



City Council
COMMITTEE OF THE WHOLE
City of Belvidere, Illinois

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Alderman Daniel Snow, 2nd Ward

Co-Chairman, City/County Coordinating

Alderman Thomas Ratcliffe, 3rd Ward

Chairman, Finance and Personnel

Vice Chairman Building Planning and Zoning

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Vice Chairman, Finance and Personnel

Alderman Ronald Brooks, 4th Ward

Chairman, Public Works

Alderman Mark Sanderson, 5th Ward

Vice Chairman, Public Works

AGENDA

April 10, 2017

6:00 p.m.

City Council Chambers

401 Whitney Boulevard

Belvidere, Illinois

Call to Order: Mayor Chamberlain

Roll Call: Present: Absent:

Public Comment:

Public Forum:

Reports of Officers, Boards, and Special Committees:

1. Building, Planning & Zoning, Unfinished Business: None.
2. Building, Planning & Zoning, New Business:

(A) Little Caesars – 1201 North State Street – Plat signing extension.

(B) Special Use Extension – Southtown Ventures.

3. Public Works, Unfinished Business: None.

4. Public Works, New Business:

- (A) Intergovernmental Agreement with Boone County for Traffic Control Device Repair & Maintenance.
- (B) 2017 Sidewalk Replacement Program.
- (C) 2017 Tree Work Program Bid Tabulation.
- (D) 2017 Mowing Program.
- (E) 2017 Landscape Maintenance Work Program Bid Tabulation.
- (F) Resolution for Maintenance of Streets and Highways by Municipality under the Illinois Highway Code.
- (G) Resolution Establishing a Class II or Class III Designated Truck Route.
- (H) Thickening Centrifuge Design Engineering – Work Order Amendment.
- (I) Aerator Replacement – WWTP Retention Pond.
- (J) Well #8 Generator – Engineering Services Work Order.
- (K) Annexation of Well #9.

5. Other:

- (A) Resolution Relating to Participants by Elected Officials in the Illinois Municipal Retirement Fund.

6. Adjournment:

Gina DelRose

From: Huntington, Todd <thuntington@gpdgroup.com>
Sent: Tuesday, April 04, 2017 4:31 PM
To: Gina DelRose
Subject: Little Caesars - 1201 N. State Street - Final Plat

Gina,

We are still processing the final steps prior to obtaining final signatures on the Plat. Brent Anderson recently approved our Drainage Overlay (I'm sending him a Mylar now for signature and formal approval), and our Letter of Credit (assuming we add the sidewalk on Fairburn Road). With those items done, we are sending to Brent for his approval. Once we have that, we will have the Owner bring the Letter of Credit form and Plat into the City for final signatures.

We understand the 60 day timeline from Council approval is April 7th. Can we be granted an extension to this deadline as we work through the remaining steps. We intend on diligently pushing this forward to obtain Final Plat signatures, so the property can close, but it cannot be done by 4/7.

Please let me know if you can grant this extension, and how long the extension is good for.

Thanks,

Todd Huntington, P.E., LEED AP
Project Manager

GPD GROUP

Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

5050 Quorum Drive, Suite 338 Dallas, TX 75254 gpdgroup.com

tel / 469.573.4301 cel / 330.388.7552

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INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITY OF BELVIDERE AND BOONE COUNTY
FOR TRAFFIC CONTROL DEVICE REPAIR AND MAINTENANCE

This Intergovernmental Agreement is entered into this ___ day of _____, 2017
by and between the City of Belvidere ("City") and County of Boone ("County");

RECITALS:

A. Article VII, Section 10, of the Constitution of the State of Illinois of 1970 provides that units of local government may contract or otherwise associate among themselves to obtain or share services and to exercise, combine, or transfer any power or function in any manner not prohibited by law or by ordinance and may use their credit, revenues, and other resources to pay costs related to intergovernmental activities. The Intergovernmental Cooperation Act, 5 ILCS 220/1, et seq., further authorizes intergovernmental cooperation.

B. City and County are units of local government within the meaning of Article VII, Section 10 of the Constitution of the State of Illinois of 1970 and the Intergovernmental Cooperation Act and each has the authority to enter into this Agreement.

C. It has been determined by the corporate authorities of both City and County that this Agreement is in the best interest of each of them.

NOW, THEREFORE, BE IT AGREED AS FOLLOWS:

SECTION 1: RECITALS

The parties hereto find that the recitals set forth above are true, correct, and proper and hereby incorporate them into the body of this Agreement as if fully set forth herein.

SECTION 2: TERM OF AGREEMENT

This Agreement shall remain in effect for so long as the traffic signals covered by the terms of this Agreement remain in place, either in their current form or some modified

configuration. The Agreement may be modified in writing at any time by execution of an amendment signed by both parties. The Agreement may be terminated at any time by either party with 90 days written notice given to the other party. In the event of termination, the County shall pay any and all expenses incurred by the City prior to termination.

SECTION 3: SCOPE OF AGREEMENT

It is the intention of this Agreement that the City will provide all repairs and maintenance for the County traffic control device (traffic signals) located at the intersection of Genoa Road and Crystal Parkway / Interstate 90 Jane Addams Tollway Ramp (Latitude 42.2356, Longitude -88.8194). It is agreed that maintenance and repairs will meet the minimum requirements of the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways. Additional provisions regarding maintenance may be incorporated in this document upon written agreement by both parties. City will supply all equipment necessary to provide these services.

SECTION 4: COST AND PAYMENT

The County shall pay the actual cost incurred by the City for all maintenance and repairs, using an industry-standard time and material calculation. The cost for any contracted work will be the actual cost for the contractor. Any proposed single expenditure in excess of \$5,000.00 for repair or damage to the device must be approved by County before the expenditure is made. Bills shall be submitted to the County and paid within 30 days of receipt.

SECTION 5: TIMING

The County, in cooperation with the City, shall determine the signal timing to coordinate and regulate the flow of traffic. No signal timing shall be changed at any time without prior County approval.

SECTION 6: ENERGY COSTS

County shall pay all energy costs relating to operation of the traffic control device.

