



## **United City of Yorkville**

800 Game Farm Road

Yorkville, Illinois 60560

Telephone: 630-553-4350

[www.yorkville.il.us](http://www.yorkville.il.us)

### **AGENDA PUBLIC WORKS COMMITTEE MEETING**

**Tuesday, December 21, 2021**

**6:00 p.m.**

City Hall Conference Room  
800 Game Farm Road, Yorkville, IL

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#### **Citizen Comments:**

**Minutes for Correction/Approval:** November 16, 2021

#### **New Business:**

1. PW 2021-69 Snow Operations Report
2. PW 2021-70 End-of-Year Leaf Operations Report
3. PW 2021-71 Route 126 and Ashley Road Improvement Update
4. PW 2021-72 Solid Waste Recommendation
5. PW 2021-73 Well No. 4 Rehabilitation – Bid Award
6. PW 2021-74 Lake Michigan Allocation – Engineering Agreement

#### **Old Business:**

#### **Additional Business:**

<b>2019/2020 City Council Goals – Public Works Committee</b>		
<b>Goal</b>	<b>Priority</b>	<b>Staff</b>
“Municipal Building Needs & Planning”	2	Bart Olson, Rob Fredrickson, Eric Dhuse, James Jensen, Tim Evans & Erin Willrett
“Road to Better Roads Funding”	3	Bart Olson, Rob Fredrickson & Eric Dhuse
“Water Planning”	6	Eric Dhuse & Brad Sanderson
“School Safety (Exterior & Traffic)”	8 (tie)	Eric Dhuse & James Jensen
“Quiet Zones”	14 (tie)	Eric Dhuse, Erin Willrett & Brad Sanderson
“Route 47 Crossings”	19	Eric Dhuse & Brad Sanderson

UNITED CITY OF YORKVILLE  
WORKSHEET  
**PUBLIC WORKS COMMITTEE**  
**Tuesday, December 21, 2021**  
**6:00 PM**  
CITY HALL CONFERENCE ROOM

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**CITIZEN COMMENTS:**

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**MINUTES FOR CORRECTION/APPROVAL:**

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1. November 16, 2021

- ☐ Approved \_\_\_\_\_
- ☐ As presented
- ☐ With corrections

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**NEW BUSINESS:**

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1. PW 2021-69 Snow Operations Report

- ☐ Moved forward to CC \_\_\_\_\_
  - ☐ Approved by Committee \_\_\_\_\_
  - ☐ Bring back to Committee \_\_\_\_\_
  - ☐ Informational Item
  - ☐ Notes \_\_\_\_\_
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2. PW 2021-70 End-of-Year Leaf Operations Report

☐ Moved forward to CC \_\_\_\_\_

☐ Approved by Committee \_\_\_\_\_

☐ Bring back to Committee \_\_\_\_\_

☐ Informational Item

☐ Notes \_\_\_\_\_

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3. PW 2021-71 Route 126 and Ashley Road Improvement Update

☐ Moved forward to CC \_\_\_\_\_

☐ Approved by Committee \_\_\_\_\_

☐ Bring back to Committee \_\_\_\_\_

☐ Informational Item

☐ Notes \_\_\_\_\_

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4. PW 2021-72 Solid Waste Recommendation

☐ Moved forward to CC \_\_\_\_\_

☐ Approved by Committee \_\_\_\_\_

☐ Bring back to Committee \_\_\_\_\_

☐ Informational Item

☐ Notes \_\_\_\_\_

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5. PW 2021-73 Well No. 4 Rehabilitation – Bid Award

☐ Moved forward to CC \_\_\_\_\_

☐ Approved by Committee \_\_\_\_\_

☐ Bring back to Committee \_\_\_\_\_

☐ Informational Item

☐ Notes \_\_\_\_\_

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6. PW 2021-74 Lake Michigan Allocation – Engineering Agreement

☐ Moved forward to CC \_\_\_\_\_

☐ Approved by Committee \_\_\_\_\_

☐ Bring back to Committee \_\_\_\_\_

☐ Informational Item

☐ Notes \_\_\_\_\_

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**ADDITIONAL BUSINESS:**

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Reviewed By:	
Legal	<input type="checkbox"/>
Finance	<input type="checkbox"/>
Engineer	<input type="checkbox"/>
City Administrator	<input type="checkbox"/>
Community Development	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>
Police	<input type="checkbox"/>
Public Works	<input type="checkbox"/>
Parks and Recreation	<input type="checkbox"/>

Agenda Item Number

Minutes

Tracking Number

### Agenda Item Summary Memo

**Title:** Minutes of the Public Works Committee – November 16, 2021

**Meeting and Date:** Public Works Committee – December 21, 2021

**Synopsis:** \_\_\_\_\_  
\_\_\_\_\_

#### Council Action Previously Taken:

Date of Action: \_\_\_\_\_ Action Taken: \_\_\_\_\_

Item Number: \_\_\_\_\_

**Type of Vote Required:** Majority

**Council Action Requested:** Committee Approval

**Submitted by:** Minute Taker

Name

Department

#### Agenda Item Notes:

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**UNITED CITY OF YORKVILLE  
PUBLIC WORKS COMMITTEE MEETING  
Tuesday, November 16, 2021, 6:00pm  
Yorkville City Hall, Council Chambers  
800 Game Farm Road, Yorkville, IL**

In accordance with Public Act 101-0640 and Gubernatorial Disaster Proclamation issued by Governor Pritzker pursuant to the powers vested in the Governor under the Illinois Emergency Management Agency Act, the United City of Yorkville is encouraging social distancing during the pandemic by allowing remote attendance for this meeting.

**IN ATTENDANCE:**

**Committee Members**

Chairman Matt Marek (via Zoom)    Alderman Joe Plocher  
Alderman Ken Koch

Absent: Alderman Jason Peterson

**Other City Officials**

City Administrator Bart Olson            Assistant City Administrator Erin Willrett  
Engineer Brad Sanderson, EEI            Public Works Director Eric Dhuse

**Other Guests:** None

The meeting was called to order at 6:00pm by Chairman Matt Marek who read the Disaster Proclamation.

**Citizen Comments:** None

**Previous Meeting Minutes:** October 19, 2021

The minutes were approved as presented.

**New Business:**

***1. PW 2021-65 IDOT Traffic Signal Master Agreement***

Mr. Dhuse said the Master Agreement has to be re-signed each 10 years and that the state has the power to stop work on traffic signals if the agreement is not signed. He expressed concerns to the State, but they did not respond for 8 weeks and did not address the shortcomings, but basically said they would not pay the city for any work done on signals. He said the city has been maintaining signals to the state standards and would like reimbursements not yet paid. He said Yorkville is one of the last municipalities to sign the agreement. He recommended moving this forward to the City Council.

**2. PW 2021-66 Special Service Area – Fox Hill & Sunflower Estates – Maintenance Services**

This report was compiled by Mr. Dhuse and will coincide with the Finance Director's levy and budgeting process for the SSA's. Rather than just approving the levy each year, this report will provide backup information. Mr. Olson stated that requests are received for trees, signs, curbs, etc. for which there is no money available in these SSA areas. Mr. Dhuse said there is a negative fund balance now due to large projects in the past such as the naturalization of the ponds. This information will move forward to the City Council, along with the levy item.

**3. PW 2021-67 MFT Supplemental Resolution for Bulk Rock Salt Purchase**

Mr. Dhuse said the salt purchase was re-bid in August and was awarded to Compass Mineral at \$15.35 more per ton than last year. He was expecting a higher price, but will need the supplemental resolution to cover the costs. The committee moved this to the Council consent agenda.

**4. PW 2021-68 Grande Reserve – Tuscany Trail - Acceptance**

Mr. Sanderson explained this item is up for consideration and is a portion of Unit 23 that was not accepted this summer. The developer has now completed the punchlist items. The bond will be decreased if approved and the one-year maintenance agreement will begin. Mr. Olson recommended moving this forward to the consent agenda which the committee approved.

**Old Business:** None

**Additional Business:**

Alderman Koch asked for an update for the Rt. 34/Tuma Rd. street light. Mr. Olson said no information has been received from the state. Mr. Dhuse added that ComEd looked at it and has moved the pole. Mr. Koch also asked about the status of the Greenbriar sign. Mr. Dhuse said Plainfield Sign was contacted regarding refurbishment, but he hopes to repair it this winter in-house.

Mr. Olson reported on the street sweeper that caught fire. The repair bill is \$75,000, but the sweeper value is much less and the insurance settlement is around \$30,000. He is leaning toward using the insurance money minus the salvage value, removing the sweeper to use as a truck and then purchase a new sweeper at a cost of \$200,000-\$300,000. As an outsourcing option, Waste Management has submitted an offer to do the sweeping at a cost of about \$15,000 (\$140/hour). These options may be addressed at the December Council meeting. Mr. Dhuse added that the sweeper is used in the spring and about 10-15 times a year. It is also used for cleaning up after accidents, after community events and to clean oil from the streets.

Since the leaves have been slow to fall this year, a third pickup of leaves will be done in the upcoming days, said Mr. Dhuse.

There was no further business and the meeting adjourned at 6:19pm.

Minutes respectfully transcribed by  
Marlys Young, Minute Taker



Reviewed By:	
Legal	<input type="checkbox"/>
Finance	<input type="checkbox"/>
Engineer	<input type="checkbox"/>
City Administrator	<input checked="" type="checkbox"/>
Human Resources	<input type="checkbox"/>
Community Development	<input type="checkbox"/>
Police	<input type="checkbox"/>
Public Works	<input checked="" type="checkbox"/>
Parks and Recreation	<input type="checkbox"/>

Agenda Item Number

New Business #1

Tracking Number

PW 2021-69

### Agenda Item Summary Memo

**Title:** December Snow Report

**Meeting and Date:** Public Works Committee – December 21, 2021

**Synopsis:** Short overview of upcoming snow removal season.

### Council Action Previously Taken:

Date of Action: \_\_\_\_\_ Action Taken: \_\_\_\_\_

Item Number: \_\_\_\_\_

**Type of Vote Required:** none

**Council Action Requested:** none

**Submitted by:** Eric Dhuse Public Works  
Name Department

### Agenda Item Notes:

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# Memorandum

To: Public Works Committee  
From: Eric Dhuse, Director of Public Works  
CC: Bart Olson, City Administrator  
Date: December 15, 2021  
Subject: Snow Report

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## **Summary**

Opening snow report of the 21-22 snow season. This will be an overview of what we have prepared for the upcoming season.

## **Background**

With the changing of the seasons comes the preparation for snow removal. As we all know, supply chain issues have caused havoc on the delivery of goods. Unfortunately, we have had some bad luck in this department as well. Currently, we are going to be down the following pieces of equipment:

1. New truck that was ordered in March. Although it wasn't supposed to be delivered until the end of winter, we are now told it won't be here until at least July. My estimate is probably closer to September by the time we have the body built and get it delivered.
2. We have 2 large dump trucks in Indiana awaiting rehabilitation. The trucks were delivered in the summer with the thought of getting them back in November, in time for snow removal season. The shortage of stainless steel has made obtaining the boxes for the dump trucks nearly impossible. Our new estimated delivery time is January.
3. We ordered 4 pickup trucks in November. 2 have small dump bodies and 2 are standard pickups. We were not allowed to order before this time, and do not have a delivery date as of now. If this were a normal year, we would have ordered them right after the passage of the budget and would have had them for the season for sure. These trucks are replacement trucks, so we will still be able to clear the streets, but the trucks we use will not be nearly as reliable.

To try and make up some ground for all the missing vehicles, we were given permission to purchase three (3) slide in salt spreaders for our one ton dump trucks that did not already have them mounted. By no means does this make up for the loss of the large dump trucks, but at least its something.

In addition to the new spreaders, we have also had the good fortune to be able to hire 2 street department employees, 1 building maintenance employee and 1 parks employee that will all assist in snow removal. Most of these employees have limited snow plowing experience, so they will start out clearing cul de sacs and parking lots until they gain some seat time and we feel confident in their ability to plow safely.

Our first order of salt for the season has already arrived, we have approximately 750 tons at the PW facility and 1000 tons in storage at the Kendall County Highway Department. In addition, we have 1000 tons left that we can order this year. This is great news but getting to

this point has not been easy. We were supposed to be able to roll our previous years contract to this year per IDOT rules. I put in our application in March stating that we would like to exercise the roll over contract. I was notified in mid-August that Cargill was not going to renew their contracts due to a plant accident. IDOT agreed that Cargill did not have to honor their contracts, so salt was re-bid at that time. IDOT did not receive any acceptable bids in September so they bid it out again in October and finally received acceptable bids. Although it was a relief to have a salt contract, it did cost the city approximately \$12,000 when it was re-bid since the new price was \$15.00 higher per ton than our old contract cost.

Our brine maker is back up and running after waiting on a circuit board component for months. We now have a full supply of 10,000 gallons of brine, 6000 of a brine and calcium chloride mix, and approximately 2,000 gallons of calcium chloride to mix with the brine. We will use as much brine as we can this year, but the totals will be down with 2 of the trucks that use brine are not going to be in service until sometime in January at the earliest.

As a reminder to all, we plow major streets first, then secondary streets, and finally cul de sacs and parking lots. After all those are completed, we will clear sidewalks and check all other areas to make sure we have completed everything. We cannot be in all places at once, we have to clear from the most used to the least used make sure we are providing safe travel for the greatest number of vehicles. What this means in real life is that if you live on a cul de sac, dead end, or sparsely traveled street, it could be up to 6 hours after we start that you see your first snowplow.

We have been very fortunate so far this year and have not had to perform any snow or ice removal operations. We are as ready as we can be, but I do ask for patience as we are down vehicles have to rely on older, unreliable equipment again this season. As always, we will do our best to provide the highest level of service that we can to our residents.

### **Recommendation**

There is no formal recommendation, as this is an informational item.



Reviewed By:	
Legal	<input type="checkbox"/>
Finance	<input type="checkbox"/>
Engineer	<input type="checkbox"/>
City Administrator	<input checked="" type="checkbox"/>
Community Development	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>
Police	<input type="checkbox"/>
Public Works	<input checked="" type="checkbox"/>
Parks and Recreation	<input type="checkbox"/>

Agenda Item Number

New Business #2

Tracking Number

PW 2021-70

### Agenda Item Summary Memo

**Title:** Leaf Pickup Report 2021

**Meeting and Date:** Public Works Committee – December 21, 2021

**Synopsis:** 2021 leaf pickup totals

#### Council Action Previously Taken:

Date of Action: \_\_\_\_\_ Action Taken: \_\_\_\_\_

Item Number: \_\_\_\_\_

**Type of Vote Required:** None

**Council Action Requested:** None, informational item

**Submitted by:** Eric Dhuse Public Works  
Name Department

#### Agenda Item Notes:

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# Memorandum

To: Public Works Committee  
From: Eric Dhuse, Director of Public Works  
CC: Bart Olson, City Administrator  
Date: December 15, 2021  
Subject: Leaf Pickup Report

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## **Summary**

Below please find a short report detailing leaf pickup for 2021 and ideas to help improve our ability to provide this service in the future.

## **Background**

The 2021 leaf pickup could not have been more different from 2020. Unlike last year, this year proved to be a challenge in more ways than one. As we all know, the leaves decided they did not want to fall “on time” this year. I believe our crews came up with a great plan to try and cover the entire town as many times as we could in our pickup window. We were able to cover the entire area three (3) times and picked up approximately 1410 cubic yards of leaves. This total was down from 2020 when we collected 2000 cubic yards. Please keep in mind that 2020 was the “perfect” leaf pick up. The weather was fantastic, and the leaves fell just right to allow residents to get them to the street for us and they were dry. The combination of all those factors lead us to one of the smoothest pickups I can recall. This reminds me that we can have a good plan and execute it well, but it really comes down to mother nature cooperating with us and in the end we are powerless to control the weather and must deal with it the best we can.

Looking back on this year to see what we did right and what we could improve on staff has come up with the following:

### **What we did right**

- Adapted our plan to provide the most service we could to all residents
- Notified residents through Facebook
- Used multiple crews utilizing multiple pick up methods

### **What would help us improve our service**

- Work with landowner to find a field that we could utilize longer if needed
- Utilize all social media to alert residents
- Purchase additional leaf vacuum, approximately \$110,000
- Move parkway tree replacement program to spring\*
- Move the last brush pickup from the last week of October\*\*

\*The parkway tree replacement program usually sees the planting of trees in the second week of October. This is also the time we need to prep trucks for winter knowing that we will be picking



up leaves all of November. If we move the program to the spring, this will eliminate a big conflict.

\*\*With our refuse pickup contract offering unlimited yard waste bags and bundled pickup every week from April – November, I believe that we could reduce the frequency of brush pickups. Instead of the last full week of April, June, August, and October I would propose that we have a spring pickup during the first week of May and fall pickup during the last week of September. This would eliminate two pickups, but the residents would still have the option of bagging or bundling their brush. Moving the final brush pickup to September will give us all of October to button up projects and prep trucks for snow removal season.

### **Recommendation**

This is an informational item.



Reviewed By:	
Legal	<input type="checkbox"/>
Finance	<input type="checkbox"/>
Engineer	<input checked="" type="checkbox"/>
City Administrator	<input checked="" type="checkbox"/>
Community Development	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>
Police	<input type="checkbox"/>
Public Works	<input type="checkbox"/>
Parks and Recreation	<input type="checkbox"/>

Agenda Item Number

New Business #3

Tracking Number

PW 2021-71

### Agenda Item Summary Memo

**Title:** Rt 126 and Ashley Road Improvements

**Meeting and Date:** City Council – December 21, 2021

**Synopsis:** Status Update

### Council Action Previously Taken:

Date of Action: \_\_\_\_\_ Action Taken: \_\_\_\_\_

Item Number: \_\_\_\_\_

**Type of Vote Required:** \_\_\_\_\_

**Council Action Requested:** Informational

**Submitted by:** Brad Sanderson Engineering  
Name Department

### Agenda Item Notes:

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*Have a question or comment about this agenda item?*

Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at [agendas@yorkville.il.us](mailto:agendas@yorkville.il.us), post at [www.facebook.com/CityofYorkville](https://www.facebook.com/CityofYorkville), tweet us at @CityofYorkville, and/or contact any of your elected officials at [http://www.yorkville.il.us/gov\\_officials.php](http://www.yorkville.il.us/gov_officials.php)



# Memorandum

To: Bart Olson, City Administrator  
From: Brad Sanderson, EEI  
CC: Eric Dhuse, Director of Public Works  
Erin Willrett, Assistant City Administrator  
Krysti Barksdale-Noble, Community Dev. Dir.  
Jori Behland, City Clerk

Date: December 14, 2021  
Subject: Rt 126 and Ashley Road Improvements

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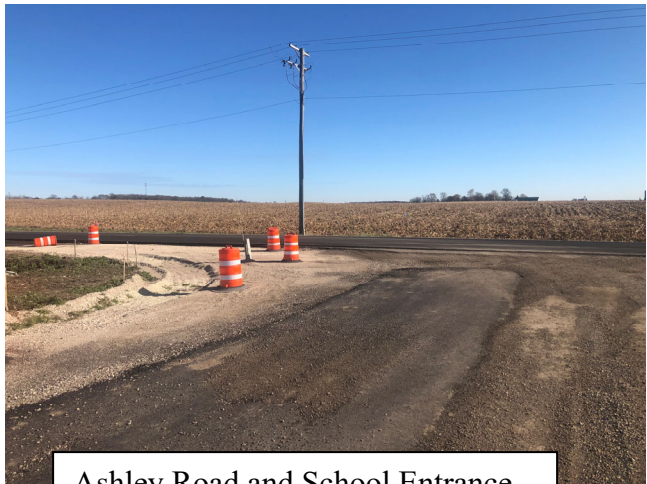
The purpose of this memo is to update the committee as to the status of the improvements.

Per Ordinance 2018-27 (Attached), the developer was to complete the improvements by the end of November 2021.

Most of the work has been completed, including the intersection improvements at Rt 126 and Ashley Road and the resurfacing of Ashley Road. The intersection improvements at Ashley and the new school entrance are delayed due to private utility conflicts. There are also Comed utility poles near the intersection of Rt 126 and Ashley that remain to be located. Once the private utilities are relocated, the final work items can be completed. At this point, this work is expected to be completed first thing in the spring of 2022.



Route 126 and Ashley Road



Ashley Road and School Entrance

This is informational only at this time.



201800006935

DEBBIE GILLETTE  
RECORDER - KENDALL COUNTY, IL

RECORDED: 5/22/2018 11:34 AM  
ORDI: 44.00 RHSPS FEE: 10.00  
PAGES: 9

**UNITED CITY OF YORKVILLE  
KENDALL COUNTY, ILLINOIS**

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**ORDINANCE NO. 2018-27**

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AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY,  
ILLINOIS, APPROVING A THIRD AMENDMENT TO THE ANNEXATION AGREEMENT  
OF YORKVILLE FARMS DEVELOPMENT AND THE UNITED CITY OF YORKVILLE  
*(Prestwick of Yorkville Subdivision)*

Passed by the City Council of the  
United City of Yorkville, Kendall County, Illinois  
This 24<sup>th</sup> day of April, 2018

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Prepared by and Return to:

United City of Yorkville  
800 Game Farm Road  
Yorkville, IL 60560

Published in pamphlet form by the  
authority of the Mayor and City Council  
of the United City of Yorkville, Kendall  
County, Illinois on May 21, 2018.

**AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY,  
ILLINOIS, APPROVING A THIRD AMENDMENT TO THE ANNEXATION  
AGREEMENT OF YORKVILLE FARMS DEVELOPMENT AND THE UNITED CITY  
OF YORKVILLE**  
*(Prestwick of Yorkville Subdivision)*

**WHEREAS**, the United City of Yorkville, Kendall County, Illinois (the “City”) is a duly organized and validly existing non home-rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and,

**WHEREAS**, Section 11-15.1-1 *et seq.* of the Illinois Municipal Code (65 ILCS 5/11-15.1-1 *et seq.*) grants the City with authority to enter into an annexation agreement with one or more owners of land in an unincorporated territory; and,

**WHEREAS**, on April 26, 2005, by Ordinance No. 2005-30, the Mayor and City Council (the “Corporate Authorities”) authorized the execution of an Annexation Agreement of Yorkville Farm Development (the “Original Agreement”), which Original Agreement was recorded with the Kendall County Recorder’s Office on December 19, 2005 as document #200500039118; the Original Agreement, among other things, provided for the zoning of an approximately 190 acre parcel of real property (the “Property”) owned by John C. Stewart and Michelle L. Stewart (the “Owners”) as R-2 Single Family Resident District; and,

**WHEREAS**, on October 8, 2013 and May 27, 2014, by Ordinance Nos. 2013-56 and 2014-26, the Corporate Authorities approved first and second amendments to the Original Agreement, which amendments were recorded with the Kendall County Recorder’s Office on October 30, 2013 and February 3, 2015 as document #201300022150 and document #201500001628, respectively; said amendments approved a revised plat of subdivision, established permitted uses for a portion of the Property to be developed as a school, changed the

name of the subdivision provided for in the Original Agreement to Ashley Pointe, and revised certain aspects of the Owners' security requirements; and,

**WHEREAS**, the Owner/Developer has now requested to amend the Original Agreement and subsequent amendments thereto to delay the construction of certain intersection roadway improvements to Ashley Road and Route 126; and,

**WHEREAS**, the Corporate Authorities believe it to be in the best interests of the City and its residents to grant the Owners' request pursuant to the terms and conditions as set forth in a third amendment.

**NOW, THEREFORE, BE IT ORDAINED** by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

*Section 1.* That the recitals in the preambles to this Ordinance are incorporated into this Section 1 as if fully set forth herein.

*Section 2.* That the Third Amendment to the Annexation Agreement of Yorkville Farms Development and the United City of Yorkville, attached hereto and made a part hereof, is hereby approved and the Mayor, City Clerk, and City Administrator are hereby authorized to execute and deliver said Third Amendment and undertake any and all actions as may be required to implement its terms on behalf of the City.

*Section 3.* This Ordinance shall be in full force and effect from and after its passage and approval as provided by law.

*Passed* by the City Council of the United City of Yorkville, Kendall County, Illinois, this 24 day of April, A.D. 2018.

  
CITY CLERK

CARLO COLOSIMO

Y

JACKIE MILSCHEWSKI

Y

CHRIS FUNKHOUSER

Y

SEAVER TARULIS

Y

KEN KOCH

Y

ARDEN JOE PLOCHER

N

JOEL FRIEDERS

N

ALEX HERNANDEZ

—

MAYOR GOLINSKI

Y

**APPROVED** by me, as Mayor of the United City of Yorkville, Kendall County, Illinois,  
this 16 day of MAY, A.D. 2018.

  
MAYOR

*Attest:*

  
CITY CLERK

**THIRD AMENDMENT TO THE ANNEXATION AGREEMENT OF YORKVILLE  
FARMS DEVELOPMENT AND THE UNITED CITY OF YORKVILLE**  
*(Prestwick of Yorkville Subdivision)*

This Third Amendment to the Annexation Agreement of Yorkville Farm Development (Prestwick of Yorkville Subdivision) (the "Amendment"), is made and entered into this 16 day of MAY, 2018, by and between the United City of Yorkville, Kendall County, Illinois, a municipal corporation (the "City"), and the owner of record John C. Stewart and Michelle L. Stewart ("Owner" or "Developer" or "Owner/Developer").

**WITNESSETH**

**WHEREAS**, Owner owns fee simple title to the real property which is legally described in Exhibit A attached hereto, consisting of approximately 190 acres, more or less (hereinafter "*Property*"); and,

**WHEREAS**, on April 26, 2005, the Mayor and City Council (the "*Corporate Authorities*") entered into an Annexation Agreement of Yorkville Farm Development (the "*Original Agreement*") which provided for the zoning of the Property as R-2 Single Family Resident District established the required infrastructure and public improvements deemed necessary to serve the Property when developed, and set forth the required donations, fees and security to guarantee the completion and maintenance of the public improvements; and,

**WHEREAS**, on October 8, 2013, the Corporate Authorities approved the First Amendment to the Annexation Agreement of Yorkville Farms Development and the United City of Yorkville (Prestwick of Yorkville Subdivision) (the "*First Amendment*") which among other things, approved a revised plat of subdivision; established permitted uses for a portion of the Property to be developed as a school, changed the name of the Subdivision to Ashley Pointe; and revised the security requirements of the Owner/Developer to include security for the school improvements including roadways; and,

**WHEREAS**, on May 27, 2014, the Corporate Authorities approved the Second Amendment to the Annexation Agreement of Yorkville Farms Development and the United City of Yorkville (Ashley Pointe Subdivision f/k/a Prestwick of Yorkville) (the "*Second Amendment*") which among other things, reduced the security requirements of the Owner/Developer including roadways; and



**WHEREAS**, the Owner/Developer has now requested to amend the Original Agreement and subsequent amendments thereto to revise the language reducing the security requirements of the Owner/Developer, including roadways.

**NOW, THEREFORE**, in consideration of the mutual covenants, agreements and conditions herein contained, and by authority of and in accordance with the aforesaid statutes of the State of Illinois, the parties agree as follows:

1. The foregoing Preambles are hereby adopted as if fully restated herein.
2. Section 2 of the Second Amendment, which amended Paragraph 4 of the First Amendment, which amended Paragraph 6 of the Original Agreement stating that “the Developer will provide any required security for the high school improvements, including roadways”, is further amended by amending Section 2 as follows:
  - a. The Developer acknowledges its responsibility for all required security for the high school improvements, including roadways.
  - b. Owner/Developer agrees not to construct any permanent access roadway from the Yorkville Christian School site to Ashley Road until the intersection improvements for Ashley Road and Route 126 are completed.
  - c. The City agrees that a temporary emergency access off of Ashley Road shall be constructed.
  - d. The City agrees that the intersection improvements for Ashley Road and Route 126 (Intersection Improvements) shall be completed by Owner/Developer before November 2021 (“Intersection Improvement Completion Date”).
  - e. Developer will perform the necessary engineering, prepare the necessary application, and prepare the necessary drawings and plans to apply to Illinois Department of Transportation (IDOT) for the permit to complete the Intersection Improvements, apply for the permit from IDOT and install the Intersection Improvements pursuant to the permit issued by IDOT on or before the Intersection Improvement Completion Date.
  - f. Developer shall not be responsible for delays caused by the following: acts of God, fire, strikes, war, riots, governmental regulation or restriction, labor or material shortages, damage by the elements, force majeure, or any other cause or casualty beyond the control of Developer that might delay the installation of the Intersection Improvements.
  - g. The City requires security from Developer/Owner for the Intersection Improvements at Route 126 and Ashley Road, said security to be released at such time as Owner/Developer has deposited sufficient security for said Intersection Improvements with IDOT, and the City has received confirmation from IDOT of the receipt of such security.

3. All other terms and conditions of the Original Agreement, as amended by the First and Second Amendments, remain in full force and effect.

IN WITNESS WHEREOF, the parties have hereunto set their hands on this 16 day of MAY, 2018.

United City of Yorkville, an Illinois municipal  
Corporation

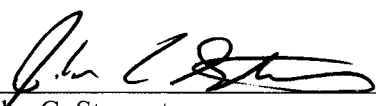
By: \_\_\_\_\_


Mayor



Attest:

  
\_\_\_\_\_  
City Clerk

  
\_\_\_\_\_  
John C. Stewart

  
\_\_\_\_\_  
Michelle L. Stewart

## EXHIBIT A

### UNIT ONE:

LOTS 1 THROUGH 10, INCLUSIVE, LOTS 12 THROUGH 41, INCLUSIVE, LOTS 43 THROUGH 50, INCLUSIVE, LOTS 52 THROUGH 63, INCLUSIVE, LOT 65 THROUGH 108, INCLUSIVE, LOTS 357 THROUGH 363, INCLUSIVE, AND LOT 365 IN PRESTWICK OF YORKVILLE UNIT 1, BEING A SUBDIVISION OF PART OF SECTIONS 3 & 10, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 31, 2006, AS DOCUMENT NUMBER 200600035287, IN THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS.

