CITY OF
WEST CHICAGO

WHERE HISTORY & PROGRESS MEET

INFRASTRUCTURE COMMITTEE

Thursday, April 5, 2018
7:00 P.M. – Committee Room A

AGENDA

1. Call to Order, Roll Call, and Establishment of a Quorum

2. Approval of Minutes

   A. Infrastructure Committee of March 1, 2018

3. Public Participation / Presentations

4. Items for Consent

   A. Ordinance No. 18-O-0015 – Authorizing the Disposal of Surplus Equipment, Stock Inventory, and/or Personal Property Owned By the City Of West Chicago
   B. Resolution No. 18-R-0022 - Professional Architectural Services Agreement with Matocha Associates for the 2018 Wastewater Treatment Plant Roof Replacement Project
   C. Resolution No. 18-R-0023 - Acceptance of Public Sanitary Sewer Improvements and Release of Development Security – American Roofing, 621 W. Washington Street

5. Items for Discussion

   A. 2018 Elm Road Rehabilitation Project
   B. 2018 Wastewater Treatment Plant SCADA System Improvement Project

6. Unfinished Business

7. New Business

8. Reports from Staff

9. Adjournment

475 Main Street
West Chicago, Illinois
60185

T (630) 293-2200
F (630) 293-3028
www.westchicago.org

Ruben Pineda
MAYOR

Nancy M. Smith
CITY CLERK

Michael L. Guttman
CITY ADMINISTRATOR

CITY OF
WEST CHICAGO

WHERE HISTORY & PROGRESS MEET

Draft

MINUTES

INFRASTRUCTURE COMMITTEE

March 1, 2018 7:00 P.M.

1. **Call to Order, Roll Call, and Establishment of a Quorum.** Chairman Beifuss called the meeting to order at 7:00 P.M. Roll call found Aldermen James Beifuss, Heather Brown, George Garcia, Matt Garling, Alton Hallett, and Noreen Ligino-Kubinski present. Alderman Sandra Dimas was absent.

Staff present included Director of Public Works Robert Flatter and Administrative Assistant Ashley Cunningham. Also present was West Chicago resident Cathy Blozis.

2. **Approval of Minutes**

A. **Infrastructure Committee Minutes of February 1, 2018. Alderman Brown made a motion, seconded by Alderman Garling to approve the Meeting Minutes of February 1, 2018.**

Voting Yea: Aldermen Beifuss, Brown, Garcia, Garling, Hallett, and Ligino-Kubinski.. Voting Nay: 0.

3. **Public Participation / Presentations.** Resident Cathy Blozis expressed her displeasure with the current state of Grove Avenue. She distributed photographs of the street conditions and explained her frustration with the potholes and general upkeep of the roadway. She indicated that she has called the City over the last few years to ask when her street would be resurfaced, but due to budget constraints and other streets more urgently in need of repair, Grove Avenue was delayed several times. Mr. Flatter explained that Grove Avenue is on the five-year road improvement program schedule, which was approved in 2017; Grove Avenue is set to be resurfaced in 2019, which has been explained to Mrs. Blozis previously. Grove Avenue could not be resurfaced in 2017 due to a water main replacement project that needed to be done there but is currently scheduled for resurfacing in 2019.

4. **Items for Consent**. Alderman Brown requested discussion on Consent Item B. Alderman Beifuss requested discussion on Consent Items D & H. **Alderman Garling made a motion, seconded by Alderman Hallett to approve:**

A. **Resolution No. 18-R-0014 - Contract Award – Denler, Inc. for the 2018 Crack Sealing Program**

475 Main Street
West Chicago, Illinois
60185

T (630) 293-2200
F (630) 293-3028
www.westchicago.org

Ruben Pineda
MAYOR

Nancy M. Smith
CITY CLERK

Michael L. Guttman
CITY ADMINISTRATOR

C. **Resolution No. 18-R-0016 - Contract Award – Schroeder Asphalt Services, Inc. for the 2018 Elm Road Rehabilitation Project**

E. **Resolution No. 18-R-0018 – Contract Award – Kramer Tree Specialist, Inc. for the 2018 thru 2020 Citywide Monthly Brush Collection Program**

F. **Unleaded and Diesel Fuel Delivery – Authorize Purchase from Buchanan Energy, LLC through DuPage County Joint Purchasing Program**

G. **Purchase of One 2018 Ford F-350 Super Duty 4wd Pick-Up Truck from Hawk Ford of St. Charles, Illinois**

H. **2018 Outdoor Warning Siren Project – Rejection of Bid**

Roll call found the vote unanimous for approval. Voting Yea: Aldermen Beifuss, Brown, Garcia, Garling, Hallett, and Ligino-Kubinski. Voting Nay: 0.

5. Items for Discussion.

4.B. Resolution No. 18-R-0015 – Contract Award – Emerald Tree Care, LLC for the 2018 Emerald Ash Borer Insecticidal Treatment Program. Mr. Flatter explained that in 2010 the Emerald Ash Borer hit DuPage County, and after much discussion the Committee decided to save as many trees as possible. City Council approved a seven year Contract with Emerald Tree Care, LLC, for annual soil and trunk injections to eradicate the Emerald Ash Borer insects. Thanks to these treatments, the City has been able to save approximately 75% of the original treatment set. In late 2016, Wayne White of Emerald Tree Care gave a presentation to the Committee and detailed how a new chemical could be used to forego annual trunk injections and instead be injected every two years. The Committee approved this change in chemical in 2017; now in 2018 only soil injections would be required should the Committee desire to continue treatments. City staff and Emerald Tree Care recommend continuation of the treatment to safeguard the trees that have survived. **Alderman Brown made a motion, seconded by Alderman Hallett to approve.**

Roll call found the vote unanimous for approval. Voting Yea: Aldermen Beifuss, Brown, Garcia, Garling, Hallett, and Ligino-Kubinski. Voting Nay: 0.

4.D. Resolution No. 18-R-0017 - Contract Award – Christopher B. Burke Engineering, Ltd. for Phase II Engineering Design Services Related to the 1350 W. Hawthorne Lane Salt Storage Facility Project. Alderman Beifuss did not recall the requirement of a fence in the plans, so he asked Mr. Flatter to elaborate. Mr. Flatter explained that the entire perimeter of the pavement would have a fence for security reasons. Alderman Beifuss also inquired about the dimensions of the salt storage facility, and Mr. Flatter detailed that Christopher B. Burke Engineering would be providing some options for the building shape and dimensions, but it would still hold the desired 6,100 tons of material. Reasonable efforts will be made to expedite design services, with an estimated construction start date of November 2018; construction services are not expected to be completed until summer 2019. Mr. Flatter explained that the current storage sheds are full so the City does not have to accept additional deicing materials until after January 1st. Assuming there is no more snow, the City has purchased all the salt it

plans to buy for the remainder of the year. Salt will likely need to be temporarily stored on a parking lot during the 2018-2019 winter season. **Alderman Hallett made a motion, seconded by Alderman Ligino-Kubinski to approve.**

Roll call found the vote unanimous for approval. Voting Yea: Aldermen Beifuss, Brown, Garcia, Garling, Hallett, and Ligino-Kubinski. Voting Nay: 0.

5.A. 2018 Outdoor Warning Siren Project. Mr. Flatter explained that $20,000.00 has been budgeted for the installation of one outdoor warning siren this year and another $20,000.00 for next year to build a second siren. Chief Uplegger reached out to ComEd for a grant application and was awarded roughly $9,400.00 to use toward a warning siren. The original location desired to install the warning siren was 1651 Atlantic Drive to increase the overall coverage area on the north side of the City. The only bid the City received for the project was in the amount of $45,920.00, which was rejected under Consent Item 4.H. Just to run electricity to the original location at 1651 Atlantic Drive would cost roughly $14,000.00. Staff determined that the next best location would be at Atlantic Drive and Shingle Oak Drive, the location of Lift Station #15. This location already has a backup generator at the Station, so the warning siren would not require a battery backup. Additional funds would be saved because the warning siren could tap into the existing electric at the Station as well. In speaking with Fulton Technologies, Inc., which currently maintains the City's other sirens, they believe they can get the project under $20,000.00 by utilizing these existing electrical features. Staff is seeking approval by the Committee to move the outdoor warning siren installation to Lift Station #15 as well as waive competitive bidding; staff believes it may be possible to save some money working directly with Fulton Technologies. The other option would be to wait on the project, but the $9,400.00 grant from ComEd would be lost as it must be spent this year. The Committee concurred that Lift Station #15 is an acceptable location for the outdoor warning siren installation, and they would like to waive competitive bidding and work with Fulton Technologies on the installation.

6. Unfinished Business. None.

7. New Business. None.

8. Reports from Staff. None.

9. Adjournment. At 8:01 P.M., Alderman Hallett made a motion to adjourn, seconded by Alderman Garcia. Motion was unanimously approved by voice vote.

Respectfully submitted,

Ashley Cunningham
Administrative Assistant of Public Works

CITY OF WEST CHICAGO

INFRASTRUCTURE COMMITTEE
AGENDA ITEM SUMMARY

ITEM TITLE:

Ordinance No. 18-O-0015 – Authorizing the Disposal of Surplus Equipment, Stock Inventory, and/or Personal Property Owned By the City Of West Chicago

AGENDA ITEM NUMBER: 4.A.

COMMITTEE AGENDA DATE: April 5, 2018
COUNCIL AGENDA DATE: April 16, 2018

STAFF REVIEW: Robert E. Flatter, P.E., Public Works Director **SIGNATURE**

APPROVED BY CITY ADMINISTRATOR: Michael L. Guttman **SIGNATURE**

ITEM SUMMARY:

City staff has identified surplus equipment, stock inventory, and/or personal property that has no useful life and is no longer useful to the City, has little or no salvage value, and should be properly disposed of (please refer to Ordinance No. 18-O-0015 and Attachment A for additional information).