SECTION 7: INDEMNIFICATION

The County shall indemnify, defend and hold harmless the City, its officials, officers and employees, from any demand, claim or cause of action, including but not limited to claims related to bodily injury or death, arising out of or in any way related to the traffic signals, excepting those willful or wanton negligent acts of the City or its employees. This Agreement shall not be deemed to waive or limit any protection or immunity provided either of them

under relevant law, including, but not limited to, the Illinois Governmental Employees Tort Immunity Act.

SECTION 8: PREVIOUS AGREEMENTS

All previous agreements relating to maintenance and/or repair of the signal, whether oral or written shall upon execution of this Agreement by the parties shall be superseded and be of no force or effect.

SECTION 9: NOTICE

Notice under this agreement shall be as follows:

For the City:

For the County:

This Agreement shall be binding upon and inure to the benefits of the parties hereto, their successors and assigns. It is accepted as of the day and year first above written by:

COUNTY OF BOONE

By: _____

CITY OF BELVIDERE

By: _____

MEMO

To: Mayor and City Council
From: Brent Anderson, Director of Public Works
Date: March 29, 2017
Re: 2017 Sidewalk Replacement Program

The following bids were received for the City's annual sidewalk replacement program:

Bidder	Amount
1. Randy Baier Construction, Inc. P.O. Box 67 Belvidere, IL. 61008	\$37,905.00
2. Stenstrom Excavation and Blacktop Group 2422 Center Street Rockford, IL. 61108	\$66,825.00
3. Alliance Contractors, Inc. 1166 Lake Street Woodstock, IL. 60098	\$70,725.00

I would recommend approval of the low bid from Randy Baier Construction, in the amount of \$37,905.00, for the City's annual sidewalk program. The unit prices are \$6.30/sf for the removal and replacement of 4" sidewalk, \$6.55/sf for 6" sidewalk and \$45.00/lf for curb removal and replacement. This work will be paid from Line Item #01-5-310-6003.

2016 unit prices: \$5.65/sf for 4" and \$5.70/sf for 6"
2015 unit prices: \$5.55/sf for 4" and \$5.65/sf for 6"
2014 unit prices: \$5.55/sf for 4" and \$5.65/sf for 6"
Prior to 2017, curb pricing has not been requested for these bids.

MEMO

To: Mayor and City Council
From: Brent Anderson, Director of Public Works
Date: March 29, 2017
Re: 2017 Tree Work Program Bid Tabulation

The following bids were received for the City's annual Tree Work Program:

	Bidder	Amount
1.	Trees "R" Us, Inc. P.O. Bow 6014 Wauconda, IL. 60084	\$54,600.00
2.	Tree Care Enterprises, Inc. 5563 Kilburn Ave. Rockford, IL. 61101	\$68,400.00

I would recommend approval of the low bid from Trees "R" Us, Inc. in the amount of \$54,600.00, for tree work from May 1, 2017 to April 30, 2018 for the City's Tree Work program. This work will be paid from Forestry Line Item #01-5-340-6850. The budget for this work is \$80,000.

The unit prices are as follows:

	2017	2016	2015
1. Tree Removal (6" to 15" Dia.)	\$21.00/In Dia.	\$25.00/In Dia.	\$25.00/In Dia.
2. Tree Removal (Over 15" Dia.)	\$32.00/In Dia.	\$44.00/In Dia.	\$44.00/In Dia.
3. Stump Grinding	\$10.00/In Dia.	\$12.00/In Dia.	\$12.00/In Dia.

MEMO

To: Mayor and City Council
From: Brent Anderson, Director of Public Works
Date: March 29, 2017
Re: 2017 Mowing Program

The following bids were received for the mowing of Water Department properties, Public Works properties and the Farmington Ponds:

- | | |
|--|---|
| 1. LawnCare by Walter, Inc.
4235 S. Perryville Rd.
Cherry Valley, IL. 60116 | Water: \$380.00 per mowing, \$610.00 herbicide
Public Works: \$725.00 per mowing, \$1,400.00 herbicide
Ponds: \$225.00 per mowing, \$735.00 herbicide |
| 2. Lawn Maintenance Services, Inc.
3344 Garden Prairie Rd.
Garden Prairie, IL. 61038 | Water: \$410.00 per mowing, \$300.00 herbicide
Public Works: \$448.00 per mowing, \$440.00 herbicide
Ponds: \$258.00 per mowing, \$200.00 herbicide |

Based on review of the bids, I would recommend the following:

Approval of the low bid from LawnCare by Walter, in the amount of \$380.00 per mowing, for the Water Department Sites. This work will be paid from Water Department Line Item #61-5-810-6040

2016: \$355 per mowing
2015: \$190 per mowing
2014: \$300 per mowing

Approval of the low bid from LawnCare by Walter, in the amount of \$225.00 per mowing, for the Farmington Ponds, This work will be paid from the Farmington Pond Maintenance Fund.

2016: \$256 per mowing
2015: \$120 per mowing
2014: \$241 per mowing

Approval of the low bid from Lawn Maintenance Services, in the amount of \$448.00 per mowing, for the Public Works Sites. This work will be paid from Street Department Line Item #01-5-310-6002

2016: \$400 per mowing
2015: \$190 per mowing
2014: \$340 per mowing

MEMO

To: Mayor and City Council
From: Brent Anderson, Director of Public Works
Date: March 29, 2017
Re: 2017 Landscape Maintenance Work Program Bid Tabulation

The following bids were received for the City's annual Landscape Maintenance Work Program:

	Bidder	Amount
1.	LawnCare by Walter Inc. 4235 S. Perryville Rd. Cherry Valley, IL. 61016	\$21,018.00
2.	Area Services, Inc. 11801 Slough Rd. Garden Prairie, IL. 61038	\$27,736.99
3.	Lawn Maintenance Service, Inc. 3344 Garden Prairie Rd. Garden Prairie, IL. 61038	\$30,100.00

I would recommend approval of the low bid from, LawnCare by Walter, Inc. in the amount of \$21,018.00, for Landscape Maintenance Work From May 1, 2017 to April 30, 2018 for the City's Landscape Maintenance Work program. This work will be paid from the Street Department Line Items # 01-5-310-6002 and #01-5-310-6826



BE IT RESOLVED, by the Council of the
(Council or President and Board of Trustees)
City Belvidere of Belvidere, Illinois, that there is hereby
(City, Town or Village) (Name)
appropriated the sum of \$850,000.00 of Motor Fuel Tax funds for the purpose of maintaining
streets and highways under the applicable provisions of the Illinois Highway Code from January 1, 2017
(Date)
to December 31, 2017.
(Date)

BE IT FURTHER RESOLVED, that only those streets, highways, and operations as listed and described on the approved Municipal Estimate of Maintenance Costs, including supplemental or revised estimates approved in connection with this resolution, are eligible for maintenance with Motor Fuel Tax funds during the period as specified above.

