surfaces" and refer to the list of pay items contained in the Bid section of these Specifications.

SECTION 22: EXPLORATORY EXCAVATION

22-3 EXPLORATORY EXCAVATION-MEASUREMENT

Replace this section with the following:

Exploratory excavations shall be measured per each.

22-4 EXPLORATORY EXCAVATION-PAYMENT

Replace this section with the following:

Payment for exploratory excavations shall be made at the unit price bid per each.

SECTION 23: TRENCHLESS CONSTRUCTION METHODS (TCM)

23-3.02B CURRENT TERMS

Add the following paragraph to (1) Augur Boring and Jacking:

Casing pipe shall be installed using equipment and material that cases the hole as earth is removed in order to minimize cavities at the lead end of the casing pipe. Grouting between casing pipe and soil opening shall be performed when needed to secure casing pipe, to prevent soil collapse, and to fill voids between the casing pipe and native soil.

Replace the second and third paragraphs in (1) Augur Boring and Jacking with the following:

The carrier pipe shall be placed inside the casing pipe with prefabricated spacers or on hardwood blocks which are shaped to fit both the casing pipe and carrier pipe. At least two spacers or blocks shall be provided for each length of rigid pipe, and three spacers or blocks shall be provided for flexible pipe. They shall be banded to the barrel of the carrier pipe so they are parallel to the longitudinal centerline. Payment for spacers shall be considered incidental to the casing pipe.

After the installation of the carrier pipe and if noted on the Drawings, the annular space between the casing and the carrier shall be filled with blown pea gravel meeting the requirements of the IDOT SSRBC. In all cases, the ends of the casing pipe shall be sealed with brick and mortar, concrete, or synthetic seals specifically made for this purpose. Filling and grouting of the casing pipe shall not be paid for separately, but shall be considered incidental to the work.

Add the following to this section:

(9) Casing Pipe in Trench: Where indicated on the Drawings, casing pipe of the type and dimensions noted on the Drawings shall be laid in a trench.

Where steel casing pipe is called for on the Drawings, the pipe shall have a wall thickness and meet the requirements of Section 23-3.02B of the Standard Specifications, unless otherwise noted in the Drawings or Specifications.

If a carrier pipe is to be placed inside the casing pipe, all work must meet the requirements of (1) Augur Boring and Jacking.

Payment for casing pipe in trench shall be paid for at the contract unit price per linear foot for Casing Pipe in Trench of the type and size indicated. Excavation, sheeting, bracing, backfilling, filling, grouting, shims, chocks, lubricants, disposal of surplus materials, and other miscellaneous items needed to complete the work as specified will not be paid for separately. Where installation includes both casing pipe and carrier pipe, payment shall cover all costs associated with both pipes and separate payment will not be made for the carrier pipe.

SECTION 24: DUST CONTROL

24-1 DESCRIPTION

Add the following to this section:

Dust control shall be required at the end of each work day and at other times as required by OWNER or ENGINEER.

24-4 MEASUREMENT AND PAYMENT

Replace this section with the following:

Dust control shall be considered incidental to the work.

SECTION 30. PIPE MATERIAL FOR SANITARY SEWER MAINS

30-4.04 POLYVINYL CHLORIDE (PVC) SEWER PIPE

Add the following to this section:

Polyvinyl Chloride (PVC) pipe shall have a minimum modulus of elasticity of 500,000 psi.

Pipe and fittings shall be the product of one manufacturer and the manufacturer shall have experience records substantiating acceptable performance of the pipe and fittings to be furnished. The minimum wall thickness of fittings shall be the same as the pipe to which it connects.

Acceptance of piping and fittings shall be subject to tests conducted by a testing agency in accordance with ASTM D3034 and/or ASTM F679.

Fittings such as saddles, elbows, tees, wyes, and others shall be of material and construction corresponding to and have a joint design compatible with the adjacent pipe. Approved adapters shall be provided for transitions to other types of pipe.

Solvent cemented joints shall not be allowed. All joints on PVC sewer shall be flexible elastomeric seal type with bells and spigots conforming to ASTM D-3212. Gaskets shall conform to ASTM F-477. All bells shall be formed integrally with the pipe and shall contain a factory-installed elastomeric gasket which is positively restrained.

30-4.04B POLYVINYL CHLORIDE (PVC) SEWER PIPE

Add the following to this section:

PVC material for ASTM F679 pipe shall have a minimum modulus of elasticity of 500,000 psi. Pipe stiffness shall be a minimum 115 psi when tested in accordance with ASTM D2412.

30-4.06 HIGH DENSITY POLYETHYLENE (HDPE) PIPE

Change the standard for heat fusion joints from ASTM D2657 to ASTM F2620.

30-4.07 PRESTRESSED CONCRETE CYLINDER (PCCP) PIPE

Delete the reference to solvent cemented joints. Joints shall be bell and spigot type with elastomeric seals.

30-4.10 SANITARY FORCE MAIN

Add this section:

PVC sanitary force main shall be PVC pressure pipe, Class 235, SDR 18, cast iron O.D. with integral bell meeting AWWA C900 standards, using slip joints with elastomeric rings meeting ASTM F-477.

Fittings on PVC sanitary force main shall be ductile iron and shall be restrained using Meg-A-Lug restraint system. Fittings and Meg-A-Lug joints shall be wrapped in polyethylene.

SECTION 31. PIPE LAYING, JOINTING AND TESTING

31-1.01 SANITARY SEWER PIPE LAYING

Add the following to this section:

Prior to commencing pipe laying, CONTRACTOR shall notify ENGINEER of his intended date for starting work. OWNER may require the removal and relaying of pipe that was installed prior to notification of ENGINEER.

Proper implements, tools, and facilities shall be provided and used by CONTRACTOR for the safe and convenient prosecution of the work. All furnished pipe, materials, fittings, and appurtenances shall be carefully lowered into the trench, piece by piece, by use of a crane, rope, or other suitable tools or equipment, in such manner as to prevent damage to materials. Under no circumstance shall pipe be dropped or rolled into the trench. Pipe installation shall meet the requirements of these specifications, as well as installation requirements of the pipe manufacturers.

Pipes and main furnished shall be of the sizes and at locations as shown on the Drawings. All required bends, fittings, valves, and appurtenances shall be furnished and installed to provide a complete installation. Pipe shall be furnished of adequate strength to meet installed trench conditions and loads imposed, all in accordance with applicable current standards controlling manufacture and installation of the material used.

Pipe Laying: Preparatory to making pipe joints, all surfaces of the portions of the pipe to be joined or of the factory-made jointing material shall be clean and dry. Lubricants, primers, adhesives, and other joint material shall be used and installed as recommended by the pipe or joint manufacturer's specifications. The jointing materials of factory-fabricated joints shall then be placed, fitted, joined, and adjusted in such a workmanlike manner as to obtain the degree of water tightness required. Pertinent specifications from the joint and pipe manufacturer which outline procedure to be followed in making the joint shall be furnished to ENGINEER.

Pipe shall be brought home by using a cross member and levers or jacks. It will not be permissible to push pipe home with motor power equipment. All foreign material shall be removed from the pipe prior to acceptance.

Sewer main shall be installed to an elevation tolerance of plus or minus 0.03 feet of the drawing elevation or elevation provided on the grade sheet at any point along the main.

31-2 MEASUREMENT

Delete the fourth paragraph from this section and replace with the following:

Tees and fittings shall not be paid for separately, but shall be considered incidental to the sewer pipe. Service risers shall be paid per linear foot for sanitary service pipe to include 45-degree bend and plug, as shown on the Drawings.

31-3 PAYMENT

Replace this section with the following:

General: Payment for changes in quantities as shown in the Bid and Contract shall be made in accordance with the unit prices bid. No change of grade, alignment, or location shall annul or impair the Contract made and entered into relative to said work. Payment shall be made for the quantities of each bid item as actually installed. In the event it is necessary or desirable to change the grade and depth of main or appurtenances, the unit price bid shall apply to depth as actually constructed. No more than ninety percent (90%) of the value of work included in the unit price for "Sewer Construction—Pipe Sewers" shall be eligible for inclusion in a partial payment estimate until leakage tests have been performed and the pipe and joints are found to be satisfactory.

Sanitary Sewer: Payment for sanitary sewers will be made as listed in the Bid for furnishing all materials, labor, and equipment for the complete installation of sewers and appurtenances as shown and specified. The prices bid shall include the pipe, excavation, dewatering, bedding, laying, jointing, initial backfilling, final backfilling, temporary surface, and all other labor and material required for complete compliance with these specifications. The cost of all connections to existing sewers, mains, and appurtenances shall be included in the price bid for related sanitary sewer items. Unless otherwise shown on the Drawings or specified, the price as bid for sanitary sewers and appurtenances shall include the cost of backfilling with existing materials.

Payment will be made for lengths and depths of sanitary sewers and appurtenances as actually installed.

Leakage testing and deflection testing shall not be paid for separately, but shall be included in the unit price bid for the respective piping.

Delete the list of measured pay items and refer to the list of pay items contained in the Bid section of these Specifications.

SECTION 32. MANHOLE AND STRUCTURES FOR SANITARY SEWERS

32-4 PRECAST MANHOLES AND STRUCTURES

Delete paragraph 2 in its entirety.

Add the following to this section:

Manholes shall be constructed with eccentric cone top sections. Where sufficient height is not available for an eccentric cone, flat slabs shall be provided.

When either groundwater or surface water is present in manhole excavations, it shall be removed to a level at least four inches below the bottom of the precast or poured-in-place bottom and 4 inches of bedding material shall be installed. The manhole excavation shall be leveled to provide a firm foundation for precast bottoms.

All pipe connection openings except for concrete storm sewer shall be precast with resilient rubber water-tight pipe to manhole sleeves or seals, per ASTM C-923. Rubber gasketed manhole coupling shall be Kor-N-Seal, A-lok, or equal.

32-4.02 EXTERNAL SEALING BANDS

Manhole frame and chimney seals shall be installed on all sanitary manholes. A rubber seal extension, to cover any additional heights of chimney not covered by the standard seal itself, shall be furnished and installed as required. The rubber seal and seal extensions shall be as manufactured by Cretex Specialty Products, Adaptor Inc., or equal.

The sleeves and extensions shall have a minimum thickness of 3/16-inch and shall be extruded or molded from a high grade rubber compound conforming to applicable requirements of ASTM C-923, with a minimum of 1,500 psi tensile strength, maximum 18% compression set, and a hardness (durometer) of 48°5.

Mechanical bands used for compressing the sleeve and extension against the manhole shall be fabricated from 16 gauge stainless steel conforming to ASTM A-240, Type 304. Any screws, bolts, or nuts used on this band shall be stainless steel conforming to ASTM F-593 and 594, Type 304.

The sleeve shall be capable of vertical expansion of not less than 2 inches when installed.

32-5 MANHOLE STEPS

Replace this section with the following:

Manhole steps shall be installed in all manholes by the manhole manufacturer. Manhole steps shall be cast iron conforming to ASTM A-48, East Jordan Iron Works No. 8518, or M.A. Industries, Inc. PS1-PF of 1/2-inch-diameter steel reinforcing rod conforming to ASTM A-615, Grade 60, with molded copolymer propylene covering conforming to ASTM 04101, Type PP200B33450Z02.

Manhole steps shall be inserted in manhole riser, cone, and flat slab sections prior to initial set of the concrete in accordance with ASTM C-478, and shall have maximum embedment and pull-out resistance in accordance with ASTM C-478.

The top step shall be located 10 inches or less from the top of the cone section. Steps shall be a maximum 16 inches apart.

32-8 PIPE CONNECTIONS

Add the following to this section:

Manhole connections for sanitary sewer mains and laterals shall be made using flexible, watertight connections, A-Lok, Interpace, PS-10, KOR-N-SEAL, or equal.

32-12 INSPECTION AND TESTING FOR ACCEPTANCE

Add the following to this section:

All lift holes shall be plugged and any penetrations of the manhole or pipes entering the manhole shall be plugged and braced to prevent them from being drawn into the manhole. A vacuum pump capable of creating the required head condition and a pressure gauge graduated to 0.10 inches of mercury (0.10 psi) shall be used to measure vacuum pressure.

The test head shall be applied at the top of the manhole excluding casting and lid, in accordance with manufacturer's recommendations. A vacuum of 10 inches of mercury (4.90 psi) shall be drawn on the manhole and held. The time shall be measured for the vacuum to drop to 9 inches of mercury (4.41 psi).

The manhole shall pass if the time for vacuum reading to drop from 10 inches of mercury (4.90 psi) to 9 inches of mercury (4.41 psi) meets or exceeds the values in the following table:

Manhole Diameter (Inches)									
	30	33	36	42	48	54	60	63	72
Depth (ft)	Time in seconds								
8	11	12	14	17	20	23	26	29	33
10	14	15	18	21	25	29	33	36	41
12	17	18	21	25	30	35	39	43	49
14	20	21	25	30	35	41	46	51	57
15	22	24	29	34	40	46	52	58	67
18	25	27	32	38	45	52	59	65	73
20	28	30	35	42	50	53	65	72	81
22	31	33	39	46	55	64	72	79	89
24	33	36	42	51	59	64	78	87	97
26	36	39	46	55	64	75	85	94	105
28	39	42	49	59	69	81	91	101	113
30	42	45	53	63	74	87	98	108	121

If a manhole fails the test, necessary repairs shall be made to the manhole and then retested until a satisfactory test is obtained.