Therefore, staff is requesting that these items be declared surplus so that they may be traded in, disposed of through auction, disposed of through the City's contractual waste hauler, recycled, or sold to a local scrap dealer for scrap value; in a manner deemed appropriate by the City Administrator, with or without consideration.

ACTIONS PROPOSED:

Adopt Ordinance No. 18-O-0015 for the disposal or sale of surplus equipment, stock inventory, and/or personal property owned by the City of West Chicago.

COMMITTEE RECOMMENDATION:

ORDINANCE NO. 18-O-0015

AN ORDINANCE AUTHORIZING THE DISPOSAL OR SALE OF SURPLUS EQUIPMENT, STOCK INVENTORY, AND/OR PERSONAL PROPERTY OWNED BY THE CITY OF WEST CHICAGO

WHEREAS, in the opinion of the corporate authorities of the City of West Chicago, it is no longer necessary or useful to or for the best interests of the City of West Chicago, to retain ownership of the surplus equipment, stock inventory, and/or personal property hereinafter described; and,

WHEREAS, it has been determined by the City Council of the City of West Chicago to properly dispose of said surplus equipment, stock inventory, and/or personal property.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of West Chicago, Illinois, in regular session assembled as follows:

SECTION I. Pursuant to 65 ILCS 5/11-76-4, the City Council of the City of West Chicago finds that the surplus equipment, stock inventory, and/or personal property listed on Attachment A are no longer necessary or useful to the City of West Chicago and the best interests of the City of West Chicago will be served by their disposal.

SECTION 2. Pursuant to said Statute, the City Administrator is hereby authorized and directed to dispose of the aforementioned surplus equipment, stock inventory, and/or personal property in any manner deemed appropriate, with or without consideration.

SECTION 3. All ordinances and resolutions, or parts thereof, in conflict with the provisions of this Ordinance are, to the extent of such conflict, hereby repealed.

SECTION 4. That this Ordinance shall be in full force and effect ten (10) days from and after its passage, approval, and publication in pamphlet form as provided by law.

PASSED this 16th day of April 2018.

Alderman J. Beifuss	_____	Alderman L. Chassee	_____
Alderman J. Sheahan	_____	Alderman H. Brown	_____
Alderman A. Hallett	_____	Alderman Ferguson	_____
Alderman Birch Ferguson	_____	Alderman S. Dimas	_____
Alderman K. Meissner	_____	Alderman M. Garling	_____
Alderman R. Stout	_____	Alderman G. Garcia	_____
Alderman N. Ligino-Kubinski	_____	Alderman B. Gagliardi	_____

APPROVED as to form: _____
City Attorney

APPROVED this 16th day of April 2018.

_____
Mayor Ruben Pineda

ATTEST:

_____
City Clerk, Nancy M. Smith

PUBLISHED: _____

ATTACHMENT "A"

LISTING OF SURPLUS ITEMS

ORDINANCE NO. 18-O-0015

REQUESTING TO BE REMOVED	Serial # / VIN # / ID #	Qty
Western Products Poly Hopper (salt spreader) From Vehicle #780	06092430001795750	1
Flink Hopper model FM 7ETSA from Vehicle #761	Serial 1244	1
Flink Hopper model FM 7ETSA from Vehicle #762	Serial 1245	1
Schonstedt Metal Detector, Model GA-52C	Serial #122375	1
Schonstedt Metal Detector, Model #GA-52B	Serial #78927	1
4 Drawer Metal Filing Cabinet	Unknown	2
2 Drawer Wood Filing Cabinet	Unknown	1
2 Drawer metal Filing Cabinet	Unknown	1
Metal Tables with Wood Veneer Tops	Unknown	2
Old Plastic Holiday Tree	Unknown	1
Metal Desk Cradenza	Unknown	1
Tool Shop - Cordless Saw - Bad Motor	204190173	1
Passload Pneumatic Nail Gun - Bad Piston	MU-212-F	1
Makita Worm Drive Circular Saw - Bad Motor	5077B -20617E	1
Triplet Corp - Anolog Volt Meter - Broken	60TYPE2	1
Craftsman Electric Belt Sander - Bad Motor	315117111-A8317	1
Royal - Hand Held Vacuum - Bad Motor	U8T40	1
Master Heat Gun -Bad Heating Elements	HG501-378	1
Dewalt Cordless Sawsall - Bad Motor	DC385 -420128	1
Dewalt Cordless Drill - Bad Motor	DC925 - 93253	1
Craftsman Skill Saw - Bad Motor	P9013	1
Kenmore Refrigerator - Bad Compressor	Unknown	1
Polar Water Cooler - Bad Compressor	PWD225W2	1
Taser, Model X26	X00-405867	1
Taser, Model X26	X00-402218	1
Taser, Model X26	X00-405929	1
Taser, Model X26	X00-402039	1
Taser, Model X26	X00-401613	1
Taser, Model X26	X00-402153	1
Taser, Model X26	X00-405880	1
Taser, Model X26	X00-697406	1
Taser, Model X26	X00-405879	1
Taser, Model X26	X00-405908	1
Taser, Model X26	X00-402332	1
Taser, Model X26	X00-405973	1
Taser, Model X26	X00-401676	1
Taser, Model X26	X00-402280	4
Taser, Model X26	X00-697386	1
Taser, Model X26	X00-697420	1
Taser Battery, X26 DPM	N/A	10
Taser Holster, X26	N/A	22
Hon, 694L, 5 drawer filing cabinet	MJR7DS	1
Hon, 693L, 3 drawer filing cabinet	MMT780	1
Hon, 693L, 3 drawer filing cabinet	MM67LS	1

ATTACHMENT "A"

LISTING OF SURPLUS ITEMS

ORDINANCE NO. 18-O-0015

Hon, 693L, 3 drawer filing cabinet	M9T780	1
Unknown Make, 6 Drawer filing cabinet	N/A	1
Unknown Make, 4 Drawer filing cabinet	N/A	2
Camera Case Boxes	N/A	5

CITY OF WEST CHICAGO

INFRASTRUCTURE COMMITTEE
AGENDA ITEM SUMMARY

ITEM TITLE:

Resolution No. 18-R-0022 - Professional Architectural Services Agreement with Matocha Associates for the 2018 Wastewater Treatment Plant Roof Replacement Project

AGENDA ITEM NUMBER: 4.B.

COMMITTEE AGENDA DATE: April 5, 2018
COUNCIL AGENDA DATE: April 16, 2018

STAFF REVIEW: Robert E. Flatter, P.E., Director of Public Works **SIGNATURE**

APPROVED BY CITY ADMINISTRATOR: Michael L. Guttman **SIGNATURE**

ITEM SUMMARY:

Since 2010, with design and construction oversight services provided by Matocha Associates of Willowbrook, Illinois, the City has contractually replaced six of the eight roofs at Wastewater Treatment Plant (WWTP). Within the Sewer Fund's Sewer Plant Equipment Replacement Program (05-34-45-4806), $200,000 has been budgeted in FY2018 for the replacement of the Sand Filter Building roof; with an additional $200,000 scheduled in FY2019 for the replacement of the Digester Building roof. In addition, $28,000 has been budgeted in each fiscal year for architectural/engineering design and construction oversight services associated with one roof replacement project each year (05-34-45-4225). The scope of work shall include, but is not limited to, the removal of the existing early 1980's vintage tar and gravel flat warehouse type membrane and insulation, and replacement with 60 mil white Thermoplastic Polyolefin (TPO) roofing over a minimum two inches (2") of insulation, parapet/metal canopy painting and/or replacement, guard rail installation, downspout/overflow drain repair, and removal and replacement of exterior light fixtures.

As City staff does not have the expertise to perform the needed architectural roof design, inspections and construction administration services, we asked Matocha Associates for an architectural services cost proposal. Matocha has submitted a fixed fees cost proposal of $21,840 which includes investigation, design, and construction oversight services for replacement of both outstanding roofs now. There is a cost savings to have design done for both roof replacement projects now, even though construction will likely be divided over two years.

City staff recommends that a Professional Architectural Services Agreement be executed with Matocha Associates for the 2018 Wastewater Water Treatment Plant Roof Replacement Project for a fixed fee of $21,840.

ACTIONS PROPOSED:

Approve Resolution No. 18-R-0022 authorizing the Mayor to execute a Professional Architectural Services Agreement with Matocha Associates, for the 2018 Wastewater Treatment Plant Roof Replacement Project, for a fixed fee amount of $21,840.

RESOLUTION NO. 18-R-0022

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A PROFESSIONAL ARCHITECTURAL SERVICES AGREEMENT WITH MATOCHA ASSOCIATES RELATED TO THE 2018 WASTEWATER TREATMENT PLANT ROOF REPLACEMENT PROJECT

BE IT RESOLVED by the City Council of the City of West Chicago, in regular session assembled, that the Mayor is hereby authorized to execute a Professional Architectural Services Agreement, for Professional Services related to the 2018 Wastewater Treatment Plant Roof Replacement Program, between the City of West Chicago and Matocha Associates, for an amount not to exceed $21,840.00, in substantially the form attached hereto and incorporated herein as Exhibit "A".

APPROVED this 16th day of April, 2018.