BE IT FURTHER RESOLVED, that the Clerk shall, as soon a practicable after the close of the period as given above, submit to the Department of Transportation, on forms furnished by said Department, a certified statement showing expenditures from and balances remaining in the account(s) for this period; and

BE IT FURTHER RESOLVED, that the Clerk shall immediately transmit two certified copies of this resolution to the district office of the Department of Transportation, at Dixon, Illinois.

I, Shauna Arco Clerk in and for the City
(City, Town or Village)
of Belvidere, County of Boone

hereby certify the foregoing to be a true, perfect and complete copy of a resolution adopted by

the Council at a meeting on _____
(Council or President and Board of Trustees) Date

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this _____ day of _____.

(SEAL) _____ City _____ Clerk
(City, Town or Village)

Approved

Regional Engineer
Department of Transportation

Date



WHEREAS, the State of Illinois by its General Assembly has enacted the Illinois Vehicle Code; and

WHEREAS, 625 ILCS 5/1-126.1 provides that local authorities may designate Class II or Class III highways within their jurisdiction, and in accordance with 625 ILCS 5/15-111(f), weight limitations shall be designated by appropriate signs placed on such highways; and

WHEREAS, the Local Agency, City of Belvidere, is desirous of providing a truck route for the purpose of accommodating a load limit of 80,000 pounds:

NOW THEREFORE, BE IT RESOLVED, that the portions of Tripp Road beginning at the intersection of Crystal Parkway and extending to Corporate Parkway for 0.25 miles be designated as a:

[X] Class II Truck Route or [] Class III Truck Route.

Ayes:
Nays:
Absent:

Name
Title
Signature

STATE OF ILLINOIS)
) SS
COUNTY OF)

I, Clerk, in and for the Local Agency and State aforesaid, and keeper of the records and files of said office, hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Local Agency, at their Adjourned Meeting held on

IN TESTIMONY WHEREOF, I witness my hand and seal of the Local Agency, this day of

(SEAL)

Clerk

80,000 lb. Truck Access Resolution (TARP) ATTACHMENT 4

BELVIDERE PUBLIC WORKS

401 Whitney Boulevard

Belvidere, IL 61008

Phone 815-544-9256

Fax: 815-544-4255

Memo

To: Mayor and City Council
From: Brent Anderson, Director of Public Works
Date: April 4, 2017
Re: Thickening Centrifuge Design Engineering – Work Order Amendment

The initial plan for the sludge thickening improvements was to leave the balance of the unused building alone and complete those improvements as a separate future project. As Baxter and Woodman has worked through the design of the new thickening centerfuges, it has become apparent that some piping and floor replacement in the unused building space will need to be done at this time.

Attached is a work order amendment from Baxter & Woodman to complete the design engineering for the piping modifications, including an oil separator and new flooring in the unused portion of the thickener building.

I would recommend approval of the work order amendment from Baxter & Woodman at a cost not-to-exceed \$7,000. This work will be paid for from the Sewer Depreciation Fund.

**CITY OF BELVIDERE, ILLINOIS
WASTEWATER TREATMENT PLANT IMPROVEMENTS -
SLUDGE THICKENING IMPROVEMENTS
DESIGN ENGINEERING SERVICES
WORK ORDER AMENDMENT NO. 1**

Engineer's Project No. 160545.40

Purpose of Amendment:

This amendment to the original Work Order dated June 21, 2016 provides for additional scope of services and compensation that are being added to the Project.

Amended Engineering Services:

The scope of service is amended to provide for demolition of Gravity Belt Thickener (GBT) No. 1, existing polymer mixing systems, and a portion of the concrete floor required for installation of a "triple basin" to collect debris and oils from proposed vehicle maintenance operations in the south half of the existing Thickener Building. The scope of service is also amended to add the design of a new concrete slab for the south half of the Thickener Building, to incorporate an interior partition wall, and rolling overhead doors that are being designed by Ollmann Earnest Martin Architects. The revised complete project description is set forth in Attachment A. The revised complete scope of services is set forth in Attachment B.

Amended Compensation:

The Engineer's fee for the Project shall be amended as follows:

Current Not-to-Exceed Work Order Limit:	\$67,500
Net increase of this Amendment	\$ 7,000
Amended Not-to-Exceed Limit:	\$74,500

<p>Submitted by: Baxter & Woodman, Inc.</p> <p>By: <u><i>Derek J. Wold</i></u> Derek J. Wold, P.E.</p> <p>Title: Vice President</p> <p>Date: <u>March 20, 2017</u></p>	<p>Approved by: City of Belvidere, Illinois</p> <p>By: _____</p> <p>Title: Mayor</p> <p>Date: _____</p>
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Additional Comments and Conditions: All other provisions of the Work Order shall remain in full force and effect.

Project Description - Amended

The Project consists of the following items:

- Removal of existing Gravity Belt Thickeners No. 1 and No. 2.
- Removal of obsolete equipment including existing piston/plunger pumps, polymer feed equipment, and the conveyor.
- Design and layout for two new thickening centrifuges within the same footprint as the GBT on the north end of the Thickener Building.
- Integration of a “triple basin” to collect debris and oils from proposed vehicle maintenance operations.
- Design of a concrete slab on grade for the south half of the Thickener Building to integrate an interior partition wall and manual rolling overhead doors (designed by Ollmann Earnest Martin Architects).
- Design and layout of a new liquid polymer feed system for the new thickening centrifuges.
- Replacement of the existing MCC, HVAC equipment, and Thickened Sludge Pump No. 2 (if needed).
- Design considerations for potential re-use of existing piping through the GBT area to allow for continued conveyance of sludge to locations further west of the GBT Building.

The Project does not include any special funding paperwork such as IEPA Low Interest Loan.

Scope of Services - Amended

The following scope of services details the anticipated tasks necessary to successfully complete this Project.

