

Protecting Our Water Environment

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Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

December 10, 2018

Mr. Matthew Supert
Director of Municipal Services
Village of Western Springs
740 Hillgrove Avenue
Wester Spring, IL 60558

Dear Mr. Supert:

SUBJECT: MWRD Permit Revision: RL 18-046
MWRD Permit No: 75-529
Name of Project: Ridgewood Court

The documents described below have been received and reviewed by this office and are hereby made a part of the subject permit. Acceptance of these documents shall not alter the conditions of the permit, with the exception of the special conditions noted below, nor shall it affect previously submitted permit documents, which are not in conflict with these documents. Transmitted herewith for your records is a copy of the documents annotated with the permit number.

Documents submitted by: Ms. Lynn A. Kroll, P.E.
James J. Benes and Associates, Inc.
950 Warrenville Road, Suite 101
Lisle, IL 60532

New Plans: Sheets 3, 4; Dated 10/4/2018
Sheet 5; Dated 11/20/2018

Revised Permit Documents: Schedule A, Schedule D, Page 8 & 9 (WMO)

This revision incorporates the following modifications to the work approved earlier under MWRD Permit No. 75-529:

1. The existing stormwater detention facilities constructed under the original permit are now revised and are financed by the Village.
2. Schedule A is now revised to reflect the changes to the detention basin.
3. Schedule D and the stormwater detention calculations are now revised to the following:
 - i. The volume provided (0.60 ac-ft) exceeds the required volume (0.59 ac-ft).
 - ii. The HWL elevation is 675.00 and the NWL elevation is 670.00.
 - iii. The existing restrictor is replaced with a 6 inch diameter orifice plate.

- iv. The actual release rate (2.09 cfs) is less than the allowable release rate (2.18 cfs).
- 2. Page 8 and page 9 are now executed by the Village of Western Springs and Ridgewood Oaks Homeowners Association, and are made a part of the permit.
- 4. There is no change to the sanitary sewer system approved under the original permit.

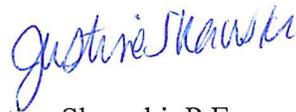
Special Condition 5 is now revised to the following:

- 5 (R). The stormwater detention calculations and facilities under the permit revision supersedes those covered under MWRD Permit No. 75-529. Stormwater detention is provided by detention basin with a 6 inch diameter orifice restrictor.

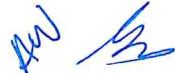
The Co-Permittee must contact the MWRD Local Sewer Section's Field Office at (708) 588-4055 at least (2) days prior to the commencement of the aforesaid revised work to schedule an inspection. Construction and inspection of the proposed work under this revision must be completed within one (1) year from the date of this revision letter; otherwise, this revision approval will be considered expired. The fully executed Request for Final Inspection (RFI) must be submitted to the MWRD covering all work under the permit and revision.

If you have any questions, please call Mr. G. R. Patel at (312) 751-3246.

Very truly yours,



Justine Skawski, P.E.
Principal Civil Engineer



AW/G R

cc: Ms. Lynn A. Kroll, P.E.
James J. Benes and Associates, Inc.
Mr. Andrew Fullerton
Co-Permittee



OFFICE

MSDGC Permit No. 75-529
IEPA Log No. _____

Schedules To Be Submitted With MSDGC
And IEPA Joint Permit Applications

SCHEDULE A - BASIC INFORMATION

RL No. 18-046

1. PROJECT INFORMATION

Name of project (as shown on plans) Ridgewood Court
Location of project (street address or with respect to two major streets) Wolf Road South of 55th Street
Municipality (Township, if unincorporated) Cook County

2. APPROXIMATE TIME SCHEDULE:

Sewerage Facilities Construction Schedule: Start of Construction April 1975; Date of Completion Nov. 1975.
Occupancy Schedule: Date Occupancy Begins Nov. 1975; 100% Occupancy to be reached by Nov. 1976.

3. APPURTENANCES:

Project includes the following: (check applicable items by "X"): Manholes []; Catch basins or inlets []; Catch basin restrictors []; Drop Manholes []; Stream Crossing []; Siphon []; Direct Connections to MSDGC Facilities [].