AYES: _____

NAYES: _____

ABSTAIN: _____

ABSENT: _____

_____
Mayor Ruben Pineda

ATTEST:

_____
City Clerk Nancy M. Smith

MATOCHA
ASSOCIATES
Architecture, Development, and
Program Management

PO BOX 157
MONTICELLO, UTAH 84535
VOICE 630 530 - 2300
FAX 630 701 - 7641
EMAIL GMATOCHA@MATOCHA.COM
WEB WWW.MATOCHA.COM

March 22, 2018

Robert Flatter
City of West Chicago
Director of Public Works
475 Main Street
West Chicago, IL 60185
Email: rflatter@westchicago.org
(T) 630-293-2255

RE: Waste Water Treatment Plan Proposal
Roof Replacements 2018

Dear Robert:

Attached is our proposal for minor drawing updates for the Digester Building and new drawings for the Sand Filter building. I believe this will complete the remaining two buildings at this facility. This proposal also includes bidding and construction services for both buildings. It would be my recommendation that the bidding documents specify two separate prices for the two buildings and I am recommending that we break-out the metal roof replacements for budget limit concerns. This way, budget permitting, you may be able to complete as much work as possible depending on market conditions.

Included herein are the Scope of Work, fee proposal break-down, and other contractual clauses that will form the basis of an agreement until a formal contract is prepared. We understand that the roof will be replaced this summer/fall.

Thank you for the opportunity to continue to assist you with your roofing replacement plans. If you have any questions, please feel free to contact me.

Sincerely,

MATOCHA ASSOCIATES, LLC

George Matocha

George R. Matocha, Jr.
Manager

File: West Chicago Waste Water Treatment Plat proposal 2018 March 15b

ScopeofServices

DESIGN DOCUMENTS

The intended project goal is to replace the roofs of the Sand Filter (8,481 s.f.), and the Digester (2,000 s.f.) Buildings this year. This should be all the remaining roofs at the Waste Water Treatment Plant. We believe that the roofs are from the early 1980's, vintage tar and gravel roofs. Staff has told us that they have been experiencing more frequent leaks over the last five years. Sources of leaks may be related to systems other than the roof or drainage system. Further remediation beyond the roof system may be required.

The Digester Building construction documents were prepared under our contract from eight years ago and we are planning on updating those documents for this project. The Sand Filter building has not been surveyed or reviewed previously and therefore will require site review and a complete set of construction documents to be prepared. The remaining scope of work is delineated below for this year.

BIDDING

1. Review and assist the City with the bid documents package.
2. Provide any adjustments to the specifications for the project.
3. Attend mandatory contractor pre-bid meeting.
4. Respond to bidding questions in City required public bid format.
5. Attend public bid opening meeting.
6. Clarify up to three of the bids, verify contractor references and make a recommendation for City council selection.

CONSTRUCTION ADMINISTRATION

1. Attend mandatory contractor pre-construction meeting.
2. Make weekly on-site reviews of the work and provide field reports to the Team [8 trips are budgeted for the Sand Filter building and 4 trips are budgeted for the Digester building.] Site visits to be conducted during the same trip.
3. Review shop drawing submittals for compliance with the drawings and specifications.
4. Attend manufacturer's warranty inspection. Collect warranty documentation, make a 100% on-site review and prepare a written punch list.
5. Collect final documentation and close-out the project. Provide a flash drive with all Project documents in PDF format.
6. Review three contractor pay requests.

Services not included:
(All of the following exclusions can be provided as an additional service.)

1. Permitting.
2. Determination of structural damage. The best method of reviewing the condition of the sub-structure is after the roof system is removed (if complete removal is the chosen option).
3. Repairs and or replacement of shell systems/components other than the roof and drainage systems except as noted above.

PreliminarySchedule

Field Investigation	4/15-5/1
Cost Estimate	4/15-5/1
Drawings	5/31
Bid period	5/31-6/21
Pre-Bid Conference	6/14
Bid Opening	6/21
Clarify bids	6/21-6/28
Infrastructure Committee	7/7
City Council Approval/Award	7/18
Construction	8/1-9/31
Project Close-out	10/1-11/31

Note: Based on being released by 4/15/2018.

ProfessionalFees

Matocha Associates will provide the architectural scope of services outlined above for the following fixed fee. The breakdown is to be used for intermediate invoicing purposes. Option A is for bidding all three buildings at one time and all building to be construction during the same 8-week period. Option B is for additional fees should two different bidders being award separate buildings and/or two separate construction schedules.

	Digester	Sand Filter
Drawing Update	$ 1,450	$8,940
Bidding:	$ 1,040	$1,040
Construction Administration:	$ 2,985	$4,985
Reimbursables:	$ 600	$ 800
Total Architectural Fee:	$ 6,075	$15,765

Hourly Rates

Hourly rates for services consist of items not covered under this Agreement and are billed on a time and material basis with the following hourly rates:

Architectural	
Senior Principal	$185.00
Principal	$170.00
Associate	$140.00
Senior Project Man.	$135.00
Project Architect	$120.00
Arch. Project Man.	$110.00
Staff Architect	$105.00
Arch. Proj. Coord.	$100.00
Intern Architect	$ 95.00
CAD Operator	$ 80.00
Draftsman	$ 65.00

Construction Administration	
Senior Construction Man.	$135.00
Construction Manager	$120.00
Intern Construction Mgr.	$100.00
Project Accountant	$ 80.00

Our hourly rates are subject to a change effective on January 1st of each year. If any of the buildings are not completed by 12/31/2018 then our rates will increase by a multiple of 1.05 for next year.

Reimbursables

A reimbursable allowance has been included in the fees above. All bidding document reproduction will be invoiced at 1.0 times the actual expense. Electronic drawings can be provided to the Owner for their own reproduction.

Miscellaneous

- Invoices are submitted monthly and are payable in twenty-five days. Invoices not paid in thirty days from the invoice date are subject to one percent finance charge, compounded monthly.

- Matocha Associates carries a standard $1,000,000/$2,000,000 professional liability insurance policy.

- This proposal shall be effective for a period of not more than one month from the date above. Should this period expire prior to acceptance, Matocha Associates reserves the right to submit a revised proposal.

- Upon direction to proceed by the client, whether verbally or in writing, this proposal is a binding agreement between the parties, such to the terms and conditions set forth herein. Although this proposal may be superceded by a formal, written contract in the event of which this proposal shall be deemed null and void if no such written contract is executed and delivered by both parties, then this proposal shall continue to bind the parties through completion of the project.

- In recognition of the relative risks, rewards and benefits of the project to both the Client and Consultant, the risks have been allocated such that the Client agrees to the fullest extent permitted by law, to limit the Consultant's liability to the Client, so that the total aggregate liability of the Consultant to the Client shall not exceed the Consultant's fee. This limitation shall apply regardless of the cause of the action however alleged or arising, unless otherwise prohibited by law.

- When Matocha Associates does not provide construction observation services, it is agreed that the professional services of Matocha Associates do not extend to or include the review or site observation of the Contractor's work, performance, or pay request approval. During construction, the Client assumes the role of the Architect and will hold harmless Matocha Associates for the Contractor's performance or failure of the Contractor's work to conform to the design intent and the contract documents.

- Matocha Associates work will not proceed until a fully executed agreement is on file.

Acceptance

If the Scope of Services and Professional Fees as noted are satisfactory, please indicate your acceptance by signing below. Two copies will be fully executed so that you will have a copy.

Accepted By:_____ _____
Its: Date

Accepted By:_____ _____
George R. Matocha Date

CITY OF WEST CHICAGO

INFRASTRUCTURE COMMITTEE
AGENDA ITEM SUMMARY

ITEM TITLE:

Resolution No. 18-R-0023 - Acceptance of Public Sanitary Sewer Improvements and Release of Development Security – American Roofing, 621 W. Washington Street

AGENDA ITEM NUMBER: 4.C.

COMMITTEE AGENDA DATE: April 5, 2018
COUNCIL AGENDA DATE: April 16, 2018

STAFF REVIEW: Robert E. Flatter, P.E., Director of Public Works

SIGNATURE

APPROVED BY CITY ADMINISTRATOR: Michael L. Guttman

SIGNATURE

ITEM SUMMARY:

American Roofing, located at 621 West Washington Street, was issued a construction permit in 2016 for an extension of the City's sanitary sewer main along the north side of West Washington Street and the installation of a sanitary sewer service line to serve the subject property. The referenced project has substantially been complete since July 2017; however, the City has not formally accepted the development's public improvements. The Developer has satisfactorily completed all required public improvements, and there have been no maintenance issues over the past several months. The developer has posted a Maintenance Bond (cash deposit) for the public improvements being accepted per the Subdivision Regulations. The Cash Deposit will be held for eighteen months from the date of acceptance. The Developer has requested the City accept said public improvements and release its original development security.

The developer has submitted the required Final Waivers of Lien, Deed of Conveyance/Bill of Sale, and as-built drawings for this project. A sanitary sewer easement was recorded with the DuPage County Recorder's Office in November 2017. Staff recommends that City Council approve the following:

1. Acceptance of all sanitary sewer system improvements located within a dedicated public right-of-way or dedicated easement area, as installed as part of the American Roofing Sanitary Sewer Extension Project, as the City of West Chicago's ownership and maintenance responsibility.

The sanitary sewer service line (from the sanitary sewer main to the building) shall remain the ownership and maintenance responsibility of the property owner.

Staff from the Department of Community Development has inspected the development improvements and recommends acceptance. Staff also recommends the release of the original development security held for said development.

ACTIONS PROPOSED:

Approve Resolution No. 18-R-0023 authorizing the acceptance of the public sanitary sewer improvements associated with the American Roofing Sanitary Sewer Extension, located at 621 W. Washington Street, and authorize a reduction/release of any development securities posted by the Developer for the installation of certain public improvements.