PRELIMINARY DESIGN SERVICES

1. PROJECT ADMINISTRATION & MEETINGS – Confer with the City’s Director of Public Works and his staff, to clarify and define the general scope, extent, and character of the Project. Plan, schedule, and control the activities that must be performed to complete the Project. These activities include, but are not limited to, budget, schedule, and scope.
2. DESIGN CONCEPTS
 - A. GENERAL
 1. Obtain and review information relevant to the Project.
 2. Determine general design requirements including applicable codes and permits. Prepare a design criteria summary.
 - B. PROCESS AND EQUIPMENT
 1. The thickening centrifuges (2) will be located in the same footprint as GBT No. 2, as discussed at the May 12, 2016 site visit. GBT No. 1 and the existing polymer feed systems will remain in service to allow construction phasing, but will be removed as part of the Project.
 2. The HVAC equipment in the Thickener Building will be replaced.
 3. The MCC in the Thickener Building will be replaced.
 4. The Thickened Sludge Pump No. 2 will be replaced or removed if the space is needed for the thickening centrifuges. Outline demolition requirements for unnecessary equipment including Piston/Plunger pumps and conveyor.
 5. Provide capability of future SCADA system to connect into centrifuge control panels.
 6. Prepare a basis of design and process flow diagram for the sludge thickening process.

3. SITE INFORMATION

- A. EXISTING CONDITIONS/IN-HOUSE REVIEW – Review existing plans and reports.
 - B. TOPOGRAPHIC SURVEY – There will be no topographic survey.
 - C. GEOTECHNICAL SERVICES COORDINATION – There will be no geotechnical investigation for this Project.
 - D. WETLANDS DELINEATION FIELD WORK – There will be no wetland delineation for this Project because it is not expected to impact any wetlands.
 - E. SUBSURFACE UTILITY EXPLORATION COORDINATION – There will be no subsurface utility exploration consultant employed for this Project. The City will provide the horizontal and vertical locations of critical underground utilities (if any) that impact the work.
4. PRELIMINARY DRAWINGS – Prepare preliminary drawings that indicate the proposed thickening centrifuges, polymer feed system locations, and piping replacement in the Thickener Building.
5. PRELIMINARY OPINION OF PROBABLE COST – Prepare a preliminary opinion of the probable total Project cost including construction cost, construction engineering services, contingencies, and, on the basis of information furnished by the City, allowances for legal services, financial consultants, and any administrative services or other costs necessary for completion of the Project.

DETAILED DESIGN SERVICES

- 1. FINAL DESIGN – Prepare Design Documents consisting of Drawings showing the general scope, extent, and character of construction work to be furnished and performed by the Contractor(s) selected by the City and Specifications, which will be prepared in conformance with the format of the Construction Specification Institute.
- 2. CONSTRUCTION DOCUMENTS – Prepare for review and approval by the City and its legal counsel the forms of Construction Contract Documents consisting of Advertisement for Bids, Bidder Instructions, Bid Form, Agreement, Performance Bond Form, Payment Bond Form, General Conditions, and Supplementary Conditions, where appropriate, based upon documents prepared by the Engineers Joint Contract Document Committee (EJCDC).

3. AGENCY SUBMITTALS – Submit the Design Documents to the IEPA for their review and approval for the City to construct and operate the Project, if required.
4. FINAL OPINION OF PROBABLE COST – Prepare an opinion of probable construction cost based on the Design Documents.

BIDDING SERVICES

1. ASSISTANCE DURING BIDDING – Assist the City in solicitation of construction bids from as many qualified bidders as possible, attend the bid opening and tabulate bid proposals, make an analysis of the bids, and submit recommendations for the award of construction contract.

ESTIMATED MANHOUR AND FEE SUMMARY

Scope Item	Hours	Fee
Preliminary Design Services	185	\$20,750
Detailed Design Services	428	\$47,500
Bidding Services	60	\$6,250
TOTAL ALL SERVICES	673	\$74,500

Memo

To: Mayor and City Council
From: Brent Anderson, Director of Public Works
Date: 4/4/2017
Re: Aerator Replacement – WWTP Retention Pond

We currently have five aerators in the retention pond at the WWTP. Two of them need to be replaced. Pursuant to Section 2-700(g) of the City Code, we have received the following proposals to replace this equipment, including installation:

- | | |
|---|-------------|
| 1. Evoqua Water Technologies
4669 Shepherd Trail
Rockford, IL 61103 | \$22,688.82 |
| 2. Smith Ecological Systems
1817 17 th Avenue
Rockford, IL 61104 | \$39,747.00 |
| 3. Aerator Solutions
11765 Main Street
Roscoe, IL 61073 | \$54,000.00 |

The Evoqua and Aerator Solutions proposals include direct replacement units. The Aerator Solutions proposal also includes new floating power cords for all five aerators. The Smith Ecological proposal includes one floating mixer unit manufactured by Medora Corporation. This unit is capable of replacing most, if not all, of the five existing aerators, which will provide additional savings in energy costs.

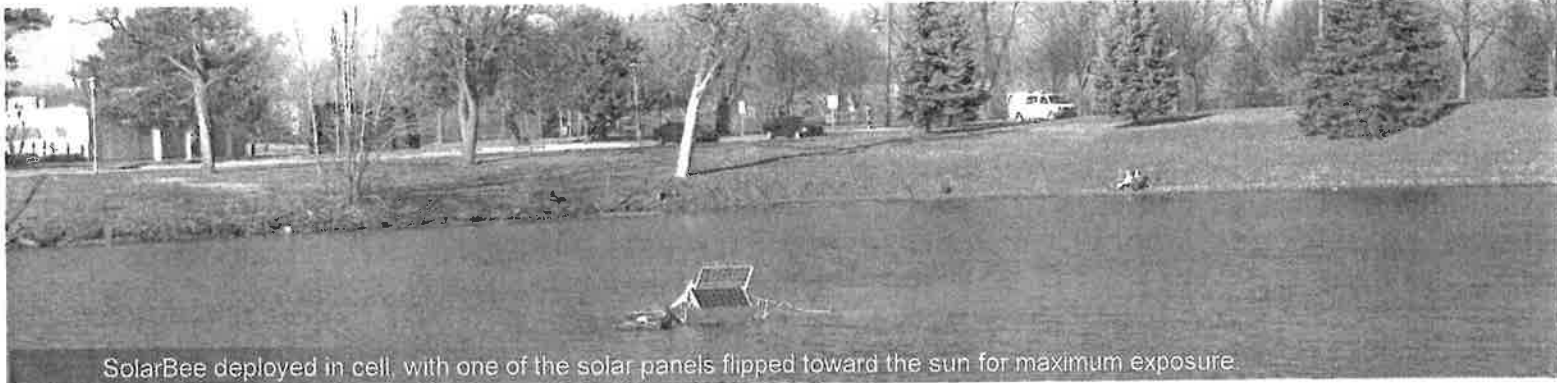
I would recommend approval of the proposal from Smith Ecological Systems, in the amount of \$39,747.00, for furnishing and installing one Medora GridBee GF10000 mixing machine for the WWTP retention pond. This equipment will be paid for from the plant depreciation fund.