Payment for manhole testing shall not be paid for separately but shall be considered incidental to the cost of the manhole.

32-14 PAYMENT

Add the following to this section:

The price bid for manholes shall include the cost of all material, work, excavation, and backfilling necessary for construction of manholes as shown on the Drawings and as specified. Special bedding or pipe adjacent to manholes to standard trench width shall be included in the manhole price. The price bid shall include the furnishing and installation of casting, adjusting rings, seals, steps, and concentric, eccentric cone, or flat slab as shown or called for on the Drawings.

Drop manhole connections shall be paid for at the unit price bid per each for drop manhole connections. The price bid shall include all material, labor, equipment, extension of sewer to undisturbed ground, connections to manhole and mainline sewer, concrete, backfill, and all necessary items for a complete installation.

SECTION 33: SANITARY SERVICE SEWERS

33-6 MEASUREMENT

Replace the last sentence with the following:

Tees, wyes, and bends shall not be measured separately, but shall be considered incidental to SANITARY SERVICE SEWER.

33-7 PAYMENT

Replace the last sentence with the following:

Tees, wyes, and bends shall not be measured separately, but shall be considered incidental to SANITARY SERVICE SEWER.

SECTION 40. PIPE FOR WATER MAINS AND SERVICE CONNECTIONS

40-2.01 PIPE MATERIALS

Add the following paragraph to this section:

All pipe and materials used in performance of the work shall be clearly marked as to strength, class, or grade. Pipe and materials not so marked shall be subject to rejection.

40-2.01B DUCTILE IRON PIPE

Replace this section with the following:

All water main pipe shall be ductile iron, Class 52, minimum rated working pressure of 150 psi, designed in accordance with ANSI/AWWA C150/A21.50. Joints shall be gasketed bell and spigot type push-on TYTON Joints in accordance with ANSI/AWWA C111/A21.11. Interior and exterior of pipe shall have a bituminous coating, as specified in AWWA C151. Inner surfaces of all ductile iron water piping shall have a cement mortar lining in accordance with the requirements of AWWA C104. Type of pipe shall be clearly marked on pipe by manufacturer.

All buried ductile iron piping and fittings shall be polyethylene encased in accordance with AWWA C105. Polyethylene encasement shall be a minimum 8 mil thickness. Any rips or punctures shall be repaired prior to backfilling pipe.

In cases where corporation stops are to be tapped into mains, pipe wall thickness shall be furnished as specified in AWWA C151 to provide engagement of four threads, or pipe saddles shall be furnished as approved by the manufacturer.

40-2.05A CAST IRON OR DUCTILE IRON PIPE FITTINGS

Replace this section with the following:

All standard water main pipe fittings sizes 3 inches through 24 inches shall be ductile iron Class 350 conforming to requirements of ANSI/AWWA C153/A21.53 and ANSI/AWWA C111/21.11. All water main fittings shall have a cement mortar lining in accordance with the requirement of ANSI/AWWA C104/A21.4. Fittings shall be furnished with a rated working pressure of 150 psi. All fitting joints shall be mechanical joint unless specified otherwise on the Drawings.

Special fittings shall be furnished and installed as shown on the Drawings and as specified. CONTRACTOR shall be responsible for furnishing and installing all fittings necessary to construct the water main and appurtenances in the locations shown on the Drawings at the specified depth of bury and for making all necessary connections to existing mains.

40-2.06C STOPS AND FITTINGS

Add the following:

Corporation stops shall be Mueller H-15000 AWWA taper by copper flare.

Curb stops shall be Mueller H-15204 copper flare by copper flare. Service boxes shall be Tyler 95E, screw-type adjustable.

All service boxes shall be cast iron, Tyler 6500 series screw-type model 95-E for one inch through 2 inches. All service boxes 1 1/2 inches and larger shall have enlarged bases.

All service saddles shall have a ductile iron body and stainless steel straps, Smith Blair model 317 double service strapped.

SECTION 41: PIPE INSTALLATION FOR WATER MAIN

41-2.02 EXCAVATION, BACKFILL, AND CLEAN UP DEPTH OF PIPE COVER

Replace the second paragraph with the following:

The minimum depth of cover for water main and water service laterals shall be 5 feet below existing ground or the proposed grade, whichever results in the greater depth. The depth shall be increased as shown on the plan and profile sheets or as necessary to avoid conflict with other utilities at no change in bid price. Deviation from grade shall not exceed ± 0.1 feet. Special care shall be taken with regard to grade in the vicinity of existing and planned utility crossings.

41-2.04 LAYING OF PIPE ON CURVES

Add the following paragraph to this section:

No additional payment will be allowed for water main fittings. The cost of all water main fittings shall be considered incidental to the cost of the water main piping.

41-2.10 THRUST BLOCKING

Replace the first, second, and sixth paragraphs in this section with the following:

Force main and water main shall be installed in accordance with AWWA C600 for iron pipe, AWWA C605 for PVC pipe, and AWWA M55 for HDPE pipe. All plugs, caps, tees, hydrants, bends, and other fittings for water mains and force mains shall be provided with restrained joints.

The minimum length of pipe to be restrained shall be as shown in the following table:

REQUIRED LENGTH OF RESTRAINED PIPE BEYOND FITTING IN FEET

Fitting	Minimum Length—Ft
90 Degree Bend (≤ 6 inches)	36
90 Degree Bend (8 inches to 10 inches)	54
90 Degree Bend (12 inches to 14 inches)	72
90 Degree Bend (16 inches)	84
45 Degree Bend (≤ 8 inches)	18
45 Degree Bend (10 inches to 16 inches)	36
22 1/2 Degree Bend ≤ 16 inches	18
11 1/4 Degree Bend ≤ 16 inches	9
Fire Hydrant Leads	All Joints
End of Line Tees (≤ 4 inches)*	18 (Along Branch)
End of Line Tees (6 inches to 8 inches)*	36 (Along Branch)
End of Line Tees (10 inches to 12 inches)*	54 (Along Branch)
End of Line Tees (14 inches to 16 inches)*	72 (Along Branch)

*Restrained run length on tees assumed 18 feet on each side of fitting

This table assumes horizontal orientation of fittings, 150 psi test pressure plus a 100 psi water hammer allowance, ductile iron pipe, and a 3-foot bury. Lengths shall be adjusted for other conditions and fittings. For other fittings and for more specific requirements, see the Drawings or **SPECIAL PROVISIONS**.

Pipe restraint fittings shall be provided as follows:

- a. For ductile iron pipe with ductile iron mechanical joints MEGALUG® Series 1100 or 1100SD by EBAA Iron Sales, Inc.; Series D-SLDE or SSLD by Sigma; Series 3000 or 3000S by Star Pipe Products; or equal.
- b. For ductile iron pipe with ductile iron push-on joints MEGALUG® Series 1100HD or 1700 by EBAA Iron Sales, Inc; Series SLDEH or SSLDH by Sigma; Series 3100P or 3100S by Star Pipe Products; Flex-Ring or Lok-Ring by American Cast Iron Pipe Company; TR Flex by U.S. Pipe Company; or equal.

- c. For PVC pipe with ductile iron mechanical joint fittings—MEGALUG® Series 2000 PV, 1100SV, or 2000SV by EBAA Iron Sales, Inc.; Series D-SLCE or PVM by Sigma; Series 1000C or 4000 by Star Pipe Products; or equal.
- d. For PVC pipe with PVC push-on joints (not solvent welded)—MEGALUG® Series 1100HV, 1900, or 2800 by EBAA Iron Sales, Inc.; Series SLCEH, PWP, or D-PWP by Sigma; Series 4100P by Star Pipe Products; or equal.

Gland body, wedges, and wedge actuating components shall be ductile iron conforming to ASTM A536 Grade 65-45-12. Bolts and tie rods shall be high-strength low-alloy steel conforming to AWWA C111.

Gaskets that include metal locking segments vulcanized into the gasket to grip the pipe to provide joint restraint are not acceptable.

41-2.11 CONNECTION TO EXISTING MAINS

Add the following to this section:

Where shown on the Drawings, CONTRACTOR shall make connections to existing mains. Connections shall be performed to minimize time that the distribution system is out of service, but in no case shall service be interrupted without prior 48 hours notice to the ENGINEER and for more than four hours. All labor, materials, and equipment required to make the connection to the existing main shall be included in the unit price bid per each for Connection to Existing.

41-2.13 WATER SERVICE CONNECTION

Add the following paragraphs to this section:

CONTRACTOR shall be responsible for all costs of providing and maintaining temporary water service to any buildings where water service or water wells are interrupted due to construction.

On all dead-end water main stubs the MJ cap or plug shall be tapped and provided with a 3/4-inch corporation stop. Care shall be taken in placing concrete for thrust block to protect the corporation and retain operability. Ends shall be marked with a wood 4 inches by 4 inches post painted blue. All costs for this work shall be included in the unit price bid for Ductile Iron Water Main.

All copper service lines shall have flare joints at the corporation and curb stop. The service shall be continuous with no joints between the corporation and curb stop.

41-2.14A PRESSURE TEST

Delete this section and refer to leakage test.

41-2.14C LEAKAGE TEST

Replace paragraph (1) with the following:

As part of the construction, water mains shall be pressure and leakage tested in accordance with this section. All testing shall be performed before curb and gutter or other permanent type surface improvement work begins. OWNER and ENGINEER shall be notified at least 24 hours before the test. The filling of the water main shall be at a rate set by OWNER with all hydrants and whips in the open

position and slowly closed in the order in which water appears. A form documenting the test procedure and results shall be signed by CONTRACTOR and OWNER's representative witnessing the test.

All newly-laid pipe shall be subjected to a hydrostatic pressure of 150 pounds per square inch, in accordance with AWWA C-600. Duration of each pressure test shall be for a period of not less than two hours. Each valved section of pipe shall be filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe. Before applying the specified test pressure, all air shall be expelled from the pipe. All leaks shall be repaired until tight. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced and the test repeated until satisfactory results are obtained.

All testing shall be performed before the installation of service lines.

All materials, work, and equipment necessary for this work shall be furnished by CONTRACTOR and considered incidental to the contract unit price for Water Main.

41-2.15 DISINFECTION OF WATER MAIN

Replace the first paragraph with the following:

Disinfection of the water main shall be accomplished in accordance with Illinois Environmental Protection Agency requirements. Disinfection of water main will not be paid for separately, but will be considered incidental to the contract unit price for Water Main.

41-3 MEASUREMENT

Delete the list of measured pay items and refer to the list of pay items contained in the bid section of these specifications.

41-4 PAYMENT

Refer to the list of pay items contained in the Bid section of these Specifications. Fittings shall not be paid for separately, but shall be considered incidental to the pipe.

SECTION 42: GATE VALVES FOR WATER MAINS

42-2.01 MANUFACTURE AND MARKING

Add the following to this section:

Valves 12 inches and smaller shall be epoxy-coated resilient wedge gate valves meeting the requirements of AWWA C509, cast iron, resilient seat, non-rising stem, counter-clockwise to open, 150 psi working pressure with O-ring packing box, Mueller A-2360-23.

42-3 END CONNECTIONS

Replace this section with the following:

All water main valves shall have mechanical joint ends unless otherwise specified. Meg-A-Lug retainer glands, series 1100 by EBBA Iron, Inc. shall be used on all mechanical joint valve ends.

SECTION 43: BUTTERFLY VALVES FOR WATER MAINS

43-1.01 BUTTERFLY VALVES

Replace this section with the following:

For valves 14 inches and larger, rubber seated butterfly valves conforming to the provisions of AWWA C504 shall be used. If used, such valves shall be equipped with manual operators designed for submersible service in vaults and provided with 2-inch standard AWWA nut. All butterfly valves shall be MJ-end style. Meg-a-lug retainer glands shall be used on all mechanical joint valve ends.

The bodies of the valves shall be of the best quality of cast iron, bronze-mounted and the stems of the valves shall be of the best quality of bronze. Each valve shall be constructed of the best material and shall withstand, without leaking, a 300-pound-per-square-inch hydraulic pressure and a 150-pound-per-square-inch working pressure.

All valves produced by the following manufacturer or valves of equal quality are acceptable valves:

Pratt, Model ZF11 (JOLIET)
Mueller Company—Decatur, Illinois
Kennedy Valve Manufacturing, Inc.—Elmira, New York
American Flow Control—Chicago, Illinois

43-1.02 END CONNECTION

Delete this section in its entirety.

SECTION 44: VALVE VAULTS AND BOXES FOR WATER MAINS AND WATER SERVICES

44-3.01 VALVE VAULTS OR CHAMBERS

Add the following to this section:

Valve vaults shall be of precast reinforced concrete conforming to ASTM C-478.