RESOLUTION NO. 18-R-0023

A RESOLUTION AUTHORIZING THE ACCEPTANCE OF THE PUBLIC SANITARY SEWER IMPROVEMENTS ASSOCIATED WITH THE AMERICAN ROOFING SANITARY SEWER EXTENSION PROJECT, 621 WEST WASHINGTON STREET

WHEREAS, American Roofing, located at 621 W. Washington Street, West Chicago, Illinois, 60185, has heretofore executed and delivered to the City a certain Deed of Conveyance/Bill of Sale regarding the conveyance of certain public improvements therein, a copy of which is attached hereto and incorporated herein as Exhibit "A".

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of West Chicago, DuPage County, Illinois, in regular session assembled as follows:

Section 1. That the Corporate Authorities of the City of West Chicago hereby accept the Deed of Conveyance/Bill of Sale attached hereto as Exhibit "A" conveying the public improvements for the American Roofing Sanitary Sewer Extension Project constructed at 621 W. Washington Street.

Section 2. That the Corporate Authorities of the City of West Chicago hereby accept all sanitary sewer main improvements located within a dedicated public right-of-way or dedicated easement area, as installed as part of the American Roofing Sanitary Sewer Extension Project, as City of West Chicago ownership and maintenance responsibility, as depicted on Exhibit "B" a copy of which is attached hereto and incorporated herein.

Section 3. That the development's sanitary sewer service line shall remain the ownership and responsibility of the property owner.

Section 4. That all Resolutions, or parts thereof, in conflict with the provisions of this Resolution are, to the extent of such conflict, hereby repealed.

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

APPROVED this 16th day of April 2018.

AYES: _____

NAYS: _____

ABSTAIN: _____

ABSENT: _____

_____
Ruben Pineda, Mayor

ATTEST: _____
Nancy M. Smith, City Clerk

RESOLUTION NO. 18-R-0023 "EXHIBIT A"

DEED OF CONVEYANCE/BILL OF SALE

KNOW ALL MEN BY THESE PRESENTS, that John Lanzendorf (Developer/Owner), located at 621 West Washington Street, West Chicago, IL 60185 (Address of Developer/Owner) An individual(corporation, partnership, individual) authorized to do business in the State of Illinois, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration in hand paid, the receipt and sufficiency of which are hereby acknowledged, does hereby Grant, Sell, Transfer Over, Convey and Deliver unto the City of West Chicago (the "City"), DuPage County, Illinois, a municipal corporation, to and for its own use forever the following:

UNDERGROUND IMPROVEMENTS

_____ Watermain and Appurtenances

__X__ Sanitary Sewer and Appurtenances

_____ Storm Sewer and Appurtenances

_____ Lift Station and Force Main

_____ Other (_____)

SURFACE IMPROVEMENTS

_____ Roadway (Curb & Gutter/Pavement)

(Street Names_____)

_____ Sidewalks

_____ Parkway Trees

_____ Traffic Control/Street Signs/Pavement marking

_____ Street Lights

_____ Storm Water Retention/Detention Basin/Grading

_____ Other (_____)

Located in the Project known as American Roofing Sanitary Sewer Extension
(Project/Subdivision Name)

(the "Project") as described on the "as-built" engineering plans prepared by Webster, McGrath & Ahlberg Ltd., located at
(Consulting Engineer's Name)

207 South Naperville Road, Wheaton, IL 60187
(Consultant's Address)

and dated 7/27/17, which plans with "Bill of Materials"
(As-built date)

are incorporated by reference and made a part hereof.

WHEREAS, the Developer does hereby warrant to the City, it is the lawful owner of and has good and marketable title to the aforedescribed improvements; that the same are free from all encumbrances; that the Developer shall hold harmless the City against the lawful claims and demands of all persons with respect to the title hereby conveyed; and that the execution of this Deed of Conveyance/Bill of Sale is an authorized Act of Said Corporation, Individual or Partnership.

IN WITNESS WHEREOF, the Developer has caused this instrument to be signed and delivered this 12th day of December, 2017.

John Lanzendorf — 12/12/17
(Name) (Date)

Owner
(Title)

Accepted for the City of West Chicago

Mayor

ATTEST: _____
City Clerk

CERTIFICATE OF APPROVAL AND INITIAL ACCEPTANCE

REQUEST FOR INSPECTION

SUBDIVISION: American Roofing Sanitary Sewer Extension

Request is hereby made by the Owner to the City of West Chicago to approve the subdivision/project described above. The following information is submitted in support of this request.

Deed of Conveyance/Bill of Sale
"As-Built" Engineering Drawings (3-print sets/1 mylar set)
Maintenance Guarantee (Bond, Letter of Credit, etc.)

OWNER(S) / DEVELOPER(S): John Lanzendorf

ADDRESS: 621 West Washington Street

West Chicago, IL 60185

TELEPHONE: 630-231-4422

REFERENCE:

Plan No. 43792, Sheets C-00 to C-03, Dated 10/31/2016 & Specifications.

Prepared by Webster, McGrath & Ahlberg, Ltd.

And approved by the City of West Chicago.

IMPROVEMENT DESCRIPTION:

- ☐ Watermain and Appurtenances
- X Sanitary Sewer and Appurtenances
- ☐ Storm Sewer and Appurtenances
- ☐ Roadway (Curb and Gutter)
- ☐ Roadway (Pavement)
- ☐ Roadway (Markings)
- ☐ Sidewalk
- ☐ Street Lights
- ☐ Parkway Trees
- ☐ Ponds (Detention/Retention)
- ☐ Other (Lift Station, etc.)

CERTIFICATIONS:

DESIGN ENGINEER'S CERTIFICATION

To the best of my knowledge and belief, the construction of the above described improvement has been completed in accordance with the approved plans and specifications, prepared by:

Name: Stephen "Mark" Richards

Address: Webster McGrath & Ahlberg, Ltd

207 S Naperville Rd, Wheaton, IL 60187

12/21/17 (Date) | 062-054556 (Ill. P.E. No.) | Mark Richards (Signature)

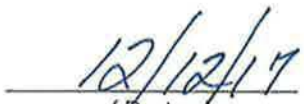
SEAL

DEVELOPER/OWNER CERTIFICATION

FIELD INSPECTORS CERTIFICATION

I hereby certify that I (we) have regularly inspected the above described improvements during the progress of construction and that to the best of my/our knowledge and belief the work has been completed in conformance with the approved plans and specifications.

DEVELOPER(S)/OWNER(S): John Lanzendorf (Name) Typed — 12/12/17 (Date)

 (Name) Signed —  (Date)

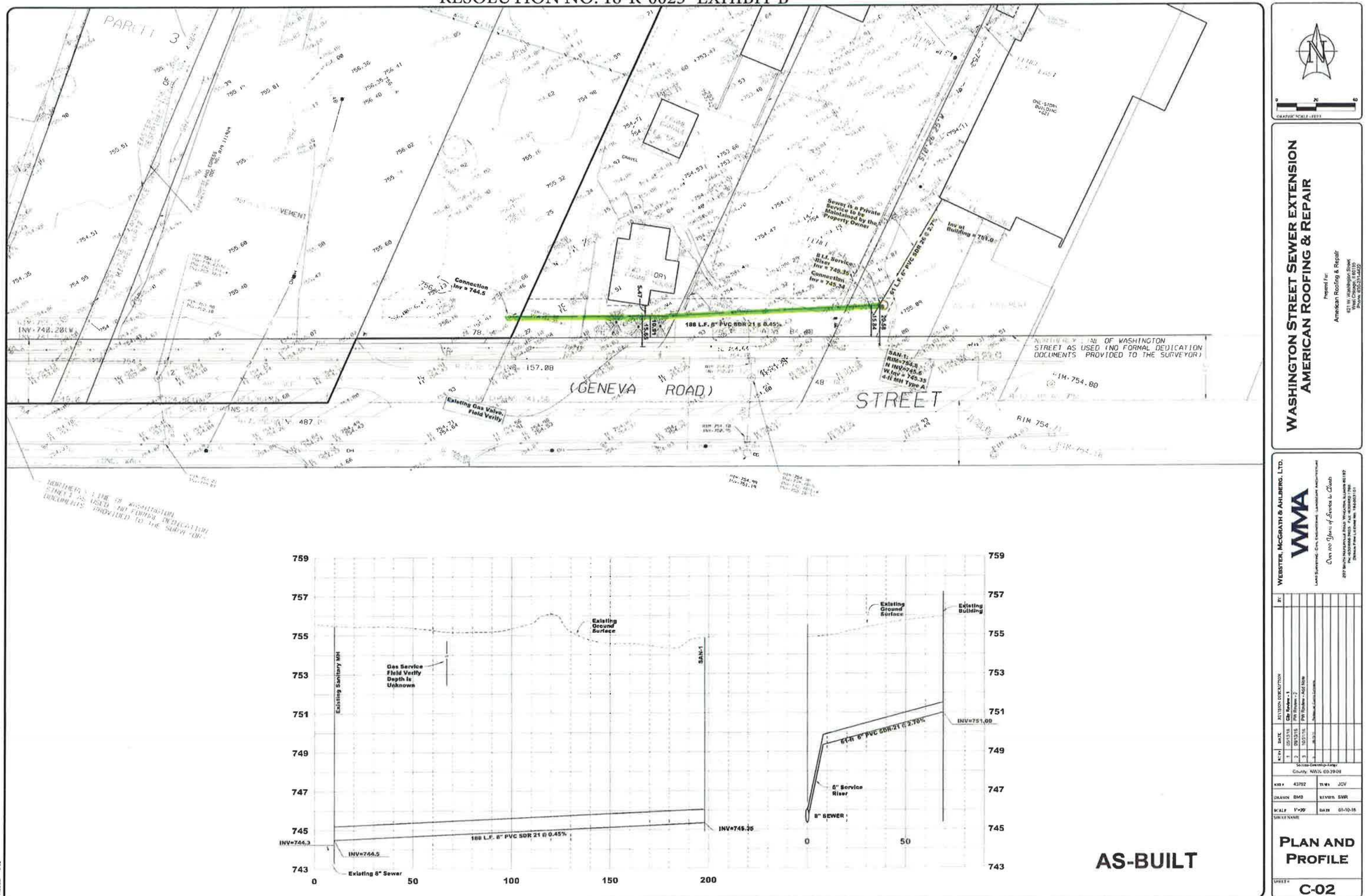
CITY INSPECTOR:  (Name) — 1/23/18 (Date)

CITY ENGINEER: CERTIFICATION

All work required for this development has been inspected and found to be complete in a satisfactory manner. All documentation for acceptance has been submitted and found to be acceptable.