### UNIT TWO:

THAT PART OF THE EAST HALF OF SECTION 10, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 10; THENCE SOUTH 01 DEGREES 32 MINUTES 35 SECONDS EAST ALONG THE WEST LINE OF THE EAST HALF OF SAID SECTION 10, 1776.14 FEET FOR THE POINT OF BEGINNING; THENCE SOUTH 54 DEGREES 40 MINUTES 34 SECONDS EAST, 258.23 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 283.00 FEET AND A CHORD BEARING OF NORTH 38 DEGREES 32 MINUTES 30 SECONDS EAST, AN ARC LENGTH OF 31.79 FEET; THENCE NORTH 41 DEGREES 45 MINUTES 34 SECONDS EAST, 269.09 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 283.00 FEET AND A CHORD BEARING OF NORTH 68 DEGREES 21 MINUTES 45 SECONDS EAST, AN ARC LENGTH OF 262.80 FEET; THENCE SOUTH 85 DEGREES 02 MINUTES 05 SECONDS EAST, 0.59 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE LEFT WITH A RADIUS OF 25.00 FEET AND A CHORD BEARING OF NORTH 54 DEGREES 36 MINUTES 04 SECONDS EAST, AN ARC LENGTH OF 35.22 FEET; THENCE SOUTH 75 DEGREES 45 MINUTES 48 SECONDS EAST, 70.00 FEET; THENCE SOUTHERLY ALONG A CURVE TO THE LEFT WITH A RADIUS OF 265.00 FEET AND A CHORD BEARING OF SOUTH 14 DEGREES 09 MINUTES 29 SECONDS WEST, AN ARC LENGTH OF 0.73 FEET; THENCE SOUTH 75 DEGREES 55 MINUTES 15 SECONDS EAST, 145.79 FEET; THENCE SOUTH 00 DEGREES 43 MINUTES 57 SECONDS WEST, 61.16 FEET; THENCE SOUTH 29 DEGREES 47 MINUTES 52 SECONDS EAST, 37.26 FEET; THENCE NORTH 76 DEGREES 49 MINUTES 03 SECONDS EAST, 116.69 FEET; THENCE SOUTH 81 DEGREES 47 MINUTES 13 SECONDS EAST, 153.95 FEET; THENCE SOUTH 63 DEGREES 29 MINUTES 31 SECONDS EAST, 112.02 FEET; THENCE SOUTH 45 DEGREES 59 MINUTES 45 SECONDS EAST, 111.92 FEET; THENCE SOUTH 29 DEGREES 23 MINUTES 15 SECONDS EAST, 55.65 FEET; THENCE NORTH 78 DEGREES 20 MINUTES 45 SECONDS EAST, 90.04 FEET; THENCE NORTH 82 DEGREES 41 MINUTES 33 SECONDS EAST, 88.65 FEET; THENCE NORTH 87 DEGREES 00 MINUTES 20 SECONDS EAST, 88.65 FEET; THENCE SOUTH 88 DEGREES 40 MINUTES 53 SECONDS EAST, 88.65 FEET; THENCE SOUTH 88 DEGREES 00 MINUTES 08 SECONDS EAST, 85.86 FEET; THENCE SOUTH 83 DEGREES 43 MINUTES 10 SECONDS EAST, 238.13 FEET; THENCE NORTH 04 DEGREES 45 MINUTES 16 SECONDS EAST, 13.20 FEET; THENCE NORTH 11 DEGREES 14 MINUTES 44 SECONDS EAST, 288.09 FEET; THENCE NORTH 62 DEGREES 41 MINUTES 24 SECONDS EAST, 127.61 FEET; THENCE SOUTHEASTERLY ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 267.00 FEET AND A CHORD BEARING OF SOUTH 22 DEGREES 18 MINUTES 37 SECONDS EAST, AN ARC LENGTH OF 46.60 FEET; THENCE NORTH 72 DEGREES 41 MINUTES 23 SECONDS EAST, 216.00 FEET; THENCE SOUTH 10 DEGREES 59 MINUTES 02 SECONDS EAST, 106.45 FEET;

THENCE SOUTH 01 DEGREES 40 MINUTES 08 SECONDS WEST, 106.45 FEET; THENCE SOUTH 10 DEGREES 43 MINUTES 58 SECONDS WEST, 86.80 FEET; THENCE SOUTH 11 DEGREES 14 MINUTES 44 SECONDS WEST, 80.00 FEET; THENCE SOUTH 07 DEGREES 24 MINUTES 58 SECONDS WEST, 72.99 FEET; THENCE SOUTH 05 DEGREES 14 MINUTES 55 SECONDS EAST, 71.04 FEET; THENCE SOUTH 18 DEGREES 06 MINUTES 54 SECONDS EAST, 71.04 FEET; THENCE SOUTH 27 DEGREES 45 MINUTES 40 SECONDS EAST, 77.42 FEET; THENCE SOUTH 28 DEGREES 15 MINUTES 03 SECONDS EAST, 80.00 FEET; THENCE SOUTH 27 DEGREES 34 MINUTES 17 SECONDS EAST, 87.88 FEET; THENCE SOUTH 15 DEGREES 28 MINUTES 24 SECONDS EAST, 106.01 FEET; THENCE SOUTH 01 DEGREES 42 MINUTES 03 SECONDS EAST, 52.39 FEET; THENCE NORTH 88 DEGREES 28 MINUTES 09 SECONDS EAST, 84.51 FEET TO THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 10; THENCE SOUTH 01 DEGREES 32 MINUTES 43 SECONDS EAST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER, 74.63 FEET TO THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER; THENCE SOUTH 01 DEGREES 27 MINUTES 24 SECONDS EAST, ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 10, 1006.36 FEET TO THE SOUTHEAST CORNER OF LANDS CONVEYED TO ROBERT M. AND ELAINE E. STEWART BY DOCUMENT NO. 72-5656; THENCE SOUTH 88 DEGREES 04 MINUTES 01 SECONDS WEST, ALONG THE SOUTH LINE OF SAID LANDS PER DOCUMENT NO. 72-5656, 2655.55 FEET TO THE SOUTHWEST CORNER OF SAID LANDS PER DOCUMENT NO. 72-5656, SAID POINT BEING ON THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 10, AND 1876.91 FEET SOUTHERLY OF (AS MEASURED ALONG SAID WEST LINE) THE POINT OF BEGINNING; THENCE NORTH 01 DEGREES 32 MINUTES 35 SECONDS WEST, ALONG THE WEST LINE OF THE EAST HALF OF SAID SECTION 10, 1876.91 FEET TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF KENDALL, KENDALL COUNTY, ILLINOIS AND CONTAINING 110.29 ACRES OF LAND, MORE OR LESS.



Reviewed By:	
Legal	<input type="checkbox"/>
Finance	<input type="checkbox"/>
Engineer	<input type="checkbox"/>
City Administrator	<input checked="" type="checkbox"/>
Community Development	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>
Police	<input type="checkbox"/>
Public Works	<input type="checkbox"/>
Parks and Recreation	<input type="checkbox"/>

Agenda Item Number

New Business #4

Tracking Number

PW 2021-72

### Agenda Item Summary Memo

**Title:** Solid Waste Recommendation

**Meeting and Date:** Public Works Committee – December 21, 2021

**Synopsis:** \_\_\_\_\_  
\_\_\_\_\_

### Council Action Previously Taken:

Date of Action: \_\_\_\_\_ Action Taken: \_\_\_\_\_

Item Number: \_\_\_\_\_

**Type of Vote Required:** \_\_\_\_\_

**Council Action Requested:** \_\_\_\_\_  
\_\_\_\_\_

**Submitted by:** Bart Olson Administration  
Name Department

### Agenda Item Notes:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Memorandum

To: City Council  
From: Bart Olson, City Administrator  
CC:  
Date: December 16, 2021  
Subject: Solid Waste Collection

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## **Summary**

Consideration of two bids for solid waste collection services between May 1, 2022 and April 30, 2027.

## **Background**

This item was last discussed by the City Council at the September 28<sup>th</sup> meeting. At that meeting, the City Council approved an RFP for solid waste collection services and directed staff to proceed with the RFP. The RFP contained a request for solid waste collection services in the same scope as the City's current contract, but with a request for on-demand hazardous household waste collection. Staff clarified with all interested bidders after the RFP went out that the City would like a bid for on-demand hazardous waste, but that it would entertain proposals that did not include this service. Subsequently, two bidders submitted proposals – Waste Management, which included on-demand hazardous waste collection, and Groot, which did not include on-demand hazardous waste collection.

The redacted/shortened version of each proposal is attached to this memo. Staff has reviewed the proposals, including the list of alternatives and deviations, and we think either proposal can be successfully turned into a contract depending on the City Council's feedback on the bids. The Groot proposal contains monthly fees much less than the Waste Management proposal (by roughly \$10 per month per household) and in line with the City's current monthly user fees (\$18.21 per month per household current compared to ~\$18.79 per month per household proposed). However, as stated above, the Waste Management proposal includes on-demand hazardous household waste disposal – a service which would be unique among the region, and one in which Groot does not offer. Current hazardous household waste services are a mix of one-day events operated throughout the state by the IEPA (roughly 2-4 events per month statewide) plus four permanent facilities in Naperville, Rockford, Chicago, and Lake County.

Waste Management and Groot both clarified during the RFP window that the on-demand household hazardous waste collection was a preferred but not mandatory service. Waste Management also submitted two bid tables – certifying that their price for general solid waste collection services would be the same price to the residents whether on-demand household hazardous waste collection is included or not.

## **Recommendation**

Staff requests direction from the Committee as to whether we should negotiate with Groot, which is a cheaper cost and does not provide on-demand hazardous waste collection, or Waste management, which is a more expensive service but provides on-demand hazardous waste collection. For ease of use, we have provided the following price/service table showing current costs and first-year only costs for 65 gallon/96 gallon totter service:

	Current Solid Waste Collection Cost, Per Month Per Household	May 1, 2022 to April 30, 2023 Cost, Per Month Per Household
Waste Management (current, 65 gallon or 96 gallon)	\$18.21	N / A
Groot, no hazardous (proposed, 65 gallon or 96 gallon)	N / A	\$18.79 or \$18.99
Waste Management with Hazardous (proposed, 65 gallon or 96 gallon)	N / A	\$29.03
Waste Management, no Hazardous (proposed, 65 gallon or 96 gallon)	N / A	\$29.03



**Project Name: Yorkville Solid Waste Collection Services**

**Groot, Inc.  
710 E. South St. Unit B  
Plano, IL 60545**

**Contact: Josh Molnar  
847-734-6393  
jmolnar@groot.com**

**Proposal Due Date & Time: Monday, November 1, 2021 at 10:00 a.m.**



# COVER LETTER



**Groot  
Industries, Inc.**

2500 Landmeier Road  
Elk Grove Village, IL 60007  
Phone: 773/242-1977  
Fax: 773/601-8639  
www.groot.com

**Since 1914**

November 1, 2021

Bart Olson  
City Administrator  
United City of Yorkville  
800 Game Farm Road  
Yorkville, IL 60560

Dear Mr. Olson:

Groot Industries appreciates the opportunity to submit this proposal to the United City of Yorkville. We understand the terms and conditions contained in the RFP and will comply with all provisions as indicated.

We are particularly pleased, due to the fact that your needs coincide so well with our corporate strengths and experience. This gives us the confidence level that we can perform the task required with a high degree of excellence and reliability. Please feel free to contact any of the surrounding area communities serviced by Groot for references.

The undersigned will have ultimate responsibility for the administration of this contract within Groot Industries, Inc. We will have other personnel with certain levels of authority regarding day-to-day operation issues; but, if the issue pertains to a contractual interpretation, change or issue that transcends the daily collection, and/or transfer or processing of waste, the undersigned should be contacted.

We look forward to a long and mutually rewarding relationship with the United City of Yorkville.

Sincerely,

Josh Molnar  
Municipal Manager  
Groot Industries, Inc.

Service Locations  
in Elk Grove Village, Chicago, McCook,  
Round Lake Park, Elgin, Aurora

- Waste Collection
- Recycling Processor
- Dumpster Services
- Document Destruction
- Waste Audits
- Demolition Recycling



# EXECUTIVE SUMMARY



# OPERATIONAL APPROACH

# APPENDIX 2-6

## **APPENDIX 2 REQUIRED RECYCLABLES TO BE COLLECTED**

The City requires that the Contractor shall collect the following recyclable material for the entire term of the contract. Additionally, the Contractor is encouraged to identify additional items they will be collecting, not on the current list.

### **Required Recyclable Materials**

- brown paper bags
- corrugated cardboard
- boxes and cartons
- chipboard/paperboard (to include brown or gray box board or paperboard, cereal boxes, shoe boxes, & paper towel cores)
- magazines and catalogues
- mixed paper, glossy & non-glossy (to include stationary, notebook paper, post-it notes, computer paper, typing paper, flyers, greeting cards, file folders and all envelopes, with and without windows)
- newspaper (including all supplements)
- telephone books
- wet strength carrier stock (to include paper board used for refrigerated and frozen items)
- frozen food packages
- aerosol cans
- aluminum cans and foil
- formed aluminum containers and wraps
- aseptic packaging and gable top containers
- formed steel containers
- glass bottles and jars (brown, green, and clear)
- plastic containers (colored or cloudy white HDPE milk, juice and/or water bottles, jars and jugs)
- all plastic containers #1 through #5 and plastic containers #7
- LDPE and HDPE soft plastic six (6) and twelve (12) pack rings
- steel cans
- steel paint cans and lids
- household batteries

### **Other Recyclable Materials Proposed by Contractor**

- ☐ Please see "Deviations & Exceptions" tab.
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_

Please see "Deviations & Exceptions" tab.

**APPENDIX 3**  
**SCHEDULE OF ALTERNATIVES AND DEVIATIONS**

Please list any proposed alternative or deviation to the minimum standards outlined in the specifications section of this document. (Please attach additional sheets if necessary.)

Section	Paragraph	Explanation of Alternative/Deviation



Please see "References" tab.

**APPENDIX 4**  
**SCHEDULE OF ILLINOIS MUNICIPALITIES SERVED**

Please list municipal references. (Please attach additional sheets if necessary)

<b>Municipality</b>	<b>Contact Name &amp; Telephone Number</b>	<b>Service Dates</b>	<b>Explanation of Collection and Disposal Program</b>

## APPENDIX 5 LOCATION OF DISPOSAL FACILITIES

Please provide below information concerning the facilities, which are intended to be used for the disposal of refuse, yard waste, organics and recyclable materials collected at the curbside.  
(Please attach additional sheets if necessary.)

### REFUSE

Name of Facility	Facility Address	Disposal Limitations
Plano Transfer Station	4705 Kendall Farms Rd Plano, IL 60545	N/A
Dukane Transfer Station	1995 Powis Rd West Chicago, IL 60185	N/A

### RECYCLING

Name of Facility	Facility Address	Disposal Limitations
Groot Plano Transfer Station	710 E South St Plano, IL 60545	N/A
Resource Management	10111 Andersen Ave Chicago Ridge, IL 60415	N/A

### YARD WASTE

Name of Facility	Facility Address	Disposal Limitations
Compost Supply	2954 U.S. 52 Sheridan, IL 60551	N/A

### **ELECTRONIC WASTE**

<b>Name of Facility</b>	<b>Facility Address</b>	<b>Disposal Limitations</b>
Varies		

### **ORGANIC MATERIAL**

<b>Name of Facility</b>	<b>Facility Address</b>	<b>Disposal Limitations</b>
Compost Supply	2954 U.S. 52 Sheridan, IL 60551	N/A

### **HOUSEHOLD HAZARDOUS WASTE**

<b>Name of Facility</b>	<b>Facility Address</b>	<b>Disposal Limitations</b>
N/A		

## APPENDIX 6

## CONTRACTOR QUALIFICATIONS

Name of Business: Groot Recycling & Waste Services, Inc.

**Business Address: Mailing Address:** 2500 Landmeier Rd, Elk Grove Village, IL 60007

Business Number: 773-242-1977

Emergency Number: \_\_\_\_\_

Fax Number: 773-601-8639

Ownership:            Individual            Partnership            Corporation

Franchise or Parent Company (if applicable): Waste Connections  
3 Waterway Square Pl #110  
The Woodlands, TX 77380

List all Partners, Managers, and Corporate Officers:

Name	Title	Residence	Phone
Please see attached at the end of this section.			

Days of Operation: Monday - Friday

Business Hours: 7:00a.m. to 5:00p.m.


Number of Employees:

Supervisors: 25

Drivers: 361

Office Personnel: 146

United City of Yorkville

Signature:  Date: 10/25/2021  
Adam Gooderham, Division Vice President

**Officers:**

<u>Name</u>	<u>Office</u>
Ronald J. Mittelstaedt	Executive Chairman
Worthing F. Jackman	President and Chief Executive Officer
Mary Anne Whitney	Executive Vice President, Chief Financial Officer and Assistant Secretary
Darrell W. Chambliss	Executive Vice President and Chief Operating Officer and Assistant Secretary
David G. Eddie	Senior Vice President and Chief Accounting Officer
David M. Hall	Senior Vice President – Sales and Marketing
James M. Little	Senior Vice President – Engineering and Disposal
Patrick J. Shea	Senior Vice President, General Counsel and Secretary
Matthew S. Black	Senior Vice President and Chief Tax Officer
Robert M. Cloninger	Vice President, Deputy General Counsel and Assistant Secretary
Keith P. Gordon	Vice President – Information Systems
Eric O. Hansen	Vice President – Chief Information Officer
Michelle L. Little	Vice President – Accounting
Shawn W. Mandel	Vice President – Safety and Risk Management
Susan R. Netherton	Vice President – People, Training and Development
Scott I. Schreiber	Vice President – Equipment and Operations Support
Gregory Thibodeaux	Vice President – Maintenance and Fleet Management
Colin Wittke	Vice President – Sales
Richard K. Wojahn	Vice President – Business Development
Jason Craft	Regional Vice President – Eastern Region
Doug McDonald	Regional Controller – Eastern Region

**Directors:**

Ronald J. Mittelstaedt

**Address for all Officers and Directors:**

3 Waterway Square Pl., Ste. 110, The Woodlands, TX 77380

# **COST PROPOSAL**

Plan Description		May 1, 2022 to April 30, 2023	May 1, 2023 to April 30, 2024	May 1, 2024 to April 30, 2025	May 1, 2025 to April 30, 2026	May 1, 2026 to April 30, 2027
<b><u>Refuse Collection</u></b>	<b>35 Gallon Tote</b> (Senior Only)	\$ 17.81	\$ 18.52	\$ 19.26	\$ 20.03	\$ 20.83
	<b>65 Gallon Tote</b>	\$ 18.79	\$ 19.54	\$ 20.32	\$ 21.13	\$ 21.98
	<b>96 Gallon Tote</b>	\$ 18.99	\$ 19.75	\$ 20.54	\$ 21.36	\$ 22.21
	<b>Total</b>	\$ N/A	\$ N/A	\$ N/A	\$ N/A	\$ N/A

Plan Description		May 1, 2022 to April 30, 2023	May 1, 2023 to April 30, 2024	May 1, 2024 to April 30, 2025	May 1, 2025 to April 30, 2026	May 1, 2026 to April 30, 2027
<b><u>Refuse Collection &amp; Household Hazardous Waste</u></b>	<b>35 Gallon Tote</b>	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID
	<b>65 Gallon Tote</b>	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID
	<b>96 Gallon Tote</b>	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID
	<b>Total</b>	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID	\$ NO BID



# REFERENCES



## REFERENCES

Currently, we have exclusive contracts in 81 communities with over 600,000 residences serviced every week. Additional references are available upon request.

### **Community Served**

#### **City of West Chicago**

475 Main Street  
West Chicago, IL 60185  
Mr. Michael Guttman, City Administrator  
(630) 293-2200

#### **Village of Bellwood**

3200 Washington  
Bellwood, IL 60104  
Mr. Peter Tsiolis, Economic Dev. Director  
(708) 547-4045

#### **Village of Brookfield**

8820 Brookfield Ave.  
Brookfield, IL 60513-1688  
Mr. Tim Wiberg, Village Manager  
(708) 485-7344

#### **Village of Oswego**

100 Parkers Mill  
Oswego, IL 60560  
Mr. Dan Disanto Village Administrator  
(630) 554-3618

#### **City of Aurora**

44 E Downer Place  
Aurora, IL 60505  
Mr. Kelvin Beene, Property Standards Manager  
(630) 256-3771

### **Service Provided**

Contract Start: 2005  
Modified Volume Based Program  
5,300 units serviced-Providing refuse, recycling & yard waste services

Contract Start: 1994  
5,600 units serviced  
Providing refuse & recycling services

Contract Start: 1964  
5,837 units serviced  
Providing refuse, recycling & yard waste services

Contract Start: 2012  
9,400 units serviced  
Providing refuse, recycling & yard waste services

Contract Start: 2015  
Residential Franchise: 46,174 units serviced  
Providing: refuse, recycling & yard waste services

# PROPOSAL SECURITY

# **PERFORMANCE BOND INTENT**

# **PROOF OF INSURANCE**

# DEVIATIONS & EXCEPTIONS

## DEVIATIONS & EXCEPTIONS

Groot, Inc. (“Contractor” or “Proposer”) offers the following items to be incorporated into the resulting contract and as exceptions to the Request for Yorkville Solid Waste Collection Services (the “RFP”) issued by the United City of Yorkville (the “City”). Contractor’s proposal is subject to and contingent upon these exceptions. These items are intended to identify areas of concern and remain negotiable. Along with the exceptions is some explanation to provide the City with Contractor’s thoughts behind such exceptions. Contractor’s bid submission is contingent upon and subject to the exceptions and objections contained herein. Specifically, Contractor objects, and does not agree, to any provision of the RFP to the extent such would require a penalty, fine, fee or forfeiture of a bond in the event that the parties are unable to agree on, and ultimately enter into a contract, the terms of this RFP after good faith negotiations, including the objections and exceptions contained herein. We appreciate your consideration and welcome the opportunity to work with you on reaching agreeable terms. Unless defined herein, capitalized terms shall have the meanings set forth in the RFP.

- (1) Contractor takes a general exception to any requirement of the RFP requiring confidential, proprietary or otherwise privileged information, including financials, of the Contractor. Contractor is a subsidiary of Waste Connections, Inc. (“WCN”). WCN is a publicly traded company whose shares trade on the New York Stock Exchange. Periodic and annual financial information is reported to the U.S. Securities and Exchange Commission (“SEC”). Audited financial information is provided in WCN’s annual Form 10-K and quarterly Form 10-Q filings with the SEC. Copies of WCN’s periodic and annual filings are available online at [www.sec.gov](http://www.sec.gov). Separate financial statements are not prepared for Contractor. To the extent that the foregoing financial information does not satisfy the requirements in the RFP, Contractor takes exception to such requirements.
- (2) Contractor objects to Section 9.1 of the RFP and requires it be deleted in its entirety and replaced with the following or other mutually agreeable language (added language underlined):

“To the fullest extent permitted by law, the Proposer shall indemnify, keep and hold harmless the City and its agents, officers, and employees, against all injuries, deaths, losses, damages, claims, suits, liabilities, judgments, costs and expenses, which may arise to the extent directly or indirectly from any negligence or from the reckless or willful misconduct of the Proposer, its employees,

## DEVIATIONS & EXCEPTIONS

or its subcontractors, and the Proposer, its employees, or its subcontractors, and the Proposer shall at its own expense, appear, defend and pay all reasonable charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the City in any such action, the Proposer shall, at its own expense, satisfy and discharge the same. This Agreement shall not be construed as requiring the Proposer to indemnify the City for its own negligence or that of third parties. The Proposer shall indemnify, keep and save harmless the City only to the extent a loss was caused by the negligent, willful or reckless acts or omissions of the Proposer, its employees, or its Subcontractors.”

- (3) Contractor objects to the phrase “Applicable on a per project basis” in Section 15.1 and requires it be deleted.
- (4) Contractor objects to the phrase “additional insured” in Section 15.6 and requires it be deleted and replaced with “additional insured to the extent such obligations are assumed hereunder by Contractor”.
- (5) Contractor objects to the last sentence of Section 15.8 and requires it be deleted in its entirety.
- (6) Contractor takes exception to Section 19.1 to the extent it would require written consent of the City Administrator in the event of an assignment or subcontract to a subsidiary or an affiliated entity of Contractor.
- (7) Contractor objects to Section 21.1 and requires a reasonable period of time to cure the alleged breach or default prior to City exercising its remedies pursuant to the agreement.
- (8) Contractor takes exception to Section 53.1 and requires the following concept be incorporated into the final contract between the parties: Notwithstanding anything herein to the contrary: (a) Contractor shall have no obligation to collect any material which is or contains, or which Contractor reasonably believes to be or contain, radioactive, volatile, corrosive, highly flammable, explosive, biomedical, infectious, biohazardous, toxic or hazardous material as defined by applicable federal, state or local laws or regulations (“Excluded Waste”); (b) if Contractor finds what reasonably appears to be discarded Excluded Waste, Contractor shall promptly notify the City



## DEVIATIONS & EXCEPTIONS

and the producer of the Excluded Waste, if the producer can be readily identified; and (c) title to and liability for any Excluded Waste shall remain with the producer of the Excluded Waste, even if Contractor inadvertently collects or disposes of such Excluded Waste.

(9) In addition to the terms set forth in the RFP, the following concepts need to be incorporated into the final form of the resulting contract:

- a. Notwithstanding anything herein to the contrary: (a) Contractor shall have no obligation to collect any material which is or contains, or which Contractor reasonably believes to be or contain, radioactive, volatile, corrosive, highly flammable, explosive, biomedical, infectious, biohazardous, toxic or hazardous material as defined by applicable federal, state or local laws or regulations ("Excluded Waste"); (b) if Contractor finds what reasonably appears to be discarded Excluded Waste, Contractor shall promptly notify the City and the producer of the Excluded Waste, if the producer can be readily identified; and (c) title to and liability for any Excluded Waste shall remain with the producer of the Excluded Waste, even if Contractor inadvertently collects or disposes of such Excluded Waste.
- b. The City must comply with any description of and/or procedures with respect to removal of contaminants or preparation of recyclable materials as reasonably provided by Contractor. If the City fails to do so, Contractor may decline to collect such materials without being in breach of the contract. Contractor shall not be responsible for and has not made any representation regarding the ultimate recycling of such recyclable materials by any third party facilities.
- c. The rights granted to Contractor under the contract shall be exclusive. The City may, in its sole discretion, enforce the exclusivity provisions of the contract against third-party violators, taking into account the cost of doing so and other factors. Contractor may independently enforce the exclusivity provisions of the contract against third-party violators, including, but not limited to, seeking injunctive relief and/or damages, and the City shall use good-faith efforts to cooperate in such enforcement actions brought by Contractor. The City shall use its best efforts to adopt ordinances, rules or regulations that have the

## DEVIATIONS & EXCEPTIONS

effect of requiring third parties, including, without limitation, customers, to comply with the provisions of the contract, including, without limitation, the exclusive service rights granted to Contractor pursuant to the agreement.

- d. Except in the case of Contractor' negligence or willful misconduct, Contractor shall not be liable for any damages to pavement, curbing, or other driving surface resulting from the weight of its trucks and equipment.
- e. Notwithstanding anything herein to the contrary, to the extent supplied by Contractor, in the event that a waste container becomes lost, unsightly, unsanitary, broken, or unserviceable because of the acts or omissions of the City (excluding normal wear and tear), the City will be charged for the resulting repairs or replacement and such amounts will be paid to Contractor upon demand.
- f. Any equipment furnished hereunder by Contractor shall remain the property of Contractor; however, the customers and the City (as applicable) shall have care, custody and control of the equipment while at the service locations. Customers and the City shall not overload (by weight or volume), move or alter the equipment, and shall use the equipment only for its proper and intended purpose. Customers and the City must provide unobstructed access to the equipment on the scheduled collection day. The word "equipment" as used herein shall mean all containers used for the storage of non-hazardous solid waste.
- g. Notwithstanding anything herein to the contrary, Contractor may pass through and the City shall pay to Contractor any documented increases in and newly imposed taxes, fees or other governmental charges assessed against or passed through to Contractor (other than income or real property taxes).
- h. Except for the payment of amounts owed hereunder, neither party hereto shall be liable for its failure to perform or delay in its performance hereunder due to contingencies beyond its reasonable control including, but not limited to, strikes, riots, compliance with laws or governmental orders, inability to access a container, fires, inclement weather and acts of God, and such failure shall not constitute a breach under the contract.



# UNITED CITY OF YORKVILLE, ILLINIOIS

## Yorkville Solid Waste Collection Services

RFP-21-01110-010-1-2021/KG

November 1, 2021

SUBMITTED BY

Waste Management of Illinois, Inc.

### *Proven Solutions from a Trusted Partner*

WASTE MANAGEMENT CONTACT

**Vaughn Kuerschner**

Public Sector Representative

(847) 947-9941

[vkuersc1@wm.com](mailto:vkuersc1@wm.com)

## Tested. Proven. Trusted.

*The United City of Yorkville's  
Reliable Service Partner*

**Think Green,  
Think Clean.**

*We run on clean burning natural gas.*

[wm.com](http://wm.com)



*Join our team, we're hiring.*







## WASTE MANAGEMENT

Waste Management of Illinois, Inc.  
780 N Kirk Rd, Batavia, IL 60510

November 1, 2021

United City of Yorkville  
800 Game Farm Road  
Yorkville, IL 60560

**RE: Yorkville Solid Waste Collection Services  
(RFP-21-01110-010-1-2021/KG)**

Dear Mr. Bart Olson:

Waste Management of Illinois, Inc. appreciates the opportunity to participate in this important procurement process and is pleased to present the following response to the United City of Yorkville's request for proposal. This letter will clarify the attached response to the above referenced bid document.

Over the years, Waste Management has worked in close partnership with the City to develop a strong foundation of services that provide world-class service for your residents. The Yorkville-Waste Management partnership has stood the test of time. There is no substitute for a partner that you can count on, no matter what happens. We are heavily involved in your community and sponsorships from the Chamber of Commerce to the Neighborhood Summit and District Cleanup Efforts.

**Our innovative services bring the City significant value that will reduce our presence in your neighborhood while providing exceptional service. We have and will continue to work together as partners for the betterment of the City's communities.**

Our commitments to being a *"People First"* organization and achieving *"Success with Integrity"* mean striving for results in all that we do. We hold ourselves and others to higher standards of accountability, honesty, ethics, and compliance. Our people are committed to doing the right thing, the right way, every day. They place our core values of safety, customers, environment, and inclusion and diversity first in all they do. We believe our employees are our greatest asset, and if we take care of them, they will take care of our customers, communities, shareholders, environment, and each other.

These commitments and values are the foundation for the many differentiators that set us apart from our competitors:



**Extensive Local Resources:** In addition to tapping into an industry-leading network of resources across California and North America, Waste Management offers management, operational, and reserve resources at the local level. A local office with local support/operations, including a single point of contact for your account, and a local fleet of trucks and equipment all add up to world-class service delivery for your residents and businesses from an unrivaled resource network.



**Financial Stability:** As the largest asset-based company in the industry with more trucks, landfills, and recycling facilities than any of our competitors, we are positioned to provide unsurpassed service at the most competitive rate to Yorkville. Our assets and strong financial metrics offer peace of mind and security for your residents and businesses.

## Your Trusted Service Partner





**Ethical Responsibility:** At the core of everything we do is our firm commitment to adhere to ethical business standards and practices. We have been recognized annually as an Ethical Leader by many organizations, including Ethisphere Institute as a World's Most Ethical Company™ in 2021 for the 12<sup>th</sup> year, as well as by the Better Business Bureau, Wildlife Habitat Council, and the Dow Jones Sustainability Indexes. These honors reflect our commitment to our employees who strive to take care of our customers, communities, shareholders, environment, and each other.



**Environmental Stewardship:** Environmental stewardship is the core of our business - our promise to customers, our competitive advantage, and our obligation to the locations in which we operate. In a business as highly regulated as ours, protecting the environment, maintaining compliance, and innovating to improve operations requires an unwavering focus, expertise, comprehensive systems, and internal checks and balances. We have a long track record of supporting high regulatory standards and striving to go beyond them.



**Unparalleled Recycling Program:** As North America's leading post-consumer recycler and largest marketer of residential recyclables, Waste Management has been leading change in the ever-growing and dynamic recycling industry for more than three decades. From the \$1 billion we have invested in recycling processing infrastructure to the 15.03 million tons in recyclables we managed in 2020 to the industry's first recycling education program, Recycle Right - Waste Management is committed to making our world more sustainable.



**World-Class Customer Service:** At Waste Management, our core principles guide everything we do. Providing world-class customer service is at the top of our list. For our customers, a positive customer service experience rarely goes unnoticed, and we believe those everyday interactions are our best opportunity to provide an exceptional experience for Yorkville. We have been nationally recognized for our commitment to unsurpassed customer service, and combined with our tested processes and innovative new technologies, we bring Yorkville a level of service reliability and customer satisfaction that is truly unmatched.



**State-of-the-Art Technology:** We utilize state-of-the-art technology to maximize safety and customer experience and minimize environmental impacts. From mapping and re-routing vehicles in real time via our onboard computers, to using our DriveCam® cameras to capture community safety concerns, to the industry's largest fleet of trucks that runs on cleaner and quieter Compressed Natural Gas - our technology works for our customers.



**Commitment to Near-Zero Emissions:** Since the early 1990s, Waste Management has prioritized equipment efficiency and innovation to reduce our vehicles' greenhouse gas (GHG) emissions, in part by converting our diesel trucks to run on cleaner natural gas. For every diesel truck we replace with natural gas we reduce our use of diesel fuel by an average of 8,000 gallons per year along with a reduction of 14 metric tons of GHG emissions per year - the equivalent of a 15 percent emissions reduction per truck. Waste Management's fleet now includes 10,388 natural gas trucks, the largest heavy-duty natural gas truck fleet of its kind in North America.



**Leading Training and Safety Programs:** Once hired, our drivers undergo intensive immersion training at our state-of-the-art training centers. Over two weeks, drivers gain experience through classroom training and simulated driving courses that reflect real-life obstacles. At the end of training, each driver receives a comprehensive evaluation that confirms their understanding of and commitment to Waste Management's culture of safety.



**Proven Employee Hiring Practices:** To provide the safest and most secure service for your residents and businesses, our employees undergo comprehensive background checks and drug testing. Prior to employment, all driver candidates must possess a valid Commercial Driver's License (CDL) for Class-C trucks and must pass a Department of Transportation (DOT) medical exam. Once employed, all drivers are subject to ongoing drug and alcohol screenings.



**Commitment to a Diverse Workplace:** At Waste Management, we are committed to promoting and fostering a workplace where everyone is valued and respected. Only by fully embracing diversity and the well-being of our employees can we drive superior innovation and service for the customers we serve. Through recruitment and community outreach efforts, we support minority and women's organizations that strive to improve opportunities for professional development and advancement. We have been recognized for best-in-class business practices by the Human Rights Campaign Foundation, the Hispanic/Latino Professionals Association, DIVERSEability Magazine, and Women's Choice Award, among others.



**Commitment to Hiring Veterans:** In 2019, Waste Management hired more than 580 veterans, which represented roughly 5.57 percent of our United States hires. Today, we have more than 3,000 veterans - representing 7 percent of our workforce - working in a variety of roles at Waste Management. From 2010 to 2020, we have been named a "Best for Vets" Employer by the Military Times and a Top Military Friendly® Employer by G.I. Jobs/military.com. We take great pride in hiring, training, promoting, and retaining veterans within our company.

Waste Management is and will continue to be Del Mar's **Tested, Proven, and Trusted** partner.

Thank you for your partnership.