Medora Corporation

Genesee County District 7 Wastewater Treatment Plant

Byron, MI

Topics: wastewater, energy savings, sludge reduction, facultative, partial mix



SolarBee deployed in cell, with one of the solar panels flipped toward the sun for maximum exposure.

Customer: Genesee County WWS, Byron, MI
 Contact: Brian Ross, Superintendent;
 810-735-7135 x6203; bross@gcdcwws.com
 Mark Earl, Operation Supervisor;
 810-735-7135 Ext 6201; mearl@gcdcwws.com

Overview: The municipal WWTP consists of three cells at 32.4 surface acres. Cell one is controlled discharge, partial mix, and 7.23 surface acres with an operating depth of 6.0 ft. Cell two is controlled discharge, facultative, 7.5 surface acres with an operating depth of 10.0 ft. Cell three is controlled discharge, facultative, 17.70 surface acres with an operating depth of 14.0 ft. Total system detention time is 180.92 days.

Conditions / Objectives: Prior to the SolarBee deployment, there were eleven 10 hp aerators in cell one. The county experienced high energy costs, as the aerators utilized 110 hp, 24 hours per day, year-round. Sludge buildup and algae problems plagued cells two and three. The plant also applied ferric chloride at an average rate of 40 gallons per day to precipitate phosphorus, in order to meet discharge permit levels of 0.6 mg/L. Primary objectives for this deployment are to provide long-distance circulation to reduce the need to operate the current aeration system, maintain or improve treatment throughout the system, and enhance organic sludge digestion.

Solution: Seven (7) dual-mix SolarBee SB10000DMv18 mixers; three in cell one, two in cell two, and two in cell three. Three years later, two (2) additional SolarBee mixers were purchased and added to this system, one in cell one and one in cell three.

Deployment Dates: September 2010, 2013

Results: Since the deployment of the SolarBees the reduction in aeration has been dramatic. Currently the county runs only one aerator 24/7 during the winter months, and two aerators 24/7 during the summer months. The county conducted a cost savings project over a specific time period. Annualized savings totaled \$59,200, calculated at a cost of \$0.08/KWH (see chart below).

Also since the SolarBee deployments, ferric chloride is dispersed for only two weeks prior to seasonal discharge. It is dispersed through one of the SolarBees in cell three at a rate of 80 to 100 gallons per day. The SolarBee provides better distribution and mixing for the ferric chloride. By injecting ferric chloride directly through their SolarBee, the county has reduced spending for the chemical from \$27,000 per year to \$11,000 per year. The phosphorus level in cell three is maintained under the 0.6 mg/L permit limit, resulting in a substantial savings for the county. The county and community have been happy with the SolarBee deployment and it's positive results. They are happy to serve as a positive reference for Medora Corporation.

Average Solar Energy Savings

KWH Saved	Description	Cost Savings Assumes \$0.08/KWH
QUARTERLY		
115,000	KWH (Saved)/Quarter Cell 1	\$9,200.00
70,000	KWH (Saved)/Quarter for Cells 2 and 3*	\$5,600.00
185,000	Total Average Quarterly KWH Savings	\$14,800.00
MONTHLY		
	Monthly savings for Cell 1	\$3,066.67
	Monthly savings for Cell 2 & 3	\$1,866.67
	Total Avg Monthly Savings all three Cells	\$4,933.33
ANNUALLY		
	Total Avg Annual Savings all three Cells	\$59,200.00

* Assumes 5,700 KWH savings / mixer / quarter, if four electric mixers would have been deployment in cells two and three for treatment purposes.

Medora Corporation | GridBee® SolarBee®

www.medoraco.com | 866-437-8076 | info@medoraco.com

Memo

To: Mayor and City Council
From: Brent Anderson, Director of Public Works
Date: 4/4/2017
Re: Well #8 Generator – Engineering Services Work Order

The FY 18 budget includes \$415,000 for the rehabilitation of well #8 and the installation of a standby generator. As you know, the rehabilitation of the well is currently being done at a cost of approximately \$217,000. Attached to this memo is a proposal from Baxter & Woodman to complete the design engineering required to add a natural gas generator at the well #8 facility.

I would recommend approval of the proposal from Baxter and Woodman, in the amount of \$16,200, to complete the design engineering for the addition of a natural gas generator at the well #8 facility. The cost of this work will be paid for from the Water Depreciation Account (#04-09).

**CITY OF BELVIDERE, ILLINOIS
WELL NO. 8 – GENERATOR ADDITION
DESIGN ENGINEERING SERVICES
WORK ORDER**

ENGINEERS' PROJECT NO. 170316.40

Project Description:

The Project consists of adding a natural gas generator at the Well No. 8 facility that will include a reinforced concrete pad with necessary utility connections, including integration of an automatic transfer switch into the existing MCC. The Project is described in more detail in Attachment A of this Work Order.

Engineering Services:

The general provisions of this contract are enumerated in the Professional Engineering Services Agreement between the City and Engineers dated September 22, 2009. A detailed scope of services for this Project is listed in Attachment B of this Work Order.

Compensation:

Compensation for the services to be provided under this Work Order will be in accordance with the Engineering Services Agreement dated September 22, 2009. The Engineers' fee shall be computed on the basis of their standard hourly billing rates for actual work time performed plus reimbursement of out-of-pocket expenses including travel, which in total will not exceed \$16,200.