For 8-inch-, 10-inch-, and 12-inch-diameter valves, valve vaults shall have a 48-inch inside diameter. For pressure connections and valves 16-inch diameter and larger, valve vaults shall have a 60-inch inside diameter.

No more than two precast concrete adjusting rings with 6 inches total maximum height shall be allowed for adjustment of each valve vault casting.

Valve vaults requiring offset cones shall be positioned so that neither the inside of cone nor the manhole steps will interfere with the operation of the valve.

Manhole casting frames and covers shall be East Jordan Iron Works, Inc., 1020 and 1020A HD, embossed "WATER".

Manhole steps shall be East Jordan Iron Works, Inc. 8518 or steel reinforced plastic conforming to OSHA standards, 16 inches on center.

Valve vaults shall be provided for all water main valves.

44-3.02 CAST IRON VALVE BOXES

Add the following to this section:

Valve boxes shall be 5 1/4-inch Tyler/Union Series 6850 screw type cast iron valve box, Model 664S. All 8-inch through 12-inch gate valves shall be installed with an Adapter Inc. valve box adapter.

Fire hydrant auxiliary valves shall be gate valves conforming to the above requirements.

SECTION 45: FIRE HYDRANTS

45-2.02 HYDRANT DETAILS

Add the following to this section:

All fire hydrants shall be East Jordan Model 5-BR conforming to AWWA C-502 with 5 1/4-inch main valve opening, two 2 1/2-inch National Standard hose connections, one 4 1/2-inch National Standard pumper connection, open counter-clockwise. Operating nut shall be 1 1/2-inch pentagon. The hydrant shall have a 6-inch mechanical joint shoe attachment to a minimum 12-inch mechanical joint spool pipe separating the hydrant from the auxiliary valve. Anchor tees shall be used to secure auxiliary valve to the main.

45-2.04 PAINTING

Add the following to this section:

Fire hydrants shall be primed and painted with Rustoleum Safety Red prior to reaching the job site. Touch-up painting shall be performed after completion of installation, backfilling, and restoration work around the hydrants.

45-3 CONSTRUCTION DETAILS

Add the following to this section:

The hydrant shall be a flanged attachment to the auxiliary valve and shall be installed with MJ swivel tee with swivel MJ gland.

The fire hydrant shall be installed with the flange break line at least 1 inch above finished grade or at the elevation indicated on the Drawings.

A drainage pit 2 feet in diameter shall be excavated around each hydrant and filled completely with 3/4-inch washed gravel under and around the bowl of the drain opening. The drain field shall be covered with plastic or filter fabric to prevent migration of fines into the drain field.

Solid concrete base and thrust blocking shall be placed at the hydrant base. Care shall be taken to ensure the hydrant drain hole remains unobstructed.

CONTRACTOR shall furnish all necessary fittings in the fire hydrant lead to install the fire hydrant in a plumb condition at locations shown on the Drawings and at the specified depth of bury. The pumper nozzle of all fire hydrants shall be installed with the nozzle pointing toward the street unless otherwise

noted. ENGINEER reserves the right to alter the location of fire hydrants from that shown on the Drawings.

Fire hydrant tees as shown on the Drawings shall be incidental to the unit price bid for the fire hydrant.

CONTRACTOR shall verify depth of bury for each fire hydrant, CONTRACTOR shall provide extensions as necessary for fire hydrant to match into the surrounding ground or elevation noted on the Drawings. This shall be included in the unit price bid for Fire Hydrants.

SECTION 46: PRESSURE CONNECTION

46-3 MATERIALS

Add the following to this section:

CONTRACTOR shall verify existing water main material and use appropriate tapping equipment.

46-8 PAYMENT

Replace this section with the following:

Bid prices shall include all excavation, removals, labor, equipment, materials, and backfilling necessary to complete the installation of tapping valves of the size specified.

Refer to the list of pay items contained in the Bid section of these Specifications.

PART 3-IDOT SSRBC

110 STAKING

ENGINEER will provide the grade stakes required for all construction operations. However, CONTRACTOR shall provide a rod person to assist in grade checks for CONTRACTOR's operations throughout the project. Any grade stakes lost or damaged after their initial placement shall be replaced at CONTRACTOR's expense. CONTRACTOR shall give 72 hours notice to ENGINEER for the initial placement of grade stakes. CONTRACTOR shall provide 48 hours notice for all subsequent stakes required.

201 CLEARING, TREE REMOVAL AND PROTECTION, CARE AND REPAIR OF EXISTING PLANT MATERIAL

Limits of clearing and tree removal shall be as shown on the Drawings or as required to perform the work. CONTRACTOR shall walk the project site with ENGINEER and OWNER prior to start of clearing and tree removal to determine acceptable limits of removal and protection.

202 EARTH AND ROCK EXCAVATION

Add the following to this section:

This work shall include the removal of existing pavement, shoulders, and other materials necessary to install the proposed pavement curb, and gutter on all reconstruction sections.

Existing pavement ranges from one to 4 inches thick. Actual field conditions may vary. The pavement shall be saw cut at the removal limits. The saw cuts shall be full-depth and lines shall be straight and as close to perpendicular to traffic flow as possible. The removal depths shall be as shown in the profiles and cross sections. Removal shall extend to the proposed subgrade elevation, or at a minimum until removal of the existing bituminous concrete pavement. All work shall be performed in accordance with Sections 202 and 440.

Any excess material shall be removed from the site by CONTRACTOR. Unsuitable or unstable material excavated shall be removed from the site by CONTRACTOR and shall not be paid for separately, but shall be considered incidental to Earth Excavation.

202 SUBGRADE REMOVAL AND REPLACEMENT

This work shall be done in accordance with Sections 202, 311, and 301 of the Standard Specifications. CONTRACTOR should note that drying of the subgrade material as stated in Article 301.03 will be required where practical. This work shall consist of the removal, disposal, and replacement of all unstable or unsuitable materials found in the subgrade exposed for curb and gutter replacement or pavement reconstruction. The area and depth of subgrade removal shall be determined by OWNER or OWNER's soil consultant at the time of construction. Replacement shall consist of installing coarse aggregate material to a compacted thickness that will bring the subgrade to the proper elevation needed to receive the required base course. The coarse aggregate material shall be CA-2 gradation. The maximum depth of excavation shall be 12 inches below subgrade. If unsuitable material is still found at 12 inches below subgrade, CONTRACTOR shall notify ENGINEER, who will notify OWNER or OWNER's soil consultant, prior to further work. If requested, geotechnical fabric shall be placed in accordance with Section 210.

Prior to start of subgrade removal, CONTRACTOR shall meet the requirements of Section 301.

Payment will not be made for subgrade removal and replacement where the unsuitable soil condition was caused by CONTRACTOR's failure to adequately protect the excavation or soils and where the unsuitable soil removal was performed without notifying ENGINEER.

This work will be paid for at the contract unit price per cubic yard, measured in place at time of construction, for Subgrade Removal and Replacement, and per square yard for Geotechnical Fabric for Ground Stabilization, which price shall include all equipment, labor, and material required to complete the above described work.

202 GRADING AND SHAPING DITCHES

Clearing, grading, and shaping ditches shall be completed in accordance with the applicable articles of Sections 202, 205, 211, 212, and 252 of the Standard Specifications.

Work shall be performed as detailed in the Drawings. Final limits of improvements shall be determined in the field by CONTRACTOR. Some excavation work will be required at culvert inverts to expose culvert ends prior to cleaning culverts and at storm sewer inlets and catch basins. This work shall not be paid for separately, but shall be considered incidental to the unit bid price for the respective pipe.

All surplus or unsuitable excavation material shall be removed off-site by CONTRACTOR in accordance with Section 202. It is anticipated that some existing topsoil within grading and shaping ditch limits can be re-spread to correct grades prior to placing sodding. In addition to the excavation and

embankment work required, restoration work as described in Section 255 shall be provided in all areas of grading and shaping ditches, except that some existing topsoil will be respread.

The ditch cross section shown in the Drawings is a typical section. The proposed ditch slopes, grades, cross section, and depth shall typically blend uniformly with the adjacent ditch sections. CONTRACTOR shall be responsible to review existing site conditions prior to submitting a bid price per linear foot for Grading and Shaping Ditches. All restoration required will be paid for at the Contract lump sum price for Restoration.

205 EMBANKMENT

This work shall consist of the placement of embankment material in accordance with Section 205. This work may be required in some locations of the reconstruction sections to build the roadway subgrade to the elevation shown on the plan. It may also be required in some of the ditch grading and shaping locations to provide positive drainage. Material from other locations on the job site can be used to provide embankment if acceptable to OWNER and ENGINEER.

This work will not be paid for separately, but shall be included in the contract unit price for Earth Excavation (Special) and Grading and Shaping Ditches.

206.02 TRENCH BACKFILL

All trench backfill material shall be CA-6 or CA-7 unless otherwise noted on the Drawings.

210 FABRIC FOR GROUND STABILIZATION

Fabric for ground stabilization (geotextile fabric) shall be provided between the subgrade and subbase in areas of pavement construction or reconstruction. Fabric shall be SUPAC-N51, or equal.

255 RESTORATION

Restoration shall include providing and placing 6 inches of topsoil, salt-tolerant seed or sod, fertilizer, and watering where indicated on the Drawings, in this Specification, or by OWNER or ENGINEER, in accordance with applicable portions of Sections 211, 212, and 252 of the Standard Specifications.

Sod placed within ditch flow lines and at culvert inverts shall be staked. CONTRACTOR shall be responsible to apply additional watering applications for up to three weeks after installation of seed or sod or until acceptable catch is achieved.

ENGINEER's estimated quantity for restoration is { } square yards based on cross sections and Drawings contained in the drawing set.

CONTRACTOR shall be responsible to make his own computation for restoration in compiling the lump sum price bid. No changes will be made in the lump sum payment unless changes are made in the Drawings by ENGINEER or OWNER after award of the Contract. The lump sum unit cost will be modified more or less to reflect these changes by dividing the lump sum bid price by the total ENGINEER's estimate.

Restoration will be paid for at the Contract lump sum price for Restoration-Seed or Restoration-Sod. No additional payment will be made for supplemental seeding, watering, fertilizing, or erosion control placement necessary to obtain the proper catch.

This Contract shall include a deductive alternative bid for comparison of restoration with sod versus restoration with seed. CONTRACTOR shall provide a unit price bid for Restoration–Sod, which shall be used to calculate the Contract base bid. CONTRACTOR shall also provide a deductive alternative for Restoration–Seed. The deductive alternative shall be subtracted from the Contract base bid to determine the Contract alternative bid. The project may be awarded based on either the Contract base bid or the Contract alternative bid.

280 TEMPORARY EROSION CONTROL

Dewatering discharges shall be provided with erosion control filters to remove sediments and to protect open drainageways and surface waters.

Erosion controls shall be installed as shown on the Drawings, indicated in these Specifications, or required by law or ordinance, including at all storm water inlets and flared end sections.

301 SUBGRADE PREPARATION

Prior to subgrade removal or subbase preparation, the subgrade shall be proof rolled in the presence of ENGINEER. Subgrade preparation shall be considered incidental to the unit prices bid.

311 GRANULAR SUBBASE

Subbase granular material shall be CA-6.

424 PORTLAND CEMENT CONCRETE SIDEWALK

A 2-inch aggregate base course shall be placed and compacted in accordance with Section 351. This base shall have a finish elevation equal to the base elevation of the proposed sidewalk and shall be constructed of CA-6 gradation material.

This work shall include new or replacement of various sections of existing sidewalk as shown on the Drawings or as indicated by ENGINEER or OWNER in the field, including regrading and adjustments necessary to create a level and straight section of sidewalk.