(Date) (Name) (Title)

RESOLUTION NO. 18-R-0023 "EXHIBIT B"



DEPARTMENT OF

PUBLIC WORKS

ROBERT E. FLATTER, P.E.
DIRECTOR
(630) 293-2255
FAX (630) 293-2971

UTILITY DIVISION	293-2255
STREET DIVISION	293-2250
WASTEWATER DIVISION	293-2261
ENGINEERING DIVISION	293-2255

MEMORANDUM

TO: Michael L. Guttman, City Administrator

FROM: Robert E. Flatter, P.E., Director of Public Works

DATE: April 2, 2018

RE: 2018 Waste Water Treatment Plant SCADA System Improvement Project

Within the Fiscal Year 2018 Sewer Fund budget $855,000.00 has been budgeted for the 2018 Waste Water Treatment Plant SCADA System Improvement Project. Specifically, $52,500.00 has been budgeted for engineering design and bid assistance, $52,500.00 has been budgeted for engineering construction oversight services, and $750,000.00 has been budgeted for construction.

The 2018 Waste Water Treatment Plant SCADA System Improvement Project consists of furnishing all parts, labor, materials, equipment and engineering services necessary to upgrade the Supervisory Control and Data Acquisition (SCADA) system (i.e., process control network, Programmable Logic Controller (PLC) hardware, communication equipment, security equipment, etc.) at the City's Waste Water Treatment Plant (WWTP) with a more reliable, non-proprietary industry standard control system. SCADA is a computer controlled system that monitors and controls the operations of the WWTP's pumps and equipment, and is used to monitor sanitary waste flows in and out of the WWTP.

Being most familiar with the WWTP's operations and needs, initially staff requested and obtained a design-build proposal from CH2M/OMI (City's contractor that operates and maintains the WWTP) to upgrade the WWTP's SCADA system; CH2M/OMI's submitted a cost proposal of $1,163,290.00. Staff subsequently approached Donohue & Associates (Donohue) and requested a cost proposal. Donohue has submitted a not to exceed design-build services cost proposal of $671,000.00. Donohue has previously worked for the City, is familiar with the City's WWTP, and has assisted CH2M/OMI with SCADA system modifications and trouble shooting in the past.

To complete the WWTP SCADA Improvement Project, Donohue's services will include project management, engineering design and construction management, development and construction of SCADA panels, construction services, and total system integration. Utilizing Donohue to design-build this project will not only expedite implementation of a critical SCADA system by eliminating the time required to seek bid proposals, it will also save the City approximately $50,000 in design and bid assistance services and approximately $50,000.00 in engineering construction oversight services (estimated at 7.5% of construction cost). An additional $492,290.00 savings is realized when compared to CH2M/OMI's proposal (a large portion of the savings resulting from Donohue electing to not markup direct costs on equipment and materials used to build the SCADA system).

In 2013 the City similarly initiated a project to upgrade the SCADA system at twelve of the City's thirteen sanitary sewer lift stations; known as the 2013 Lift Station Automation Improvement Project. For this project, engineering design services were provided by Clark Dietz, Inc. (CDI) with the development of plans and bid specifications. The project was advertised and only one bid was received; totaled $1,601,900.00. However, staff only budgeted $800,000.00 for this project in the Sewer Fund's Capital Improvement Program. Given the complexity of the project and lack of bids received, at staff's recommendation, City Council waived the competitive bidding process and awarded a design-build contract to CDI, who teamed with Dynamic Electric, Inc., for an amount not to exceed $990,880.00.

On Thursday, April 5, 2018, staff will seek direction from the Infrastructure Committee on how it would like staff to proceed with the 2018 Waste Water Treatment Plant SCADA System Improvement Project. Options include:

1. City Council waive the competitive bidding process and award a contract to Donohue Associates, for an amount not to exceed $671,000.00, for design-build services related to the 2018 Waste Water Treatment Plant SCADA System Improvement Project. This will allow the project to commence in May 2018 with an anticipated completion date of May 2019.

2. Competitively bid for construction services for the 2018 Waste Water Treatment Plant SCADA System Improvement Project. This will require the following:
   a. Award of a contract for engineering design and bid assistance services, for an estimated cost of $50,000.00. Estimated timeline would result in a project bid in July 2018.
   b. Award a construction contract to the lowest responsible bidder in August/September 2018, with construction commencing in October 2018. Anticipated completion date of the project would then be October 2019.
   c. Award of a contract for engineering construction oversight contract, for an estimated cost of $50,000.00.

DONOHUE

Donohue & Associates, Inc.
1605 South State Street, Suite 1C | Champaign, IL 61820
217.352.9990 | donohue-associates.com

March 30, 2018

Mr. Robert Flatter
City of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: **West Chicago Regional WWTP – Proposal for SCADA Professional Services**

Dear Mr. Flatter:

Please find attached our proposal for professional services for the replacement of the SCADA system at the wastewater treatment with a more reliable, non-proprietary system.

The professional services proposal includes providing the parts, labor and engineering services to install and program a complete, functional SCADA system at the wastewater treatment plant in a design build manner. ***Our fee for this scope of services is $671,000 and is broken down as follows:***

Lump sum base scope	$634,250
Fiber optic allowance	$26,250
Hardware contingency	$10,500

The base scope of services includes new fiber optic cable with the assumption that the existing conduit runs can be utilized. The fiber optic allowance will be used in those instances where the existing conduit runs cannot be used due to unforeseen field conditions.

The base scope of services does not include any field instrument replacement. It is expected that all field instruments are in good condition and usable under the new SCADA system. The hardware contingency will be used in those instances where it is discovered that a field instrument is not usable due to unforeseen field conditions.

Please let me know if you have any questions or if you need any additional information about this proposal.

Very truly yours,

DONOHUE & ASSOCIATES, INC.

T. K. Boyer

Terrence K. Boyer, P.E.
Vice President

Project Plan

Quality Work,
On Time,
On Budget

DONOHUE

SCADA Improvements
West Chicago Regional WWTP

City of West Chicago

Date: March 30, 2018

PART I

PROJECT DESCRIPTION/SCOPE OF SERVICES/TIMING

A. Project Purpose and Description

The Owner operates a regional wastewater treatment plant with controls equipment at the treatment plant and at various locations within the City. The scope of the project consists of design build services to upgrade the treatment plant process control network, PLC hardware, and SCADA system. The overall goal is to replace the current SCADA system with a system that consists of a non-proprietary industry standard control system with long term reliability and scalability to meet the City's needs.

B. Scope of Services

Donohue shall provide the Owner professional engineering services which include serving as Owner's professional representative for the Project, providing professional engineering consultation and advice, and furnishing process control engineering services and other customary services incidental thereto. Donohue shall procure materials and installation labor as required to complete the services defined below.

Donohue reserves the right to subcontract some portions of this contract including, but not limited to, electrical conduit, wiring, and fiber installation. The Owner has provided contact information for a preferred local electrical contractor from Micro West, LTD. Donohue has contacted Micro West and has included an allowance in the Schedule of Values to cover the cost of this work.

The following improvements will be completed for the SCADA system at the West Chicago Regional Wastewater Treatment Plant:

Administration Building

1. **PLC System Control Panel modifications (80-PLC-1)**

   Modifications to the existing PLC control panel including the following:

   i. New backpanel with PLC wired to interface terminals.
   ii. Door switch activated LED panel light.
   iii. Programming port with duplex receptacle.
   iv. New low voltage power supplies to replace existing.
   v. Compact Logix PLC processor, 1769-L33ER.
   vi. Qty 1 1769-IF4I isolated analog input card.
   vii. Qty 1 1769-OF4CI isolated analog output card (for future I/O).
   viii. Qty 2 1769-IA16 discrete input cards.
   ix. Qty 4 1769-OW8I discrete output cards.
   x. Industrial network switch with fiber and copper ports.
   xi. Fiber optic patch panel with ports for 12 fiber terminations.

xii. Wireless Access Point for Wi-Fi access
xiii. UPS, Liebert GXT3 with relay output card.
xiv. Surge protection, Islatrol IC+115.
xv. Clean-up of the existing control panel wiring, including removal of components no longer being used, labeling of un-labeled wires, and re-routing/tie-wrapping of existing wires.