Submitted by: **Baxter & Woodman, Inc.**

By: David Walsh

Title: Vice President

Date: March 17, 2017

Approved by: **City of Belvidere, Illinois**

By: _____

Title: _____

Date: _____

Additional Comments and Conditions: The Project does not include other improvements to Well No. 8, and excludes integration of the generator into existing SCADA system, which is anticipated to be done by others.

Project Description

The Project consists of adding a generator at the Well No. 8 facility that will include a natural gas powered electrical generation unit in a skin-tight enclosure, anchored to a reinforced concrete pad with necessary utility connections, including integration of an automatic transfer switch into the existing MCC.

The Project does not include the following items:

1. Supervisory Control and Data Acquisition (SCADA) design or modifications
2. Any special funding paperwork
3. Other improvements to the Well No. 8 facility
4. Bidding Services
5. Construction Services

Scope of Services

The following scope of services details the anticipated tasks necessary to successfully complete this Project.

PRELIMINARY DESIGN SERVICES

1. **PROJECT ADMINISTRATION & MEETINGS** – Confer with the City’s Director of Public Works and his staff, to clarify and define the general scope, extent, and character of the Project. Plan, schedule, and control the activities that must be performed to complete the Project. These activities include, but are not limited to, budget, schedule, and scope.
2. **DESIGN CONCEPTS**
 - A. **GENERAL**
 1. Obtain and review information relevant to the Project.
 2. Determine general design requirements including applicable codes and permits. Prepare a design criteria summary, as applicable.
 - B. **PROCESS AND EQUIPMENT**
 1. Confer with generator manufacturer(s) to properly size the generator to handle existing and known future electrical loads at Well No. 8.
 2. Determine cable and conduit sizes for connecting generator to automatic transfer switch (ATS).
 3. Locate ATS within existing Well No. 8 pump house and generator outside the pump house.
 4. Design reinforced concrete slab for generator.
 5. Specify SCADA system connect requirements to be provided by others.
 6. Prepare a basis of design and electrical one-line diagram for the generator and ATS additions.

3. SITE INFORMATION

- A. EXISTING CONDITIONS/IN-HOUSE REVIEW – Review existing plans and reports.
 - B. TOPOGRAPHIC SURVEY – There will be no topographic survey.
 - C. GEOTECHNICAL SERVICES COORDINATION – There will be no geotechnical investigation for this Project.
 - D. WETLANDS DELINEATION FIELD WORK – There will be no wetland delineation for this Project because it is not expected to impact any wetlands.
 - E. SUBSURFACE UTILITY EXPLORATION COORDINATION – There will be no subsurface utility exploration consultant employed for this Project. The City will provide the horizontal and vertical locations of critical underground utilities (if any) that impact the work.
4. PRELIMINARY DRAWINGS – Prepare preliminary drawings that indicate the proposed location of generator and ATS along with major conduit routings.

DETAILED DESIGN SERVICES

1. FINAL DESIGN – Prepare Design Documents consisting of Drawings showing the general scope, extent, and character of construction work to be furnished and performed by the Contractor(s) selected by the City and Specifications, which will be prepared in conformance with the format of the Construction Specification Institute.
2. CONSTRUCTION DOCUMENTS – Prepare for review and approval by the City and its legal counsel the forms of Construction Contract Documents consisting of Advertisement for Bids, Bidder Instructions, Bid Form, Agreement, Performance Bond Form, Payment Bond Form, General Conditions, and Supplementary Conditions, where appropriate, based upon documents prepared by the Engineers Joint Contract Document Committee (EJCDC).

3. **AGENCY SUBMITTALS** – Submit the Design Documents to the IEPA for their review and approval for the City to construct and operate the Project, if required.
4. **FINAL OPINION OF PROBABLE COST** – Prepare an opinion of probable construction cost based on the Design Documents.

ESTIMATED MANHOUR AND FEE SUMMARY

Scope Item	Hours	Fee
Preliminary Design Services	33	\$4,850
Detailed Design Services	90	\$11,350
TOTAL SERVICES	123	\$16,200

I:\Crystal Lake\BELVD\170316 -Well 8 Generator\Contract\170316.40 Well No. 8 - Generator Addition Work Order_2017.03.15.doc

ORDINANCE #
AN ORDINANCE ANNEXING CERTAIN TERRITORY
GENERALLY LOCATED ON THE EAST SIDE OF BELOIT ROAD
IMMEDIATELY SOUTH OF BURNETT DRIVE (PIN 05-23-100-005)
TO THE CITY OF BELVIDERE, BOONE COUNTY, ILLINOIS

WHEREAS, the City of Belvidere (the City) is the fee simple owner of certain real property located on the East Side of Beloit Road and immediately South of Burnett Drive and commonly known as PIN 05-23-100-005 and which is legally described in the Attached Exhibit B which is incorporated herein by this reference (the Property); and

WHEREAS, the Property is not inhabited and is improved with a well serving the City of Belvidere potable water system; and

WHEREAS, the Property lies in unincorporated Boone County and is immediately contiguous to the City of Belvidere; and

WHEREAS, Beloit Road, adjacent the Property, was previously annexed into the City of Belvidere; and

WHEREAS, the City of Belvidere provided notice to Boone County Fire Protection District #2 as required by statute; and

WHEREAS, section 7-1-9 of the Illinois Municipal Code (65 ILCS 5/7-1-9) permits any municipality to annex territory which is owned by the municipality, contiguous to the municipality and which is uninhabited and unincorporated.

NOW THEREFORE, be it ordained by the Mayor and City Council of the City of Belvidere, Boone County Illinois, as follows:

SECTION 1: The foregoing recitals are incorporated herein by this reference.

SECTION 2: The Property described in the attached Exhibit A, which is incorporated herein by this reference, and which is further described in the Plat of Annexation attached as Exhibit B, which is also incorporated herein by this reference, is hereby annexed to the City of Belvidere, Boone County, Illinois.

SECTION 3: The Westerly thirty-three feet (33') of the Property, as depicted on the attached Exhibit B, is hereby dedicated to the City of Belvidere as Right of Way.

SECTION 4: The City Clerk is hereby directed to record, with the Recorder of Deeds for Boone County, Illinois, and file with the Boone County Clerk, a certified copy of this Ordinance, together with the accurate map of the Territory annexed and appended to the Ordinance as Exhibit B.

SECTION 5: That all maps, journals and other records of the City be changed accordingly.