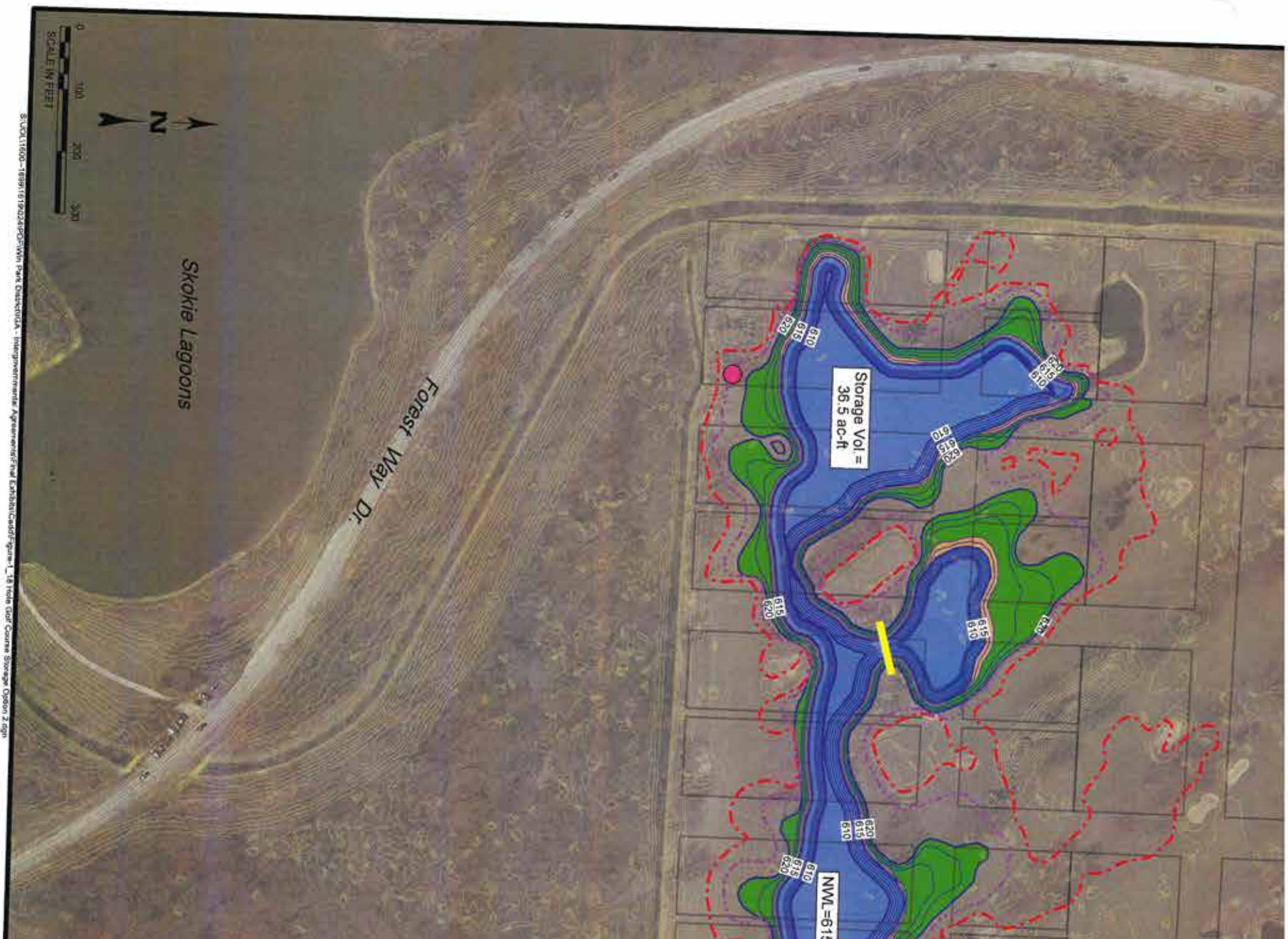
Sidewalks shall be provided with handicap ramps at all sidewalk intersections with roadways. Handicap ramps shall be in accordance with IDOT Standard Details.

Sidewalks shall be 5 inches thick in accordance with Section 423. Where sidewalks cross PCC driveways, sidewalk shall meet PCC driveway specifications and shall be paid for as PCC Driveway Removal and Replacement.

440 REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES

This work shall consist of removing and replacing driveway and sidewalk pavement at locations as shown on Drawings. The work shall be performed according to Sections 406, 423, and 440. The pavement shall be saw cut at the removal limits. The saw cuts shall be full depth and lines shall be straight and as close to perpendicular to traffic flow as possible. Removal shall include excavating enough earth or aggregate below the existing pavement to a depth that will permit construction of a full-depth pavement.

This work will be paid for at the Contract unit price per square yard for PCC Driveway Pavement Removal and Bituminous Driveway Pavement Removal, which price will include the cost of saw cutting, removal, and disposal of all concrete or bituminous materials, aggregate, and earth associated with removing the existing driveway pavement and the cost of repair and preparation of the existing base.



700 TRAFFIC CONTROL AND PROTECTION

Traffic control shall be in accordance with the applicable sections of the Standard Specifications, the Supplemental Specifications, the MUTCD, any special details and Highway Standards contained in the Drawings, and the TCI contained herein.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein as they relate to Traffic Control.

Standard Drawings—701501-02 and 702001-01, BLR 17-3, BLR 18-4, BLR 22-3

Standard Specifications, Supplemental Specifications, and Special Provisions

Construction Zone Traffic Control (LR-701-1)

Work Zone Traffic Control (Section 701)

Work Zone Traffic Control Devices (Section 702)

Flagger Certification (LR 701-2)

CONTRACTOR shall notify OWNER at least 72 hours in advance of beginning work.

The governing factor in the execution and staging of work for this project is to provide the public with the safest possible travel conditions along the roadway and walkways through the construction zone. CONTRACTOR shall arrange his operations to keep the closing of any lane of the roadway to a minimum.

The initial erection of a traffic control installation shall not include devices that are bent, scratched, faded, worn, dirty, or that otherwise present a shabby appearance. CONTRACTOR is required to conduct routine inspections of the work site at a frequency that will allow for the prompt replacement of any traffic control device that has become displaced, worn, or damaged to the extent that it no longer conforms to the shape, dimensions, color, or operational requirements of the MUTCD and the TCI or will no longer present a neat appearance to the motorist. A sufficient quantity of replacement devices based on vulnerability to damage shall be readily available to meet this requirement.

CONTRACTOR shall be responsible for the proper location, installation, and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignments consistent with barricade placement at all times. CONTRACTOR shall remove, cover, or turn from the view of the motorist all traffic control devices which are inconsistent with detour or lane assignment patterns during the transition from one construction stage to another.

CONTRACTOR shall coordinate all traffic control work on this project with adjoining or overlapping projects, including barricade placement necessary to provide for a uniform traffic detour pattern. When requested by ENGINEER, CONTRACTOR shall remove all traffic control devices which were furnished, installed, and maintained by him under this contract, and such devices shall remain the property of CONTRACTOR. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from ENGINEER.

CONTRACTOR shall ensure that all traffic control devices installed by him are operational, functional, and effective 24 hours a day, including Sundays and holidays.

CONTRACTOR shall provide a telephone number where a responsible individual can be contacted on a 24-hour-a-day basis to receive notification of any deficiencies regarding traffic control and protection. CONTRACTOR shall dispatch personnel, materials, and equipment to correct any such

deficiencies. CONTRACTOR shall respond to any call from OWNER concerning any request for improving or correcting traffic control devices and begin making the requested repairs within 2 hours from the time of notification.

When traveling in lanes open to public traffic, CONTRACTOR's vehicle shall always move with and not against or across the flow of traffic. These vehicles shall enter or leave work areas in a manner which will not be hazardous to or interfere with traffic, and shall not park or stop except within designated work areas. Personal vehicles shall not be parked within the right-of-way except in specific areas designated by ENGINEER.

CONTRACTOR shall maintain at least one lane of traffic at all times on two-lane roads and at least one lane in each direction on four or more lane roads during the construction of this project. Two flaggers will be required at all times for each separate operation where two-way traffic is maintained over one lane of pavement. CONTRACTOR shall also maintain private entrances, side roads, and pedestrian pathways along the proposed improvement. Interference with traffic and pedestrian movements and inconvenience to owners of abutting property and the public shall be kept to a minimum.

On two-lane roads CONTRACTOR is to plan its work so that there will be no open holes in the pavement and that all barricades will be removed when work is complete. On four or more lane highways there shall be no open holes in the pavement being used by the traveling public. Lane closures, if allowed, shall be in accordance with the applicable standards and any staging detail shown in the Drawings.

No road closure or restriction shall be permitted except those covered by the IDOT SSRBC.

In an emergency as determined by ENGINEER, OWNER reserves the right to immediately affix temporary repairs, placement of barricades, or provide temporary access at driveways, trench crossing, or pavement rehabilitation areas by OWNER's Public Works Department personnel at time and one-half pay rate plus any rental and/or material costs incurred, and CONTRACTOR agrees that in such event, OWNER may charge such costs that may be incurred against CONTRACTOR or its surety.

Traffic control and protection shall be incidental to the work. Delays to CONTRACTOR caused by complying with these requirements shall be considered incidental to the work and no additional compensation shall be allowed for work performed during non-work hours.

The minimum allowable temporary surface shall be aggregate with the ability to safely hold the traffic loads. Temporary access to all driveways must be provided at the end of each day. No additional compensation will be provided for the labor, equipment, or materials necessary to provide temporary access on roadways, above storm sewers and culverts, or into driveways. All temporary surfaces must be clean, well-graded, and meet the approval of OWNER. Any areas which OWNER feels need repair to be traversed must be repaired by CONTRACTOR within two hours of OWNER's request and at CONTRACTOR's expense.

Detour Route: The detour traffic control shall be installed according to applicable sections of the SSRBC and the Drawings. This detour shall remain in place until surface course and pavement markings have been installed. Local traffic shall be allowed access, however, CONTRACTOR will be responsible for providing a "pass" for each local resident. These "passes" must be displayed in their vehicle to gain access to the job site during working hours or when the road is posted closed.

Garbage trucks, busses, employees, and other vehicles entering the site to complete a local task shall be allowed access without a "pass." Although this is enacted for CONTRACTOR's benefit, a safely passable structure must be maintained at all times as described above.

Traffic Control and Protection will be paid for at the Contract lump sum price for Traffic Control and Protection.

END DIVISION 50

SECTION 33 43 00

REINFORCED CONCRETE CULVERT AND APRON ENDWALLS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: Work includes installation of reinforced concrete culvert as shown on the drawings.
- B. Related Sections: Applicable provisions of Division 01 shall govern work in this section.
- C. Payment: Reinforced concrete culvert shall be paid for at the price bid per linear foot for 'Height' by 'Width' RCP Box and shall include furnishing and installing all associated items including excavating and forming trench, bedding, reinforced concrete pipe, and backfill. Apron endwalls shall be paid for at the price bid for each for 'Height' by 'Width' RCP Box apron endwalls, and shall include furnishing and installing precast endwalls, bedding, cutoff walls, and temporary concrete block weir.

1.02 REFERENCES

- A. ASTM C33—Standard Specification for Concrete Aggregates.
- B. ASTM C76—Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
- C. ASTM C443—Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
- D. ASTM C507—Standard Specification for Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe.
- E. ASTM C655—Standard Specification for Reinforced Concrete D-Load Culvert, Storm Drain, and Sewer Pipe.
- F. ASTM C1433—Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers.
- G. ASTM D1557—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
- H. IDOT SSRBC—Section 540, Box Culverts

PART 2—PRODUCTS

2.01 REINFORCED CONCRETE PIPE

- A. Reinforced concrete pipe shall meet ASTM C76 for circular pipe, ASTM C507 for elliptical pipe, ASTM C655 for D-load pipe, or ASTM C1433 for box culvert pipe.

- B. All reinforced concrete pipe used in the work shall be of adequate strength to support the construction and trench loads applied.
- C. Not more than one lift hole per length of pipe shall be used in storm sewer. Lift holes will not be permitted in sanitary sewers.
- D. All reinforced concrete pipe and fittings shall be provided with joints and gaskets which meet ASTM C443. Joints for elliptical pipe shall be sealed with an application of a trowelable bitumastic joint sealant on the inside of the joint. All pipe shall be specifically built to fit the gasket used.
- E. Reinforced concrete pipe shall be of the class as shown on the drawings and shall have a minimum "C" wall construction, but with "B" wall reinforcing.

NTS: THE CLASS OF PIPE NEEDS TO BE IDENTIFIED EITHER ON THE DRAWINGS OR IN THE SPECIFICATIONS. THE CLASS OF PIPE IS DEPENDENT ON THE TRENCH WIDTH, THE CLASS OF BEDDING, AND THE DEPTH OF COVER. THESE CRITERIA SHOULD BE EVALUATED BEFORE SPECIFYING PIPE CLASS. INSERT REQUIREMENTS.

MODIFY TRENCH WIDTH TABLE IN PART 3 ACCORDINGLY.

- F. Acceptance of reinforced concrete pipe shall be on the basis of plant load-bearing tests, material tests, and inspection of manufactured pipe for visual defects and imperfections.
- G. Reinforced concrete bends, tees, and reducers shall be manufactured to provide for the required transitions as shown on the drawings. Sufficient additional reinforcement shall be added at the spring lines and top and bottom of the pipe to prevent shearing after installation. Repairs to complete fabricated pipe fittings shall be such that the completed unit shall have the same strength as that of the remainder of the pipe barrel and the concrete used to complete the section shall not spall or separate.

2.02 APRON ENDWALLS

- A. Concrete apron endwalls for concrete pipe sewers shall be manufactured with reinforcement and concrete conforming to the pertinent requirements for minimum Class II, Wall B, reinforced concrete pipe as specified in ASTM C76. Concrete apron endwalls for concrete elliptical pipe sewers shall be manufactured with reinforcement and concrete conforming to the pertinent requirements for Class HE-III reinforced concrete elliptical pipe as specified in ASTM C507. Apron endwalls shall be in accordance with the designs, dimensions, and details as shown on the drawings.

2.03 JOINT TIES

- A. Joint ties shall be installed at the last two downstream joints on any pipe run ending in an apron endwall that is constructed with reinforced concrete pipe of any type or size.