4. RECEIVING SANITARY SEWER SYSTEM:

System to which project will connect is existing []; proposed []; under construction []. If proposed or under construction by applicant, indicate MSDGC Permit No. N/A; (IEPA Permit No. N/A). Identify owners of all sewer systems from project to MSDGC interceptor LaGrange Highlands San. Dist.
If project discharges directly or indirectly to a local combined sewer, the receiving combined sewer does [], does not [] have an overflow. If overflow exists, discharge is made to N/A by means of N/A
(FOR OFFICE USE: Receiving MSDGC Treatment Plant and/or Lift Station Western Springs
Point of Discharge of Sanitary Sewers: X1016116171, Y1181616131, Code L110161, SB 4110161)

5. EXISTING LIFT STATION: N/A

Receiving system includes an existing Lift Station Yes [, No []; Project is [, is not [] in design service area of lift station. Location of existing lift station _____; Rated capacity of lift station _____ gpm; MSDGC or other permit number under which lift station was constructed _____
Existing lift station does [, does not [] have stand-by power; does [, does not [] have an overflow; if there is an overflow, overflow discharges to storm sewer [, to waterway [, name of waterway _____

6. FLOOD PLAIN: N/A

Project area is partially (or totally) in flood plain Yes [, No []; if yes, complete the following: Percent of area in flood plain _____%. Flood crest elevation is _____; Name of USGS Quadrangle _____
Volume of flood storage available prior to development (Volume between flood crest elevation and existing ground) _____ Cu. Yd. Volume of fill made in flood plain _____ Cu. Yd. Compensatory storage provided _____ Cu. Yd.
Identify any manholes in flood plain _____

7. DRAINAGE:

Total area of project 5.29 acres; Impervious area within project (paved, roofed, etc.) 2.94 acres. Manner of Drainage: Storm sewer provided []; Catch basins or inlets []; Surface runoff []; other [, describe: N/A

8. DETENTION:

Is detention provided Yes [, No []; Method of detention: Detention reservoir [, Roof detention []; Detention on parking area or ground []; Restriction of storm outlet [, Pipe size of restriction 6 inch; other method N/A. Detention capacity provided 0.59 acre-ft. Release rate 2.18 cfs. Design Criteria: MSDGC [, Local Requirement [, Other [, describe: N/A 0.60. The detention is intended to serve this project only [, is intended to serve other areas []. Map and calculations are attached Yes [, No [].

This project is part of the service area of an existing detention basin Yes [, No [] Indicate MSDGC Permit number covering the detention basin N/A or submit map and calculations.
(MSDGC USE ONLY: Point of discharge of storm waters; X1016116171, Y1181616131; DB 510)

2,09 cfs

ORIFICE

ENGINEERING CERTIFICATIONS

LOCAL SEWER DISTRICT SECTION
Watershed Management Permit No. 75-529

75-529

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, local, state and federal laws, and design criteria of the issuing authority; that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that where the design involves one or more connections to an existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the stormwater and/or wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: Certification is for Stormwater only. Village of Western Springs, Ridgewood Oaks Pond reinstatement.

Engineering Firm: James J. Benes and Associates, Inc. **Telephone:** (630) 719 - 7582

Address: 950 Warrenville Road, Suite 101 **City:** Lisle **Zip:** 60532

Signature: Lynn A. Kroll PROJECT ENGINEER **Date:** 10/22/2018
(Name and Title)

Email Address: lkroll@jjbenes.com



CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper in accordance with local requirements. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the stormwater and/or wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

I hereby certify that the project area is within the municipal corporate limits. YES NO

Owner of Local Sewer System: Village of Western Springs

Address: 950 Warrenville Road, Suite 101 **City:** Lisle **Telephone:** 630-719-7582

Zip: 60532

Signature: Matthew Supert DIR. OF MUNICIPAL SERVICES **Date:** 10/22/2018
(Name and Title)

Email Address: msupert@wsprings.com



CERTIFICATE BY INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application; that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the Permit requirements; that a set of RECORD drawings, signed and sealed by the undersigned Engineer will be furnished to the District or an Authorized Municipality before testing and approval by the District or Authorized Municipality of the completed work.

Engineering Firm: James J. Benes and Associates, Inc. **Telephone:** 630-719-7571

Address: 950 Warrenville Road, Suite 101 **City:** Lisle **Zip:** 60532

Signature: Lynn A. Kroll PROJECT ENGINEER **Date:** 10/22/2018
(Name and Title)

Email Address: lkroll@jjbenes.com



SPECIAL CONDITIONS

Watershed Management Permit No.

75-529

This Permit is issued subject to the General Conditions and the attached Special Conditions.