2. Network Rack/Panel modifications (80-NET-1)

Modifications to the existing network rack including the following:

i. Cable management hardware and materials.
ii. Clean-up/re-routing/tie-wrapping of existing Cat 6 cabling.
iii. New labels for all cabling.
iv. Rack-mount hardware for existing components being re-used.
v. Rack-mount UPS with relay output card.
vi. Rack-mount Dell PowerEdge R630 (or equal) server with the following minimum requirements:
    a. 2 – Intel Xeon v4 processors
    b. Redundant power supplies
    c. 2 – 1TB 7.2k RPM SATA HDD hard drives with RAID-1 configuration
    d. 2 – 1GB NIC adapters
    e. 2 – 16GB RDIMM Dual Rank Memory
    f. Windows Server 2012R2 Standard Operating System (or latest version supported by SCADA Software)
    g. 1 – 5-Pack of Windows Server 2012R2 Remote Desktop Services, User
    h. 3 year basic hardware warranty
vii. Cisco Small Business Multifunction VPN router configured for secure remote access to the SCADA system (MX64 or equal)

3. Alarm dialer configuration and modifications (80-DIAL-1)

i. Remove/Replace existing dialer with new RACO Guard-It 4-channel dialer
ii. Dialer to serve as a hardware backup to Win911 for critical alarms
iii. Dialer will be relocated to the 80-PLC-1 control panel

4. SCADA Software and Hardware

The existing Wonderware InTouch application will be replaced in its entirety with a new Rockwell Software FactoryTalk View SE application. All software purchased under this project will be licensed to the Owner. The following components are included:

i. FactoryTalk View SE Server Unlimited with 10 SE Client Licenses
ii. FactoryTalk View Studio
iii. FactoryTalk Historian SE – 2500 points
iv. FactoryTalk Historian SE Datalink Excel Add-In
v. Win911 Interactive 2-way messaging software

vi. XLReporter Pro for one user plus Historian access
vii. 1 – USB cellular modem for SMS messaging of alarms
viii. 1 – Thick-Client view node for the Admin Building with 16:9 aspect ratio 36" HD computer monitor. Thick-client will contain Microsoft Office and XLReporter.
ix. 1 – Thin-Client view node for the Break Room with 16:9 aspect ratio 36" HD computer monitor
x. 1 – Tablet view node for WiFi access to SCADA throughout the plant. Tablet provided with same 16:9 aspect ratio and 1080p resolution as computer monitors for scalability of SCADA graphics

Preliminary Treatment Building

1. PLC System Control Panel (10-PLC-1)

One new PLC control panel with the following key components:

i. Free standing NEMA 12 enclosure with 3-point latch and print pocket.
ii. Door switch activated LED panel light.
iii. Programming port with duplex receptacle.
iv. Magnetic shelf.
v. Compact Logix PLC processor, 1769-L36ER.
vi. Qty 3 1769-IF4I isolated analog input cards.
vii. Qty 1 1769-OF4CI isolated analog output card (for future I/O).
viii. Qty 7 1769-IA16 discrete input cards (one for future I/O).
ix. Qty 7 1769-OW8I discrete output cards (one for future I/O).
x. Interface relays and hardware as needed for signal interface.
xi. Industrial network switch with fiber and copper ports.
xii. Intrinsic safety barriers as needed for hazardous areas.
xiii. Fiber optic patch panel with ports for 12 fiber terminations.
xiv. Wireless Access Point for Wi-Fi access
xv. UPS, Liebert GXT3 with relay output card.
xvi. Surge protection, Islatrol IC+115.
xvii. Clean-up of the existing control panel wiring, including removal of components no longer being used, labeling of un-labeled wires, and re-routing/tie-wrapping of existing wires.

Note: The existing control panel will become a junction box and I/O wiring will be extended from the existing panel location to the new panel location. Conduit and wire between panels is included.

2. Power and communication cabling

i. Conduit and wire with Cat 6 cabling between Grit System Control panel and 10-PLC-1.
ii. Power supply from lighting panel to new 10-PLC-1.

Blower Building

1. **PLC System Control Panel modifications (50-PLC-1)**

   Modifications to the existing PLC control panel including the following:

   i. New backpanel with PLC wired to interface terminals.
   ii. Door switch activated LED panel light.
   iii. Programming port with duplex receptacle.
   iv. Magnetic shelf.
   v. New low voltage power supplies to replace existing.
   vi. Compact Logix PLC processor, 1769-L33ER.
   vii. Qty 4 1769-IF4I isolated analog input cards (one for future I/O).
   viii. Qty 1 1769-OF4CI isolated analog output (for future I/O).
   ix. Qty 4 1769-IA16 discrete input cards.
   x. Qty 3 1769-OW8I discrete output cards.
   xi. Industrial network switch with fiber and copper ports.
   xii. Wireless Access Point for Wi-Fi access
   xiii. Fiber optic patch panel with ports for 12 fiber terminations.
   xiv. UPS, Liebert GXT3 with relay output card.
   xv. Surge protection, Islatrol IC+115.
   xvi. Clean-up of the existing control panel wiring, including removal of components no longer being used, labeling of un-labeled wires, and re-routing/tie-wrapping of existing wires.

Digester Building

1. **PLC System Control Panel modifications (70-PLC-1)**

   Modifications to the existing PLC control panel including the following:

   i. New backpanel with PLC wired to interface terminals.
   ii. Door switch activated LED panel light.
   iii. Programming port with duplex receptacle.
   iv. Magnetic shelf.
   v. New low voltage power supplies to replace existing.
   vi. Compact Logix PLC processor, 1769-L33ER.
   vii. Qty 3 1769-IF4I isolated analog input cards (one for future I/O).
   viii. Qty 1 1769-OF4CI isolated analog output card (for future I/O).
   ix. Qty 2 1769-IA16 discrete input cards.
   x. Qty 2 1769-OW8I discrete output cards.
   xi. Industrial network switch with fiber and copper ports.
   xii. Fiber optic patch panel with ports for 12 fiber terminations.
   xiii. Wireless Access Point for Wi-Fi access
   xiv. UPS, Liebert GXT3 with relay output card.
   xv. Surge protection, Islatrol IC+115.

xvi. Clean-up of the existing control panel wiring, including removal of components no longer being used, labeling of un-labeled wires, and re-routing/tie-wrapping of existing wires.

2. Communication cabling

i. Conduit and wire with Cat 6 cabling between Digester No. 2 Mixing control panel (ICS-Healy Ruff panel) and 70-PLC-1.

Chlorine Building

1. PLC System Control Panel modifications (90-PLC-1)

One new PLC control panel including the following:

i. Wall-mount NEMA 4X stainless steel enclosure with 3-point latch and print pocket.
ii. Door switch activated LED panel light.
iii. Compact Logix PLC processor, 1769-L33ER.
iv. Qty 5 1769-IF4I isolated analog input cards (one for future I/O).
v. Qty 1 1769-OF4CI isolated analog output card (for future I/O).
vi. Qty 1 1769-IA16 discrete input card.
vii. Qty 1 1769-OW8I discrete output cards (for future I/O).
viii. Industrial network switch with fiber and copper ports.
ix. Fiber optic patch panel with ports for 12 fiber terminations.
x. Wireless Access Point for Wi-Fi access
xi. Rockwell 1609-D600N industrial UPS with high-temp batteries.
xii. Surge protection, Islatrol IC+115.
xiii. Re-work of existing conduits above existing panel location, to facilitate installation of new, taller control panel. Conduits will also be modified to enter the control panel on the side, as the current conduits enter the top and drip water onto the PLC.

Equipment Building

1. PLC System Control Panel modifications (100-PLC-1)

Modifications to the existing PLC control panel including the following:

i. New backpanel with Compact Logix PLC wired interface terminals.
ii. Door switch activated LED panel light.
iii. Programming port with duplex receptacle.
iv. Magnetic shelf.
v. New low voltage power supplies to replace existing.
vi. Compact Logix PLC processor, 1769-L33ER.
vii. Qty 3 1769-IF4I isolated analog input cards (one for future I/O).
viii. Qty 1 1769-OF4CI isolated analog output (for future I/O).
ix. Qty 4 1769-IA16 discrete input cards.

x. Qty 3 1769-OW8I discrete output cards.
xi. Industrial network switch with fiber and copper ports.
xii. Fiber optic patch panel with ports for 12 fiber terminations.
xiii. Wireless Access Point for Wi-Fi access
xiv. UPS, Liebert GXT3 with relay output card.
xv. Surge protection, Islatrol IC+115.
xvi. Clean-up of the existing control panel wiring, including removal of components no longer being used, labeling of un-labeled wires, and re-routing/tie-wrapping of existing wires.

Spare Parts

One spare of each of the following will be provided:

1. PLC Hardware
   i. 1769-IF4I Analog input module.
   ii. 1769-OF4CI Analog output module.
   iii. 1769-IA16 Discrete input module.
   iv. 1769-OW8I Discrete output module.
   v. 1769-PA4 PLC power supply.
   vi. 1769-L33ER PLC processor.
   vii. 1769-L36ERM PLC processor.

2. Electrical Equipment and Hardware
   i. Low voltage power supply.
   ii. Industrial network switch with fiber and copper ports.
   iii. Surge protection, Islatrol IC+115.
   iv. Wi-fi access point.
   v. Intrinsic safety barrier (one of each type supplied)
   vi. Minimum of 5 or 10% spare relays of each type supplied.
   vii. Minimum of 5 or 10% spare fuses of each type supplied.
   viii. Minimum of 5 or 10% spare terminals of each type supplied.
   ix. Ten spare copper and fiber patch cables for each type supplied.

General Services and Common Items

1. Fiber optic backbone, installed in conduit with terminations and testing of all fiber links.
2. Engineering and design review with Owner.
3. Complete submittals and new system drawings.
4. Panel fabrication & UL Listing.
5. On-site factory testing of PLC control panels.
6. Installation of all control panels and equipment noted in the preceding Bill of Materials.
7. Installation coordination with Owner.
8. System startup and checkout.
9. Owner training.
10. SCADA System O&M manuals.

11. Standard one-year warranty for all equipment, with extended warranty for items as detailed in individual product specifications.
12. Two-year warranty on PLC and SCADA programming to correct any deficiencies or omissions from the agreed-upon control strategies.
13. Delivery of equipment to project site.

1. Testing & Commissioning

Donohue shall develop Preliminary Control Strategies for all major processes in the plant that will be automated as part of this project. Preliminary Control Strategies will be reviewed with the Owner in a workshop to receive Owner comments, which will be incorporated into the Final Control Strategies. The Control Strategies will serve as the basis for the PLC and SCADA graphic development.