SECTION 6: If any section, paragraph, subdivision, clause, sentence or provision of this Ordinance shall be adjudged by any Court of competent jurisdiction to be invalid, such judgment shall not affect, impair, invalidate or nullify the remainder thereof, which remainder shall remain and continue in full force and effect.

SECTION 7: All ordinances or parts of ordinances in conflict herewith are hereby repealed to the extent of such conflict.

SECTION 8: This Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as required by law.

Passed by the City Council of the City of Belvidere, Illinois.

Approved:

Mayor

Attest:

City Clerk

Ayes:

Nays:

Absent:

Date Approved:

Date Published:

Prepared By / Return To:
Michael S. Drella
City Attorney
City of Belvidere
401 Whitney Blvd
Belvidere, Illinois 61008

EXHIBIT A

LEGAL DESCRIPTION

That part of the Northwest Quarter of Section 23, Township 44 North, Range 3 East of the Third Principal Meridian in Boone County, Illinois described as follows:

Beginning at a point in the West line of said Northwest Quarter lying 1,236.68 feet (measured on said West line) North of the Southwest corner of said Northwest Quarter; thence North along said West Quarter Section line 208.72 feet; thence East 208.72 feet along the North line of property conveyed to Keene-Belvidere Canning Company as described in Book 97 of Deeds on page 430 in the Boone County Recorder's Office; thence South parallel with the West line of said Northwest Quarter 208.72 feet; thence West 208.72 feet to the point of beginning, in Boone County Illinois.

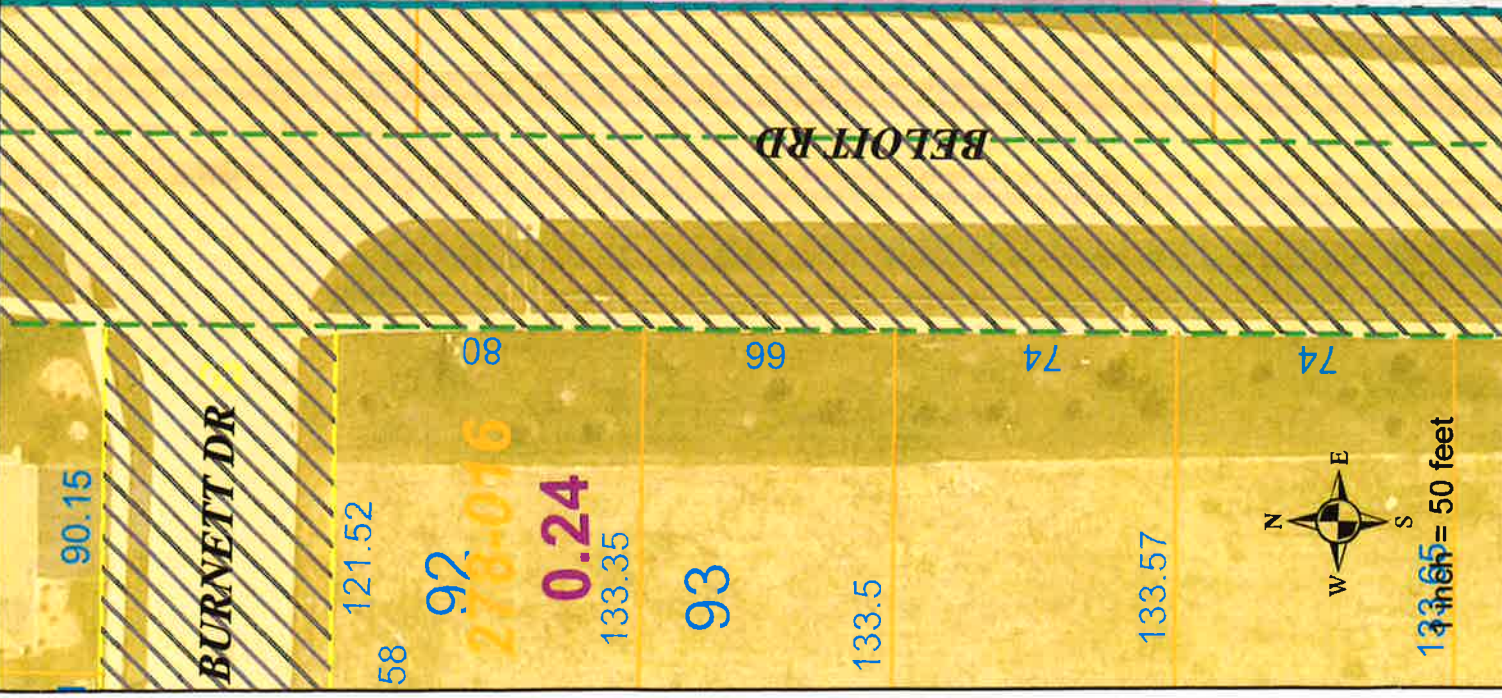
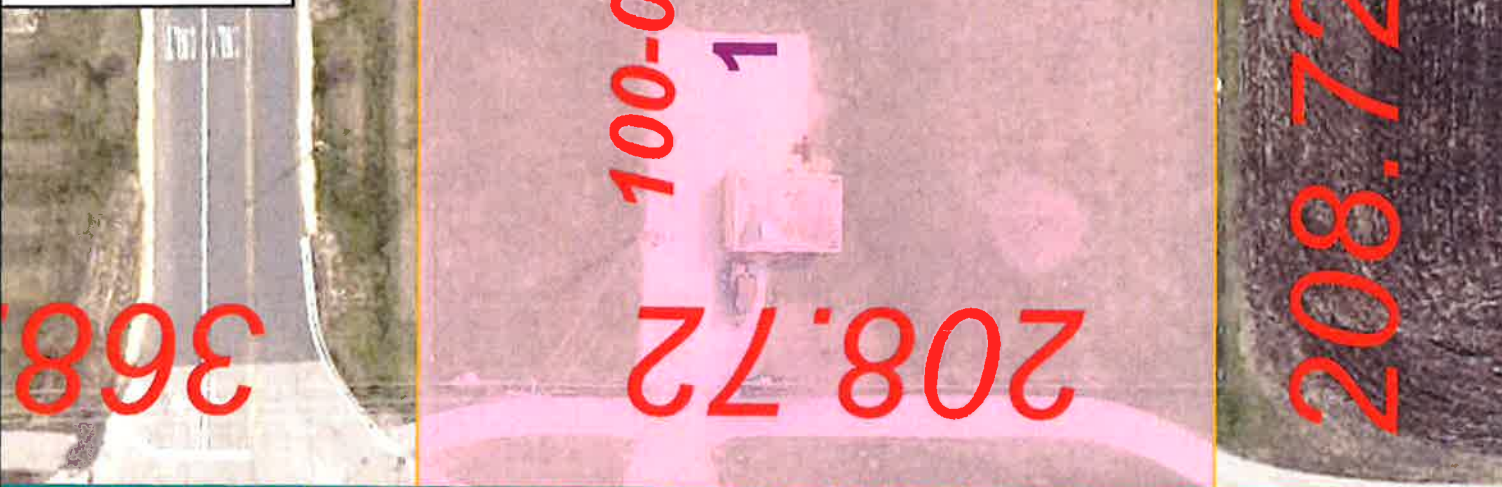
Commonly known as Well #9 site, Beloit Road PIN: 05-23-100-005