Sincerely,

**Vaughn Kuerschner, Public Sector Representative**  
(847) 947-9941, vkuersc1@wm.com



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**Waste Management is your partner for environmental service and solutions** whose people **go above and beyond to serve and solve every challenge the right way.**

# 1 | PROPOSER/CONTRACT FORM

United City of Yorkville

## IV. PROPOSAL/CONTRACT FORM

**\*\*\*THIS PROPOSAL, WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE CITY OF YORKVILLE, SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.**

**Entire Block Must Be Completed When A Submitted Bid Is To Be Considered For Award**

### PROPOSER:

Waste Management of Illinois, Inc.  
Company Name

Date: November 1, 2021

780 North Kirk Road  
Street Address of Company

vkuersc1@wm.com  
Email Address

Batavia, IL 60510  
City, State, Zip

Vaughn Kuerschner  
Contact Name (Print)

(847) 980-7648  
Business Phone

(800) 964-8988  
24-Hour Telephone

N/A  
Fax

[Signature]  
Signature of Officer, Partner or  
Sole Proprietor

Kevin McDonough

Harry Lamberton, President  
Print Name & Title

ATTEST: If a Corporation

[Signature]  
Signature of Corporation Secretary

### CITY OF YORKVILLE

\_\_\_\_\_  
Authorized Signature

ATTEST:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature of City Clerk

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

In compliance with the specifications, the above-signed offers and agrees, if this Proposal is accepted within 90 calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.



## 4 | GENERAL PRICE QUOTATION SHEET

Waste Management provides each customer exceptional service at an outstanding value. Our goal is not to be the lowest cost service provider, but to provide the most value to our customers through our assets, skilled employees that can focus on safety, unparalleled customer service, and innovative technology - all while providing consistent, quality service over the full life of the contract. When combined, these benefits allow Yorkville to rely on us for all waste management needs and save on your most valuable resource – time.

Plan Description		May 1, 2022 to April 30, 2023	May 1, 2023 to April 30, 2024	May 1, 2024 to April 30, 2025	May 1, 2025 to April 30, 2026	May 1, 2026 to April 30, 2027
<u>Refuse Collection</u>	35 Gallon Tote	\$28.07/month/home	\$29.19/month/home	\$30.36/month/home	\$31.57/month/home	\$32.83/month/home
	65 Gallon Tote	\$29.03/month/home	\$30.19/month/home	\$31.40/month/home	\$32.66/month/home	\$33.97/month/home
	96 Gallon Tote	\$29.03/month/home	\$30.19/month/home	\$31.40/month/home	\$32.66/month/home	\$33.97/month/home
	Total	\$86.13	\$89.57	\$93.16	\$96.89	\$100.77

Plan Description		May 1, 2022 to April 30, 2023	May 1, 2023 to April 30, 2024	May 1, 2024 to April 30, 2025	May 1, 2025 to April 30, 2026	May 1, 2026 to April 30, 2027
<u>Refuse Collection &amp; Household Hazardous Waste</u>	35 Gallon Tote	\$28.07/month/home	\$29.19/month/home	\$30.36/month/home	\$31.57/month/home	\$32.83/month/home
	65 Gallon Tote	\$29.03/month/home	\$30.19/month/home	\$31.40/month/home	\$32.66/month/home	\$33.97/month/home
	96 Gallon Tote	\$29.03/month/home	\$30.19/month/home	\$31.40/month/home	\$32.66/month/home	\$33.97/month/home
	Total	\$86.13	\$89.57	\$93.16	\$96.89	\$100.77

## 5 | REQUIRED RECYCLABLES TO BE COLLECTED

Waste Management takes exceptions to the required recycling list of items to be collected found in **Appendix 2** of the City's RFP.

Our list of acceptable materials is reflective of today's market realities and includes only materials that meet industry quality standards and have viable market demands. However, due to the length of our Agreement with the City of Yorkville, it is important to allow for the possibility that this list may need to be adjusted at some point. Contract language must support our collective need to make changes to acceptable materials to respond to global market demands, as well as protect the quality of materials we process and safeguard the viability of the City's recycling program.

### Single Stream Specifications

<b>RECYCLABLES</b> must be dry, loose (not bagged), un-shredded, empty, and include ONLY the following:	
Aluminum cans	Newspaper
PET bottles with the symbol #1 – with screw tops only	Mail
HDPE plastic bottles with the symbol #2 (milk, water bottles detergent, and shampoo bottles, etc.)	Uncoated paperboard (ex. cereal boxes; food and snack boxes)
PP plastic bottles and tubs with symbol # 5 - empty	Uncoated printing, writing and office paper
Steel and tin cans	Old, corrugated containers/cardboard (uncoated)
Glass food and beverage containers* – brown, clear, or green	Magazines, glossy inserts, and pamphlets

<b>NON-RECYCLABLES</b> include, <u>but are not limited to</u> the following:	
Plastic bags and bagged materials (even if containing Recyclables)	Microwavable trays
Porcelain and ceramics	Mirrors, window, or auto glass
Light bulbs	Coated cardboard
Soiled paper, including paper plates, cups and pizza boxes	Plastics not listed above including but not limited to those with symbols #3*, #4*, #6*, #7* and unnumbered plastics, including utensils
Expanded polystyrene	Coat hangers
Glass and metal cookware/bakeware	Household appliances and electronics,
Hoses, cords, wires	Yard waste, construction debris, and wood
Flexible plastic or film packaging and multi-laminated materials	Needles, syringes, IV bags or other medical supplies
Food waste and liquids, containers containing such items	Textiles, cloth, or any fabric (bedding, pillows, sheets, etc.)
Excluded Materials or containers which contained Excluded Materials	Napkins, paper towels, tissue, paper plates, and paper cups

NON-RECYCLABLES include, <u>but are not limited to</u> the following:	
Any paper Recyclable materials or pieces of paper Recyclables less than 4" in size in any dimension	Propane tanks, batteries
Cartons*	Aseptic Containers*

## Delivery Specifications

Material delivered by or on behalf of Customer may not contain Non-Recyclables or Excluded Materials. "Excluded Materials" means radioactive, volatile, corrosive, flammable, explosive, biomedical, infectious, bio-hazardous or toxic substance or material, or regulated medical or hazardous waste as defined by, characterized or listed under applicable federal, state, or local laws or regulations, materials containing information (in hard copy or electronic format, or otherwise) which information is protected or regulated under any local, state or federal privacy or data security laws, including, but not limited to the Health Insurance Portability and Accountability Act of 1996, as amended, or other regulations or ordinances or other materials that are deleterious or capable of causing material damage to any part of Company's property, its personnel or the public or materially impair the strength or the durability of Company's structures or equipment.

Company may reject in whole or in part, or may process, in its sole discretion, Recyclables not meeting the specifications, including wet materials, and Customer shall pay Company for all increased costs, losses and expenses incurred with respect to such non-conforming Recyclables including costs for handling, processing, transporting and/or disposing of such non-conforming Recyclable Materials which charges may include an amount for Company's operating or profit margin ("Cost"). Without limiting the foregoing, and Customer shall pay a contamination charge for additional handling, processing, transporting and/or disposing of Non-Recyclables, Excluded Materials, and/or all or part of non-conforming loads and additional charges may be assessed for bulky items such as appliances, concrete, furniture, mattresses, tires, electronics, pallets, yard waste, propane tanks, etc.

Company reserves the right upon notice to discontinue acceptance of any category of materials set forth above as a result of market conditions related to such materials and makes no representations as to the recyclability of the materials. Collected Recyclables for which no commercially reasonable market exists may be landfilled at Customer's Cost.

\* Glass may not be accepted in all locations. Cartons, aseptic containers, and other plastics may be allowed if approved in writing by Company.

## 6 | SCHEDULE OF ALTERNATIVES AND DEVIATIONS

United City of Yorkville

### APPENDIX 3 SCHEDULE OF ALTERNATIVES AND DEVIATIONS

Please list any proposed alternative or deviation to the minimum standards outlined in the specifications section of this document. (Please attach additional sheets if necessary.)

Section Paragraph		Explanation of Alternative/Deviation
Page #	Section	Description of Exception
8	II. (14.) Prevailing Wage Act	Exception to the applicability of the Illinois Prevailing Wage Act to this RFP because the waste removal services requested by the United City of Yorkville are not “fixed works constructed or demolished by any public body or paid for wholly or in part out of public funds” under 820 ILCS 130/2. Any reference to the IPWA needs to be deleted.
9	II. (15.6)	Contractor takes exception to responding to any claims brought against the City, except such claims resulting from Contractor’s negligent acts.
10	15.8	Contractor takes exception to providing copies of its insurance policies, however, the City may review policies at the Contractor’s headquarters in Houston, TX.
12	29	Exception should be taken to the not to exceed cost if Contractor wants the right to adjust rates for increased costs resulting from uncontrollable circumstances because any price increases require the City’s approval.
18	36.3	Change designed to designated.
21	42.7	Contractor takes exception to returning rejected material to the container as this would require us to sift through the container.
21	42.10	Contractor takes exception to providing the name of the proposed buyer/market for recyclable materials.
22	44.3	Contractor takes exception to providing the name of the proposed buyer/market for organic materials.
23	45.3	Contractor takes exception to providing the name of the proposed buyer/market for materials.
24	51.4	Contractor takes exception to providing revenue received by the sale of recyclables as that is proprietary information. We also take exception to providing tipping fee savings.
25	53.1	Contractor takes exception to taking title to “all refuse” and Contractor shall not take title to hazardous waste, electronic waste or household hazardous waste or any waste not accepted by a disposal facility.
27	58.1	Contractor takes exception to the description of delays in this section and the right of the City Administrator being the judge whether a delay is considered a violation.  Waste Management respectfully requests that the City include the following Force Majeure clause in the final Agreement. “Neither Party shall be in default for its failure to perform or delay in performance caused by events beyond its reasonable control, including, but not limited to, strikes, lock outs, labor disputes, riots, imposition of laws or governmental orders, fires, acts of God, and inability to obtain equipment, and the affected party shall be excused from performance during the occurrence of such events; provided, that if the force majeure circumstances persist for more than

		thirty (30) days, the other Party may terminate this Agreement and any or all SOWs without further penalty or liability.”																						
27	61.1	Contractor takes exception to no rust showing on the cab, chassis, or body of the vehicle.																						
27	61.1	Contractor takes exception to the address and telephone number being placed on the vehicle.																						
28	65.1	Contractor takes exception to collecting items that are not considered acceptable items and without being paid for the disposal of same.																						
30	74.1	Contractor takes exception to the obligation to provide additional hauling equipment in the event it is also impacted by the same emergency or force majeure event.																						
31	77.1	Contractor takes exception to the short 24-hour cure period and the City’s right to take over Contractor’s equipment and facilities for a period of up to 120 days from the date of the notice of default and requests that this section and 78.2, which is very similar in terms of service failure be revised.																						
31	78.1	Contractor takes exception to a no strike guarantee.																						
39	Appendix 2	<p>Contractor takes exception to the required recycling list of items to be collected.</p> <p>Our list of acceptable materials is reflective of today’s market realities and includes only materials that meet industry quality standards and have viable market demands. However, due to the length of our Agreement with the City of Yorkville, it is important to allow for the possibility that this list may need to be adjusted at some point. Contract language must support our collective need to make changes to acceptable materials to respond to global market demands, as well as protect the quality of materials we process and safeguard the viability of the City’s recycling program.</p> <p><b>Single Stream Specifications</b></p> <table><tr><td colspan="2"><b>RECYCLABLES</b> must be dry, loose (not bagged), un-shredded, empty, and include ONLY the following:</td></tr><tr><td>Aluminum cans</td><td>Newspaper</td></tr><tr><td>PET bottles with the symbol #1 – with screw tops only</td><td>Mail</td></tr><tr><td>HDPE plastic bottles with the symbol #2 (milk, water bottles detergent, and shampoo bottles, etc.)</td><td>Uncoated paperboard (ex. cereal boxes; food and snack boxes)</td></tr><tr><td>PP plastic bottles and tubs with symbol # 5 - empty</td><td>Uncoated printing, writing and office paper</td></tr><tr><td>Steel and tin cans</td><td>Old, corrugated containers/cardboard (uncoated)</td></tr><tr><td>Glass food and beverage containers* – brown, clear, or green</td><td>Magazines, glossy inserts, and pamphlets</td></tr></table> <p><b>NON-RECYCLABLES</b> include, <u>but are not limited</u> to the following:</p> <table><tr><td>Plastic bags and bagged materials (even if containing Recyclables)</td><td>Microwavable trays</td></tr><tr><td>Porcelain and ceramics</td><td>Mirrors, window, or auto glass</td></tr><tr><td>Light bulbs</td><td>Coated cardboard</td></tr><tr><td>Soiled paper, including paper plates, cups and pizza boxes</td><td>Plastics not listed above including but not limited to those with symbols #3*, #4*, #6*, #7* and unnumbered plastics, including utensils</td></tr></table>	<b>RECYCLABLES</b> must be dry, loose (not bagged), un-shredded, empty, and include ONLY the following:		Aluminum cans	Newspaper	PET bottles with the symbol #1 – with screw tops only	Mail	HDPE plastic bottles with the symbol #2 (milk, water bottles detergent, and shampoo bottles, etc.)	Uncoated paperboard (ex. cereal boxes; food and snack boxes)	PP plastic bottles and tubs with symbol # 5 - empty	Uncoated printing, writing and office paper	Steel and tin cans	Old, corrugated containers/cardboard (uncoated)	Glass food and beverage containers* – brown, clear, or green	Magazines, glossy inserts, and pamphlets	Plastic bags and bagged materials (even if containing Recyclables)	Microwavable trays	Porcelain and ceramics	Mirrors, window, or auto glass	Light bulbs	Coated cardboard	Soiled paper, including paper plates, cups and pizza boxes	Plastics not listed above including but not limited to those with symbols #3*, #4*, #6*, #7* and unnumbered plastics, including utensils
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		Expanded polystyrene	Coat hangers
		Glass and metal cookware/bakeware	Household appliances and electronics,
		Hoses, cords, wires	Yard waste, construction debris, and wood
		Flexible plastic or film packaging and multi-laminated materials	Needles, syringes, IV bags or other medical supplies
		Food waste and liquids, containers containing such items	Textiles, cloth, or any fabric (bedding, pillows, sheets, etc.)
		Excluded Materials or containers which contained Excluded Materials	Napkins, paper towels, tissue, paper plates, and paper cups
		Any paper Recyclable materials or pieces of paper Recyclables less than 4" in size in any dimension	Propane tanks, batteries
		Cartons*	Aseptic Containers*

**Delivery Specifications**

Material delivered by or on behalf of Customer may not contain Non-Recyclables or Excluded Materials. “Excluded Materials” means radioactive, volatile, corrosive, flammable, explosive, biomedical, infectious, bio-hazardous or toxic substance or material, or regulated medical or hazardous waste as defined by, characterized or listed under applicable federal, state, or local laws or regulations, materials containing information (in hard copy or electronic format, or otherwise) which information is protected or regulated under any local, state or federal privacy or data security laws, including, but not limited to the Health Insurance Portability and Accountability Act of 1996, as amended, or other regulations or ordinances or other materials that are deleterious or capable of causing material damage to any part of Company's property, its personnel or the public or materially impair the strength or the durability of Company's structures or equipment.

Company may reject in whole or in part, or may process, in its sole discretion, Recyclables not meeting the specifications, including wet materials, and Customer shall pay Company for all increased costs, losses and expenses incurred with respect to such non-conforming Recyclables including costs for handling, processing, transporting and/or disposing of such non-conforming Recyclable Materials which charges may include an amount for Company's operating or profit margin (“Cost”). Without limiting the foregoing, and Customer shall pay a contamination charge for additional handling, processing, transporting and/or disposing of Non-Recyclables, Excluded Materials, and/or all or part of non-conforming loads and additional charges may be assessed for bulky items such as appliances, concrete, furniture, mattresses, tires, electronics, pallets, yard waste, propane tanks, etc.

Company reserves the right upon notice to discontinue acceptance of any category of materials set forth above as a result of market conditions related to such materials and makes no representations as to the recyclability of the materials. Collected Recyclables for which no commercially reasonable market exists may be landfilled at Customer’s Cost.

\* Glass may not be accepted in all locations. Cartons, aseptic containers, and other plastics may be allowed if approved in writing by Company.

		Waste Management respectfully requests that the City include the following Changes in Law clause in the final Agreement: “Notwithstanding anything to the contrary in the Agreement, Contractor shall be entitled to pass through to, and collect from, the City any additional collection or disposal costs, taxes or surcharges incurred by Contractor as a result of any mandated changes in local, state or federal laws or regulations governing the generation, collection, transportation, processing, sorting and disposal of solid waste and/or recyclable materials.”	
--	--	---	--

## 7 | SCHEDULE OF ILLINOIS MUNICIPALITIES SERVED

Waste Management is a trusted environmental solutions partner for communities/businesses/universities throughout Illinois, the United States and Canada. We know Illinois customers, their needs, and their requirements better than any other company. We provide service for many of Yorkville's neighbors. We have included these customers in the following list of references. We encourage you to contact them so that you may learn firsthand about our excellent record of service with other customers.

<b>Municipality</b>	<b>Contact Name and Telephone Number</b>	<b>Service Dates</b>	<b>Explanation of Collection and Disposal Program</b>
United City of Yorkville	Bart Olson 630.553.8537	1/2002 to Present	Limited Refuse, Unlimited Recycle and Yard Waste
City of Plainfield	Amy De Boni 815-439-4255	1/1998 to Present	Unlimited Refuse, Recycle and Yard Waste; At Your Door Special Collection
City of Sycamore	Maggie Peck 815-895-0786	1/2002 to Present	Unlimited Refuse, Recycle and Yard Waste; At Your Door Special Collection
City of Batavia	Scott Haines 630-254-2400	1/2002 to Present	Sticker or Cart Service
City of Elgin	Aaron Neal 847-931-6099	1/2002 to Present	Limited Refuse, Unlimited Recycle, Stickered Yard Waste; At Your Door Special Collection



## 8 | LOCATION OF DISPOSAL FACILITIES

United City of Yorkville

### APPENDIX 5 LOCATION OF DISPOSAL FACILITIES

Please provide below information concerning the facilities, which are intended to be used for the disposal of refuse, yard waste, organics and recyclable materials collected at the curbside.  
(Please attach additional sheets if necessary.)

#### REFUSE

Name of Facility	Facility Address	Disposal Limitations
Waste Management Batavia Transfer Station	766 Hunter Drive Batavia, IL 60510	No yard waste, tires, white goods electronics, household hazardous waste
Groot - Plano Transfer Station	4701 Kendall Farms Road Plano, IL 60545	No yard waste, tires, white goods, electronics, household hazardous waste

#### RECYCLING

Name of Facility	Facility Address	Disposal Limitations
Waste Management Batavia Transfer Station	766 Hunter Drive Batavia, IL 60510	Please see list of acceptable recycle materials

#### YARD WASTE

Name of Facility	Facility Address	Disposal Limitations
Waste Management Batavia Transfer Station	766 Hunter Drive Batavia, IL 60510	No refuse, tires white goods, electronics, household hazardous waste



United City of Yorkville

## ELECTRONIC WASTE

Name of Facility	Facility Address	Disposal Limitations
Waste Management Batavia Transfer Station	766 Hunter Drive Batavia, IL 60510	Please see At Your Door Special Collection section for acceptable items

## ORGANIC MATERIAL

Name of Facility	Facility Address	Disposal Limitations
Waste Management Batavia Transfer Station	766 Hunter Drive Batavia, IL 60510	No meat, bones or paper products

## HOUSEHOLD HAZARDOUS WASTE

Name of Facility	Facility Address	Disposal Limitations
Waste Management Rockdale	2100 Moen Avenue Rockdale, IL 60436	Please see At Your Door Special Collection section for acceptable items

## ELECTRONIC WASTE

Name of Facility	Facility Address	Disposal Limitations
Waste Management Batavia Transfer Station	766 Hunter Drive Batavia, IL 60510	Please see At Your Door Special Collection section for acceptable items

## ORGANIC MATERIAL

Name of Facility	Facility Address	Disposal Limitations
Waste Management Batavia Transfer Station	766 Hunter Drive Batavia, IL 60510	No meat, bones or paper products

## HOUSEHOLD HAZARDOUS WASTE

Name of Facility	Facility Address	Disposal Limitations
Waste Management Rockdale	2100 Moen Avenue Rockdale, IL 60436	Please see At Your Door Special Collection section for acceptable items

## 9 | CONTRACTOR QUALIFICATIONS

### APPENDIX 6

### CONTRACTOR QUALIFICATIONS

Name of Business: Waste Management of Illinois, Inc.

Business Address: Mailing Address: 780 North Kirk Road, Batavia, IL 60510

Business Number: (847) 980-7648

Emergency Number: (800) 964-8988

Fax Number: N/A

Ownership:            Individual            Partnership            Corporation

Franchise or Parent Company (if applicable): N/A

List all Partners, Managers, and Corporate Officers:

Name	Title	Residence	Phone
<p><u>Please see the following page for our complete list of Directors and Officers.</u></p>			

Please see the following page for our complete list of Directors and Officers.

Days of Operation: Monday through Saturday

Business Hours: Monday through Friday 5:00 AM - 5:00 PM and Saturday 5:00 AM - 9 AM

Number of Employees:

Supervisors: 6

Drivers: 104

Office Personnel: 7

Signature: Vaughn Kuerschner  Date: November 1, 2021

**WASTE MANAGEMENT OF ILLINOIS, INC.**

**Directors and Officers  
As of October 15, 2021**

Name	Title	Address
Harry C. Lamberton, III	President and Director	700 E. Butterfield Road 3 <sup>rd</sup> Floor Lombard, IL 60148
Mark A. Lockett	Vice President and Assistant Treasurer	800 Capitol Street Suite 3000 Houston, TX 77002
Kevin M. McDonough	Vice President and Assistant Secretary	700 E. Butterfield Road 3 <sup>rd</sup> Floor Lombard, IL 60148
Leslie K. Nagy	Vice President, Chief Financial Officer and Controller	800 Capitol Street Suite 3000 Houston, TX 77002
David L. Reed	Vice President and Treasurer	800 Capitol Street Suite 3000 Houston, TX 77002
Kelly Rooney	Vice President	800 Capitol Street Suite 3000 Houston, TX 77002
Courtney A. Tippy	Vice President, Secretary and Director	800 Capitol Street Suite 3000 Houston, TX 77002
Dean H. Vander Baan	Vice President	720 E. Butterfield Road, 4 <sup>th</sup> Floor Lombard, IL 60148
James A. Wilson	Vice President	720 E. Butterfield Road 4 <sup>th</sup> Floor Lombard, IL 60148
Jeff R. Bennett	Assistant Treasurer	800 Capitol Street Suite 3000 Houston, TX 77002
John S. Skoutelas	Assistant Secretary	100 Brandywine Blvd 3 <sup>rd</sup> Floor Newtown, PA 18940
Micah S. Hamstra	Assistant Secretary	720 E. Butterfield Road 4 <sup>th</sup> Floor Lombard, IL 60148

## 11 | CERTIFICATE OF INSURANCE

### **Certificates of Insurance**

Waste Management secures gold-standard insurance coverage to protect our partners. Going above and beyond, we provide environmental site liability coverage, which covers all active sites that are owned or operated by Waste Management. It offers third-party liability for bodily injury and property damage, and off-site clean-up coverage, coverage for both sudden and non-sudden pollution incidents, and transportation coverage including the loading and unloading of the vehicle. Yorkville can rest easy with Waste Management as your service provider knowing that you are always protected by best-in-class insurance. Copies of our certificates of insurance are included on the following pages.

Price Quotation Sheet

Appendix 1

Plan Description		May 1, 2022 to April 30, 2023	May 1, 2023 to April 30, 2024	May 1, 2024 to April 30, 2025	May 1, 2025 to April 30, 2026	May 1, 2026 to April 30, 2027
<b><u>Refuse Collection</u></b>	<b>35 Gallon Tote</b>	\$	\$	\$	\$	\$
	<b>65 Gallon Tote</b>	\$	\$	\$	\$	\$
	<b>96 Gallon Tote</b>	\$	\$	\$	\$	\$
	<b>Total</b>	\$	\$	\$	\$	\$

Plan Description		May 1, 2022 to April 30, 2023	May 1, 2023 to April 30, 2024	May 1, 2024 to April 30, 2025	May 1, 2025 to April 30, 2026	May 1, 2026 to April 30, 2027
<b><u>Refuse Collection &amp; Household Hazardous Waste</u></b>	<b>35 Gallon Tote</b>	\$	\$	\$	\$	\$
	<b>65 Gallon Tote</b>	\$	\$	\$	\$	\$
	<b>96 Gallon Tote</b>	\$	\$	\$	\$	\$
	<b>Total</b>	\$	\$	\$	\$	\$

## 13 | OPERATIONAL APPROACH

### A Seamless Implementation with a Trusted Partner

#### Brand Protection

Yorkville's brand is a valued asset, and protecting that value is imperative. Cities with such an investment seek partners that are committed to providing authentic levels of environmental indemnification, the highest compliance and ethical standards, strong safety practices, and the respect of relevant regulatory agencies. As the nation's leading environmental services company, these very traits are the cornerstone of our brand. We stake our brand on protecting yours.

Our service history gives us the advantage of experience and perspective, quantifiable advantages for making solid recommendations for the City.







#### Continuity of Service

Waste Management will continue to provide collection services for the City of Yorkville on Monday, Tuesday, Thursday, and Friday with no route changes. This will provide continuity of service and avoid any confusion and disruption for residents. In the event there is a need to change the collection day, or a collection day is added, Waste Management will notify the City at least 30 days prior to the implementation of the change. Waste Management will also notify residents prior to the change. The new contract allows for a five-year term with a one year extension.

#### Critical Yorkville Collection Equipment/Resources in Place Today

Key to all successful new contract implementations is having the most basic collection equipment and resources in place, tested, and proven. We understand one of Yorkville's top priorities is for their collection partner to deliver the base collection services - confirming customers have containers to put materials into and that materials are collected on time and in a professional and safe manner.

All of Waste Management's Yorkville collection equipment and resources are already in place, eliminating any opportunity for customer disruption associated with a new contract implementation.

Core Collection Equipment and Resources		
	Waste Management Competency	Benefits to the United City of Yorkville
<b>Drivers</b> 	<p>Our Yorkville driving team is made up of local, long-tenured drivers that have successfully completed rigorous safety and customer service training requirements and that know each neighborhood, street, and home in your community.</p>	<ul style="list-style-type: none"> <li>• Safer more experienced drivers in your community</li> <li>• Existing customer knowledge and personalized customer service</li> <li>• No driver learning curve resulting in fewer missed pickups</li> </ul>
<b>Trucks</b> 	<p>Waste Management's fleet of collection vehicles are already in place. All our vehicles are subject to daily preventive maintenance and safety inspections. Our fleet is maintained to the highest safety standards and is fully compliant with local and federal safety standards.</p>	<ul style="list-style-type: none"> <li>• Trucks are not subject to manufacturing delays and are guaranteed ready-to-roll on day one of the new contract</li> <li>• Reliable collection vehicles with fewer breakdowns resulting in on-time collection</li> </ul>
<b>Routes and Customer Data</b> 	<p>No changes to current collection schedules will be associated with our transition. Waste Management collection routes were created with eRouteLogistics® software and consider local traffic patterns, truck capacity and disposal locations.</p>	<ul style="list-style-type: none"> <li>• No missed pickups associated with resident confusion caused by collection day changes</li> <li>• Maximum route efficiency provides the greatest fiscal value for ratepayers</li> <li>• Less wear and tear on City streets</li> </ul>
<b>Onboard Computing System (OCS)</b> 	<p>Each of our Yorkville collection trucks that service the City are already equipped with onboard tablets that display drivers' exact route, all scheduled collections, and relevant account notes such as container placement. The tablets include GPS technology that allow drivers to capture route data in real-time. Drivers note the status of each collection (i.e., collected or a service exception).</p>	<ul style="list-style-type: none"> <li>• Collection statuses minimize the opportunity for missed collections</li> <li>• Provides customer service representatives with near real-time field data to assist with customer service calls/interactions</li> </ul>

## Local, Regional, and National Resources for Yorkville

With Waste Management as your partner, Yorkville will receive more than simple collection services. You will have an ally with unmatched resources that give you peace of mind that your waste, recycling, and landscape waste materials will be collected, transferred, processed, and disposed of, even during emergency and natural disaster situations. Collections will be managed using proven best practices in full compliance with all local, state, and federal regulations.

**Local support:** Within a two-hour drive, there are seven other Waste Management hauling sites. This means that if there is a need, we can redeploy equipment and people to the United City of Yorkville the same day. While we always strive to have our fleet on the road and not in the shop, garbage trucks are complicated pieces of machinery, and they occasionally break down. Having the ability to share resources within a small geographic area allows us to keep rates low and service your residents without interruption.

**Regional support:** Our regional operations include hauling districts, transfer, and post collection facilities throughout Illinois, Missouri, Iowa, Nebraska, Kansas. This allows our team to respond to regional events with seamless support. Needed containers, trucks, drivers, and managers can be requested from our area to support unusual events if ever needed. These resources can be deployed the same day.

**National support:** As the leading waste provider in North America, Waste Management can get the best rates and availability from our truck, container, and office equipment vendors. In the event of an emergency or natural disaster, we can pull additional resources from our hauling districts throughout the nation.



**Your WM Team would bring their local residents knowledge and experience to continue to serve as the service providers of the equipment and resources for the United City of Yorkville.**



## PROPOSAL

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The following is a qualified proposal from Waste Management in response to the City of Yorkville's RFP.

### Refuse Collection

Residents have the option of a 96, 64, or 35-gallon refuse cart with limited refuse collection service. A 64-gallon cart is the default cart size. Additional refuse may be placed in bags/containers with handles not exceeding 32-gallons in size and 50 lbs. in weight. A sticker is required for each additional bag/container to be serviced.



### Bulk Item Collection

One bulk item is included in weekly service, no sticker required. Bulk items must weigh less than 50 pounds and be reasonably managed by one person. Additional bulk items require one (1) sticker to be serviced. Collection of bulk items weighing more than 50 pounds must be prescheduled by calling Waste Management Customer Service at 800-964-8988.

### White Goods Collection

Waste Management will collect white goods (appliances) at the curb. White goods collection must be prescheduled and prepaid (\$40.00 per item) by calling Waste Management Customer Service at 800-964-8988.

### Recycle Collection

Waste Management will provide unlimited recycle service. Residents have the option of a 96, 64, or 35-gallon recycle cart with unlimited recycle collection service. A 64-gallon cart is the default cart size. Additional recycle material may be placed in containers with handles not exceeding 32-gallons in size and 50 lbs. in weight. Additional containers must be clearly labeled "RECYCLE". Residents may rent an additional recycle cart from Waste Management for \$3.50/month.



### Acceptable Recyclable Materials

As a society, we understand that recycling is important, but for recycling to make an impact, we have to recycle right. Today's most successful and sustainable recycling programs emphasize the value of the acceptable materials. We must ask ourselves, does this material have a viable market? If the answer is yes, we must also confirm the material we are recycling is properly prepared, clean, and free from contamination.

Our list of acceptable materials is reflective of today's market realities and includes only materials that meet industry quality standards and have viable market demands. However, due to the length of our Agreement with the City of Yorkville, it is important to allow for the possibility that this list may need to be adjusted at some point. Contract language must support our collective need to make changes to acceptable materials to respond to global market demands, as well as protect the quality of materials we process and safeguard the viability of the City's recycling program.

## Single Stream Specifications

<b>RECYCLABLES</b> must be dry, loose (not bagged), un-shredded, empty, and include ONLY the following:	
Aluminum cans	Newspaper
PET bottles with the symbol #1 – with screw tops only	Mail
HDPE plastic bottles with the symbol #2 (milk, water bottles detergent, and shampoo bottles, etc.)	Uncoated paperboard (ex. cereal boxes; food and snack boxes)
PP plastic bottles and tubs with symbol # 5 - empty	Uncoated printing, writing and office paper
Steel and tin cans	Old, corrugated containers/cardboard (uncoated)
Glass food and beverage containers* – brown, clear, or green	Magazines, glossy inserts, and pamphlets

<b>NON-RECYCLABLES</b> include, <u>but are not limited to</u> the following:	
Plastic bags and bagged materials (even if containing Recyclables)	Microwavable trays
Porcelain and ceramics	Mirrors, window, or auto glass
Light bulbs	Coated cardboard
Soiled paper, including paper plates, cups and pizza boxes	Plastics not listed above including but not limited to those with symbols #3*, #4*, #6*, #7* and unnumbered plastics, including utensils
Expanded polystyrene	Coat hangers
Glass and metal cookware/bakeware	Household appliances and electronics,
Hoses, cords, wires	Yard waste, construction debris, and wood
Flexible plastic or film packaging and multi-laminated materials	Needles, syringes, IV bags or other medical supplies
Food waste and liquids, containers containing such items	Textiles, cloth, or any fabric (bedding, pillows, sheets, etc.)
Excluded Materials or containers which contained Excluded Materials	Napkins, paper towels, tissue, paper plates, and paper cups
Any paper Recyclable materials or pieces of paper Recyclables less than 4" in size in any dimension	Propane tanks, batteries
Cartons*	Aseptic Containers*

## Delivery Specifications

Material delivered by or on behalf of Customer may not contain Non-Recyclables or Excluded Materials. "Excluded Materials" means radioactive, volatile, corrosive, flammable, explosive, biomedical, infectious, bio-hazardous or toxic substance or material, or regulated medical or hazardous waste as defined by, characterized or listed under applicable federal, state, or local laws or regulations, materials containing information (in hard copy or electronic format, or otherwise) which information is protected or regulated

under any local, state or federal privacy or data security laws, including, but not limited to the Health Insurance Portability and Accountability Act of 1996, as amended, or other regulations or ordinances or other materials that are deleterious or capable of causing material damage to any part of Company's property, its personnel or the public or materially impair the strength or the durability of Company's structures or equipment.