Donohue shall prepare PLC and SCADA graphic programming offline as much as possible so it can be tested for functionality prior to commissioning. During the Preliminary Testing Phase, PLC programming will be downloaded to a spare PLC for testing with the live SCADA server. PLC Inputs and Outputs (I/O) will be simulated as the physical I/O will not be installed during the Preliminary Testing Phase.

Upon completion of the Preliminary Testing Phase, the Commissioning Phase will begin with the installation and wiring of new PLC hardware. During Commissioning, each I/O point will be documented for functionality with a Pass/Fail status on a Field I/O Checklist prepared by Donohue. Donohue will provide recommendations to the Owner for repairing any signals that do not pass the Field I/O Testing. Repairing or replacing field wiring, instruments, control stations, and equipment not specifically listed in this proposal remains the responsibility of the Owner. The Owner may elect to have Donohue perform these additional services with written authorization. All signals will be tested at the field location using existing equipment and control devices. Where applicable, each signal will be verified at the following locations; PLC I/O, SCADA Graphics, SCADA Alarm Summary, and Remote Alarm Notification.

Donohue shall prepare a Functional Testing Submittal based on the accepted Control Strategies. The Functional Testing Submittal will be used as an Owner acceptance document to clearly document that the control system functions as intended. Each piece of equipment and each instrument will be fully tested and documented with the Owners witness.

2. Submittals

Donohue shall submit for Owner's review and approval the following submittals listed in this section. Unless otherwise noted, each submittal shall be submitted electronically for review and

approval. Upon approval, one hard copy and one electronic copy shall be submitted for the Owner's records.

1. Construction schedule including phasing for hardware replacements
2. Monthly Progress Schedules
3. SCADA Standards Report to document accepted programming standards
4. Wastewater Plant Control Strategies
5. Product Data Submittal defining hardware being provided
6. Preliminary Shop Drawings prior to commissioning.
7. Preliminary Testing Procedure & Checklist
8. Preliminary SCADA Graphics and PLC Programming Logic
9. Field I/O Testing Procedure & Checklist
10. Functional Testing Procedure & Checklist
11. As-Built Shop Drawings (1 additional hard copy split into respective control panels)
12. Wastewater Plant SCADA System Operation & Maintenance Manual

3. Remote Alarming

Remote alarming will be included in this project to allow operators to receive critical alarms on their cell phones. The alarming software and SMS modem for cellular text messages are included as part of the project, but will require the Owner to provide a monthly service plan through their preferred cellular provider. Donohue shall export the Digital Alarm database from the SCADA server to allow the Owner to review which alarms are to be added to the remote alarming. Remote alarm configuration shall be conducted as a cooperative effort between plant staff and Donohue.

4. Future Work

The SCADA system shall be configured such that it is expandable for future additions. Unless specifically stated in this proposal, all future work associated with detailed design, programming, commissioning, installation, and startup is excluded from the scope of this project unless the Owner authorizes additional scope by amendment.

In order for the WWTP personnel to see the status of some of the key lift stations, which are operated and maintained by a different department, this new SCADA system will incorporate PLC-to-PLC messaging to collect key information from the Lift Station Polling Master PLC. The polling PLC is being provided under a concurrent project and is anticipated to be completed by the end of 2018. Programming has been included in this project to incorporate the key status information and flow data into the WWTP SCADA system.

C. Project Timing

Donohue shall be authorized to commence the Services set forth herein upon execution of this Agreement. Work sequencing and schedule shall be coordinated with the Owner. A detailed schedule of upgrade activities coordinated with the Owner's desires and operations will be developed with the Owner's input as a part of the project initiation. It is anticipated that all work will be completed within twelve (12) months from authorization to proceed.

Applications for Substantial Completion shall be submitted by Donohue to the Owner after the completion of commissioning and after the completed Functional Testing submittal for each specific phase of the project is found acceptable by the Owner. Specific Phase Substantial Completions shall be granted by the Owner within 30 days of receipt of each Application for Substantial Completion.

Final Completion shall be granted by the Owner within 30 days after Substantial Completion is granted AND after all required submittals and documentation have been submitted and approved by the Owner.

D. Exclusions

The following items have not been included in the scope of services for this project:

1. Taxes.
2. Performance, payment, or equipment bonds.
3. Mechanical equipment or piping such as instrument tubing, valves, flanges, pipe taps, weldolets, threadolets, or joint accessories needed to install equipment in this proposal.
4. Off-loading of equipment delivered to the project site.
5. Bypass pumping.
6. Ground resistance testing.
7. Electrical studies or third party testing.
8. Junction boxes, unless specifically noted in this proposal.
9. Mechanical Installation.
10. Pumps, Piping, and Fittings.
11. Valves, unless specifically noted in this proposal.
12. Heating, ventilating, and air conditioning equipment or temperature controls.

PART II

OWNER RESPONSIBILITIES

A. Owner agrees to:

1. Identify a person authorized to act as the Owner's representative to respond to questions and make decisions on behalf of Owner, accept completed documents, approve payments to Donohue, and serve as liaison with Donohue as necessary for Donohue to complete its Services.

2. Furnish to Donohue copies of existing documents and data pertinent to Donohue's Scope of Services, including but not limited to and where applicable: design and record drawings for existing facilities; property descriptions, land use restrictions, surveys, geotechnical and environmental studies, or assessments.

3. Provide to Donohue existing information regarding the existence and locations of utilities and other underground facilities.

4. Provide Donohue safe access to premises necessary for Donohue to provide the Services.

5. Inform Donohue whenever Owner observes or becomes aware of a Hazardous Environmental Condition that may affect Donohue's Scope of Services or time for performance.

PART III

COMPENSATION, BILLING AND PAYMENT

A. COMPENSATION

Compensation for the services set forth in this agreement shall be itemized in accordance with Attachment 1-Schedule of Values. The total cost for these services for a lump sum of $671,000, unless additional services are authorized by the Owner, broken down as follows:

Lump sum base scope	$634,250
Fiber optic allowance	$26,250
Hardware contingency	$10,500

The base scope of services includes new fiber optic cable with the assumption that the existing conduit runs can be utilized. The fiber optic allowance will be used in those instances where the existing conduit runs cannot be used due to unforeseen field conditions.

The base scope of services does not include any field instrument replacement. It is expected that all field instruments are in good condition and usable under the new SCADA system. The hardware contingency will be used in those instances where it is discovered that a field instrument is not usable due to unforeseen field conditions.

B. BILLING AND PAYMENT

1. Timing/Format

    a. Donohue shall invoice Owner monthly for Services completed at the time of billing. Such invoices shall be prepared utilizing the AIA G702 form and shall be based upon percent completion of the approved Schedule of Values.
    b. Retainage shall be 5% of the contract amount requested for each specific phase of the project until Substantial Completion is achieved for each specific phase. When each specific phase of the project achieves substantial completion, the 5% amount retained for that phase of the work shall be released.
    c. Donohue shall invoice for partial retainage release separate from monthly invoices upon completion of respective Phase.
    d. Owner shall pay Engineer within 30 days of receipt of approved invoice.

2. Billing Records

    a. Donohue shall maintain accounting records of its costs in accordance with generally accepted accounting practices. Access to such records will be provided during normal business hours with reasonable notice during the term of this Agreement and for 3 years after completion.

Attachment 1

SCHEDULE OF VALUES

AIA DOCUMENT G702

To OWNER	City of West Chicago	PROJECT	Wastewater Treatment Plant SCADA Upgrade Project	APP #	0
				PERIOD TO	
				PROJ #	
FROM CONTRACTOR	Donohue & Associates, Inc 3311 Weeden Creek Rd Sheboygan, WI 53081	VIA ARCHITECT		CONTR DATE TO OWNER	
CONTRACT FOR	Application Engineering & Systems Integration				

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in conjunction with the Contract.
Continuation Sheet is attached (See detail on the following pages).

ORIGINAL CONTRACT SUM		671,000.00
NET CHANGE BY CHANGE ORDERS		0.00
CONTRACT SUM TO DATE		671,000.00
TOTAL COMPLETED & STORED TO DATE		0.00
RETAINAGE	5% Of Completed Work	0.00
	5% Of Stored Material	0.00
	Total Retainage	0.00
TOTAL EARNED LESS RETAINAGE		0.00
LESS PREVIOUS CERTIFICATES FOR PAYMENT		0.00
CURRENT PAYMENT DUE		0.00
BALANCE TO FINISH, INCLUDING RETAINAGE		671,000.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
CHANGES PREVIOUSLY APPROVED	0.00	0.00
CHANGES APPROVED THIS MONTH	0.00	0.00
TOTALS	0.00	0.00
NET CHANGES		0.00

The Undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments recieved for the Owner, and that current payment shown herein is now due.

CONTRACTOR:

By: _____ Date: _____

State Of:
County Of:
Subscribed and sworn to before

Me this day of

Notary Public:
My Commission Expires:

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED . . . . . $ _____
(Attach explanation if amount certified differs from the amount applied for. Initial all figures on the Application and on the Continuation Sheet that are changed to conform to the amount certified.)