EXHIBIT B
PLAT OF ANNEXATION

Dedicated to Public ROW

Area to be Annexed

Existing Belvidere





SPECIAL MEMORANDUM #337

Date: March 3, 2017

To: Authorized Agents of Employers with Compensated Elected Officials
Participating in IMRF

Subject: IMRF Board Resolution 2017-02-13 for Elected Officials' Participation in IMRF

The IMRF Board of Trustees has adopted Board Resolution 2017-02-13, requiring recertification of IMRF eligibility every two years for all elected positions.

This new Board rule requires all governing bodies of units of government with elected positions participating in IMRF to pass new resolutions re-affirming that the positions meet the IMRF hourly standard (either 600 or 1,000 hours per year). Hours spent at meetings, preparing for meetings, in the office, and actually conferring with constituents are counted as performance of duty and may be included in the IMRF hourly standard. Hours spent on-call or otherwise informally available to constituents **do not** count as performance of duty and should not be included in the IMRF hourly standard.

Regardless of the date of any existing IMRF resolution regarding eligibility of elected officials, a recertifying resolution must be passed by your employer's governing body before September 1, 2017. The governing body may use IMRF Form 6.64, "A Resolution Relating to Participation by Elected Officials in The Illinois Municipal Retirement Fund" (enclosed), or your governing body may draft and adopt its own resolution that is consistent with IMRF Form 6.64. After the resolution is adopted, it must be filed with IMRF. If IMRF does not receive a recertification, the unit of government's elected officials will no longer be eligible to participate in IMRF and will be administratively terminated by IMRF.

This IMRF Board rule was adopted because of issues related to the difficulty of determining how many hours of duty an elected position requires. Previously, IMRF required no recertification of eligibility for elected positions. If the governing body adopted a resolution for an elected position, any person holding the position could participate in IMRF, regardless of the date the resolution was passed. After IMRF began conducting employer audits, it became clear that many of the resolutions for elected positions on file with IMRF were no longer accurate statements of the hours required for the position.

The IMRF Board adopted its new rule requiring recertification of IMRF eligibility for elected positions for several reasons. First, the recertification process will give governing bodies the opportunity to review the IMRF eligibility rules that will ultimately aid their unit of government with compliance and avoid costly mistakes in enrollment. Additionally, recertification will streamline the IMRF audit process because IMRF's auditors will be able to rely on the accuracy of the recertification without requiring additional documentation. Finally, recertification will take into account modernization and legislative enactments as it recognizes that required hours of duty of an elected position can—and do—change over time as technology and legal requirements evolve.

To comply with Board Resolution 2017-02-13, **all governing bodies with elected officials participating in IMRF must adopt the initial recertification before September 1, 2017, and file it with IMRF.** Afterward, the process of recertifying and filing the resolution should take place every two years. ***Failure to recertify will end IMRF eligibility for any elected position not recertified.***

Contact IMRF with questions

If you have questions about your elected officials' participation in IMRF, please contact IMRF's General Counsel, Kathy O'Brien, at 630-368-5352.

Sincerely,

A handwritten signature in black ink that reads "Louis W. Kosiba". The signature is fluid and cursive, with the first name "Louis" being the most prominent.

Louis W. Kosiba
Executive Director



A RESOLUTION RELATING TO PARTICIPATION BY ELECTED OFFICIALS IN THE ILLINOIS MUNICIPAL RETIREMENT FUND

IMRF Form 6.64 (Rev. 03/17) (Income tax information can be found on the reverse side of this resolution)

PLEASE ENTER Employer IMRF I.D. Number

RESOLUTION
Number _____

WHEREAS, the _____ EMPLOYER NAME

is a participant in the Illinois Municipal Retirement Fund; and

WHEREAS, elected officials may participate in the Illinois Municipal Retirement Fund if they are in positions normally requiring performance of duty for 600 hours or more per year; and
600 OR 1,000

WHEREAS, this governing body can determine what the normal annual hourly requirements of its elected officials are, and should make such determination for the guidance and direction of the Board of Trustees of the Illinois Municipal Retirement Fund;*

NOW THEREFORE BE IT RESOLVED that the _____ BOARD, COUNCIL, ETC.
finds the following elected positions qualify for membership in IMRF.

TITLE OF ELECTED POSITION	DATE POSITION BECAME QUALIFIED
_____	_____
_____	_____
_____	_____

CERTIFICATION

I, _____, the _____
NAME CLERK OR SECRETARY OF THE BOARD

of the _____ of the County of _____,
EMPLOYER NAME COUNTY

State of Illinois, do hereby certify that I am keeper of its books and records and that the foregoing is a true and correct copy of a resolution duly adopted by its _____ at a meeting duly
BOARD, COUNCIL, ETC.

convened and held on the _____ of _____ 20_____.
DAY MONTH YEAR

SIGNATURE CLERK OR SECRETARY OF THE BOARD

* Any person who knowingly makes any false statement or falsifies or permits to be falsified any record of the Illinois Municipal Retirement Fund in an attempt to defraud IMRF is guilty of a Class 3 felony (40 ILCS 5/1-135).

Illinois Municipal Retirement Fund
2211 York Road, Suite 500, Oak Brook, Illinois 60523-2337
Employer Only Phone: 1-800-728-7971
www.imrf.org