If Permit is granted:

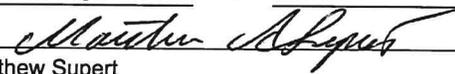
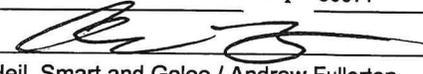
- Please return two (2) copies of the Permit to the Permittee; or
- Please mail one (1) copy to Permittee and one (1) copy to the person designated below:

Name: _____

Address : _____

Email : _____

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this Permit application, and agree to conform to the Permit conditions and other applicable requirements of the District. It is understood that construction hereunder, after the Permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the District or an Authorized Municipality. It is further understood that this application shall not constitute a Permit until it is approved, signed and returned by the Director of Engineering of the District or Enforcement Officer of an Authorized Municipality.

PERMITTEE	CO-PERMITTEE
<p>The project area is within municipal corporate limits.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable</p>	<p>(Co-Permittee is Property Owner)</p> <p>Title to property is held in a land trust: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, Co-Permittee shall be beneficiary with Power of Direction</p>
Municipality <u>Western Springs</u>	Owner <u>Ridgewood Oaks Homeowners Association</u>
Address <u>740 Hillgrove Avenue</u>	Address <u>5215 Old Orchard Road, STE 300</u>
City <u>Western Springs, Illinois</u> Zip <u>60558</u>	City <u>Skokie</u> Zip <u>60077</u>
Signature 	Signature 
Name <u>Matthew Supert</u> (Print)	Name <u>Heil, Heil, Smart and Golee / Andrew Fullerton</u> (Print)
Title <u>Director of Municipal Services</u>	Title <u>Risk Management Specialist</u>
Date <u>10/22/2018</u> Phone <u>708-246-1800</u>	Date <u>10/22/2018</u> Phone <u>847-866-7400</u>
Email <u>msupert@wsprings.com</u>	Email <u>afullerton@heilandheil.com</u>

REVIEW AND APPROVAL BY THE DISTRICT OR AUTHORIZED MUNICIPALITY

Reviewed by: _____	Date _____
(Local Sewer Systems) or (Professional Engineer)	
Approved for Issue	
Approved by: _____	Date _____
(For the Director of Engineering) or (Enforcement Officer)	

LOCAL SEWER SYSTEM SCHEDULE D DETENTION SECTION

MSDGC Permit No. 75-
IEPA Log No. 75-

I. Project Information

Name of Project as shown on plans 18 NOV - 5 PM 5:07 Ridgewood Court
Location wolf Road south of 55th Street

II. Determination of Allowable Release Rate - Undeveloped Site:

1. Area of site	5.29	acres
2. Average ground slope	0.036	foot/foot
3. Overland flow distance	500	feet
4. Overland flow time of concentration	22	minutes
5. Average slope of channelized flow (See Note a)	N/A	foot/foot
6. Channelized flow distance (See Note a)	N/A	feet
7. Channelized flow time of concentration	N/A	minutes
8. Total time of concentration (Line 4 + Line 7)	22	minutes
9. Rainfall intensity for three-year storm	2.75	inches/hr.
10. Runoff coefficient (Use c=0.15 as maximum, see Article 6-4b(2) of the MSDGC Manual)	0.15	
11. Allowable release rate, (line 1 x line 9 x line 10: Q=ciA)	<u>2.18</u>	<u>2.18</u> cfs. <u>20 gpcps</u>

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

III. Determination of Reservoir Size - Developed Site:

12. Impervious drainage area (0.90)	2.94	acres
13. Pervious drainage area (0.20)	2.35	acres
14. Composite runoff coefficient (c)	0.59	
15. Required reservoir capacity (attach calculations)	<u>0.57</u>	acre-feet <u>0.58 AC-FT</u>

IV. Permissible Bypass Rate through Development Site from Upstream Area: N/A

A. Determination of Bypass Rate:

16. Total area upstream	_____	acres
17. Future/present impervious area (cross out inappropriate case)	_____	acres
18. Future/present pervious area (cross out inappropriate case)	_____	acres
19. Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(3))	_____	
20. Design storm frequency for the upstream area (Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.)	_____	year
21. Time of concentration for the upstream area at point of entry (upstream area to be considered as undeveloped) (By same method as line 8)	_____	minutes
22. Design storm intensity for above duration	_____	inches/hour
23. Permissible bypass rate (line 16 x line 19 x line 22)	_____	cfs.