Company may reject in whole or in part, or may process, in its sole discretion, Recyclables not meeting the specifications, including wet materials, and Customer shall pay Company for all increased costs, losses and expenses incurred with respect to such non-conforming Recyclables including costs for handling, processing, transporting and/or disposing of such non-conforming Recyclable Materials which charges may include an amount for Company's operating or profit margin ("Cost"). Without limiting the foregoing, and Customer shall pay a contamination charge for additional handling, processing, transporting and/or disposing of Non-Recyclables, Excluded Materials, and/or all or part of non-conforming loads and additional charges may be assessed for bulky items such as appliances, concrete, furniture, mattresses, tires, electronics, pallets, yard waste, propane tanks, etc.

Company reserves the right upon notice to discontinue acceptance of any category of materials set forth above as a result of market conditions related to such materials and makes no representations as to the recyclability of the materials. Collected Recyclables for which no commercially reasonable market exists may be landfilled at Customer's Cost.

\* Glass may not be accepted in all locations. Cartons, aseptic containers, and other plastics may be allowed if approved in writing by Company.

## Recycle Right Curbside Recycle Education

The US national average for recycle contamination is 25% or one in every four items placed in a recycle cart is a contaminant. The best way to combat the contamination issue and the rising cost of recycling is effective and consistent resident education and enforcement. In partnership with the City of Yorkville, we would like to introduce Waste Management's highly successful Recycle Right curbside recycle education program. Recycle Right is a simple, back to basics education program that has been highly successful in changing resident behavior.

Recycle Right has three simple rules:



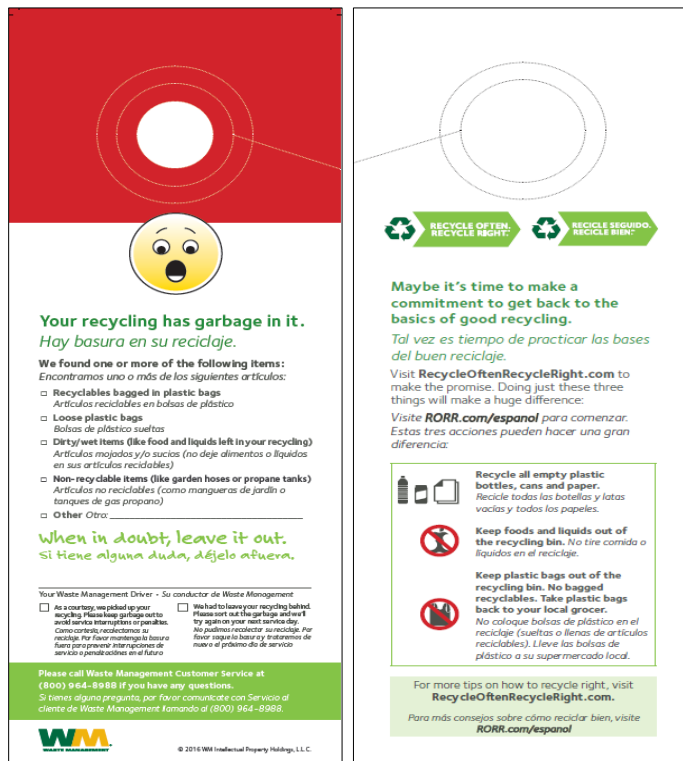
We must work together to continually educate residents on how to recycle right and how they can do their part to safeguard the viability of the City of Yorkville's recycling program.

## How will the curbside education program work?

Waste Management will tag recycle carts that are contaminated (not acceptable for collection). The driver will identify the contamination on the tag. The resident is asked to remove the contamination from the recycle cart so it can be serviced on the next scheduled service day. There will be a two-week education period when contaminated carts will be tagged and serviced. After two weeks contaminated carts will be tagged and not serviced. The material will be collected on the next scheduled service day if the resident removes the contamination. An example of the Recycle Right recycling tag is shown below.

A baseline audit of the City of Yorkville's recyclable materials will be completed before the rollout of the Recycle Right curbside recycling education program. A second audit will be completed after one year to measure the progress and then work with the City to develop the next phase of the outreach plan.

As part of Waste Management of Illinois, Inc.'s commitment to recycling and our customers, we built a new, state of the art recycling material recovery facility in Hodgkins, IL. The new facility is more mechanized, designed to improve commodity recovery and increase the recycling capacity in the Chicagoland market while providing flexibility to meet material markets demands for cleaner feedstock.



## Yard Waste Collection

Waste Management will provide unlimited yard waste service. Yard waste may be placed in brown paper yard waste bags, containers with handles, and/or bundles from April through the first full week of December. Bags and containers may not exceed 32-gallons in size and 50 lbs. in weight. Containers must be clearly labeled "YARD WASTE". Bundles must be securely tied and not exceed four feet in length and two feet in diameter. Individual branches may not exceed two inches in diameter.

*Note: Landscape waste does not include dirt, sand, rocks, concrete, sod, tree stumps, and similar materials.*

## Christmas Tree Collection

Waste Management will collect Christmas trees for the first two weeks in January at no additional cost.

## Electronic Waste Management

Waste Management will provide collection service for electronic waste (as defined in the RFP). Residents must call Waste Management Customer Service at 800-964-8988 to schedule service at no additional cost. Items must be properly prepared to be collected.

## Organics Collection

Residents have the option of weekly organics collection service from April 1 through the first full week of December. The service will piggyback yard waste service (April through first full week of December). The service will require residents to use a 64-gallon cart from Waste Management at no additional fee. Organics and yard waste may be collected together in the cart. Organics includes food waste, but no meat, bones or paper products. Residents may opt in for this service by calling Waste Management Customer Service at 800-964-8988.

## Amnesty Days

Waste Management will provide spring and fall curbside collection of additional refuse, yard waste and bulk items on two dates mutually agreed upon by the City and Waste Management. White Goods and up to four (4) automobile tires (tires must be removed from the rims) are included at no additional charge.

## City Owned Buildings and Properties

Waste Management will provide weekly (or as needed) refuse and recycling collection for the City of Yorkville buildings and properties as listed in Exhibit B of the RFP. Waste Management will also provide the City (20) 20cy roll off containers at 651 Prairie Pointe Lane in late summer of 2022.

## City Special Events

Waste Management will provide refuse and portable toilet services for the following City of Yorkville's special events.

- **Summer Solstice, 131 E Hydraulic Ave - Riverfront Park**
  - 10 standard units
  - 1 handicap unit
  - 2 handwashing units
  - Units need to be serviced Saturday morning
  - 1 – 10yd roll off
- **4<sup>th</sup> of July Celebration, 301 N Bridge St - Town Square Park**
  - 10 standard units
  - 2 handicap units
  - 2 handwashing units
  - 1 – 30yd roll off
- **4<sup>th</sup> of July Celebration, 797 Game Farm Rd - Yorkville High School in the Southeast corner of parking lot**
  - 2 standard units
- **Yorkville River Fest, 131 E Hydraulic Ave - Riverfront Park**
  - 12 standard units
  - 2 handicap units
  - 3 handwashing units
  - Units need to be serviced on Saturday morning
  - 1 – 10yd roll off
- **Hometown Days Festival, 908 Game Farm Rd - Beecher Community Park**
  - 26 standard units



- 6 handicap units
- 12 handwashing units
- Units need to be serviced on Saturday and Sunday morning
- Additionally, toilet paper and hand towels will be needed so staff can replenish when needed
- 3 – 20yd roll off

**Yorktober Fest, 201 E Hydraulic Ave - Riverfront Park**

- 8 standard units
- 1 handicap unit
- 2 handwashing units
- 1 – 10yd roll off

**Yorkville Holiday Celebration, 201 E Hydraulic Ave - Riverfront Park**

- 2 standard units
- 1 handicap unit
- 1 handwashing unit

## ALTERNATE PROPOSAL WITH HOUSEHOLD HAZARDOUS WASTE COLLECTION

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Waste Management will provide collection service for household hazardous waste and electronic waste as defined below. Waste Management will provide this service through its At Your Door Special Collection program at no additional charge.

### At Your Door Special Collection

#### A Convenient, Year-Round Home Collection Service for Household Hazardous Waste and Electronic Waste

Waste Management's At Your Door Special Collection service is the best solution for residents to properly manage household hazardous waste (HHW) and electronic waste (e-waste). As North America's leading environmental solutions company, Waste Management makes it easy for residents to dispose of these items by collecting the materials at their door – safely, easily, and responsibly. At Your Door Special Collection is an easy-to-use service where residents can schedule a collection at any time throughout the year, when it is convenient for them. It is a recycling program, and it supports the City of Yorkville's green initiatives. Currently we service more than 250,000 homes in the Chicago area. The service is unmatched in the industry.



*Residents receive a collection kit sent to their house via U.S. mail, then package their unwanted materials and schedule a pickup.*

### 24/7 Collection Scheduling for Customers

Customers can easily reach out to the At Your Door Special Collection service team and schedule a home collection via phone or internet. Our Operations Service Center accepts calls Monday through Friday from 5:00AM and 5:00PM PST at (800) 449-7587, while our website, [wmatyourdoor.com](http://wmatyourdoor.com), is accessible 24/7. An automated call system is also available after hours and on holidays. Highly trained

#### Customer Feedback is Crucial

To increase communication with residents and provide feedback on the At Your Door Special Collection service, participants are encouraged to provide feedback on the program and may be sent a survey. In addition, if a resident has a question about an item or has questions on how this service works, they are welcome to reach out to the Operations Service Center staff.

## Collection Kit Streamlines Process

## Acceptable Materials in the Program

- Windshield washer fluid
- Hydraulic fluid
- Vehicle batteries (up to 4 max.)
- Gasoline and Diesel fuel (must be placed in containers designed and sold for containment and transportation of fuel (up to 5-gallon max)

#### Flammable & Combustible Materials

- Kerosene and Solvents

#### Mercury Containing Devices

- Thermostats
- Thermometers
- Switches

### Excluded Materials

Items that are not part of the At Your Door Special Collection service include:

- |  |                                   |  |
|--|-----------------------------------|--|
| • Collection service includes Biological waste | • Materials in leaking containers | • Containers over 5 gallons                    |
| • Liquid mercury/elemental mercury             | • Medicines/pharmaceuticals       | • Commercial chemicals                         |
| • Ammunition                                   | • Asbestos                        | • Fire extinguishers                           |
| • Broken items that contain mercury            | • Unknown or unlabeled materials  | • Trash that may contain radioactive materials |
| • Explosives                                   | • Tires                           | • Food waste                                   |
| • Materials improperly packaged for transport  | • Construction-related materials  | • White goods including bulky items            |
| • Appliances                                   | • Smoke detectors                 | • Radioactive materials                        |

### Disposal

The goal of Waste Management's At Your Door Special Collection service is to maximize the percentage of home generated special materials that are recycled rather than disposed. After collecting the items from the home, the materials are brought to a Waste Management facility. The items are then properly packaged and sent to the appropriate third-party facility for processing. ***In 2017, 89 percent of the materials collected were recycled.***

### Compliance

This program complies with existing applicable federal, state, and local regulations. We will obtain and maintain appropriate permits and approvals to transport and store household hazardous waste and electronics.

### Safety

We have a history of safe collection services due to extensive industry experience combined with specific expertise in household hazardous waste collection. Service technicians complete a 40-hour HAZWOPER certification program in combination with obtaining a Hazmat endorsement on their Commercial Driver's License. In addition, they participate in an in-depth employee training program that includes classroom and on-the-job training for collecting and transporting hazardous and potentially hazardous chemicals in a residential setting.



## VALUE ADD SERVICES

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### Bagster and Roll Off Container Bagster Service

#### Bagster

Waste Management's Bagster is a great solution when residents have collection needs that exceed their weekly construction and demolition debris curbside collection. Bagster is ideal for small home improvement construction projects. With this easy-to-use solution, residents simply purchase a Bagster bag at a local home improvement store, fill it, and schedule their collection online or by phone. Visit [thebagster.com](https://thebagster.com) for more information.

#### Roll Off Container

Waste Management offers roll off container service for large home improvement projects. Roll off containers are available in 10, 20 and 30 cubic yard sizes each at different rates. Residents may call Waste Management Customer Service at 800-964-8988 to schedule and pay for a roll off container.

#### HOW IT WORKS

##### BUY.

BUY THE BAGSTER BAG AT YOUR LOCAL HOME IMPROVEMENT RETAILER.

##### FILL.

FILL YOUR BAGSTER BAG WITH UP TO 3,300 LB OF DEBRIS OR WASTE.

##### GONE.®

SCHEDULE YOUR COLLECTION ONLINE OR BY PHONE.



### Waste Watch

#### Collaborating with Local Law Enforcement to Keep Neighborhoods Safe

Serving the same neighborhoods each week allows Waste Management drivers to become familiar with their routes while providing exceptional customer service. Likewise, this level of familiarity enables drivers to identify when a situation does not feel right. From an abandoned car to a door left open, our drivers are in a unique position to act as an extra set of eyes and ears on the street. Our Waste Watch program leverages this advantage by formally teaching Waste Management drivers how to observe and report suspicious activity or an emergency situation to law enforcement.



Waste Watch-certified drivers participate in a formal training program administered in collaboration with local public safety and law enforcement officers. Training includes what to look for, how to react, and how to report incidents. Drivers are reminded they should not approach or attempt to resolve a suspicious situation, but they are encouraged to call law enforcement if a situation does not look or feel right.

In addition to local agencies, Waste Management partners with National safety-related organizations and programs, including:

- AMBER Alert
- Community Crime Stoppers
- National Center for Missing and Exploited Children
- U.S. Department of Homeland Security

Urgent messages, such as AMBER Alerts, can be communicated to drivers via our onboard computing system. This allows for instant and geo-targeted communication in case of an emergency.

## Natural Disaster Assistance

Whether necessary due to a natural disaster, extreme weather, or other unforeseen events, Waste Management is always prepared to provide additional support to communities requiring urgent solid waste collection assistance.

During extreme weather or natural disasters, some communities are also faced with massive volumes of debris. In such cases, excess supplies of collection equipment including spare vehicles and roll off containers can be quickly accessed, often within hours.

Waste Management has the resources, equipment, and personnel to help with the clean-up. In addition to local resources, our emergency response management team can quickly compile licensed, experienced collection drivers, machinery operators, and management staff that are prepared to temporarily relocate and assist within an impacted region. Furthermore, many of our route and district managers hold commercial driver licenses (CDLs) and can perform collection functions as needed.

In the event of a manmade or natural disaster including events such as tornados, floods, etc., Waste Management will work with the City of Yorkville to arrange for special collections to assist with cleanup efforts.

We were there to help the residents in Washington, Illinois in 2013 when this community was devastated by an EF-4 tornado. Within 90 seconds, 650 homes were destroyed and nearly 1,000 were severely damaged. Waste Management assisted the City in damage assessment and provided, at the City's request, 24-hour operation of our East Peoria Transfer Station as a destination for all collected debris in the initial phase of the cleanup. As the City realized that they faced a 60,000 cubic yard debris field, Waste Management assumed total responsibility for consolidation of the debris at the curb line, loading the consolidated debris into Waste Management supplied transfer trailers, transportation to the Peoria City/County Landfill #2, a Waste Management facility, and disposal of all the landfilled debris. We also supplied operators and grapples for the effort, as well as front end loaders, semi dump trailers, and transfer trailers and drivers. Waste Management's portion of the debris removal was accomplished in less than four weeks.



In all, Waste Management received more than 25,000 tons of tornado debris, with more than 16,000 tons from Waste Management staged and directed collection and cleanup activities. We have also provided similar services to the communities of Coal City and Fairdale. We pledge the same level of commitment to the City of Yorkville.

## Indemnification

A thorough examination of any indemnification offering requires two elements to truly protect the interests of the residents of Yorkville. The first element is the integrity of the final disposal site and its compliance with environmental regulations to protect its customers. The second element is the assets brought to the offering by the indemnification provider.

Our environment is one of the most important issues we face today. Environmental responsibility is an integral part of our business and making that philosophy a reality is the essence of everything we do at Waste Management. Our goal is to help municipalities successfully address the complex environmental issues facing their community. Our capabilities ensure that Waste Management can help our customers meet the highest environmental standards and protect themselves at the same time. Our indemnification offer simply has no equal in our industry.

Waste Management internalizes the management of the City of Yorkville's waste at its landfill and processing facilities. This internalization allows us to provide the city with indemnification of their waste. This assurance of indemnification provides the City with peace of mind that their waste is managed according to and often exceeding local, state, and federal regulations.

## CUSTOMER SERVICE

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### Billing

Waste Management will bill the City monthly for all serviced units within the respective municipality. The City will provide Waste Management with the number of occupied units within the municipality on a monthly basis. Additionally, Waste Management and the City will conduct home count audits annually due to the growth of the community.

### Reporting

Waste Management will provide the City with the following reports:

- Monthly volume report (refuse, recycle, yard waste, electronic waste)
- Monthly Haul or Call Report
- Weekly missed pickup and resolution report
- Monthly At Your Door Special Collection volume report (if the City elects Household Hazardous Waste Collection)

### Holidays

Waste Management observes the following six (6) national holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day. If a holiday falls on a scheduled service day, service will be performed on the next business day including Saturday. Holidays falling on Sunday are typically observed on the following Monday, so service would be on the following Tuesday.

### Customer Service 24/7

Yorkville residents have many options for how and when they interact with Waste Management. Whether via by phone, Live Chat, online at [wm.com](http://wm.com) or through our mobile app, customers want an interaction that is fast, friendly, and convenient. Waste Management's dedicated Customer Service Team supports the City customers by managing our phone, email, and online customer service functions and are ready to serve Yorkville residents on day one of the new contract.

### Call Center

Waste Management maintains a call center with trained agents in the services provided to the City of Yorkville. Agents are available Monday through Friday 7:00AM to 5:00PM to answer any service calls

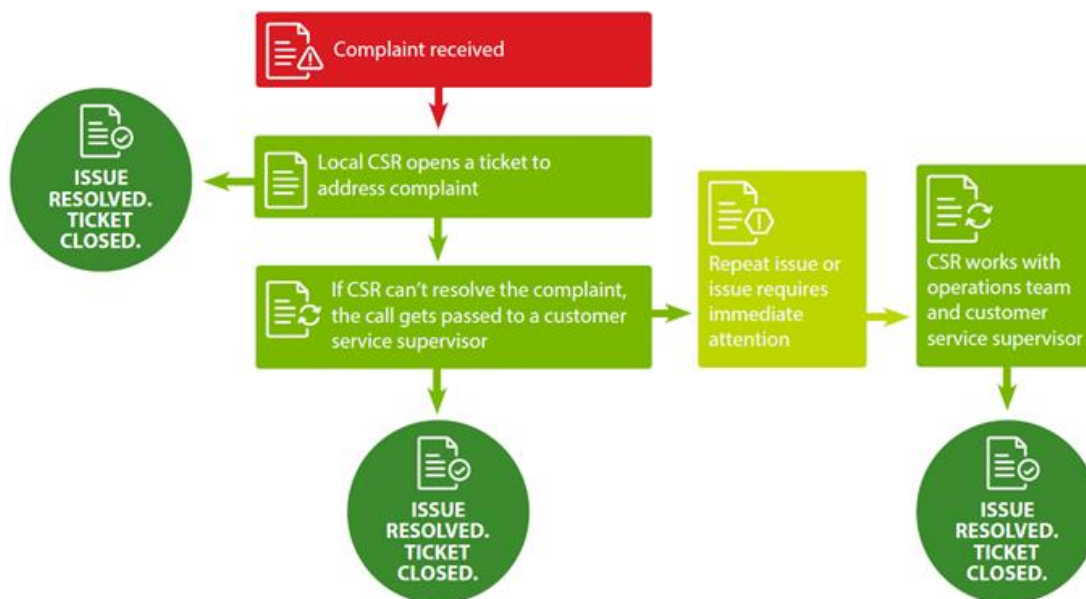
from Yorkville residents. All calls will be given prompt and courteous attention. In the case of a missed scheduled pickup, Waste Management will arrange for a pickup within 24 hours of being notified of the missed pickup. Waste Management will maintain a log of complaints, which shall be made available to Yorkville Staff for inspection upon request. The Call Center is closed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

In the event of an outage at our regional customer service center, Waste Management maintains other customer service centers throughout the United States that can support Yorkville calls if needed. Our technology infrastructure allows calls to be rerouted among Waste Management call centers in other regions in the event of an emergency (e.g., power outage, natural disaster, etc.). All agents have access to our Knowledgebase Management Tool, "Green Pages," and can assist Yorkville residents at all times with community-specific information.

## Complaint Procedure

Service issues are managed through a ticket system. Each ticket is created in an open status and requires closure upon completion of requested action and/or resolution. Local management and their teams are responsible for providing requested service and/or issue resolution and to monitor the status of all tickets for timely service completion.

- If an issue requires immediate attention and/or escalation, an email is also sent to the attention of the operations management team.
- If a repeat issue occurs within two months, a ticket is also opened to alert the operations management team that a recurring problem exists. Waste Management has developed a quality control program that includes performance standards for ticket creation, closure, tracking, and service recovery. Local management is responsible and accountable for these performance standards.



Waste Management will provide the City with the following customer service reports that summarize service issue.

- Weekly missed pickup and resolution report



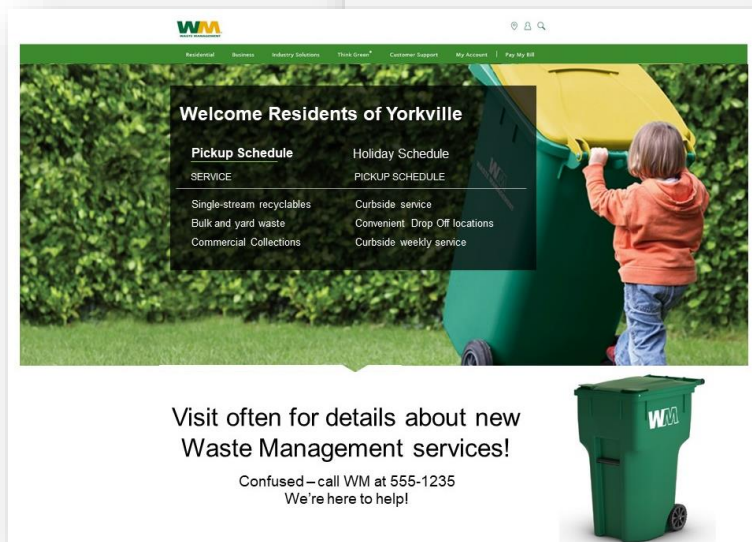
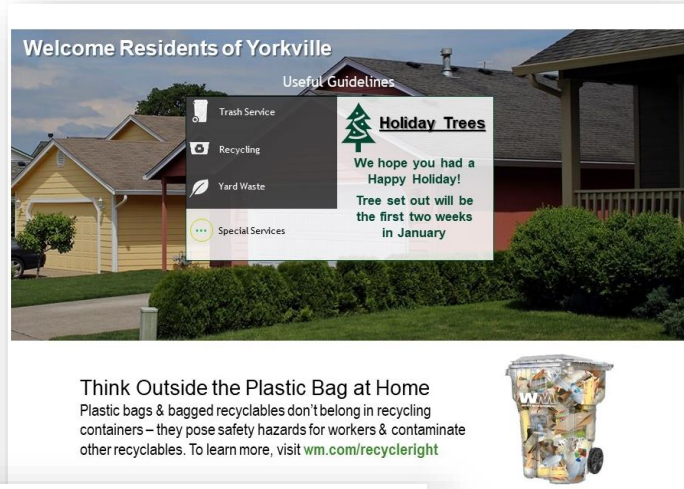
- Monthly Haul or Call Report

## Local Website

Waste Management will develop a customized website, tailored to the City of Yorkville that includes meaningful service information and resources that reflect the interests of your residents. Using Waste Management's local website, residents can easily find City-specific service information, disposal resources, rates, and recycling education. Residents can also:

- View pickup and holiday schedule
- Request a cart repair
- Report a missed pickup
- Sign up for autopay or make an online payment
- Enroll in paperless billing
- Edit account contact information

**These mockups illustrate this additional option for convenient outreach. We will work with Yorkville to customize all content.**



## SAFETY – A CORE VALUE FOR WASTE MANAGEMENT

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As you know, with WM as your provider – safety will remain a #1 priority for all of our operations in and around Yorkville. As a reminder - historically, waste collection, processing and disposal have ranked among the most dangerous occupations in North America – in fact, the U.S. federal government ranks trash and recycling collection among the top 10 most dangerous jobs in the country.

Our employees who collect waste spend much of their workday in traffic, lifting heavy items, operating large vehicles and heavy machinery - all of which can lead to injuries. It is our duty to take every sensible step to prevent injuries in the workplace and return our employees home safely every night. Likewise, Yorkville depends on us to safely collect, process, and dispose of their wastes while being mindful of our actions to protect the environment that we share.

Therefore, safety is not just a priority for Waste Management, because priorities often change, safety is a core value for our company. We understand the magnitude of the responsibility we have and strive to confirm that each task, piece of equipment, and company policy and procedure reinforces safe actions and behaviors.

Overall injury rates in our industry have improved substantially in recent years and Waste Management's performance in this area has ranked among the best. We actively work with our trade association, the National Waste & Recycling Association, to advance safety within our industry and among our customer base.

You do not need to search long to see how we fulfill our commitment to safety – it is woven into everything we do – from hiring practices to training to advancing safety technologies to preventive maintenance.

### Our Mission to Zero™

Our internal safety philosophy that we call Mission to Zero™ (or M2Z) means zero tolerance for unsafe behaviors by all employees, with a goal of zero accidents and injuries. All operational employees benefit from the program's safety training, rulebooks, fleet processes, and standard practices. Over the years, the M2Z approach has resulted in programs that have improved safety performance, including worker injury rates, vehicle collision prevention, and safety leadership development. The program, which ranks among the most far-reaching and comprehensive worker safety plans in our industry, involves classroom instruction, route observation, monitoring of safety data, and driver training. Since its adoption, we have seen significant improvements in on-the-job safety.

### Elevating Our Safety Performance – From Compliance to Commitment

WM is committed to continuous improvement to help our team members protect our communities and return home safely every day. Following are just some of the commitments we make to elevate our safety performance.

- Taking an inclusive, People First approach with a comprehensive assessment to review our safety processes, policies, and performance. Driving continuous improvement requires fresh perspectives. Answers to some of our toughest challenges reside with our people, so we are seeking open and honest feedback to elevate our safety culture.
- Conducting surveys with our employees to gain valuable insights to help us drive change going forward, ultimately taking our safety program to the next level.
- Working toward a world-class culture where every team member understands the importance of safety as a core value and models safe behaviors in all that we do.



**SAFETY  
ALWAYS.**

## Advancing Safety Technology for Yorkville

Our great strides in safety performances reflect an ongoing strategy to leverage technology in our safety processes. In recent years, our Service Delivery Optimization (SDO) program has significantly improved collection and maintenance operations by optimizing our systems through technology that includes onboard computers, routing software and cameras.

### DriveCam®: Intelligent Dashcam Technology for Safer Collection

DriveCam®, one of the safety innovations onboard our trucks, goes beyond traditional dashcams by pairing machine vision with artificial intelligence to identify risks as they occur on the road and respond to the driver with real-time coaching.

DriveCam is mounted on the windshield of the interior cab with cab-facing and road-facing cameras. When an unsafe condition is detected, such as critical following distance, lane departure, or imminent collision, the device visually and audibly alerts our drivers, providing an opportunity for self-correction.

Additionally, if an event is detected, video data is sent to Waste Management route managers for followup performance coaching with the driver. Recorded events also help us appreciate the many times that our drivers avoid collisions through using proper defensive driving techniques. We believe our investment in DriveCam has contributed to reducing our reported vehicle accidents by almost 80 percent since 2005.

DriveCam's latest technology is currently being installed in Waste Management trucks with a full rollout expected by summer 2021.



#### Extra Eyes on Your Roads

Waste Management drivers can manually trigger recording of video on the DriveCam in the event they witness an emergency situation or suspicious activity.



For an in-depth look at DriveCam, visit <https://youtu.be/NDvacIfHxy8>.

## Back Up Cameras on All Vehicles

All Yorkville vehicles include back up cameras that provide a view of the area behind the truck whenever the truck is in reverse. This reduces the potential for backing accidents and enhances pedestrian safety.

## Leading Safety with Onboard Technology Advancements

<b>On-Board Methane Detection</b>	On CNG-powered trucks, methane detectors provide immediate visual and audible alarm for potential leaks from fuel tanks or lines.
<b>Maximum Idle Time Limit</b>	After five minutes, engines turn off to reduce fuel consumption and exhaust emissions.
<b>Electric Heated Rear View Mirrors</b>	Provides fog and frost-free view of both sides of the truck. Mirrors are adjustable electronically from the driver's seat to provide an unrestricted view of the sides and rear on the truck.
<b>Bus-Boy Mirrors</b>	Angled convex mirrors allow the driver an unrestricted view of the area in front of the truck. Especially valuable when children and/or adult pedestrians are present.
<b>Trapezoidal Side Lights</b>	Floodlights located halfway down the side of the body come on automatically when the truck is in reverse. Bright flood lighting illuminates both sides of the truck and roadway providing added safety.
<b>LED Strobe Lights and Flashers</b>	Enhances rear of truck visibility for approaching motorists. Improves safety for helpers while working at the rear of service trucks.
<b>Sears Air Ride Drivers Seat</b>	Provides added comfort and excellent ergonomics for the driver. Includes eight-way adjustability including lumbar support to help reduce driver fatigue and improve overall performance.
<b>Reflective Signage/Striping</b>	Highly reflective rear of vehicle striping and signage to provide exceptional visibility when approaching trucks from the rear during nighttime hours.
<b>Heavy Duty Disc Brakes</b>	Provide the best stopping distance for heavy trucks in the industry. Exceeds all applicable Federal Motor Vehicle Safety Administration requirements.
<b>Electromagnetic or Hydraulic Driveline Retarders</b>	Retarders are silent and provide additional braking capacity. Eight-inch-wide rear brake lining also increases braking capacity and improves vehicle safety.
<b>Four Braid Hydraulic Hoses</b>	Part of Waste Management's standard truck body specification, doubling the safety margin against high-pressure hydraulic leakage.

## Safety: A Commitment to Our Customers and Our Employees

There may be no other consideration as important as safety when selecting a service provider for your home, your place of work, or your community. Without a doubt, safety matters. It is no surprise that after a tragedy most will say that as long as their family is healthy and safe, nothing else matters - material items can always be replaced.

At Waste Management, we all recognize safety as a core value - from our local District Manager to the drivers, mechanics and staff who represent each district. With a constant focus on and meaningful investments in training, technologies, maintenance and continuous improvement, we will deliver safe and



reliable collection services that protect the customers we serve, the people we employ and the environment we share.



### **CNG (Compressed Natural Gas) Trucks: Cleaner, Quieter, and Cost-Effective**

Waste Management is proudly transitioning its fleet of trucks to Compressed Natural Gas or CNG. CNG is a fuel used in place of gasoline or diesel that when combusted produces fewer undesirable gases than gasoline or diesel, resulting in improved air quality emissions.

In fact, CNG trucks emit nearly zero particulate emissions, reduce greenhouse gas (GHG) emissions by 15 percent, and cut smog-producing NOx emissions by 50 percent compared to the cleanest diesel trucks. In another effort to improve air quality, the engines automatically turn off after five minutes of idling to further reduce emissions and conserve fuel. CNG engines run much quieter than diesel trucks – many customers have commented that they cannot even hear our quieter CNG trucks coming down the street.

While our “last generation” natural gas engine cuts smog-producing nitrogen oxide (NOx) emissions by up to 50 percent compared to the cleanest diesels, our 2017 near-zero-emission natural gas engine (ISL-G “NZ”) is the cleanest heavy-duty machine ever certified by the California Air Resources Board (CARB).

Waste Management helped pioneer this engine with Cummins, and it now provides a 95 percent reduction in NOx emissions compared to the current NOx standard and a 93 percent reduction in NOx compared to the latest diesel engine technology. Additionally, the new engine is already certified at 16 percent below the current GHG emission standard and is 12 percent below the 2027 standard.

### **Driving Fewer Miles**

Efficient logistics are also an effective way to reduce fleet emissions. The logic is simple: a more efficient route means fewer miles traveled, and that translates into reduced fuel consumption and associated emissions. Since 2017, Waste Management’s fleet has reduced miles driven by 2 percent, which equates to an approximate 8.9 million fewer miles a year. Optimizing routes not only reduces our environmental impact, but also increases the quality of service. As we have driven fewer miles, we have improved the number of stops missed for both commercial and residential customers.