PART 3-EXECUTION

3.01 GENERAL EXCAVATION

- A. The trench shall be dug so that the utilities can be laid to the alignment and depth specified. Unless otherwise allowed by ENGINEER, trenches shall not be excavated more than 100 feet in advance of pipe laying. Earth excavation shall include all excavation except rock as hereinafter defined. Included in earth excavation shall be removal of street paving of all types, existing structures, existing improvements and trees smaller than 4 inches in diameter measured 4 feet above the ground, all as necessary to complete the pipe installation.

3.02 EXCAVATION TO GRADE

- A. The trench shall be finished to the depth necessary to provide a uniform and continuous bearing and support for the pipe on the bedding material provided at every point between bell holes. Any part of the bottom of trench excavated below the specified grade shall be corrected with bedding material, thoroughly compacted in place. The bedding shall be shaped and finished with hand tools to fit the bottom quadrant to the pipe.
- B. If, in the opinion of ENGINEER, unstable soil conditions are encountered at subgrade, CONTRACTOR shall replace the unstable soil with special bedding. CONTRACTOR shall be allowed extra compensation for the special bedding, unless the unstable soil conditions are caused by CONTRACTOR's failure to adequately dewater the trench, in which case CONTRACTOR shall bear the entire cost.
- C. All excavated material shall be piled in a manner that will not endanger the work. Stockpiles not for immediate backfilling shall have silt fences placed around their perimeter for erosion control. The work shall be conducted in such a manner that pedestrian and motor traffic is not unnecessarily disrupted. Fire hydrants, valve boxes and manholes shall be left unobstructed. Gutters shall be kept clear or other satisfactory provisions made for street drainage, and natural water courses shall not be obstructed.
- D. Excavated material designated by ENGINEER as being undesirable for backfilling shall be immediately removed as excavation progresses. Points of disposal are subject to approval of OWNER. All undesirable and surplus material disposed of must be leveled off and graded to rough elevations as determined by OWNER.
- E. CONTRACTOR shall remove bituminous pavement and road surface as a part of the trench excavation. The width of pavement removed shall be the minimum possible and acceptable, for convenient and safe installation of utilities and appurtenances.
- F. All bituminous pavement shall be cut on neat, straight lines and shall not be damaged beyond the limits of the trench.
- G. Where it is necessary to trench through concrete pavement, a strip shall be sawed and removed in such a manner as not to disturb the remainder of the pavement. Paving and undermining of existing concrete pavement shall be prevented by CONTRACTOR. If CONTRACTOR unnecessarily removes or damages pavement or surfaces beyond limits acceptable to ENGINEER, such pavement and surfaces shall be replaced or repaired at the expense of CONTRACTOR.

3.03 WIDTH OF TRENCH

- A. CONTRACTOR shall be responsible for determining and providing the minimum width necessary to provide a safe trench in accordance with current OSHA standards and all other applicable standards. The top width of trench excavation shall be kept as narrow as is reasonably possible and acceptable to minimize pavement damage. Pay items related to maximum trench widths shall not limit CONTRACTOR's responsibility to provide safe trench conditions.
- B. Width of Trench—Rigid Pipe: The width of trench below the outside top of the pipe shall be as shown in the following table for the sizes listed. A minimum clearance of 8 inches between the outside of the pipe barrel and the trench wall at the pipe spring line shall be maintained to allow for bedding and haunching. If sheeting is used and is going to remain in place, the trench width shall be measured as the clear distance between inside faces of the sheeting. Otherwise, the trench width shall be based on the width between stable trench walls after sheeting is removed.

NTS: TRENCH WIDTH MUST BE BASED ON LOAD CALCULATIONS. THE BELOW TRENCH WIDTHS PROVIDE A MINIMUM AMOUNT OF ROOM TO BED AND HAUNCH THE PIPE. LARGER TRENCH WIDTHS MAY BE NEEDED DEPENDING ON SITE CONSTRAINTS. ADJUST TABLE ACCORDINGLY.

MAXIMUM WIDTH OF TRENCH BELOW TOP OF PIPE

Nominal Pipe Diameter (Inches)	Trench Width (Inches)
12	36
15	42
18	42
21	48
24	48
27	54
30	54
36	60
38 inch width	

- C. Where the width of trench below the outside top of the pipe barrel cannot be otherwise maintained within the limits shown above, CONTRACTOR, at its own expense, shall furnish an adequate pipe installation for the actual trench width which will meet design conditions. This may be accomplished by furnishing higher class bedding, a stronger pipe, concrete cradle, cap or envelope, or by driving sheeting prior to excavation to subgrade. Removal of sheeting below the top of the pipe, if allowed by ENGINEER, shall be gradual during backfilling.
- D. If the maximum trench width is exceeded for any reason other than by request of ENGINEER, the concrete cradle, cap, sheeting, bedding or the stronger pipe shall be placed by CONTRACTOR at its own expense. Where the maximum trench width is exceeded at the written request of ENGINEER, the concrete cradle, cap, sheeting, bedding or stronger pipe will be paid for on the basis of the price bid.

3.04 ROCK EXCAVATION, UTILITIES

- A. Rock excavation for utilities shall include all hard, solid rock ledges, bedded deposits and unstratified masses and all conglomerate deposits, or any other material so firmly cemented, that in the opinion of ENGINEER, it is not practical to excavate and remove same with a 225-net flywheel horsepower trench backhoe or equal, except after continuous drilling and blasting. Soft or disintegrated rock which can be removed with a pick, loose, shaken or previously broken rock, or rock which may fall into the excavation from outside the limits of excavation will not be classified as rock excavation. Rock excavation shall also include all rock boulders necessary to be removed having a volume of 2 cubic yards or more.
- B. When rock is encountered, it shall be stripped of earth and ENGINEER or OWNER's representative notified and given proper time to evaluate same before removal. Any rock removed which has not been measured by ENGINEER or OWNER's representative will not be classified as rock excavation.
- C. The depth of trench in rock shall be 6 inches below the lowest outside bottom of the pipe.
- D. All rock excavated from the trench shall be classified as undesirable backfill material and shall be disposed of as specified in the excavation to grade section. All trenches in rock shall be backfilled with bedding, cover, and backfill material furnished by CONTRACTOR.

3.05 BLASTING

- A. Blasting for rock excavation will be permitted only after securing the written approval of OWNER, and only after proper precautions are taken for the protection of persons or property. The hours of blasting will be fixed by OWNER. Any damage caused by blasting shall be repaired by CONTRACTOR at its expense. CONTRACTOR's method and procedure of blasting shall conform to state laws and municipal ordinances.
- B. CONTRACTOR shall provide a copy of Blaster License as required by the licensing agencies to OWNER prior to commencement of blasting.

3.06 SPECIAL BEDDING

- A. Where the bottom of the trench at subgrade is found to be unstable or unsuitable material, which in the opinion of ENGINEER should be removed, CONTRACTOR shall excavate and remove such unstable or unsuitable material to the normal trench width and to a depth of 2 feet. The excavated area shall be lined with filter fabric, Mirafi 140 N, Supac, or equal, and backfilled with bedding material in layers. At subgrade, the filter fabric shall be wrapped over the special bedding with an 18-inch overlap. Normal bedding shall then be placed over the special bedding to support the piping. See Dewatering section for additional conditions.

3.07 CONCRETE CRADLE

- A. If, in the opinion of ENGINEER, soil conditions require it, concrete cradle or encasement shall be placed around the pipe as shown on Drawing 01-975-43A. Excavation shall be carried below the normal grade line to a depth requested by ENGINEER and concrete cradle or encasement placed. Before the concrete is placed, the pipe shall be laid to line and grade, blocked and braced, and the joint made. The cradle shall then be placed, taking care not to disturb the pipe. Concrete shall have a minimum 28-day compressive strength of 4,000 psi. See trench width section for additional conditions.

3.08 BRACED AND SHEETED TRENCHES

- A. Open-cut trenches shall be sheeted and braced as required by any governing federal regulations including OSHA, state laws, and municipal ordinances; and as may be necessary to protect life, property, improvements or the Work. Underground or aboveground improvements to be left in place shall be protected and, if damaged, shall be repaired or replaced at the expense of CONTRACTOR.
- B. Sheet piling and bracing which is to be left in place must be removed for a distance of 4 feet below the present or proposed final grade of the street, road, or land, whichever is lower. Trench bracing, except that which shall be left in place, may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal.

3.09 PIPE INSTALLATION

- A. General:
 - 1. Prior to commencing pipe laying, CONTRACTOR shall notify ENGINEER of the intended date for starting work. ENGINEER may request, at CONTRACTOR's expense, the removal and relaying of pipe which was installed prior to notification of ENGINEER.
 - 2. Proper implements, tools, and facilities shall be provided and used by CONTRACTOR for the safe and convenient prosecution of the work. All pipe, fittings, and appurtenances shall be carefully lowered into the trench, piece by piece, with a crane, rope or other suitable tools or equipment, in such manner as to prevent damage to materials. Under no circumstance shall pipe be dropped or rolled into the trench.
 - 3. Materials shall be as shown on the drawings or as specified herein.
- B. Material Inspection: CONTRACTOR shall inspect the pipe, fittings, and appurtenances for defects when delivered to the job site and prior to lowering into the trench. Defective material shall be removed from the job-site. All material shall be clean and free of deleterious substances prior to use in the work.
- C. Bedding and Cover:
 - 1. Immediately prior to placing the pipe, the trench bottom shall be shaped by hand to fit the entire bottom quadrant of the pipe. If pipe is of the bell and spigot type, bell holes shall be provided to prevent the bell from supporting the backfill load. Bell holes shall be large enough to permit proper making of the joint, but not larger than necessary to make the joint. All adjustments to line and grade must be done by scraping away or filling in bedding material under the body of the pipe. Any fill used must be bedding material. If necessary to obtain uniform contact of the pipe with the subgrade, a template shall be used to shape the bedding material. All pipe shall be bedded in bedding material at least 4 inches thick. CONTRACTOR shall perform all necessary excavation and shall furnish all necessary material to provide this bedding.

2. Bedding material shall be hard and durable and shall be made by crushing sound limestone or dolomite ledge rock, or crushed gravel aggregate. Bedding material shall conform to the requirements of ASTM C33.

PERCENTAGE BY WEIGHT PASSING INDICATED SIEVE

Size	2 1/2 Inch	2 Inch	1 1/2 Inch	1 Inch	3/4 Inch	1/2 Inch	3/8 Inch	No. 4	No. 8	No. 16	No. 30	No. 100	No. 200
57			100	95-100		25-60		0-10	0-5				
8						100	85-100	10-30	0-10	0-5			
9						100	75-100	0-25	0-5				
10							100	85-100				10-30	

3. Concrete and other rigid pipe used in nonsanitary sewer applications may be bedded using the Class C bedding detail as shown on Drawing 01-975-43A. Bedding material shall conform to Size No. 8 or No. 9. With pipes greater than 15 inches, Size No. 57 may be used.
4. CONTRACTOR shall provide ENGINEER with a sieve analysis of the bedding material for review prior to starting construction.
5. Material which is to be placed from the bedding material to 1 foot above the top of the pipe shall be termed cover material. All trenches shall be backfilled by hand to 1 foot above the top of the pipe with cover material. Cover material shall be deposited in the trench for its full width on each side of the pipe, fittings and appurtenances simultaneously in 6-inch layers and shall be compacted using hand tamping bars and/or mechanical tampers. CONTRACTOR shall use special care in placing cover material to avoid injury to or movement of the pipe. Cover material shall consist of durable granular particles ranging in size from fine to a maximum size of 3/4 inches. Unwashed bank run sand and crushed bank run gravel will be considered generally acceptable cover material. Cover material shall generally conform to the following gradation specifications:

COVER MATERIAL GRADATION

Sieve Size	Percentage by Weight Passing
1 inch	100
3/4 inch	85 to 100
3/8 inch	50 to 80
No. 4	35 to 65
No. 30	--
No. 40	15 to 30
No. 200	5 to 15

6. Native trench materials may be used for cover material if they substantially conform to the above gradation specifications and a suitable credit is extended to OWNER.
7. All bedding materials may be substituted for cover material when requested by CONTRACTOR.

D. Pipe Laying:

1. All pipe shall be laid accurately to the line and grade as designated. Preparatory to making pipe joints, all surfaces of the portions of the pipe to be joined or of the factory-made jointing material shall be clean and dry. Lubricants, primers, adhesives, and other joint material shall be used and installed as recommended by the pipe or joint manufacturer's specifications. The jointing materials or factory fabricated joints shall then be placed, fitted, joined, and adjusted in such a workmanlike manner as to obtain the degree of watertightness specified. Pertinent specifications from the joint and pipe manufacturer which outline procedures to be followed in making the joint shall be furnished to ENGINEER.
2. At times when pipe laying is not in progress, the open ends of pipe shall be closed with plugs to prevent the entry of foreign material. All foreign material shall be removed from the pipe prior to acceptance.
3. After placing a length of pipe in the trench, the spigot end shall be centered in the bell and the pipe forced home and brought to correct line and grade. The pipe shall be secured in place with specified backfill material tamped around it except at the bells. Trenches shall be kept water-free during bedding, laying, and jointing and for as long a period as necessary to permit proper execution of the Work.
4. Pipe shall be brought home by using a cross member and levers or jacks. It will not be permissible to push pipe home with motor-powered excavation equipment.