ARCHITECT:

By: _____ Date: _____
This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CONTINUATION SHEET

APPLICATION AND CERTIFICATE FOR PAYMENT,
containing Contractor's signed Certification, is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO: **0**
APPLICATION DATE: **03/29/18**
PERIOD TO: **01/00/00**
ARCHITECT'S PROJECT NO: **0**

A	B	C	D	E	F	G		H	I
Item No.	Description of Work	Scheduled Value	Work Completed Previous	Work Completed This	Materials Stored	Total C & S	%	Balance To Finish	Retainage (If Variable)
	Phase 1 - General								
101	Project Management	21,420.00						21,420.00	
102	Panel Design	23,100.00						23,100.00	
103	Submittal Preparation	21,945.00						21,945.00	
104	Software Purchases	48,071.15						48,071.15	
105	Software Installation	7,350.00						7,350.00	
106	Software Configuration	22,050.00						22,050.00	
107	SCADA Server Hardware	6,670.00						6,670.00	
108	SCADA View Nodes (3)	3,472.85						3,472.85	
109									
110									
111									
112									
113									
114									
115									
	Page Totals	154,079.00	0.00	0.00	0.00	0.00	0.0	154,079.00	0.00
	(Continued Next Page)								

CONTINUATION SHEET

APPLICATION AND CERTIFICATE FOR PAYMENT,
containing Contractor's signed Certification, is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO: **0**
APPLICATION DATE: **03/29/18**
PERIOD TO: **01/00/00**
ARCHITECT'S PROJECT NO: **0**

A	B	C	D	E	F	G		H	I
Item No.	Description of Work	Scheduled Value	Work Completed Previous	Work Completed This	Materials Stored	Total C & S	%	Balance To Finish	Retainage (If Variable)
	Phase 2 - Preliminary Testing								
201	Standards Workshop	3,475.50						3,475.50	
202	Standards Report	14,280.00						14,280.00	
203	Offline PLC Programming	39,060.00						39,060.00	
204	Offline Graphic Development	39,060.00						39,060.00	
205	Control Strategies	19,530.00						19,530.00	
206	Review Workshop	3,475.50						3,475.50	
207	Electrical Installation	12,127.50						12,127.50	
208	PLC Hardware	23,100.00						23,100.00	
209									
210									
211									
212									
213									
214	Hardware Contingency	10,500.00						10,500.00	
215	Fiber Optic Allowance	26,250.00						26,250.00	
	Page Totals	190,858.50	0.00	0.00	0.00	0.00	0.0	190,858.50	0.00
	(Continued Next Page)								

CONTINUATION SHEET

APPLICATION AND CERTIFICATE FOR PAYMENT,
containing Contractor's signed Certification, is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO: **0**
APPLICATION DATE: **03/29/18**
PERIOD TO: **01/00/00**
ARCHITECT'S PROJECT NO: **0**

A	B	C	D	E	F	G		H	I
Item No.	Description of Work	Scheduled Value	Work Completed Previous	Work Completed This	Materials Stored	Total C & S	%	Balance To Finish	Retainage (If Variable)
	Phase 3 - Commissioning								
301	Online PLC Programming	26,040.00						26,040.00	
302	Online Graphic Development	19,530.00						19,530.00	
303	Preliminary Testing	13,020.00						13,020.00	
304	Functional Testing/Startup	35,805.00						35,805.00	
305	Admin Bldg Hardware & Labor	44,907.50						44,907.50	
306	Prelim. Bldg Hardware & Labor	41,917.50						41,917.50	
307	Prelim. Bldg Electric/Communication	10,350.00						10,350.00	
308	Blower Bldg Hardware & Labor	31,050.00						31,050.00	
309	Digester Bldg Hardware & Labor	31,050.00						31,050.00	
310	Digester Bldg Electric/Communication	10,292.50						10,292.50	
311	Chlorine Bldg. Hardware & Labor	31,050.00						31,050.00	
312	Equip. Bldg Hardware & Labor	31,050.00						31,050.00	
313									
314									
315									
	Page Totals	326,062.50	0.00	0.00	0.00	0.00	0.0	326,062.50	0.00
	Total For All Pages	**671,000.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**	**671,000.00**	**0.00**

TECHNICAL MEMORANDUM

West Chicago WWTP-OMG Supplemental SCADA Systems Review

PREPARED FOR:	Brent Lautenbach, OMG
COPY TO:	Steve Hutchings, OMG
PREPARED BY:	Jay Hardison/Den, Instrumentation and Controls Technologist
DATE:	November 11, 2016
REVISION DATE	January 4, 2017
REVISED BY:	Brent Lautenbach OMG and Steve Hutchings OMG

General

This Technical Memorandum (TM) is to supplement a TM that was prepared October 04, 2012 by Yehuda Morag, CH2M Senior Principal Facility Automation Technologist. The design office of CH2M received a request from the staff of West Chicago WWTP to perform an evaluation of the SCADA systems at the WWTP and to review and comment on a proposal for professional services that the City of West Chicago received on October 17, 2016. On November 9, 2016 the WWTP SCADA systems were reviewed and various interviews were conducted of the plant staff.

Observation of Existing SCADA System

Most of the recommendations that were mentioned in the 2012 TM have not been implemented to date. In fact, the condition of the SCADA system has further deteriorated specifically in the following critical areas:

- The communication network that links the Programmable Logic Controllers (PLCs) to the Human Machine Interface (HMI) has numerus communications faults. It was observed that over a period of a couple of minutes more than a dozen communication faults were detected. This problem is persistent and reoccurs on a continuous basis.
- The same WWTP Main SCADA server machine (Dell Optiplex 780) is still in use today that was observed in 2012. This machine went on the market in 2010 and is recommended to be replaced every five (5) years. In addition to the hardware being outdated, the Operating System for the machine is no longer being supported by Microsoft. After April 8, 2014 support and security updates for Windows XP are no longer available. The long-term reliability of this machine is of extreme concern. A catastrophic failure is eminent.

WWTP Main SCADA Server

- Several new treatment process improvement projects that contain control systems have been installed since the 2012 audit and are currently not integrated within the WWTP SCADA system. The new Gravity belt Thickeners (GBTs), Grit Removal Systems, and Sodium Bisulfite injection system either run as islands onto their own or have a couple of discreet general alarm inputs into the WWTP SCADA. There is currently no detailed monitoring or remote control of these processes.

Grit System Control Panel

Sodium Bisulfite Pump Control Panel

- Evidence of more corrosion is observed of various control panels either mounted outside in the weather or inside the headworks area. As the corrosion to the panels continues, the risk of aged internal components failure increases as corrosive gases penetrate inside the control panels.

Headworks Control Panel

Observation of Proposal for Professional Services Received October 2016

The City of West Chicago received a proposal for professional services for the replacement of the SCADA system at the wastewater plant on October 17, 2016. My observations to the proposal are as follows:

The proposal lacked information regarding a secure high availability failover network and server infrastructure that is needed to support the plant with remote operations. This is a very critical part of a reliable SCADA system to both the city and the operations staff. Implementing a high available failover system will allow for a reliable, sustainable, and secure SCADA system to meet all of the needs of the operations staff such as automatic report generation, archiving, disaster recovery, and remote monitoring of plant conditions by city and operation's staff.

The fiber Optic cable installation and termination lacks detail such as what type of fiber optic cable (single-mode or multi-mode fiber) and connectors would be installed. This is very important to understand as the costs can vary greatly not only on the fiber optic infrastructure, but also the end devices that the fiber attaches to.

There is very little detail in regard to the level of integration of the existing and new vendor control panels into the plant-wide SCADA system. This integration could be just adding a couple of points to the SCADA system or do a full integration including duplicating graphics, control, and alarming. Not knowing the level of integration up front of the project will allow for change orders to be generated to meet the operation's expectations.

In the Schedule of Values items 104-105, mentions Software Purchases and Software Installation. It is unclear what this software is for. I assume that this would be new HMI software to replace the existing outdated HMI software and PLC programming software. If this is the case, there is not enough money set aside for a client-server based HMI, historian, disaster recovery system, and PLC programming software.

Recommendations and Budget

Based on what was observed at the WWTP and with the review of the proposal for professional services that was received by the city on October 17,2016 a list of recommendations has been developed. The proposed recommendations will result in a reliable, secure, and cost effective control system that meets the ever changing demands at the WWTP.

- Develop a detail design of the new control system at the WWTP to allow for a competitive bid of the Work to encourage better pricing and price certainty
- Identify what type of HMI software and support systems that will be used for the control system upgrade
- Identify what level of reliability is required including disaster recovery strategies and redundancy
- Implement the recommendations that were mentioned in the earlier TM authored by Yehuda Morag. Those recommendations are still valid today

The budget for the recommendations is in the following table. To reiterate the West Chicago WWTP SCADA Systems review TM dated October 2012, a phased approach over several years will assist in efforts to maintain West Chicago budget.

Description	Budget Amount
Detail Design	$163,000
High Availability server solution	$250,000
PLC Panels	$256,000
Procurement	$28,500
Software development	$325,000
Commissioning and start-up	$106,590
Project closeout	$34,200
Sum	**$ 1,163,290**

Project Manager Review Revised 1/4/17

Original estimates from CH2M Hill/OMI had put cost to upgrade the SCADA system at around $300,000. This estimate was included in the original facilities plan developed in 2009. The SCADA upgrade plan was based on a phased approach to upgrade the current technology in place and improve system reliability. The current PLC hardware and software has become obsolete over the last seven years making it difficult to find parts for replacement, and in some cases making it very costly to repair. At this time, the recommended course of action is to replace the SCADA system with updated hardware and software. The proposals address the improvement in reliability while facilitating future expansion and integration to help streamline individual processes. One of CH2M's additions to the scope is the installation of a fiber optic loop which will greatly enhance system communication and reliability throughout the facility. This is a highly recommended improvement as the current communication lines throughout the plant are corroded due to the environment exposure and age. There are several areas of the plant where newer PLC technology has been installed such as the grit system and new disc filters. Unfortunately, remote system operation is limited to generic alarm alerts and remote system control is not available at this time. Future upgrades to the aeration system will require a SCADA upgrade in order to fully maximize and control the process.