## 14 | CONCLUSION

Waste Management is your longtime environmental solutions partner. We have provided collection services for the City of Yorkville for many years. You are familiar with our company, our team, and our professional approach over the long term, and we are excited about the opportunity to continue to work with you in managing your collection needs.

We believe this to be a significant contract for both Waste Management and the City of Yorkville. As your long-term partner, we are strongly invested in your community and want to be your waste solutions provider of the future. We understand your priorities, the way you work, and what makes your community such a great place to live, work, and play. This makes us uniquely qualified to provide tailored services to meet your operational needs and the ever-evolving expectations.

Secondly, we are committed to strengthening our current relationship by continuing to provide high-quality, reliable service for the entire term of the contract extension. We have already shown ourselves to be a dependable partner in our current contract. We have the resources to make needed adjustments, when necessary, to facilitate continued satisfaction for your residents. Waste Management intends to continue to offer uninterrupted stability backed by innovation, value, and price, and to be an active partner in attaining your goals.

Lastly, continuing a partnership with Waste Management will provide your community with uninterrupted, reliable service delivery for an essential and highly regulated operation. There will be no transition period where costly mistakes and problems are most likely to occur, as our team is intimately familiar with your operations and has developed a strong working partnership with your staff. Our best-in-class transfer stations, landfills, and recycling operations, along with our industry-leading safety and environmental practices, will continue to give you the peace of mind that your waste is being managed in full compliance with all regulatory requirements and standards.

**Waste Management is dedicated to being the best environmental solutions partner for the City of Yorkville now and in the future.**

### WHY CHOOSE WASTE MANAGEMENT?

For starters, we have an amazing

**99.99%**

pickup accuracy – and we know your City.

And that means Darien gets fewer calls about service concerns.



Reviewed By:	
Legal	<input type="checkbox"/>
Finance	<input type="checkbox"/>
Engineer	<input checked="" type="checkbox"/>
City Administrator	<input checked="" type="checkbox"/>
Human Resources	<input type="checkbox"/>
Community Development	<input type="checkbox"/>
Police	<input type="checkbox"/>
Public Works	<input type="checkbox"/>
Parks and Recreation	<input type="checkbox"/>

Agenda Item Number

New Business #5

Tracking Number

PW 2021-73

### Agenda Item Summary Memo

**Title:** Well No. 4 Rehabilitation – Bid Award

**Meeting and Date:** Public Works Committee – December 21, 2021

**Synopsis:** Consideration of Award

#### Council Action Previously Taken:

Date of Action: \_\_\_\_\_ Action Taken: \_\_\_\_\_

Item Number: \_\_\_\_\_

**Type of Vote Required:** Majority

**Council Action Requested:** Consideration of Award

**Submitted by:** Brad Sanderson Engineering  
Name Department

#### Agenda Item Notes:

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# Memorandum

To: Bart Olson, City Administrator  
From: Brad Sanderson, EEI  
CC: Eric Dhuse, Director of Public Works  
Rob Fredrickson, Finance Director  
Jori Behland, City Clerk

Date: December 13, 2021  
Subject: Water Well No. 4 Rehabilitation

As a reminder, the water levels in the City's groundwater supply aquifers continues to decline. The water level in Well 4 has declined to within 50-feet of the pumping assembly and is trending towards a point where the pump could be pumping air in the near future, which could lead to catastrophic failure of the pumping equipment. Therefore, it is important to lower the pump setting as soon as possible. This provides an opportune time to also rehabilitate/replace components of the well equipment.

Bids were received, opened and tabulated for work to be done for Water Well No. 4 Rehabilitation at 10:00 a.m., December 7, 2021. Representatives of contractors bidding the project, the City, and our firm were in attendance. A tabulation of the bids and the engineer's estimate is attached for your information and record.

The Bid Schedule consists of a Base Bid Schedule for items that are certain to be required for the project and a Mandatory Alternate Bid Schedule for items that may be required. The pump and motor must be removed from the well and the equipment inspected before a determination can be made regarding the necessity of the Mandatory Alternate Bid Items. Obtaining pricing for these items during the bid promotes competitive pricing from the contractors and helps protect the City against cost escalations during the project. Furthermore, there are some Mandatory Alternate Bid Items that are more likely to be utilized than others, depending on known conditions at the current time, and careful consideration of these items is essential in determining the potential total cost of the project.

The project was advertised in the newspaper (The Beacon) and online (Quest.com); EEI also notified three (3) local well contractors, Municipal Well & Pump, Water Well Solutions (WWS), and Layne Christensen Company (Layne), of the project. On December 7, 2021, the City received a bid proposal from Layne and a letter from WWS explaining their reasons for not submitting a bid proposal for this project. WWS's letter documents their unsuccessful attempts to obtain pricing from Layne for Byron Jackson/Flowserve pump and motor (well equipment); attached is a copy of the letter for your information and record.

Ultimately, it is Layne's decision on whether to provide pricing for Byron Jackson/Flowserve well equipment to their competition. While we knew it was possible for Layne to control the distribution of bid pricing for the well equipment, we felt it was in the City's best interest to move forward with the Byron Jackson/Flowserve well equipment because they supplied the existing equipment in Well No. 4 (and every other well in Yorkville); and the well equipment has served the City's water supply needs effectively over the years. The City's operations staff is very familiar with the operation and maintenance of Byron Jackson/Flowserve well equipment,

which is another advantage of utilizing Byron Jackson/Flowserve for this project. Furthermore, it should be noted that Layne provided the services for drilling Well No. 4 and installing the original pump and motor equipment, which gives them a knowledge of the well and equipment that will be beneficial during this project.

Lastly, the following language was contained within the bid documents providing the City with flexibility in selecting a contractor:

The OWNER reserves the right to reject any and all bid proposals, to contract work with whomever and in whatever manner the OWNER decides, to abandon the work entirely, or to waive any informality or non-substantive irregularity as the interest of the OWNER may require.

At this time, we recommend the acceptance of the bid and approval of award be made to Layne Christensen Company, 721 W. Illinois Ave., Aurora, IL 60506, in the amount of **\$286,627.00**. This bid amount is 3.6% below our engineer's estimate of \$297,400.

If you have any questions or require additional information, please let us know.

**UNITED CITY OF YORKVILLE**  
**"WATER WELL NO. 4 REHABILITATION"**  
**BID TAB**

				<b>ENGINEER'S ESTIMATE</b>		<b>LAYNE CHRISTENSEN CO</b> 721 W. Illinois Ave. Aurora, IL 60506	
<b>ITEM NO.</b>	<b>ITEM</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>AMOUNT</b>	<b>UNIT PRICE</b>	<b>AMOUNT</b>
<b>BASE BID ITEMS</b>							
1	MOBILIZATION, INCLUDING PERFORMANCE AND PAYMENT BONDS	LS	1	\$ 7,500.00	\$ 7,500.00	\$ 5,000.00	\$ 5,000.00
2	REMOVE EXISTING SHELTER, PUMPING ASSEMBLY, MOTOR, COLUMN PIPING AND APPURTENANCES FROM WELL & TRANSPORT TO SHOP FOR INSPECTION, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 26,000.00	\$ 26,000.00	\$ 32,300.00	\$ 32,300.00
3	INSPECT PUMPING ASSEMBLY AND PREPARE MICROMETER REPORT; INSPECT SUBMERSIBLE MOTOR INCLUDING SEAL, OUTER CAN, BALANCE LINE, TERMINAL LEADS, ELECTRICAL CONNECTIONS, ETC.; INSPECT COLUMN PIPING, SURGE CONTROL CHECK VALVE, AND PREPARE COMPLETE INSPECTION REPORT, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 10,500.00	\$ 10,500.00	\$ 5,900.00	\$ 5,900.00
4	HYPOT TEST THE EXISTING POWER CABLE, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 1,050.00	\$ 1,050.00	\$ 1,035.00	\$ 1,035.00
5	CONDUCT TELEVISION SURVEY, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 1,600.00	\$ 1,600.00	\$ 1,550.00	\$ 1,550.00
6	PERFORM AIR BURST REHABILITATION OF WELL FORMATION, IN ACCORDANCE WITH THE SPECIFICATIONS	LF	180	\$ 100.00	\$ 18,000.00	\$ 95.00	\$ 17,100.00
7	PERFORM BAILING WITH RIG AND TWO-MAN CREW, IN ACCORDANCE WITH THE SPECIFICATIONS	HR	8	\$ 600.00	\$ 4,800.00	\$ 595.00	\$ 4,760.00
8	FURNISH NEW (FACTORY-BUILT) BYRON JACKSON/FLOWSERVE PUMPING ASSEMBLY, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	1	\$ 55,000.00	\$ 55,000.00	\$ 50,032.00	\$ 50,032.00
9	REHABILITATE EXISTING BYRON JACKSON/FLOWSERVE OIL FILLED MOTOR ASSEMBLY, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	1	\$ 10,000.00	\$ 10,000.00	\$ 5,100.00	\$ 5,100.00
10	FURNISH PITLESS ADAPTER O-RINGS, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	2	\$ 85.00	\$ 170.00	\$ -	\$ -
11	FURNISH 1-1/2" PVC CARRIER PIPE FOR LEVEL TRANSDUCER, IN ACCORDANCE WITH THE SPECIFICATIONS	LF	790	\$ 2.00	\$ 1,580.00	\$ 2.50	\$ 1,975.00
12	FURNISH NEW LEVEL TRANSDUCER CABLE (WITH SPLICE), AS REQUIRED TO MEET THE APPROPRIATE DEPTH SETTING OF THE PUMP AND MOTOR, IN ACCORDANCE WITH THE SPECIFICATIONS	LF	150	\$ 40.00	\$ 6,000.00	\$ 4.50	\$ 675.00
13	FURNISH A NEW FLAT CABLE MOTOR ASSEMBLY AND BRONZE TERMINAL CLAMP, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 7,200.00	\$ 7,200.00	\$ 6,658.00	\$ 6,658.00
14	FURNISH NEW POWER CABLE (WITH SPLICE), AS REQUIRED TO MEET THE APPROPRIATE DEPTH SETTING OF THE PUMP AND MOTOR, IN ACCORDANCE WITH THE SPECIFICATIONS	LF	150	\$ 120.00	\$ 18,000.00	\$ 92.00	\$ 13,800.00
15	REHABILITATE THE 10-INCH COLUMN PIPING, IN ACCORDANCE WITH THE SPECIFICATIONS	LF	450	\$ 30.00	\$ 13,500.00	\$ 31.00	\$ 13,950.00
16	FURNISH NEW 10-INCH COATED DISCHARGE COLUMN PIPING WITH THREADED COUPLINGS, SET SCREWS AND APPURTENANCES, AS REQUIRED FOR A COMPLETE ASSEMBLY IN ACCORDANCE WITH THE SPECIFICATIONS	LF	340	\$ 100.00	\$ 34,000.00	\$ 135.00	\$ 45,900.00
17	CUT AND RE-THREAD COLUMN PIPING JOINTS, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	20	\$ 275.00	\$ 5,500.00	\$ 330.00	\$ 6,600.00
18	FURNISH NEW COLUMN PIPING COUPLINGS, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	20	\$ 300.00	\$ 6,000.00	\$ 276.00	\$ 5,520.00
19	CHASING COLUMN PIPING JOINTS, IN ACCORDANCE WITH SPECIFICATIONS	EA	10	\$ 125.00	\$ 1,250.00	\$ 200.00	\$ 2,000.00
20	FACING COLUMN PIPING JOINTS, IN ACCORDANCE WITH SPECIFICATIONS	EA	10	\$ 125.00	\$ 1,250.00	\$ 200.00	\$ 2,000.00
21	FURNISH A 10" DIAMETER BY 2'-6" LONG STAINLESS STEEL PIPE WITH ENDS FOR CONNECTING BETWEEN PUMPING ASSEMBLY AND COLUMN PIPING, AS REQUIRED FOR A COMPLETE ASSEMBLY, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 3,500.00	\$ 3,500.00	\$ 900.00	\$ 900.00
22	FURNISH DISCHARGE COLUMN SURGE CONTROL CHECK VALVE, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	2	\$ 1,600.00	\$ 3,200.00	\$ 1,536.00	\$ 3,072.00
23	FURNISH STAINLESS STEEL BANDING, PIPE DOPE, PVC CENTERING GUIDES, TWO (2) AIRLINES, GAUGES, AND OTHER MISC. FITTINGS FOR COMPLETE INSTALLATION OF PUMP AND MOTOR ASSEMBLY, AND WELD COUPLING TO PITLESS ADAPTER FOR LEVEL TRANSDUCER INSTALLATION, IN ACCORDANCE WITH SPECIFICATIONS	LS	1	\$ 4,000.00	\$ 4,000.00	\$ 2,600.00	\$ 2,600.00
24	INSTALL THE PUMP AND MOTOR ASSEMBLY, SHELTER, COLUMN PIPING, DISCHARGE SURGE VALVES, POWER CABLE, TWO (2) AIRLINE WATER LEVEL INDICATORS, CARRIER PIPE FOR LEVEL TRANSDUCER, EXISTING LEVEL TRANSDUCER, AND ALL ACCESSORIES COMPLETE IN PLACE AND IN OPERATING CONDITION, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 40,000.00	\$ 40,000.00	\$ 39,700.00	\$ 39,700.00
25	CONDUCT PUMPING TEST, IN ACCORDANCE WITH THE SPECIFICATIONS	HR	4	\$ 1,200.00	\$ 4,800.00	\$ 1,250.00	\$ 5,000.00
26	PERFORM WELL DISINFECTION, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	2	\$ 4,000.00	\$ 8,000.00	\$ 4,250.00	\$ 8,500.00
27	DEMOBILIZATION, INCLUDING SITE RESTORATION	LS	1	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
<b>TOTAL FOR ITEMS 1 THROUGH 27 AND TOTAL BASE BID FOR WELL NO. 4 REHABILITATION</b>				<b>\$ 297,400.00</b>		<b>\$ 286,627.00</b>	

				ENGINEER'S ESTIMATE		LAYNE CHRISTENSEN CO 721 W. Illinois Ave. Aurora, IL 60506	
ITEM NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
MANDATORY ALTERNATE BID ITEMS - WELL NO. 4 REHABILITATION							
A	FURNISH SODIUM HYPOCHLORITE - LIQUID FOR CHEMICAL TREATMENT OF WELL	GAL	10	\$ 12.00	\$ 120.00	\$ 7.00	\$ 70.00
B	REHABILITATE EXISTING BYRON JACKSON/FLOWSERVE PUMPING ASSEMBLY, INCLUDING SANDBLASTING AND PAINTING THE PUMP, NEW WEAR RINGS AND BUSHINGS, NEW PUMP SHAFT, NEW SS INTAKE SCREEN, AND ZINC SLEEVE BANDING, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	1	\$ 30,000.00	\$ 30,000.00	\$ 15,600.00	\$ 15,600.00
C	CONVERT EXISTING BYRON JACKSON/FLOWSERVE OIL FILLED TYPE H MOTOR ASSEMBLY TO DOUBLE MECHANICAL SEAL MOTOR AT BYRON JACKSON/FLOWSERVE FACILITY, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	1	\$ 150,000.00	\$ 150,000.00	\$ 68,400.00	\$ 68,400.00
D	FURNISH A NEW BYRON JACKSON/FLOWSERVE DOUBLE MECHANICAL SEAL MOTOR ASSEMBLY WITH NEW FLAT POWER CABLE ASSEMBLY AND BRONZE TERMINAL CLAMP, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	1	\$ 210,000.00	\$ 210,000.00	\$ 121,630.00	\$ 121,630.00
E	FURNISH NEW ZINC SLEEVE BANDING ON INSIDE AND OUTSIDE OF COLUMN PIPING, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 25,000.00	\$ 25,000.00	\$ 14,650.00	\$ 14,650.00
F	FURNISH NEW POWER CABLE (NO SPLICE), AS REQUIRED TO MEET THE APPROPRIATE DEPTH SETTING OF THE PUMP AND MOTOR, IN ACCORDANCE WITH THE SPECIFICATIONS	LS	1	\$ 29,000.00	\$ 29,000.00	\$ 72,900.00	\$ 72,900.00
G	FURNISH NEW (SHOP-BUILT) BYRON JACKSON/FLOWSERVE PUMPING ASSEMBLY, IN ACCORDANCE WITH THE SPECIFICATIONS	EA	1	\$ 60,000.00	\$ 60,000.00	\$ 45,630.00	\$ 45,630.00



December 3, 2021

United City of Yorkville  
c/o Engineering Enterprises Inc.  
800 Game Farm Road  
Yorkville, IL 60560

Attn: United City of Yorkville Officials & Engineering Enterprises Inc. Staff

**RE: Well # 4 Rehabilitation Bid**

Dear All-

Water Well Solutions Illinois, LLC would appreciate the opportunity to provide our well and pump services to the United City of Yorkville for this project and future projects. We have an extensive history in the region, working on a variety of pumping equipment, including Byron Jackson/Flowserve pumps. We were unable to submit a proposal for this bid due to the restrictive nature of the specifications, that only allow a sole source vendor to provide services and equipment.

Specifically, the bid sections pertaining to the motor service by a "Byron Jackson factory trained" service representative and the new equipment for an Oil Filled Type M double mechanical seal motor only being a Byron Jackson/Flowserve motor remove competitiveness from this bid. There is only one service provider that can provide either formality, namely Layne Christensen Company. Despite efforts in our past to request pricing from Byron Jackson/Flowserve they refuse to provide due to business reasons.

We've inquired about alternatives that have been highly successful and are technically and functionally appropriate for this installation. Because there are no alternatives being acceptable, this becomes a sole source bid for a large project.

**Financially**, based on our previous experiences with similar bid specifications, we've found that clients often pay a heavy premium. Specifically, we've seen the public bid in Elwood in 2019, which had similar specifications, the sole source bidder was approx. \$120,000 more expensive than the lowest bidder, on a \$375-\$400K project. Similarly, a Winnebago County bid was postponed in 2019 after their bid results showed an almost double in cost (\$60k vs \$116K) due to the sole source specifications. In addition, Mooseheart the low bidder was WWS at \$100K, the Byron Jackson dealer was \$100K over the lowest responsible bidder.

Below we've outlined some facts regarding the vendor specifications, as well as our qualifications which we are confident qualify us in addition to Layne Christensen Company, alleviating the sole source situation and providing fiduciary benefit to the Village. Our corporate resume is attached, and note, we have two Licensed Professional Engineers (P.E.'s) on staff, in addition to 4 licensed well drillers and pump installers in Illinois, who have extensively reviewed your specifications and requirements. We can provide more detail and public bid tabs if requested.

**Byron Jackson Type H Motor Qualifications**

In regard to the Byron Jackson pumping equipment, Water Well Solutions is among the most experienced well contractors who have pulled, serviced and reinstalled BJ type H motors in Northern IL. Please see our attached partial reference list of clients we've pulled these BJ's for, and we can discuss further upon request. Water Well



Solutions is licensed by the State of Illinois to conduct ALL scope of work in the bid and has been qualified by the State for this work. We offer any and all warranty on workmanship that is provided by any other contractor working on the Byron Jackson Type H motor.

Regarding the Byron Jackson Factory Trained Technician portion of the spec, our foreman Doug Mynatt has extensive experience with the Byron Jackson, and has worked at Layne Christensen Company, during which he was among those "qualified factory trained technicians" to perform the onsite service. We have generally seen this specification being recommended by a sole source vendor, since it is loosely defined and provided in writing only to a single vendor for sales and business purposes. Our field crews are extensively trained and qualified in the removal, servicing, and reinstallation of the Byron Jackson mercury sealed motors. Our crew foreman have over 30 years' experience with the Byron Jackson Type H seal as well as our management team. We have provided these services for numerous clients in the N. IL region, for motors up to 500HP and 2300V.

#### **New Oil Filled Double Mechanical Sealed Type M motor**

Water Well Solutions and every other contractor can provide a new Oil-filled Sunstar Type M 2300v 16" motor as a replacement. Note, **there is no monopoly on the oil filled double mechanical seal design**, as Sunstar Electric has a Type M Oil filled motor that matches the Byron Jackson Type M in performance and is frequently utilized across the country in deep set submersibles. Attached is information and reference lists of the Sunstar Type M motor.

Attached to our bid are the following documents for your review:

1. Corporate Resume & Key Personnel
2. Reference List: Byron Jackson Type H motor pull/service completed by WWS with contact information
3. Reference List: Sunstar Motor installations with installation dates, including installs for over 10 years by WWS
4. Sunstar Type M motor information, drawings, specifications
5. National Reference List: Sunstar Type M motor installations since before 2011 (over 10 yrs) across the country
6. ITT/Goulds Dealer factory training letter
7. Sunstar Motor authorization letter and certification
8. Major Equipment List
9. Byron Jackson Type H technical manual utilized by WWS technicians for successful service of Type H motors.
10. Byron Jackson Type H pump removal procedures manual utilized by WWS technicians

These documents are intended for your review and consideration as part of our qualifications to complete the scope of work for this project.

Water Well Solutions values our relationship with the United City of Yorkville and look forward to working with you. WWS welcomes the chance to provide you a proposal for this project and help provide fiscally responsible service to help the City in their fiduciary pursuits. As always, please feel free to contact me directly on my cell at (630) 201-0749 or via email at [todd.kerry@wwsg.com](mailto:todd.kerry@wwsg.com). Thank you.

Sincerely,



Todd Kerry

Vice President

**Water Well Solutions Illinois, LLC**



### **EXPERIENCE LIST FOR KEY ADVISORY & TECHNICAL PERSONNEL:**

Water Well Solutions Service Group, Inc. is a full service water well contractor. Our main clientele consists of municipalities, industries, agriculture, commercial and other high capacity, multi-well facilities. Our main services consists of: well site investigation /selection; well construction and pump design/installation; well reconstruction/rehabilitation; pump repair/redesign; as well as other well house appurtenances such as: electrical controls; discharge piping; chemical treatment instruments; etc. It is our desire to develop a sole source company for providing our clients the highest quality and most cost effective solutions for the servicing of any and all the interior components of a typical water well facility. We are most widely recognized for our diverse team of professionals, and the team's ability to develop and utilize unique water well technologies to provide the best solution for water well redevelopment.

Water Well Solutions Service Group, Inc. was developed in November of 2000 by the company principals Michael E. Judkins and Mark W. Thurow along with the assistance of other key employees. Mr. Judkins and Mr. Thurow shared the duties of president, vice president, secretary, and treasurer of the corporation. The company was expanded to service the Illinois market through a relationship with business partner Todd Kerry with the development of Water Well Solutions Illinois Division, LLC, a wholly owned subsidiary of WWSSG, Inc. with offices in Oconomowoc, WI and Elburn, IL. Currently Water Well Solutions Illinois LLC and Water Well Solutions Wisconsin, LLC service the Midwest region.

#### **SENIOR PROJECT ENGINEERS:**

**Michael E. Judkins – President/CEO** is a 1987 graduate of the University of Wisconsin-Madison, with a Bachelor of Science degree in Geology and Geophysics. Following school he spent 9 years with Layne Christensen in the water well, environmental and mining industries. He then joined Municipal Well & Pump in 1995 and continued as a project engineer until October 2000. In 2000, Michael co-founded Water Well Solutions Service Group, Inc. and acted as President and CEO. Currently he is the President and CEO of Water Well Solutions Illinois LLC and Water Well Solutions Wisconsin LLC.

**Todd E. Kerry – Vice President** is a graduate of Northern Illinois University in DeKalb, IL and worked his way through College as the third generation water well drilling and pump installation contractor with Meadow Equipment Sales & Service, Inc. After graduating, he spent 3 years in the field as an installer and drilling assistant on rotary and cable tool projects and in 1998 he was promoted to a Project Engineer where he continued until 2009. Todd then joined WWS as a Senior Project Manager to manage the Illinois Division. He also sits on the Board of Directors with the Illinois Association of Groundwater Professionals being elected by his peers to represent them.

**Peter Bennin** joined the company in June of 2006 as a project manager. Peter worked as both a field service technician and a project manager with Municipal Well and Pump for the last 13 years. He has extensive experience with both line shaft and submersible turbine pumps. In addition, Peter is a state of Wisconsin certified water operator and a licensed pump installer. He is a factory authorized start-up technician for ABB ACS 550 Variable Frequency Drives and has experience troubleshooting and repairing all types of electrical control equipment. He has successfully completed both the OSHA 40 HR hazardous waste operations training course and the permit required confined spaces training course.

**David J Grutzik, P.E.** is a 1982 graduate of Iowa State University with a Bachelor of Science degree in Civil Engineering and holds a Professional Engineer certification. From 1984 to 1990, he was the Director of Public Works in Weston, WI. From 1990 to 1996 he was the branch manager for Layne Northwest. From 1996 to 2004, he was an owner/partner of Civil Professional Consultants (CPC), a consulting engineering company. In 2004,

CPC successfully merged with Central Wisconsin Engineering (CWE). Dave's role at CWE was head of architecture and vice president. He then joined Water Well Solutions in the spring of 2013 as a senior project engineer.

#### **OPERATIONS MANAGERS & KEY FIELD PERSONNEL:**

**Mike Nailor** is our Illinois Division Field Operations Manager with more than 15 years experience at Meadow Equipment Sales & Service, Inc.

**Jon Kohlmetz** is our Wisconsin Field Operations Manager and joined the company in January of 2007. Both are also tasked as site safety managers to ensure safe working conditions on the jobsite.

WWS has recognized continued growth throughout the years with the acquisition of the highest quality machinery and equipment, and the addition of talented personnel. Our operations staff is comprised of talented individuals with an impressive number of years of service. Randy Williams is A lead cable tool drilling superintendents, and have in excess of 50 years combined experience. These gentlemen are supported by Jon Kohlmetz, our Shop Superintendents and our field staff Doug Mynatt, Shawn Tremaine, Andy Burbach, Matt Flak, Jeremy Hoberg , Craig Jones, Ronaldo Warren, Jim Cleary, Jack Bark, Mike Richards, Matt Werhane, , Gary Rickmon and Dave Knutson.

**BYRON JACKSON QUALIFICATIONS:** our field staff have over 30 years experience pulling, servicing and reinstalling Byron Jackson Mercury sealed motors, ranging from 75-500HP 460 & 2300V motors.

Among our certifications for our field crews are:

- OSHA crane certification
- OSHA Rigger Certified
- OSHA Certified Crane Signal Person
- MSHA trained
- Three Rivers Training with additional site specific Ineos training
- Local 150 Operating Engineers
  - 100Hr Advanced crane training w/ the union
- Health Hazards in Construction training certificate
- Arch Flash Training
- All Field Crews receive 3 days mandatory Safety Training refresher yearly
- Management Advanced Safety Training

#### **PARTNERING TECHNOLOGY:**

Water Well Solutions is honored to represent, and be supported by, such exclusive vendors as: “**AirBurst® Technologies**” & “**Hy-RIP**” for water well development and rehabilitation; “**Aquastream®**” suction flow control technologies for sand and contaminant control; “**Carus Chemicals**” & “**Pristine Chemicals**” for well rehabilitation specific chemistry; “**Layne Vertiline**” and “**American Turbine Pump**” line of vertical turbine and “**Centrilift**” as well as “**Sun-Star Electric**”, for submersible pumping equipment, submersible motor re-winds of all major manufactures, for submersible pumping equipment; etc. WWS is also a distributor of “**ABB Drives**”. Exclusive relationships with such industry recognized suppliers aid Water Well Solutions in maintaining a competitive and opportunistic position in the water well market place.

Water Well Solutions would like to recognize our new Illinois distributor status with **ITT Goulds Pump** as of 4/1/09. We are proud to be able to buy factory direct for Goulds products and services which offers WWS

purchasing power with Global support. Water Well Solutions would also like to recognize our exclusive agreement with **AirBurst® Technology** in Northern, IL as of 4/1/09. We are proud to be the sole provider of **AirBurst® Technology** throughout the entire state of Wisconsin and Northern Illinois, as well as a Semi-Exclusive provider in the remainder of the State of Illinois. Water Well Solutions Senior Project Managers worked to develop and perfect the **AirBurst® Technology** to what it is today. No other company has the knowledge, and application experience that WWS has to offer.

Water Well Solutions is very proud of our image and safety record and are sure you will be as equally impressed with the quality of our equipment and professionalism. We have enjoyed rapid growth by attracting the best people in the industry. We continue to strive to meet our client's individual requirements with professionalism and realistic solutions to their ever changing needs. We base our business on trust, and are confident our clients will appreciate our innovative, cost effective, and straightforward approach to all their water needs.



**Water Well Solutions**

**BJ type H Mercury motor Pull/service Reference List**

City of Romeoville IL  
615 ANDERSON DRIVE, ROMEOVILLE, IL  
Mr. Carl Groth  
(630)946-3550

Village of Western Springs IL  
740 Hillgrove Avenue, Western Springs IL  
Erin Duffy  
(708) 246-1800 ext 214

Large Petrochemical Manufacturing in Morris, IL  
Contact info upon private request

Village of Gilberts IL  
87 Galligan Rd. Gilberts IL  
Mr. John Castillo  
847.428.4167

Wasco Sanitary District  
P.O. BOX 9, WASCO, IL  
Jason Fowler  
630-208-9898

City of Warrenville, IL  
3S258 MANNING AVENUE, Warrenville IL  
John Satter  
630-393-9050

Village of Algonquin, IL  
110 MEYER DRIVE  
Jason Schutz  
847-658-2754

Elk Grove Village, IL  
600 LANDMEIER RD.,  
Scott Nailor  
847-734-8047

City of McHenry, IL  
333 S GREEN ST,  
Mr. Jon Schmitt  
815-363-2190

Lockport Township  
1018 MAITLAND DR, LOCKPORT, IL  
Mr. Larry McCasland  
815-834-3519

City of Crystal Lake  
100 W WOODSTOCK ST,



**Water Well Solutions**

Mr. Andrew Resek  
815-459-2020

City of Elgin  
150 Dexter Court, Elgin IL  
Nora Bertram  
(847)931-5605



**Water Well Solutions**

**Sun-Star Electric & ITT Goulds Installation Partial Reference List:**

	<b>Installation Date</b>
<b>Village of Hanover Park</b> 1 – 300Hp Sun-Star Motor & ITT Goulds Bowl	2011
<b>Village of Braidwood</b> 1 – 150Hp, S.S. Sun-Star Motor & ITT Goulds Bowl	2015
<b>Village of Elk Grove Village</b> 1 – 400Hp, Sun-Star 2300v Motor	2015
<b>Healthcare system N. IL</b> 2 – 250Hp, S.S. Sun-Star Motor & ITT Goulds Bowl	2003 & 2011
<b>City of Belvidere</b> 1 – 250Hp, Sun-Star Motor & ITT Goulds Bowls	2006
<b>Industrial Client</b> 1 – 100Hp, Sun-Star R Motor & Goulds Bowl	
<b>Private Cemetery Client</b> 1 – 150Hp, Sun-Star Type “R” Motor & BJ Bowl	2009
<b>Chicago Heights Steel Company</b> 1 – 75Hp, Sun-Star S.S. Motor	2004
<b>Crystal Lake</b> 400Hp to 200Hp Pumps & Motors	2008 on 400HP
<b>Manufacturer</b> 1 – 100Hp Motor	
<b>Industrial Client</b> 1 – 150Hp, 2300v, S.S. Sun-Star Motor & Goulds Bowl	2006-2017 well abandoned
<b>City of Morris</b> 2 – 200Hp, Sun-Star Type “R” Motors & ITT Goulds Bowls	2009



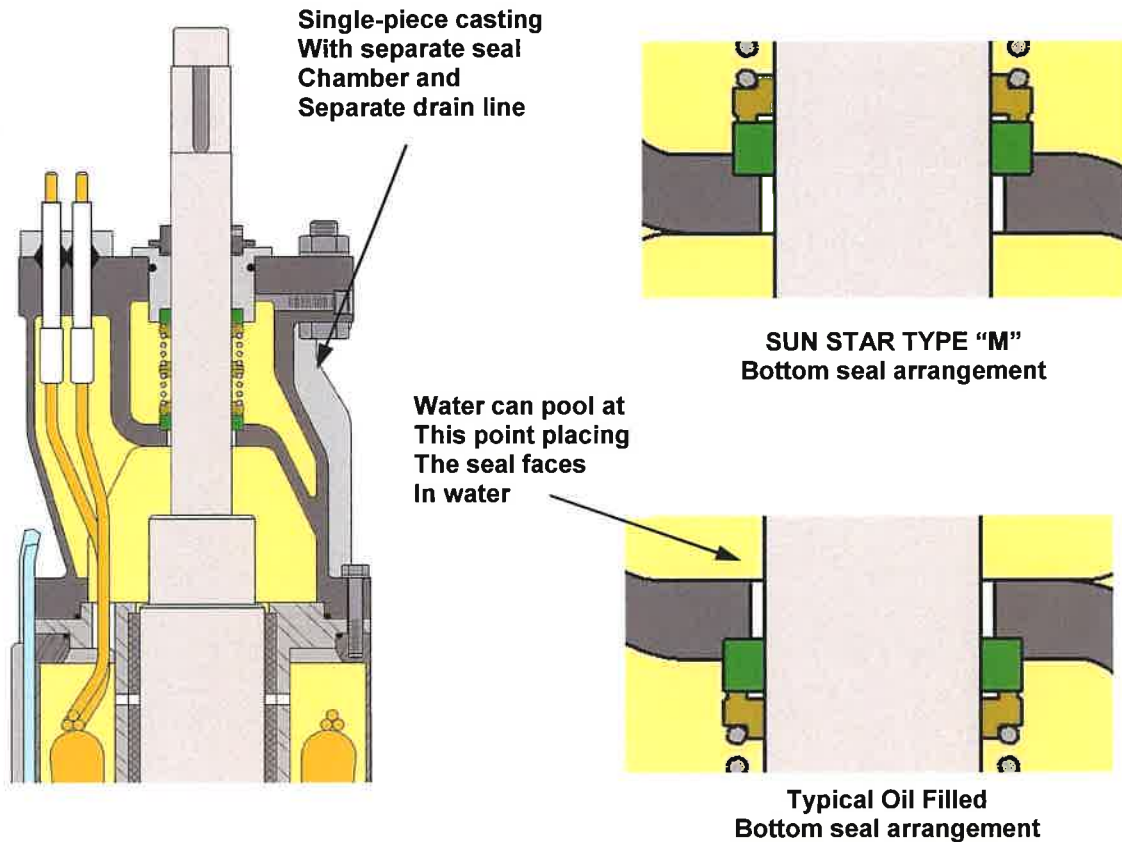
<b>Ashton, IL</b> 1 – 100HP Sunstar	2001
<b>National Lab</b> 1 – 250HP	2006
<b>Private Facility</b> 1 – 200Hp Sun-Star Motor & ITT Goulds Bowl	2005
<b>Village of Elwood</b> 2 – 350Hp Sun-Star Motors & ITT Goulds Bowls	2003
<b>City of Harvard</b> 1 – 250Hp Sun-Star Motor & ITT Goulds Bowl	2006
1- 400HP SunStar Type M Motor (installed by others)	2019
<b>Village of Plainfield</b> 2 – 300Hp Sun-Star Motors & ITT Goulds Bowls	2002
<b>City of Batavia</b> 1 – 300Hp Sun-Star Motor & ITT Goulds Bowl	2004
<b>Power Company</b> 1 – 200Hp Sun-Star 2300vlt Motor & ITT Goulds Bowl 1 – 175Hp Sun-Star R, 2300vlt Motor & ITT Goulds Bowl	2007
<b>Village of Western Springs</b> 1 – 400Hp Sun-Star R (BJ rebuild) Motor & BJ Bowl	2020
<b>Village of Libertyville</b> 1 – 250Hp Sun-Star Type M Motor & Goulds Bowl	2020

• Additional References Available Upon Request:





## MECHANICAL SEAL CONFIGURATION



The **TYPE "M"** motor is designed and constructed with two metal bellows, special duty seals. Standard material of construction for the primary components are:

Bellows	:	AM350 Stainless Steel
Metal parts	:	316 Stainless Steel
Seal Faces	:	Tungsten Carbide
O-Rings	:	Viton

The metal bellows type seal allows for more extreme adjustments (rotor lateral) than the rubber elastomers in standard mechanical types. These hydraulically balanced seals insure virtually zero leakage at higher temperatures and pressures.