- E. Portable Trench Box: Whenever a portable trench box or shield is used, special precautions shall be taken so as not to pull already jointed pipe apart or leave voids around the pipe wall. Whenever possible, the bottom edge of the box shall be kept at a level approximately even with the top of pipe. Cover material shall be placed to at least the top of pipe before moving the box ahead.

3.10 BACKFILLING

A. Backfill Material:

1. Backfill shall be that material placed between the top of cover material to the subgrade for placement of restoration materials. Backfill for storm inlets shall be bedding material.
2. When the type of backfill material is not otherwise specified, CONTRACTOR may backfill with the excavated material, provided that such material consists of loam clay, sand, gravel, or other materials which, in the opinion of ENGINEER, are suitable for backfilling.
3. All backfill material shall exceed 35°F and be free from frost, cinders, ashes, refuse, vegetable or organic matter, boulders, rocks, or stone, frozen lumps, or other material which in the opinion of ENGINEER is unsuitable. From 1 foot above the top of the pipe to the trench subgrade, well-graded material containing stones up to 8 inches in their greatest dimension may be used. Care should be taken in backfilling so as not to damage the installed pipe.
4. In refilling the trench, if there is not sufficient material excavated therefrom suitable for refilling, CONTRACTOR shall, without extra compensation, furnish the deficiency. Where indicated on the drawings, fill shall be provided over projecting conduits. Such fill shall be free of large boulders, and the top 6 inches shall be of suitable material to fit the adjoining ground.

- B. Granular Backfill: When called for on the drawings or requested by ENGINEER, backfill material shall be granular and shall consist of durable particles ranging in size from fine to coarse in a substantially uniform combination. Sufficient fine material shall be present to fill all the voids in the coarse material. No stones over 3 inches or clay lumps shall be present. Unless otherwise allowed by ENGINEER, granular backfill shall generally conform to the following gradation specification:

GRANULAR BACKFILL

Sieve Size	Percentage by Weight Passing
3 inch	100
2 inch	95 to 100
No. 4	35 to 60
No. 200	5 to 10

- C. Placement:
1. All trenches shall be backfilled using specified material so that excessive lengths of trench are not left open. In general the backfilling operation shall proceed so that no more than 100 feet of trench is open behind the pipe laying operation.
 2. Backfill shall be left below the original surface to allow for placement of restoration materials including pavement, base course, concrete, topsoil, sod, plus any pavement replacement specified in accordance with the asphaltic paving section herein. When settlement occurs, CONTRACTOR shall restore the surface improvements at its expense, to maintain the finished surface.
- D. Backfill Consolidation:
1. All trenches shall be consolidated as specified in this section for the entire depth and width of the trench.
 2. Consolidation shall be achieved by use of smooth-surface vibratory compactors or backhoe-operated hydraulic compactors for granular materials and rotating sheepsfoot-type mechanisms for loam/clay soils. The lift height shall not exceed 8 inches for walk-behind hand-operated vibratory compactors and sheepsfoot. Lift height shall not exceed 24 inches for self-propelled vibratory drum, or backhoe-operated hydraulic compactors. Smaller lift heights shall be provided as necessary to achieve the degree of compaction specified.
 3. Backfill material beneath paved areas or future paved areas and within 5 feet of paved areas or future paved areas shall be consolidated as follows: Within 3 feet of the surface 95% of maximum dry density, below 3 feet from the surface to 1 foot above the pipe 90% of maximum dry density, as determined by the modified Proctor Test (ASTM D1557).
 4. Backfill material placed in all other areas shall be compacted to the point where no additional consolidation can be observed from the compaction and backfill equipment being used.
 5. Backfill material not meeting the compaction specification shall be recompacted by CONTRACTOR at no cost to OWNER. Cost for additional testing on recompacted material shall be at CONTRACTOR's expense.
- E. Maintenance of Surface: CONTRACTOR shall maintain all backfilling, resurfacing, repaving, and other surface improvements constructed under this Contract as a warranty item. CONTRACTOR shall, upon proper notice from OWNER, make all repairs in surfaces of trenches and excavations. All expenses incurred by OWNER and/or CONTRACTOR in

making repairs, and all expenses in maintaining trench and excavation surfaces shall be at the expense of CONTRACTOR, regardless of the material used in backfilling trench excavations. OWNER reserves the right to make all emergency repairs necessary to make safe all streets and walks at the expense of CONTRACTOR, regardless of the material used in backfilling trench excavations.

END OF SECTION

This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, contained in the CSI *Manual of Practice*.

The section must be carefully reviewed and edited by the Engineer to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" when editing this section.

Section numbers are from *MasterFormat 2016 Edition*. Update section numbers to versions if required.

Specifier Notes: This section covers "StormTrap®" precast concrete, modular, storm water detention. StormTrap is custom designed to meet the specific requirements of the project.

Consult StormTrap for assistance in editing this section for the specific application.

SECTION 33 46 23

MODULAR BURIED STORMWATER STORAGE UNITS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. StormTrap Precast concrete, modular stormwater detention.

1.02 RELATED SECTIONS

- A. Section 31 00 00 – Earthwork
- B. Section 03 40 00 – Precast Concrete

1.03 REFERENCE STANDARDS

- A. AASHTO – Standard Specifications for Highway Bridges – Seventh (7th) Edition
- B. ACI 318 - Building Code Requirements for Structural Concrete.
- C. ASTM A 615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
- D. ASTM C 857 - Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures.
- E. ASTM C 858 - Standard Specification for Underground Precast Concrete Utility Structures.
- F. ASTM C 891 - Standard Practice for Installation of Underground Precast Concrete Utility Structures.
- G. ASTM C 990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
- H. ASTM A 1064 – Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.

1.04 DESIGN REQUIREMENTS

- A. Precast Concrete Modular Stormwater Detention shall comply with ASTM C858.
- B. Underground precast concrete stormwater management system shall be sized in accordance with the design requirements provided by the Engineer of Record (EOR) and approved by the reviewing agency.
- C. The system shall be designed so modules are aligned and have channels that extend to the bottom of the modules allowing for relatively unrestricted fluid flow in both directions.
- D. Minimum Structural Design Loading: ASTM C 857.
 - 1. Total Cover:
 - a. Minimum: As indicated on the drawings.
 - b. Maximum: As indicated on the drawings.
 - 2. Concrete chamber shall be designed for AASHTO HS-20 wheel load.

3. Minimum Soil Pressure:
 - a. DoubleTrap Modules: As indicated on the drawings.
4. Vertical and lateral soil pressures shall be determined using:
 - a. Groundwater: At or below invert of system.
 - b. Lateral soil pressures to be based on Active earth pressure
 - 1) Lateral soil pressure = 35 pcf for 120 pcf backfill unit weight
 - c. Vertical soil pressures
 - 1) Live load = HS-20-44 and Dead load = 120 pcf cover fill unit weight
 - d. Engineer to verify geotechnical requirements

1.05 QUALITY ASSURANCE

- A. The manufacture of the concrete modules shall be performed at a precast production facility certified by the NPCA or PCI.

1.06 SUBMITTALS

- A. Comply with Section 01 33 00 - Submittal Procedures, except shop drawings shall be eleven inches (11") by seventeen inches (17").
- B. Product Data: Submit manufacturer's product data and installation instructions.
- C. Record Documents:
 1. Shop Drawings:
 - a. Submit manufacturer's shop drawings, including plans, elevations, sections, and details indicating layout, dimensions, foundation, cover, and joints.
 - b. Indicate size and location of roof openings and inlet and outlet pipe openings.
 - c. Indicate sealing of joints.
- D. Operation and Maintenance Data: Submit manufacturer's operation and maintenance instructions

1.07 DELIVERY, STORAGE AND HANDLING

- A. Delivery of Accessories: Deliver to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage of Accessories:
 1. Store in accordance with manufacturer's instructions.
 2. Store in clean, dry area, out of direct sunlight.
- C. Handling: Protect materials during handling and installation to prevent damage.

1.08 WARRANTY

- A. The Manufacturer shall provide a minimum five (5) year limited warranty.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. StormTrap, LLC, 1287 Windham Parkway, Romeoville, Illinois 60446. Phone (877) 867-6872. Fax (331) 318-5347. Website www.stormtrap.com.

2.02 STORMWATER DETENTION

- A. All material shall meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of authorities having jurisdiction.
- B. Stormwater Detention Modules:
1. Description: Engineered, precast concrete, modular stormwater detention.
 2. Module Type: StormTrap DoubleTrap
 3. Size: As indicated on the drawings.
 4. Concrete: Manufacturer's Approved Mix design providing a minimum compressive strength of 6,000 psi at 28 days.
 5. Reinforcing Bars: ASTM A 615, Grade 60.
 6. Reinforcing Mesh: ASTM A 1064, Grade 80.
 7. Cover for Reinforcing Bars: ACI 318

2.03 ACCESSORIES

- A. Joint Tape:
1. ASTM C 990.
 2. Seven eights inch (7/8") diameter, preformed butyl mastic joint sealer.
 3. Approved by manufacturer.
- B. Joint Wrap:
1. Eight inch (8") wide self-adhesive elastomeric resin bonded woven puncture resistant polymer wrap.
 2. Approved by manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

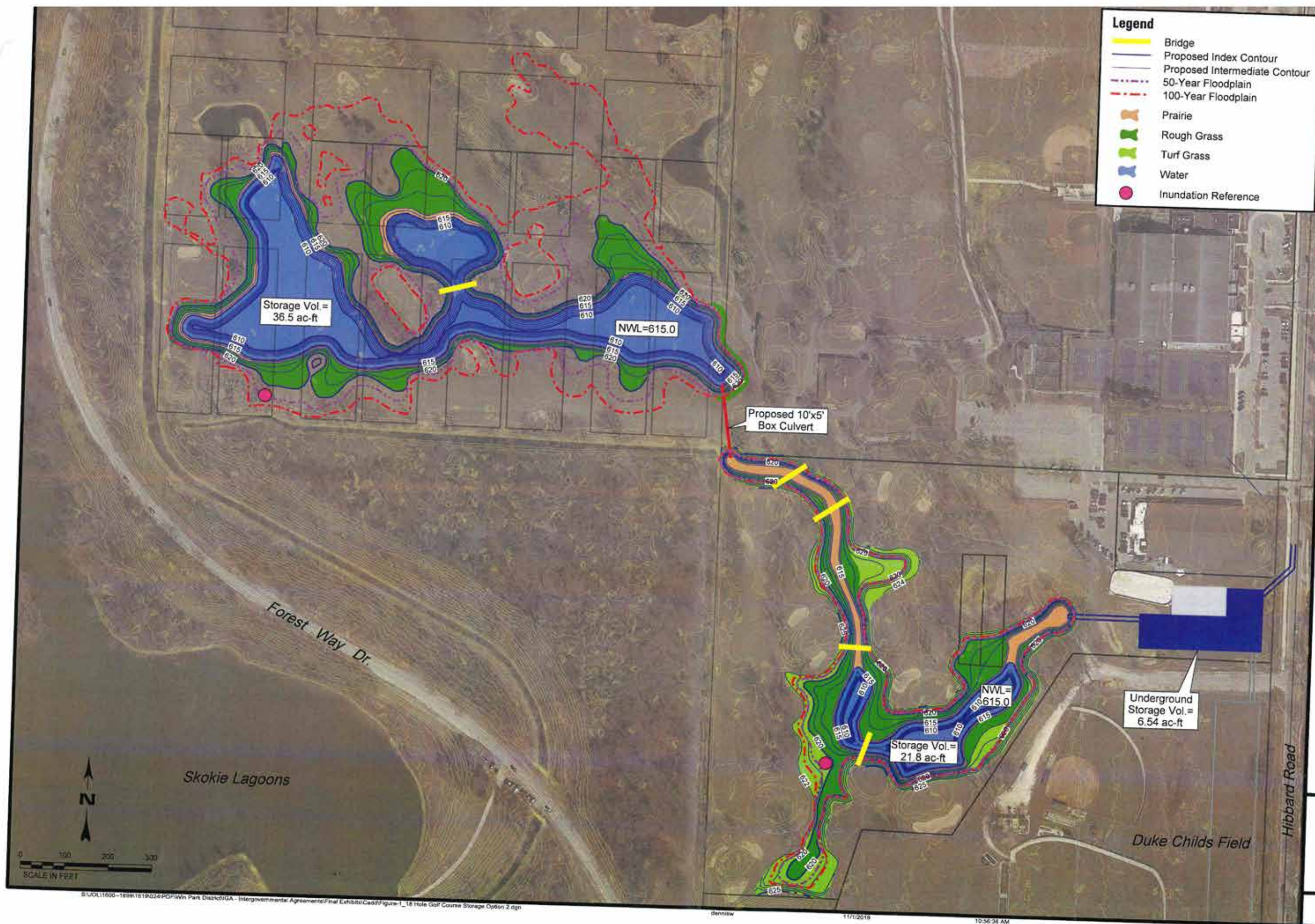
- A. Examine area to receive stormwater detention modules. Notify Engineer if area is not acceptable. Do not begin installation until unacceptable conditions have been corrected.
- B. Verify in field before installation, dimensions and soils conditions, including groundwater and soil bearing capacity.