B. Determination of Required Size of Bypass System: N/A

24. Bypass system will be open channel/closed conduit (cross out inappropriate case)	_____	
25. Water cross-section area for discharge in line 23	_____	sq. ft.
26. Wetted perimeter for area in line 25	_____	feet
27. Hydraulic radius (line 25 + line 26)	_____	feet
28. Line 27 to the 2/3 power	_____	
29. Invert slope	_____	foot/foot
30. Line 29 to the 1/2 power	_____	
31. Manning's roughness coefficient (n)	_____	
32. Bypass capacity [(1.49 x line 25 x line 28 x line 30) ÷ (line 31)]	_____	cfs.

$$Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$$

Engineering Firm APPLIED ENGINEERING COMPANY

Signature Frank P. Angelitto Date February 21, 75
(Name and Title)

JAMES J. BENES & ASSOCIATES
Lynn A. Kroll 10/26/18



Ridgewood Oaks Proposed Pond

Orifice Equation

$$Q = C \cdot A \cdot (2 \cdot g \cdot h)^{0.5}$$

Orifice Inv. = 670.00
Orifice Dia. = 6 in.
HGL (trial) = 675.00
C = 0.61
A = 0.196 s.f.
g = 32.2 ft./sec/sec
H = 4.75 ft.

$$Q = \underline{\quad 2.09 \quad} \text{ cfs}$$

Weir Equation

$$Q = C \cdot L \cdot H^{3/2}$$

Weir Elev. = 0
Breadth of Weir = 0 ft. (effects C)
HGL (trial) = 0
L = 0 ft.
C = 0
H = 0 ft.

$$Q = \underline{\quad 0.00 \quad} \text{ cfs}$$

TOTAL FLOW = 2.09 cfs

FINAL DESIGN

JJB

JAMES J. BENES & ASSOCIATES, INC.

950 Warrenville Road · Suite 101 · Lisle, Illinois 60532

Tel. (630) 719-7570 · Fax (630) 719-7589

Job No. _____ Page No. _____

Date 8/28/18

Subject RIDGEWOOD OAKS

Project 1533

By SP ch. GH

REVISED POND GRADING
USING RETAINING WALL

Sh. 1 of 1

	<u>FT²</u>	<u>FT³</u>	AC-FT	Σ AC-FT
670,5	606.13			
671	1600.32	552 FT ³	0.012	0.01
672	3818.85	2,710 FT ³	0.062	0.07
673	6330.56	5,075 FT ³	0.117	0.19
674	8841.74	7,586 FT ³	0.174	0.36
675	11,165.97	10,004 FT ³	0.230	0.60
			0.60 AC-FT	