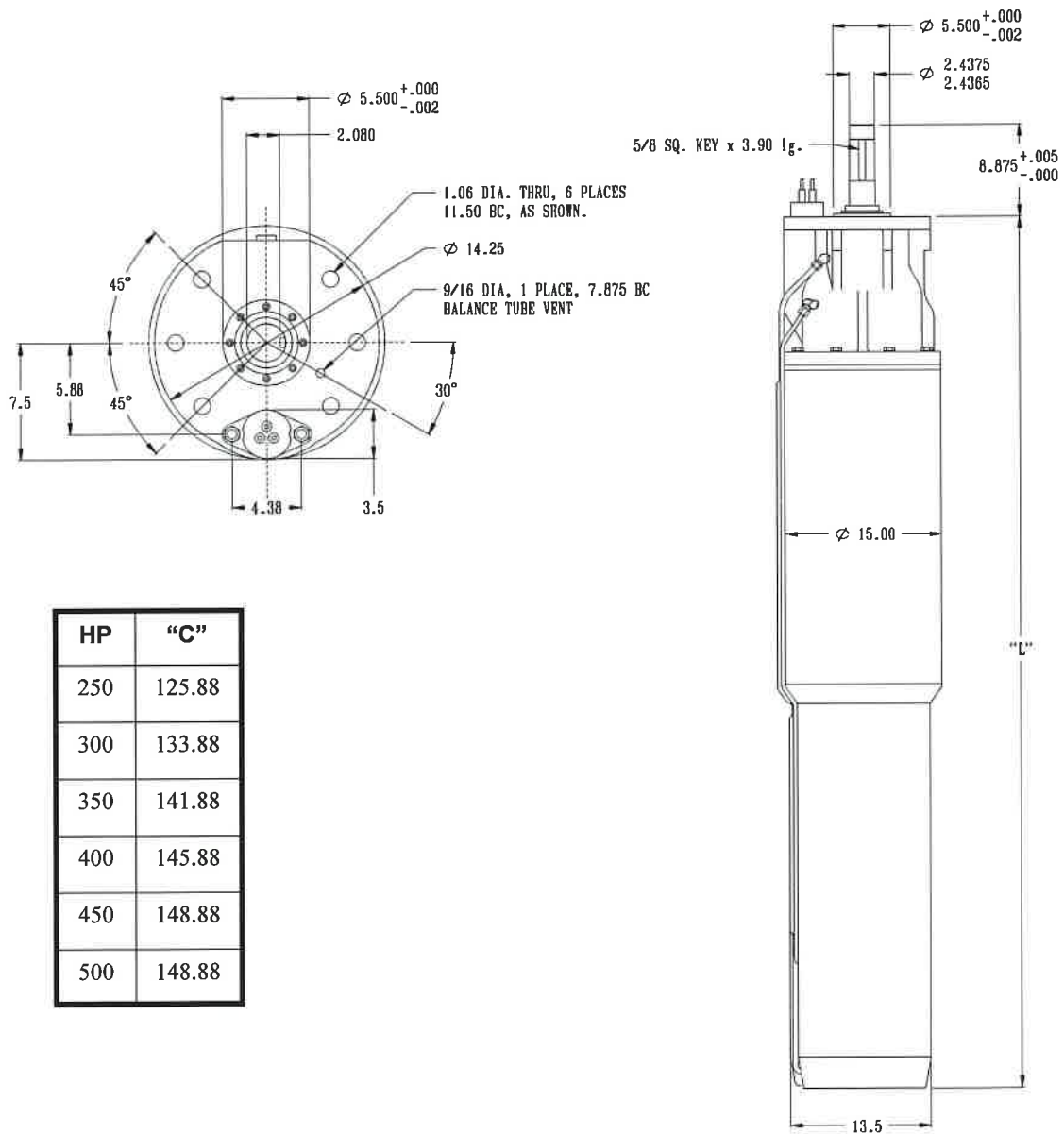
The **TYPE "M"** seal arrangement is configured to take full advantage of a separated seal compartment. The stationary face of the internal seal is above the drainage level of the compartment. This prevents water from pooling at the seal faces, Water that might enter the compartment is drained away from the seal before it has an opportunity to affect operation and cause possible water contamination of the winding, leading to failure.



**SUN-STAR ELECTRIC, L.P.**

**B-4**  
08/04  
Supersedes 06/00

**16", 2300 VOLT 4 POLE  
TYPE "M" OIL FILLED**



HP	"C"
250	125.88
300	133.88
350	141.88
400	145.88
450	148.88
500	148.88



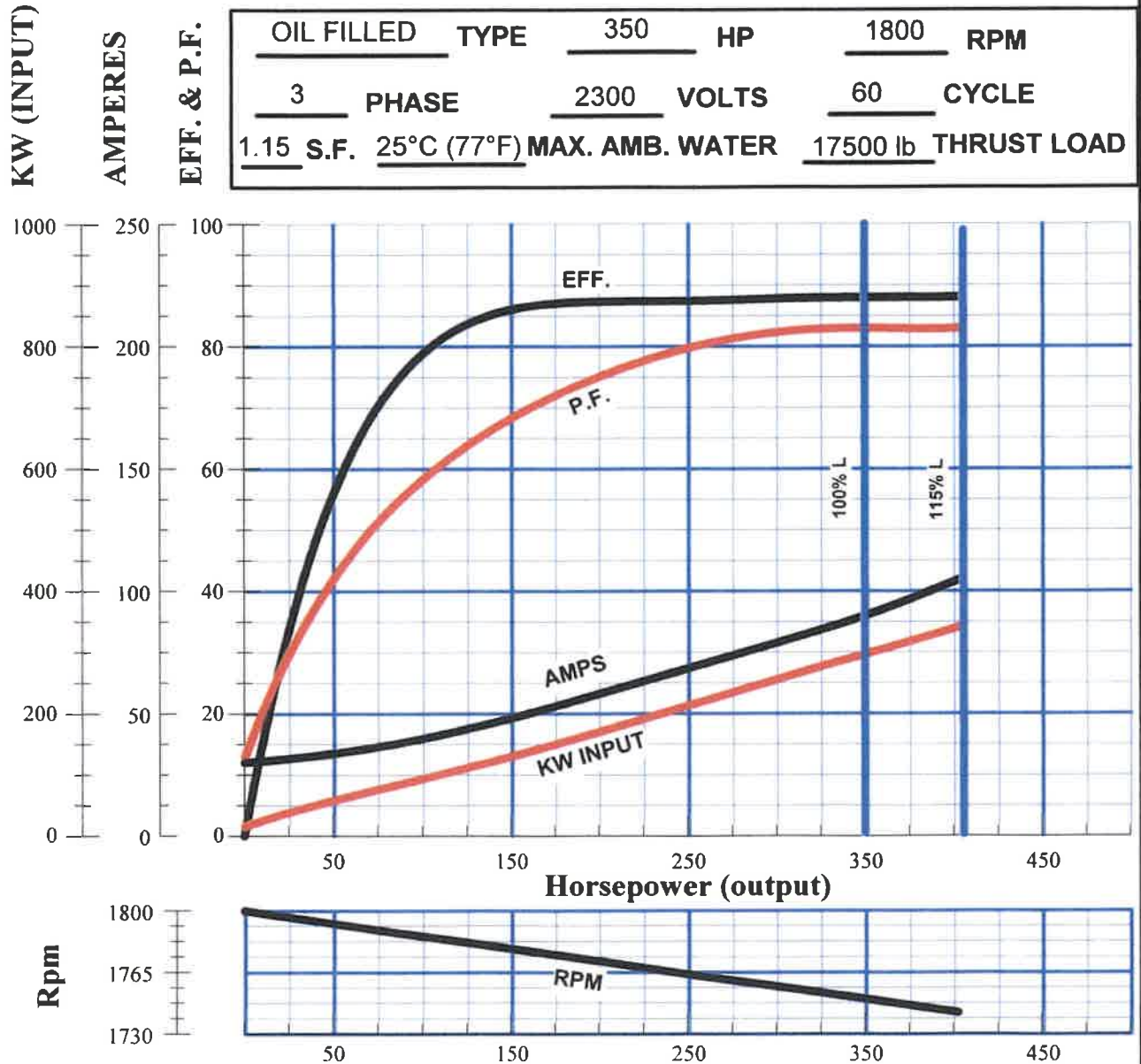
# SUN-STAR ELECTRIC, L.P.

## 16" SUN STAR TYPE M SUBMERSIBLE MOTOR

350 HP  
1800 RPM

DATE: 5/2009

### Typical Performance Characteristics



Load (HP)	NO LOAD (-)	25% (87.5)	50% (175)	75% (262.5)	100% (350)	115% (402.5)
AMPS	30	38	53	71	90	104
EFF.	0	75	87	88	88	88
P.F.	13	55	72	81	83	83
RPM	1800	1787	1775	1762	1750	1742
KW	16	85	150	224	297	341

Full Load Torque	1050	Foot Pounds
Break Down Torque	3259	Foot Pounds
Locked Rotor Torque	1312	Foot Pounds
Locked Rotor Current	558	Amperes
KVA Code	H	



## TYPE 'M' GENERAL MOTOR SPECIFICATIONS

1. The motor is of the submersible type, capable of continuous operation at nameplate rating, submerged under water at a maximum temperature of 90 degrees F, and suitable for "across the line" starting.
2. The motor has standard ratings from 40 HP to 500 HP, 3 phase, 60 Hz, 460 and 2300 volt, 1800 RPM with a Service Factor of 1.15 with proper cooling (minimum 1/2 foot per second flow velocity at an external ambient fluid temperature of 90° F.)
3. The motor is of the oil filled "wet winding" type. It is filled with a high dielectric strength, FDA approved, food grade white mineral oil and has a class F insulation rating.
4. Standard material construction is:

÷ 304 stainless steel stator casing
÷ 304 series exposed fasteners
÷ Nitronics 50 shaft
÷ 316 series balance/ vent tube
÷ cast iron fitted, NSF61 epoxy coated mount bracket
÷ mild steel NSF61 epoxy coated oil reservoir
÷ Viton / Neoprene elastomers

For detailed component material of construction see section D of engineering manual.

5. The motor employs a static balancing system for the equalization of internal and external pressure, utilizing a vent tube from the bottom of the motor to the top of the motor.
6. The motor is equipped with a double mechanical seal system to seal the shaft at the point that the shaft extends through the exterior of the motor. The mechanical seals are hydraulically balanced, rotating-face type seals with stainless steel metallic bellows, viton elastomers, and tungsten carbide seal faces.
7. The motor's mounting bracket is a single cast, or fabricated component configured to form a separate "seal" chamber with a separate drainage line to the bottom of the motor. The seal configuration prevents any external fluids, which have leaked into the seal chamber, from pooling at the inboard seal's faces.
8. Replaceable, hydrodynamic type, carbon composite sleeve bearings are provided at each end of the rotor.
9. The motor is equipped with a pivotal shoe type thrust bearing, capable of carrying the weight of the motor rotor plus additional weight and hydraulic thrust loads totaling 10,000 to 17,500 pounds (consult chart , page A1 of the Engineering Manual). Each pivot shoe is capable of individually aligning to the thrust driver.
10. The motor is equipped with a detachable, plug-in type, lead assembly with one (1) set of three separate and continuous leads. The plug assembly is a hot-injection molded plug at the terminal end. The lead assembly plug and gasket form a water-tight seal between the leads and the motor terminals. Standard lead assembly length is 20 feet. (Other lengths available.)
11. The motor can be supplied with an adaptation package to easily mount to any manufacturer's pump bowl assembly of similar size and speed.
12. Typical motor operating speeds, efficiencies, power factors and currents are listed on a chart, page MC-1 of the Engineering manual. Motors can be certified load tested per applicable IEEE 112 and NEMA MG1 standards.

**To 2011**

**SUBJECT: Sun Star 14" AND LARGER TYPE M CUSTOMER REFERENCEES**

Allen Pump, Thatcher, AZ	Steve Allen	928-428-3273
Floyds Wells, Santa Maria, CA	Rob Thompson	805-925-8626
Global Pump (Gicon), Lubbock, TX	Mark Durham	806-792-0349
Los Angeles Dept of Water & Power, CA	Gonzalo Reyes	213-367-1052
Nickerson Pump - Salt lake City, UT	Dick Nickerson	801-973-8888
Pumptech - Bellvue, WA	Doug Davidson	425-644-8501
Pump Repair Service, Daly City, CA	Dave Archer	415-467-2150
San Jose Water-San Jose, CA	Ruben Hernandez	408-279-7806
Roscoe Moss (Beylik), Kapolei, HI	Toni Gonzalves	808-682-5554
Derrick's Well Drilling, Kea'au, HI	Cynthis Moreira	808-982-7627

American Turbine Pumps - Houston, TX  
Electric Submersible Pumps - Oklahoma City, OK  
Goulds (Xylem) Pumps - Lubbock, TX  
Johnston Pump (Flow-Products, now Sulzer) - Brookshire, TX

City of Portland, OR  
Los Angeles Dept of Water & Power, CA  
City of Miami, OK  
San Jose Water -San Jose, CA  
San Antonio Water Systems, TX  
Harris County MUD, TX  
Department of Water, County of Hawaii, HI



**John Beckley**  
Market Development Manager

**Xylem Inc.**  
2881 East Bayard Street  
Seneca Falls, NY 13148  
tel 608-843-7867  
fax 866-449-0821  
email  
[john.beckley@xyleminc.com](mailto:john.beckley@xyleminc.com)

**March 19, 2012**

**To Whom It May Concern:**

**Water Well Solutions is authorized to service and repair Gould's and Red Jacket Pumps. Water Well Solutions has been factory trained to Service Well Pumps and trouble shoot Well pumps.**

**Sincerely,**

**John Beckley**

**Market Development Manager**



## **SUN-STAR ELECTRIC, INC.**

**SUBMERSIBLE MOTORS: Sales – Service & Accessories**

7722 West 34<sup>th</sup> Street

Lubbock, Texas 79407

phone (806)793-2812

fax (806) 793-1989

### **Sun-Star Electric, Inc. Representative Certification Program**

The Sun-Star Electric, Inc. Certification Program is intended to impart knowledge and techniques that will provide the most reliable and consistent methods for

- I. Pre-Installation
- II. Assembling and Installing
- III. Operating and monitoring the submersible pump unit
- IV. Trouble Shooting
- V. Limited failure analysis
- VI. Special Components, Applications, Instructions

This course is intended for installation crews and field technicians but, will also benefit application engineers and operators. Although it is intended to specifically address the Sun-Star Type D and Type M motors, this information is applicable to a broad range of Submersible Pump Unit manufacturer's and models.

#### **I. PRE-INSTALLATION**

##### **A. Receipt**

1. Follow the installation Manual instructions for receipt instructions/inspection.

##### **a. F1, MF1, SF1**

##### **B. Equipment awaiting assembly and being transported**

1. Whether water or oil filled, the submersible motor should not be exposed to direct sources of heat (including sun light) for extended periods. Without proper cooling the internal fluid can expand beyond normal ranges and cause damage to the unit.
2. It may be prudent to perform certain inspections procedures prior to transporting the components to the site. This can sometimes save time and embarrassment.
  - a. Measure the motor and pump shaft projections to ensure that there will be proper impeller lift when assembled.
  - b. Measure shaft and alignment register run-outs to ensure that no damage has occurred to these elements of the equipment.
  - c. Check the shaft coupling for proper fit on both motor and pump.
  - d. Ensure that the pump and motor have both axial and rotational movement.
  - e. Electrically test the motor per the installation manual
  - f. Test the cable per the Installation manual

3. Ensure that shipping caps and other protective devices are secure and in-place for transporting.
4. Protect all components from possible damage during transport.
5. Protect all cable conductors from exposure to water/moisture or heat.
6. Transport motor and pump as separate assemblies.
7. Transport Power Cable as a separate assembly if possible.

## II. ASSEMBLING AND INSTALLATION

- A. Follow the Installation Manual Instructions for Assembling the pump to the motor.
  1. F1, MF1, SF1.
- B. Splicing motor leads and down-hole power cable.
  1. Splicing techniques
  2. Testing the splice
    - a. Initially test the motor and cable together following electrical test procedures from the Installation Manual.
    - b. Wet or submerge the splice and repeat the electrical test.
- C. It is prudent to megger the motor and cable with every joint installed but especially just prior to, and just after, submerging the motor, lead cable, and splice .
- D. Splicing sensor wires.
- E. Document Everything!

## III. OPERATING AND MONITORING

- A. Panel Inspections
  1. When/Why (any previous failures?)
- B. Setting the Starting and Operating Parameters.
  1. Acceptable parameters can be found in the Installation Manual.
  2. Recommended revisions to acceptable parameters.
    - a. Trip Class – Class 10 is acceptable, Class 5 is better (why?).
    - b. Overload Trip setting (Highest HP on pump curve).
    - c. Monitoring all Phases.
    - d. Sensors.
    - e. Surge Suppressors
    - f. Monitors
- C. Starting
  1. Number of consecutive starts
    - a. Full load start defined.
    - b. Number of consecutive starts.
    - c. Interval between stop and start.
  2. Checking rotation



3. Discharge valve, air relief, vacuum breaker

a. Settings

4. Starting current

a. acceleration timing

b. Stalling time

c. Locked rotor time

5. Operating current

iv. TROUBLE SHOOTING

A. Motor does not start but does not blow fuses or relay.

1. No power supply. Replace fuses, breakers or check for loose or corroded connections and motor lead terminals.

B. Defective connections.

1. Correct the connections

C. Fuses or relay blow when motor starts.

1. Incorrect voltage. → Apply correct voltage. Voltage must be plus or minus 10% of rated (Nameplate)
2. Incorrect fuses or relay. → Replace with proper fuses and relay.
3. Defective capacitors. → Replace with proper capacitors.
4. Wrong connections. → Correct wrong connections or short circuit.
5. Locked rotor conditions. → Correct pump or well conditions.
6. Insulation resistance down. → Check the line and correct.

D. Motor runs for a while then blown fuses or relay.

1. Low voltage or high voltage: → Apply rated voltage.
2. Defective capacitors: → Replace with proper capacitors.
3. Different control box for the motor: → Replace with proper control box.
4. Defective starting voltage relay: → replace with proper relay.
5. Pump is sand clogged: → Pull pump and clean well.
6. Overheated protector: → Shield the control box from heat source.

E. Motor runs with elevated current but does not produce proper flow.

1. Unit in reverse rotation. Run at shutoff head for short period (1 minute or less) and check against pump curve.
  - a. Switch any two leads. Restart.

F. Motor runs at low current and does not produce water

1. Shafts not connected. Pull and inspect.

G. Motor runs until column pipe is filled or full head is reached and then trips on overload.

1. Possible failed Thrust Bearing: → Pull unit, inspect shaft projection for proper height.

- v. LIMITED FAILURE ANALYSIS
  - A. Low Shaft Projection
    - 1. Failed Thrust Bearing
  - B. Rotor Rotation is Difficult
    - 1. Failed Thrust Bearing
    - 2. Failed Guide Bearing(s)
  - C. Low Insulation Resistance (Megger)
    - 1. Improper testing method
    - 2. Cable damage
    - 3. High water level in motor
    - 4. Failed winding
  - D. Hole burned in stator or Oil Reservoir missing (oil filled)
    - 1. Catastrophic short in winding

## **SPECIAL COMPONENTS, APPLICATIONS, INSTRUCTIONS**

- VI. CONFIGURATION OF THE Type M and Byron Jackson jaw type coupling
  - A. Two piece Jaw Type Coupling assembly
    - 1. Pump shaft end
      - a. Thrust Button
      - b. Thrust Button Shims
      - c. Thrust Button Screw
    - 2. Motor Shaft End
      - a. Pin Hole
      - b. Keyway
  - B. Alignment Jig
  - C. Coupling - Motor Half
    - a. Coupling
    - b. Key
    - c. Set Screw
  - D. Coupling - Pump Half
    - a. Coupling
    - b. Pin
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VII. SPECIAL ADAPTATIONS, INSTRUCTIONS (PITFALLS?)

A. Filling

1. Water Filled
2. Oil Filled

B. Adapters

1. Water Filled
  - a. Shaft projections
  - b. Shaft Diameters
2. Oil Filled
  - a. Adapter body
    - (1) Length
    - (2) Vent Hole
    - (3) Gaskets? NO!!
    - (4) Plugs

ISSUED TO : Water Well Solutions

COMPLETION DATE : November 9, 2011

CERTIFIED BY : Kevin Price



**SUN-STAR ELECTRIC, INC.**

SUBMERSIBLE MOTORS: Sales – Service & Accessories

7722 West 34<sup>th</sup> Street

Lubbock, Texas 79407

phone (806)793-2812

fax (806) 793-1989

**Sun-Star Electric, Inc. Representative Certification Program**

## **REQUIRED DOCUMENTS, DISPLAYS, ETC**

### **Manuals:**

1. F1 ( )
2. MF1 ( )
3. SF1 ( )
4. F3 ( )
4. Splicing Procedures
  - a. Splicing tools (customer supplied)
5. Type M Engineering Manual ( )
6. Copies of Certification ( )
7. Megger (Customer supplied)
8. Type M, BJ mount display
  - a. Allen wrench for Thrust Button Screw
9. EASA Handbooks ( )
10. Type M Brochures ( )
11. Type D Brochures ( )
12. Hitachi A1 Brochures ( )
13. Type M, BJ Termination configuration drawing ( )
14. BJ Type M Storage Letterhead2.doc
15. Jawed Coupling Upthrust.jpg
16. Sealing BJ motor for shipment.doc
17. Static Balancing System mercury seal.doc
18. BJ Type H cutaway.pdf
- 19 Mercury seal shipping cap
20. H seal set for shipping

ADDENUM TO MANUAL NO. 2565

BYRON JACKSON TECHNICAL MANUAL  
FOR  
INSTALLATION, OPERATION AND MAINTENANCE  
OF TYPE DS (DOUBLE SEAL)  
SUBMERSIBLE MOTOR PUMPING UNIT

The double mechanical seal on the Sun Star Electric DS type Byron Jackson is preadjusted for shaft height and coupling location at the factory. The installation instructions for the Type DS are identical to the standard Byron Jackson instructions with the following exceptions:

DELETE THE FOLLOWING FROM BYRON JACKSON MANUAL 2565:

- A) "CAUTION" under section 3.4-3, page 6
- B) Instruction 3.4-8, page 7
- C) Instruction 3.4-9, page 7
- D) Instruction 3.4-10, page 7
- E) Instruction 5.2-6a thru 5.2-6j, page 16

Notices and cautions concerning mercury are not applicable to the Type DS motor.

If you have any questions or desire additional information, contact the Sun Star Electric factory or factory representative.

SUN STAR ELECTRIC, INC.  
July 30, 1993

# Submersible Facts

During the past years, thousands of Byron Jackson Submersible Pumps have been installed for many kinds of pumping service. The majority of these are installed in drilled wells having an 8 inch inside diameter or larger. The maximum horse power rating for a given well diameter is listed below:

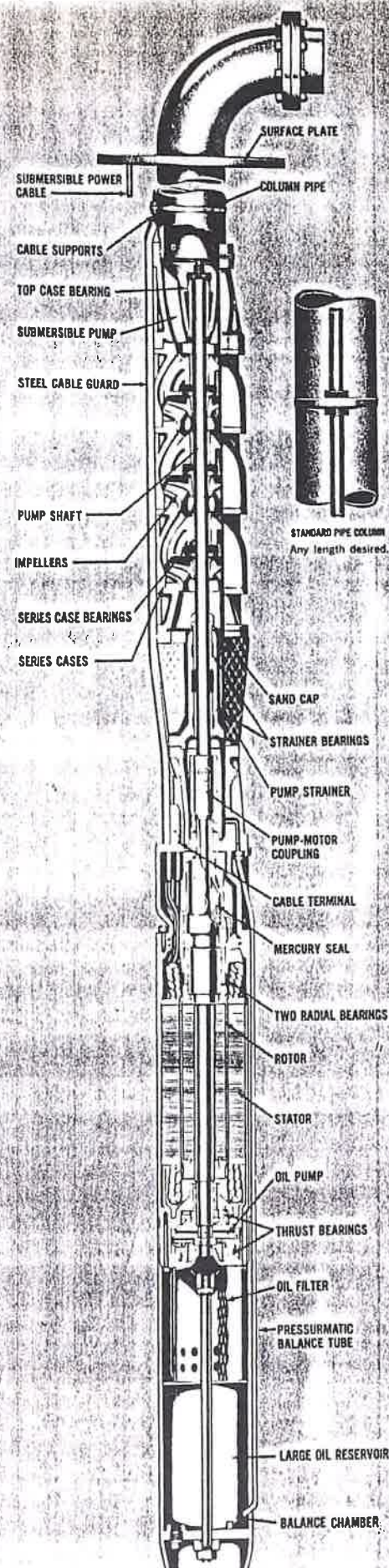
7½	to	30 HP, 1760 RPM, 3-PH, 230 or 460 volt, 60 hertz, 8" ID well or larger
40	to	75 HP, 1760 RPM, 3-PH, 230 or 460 volt, 60 hertz, 10" ID well or larger
100	to	125 HP, 1760 RPM, 3-PH, 460 or 2300 volt, 60 hertz, 10" ID well or larger
125	to	200 HP, 1760 RPM, 3-PH, 460 or 2300 volt, 60 hertz, 12" ID well or larger
175	to	300 HP, 1760 RPM, 3-PH, 460 or 2300 volt, 60 hertz, 14" ID well or larger
300	to	500 HP, 1760 RPM, 3-PH, 2300 or 4160 volt, 60 hertz, 17" ID well or larger
600	to	700 HP, 1760 RPM, 3-PH, 2300 or 4160 volt, 60 hertz, 18" ID well or larger

Pump capacities range from 75 to 10,000 gpm and pumping heads from a few feet to over 2000 feet.

Submersible Pumps are particularly adapted for deep settings and high heads; underground discharge installations in streets, drive-ways, city parks, mine shafts and air fields, permitting the most desirable location for the well with minimum of space. Pumps located in flood areas are usually supplied with well seal surface plates to prevent contaminated surface water from entering the well.

The Submersible motor is unaffected by atmospheric conditions such as high or low temperature and humidity, dust, or fumes. High altitudes, which require the use of special surface type motors, have no effect on the Submersible motor.

In addition to the standard Submersible Pumps, Byron Jackson Co. also makes Submersible Pumps of smaller size and capacity, and also special pumps which have capacities up to 25,000 gpm and horsepower to 3000.





**MANUAL NO. 2565**

REVISED JULY 1981.

**BYRON JACKSON  
TECHNICAL MANUAL  
FOR  
INSTALLATION,  
OPERATION  
AND MAINTENANCE  
OF  
TYPE H  
SUBMERSIBLE MOTOR  
PUMPING UNIT**





**BYRON JACKSON**  
**TECHNICAL MANUAL**  
**FOR**  
**INSTALLATION, OPERATION AND MAINTENANCE**  
**OF**  
**TYPE H**  
**SUBMERSIBLE PUMPING UNIT**

**FOREWORD**

Some portions of the material presented here may relate to more than one type of BYRON JACKSON submersible pumping unit, but it is intended that this book apply solely to the BYRON JACKSON TYPE H SUBMERSIBLE PUMPING UNIT.

Your BYRON JACKSON Pump is engineered to give the optimum performance for the type of service and the product being pumped. The pump is designed for best efficiency over a limited portion of the head capacity curve. The hydraulic performance guarantee applies to one basic point on the head capacity curve (based on laboratory test with clean, fresh water at 50 to 85°F.) and is contingent upon the pumped liquid being clean and free from air, gas and excessive amounts of sand or abrasive material.

It is recommended that the services of a BYRON JACKSON Installation Supervisor be employed for the installation and initial starting of a BYRON JACKSON Pump. Such service will ensure the purchaser that the equipment is properly installed, and will provide an excellent opportunity for the plant operator to receive special instructions relative to the unit.

This manual outlines the general procedures that must be observed to ensure long, trouble free service. However, it is assumed that plant personnel are familiar with the basic principles and tools involved in the installation, care and service of a pump. Successful operation is dependent on careful study of the manual and a well planned maintenance program.



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\* This drawing shows all motor (M) parts except M-118 and M-119.

\*\* This drawing shows all cable (C) parts and motor parts M-118 and M-119.

\*\*\* This drawing shows all pump (P) parts.

## SECTION ONE – SPECIAL CONSIDERATIONS

### 1.1 GENERAL:

The condition of the service into which a submersible unit is placed is of major importance. The comments below are given to avoid misunderstanding concerning the installation and operation of the unit under warranty.

### 1.2 DEVELOPMENT OF THE WELL:

Do not use a new unit to develop the well. Developing, surging and freeing the well of sand, which are considered a part of the well drillers contract, should be accomplished by use of a test unit.

### 1.3 EFFECT OF PUMPING SAND:

BYRON JACKSON does not guarantee the unit against the erosive action of sand, silt or other abrasive materials suspended in the water. Pumping sand will adversely affect the motor because the vibration produced in the pump will be transmitted to the motor and could result in a shortened motor life.

### 1.4 EFFECT OF AIR OR GAS:

Guarantees of hydraulic performance are contingent on pumping clean cold water, free from air or gas with the pump properly submerged. The presence of such gases in the water will affect the hydraulic performance by reduction in capacity and head, which cannot be predicted with accuracy. Further, the presence of air or gas in the well will cause deterioration of materials sooner than under normal conditions.

### 1.5 SUCTION AND SUBMERGENCE REQUIREMENTS:

Pumping the well at such a rate that the unit breaks suction will cause pump deterioration. It is suggested that a method be provided for keeping a record of the water level above the suction inlet. The minimum submergence recommended is 10 feet (3 m) of discharge column submergence below the MAXIMUM well draw-down level, although some installations may require more submergence.

### 1.6 DESIGN CHANGES:

No alteration or addition should be made to the unit design unless performed or approved by BYRON JACKSON.