3.02 INSTALLATION

- A. Install stormwater detention modules in accordance with manufacturer's instructions and ASTM C 891.

- B. Install modules plumb, on line, and to proper elevation.
- C. Install modules with a maximum space of three quarters inch (3/4") between adjacent modules. If the space exceeds three quarters inch (3/4"), the modules shall be reset with appropriate adjustment made to line and grade to bring the space into compliance.
- D. DoubleTrap:
 - 1. Place modules on level, six-inch (6") pad of three quarters inch (3/4") stone that extends two feet (2'-0") past the outside of the system as indication on the drawings.
- E. Joint Tape:
 - 1. Seal perimeter horizontal joint between modules with joint tape in accordance with ASTM C 891, 8.8 and 8.12.
 - 2. Prepare surfaces and install joint tape in accordance with manufacturer's instructions.
- F. Joint Wrap:
 - 1. Seal exterior joints between adjacent modules with joint wrap in accordance with ASTM C 891.
 - 2. Prepare surfaces and install joint wrap in accordance with manufacturer's instructions.
- G. Field Modifications to the modules is strictly prohibited without prior written consent of StormTrap.
- H. Excavation and fill shall be as specified in Sections 31 00 00.
- I. Fill:
 - 1. Backfill material shall consist of a GW, GP, SW, or SP material as defined by the Unified Soil Classification System and that meets the gradation requirements as indicated on the drawings.
 - 2. Native materials shall be separated from backfill materials with a geotextile filter fabric unless the drawings indicate separation is not required.
 - 3. Deposit fill on both sides of modules at same time and to approximate same elevation.
 - 4. Prevent wedging action against structure by stepping or serrating slopes bounding or within area to be backfilled.
 - 5. Do not disrupt or damage joint wrap during backfilling.
- J. Do not use stormwater detention modules that are damaged, as determined by manufacturer.
- K. Contractor is responsible for installation in accordance with project plans, specifications, and all federal, state, and local regulations.

END OF SECTION 33 46 23



**PROPOSED LITTLE DUKE, PAR-3, AND 18 HOLE GOLF COURSE
STORMWATER STORAGE**
WEST AND SOUTHWEST WINNETKA STORMWATER MANAGEMENT
VILLAGE OF WINNETKA
COOK COUNTY, ILLINOIS

SYMBOLS

- CENTER OF THE GREEN
- CENTER OF GREEN
- DOUGLAS POINT (ONE FROM CENTER OF GREEN)
- DOUGLAS POINT (ONE FROM CENTER OF GREEN)



LEGEND



AFTER
ENHANCED SURFACE SLOPE PROVIDES
ADEQUATE SURFACE DRAINAGE TO
PROPOSED DRAINAGE INLETS



BEFORE
LACK OF EXISTING FAIRWAY SLOPE DOES NOT
ALLOW SURFACE DRAINAGE FLOW TO
EXISTING DRAINAGE INLETS



AFTER
RENOVATED BUNKER



BEFORE
EXISTING BUNKER



PROPOSED WET DETENTION (WET MEADOW)



PROPOSED WET (WETLAND)
DETENTION TRANSITION INTO DRY
(MANICURED ROUGH) DETENTION



PROPOSED WET DETENTION (LAKE)



SAMPLE LAKE - SLOPE - GREEN ELEVATION TRANSITION

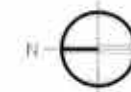


STORM WATER CONVEYANCE CHANNEL



LOW PROFILE BRIDGE CROSSING

CONCEPTUAL STORM WATER MANAGEMENT PLAN



SCALE - 1"=40'

JACOBSON
GOLF COURSE DESIGN, INC.
1990 S. Milwaukee Avenue, Suite 101, Winnetka, Illinois 60093
Phone: (847) 451-1100 Fax: (847) 451-1101
www.jacobsongolfdesign.com

WINNETKA GOLF CLUB WINNETKA, ILLINOIS

BY	DATE
DRAWN	MM/YY
APPROVED	MM/YY
REVISIONS	MM/YY

1

Exhibit K

Village Construction Schedule

Exhibit L
Cost Schedule

EXHIBIT L - COST SCHEDULE

Rennovation Budget Fund: 20 - GOLF OPERATIONS	January Budget	February Budget	March Budget	April Budget	May Budget	June Budget	July Budget	August Budget	September Budget	October Budget	November Budget	December Budget	Renovation Total Budget
Department: 2000 - COURSE PLAY													
Category: 41000 - USER FEES	3,810.00	7,080.00	9,700.00	23,180.00	31,145.00	35,850.00	32,985.00	37,785.00	17,415.00	6,550.00	3,300.00	2,700.00	211,500.00
Category: 47000 - PRO-SHOP	45.00	311.92	363.40	1,145.44	1,810.90	2,339.84	1,966.80	1,649.02	1,459.37	978.98	268.80	904.05	13,243.50
Category: 49000 - MISCELLANEOUS INCOME	2,761.27	2,276.04	3,036.54	2,155.45	2,186.52	3,721.09	1,183.79	2,399.98	2,377.45	1,183.88	2,402.04	792.77	26,476.80
Category: 50000 - SALARIES & WAGES	11,275.05	11,868.65	13,345.85	15,185.85	25,192.22	33,260.45	33,664.85	29,914.05	25,121.05	21,718.05	20,342.46	11,235.32	252,123.85
Category: 52000 - SUPPLIES	1,453.30	2,205.60	2,246.63	2,963.24	2,276.88	2,036.88	1,530.88	1,335.60	696.88	1,210.13	486.88	803.10	19,246.00
Category: 54000 - SERVICES	3,551.86	3,472.16	4,374.18	3,889.15	7,181.32	5,996.22	5,009.41	5,000.77	5,389.43	4,547.35	4,286.73	3,665.43	56,363.97
Category: 56000 - REPAIRS & MAINTENANCE	44.33	64.33	454.33	534.33	274.33	64.33	444.33	114.33	224.33	44.33	44.33	184.39	2,492.00
Category: 56500 - UTILITIES	2,776.70	2,776.70	2,776.70	2,776.70	2,776.70	2,776.70	2,776.70	2,776.70	2,776.70	2,776.70	2,776.70	2,790.25	33,334.00
Category: 57000 - PRO-SHOP MERCHANDISE	58.50	201.00	281.50	817.80	1,291.80	1,596.10	1,329.80	1,154.60	1,021.40	655.90	227.90	773.70	9,410.00
Category: 60000 - CAPITALS	-	-	-	-	-	-	-	-	-	-	-	-	-
Category: 62000 - CONTRACTS PAYABLE	-	-	-	-	-	-	-	-	-	-	-	-	-
Category: 63000 - GENERAL ADMIN. ALLOCATION	-	-	-	-	-	-	-	-	-	-	-	-	-
Category: 63100 - GARAGE ALLOCATION	-	-	-	-	-	-	-	-	-	-	-	-	-
Category: 63300 - TRANSFERS-OUT	-	-	-	-	-	-	-	-	-	-	-	-	-
Course Play Revenue Total	6,616.27	9,667.96	13,099.93	26,480.89	35,142.42	41,910.93	36,135.58	41,834.00	21,251.82	8,712.86	5,970.84	4,396.82	251,220.30
Course Play Expense Total	19,159.74	20,588.44	23,479.19	26,167.07	38,993.25	45,730.68	44,755.97	40,296.05	35,229.79	30,952.46	28,165.00	19,452.20	372,969.82
Course Play Net Operating Income (Loss)	(12,543.47)	(10,920.48)	(10,379.26)	313.82	(3,850.83)	(3,819.75)	(8,620.39)	1,537.95	(13,977.97)	(22,239.60)	(22,194.16)	(15,055.38)	(121,749.52)
Department: 2100 - GOLF MAINTENANCE													
Category: 50000 - SALARIES & WAGES	19,619.17	19,100.83	19,309.03	21,586.19	22,886.90	38,842.40	27,742.07	25,093.32	23,804.95	24,312.36	33,508.70	27,206.94	303,012.85
Category: 52000 - SUPPLIES	2,712.70	4,314.80	23,622.86	2,185.50	20,559.04	10,716.93	3,420.78	3,872.47	8,584.53	5,883.80	3,596.43	1,830.15	91,300.00
Category: 54000 - SERVICES	3,869.39	3,246.66	4,245.27	3,160.30	4,040.40	5,282.35	7,154.47	5,330.08	3,160.30	3,160.30	3,160.30	3,578.78	49,388.59
Category: 56000 - REPAIRS & MAINTENANCE	2,972.68	90.01	10,256.06	1,762.11	1,971.62	3,455.47	7,075.29	1,919.90	4,326.41	4,935.85	2,519.05	9,715.55	51,000.00
Category: 56500 - UTILITIES	1,594.37	1,121.82	1,915.50	2,243.71	2,013.46	2,251.04	4,022.56	5,165.99	5,600.90	4,241.86	2,207.82	3,374.96	35,754.00

Category: 60000 - CAPITALS	-	-	-	-	-	-	-	-	-	-	-	-	-
Category: 63000 - GENERAL ADMIN. ALLOCATION	-	-	-	-	-	-	-	-	-	-	-	-	-
Category: 63200 - TRANSFERS-IN	-	-	-	-	-	-	-	-	-	-	-	-	-
Golf Maintenance Expense Total	30,768.30	27,874.12	59,348.73	30,937.81	51,471.42	60,548.20	49,415.18	41,381.76	45,477.09	42,534.17	44,992.30	45,706.38	530,455.44
Golf Maintenance Net Operating Income (Loss)	(30,768.30)	(27,874.12)	(59,348.73)	(30,937.81)	(51,471.42)	(60,548.20)	(49,415.18)	(41,381.76)	(45,477.09)	(42,534.17)	(44,992.30)	(45,706.38)	(530,455.44)
Golf Fund - Net Operating Income (Loss)	(43,311.77)	(38,794.60)	(69,727.98)	(30,623.99)	(55,322.25)	(64,367.94)	(58,035.56)	(39,843.81)	(59,455.06)	(64,773.77)	(67,186.46)	(60,761.76)	(652,204.96)

If the Village fails to complete construction of the Stormwater Improvements and the Village Playfield Improvements within the applicable Construction Period, the Village will reimburse the PD according to this schedule until the facilities are operational. All partial months shall be prorated based on the figures set forth in this Exhibit.

Exhibit M

District Construction Schedule

Exhibit N

Village Approval Resolution

**A RESOLUTION APPROVING VARIATIONS RELATED TO IMPROVEMENTS AT
THE SKOKIE PLAYFIELD PROPERTY
IN CONJUNCTION WITH VILLAGE STORMWATER IMPROVEMENTS**

WHEREAS, the Village of Winnetka is a home rule municipality in accordance with Article VII, Section 6 of the Constitution of the State of Illinois of 1970 and has the authority to exercise any power and perform any function pertaining to its government and affairs; and

WHEREAS, the Village and the Forest Preserve District of Cook County ("**District**") have entered into an August 2, 2017 Memorandum of Understanding ("**MOU**") to formalize their cooperation on a project to provide stormwater relief to western and southwestern portions of the Village; and

WHEREAS, the Village has determined that additional stormwater storage, conveyance, and water quality improvements for the Village stormwater project necessary to provide flood relief ("**Village Stormwater Improvements**") must be constructed, in part, on existing open spaces currently owned by the Winnetka Park District ("**District**") and known as the Skokie Playfield property generally located north of Willow Road and west of Hibbard Road in the Village, and as depicted on *Exhibit A* to this Resolution ("**Property**"); and

WHEREAS, the District anticipates potential future improvements to the Property that will not directly interfere with the Village Stormwater Improvements ("**District Improvements**"); and

WHEREAS, the need for and construction of the Village Stormwater Improvements provides a once in a generation opportunity to create significant stormwater relief to the Village as well as to the District for the Property and the ability of the District to provide the District Improvements in a cost-effective and expedited manner; and

WHEREAS, pursuant to Resolution No. R-__-2020, the Village has approved an intergovernmental cooperation agreement with the District ("**IGA**") in order to comply with the MOU and to ensure a level of cooperation and coordination necessary to maximize flood relief for impacted homes and property and to enhance the facilities on the District Property; and

WHEREAS, pursuant to Subsection III.F of the IGA, the District has requested certain baseline variations for the Improvements ("**Variations**"), with the understanding that additional zoning relief, including a special use permit, may be required at the time the District has prepared and is ready to present its preliminary and final plans for the Improvements for Village approval; and

WHEREAS, Chapter 17.72 of the Winnetka Municipal Code provides a special zoning review and approval process applicable to zoning relief for the Improvements ("**Stormwater Zoning Provisions**"); and

WHEREAS, pursuant to the applicable provisions of the Village Zoning Ordinance, including the Stormwater Zoning Provisions, and the Winnetka Municipal Code, on _____,

2020, after due and required notice thereof, the Village Council held a public hearing to consider the Variations; and

WHEREAS, pursuant to Section 17.60.050.D of the Zoning Ordinance, the Village Council has determined that (i) the Variations are in harmony with the general purpose and intent of the Zoning Ordinance and in accordance with general or specific rules set forth in Chapter 17.60 of the Zoning Ordinance; and (ii) there are practical difficulties or particular hardships in the way of carrying out the strict letter of the provisions or regulations of the Zoning Ordinance from which the Variations have been sought; and

WHEREAS, the Village Council has determined that it is in the best interest of the Village to approve this Resolution, subject to and in strict accordance with the terms and conditions of this Resolution;

NOW, THEREFORE, BE IT RESOLVED by the Council of the Village of Winnetka, Cook County, Illinois, as follows:

SECTION 1: RECITALS. The foregoing recitals are hereby incorporated as the findings of the Village Council, as if fully set forth herein.