Date 8-28-2018

Subject Ridge wood Oaks

Project _____

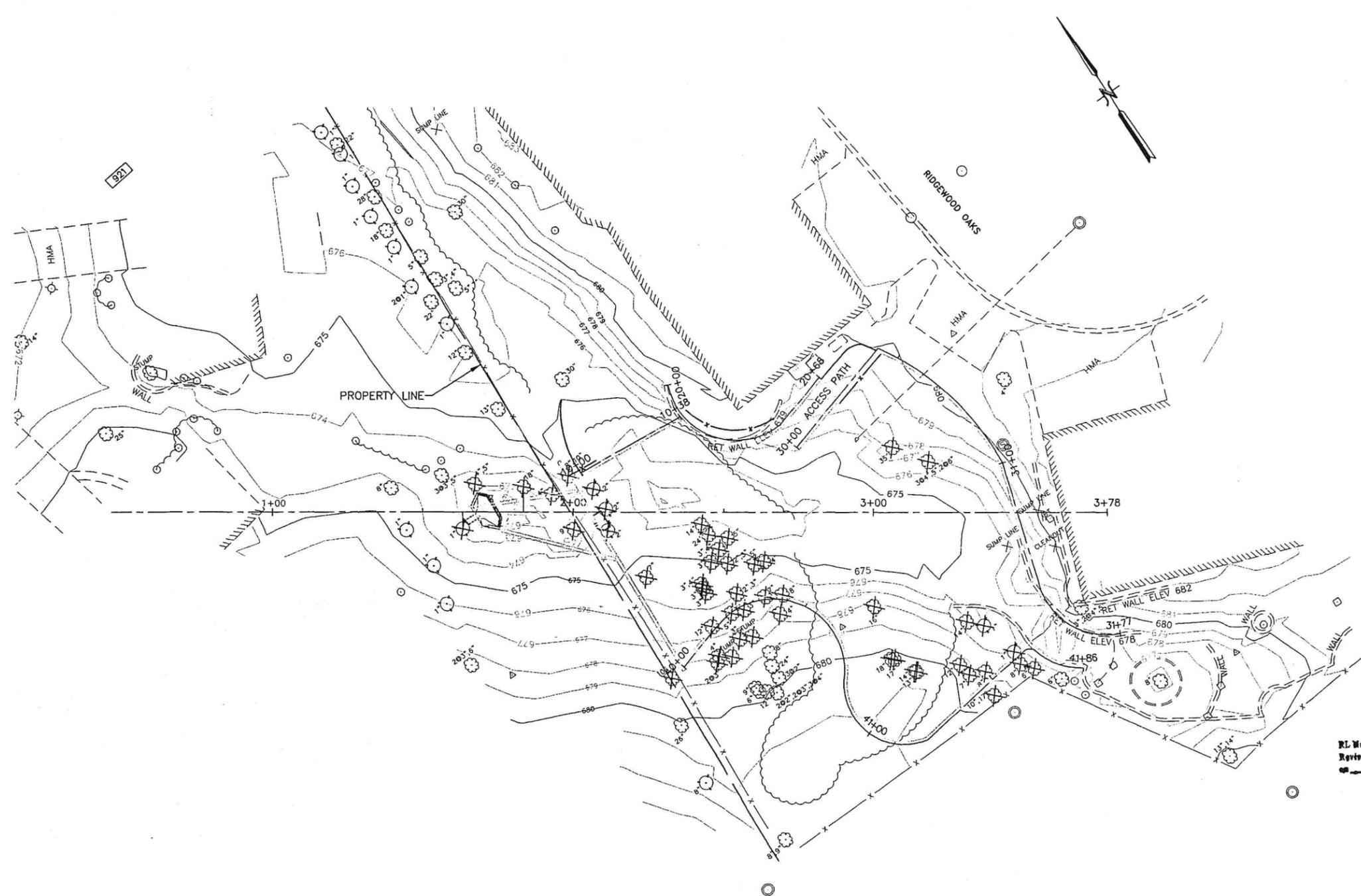
By Smp Ch. LK

Detention

Sh. 1 of 1

AREAS FROM CADD

	Sq Ft
670.5	606.13
671	1600.32
672	3818.85
673	6330.56
674	8841.74
675 (no access path)	11,165.97



LEGEND

	RETAINING WALL
	DECORATIVE FENCE
	LIMIT OF UNDERBRUSH

OFFICE COPY

True copy of plans on file with
Metropolitan Sanitary District
of Greater Chicago Sewerage
Permit 75-529

RL No. 18-046
Revised drawings received



OFFICE COPY

JJB JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 • Fax (630) 719-7589

DESIGNED — LAK	REVISED —
DRAWN — SMP	REVISED —
CHECKED — JCZ	REVISED —
DATE — 10/04/2018	REVISED —

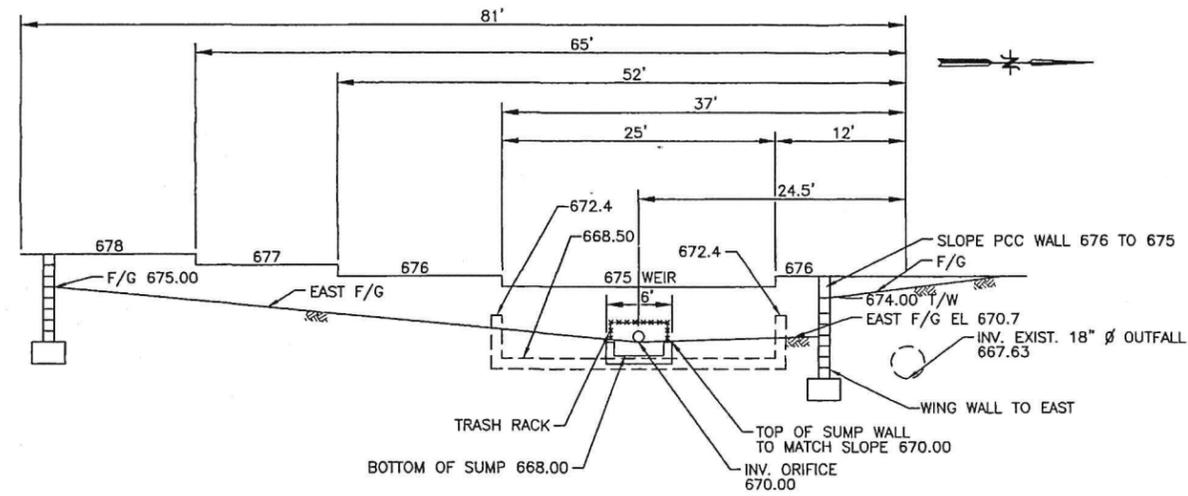
VILLAGE OF WESTERN SPRINGS
RIDGWOOD OAKS