### 1.7 EFFECT OF CHEMICALS:

Even though the chemical analysis of the water is known, it is not always possible to predict the total corrosive action on metals. In addition to chemicals, water may also contain entrained air or gases that have a definite oxidizing or corrosive action of their own, which is accentuated by high velocities within the pump. Such conditions do not appear in the chemical analysis of the water. Conforming with the Standards of the Hydraulic Institute and the practice of all reliable pump manufacturers Byron Jackson does not guarantee its pumps and motors against corrosive or electrolytic action. Special units can be ordered, providing all surfaces in contact with pumped fluid to be of special material.

### 1.8 CROOKED WELL:

A known crooked well that has not previously accommodated a unit of comparable size must be "caged" before the submersible unit is installed. A cage of the same length and diameter as the combined motor and pump assembly, with 40 to 50 feet (12 to 15 m) of the

proper size discharge pipe, must be lowered into the well to the point at which the unit is to be placed. If the cage can be lowered to this point without binding, the submersible unit can be installed.

### 1.9 SURVEY OF WELL:

Always sound the well to make sure it is deep enough to permit installation of the pump with its motor beneath it. If the exact diameter and depth of the well casing is not known, "cage" the well following the procedure outlined in Paragraph 1.8. Experience indicates that many wells have more than one string of casing installed, and frequently the lower sections are smaller in diameter than the surface casing. Be certain the submersible unit will pass into the well freely and hang suspended clear of the well bottom.

### 1.10 OPERATING NOTES:

Normally a unit has been selected and built to operate for a specific set of conditions (head in feet and capacity in gallons) to give maximum efficiency. Some variation, an increase or decrease of head, will not make an appreciable difference in the efficiency. However, a wide variation in head will not only show up as efficiency loss, but as a horsepower, or thrust bearing overload.

- (a) When a unit is first started, a new well may produce considerable amounts of sand, despite the fact it had been sand pumped after drilling. The discharge should be throttled back to where this is cut down to a minimum, then gradually opened up to full discharge as the sand disappears. This operation may last from a matter of minutes to several days or longer. If the sand flow shows no signs of stopping, the well must be reworked to screen out the sand or a smaller capacity unit installed. Continued sand pumping will result in increased pump wear which in turn will show up as increased efficiency loss. Too great a wear will run pump beyond the repair stage and possibly have serious effects on the motor.
- (b) Some wells will always produce a small amount of sand at start-up. Therefore, depending on the operation, it may be necessary to bypass or trap out this first flow each time, particularly if a closed piping system is used.
- (c) If the unit is coupled into a hydro-pneumatic pressure system, the set-up must be so designed that it will not become "waterlogged" (loss of air through water absorption without replacement) and yet not receive too much air at each start-up.
- (d) On any system, automatic or manual, the number of starts on a motor should be controlled to a maximum of six (6) per hour.
- (e) A time delay relay must be installed when any type of automatic system is used in order to prevent starting of the motor while it is spinning backwards due to column drainback through the pump. A three (3) minute time delay relay is normally adequate. This provides a safety measure in the event a failure in the automatic control system creates a rapid recycle series. It also provides a time period for the rotating element of pump and motor to stop, after reverse rotation due to vertical discharge column drain-back.

- (f) A well should always be provided with a means for determining the static water level, and pumping level. A good airline, with depth gauge, is generally the most simple and practical.
- (g) When a unit is known to be set near to the bottom of a well, a close check should be kept to make sure that the well does not sand-up (fill in) around the motor. This is entirely possible without any noticeable effect in pumping or motor operation. However, the motor is dependent on adequate cooling from water, and any sanding up around it would eventually

create overheating, resulting in at least shortened life, if not a burnout. There are additional pump features that can be added to cover this problem if it can not be cured by well work.

- (h) A unit should not be run at closed valve more than sixty seconds as virtually all the energy created is then dissipated as heat. This condition has been known to have practically "boiled" the water in the well and created an overheating problem for the motor.

## SECTION TWO — GENERAL INFORMATION

### 2.1 UNIT DESCRIPTION: (See Sectional Drawing in SECTION SIX)

#### 2.1.1 General Description

The Byron Jackson Submersible Unit is a combination of a vertical turbine bowl assembly and a vertical, oil filled and mercury sealed induction motor assembly, designed for sustained operation submerged in water. The motor is directly connected below the pump.

The rotating element of the pump assembly is driven from the bottom where its extended shaft is connected to the motor shaft by a coupling. Power is supplied to the motor through a submarine cable, which is fastened to the support and discharge column pipe, and extends to the starting equipment. The column pipe from which the motor-pump assembly is suspended is threaded and coupled in random lengths and the entire unit is coupled to a surface support and discharge head assembly.

#### 2.1.2 Main Components

The submersible unit generally consists of the following components or sub-assemblies:

- Submersible Motor Driver, crated on a skid and including parts necessary to couple to pump. One Installation Instruction Kit is included.
- Bowl Assembly, single stage or multistage, crated on a skid.
- Power Conductor Cable: A three conductor marine power cable assembly, together with banding, and buckles, and pads of sufficient quantity to support the cable on the column. The cable is protectively crafted.
- Support and Discharge Components
  - Check Valve: One or more column check valves of the slow drain-back type may be required, depending on discharge column length or setting.
  - Head: A plate and ninety-degree elbow assembly designed to accept the column and to support the entire unit weight at the well foundation. A junction box may also be mounted for the power cable termination.

### 2.2 EQUIPMENT AND TOOLS REQUIRED:

#### 2.2.1 Tools Supplied With Pump

Supplied with the pump are the following tools:

- Hex Socket Wrench, for shaft button screw (806-2).

- Hex Socket Wrench, for coupling set screw (806-1)
- Hex Socket Wrench, for vent plug (609)
- Aligning Jig (265), an Assembly, including the following pump parts:
  - 262-6, Shim, Shaft Adjusting
  - 262-7, Shim, Shaft Adjusting
  - 130, Shaft Adjusting Button
  - 806-2, Screw, Shaft Button
  - 690-4, Washer (two), Coupling Lock Screw
  - 806-3, Screw (two), Coupling Lock

#### 2.2.2. Other Items Required (By Others)

Provide the following tools and equipment:

- Lifting Equipment — of sufficient strength and rigidity to lift the complete unit safely, (see "Component Weight Chart," Figure 1) and of sufficient height to allow clearance between lead hook and foundation.

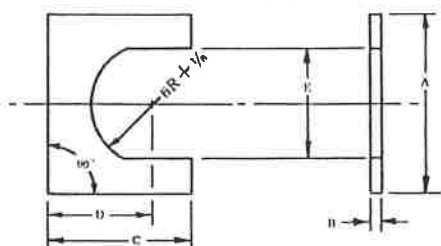
**WEIGHT CHART (Pounds)\***  
for Calculating  
Foundation, Derrick & Hoisting Loads

COLUMN			MOTORS			
SIZE	WEIGHT PER FOOT		NOMINAL MOTOR SIZE	HORSE POWER	WEIGHT	
	EMPTY	FULL				
2½	5.0	7.9	8"	**7½	425	
3	7.0	10.8		**10	425	
4	10.9	16.4		15	450	
5	14.8	23.5		20	450	
6	19.2	31.7		25	500	
8	25.0	47.2		30	500	
10	32.0	60.6	10"	40	800	
12	45.0	93.9		50	800	
BOWLS				60	1010	
				75	1010	
SIZE	1 Stg.	Add Stgs.		100	1080	
8MQ	80	15		125	1220	
10MQ	175	37	12"	125	1610	
11MQ	290	70		150	1680	
12MQ	440	125		175	1770	
13MQ	625	175	14"	200	1820	
15MQ	850	265		175	1980	
CABLE				200	2300	
				250	2640	
VOLTS	SIZE	WT. PER FT.		300	2900	
230 OR 460	8	.3	17"	300	3725	
	4	.77		350	4100	
	2	1.10		400	4250	
	1/0	1.75		450	4400	
	300 MCM	4/0	3.10	18"	500	4600
		4.40	600		5600	
2300	500 MCM	6.00	*For Standard Pump Construction. **Not Standard. Special Order Only.			
	6	.90				
	2	1.20				
	1/0	2.20				
NOTE: To convert pounds to kilograms, divide by 2.20.						

NOTE: To convert pounds to kilograms, divide by 2.20.

**Figure 1 — Component Weight Chart**

2. Two pair of correctly sized pipe elevators.
3. One correctly sized column slip plate.
4. One correctly sized motor slip plate (see Figure 2).



NOMINAL MOTOR SIZE	DIMENSIONS (Inches)				
	A	B	C	D	E
8"	15	$\frac{3}{8} + \frac{1}{16}$	10	10	$5\frac{3}{4} + \frac{1}{16}$
10"	16	$\frac{3}{8} + \frac{1}{16}$	12	10	$7\frac{1}{4} + \frac{1}{16}$
14" - 15"	20	$\frac{1}{2} + \frac{1}{16}$	14	10	$10 + \frac{1}{16}$
16" - 17"	22	$\frac{1}{2} + \frac{1}{16}$	16	10	$10\frac{3}{4} + \frac{1}{16}$
12"	18	$\frac{1}{2} + \frac{1}{16}$	14	10	$7\frac{1}{2} + \frac{1}{16}$
18"	24	$\frac{3}{4} + \frac{1}{16}$	18	10	$12\frac{1}{4} + \frac{1}{16}$

5. One short (four to six feet) section of column, threaded and coupled, to be attached to the top case and used for handling the bowl assembly. Deduct this length from total column length specifications.
  - (a) Column: A supply of pipe, in random lengths, threaded and coupled, of correct size to handle the unit capacity and total weight and of adequate length to set the unit at the correct pumping level in the well. The threading is 8 threads per inch and  $\frac{1}{4}$ " (19 mm) taper per foot.
6. One pair of cable reel stands, with axle.
7. One portable insulation resistance tester ("Megger"), 0-100 megohms/inch. @1000 Volts.
8. One ammeter
9. One voltmeter
10. Components for water level indicating system.
11. Special banding tool ("Bandit") for cable bands.
12. A length of  $\frac{1}{2}$  inch hemp rope and two sheave blocks.
13. Ordinary hand tools (mechanical and electrical) used in this kind of work.
14. Two sets of chain tongs.
15. Rubber mat and insulated gloves for electrical work in damp conditions.

16. An adequate supply of approved thread compounds, as follows:

- (a) For installation of the short section of column pipe, next to top case or top case flange, use only Loctite AVV or equal. This is Catalog No. 86-31, available from Loctite Corporation, Newington, Connecticut.
- (b) For remaining column pipe threads, use a pipe thread compound that is capable of lubricating and sealing.

## 2.3 PREPARATION REQUIRED PRIOR TO INSTALLATION:

1. Surface plate foundation poured and cured, if concrete. The total load on the surface plate foundation will consist of the motor, pump, column (full of water), surface plate assembly and cable.
2. Provision for open discharge run-off, ditch, etc., for flushing out well and testing unit.
3. A log of the well, recording depth, straightness, casing variations, standing water level, rated capacity, pumping level, etc.

## 2.4 SHIPPING ARRANGEMENTS:

The unit will ship approximately as follows:

1. Main components described in Paragraph 2.1.2.
2. Tools described in Paragraph 2.2.1.

## 2.5 RECEIPT INSPECTION:

1. Work Safely. Handle equipment carefully. The motor is a dynamically balanced machine and should be handled accordingly.
2. Uncrate all parts and inspect carefully to be certain nothing was damaged during shipment. If damage has occurred, advise carriers claim department and the nearest Byron Jackson office or dealer from whom unit was purchased.
3. Check the power requirements of the unit against the motor data plate on the side of the motor, the shipping tag wired to the motor, and if such is furnished, the discharge head (surface plate) data plate.

## 2.6 STORAGE:

If the unit is not to be installed immediately, recrate the equipment and store in a safe, protected location.

# SECTION THREE — INSTALLATION

## 3.1 GENERAL INSTRUCTIONS:

Normally, the installation requirements are performed in the following sequence:

- (a) Arrange Components for Installation
- (b) Inspect Components
- (c) Install Motor
- (d) Install Bowl Assembly
- (e) Install Support & Discharge Column
- (f) Connect Cable to Starter Panel

## 3.2 ARRANGE COMPONENTS FOR INSTALLATION:

Refer to Figure 3. An orderly arrangement of sub-assemblies will reduce installation time. Lay out the parts in order of installation, as follows:

- (a) Motor (Uncrated, and arranged horizontally)
- (b) Bowl assembly (uncrated and arranged horizontally)
- (c) Column Pipe

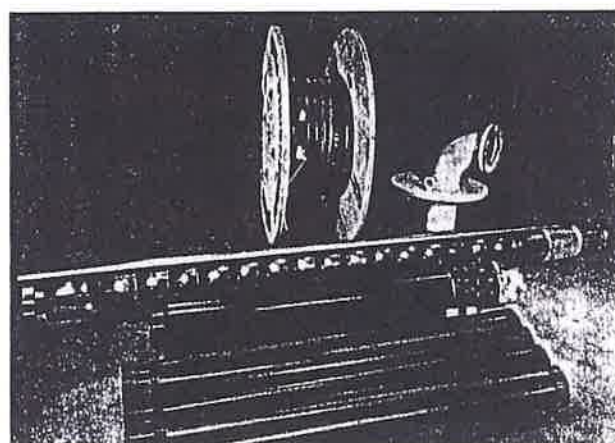


Figure 3 — Components Arranged for Installation

- (d) Cable and cable clamps
- (e) Air line and depth gauge
- (f) Surface plate assembly

#### NOTES:

1. Place all column pipe sections with coupling end toward well and check couplings with chain tongs to make sure they are screwed tight. Place column check valve sections so that each will be installed in the proper sequence.
2. Remove the "Motor Tag," found on each motor, and note data requested which is:
  - (a) Record COMPLETE MOTOR NUMBER (example #8-3456-5-3) on Warranty Card. (Motor number and data is also stamped on the permanent Motor Data Plate, on motor flange.)
  - (b) Check motor rating, HP, Poles, Volts, Frequency, against job requirements.
  - (c) Record the CURRENT Byron Jackson "job," or "order" number (such as 816-H-0213) on the Warranty Card.
  - (d) Record the installation date on the Warranty Card.
  - (e) Fill in the "Test Record" card as completely as possible during installation. This record will prove valuable for future reference.
  - (f) Mail the signed Warranty Form as soon as possible, and mount or file the "Test Record Card" in a weather-proof and safe place. Additional Record Cards are available upon request.

### 3.3 INSPECT COMPONENTS

1. Remove the nuts (003-9) and washers (690-6) to remove the motor terminal shipping cap (112-2), and gasket (744-7).
2. Verify that the motor terminal gland plate (111) and terminals (019) are clean and free of dirt and foreign matter.
3. Megger the motor for ground and continuity. The reading should be 10 megohms or more.
4. Remove shipping cap (023) from the cable terminal box (182).
5. Verify that the terminal box (182) and connectors are clean and free of dirt and foreign matter.
6. Verify that the terminals (019) will fit the connectors of the terminal box (182):
  - (a) Refer to Figure 4. Check position of terminals (019) against that of connectors. The terminals (019) and connectors may be arranged in either an equilateral triangle positioning or a right triangle positioning.

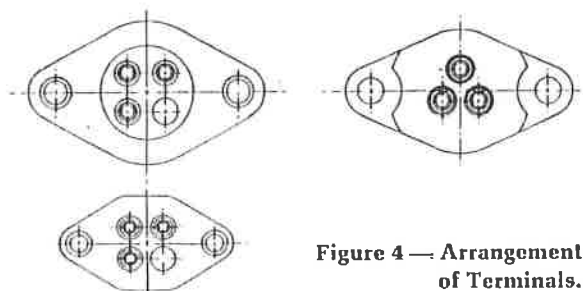


Figure 4 — Arrangement of Terminals.

- (b) Check height of terminal against depth of connector to assure proper engagement.

7. Replace the motor terminal cap (112-2) washers (690-6) and nuts (003-9). Do not replace the gasket (744-7). Put the gasket (744-7) in a safe area until it can be stored in the shipping cap (112-1).

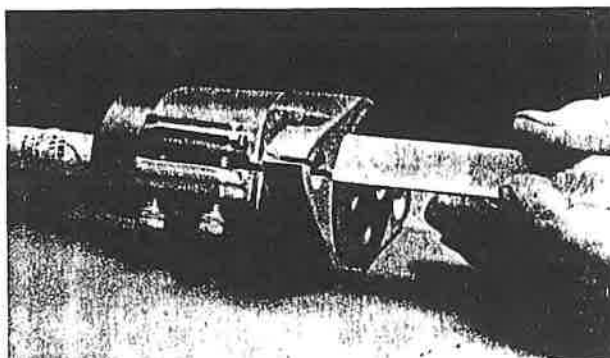


Figure 5 — Checking Gap, Terminal Box Clamp to Terminal Box

8. Refer to Figure 5. Slide the metal terminal box clamp (180) down over the terminal box (182) as far as possible, then check gap from bottom face of terminal box clamp (180) to bottom face of terminal box. This gap should be 1/16" (1.5 mm).
9. Replace the cable terminal box shipping cap (023).
10. Verify that all column pipe threads are clean and free of dirt and foreign matter.

### 3.4 INSTALL MOTOR:

1. Install motor slip plate on foundation.
2. Cover the slip plate and foundation with a tarpaulin.
3. Remove the motor shipping cap (112-1) and gasket (744-6). Be certain to put this gasket (744-6) in a safe area until it can be stored in the shipping cap (112-1). Also remove from the shipping cap the tools (Paragraph 2.1.2), driver half coupling (529), set screw (806-1), key (676-1) and cable terminal box gasket (744-10).

#### CAUTION:

Do not loosen baffle cap screw (806-4) or case closure nut (003-7) while motor is in horizontal position. This will prevent loss of mercury from seal and potential health hazards.

4. Replace shipping cap (112-1).

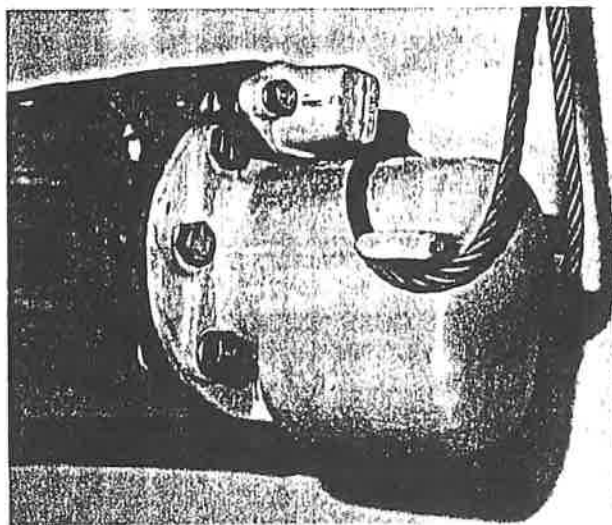
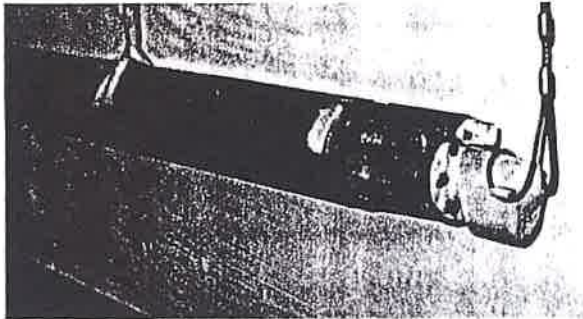


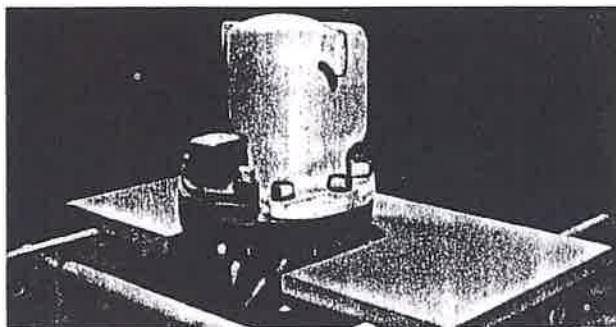
Figure 6 (A) — Hitching Line Under Lifting Lugs



5. Refer to Figures 6-A, 6-B and 6-C. Lift motor by 2 points while horizontal and elevate slowly to vertical position. Center the motor over the opening of the slip plate, then lower the motor to rest on the slip plate.
6. Remove shipping cap (112-1).

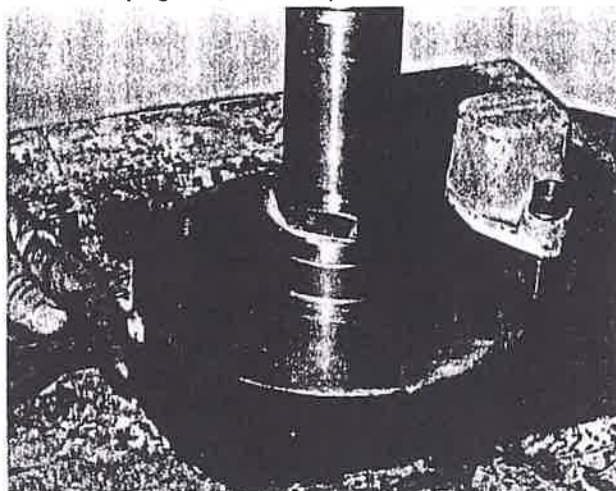


**Figure 6 (B) — Lifting Motor For Installation**



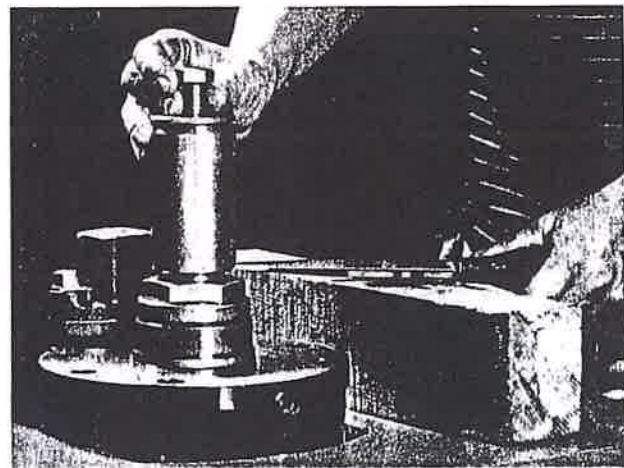
**Figure 6 (C) — Motor in Place on Slip Plate**

7. Refer to Figure 7. Using wrench provided, back off the vent plug (609) to vent top end of motor.



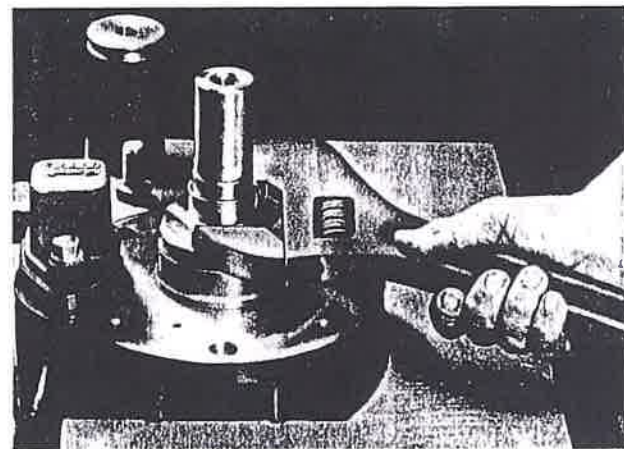
**Figure 7 — Venting the Motor (Preliminary)**

8. Refer to Figure 8. Remove cap screw (806-4) from end of motor shaft.
9. Gently pry off seal baffle closure cap (112) with its gasket (744-5) and ring (200). The gasket and ring need not be removed from the seal baffle closure cap.



**Figure 8 — Removing Seal Baffle Closure Cap**

10. Refer to Figure 9. Apply approximately 75 foot pounds (100 N.m) torque to securely tighten the case closure nut (003-7) until the case closure ring (486) is metal-to-metal with the top case. This action places the mercury seal in operating condition by locking the baffle (014) to the case (076) while freeing the housing (650-1) to rotate with the shaft.



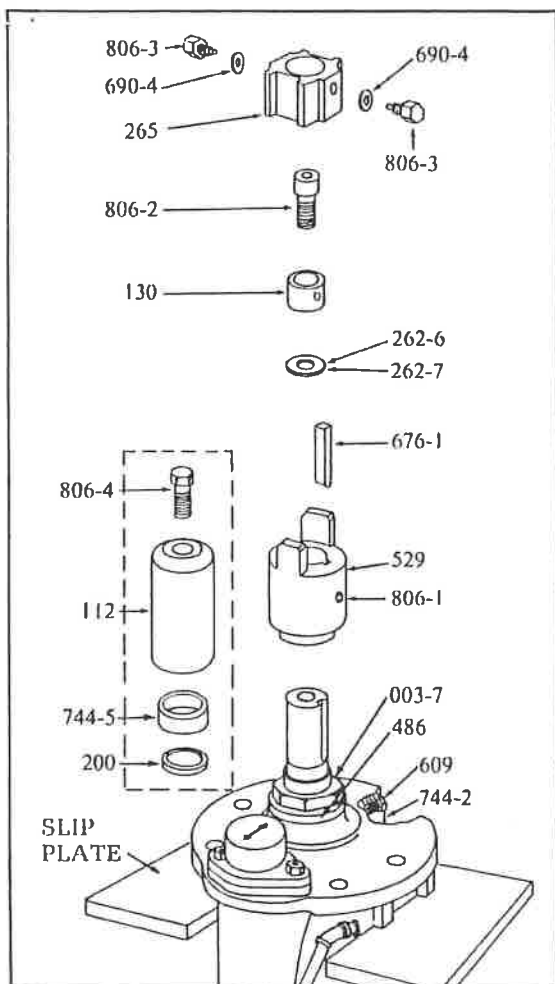
**Figure 9 — Tightening Case Closure Nut**

11. Refer to Figure 10. Install motor half coupling (529):
  - (a) Clean the coupling and shaft, and lightly oil both.
  - (b) Slip coupling on shaft with keyways aligned.

**NOTE:**

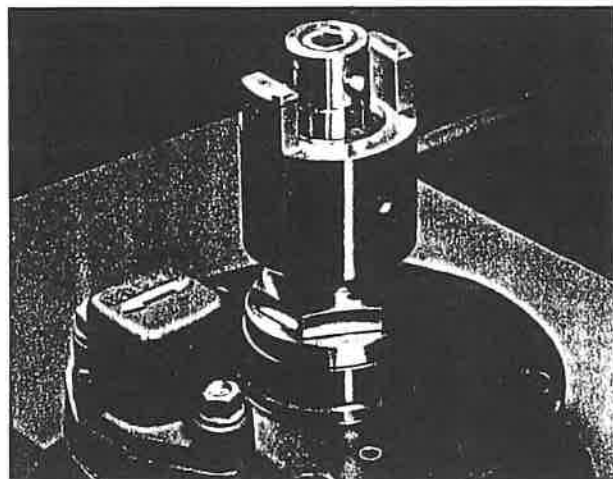
*Do not attempt to force the coupling. If the coupling will not seat freely, remove the coupling, verify that the shaft is free of dirt and foreign matter, then replace the coupling.*

- (c) Insert key (676-1), round end down, in the keyway.



**Figure 10 — Motor Half Coupling Components**

- (d) Install socket head set screw (806-1) through its hole in the coupling (529) to engage its hole in the shaft. Use wrench provided, to tighten set screw (806-1).
12. Refer to Figure 10. Identify the shaft adjusting button (130), alignment jig (265), screws (806-3) with washers (690-4), shaft button screw (806-2) and shims (262-6 and 262-7). These pieces are shipped as an assembly.
  13. Remove string from 806-2 which holds shim in place. Verify that the shims (262-6 and 262-7) are attached to the screw (806-2).
  14. Install alignment jig assembly in motor half coupling (265).
  15. Install cap screw (806-2), and use wrench provided to tighten screw (806-2).
  16. Remove the coupling lock screws (806-3) and washers (690-4), and set these pieces aside for later use (see Paragraph 3.5, Step 9).
  17. Remove alignment jig (265) and send to storage area for storage in shipping cap (112-1).
  18. Clean the motor flange face of any dirt or foreign matter. Verify that the balance line hole in the flange face is open and clear.



**Figure 11 — Aligning the Motor Half Coupling Components**

19. Cover the coupling (529) and shaft with a clean cloth.

### 3.5 INSTALL BOWL ASSEMBLY:

1. Remove the loosely wired-on cable guard from the bowl assembly.
2. Install in the top case (76) or flange (377) the short section (Paragraph 2.2.2, Item 5) of column pipe. Proceed as follows:
  - (a) Refer to Figure 12-A. Clean the mating pipe threads of the pipe and the case or flange.
  - (b) Apply Loctite to the threads as shown in Figure 12-B.
  - (c) Install the pipe, using chain tongs, and apply torque approximating the values shown below.

Pipe Size	Torque (Ft. Lbs.)	Torque (N.m)
2 1/2	500	620
3	700	950
4	900	1,220
5	1,050	1,425
6	1,200	1,625
8	1,600	2,170
10	2,000	2,710
12	3,000	4,070

- (d) Figure 12-C shows the proper method of applying chain tongs to top case (76) or flange (377) so that most force is exerted on the upper flange, rather than on the web.

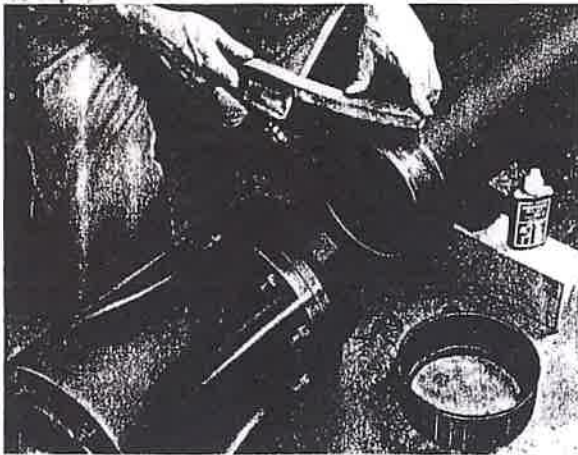


Figure 12 (A) — Cleaning Pipe Threads

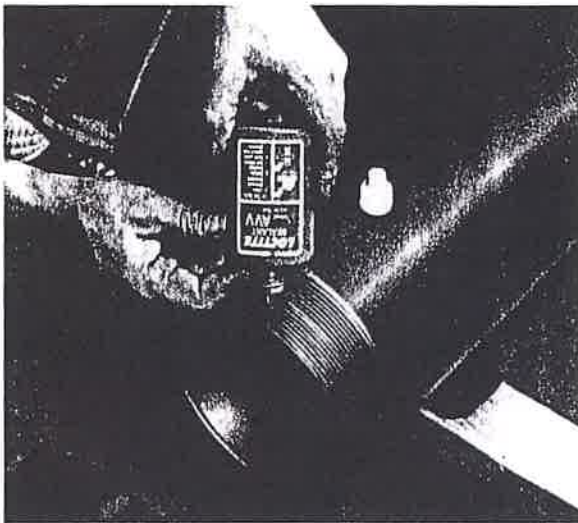


Figure 12 (B) — Applying Loctite

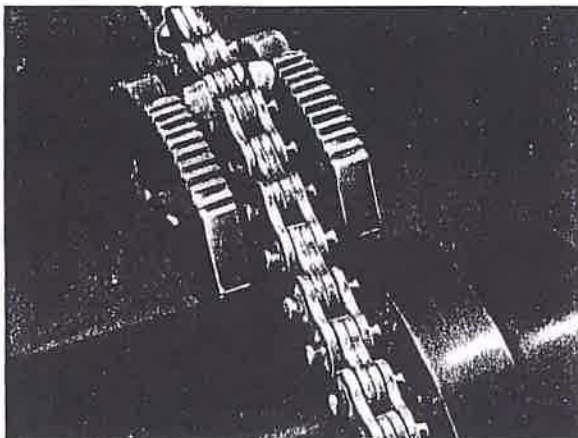


Figure 12 (C) — Proper Method of Applying Chain Tongs

**NOTE:**

*The discharge section may require modification to provide protective clearance to the flat cable and splice which will be mounted later on the column pipe just above the pump.*

3. Remove the cloth from the coupling (529) and elevate the bowl assembly several feet above the motor.
4. Verify the end float settings, which are established at the factory. The closed impeller procedure is given in Step 4A, while that for open impeller is provided in Step 4B.

**4A — Closed Impeller:**

- (a) Scale from the face of the adapter bracket (808) to the end of the **pump shaft** (167) with shaft down.
- (b) Remove adapter bracket (808) from bowl assembly.
- (c) Install adapter bracket (808) on motor top flange, using fasteners for shipping cap (112-1).
- (d) Scale from the face of the motor top case (076) to the face of the shaft adjusting button (130).
- (e) Distance recorded in Step (a) should be  $\frac{1}{8}$ " to  $\frac{1}{4}$ " (3.175 to 6.350 mm) less than that of Step (d).