SECTION 2: APPROVAL OF VARIATIONS. Subject to, and contingent upon, the terms, conditions, restrictions, and provisions set forth in the IGA, the following variations are granted to allow construction of the Improvements in accordance with the "District Final Plans" as defined in and approved in accordance with the IGA, pursuant to Chapter 17.60 of the Zoning Ordinance and the home rule powers of the Village:

- A. Front yard setback of 2'-0" feet from the easterly property line, whereas a minimum of 50 feet is required, a variation of 48 feet (a decrease of 96%) [Section 17.30.050 – Front Yard Setbacks]
- B. Side yard setback of 7'-0" feet from the southerly property line, whereas a minimum of 12.00 feet is required, a variation of 5 feet (a decrease of 41.67%) [Section 17.30.060 – Side Yard Setbacks].

SECTION 3: RECORDATION OF RESOLUTION; BINDING EFFECT. A copy of this Resolution will be recorded with the Cook County Recorder of Deeds. This Resolution and the privileges, obligations, and provisions contained herein inure solely to the benefit of, and are binding upon, the District and each of its heirs, representatives, successors, and assigns.

SECTION 4: EFFECTIVE DATE.

This Resolution will be in full force and effect from and after its passage and approval as provided by law.

ADOPTED this ____ day of January, 2020, pursuant to the following roll call vote:

AYES: _____

NAYS: _____

ABSENT: _____

Signed:

Village President

Countersigned:

Village Clerk

EXHIBIT A
DEPICTION OF PROPERTY

Exhibit O

Village Insurance Certificates



VILLAGE OF WINNETKA

Incorporated in 1869

CERTIFICATE OF SELF-INSURANCE

Office of the Finance Director

847.716.3513

March 5, 2018

RE: Village of Winnetka – Self-Insurance

To Whom It May Concern:

The Village of Winnetka is self-insured for General Liability and Workers Compensation and therefore does not purchase commercial insurance.

The Village assumes all risks and liabilities for all occurrences by all employees and Village equipment in the course of normal employment activities.

The Village does purchase excess insurance for worker's compensation exposures. The deductible (self-insured retention) on that policy is \$600,000 and provides full statutory benefits.

In addition, the Village maintains \$13,000,000 of liability coverage after the Village's \$2,000,000 deductible (self-insurance retention) is satisfied.

If you need any further information, feel free to contact me at (847) 716-3513.

Sincerely,

Timothy J. Sloth

Timothy J. Sloth, CPA
Finance Director



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/21/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endors. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Assurance Agency, Ltd 1750 E Golf Road Suite 1100 Schaumburg IL 60173		CONTACT NAME: PHONE (A/C, No, Ext): (847) 797-5700 FAX (A/C, No): (847) 440-9130 E-MAIL ADDRESS: szamora@assuranceagency.com															
INSURED VILLOFW-01 Village of Winnetka 510 Green Bay Road Winnetka IL 60093		INSURER(S) AFFORDING COVERAGE <table border="1"><thead><tr><th>INSURER</th><th>NAIC #</th></tr></thead><tbody><tr><td>INSURER A : Allied World National Assuranc</td><td>10690</td></tr><tr><td>INSURER B : Allied World Insurance Company</td><td>22730</td></tr><tr><td>INSURER C : Markel American Insurance Comp</td><td>28932</td></tr><tr><td>INSURER D :</td><td></td></tr><tr><td>INSURER E :</td><td></td></tr><tr><td>INSURER F :</td><td></td></tr></tbody></table>		INSURER	NAIC #	INSURER A : Allied World National Assuranc	10690	INSURER B : Allied World Insurance Company	22730	INSURER C : Markel American Insurance Comp	28932	INSURER D :		INSURER E :		INSURER F :	
INSURER	NAIC #																
INSURER A : Allied World National Assuranc	10690																
INSURER B : Allied World Insurance Company	22730																
INSURER C : Markel American Insurance Comp	28932																
INSURER D :																	
INSURER E :																	
INSURER F :																	

COVERAGES

CERTIFICATE NUMBER: 1136766786

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS														
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER					<table border="1"><tr><td>EACH OCCURRENCE</td><td>\$</td></tr><tr><td>DAMAGE TO RENTED PREMISES (Ea occurrence)</td><td>\$</td></tr><tr><td>MED EXP (Any one person)</td><td>\$</td></tr><tr><td>PERSONAL & ADV INJURY</td><td>\$</td></tr><tr><td>GENERAL AGGREGATE</td><td>\$</td></tr><tr><td>PRODUCTS - COMP/OP AGG</td><td>\$</td></tr><tr><td></td><td>\$</td></tr></table>	EACH OCCURRENCE	\$	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	MED EXP (Any one person)	\$	PERSONAL & ADV INJURY	\$	GENERAL AGGREGATE	\$	PRODUCTS - COMP/OP AGG	\$		\$
EACH OCCURRENCE	\$																			
DAMAGE TO RENTED PREMISES (Ea occurrence)	\$																			
MED EXP (Any one person)	\$																			
PERSONAL & ADV INJURY	\$																			
GENERAL AGGREGATE	\$																			
PRODUCTS - COMP/OP AGG	\$																			
	\$																			
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY					<table border="1"><tr><td>COMBINED SINGLE LIMIT (Ea accident)</td><td>\$</td></tr><tr><td>BODILY INJURY (Per person)</td><td>\$</td></tr><tr><td>BODILY INJURY (Per accident)</td><td>\$</td></tr><tr><td>PROPERTY DAMAGE (Per accident)</td><td>\$</td></tr><tr><td></td><td>\$</td></tr></table>	COMBINED SINGLE LIMIT (Ea accident)	\$	BODILY INJURY (Per person)	\$	BODILY INJURY (Per accident)	\$	PROPERTY DAMAGE (Per accident)	\$		\$				
COMBINED SINGLE LIMIT (Ea accident)	\$																			
BODILY INJURY (Per person)	\$																			
BODILY INJURY (Per accident)	\$																			
PROPERTY DAMAGE (Per accident)	\$																			
	\$																			
A B C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		5111014901 5110009101 MKLM3EUE100569	5/1/2019 5/1/2019 5/1/2019	1/1/2020 1/1/2020 1/1/2020	<table border="1"><tr><td>EACH OCCURRENCE</td><td>\$ 13,000,000</td></tr><tr><td>AGGREGATE</td><td>\$ 13,000,000</td></tr><tr><td></td><td>\$</td></tr></table>	EACH OCCURRENCE	\$ 13,000,000	AGGREGATE	\$ 13,000,000		\$								
EACH OCCURRENCE	\$ 13,000,000																			
AGGREGATE	\$ 13,000,000																			
	\$																			
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N / A				<table border="1"><thead><tr><th></th><th>PER STATUTE</th><th>OTH-ER</th></tr></thead><tbody><tr><td>E.L. EACH ACCIDENT</td><td>\$</td><td></td></tr><tr><td>E.L. DISEASE - EA EMPLOYEE</td><td>\$</td><td></td></tr><tr><td>E.L. DISEASE - POLICY LIMIT</td><td>\$</td><td></td></tr></tbody></table>		PER STATUTE	OTH-ER	E.L. EACH ACCIDENT	\$		E.L. DISEASE - EA EMPLOYEE	\$		E.L. DISEASE - POLICY LIMIT	\$			
	PER STATUTE	OTH-ER																		
E.L. EACH ACCIDENT	\$																			
E.L. DISEASE - EA EMPLOYEE	\$																			
E.L. DISEASE - POLICY LIMIT	\$																			

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The Village of Winnetka is self-insured for General Liability and Workers' Compensation and therefore does not purchase commercial insurance. The Village assumes all risks and liability for all occurrences by all employees and Village equipment in the course of normal employment activities. The Village does purchase excess insurance for Worker's Compensation exposures. The self-insured retention on that policy is \$600,000 and provides full statutory benefits. In addition, the Village maintains \$13,000,000 of liability coverage after the Village's \$2,000,000 self-insured retention is satisfied. As agreed for the self-insured retention, New Trier Township High School District 203 is an additional insured on the General Liability on a primary and non-contributory basis and a Waiver of Subrogation of the additional insured applies to the Workers' Compensation and General Liability.

CERTIFICATE HOLDER**CANCELLATION**

New Trier Township High School District #203
7 Happ Road
Northfield IL 60093

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.

**Village of Winnetka
Bid Contract - Insurance Requirements
VOW / NT IGA Stormwater Project**

Insurance Coverage:

A. Worker's Compensation and Employer's Liability with limits not less than:

- (1) Worker's Compensation: Statutory;
- (2) Employer's Liability: \$1,000,000 injury-per occurrence; \$1,000,000 disease-per employee; \$1,000,000 disease-policy limit Such insurance must evidence that coverage applies in the State of Illinois.

B. Comprehensive Motor Vehicle Liability with a combined single limit of liability for bodily injury and property damage of not less than \$1,000,000 for vehicles owned, non-owned, or rented.

All employees must be included as insureds.

C. Comprehensive General Liability with coverage written on an "occurrence" basis and with limits no less than:

- (1) General Aggregate: \$2,000,000. See Subsection F below regarding use of umbrella coverage.
- (2) Bodily Injury: \$1,000,000 per person; \$1,000,000 per occurrence.
- (3) Property Damage: \$1,000,000 per occurrence and \$2,000,000 aggregate.
- (4) Personal & Advertising Injury: \$1,000,000 per occurrence.

Coverage must include:

- Premises / Operations
- Products / Completed Operations (to be maintained for five years after Final Payment)
- Independent Contractors
- Personal Injury (with Employment Exclusion deleted)
- Broad Form Property Damage Endorsement

- Blanket Contractual Liability (must expressly cover the indemnity provisions of the Contract)
- Bodily Injury and Property Damage

"X", "C", and "U" exclusions must be deleted.

Railroad exclusions must be deleted if Work Site is within 50 feet of any railroad track.

All employees must be included as insured.

D. Pollution Liability: Liability coverage for Pollution/Environmental Contamination in the amount of not less than \$4,000,000 per occurrence.

All employees must be included as insured.

E. Additional Insured: The Village of Winnetka and New Trier Township High School District 203 must be named as an Additional Insured on the Comprehensive General Liability and Comprehensive Motor Vehicle Liability coverage with the following wording appearing on the Certificate of Insurance:

The Village of Winnetka and any official, trustee, director, officer or employee of the Village of Winnetka and the New Trier Township High School District 203 and its Board of Education, both individually and collectively, and all agents, representatives, volunteers and employees are added as Additional Insureds, when required by written contract, on the General Liability and Auto Liability on a primary and non-contributory basis.

A Waiver of Subrogation of the Additional Insureds applies to the Workers' Compensation and General Liability policies.

The General Liability policy shall not contain exclusions for bodily injury or property damage arising out of Explosion Hazard, Collapse Hazard, or Underground Hazard work.

The Umbrella must follow form over the underlying liability with regards to coverage terms and conditions, Additional Insured, and Waiver of Subrogation.

F. Waiver of Subrogation: The Workers' Compensation and General Liability must include a Waiver of Subrogation.

G. Umbrella Policy: The required coverage may be in the form of an umbrella policy with limits of \$5,000,000 per occurrence and \$5,000,000 aggregate above the \$1,000,000 primary coverage. All umbrella policies must provide excess coverage over underlying insurance on a following-form basis so that, when any loss covered by the primary policy exceeds the limits under the primary policy, the excess or umbrella policy becomes effective to cover that loss.

H. Cancellation or Alteration: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

I. Insurance Certificates:

- (1) Must be submitted ten (10) days prior to any work being performed to allow review of certificates.
- (2) Certificates not meeting requirements must be revised and resubmitted within fifteen (15) days or the subcontractor will not be allowed on the jobsite.

J. Minimum Insurance Carrier: All contractors, manufacturers/distributors, and suppliers' insurance carriers must be authorized to do business in Illinois and comply with the minimum A.M Best rating of A, VII for all insurance carriers.

Exhibit P

Park District Insurance Certificates