RIDGWOOD OAKS DETENTION BASIN
TREE REMOVAL

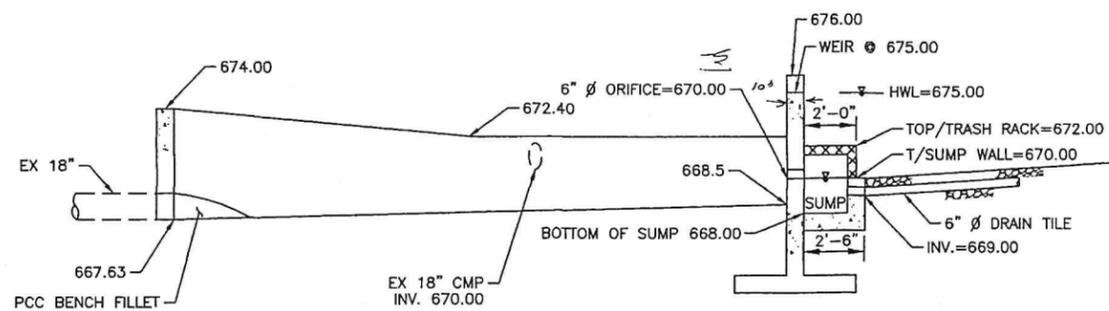
SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. — TO STA. —
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	10	3
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

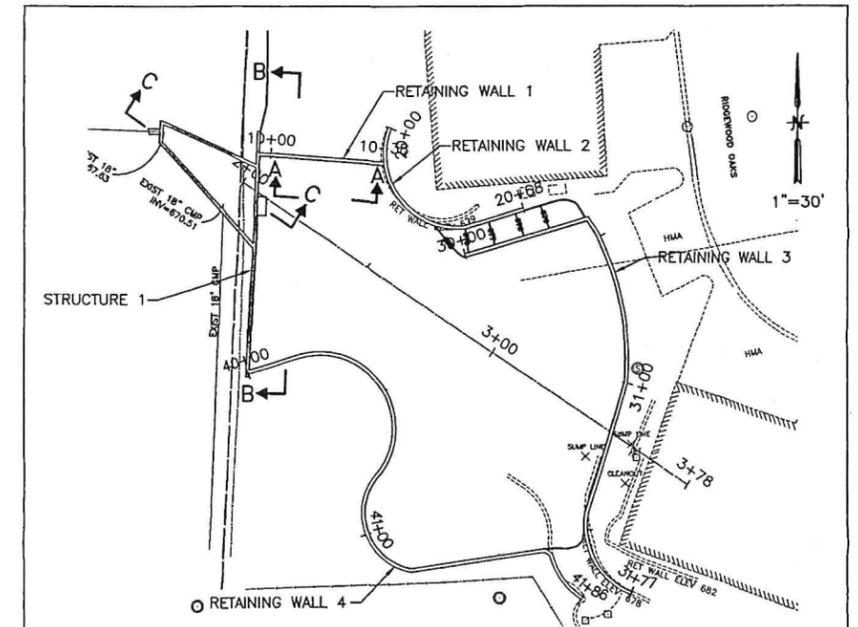
FOR SECTION A-A SEE WALL PROFILES SHEET



SECTION B-B



SECTION C-C



JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 • Fax (630) 719-7589

DESIGNED — LAK	REVISED —
DRAWN — SMP	REVISED —
CHECKED — JCZ	REVISED —
DATE — 11/20/2018	REVISED —

VILLAGE OF WESTERN SPRINGS
RIDGWOOD OAKS

SECTION VIEWS AND
STRUCTURE AND WALL IDENTIFICATION MAP

SCALE: NTS SHEET NO. OF SHEETS STA. — TO STA. —

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	11	6
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				