**4B — Open Impeller:**

- (a) Remove adapter bracket (808) from bowl assembly.
- (b) Install adapter bracket (808) on motor top flange, using fasteners for shipping cap (112-1).
- (c) Remove the pump half coupling (530).
- (d) Provide four pieces of shim stock, each 2" x 2" x .020" (50.8 x 50.8 x 0.5080 mm) thick, and, place each shim 90° apart on the face of the adapter bracket.
- (e) Lower the bowl assembly into the adapter bracket (808) to rest on the shims.
- (f) Put a feeler gauge through the plug opening in the adapter bracket (808) and check the gap from shaft adjusting button (130) to pump shaft.
- (g) If gap, Step (f), is less than .015" (0.3810 mm) or more than .018" (0.4572 mm), the shims beneath the shaft button (130) must be changed.
- (h) Replace the pump half coupling (530).

**NOTE:**

*If the installation must be made in freezing weather (32° F. or colder), accomplish the venting procedure by using some of the same oil as is used in the motor.*

**5. Vent the motor as follows:**

- (a) Refer to Figure 13-A. Use the shipping cap (112-1) to fill the adapter bracket (808) with water.
- (b) Refer to Figure 13-B. The vent plug (609) is located in the motor flange. Back out the vent plug (609), rotate the motor shaft several revolutions, and continue adding water (not more than three times the capacity of the shipping cap) and rotating the motor shaft until certain of removal of any air bubbles trapped in the top of the motor. Air bubbles should cease after approximately one pint of oil has drained.



- (c) After all air is expelled, replace the vent plug (609) in motor flange and apply torque of 20 foot pounds (27 N.M.). Refer to Figure 11. Rotate shaft to verify smooth, free rotation, then position the coupling so a center line across center of both jaws (tang) will align with the arrow on the terminal shipping cap (112-2). This establishes alignment of coupling screws (806-3) with the pipe plug openings in the adapter bracket (808), which is presently on the bowl assembly.
- (d) Place in the shipping cap (112-1) the terminal cap gasket (744-7), the shipping cap gasket (744-6) and the parts (112, 200, 744-5 and 806-4) removed at Steps 8 and 9. Send the shipping cap (112-1) to storage.

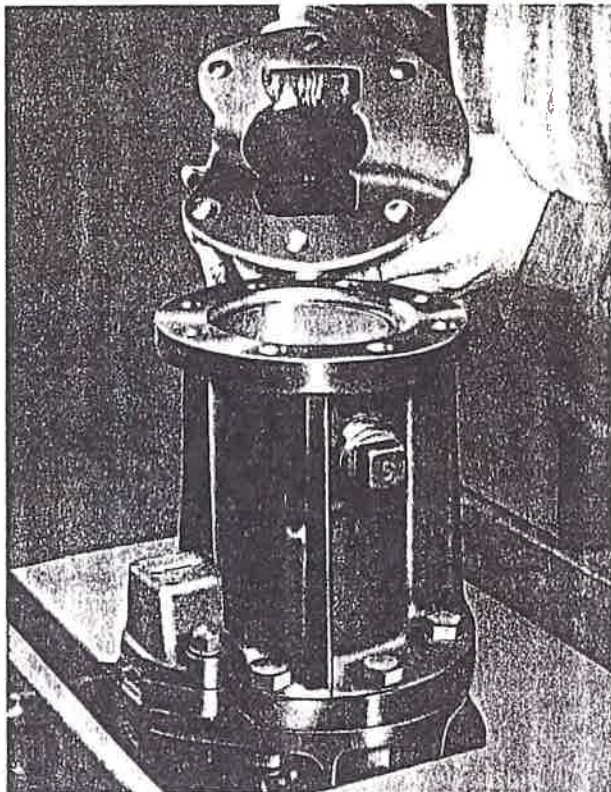


Figure 13 (A) — Adding Water to Adapter

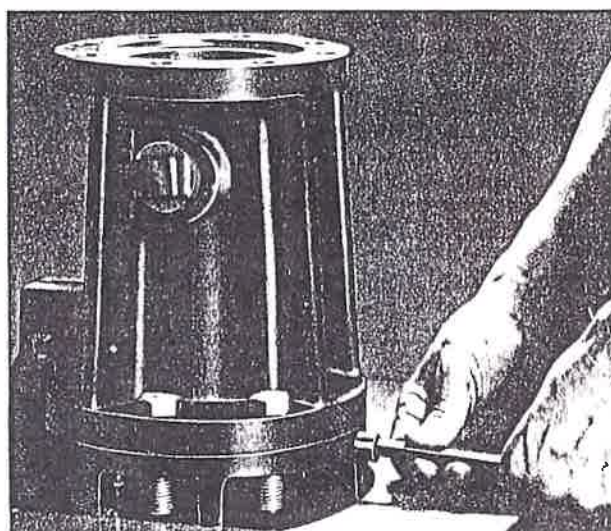


Figure 13 (B) — Removing Vent Plug

- (e) The motor is now ready to receive the bowl assembly as described in Paragraph 3.5.

6. Verify that the pump half coupling (530) is securely locked in place by the pin (539) and retainer ring (526), and that the bore and shaft are clean and free of dirt or foreign matter.
7. Refer to Figure 14. Lower the bowl assembly to engage the jaws of the pump half coupling (530) with those of the motor half coupling (529).
8. Rotate the bowl assembly to line up bolt holes of strainer with those of adapter (808) and to line up bottom cable guard with terminal shipping cap (112.2), then lower until both flanges butt metal-to-metal. Install and tighten the fasteners (cap screws or stud nuts with washers).
9. Remove the adapter bracket pipe plugs (794) to observe, through the pipe plug holes, the alignment of the holes for the coupling lock screws (806-3). Install the coupling lock screws (806-3) with their washers (690-4) and apply torque to the coupling lock screws (806-3) as follows:

Unit Size (inches)	8	10	12	14-15	16-17	18
Torque (Ft. Lbs.)	20	30	40	40	50	50
Torque (N.m)	27	41	54	54	68	68

After tightening, check that lock screws (806-3) are seated firmly and lock washers (670-4) are compressed.

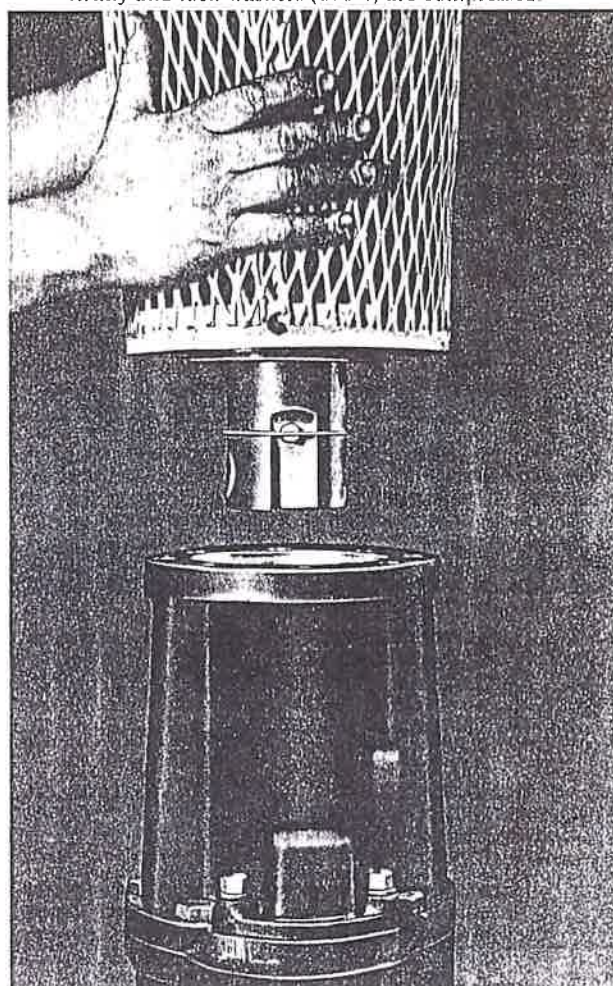


Figure 14 — Aligning Strainer and Adapter



10. Replace the adapter bracket pipe plugs (794) and tighten the adapter bracket pipe plugs (794) firmly.
11. The strainer body has two holes, size  $\frac{1}{8}$ " N.P.T., at 180°. Pour water into one of these holes, to fill the adapter bracket (808), until water runs out the other hole. (A 90 degree street elbow is provided for this purpose.)
12. The unit is now ready for installation of the terminal box (182).

### 3.6 INSTALL TERMINAL BOX:

#### NOTE:

The cable terminal box (182) has been previously inspected for fit and cleanliness (Paragraph 3.3) and should be in good order. The shipping gasket (744-6) has been removed, and its place will be taken by the terminal box gasket (744-10 current units) or gaskets (744-10) and (744-11) on some units.

1. Unreel a sufficient length of cable to pass the bowl assembly, elevating the cable to the approximate height to fasten the terminal box (182) to the motor. Verify that the cable is not kinked. **DO NOT STRETCH THE CABLE.**
2. Remove the motor terminal cap nuts (003-9), washers (690-6) and motor terminal shipping cap (112-2).
3. Refer to Figure 15. Depending on configuration supplied:
  - (a) For flat faced (no rabbet fit) gland plate, install gasket (744-10) over terminals (019).
  - (b) For gland plate with rabbet fit, first install gasket (744-11) over rabbet fit on gland plate (111), then install gasket (744-10) over motor terminals (019).
  - (c) For "all metal" terminal box, install O-Ring (also identified as 744-11) on rabbet fit of gland plate (111).
4. Remove shipping cap (023) from the cable terminal box (182).
5. Slide the metal terminal box clamp (180) up the flat cable and off the terminal box (182), loosening the clamping screws (806) if necessary.

#### CAUTION:

**Do not distort the clamp (180).**

6. Refer to Figure 17. Align terminal box connectors with the motor terminals and push the terminal box (182) down on the motor terminals to mate with the gland plate (111) and gasket (or gaskets).

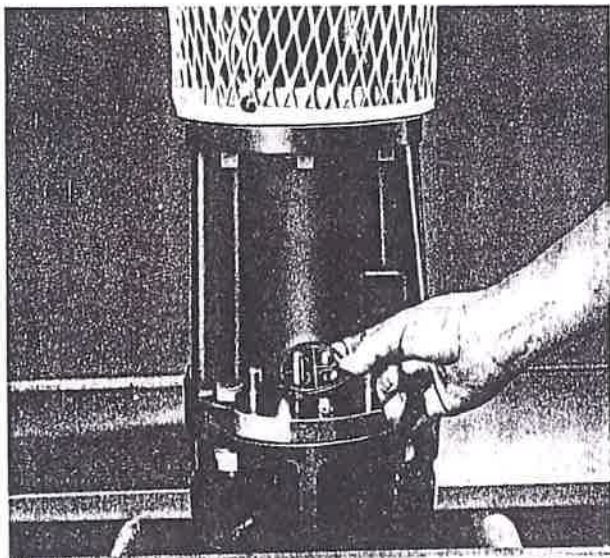


Figure 15 — Installing Terminal Box Gasket (Flat-Faced Type Shown)

#### NOTE:

To ease clamp (180) over terminal box (182), it may be necessary to spread the clamp at the side split, as shown in Figure 16.

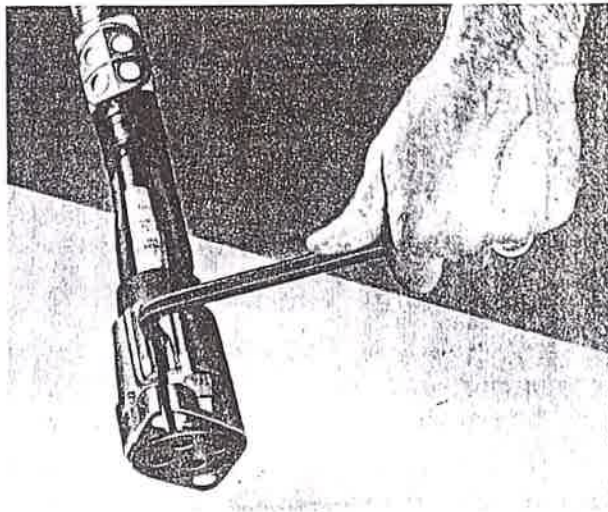


Figure 16 — Preparing Terminal Box Clamps

7. Refer to Figure 18. Slide terminal box clamp (180), down over terminal box (182) and gland plate studs, then install washers (690-6) and nuts (003-9). Tighten the nuts (003-9) to bring the clamp (180) firmly metal-to-metal against the gland plate (111).
8. Back off the nuts (003-9) two or three turns each and tighten clamping screws (806).
9. Retighten the nuts (003-9) to achieve metal-to-metal fit of clamp (180) to gland plate (111).

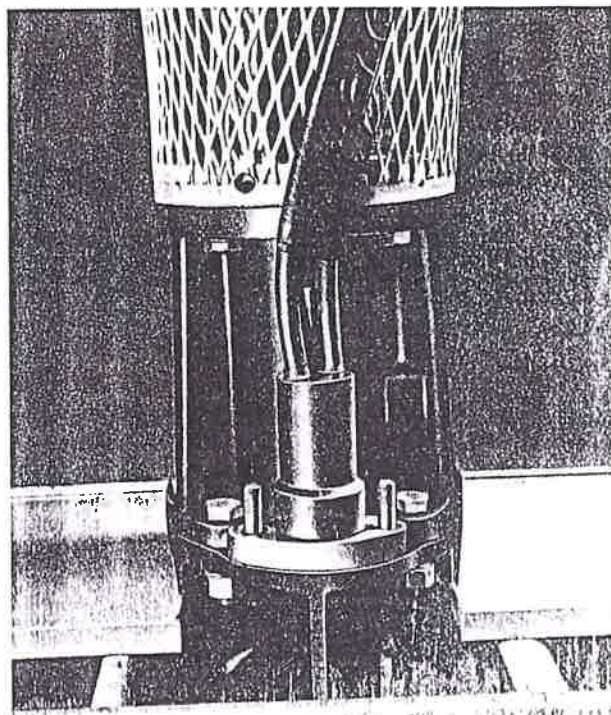
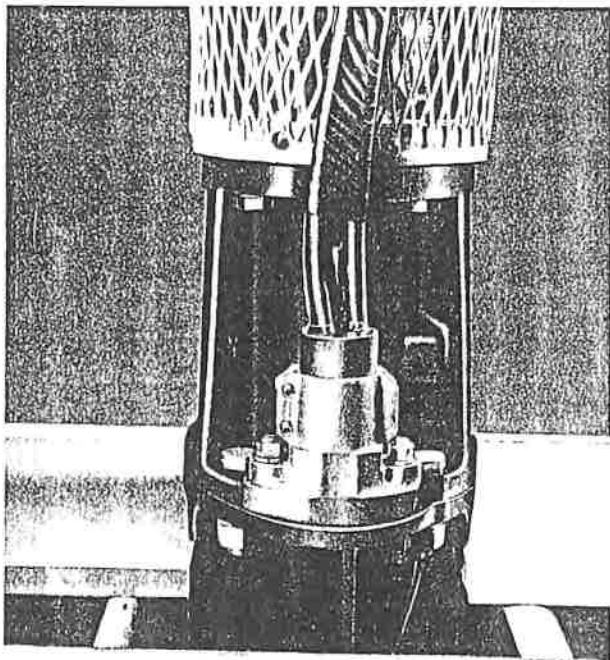


Figure 17 — Terminal Box Installed



**Figure 18 — Terminal Box Clamp Installed**

10. Using the surface end of the cable, which should be accessible, megger the cable and motor for ground and continuity. The reading should be 10 megohms or more.
11. When megger test is completed, install a plastic bag over the surface end of the cable for protection from weather.
12. The unit is now ready for attachment of support and discharge column and lowering into the well. Release the cable from the block and tackle.

### **3.7 INSTALL SUPPORT AND DISCHARGE COLUMN:**

#### **3.7.1 Notes**

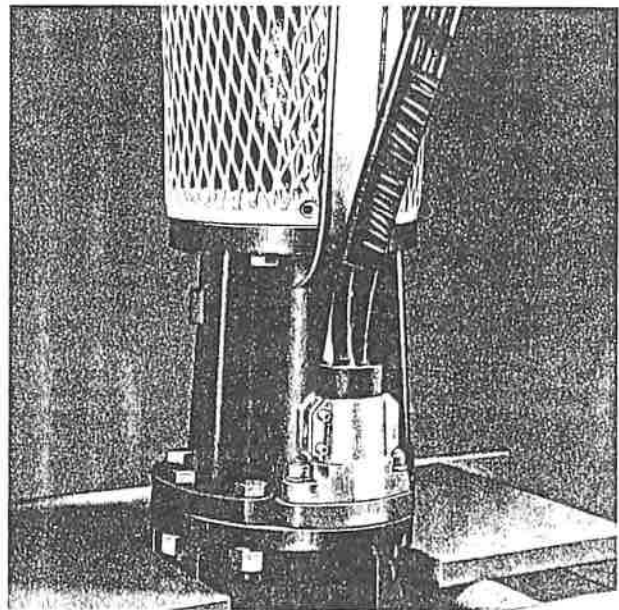
1. Use the approved thread sealing and lubricating compound (see Paragraph 2.2.2, Item 16) on all column and coupling joints.
2. Make up all column and couplings as tight as possible with chain lugs. Torque should equal 10 foot pounds (14 N.m) per horsepower of motor.
3. If used or out of round column pipe is to be utilized it is recommended that a steel strap be welded across each coupling to prevent unthreading during startup or running.
4. Inspect cable guards (801-1 & 801-2) for any shipping damage, particularly on the inner surfaces for sharp places that could damage the cable jacket or insulation.
5. When installing the flat cable, verify that the guards (801-1 & 801-2) have no sharp edges against which the cable may vibrate.
6. Avoid strain on terminal box. Do not use block and tackle to suspend cable until at least four bands have been placed over the round cable and column pipe.
7. The instructions given here concern the use of flat cable having a two-piece cable guard. If the application requires round cable, the instructions are

the same except that the round cable has a one-piece cable guard.

8. Use "BAND-IT" or equal stainless steel bands and buckles to fasten the cable assembly to the pump bowls and discharge column. Instructions for use of "BAND-IT" materials and tools are shown in Figure 19, page 13.
9. If one or more vertical column check valves are to be used on an installation, each valve, which should have a bleed-back self draining feature, will take the place of a column coupling (FLOW DIRECTION UPWARD!) The recommended installation is as follows:
  - (a) One valve — locate approximately 75 feet (23 m) above pump.
  - (b) Two valves — locate first valve 100 feet (30 m) above pump and second valve  $3/5$  of the distance between the first valve and the surface support plate.

#### **3.7.2 Procedure**

1. Elevate the cable alongside the bowl assembly without stretching or straining the terminal box.
2. Refer to Figure 20-A. Use tape to fasten the inner cable guard (801-1) to the bowl assembly if it is not already in place. The guard should reach over the flanges at the adapter bracket and top case.



**Figure 20 (A) — Inner Cable Guard in Place**

3. Refer to Figure 20-B. Lay the cable in the guard, and tape the cable in place.
4. Refer to Figure 20-C. Install outer guard (801-2). The bottom edge starts at about mid-point on the cable terminal box (182) and the top edge should extend above the inner guard (801-1) by several inches.
5. Clamp the cable guard to the bowl assembly with bands (020). For bowl assemblies six feet or less in length, set a band at the adapter flange, at top and bottom of the suction strainer, at the top case flange and at the approximate center. For longer bowl assemblies, use the same procedure except space the intermediate bands at no more than three feet (approximately 1 meter).



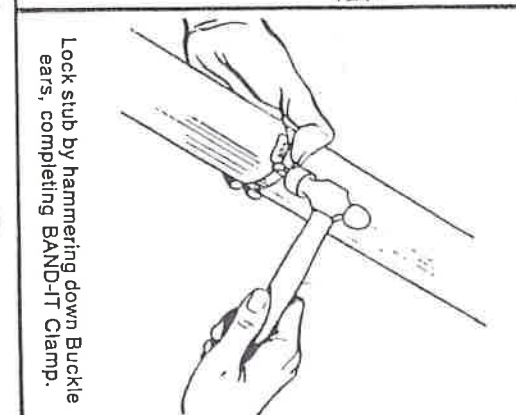
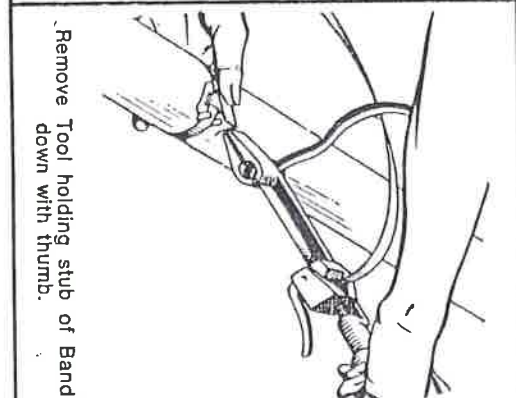
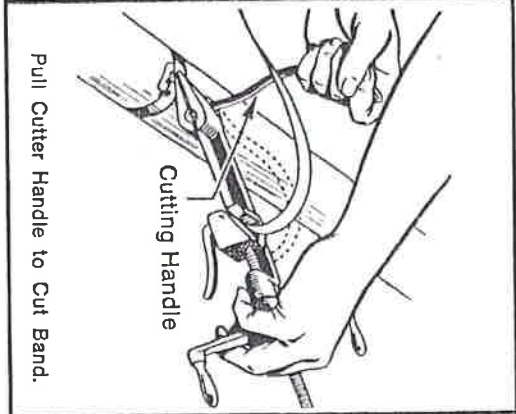
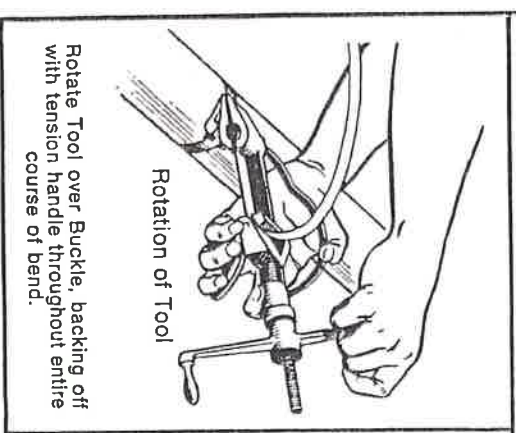
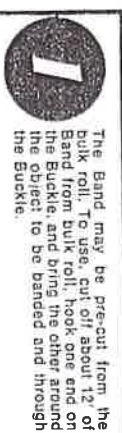
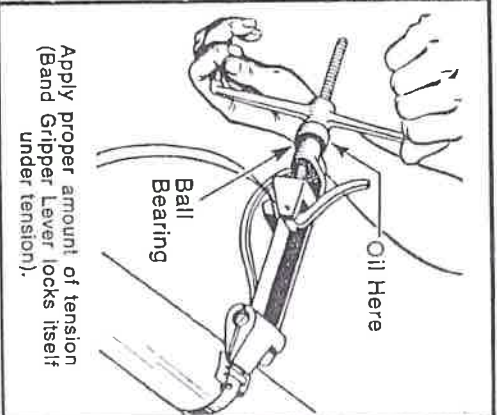
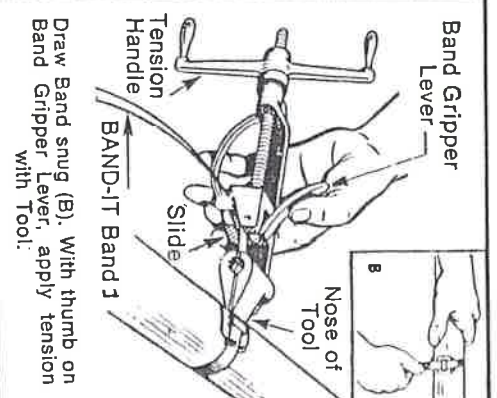
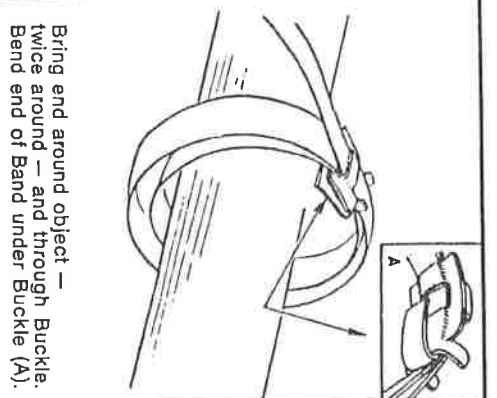
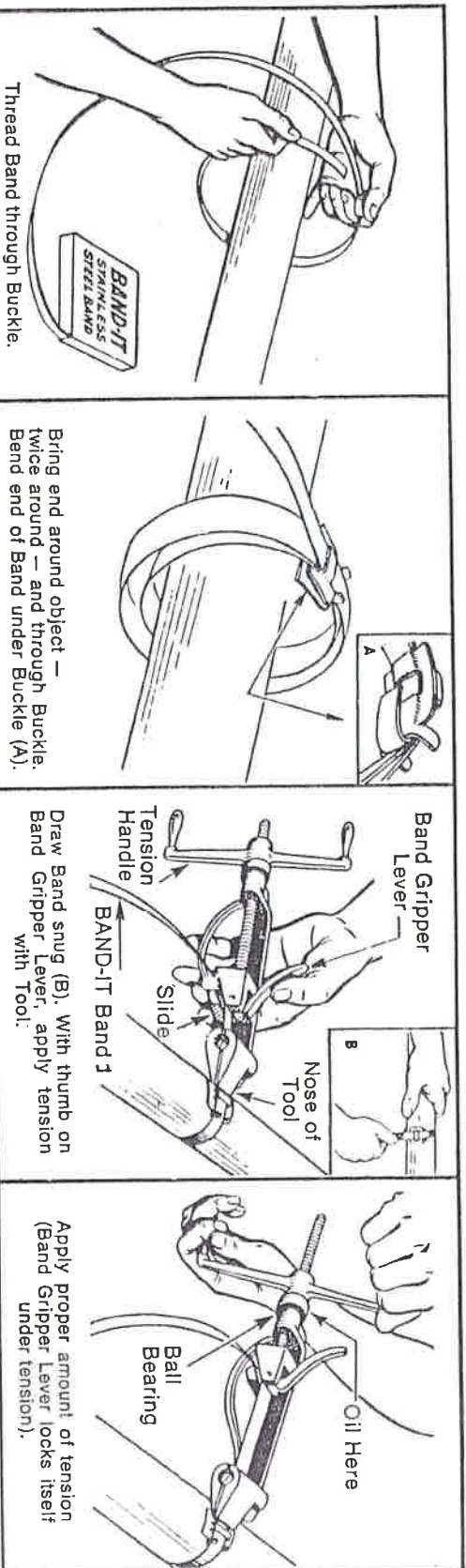


Figure 19 — Use of BAND-IT Tool

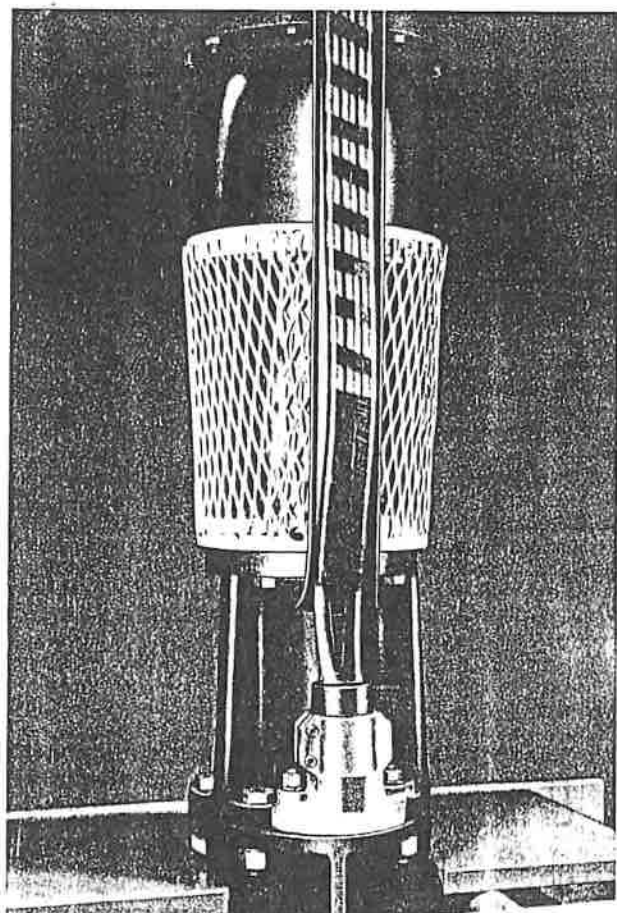


Figure 20 (B) — Cable Installed in Guard

6. Prepare a pad of rubber to install under the split where the splices will lay against the support and discharge column. This pad should be long and wide enough for the splices and of 1/16" to 1/8" (1.588 to 3.175 mm) thick stock. Tape the pad in place.
7. Avoid stretching the cable and splices. Take any slack out of cable and splices, then place two cable clamp assemblies up on the round cable above the outer jacket end. Each cable clamp assembly consists of a 3/4" (19.050 mm) stainless steel band (020), buckle (017) and a pad or clamp (012).
8. With the splices straight and flat against the discharge column, use plastic tape to fasten the splices. Use 20 to 30 wraps depending on size of column.
9. Arrange the random lengths of column pipe with their coupling ends facing one direction. At five feet in from each pipe end, draw a chalk mark to set the banding location.
10. Install the column pipe, observing the following precautions:
  - (a) Place the clamps as the unit is lowered. Each band should be drawn up snugly enough to support the cable on the column, but not over-tensioned. Do not stretch the cable.
  - (b) Support the unit weight with column pipe elevator.

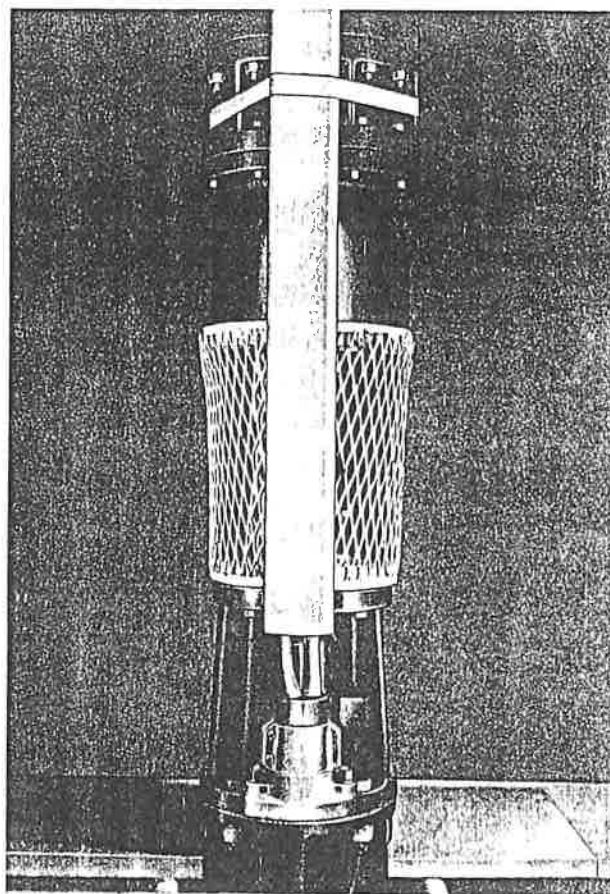


Figure 20 (C) — Outer Guard and Band in Place

- (c) While lowering the column pipe, hold the cable flat against the pipe and keep it from dragging across the sharp well casing or flange.
- (d) Avoid loss of cable length. Prevent rotation of the column pipe so that the cable does not spiral wrap around it.
- (e) When the motor first enters the water, use the surface end of the cable to megger the cable and motor for ground and continuity. The reading should be 10 megohms or more.
11. If required, install well seal gasket between surface plate and well flange at this time.
12. With the discharge-and-support head screwed in place and the unit still suspended off the well base, measure and cut the cable to approximate length for surface make up. Also strip the cable, if necessary, and feed the cable through the packing gland (or glands) in the surface plate and then into the junction box. Make the junction box connections water tight at each lead.
13. Place the two final supporting cable clamp assemblies three to four feet below the surface plate, then lower the surface plate into its correct position.
14. At the junction box, megger the cable and motor for ground and continuity. The reading should be 10 megohms or more.
15. The unit is now ready for connection to the power supply.

### 3.8 CONNECT CABLE TO STARTER:

1. If the starter is not furnished as part of the installation, the rating of the equipment used shall conform to the National Electrical Code requirements for high reactance squirrelcage motors.
2. If the starter is a used one, make certain that the main contacts are in good condition, and are working properly. Also see that the overload relays are for the correct full load current.
3. To insure that the starter may be operated with safety, make certain that the panel housing is properly grounded.
4. Check the no-load voltage at the starter, between all three phases. The voltage values should be equal and approximately the same as the voltage rating stamped on the motor nameplate.

5. Strip back the outer sheath on the cable from 6 to 18 (152 to 457 mm) inches depending on cable size and panel terminal requirements. Strip by scoring the sheath, lengthwise with a knife or tool to the length needed, in several places around the outside. Do not cut all the way through and damage the individual conductor insulation. Grasp a scored segment of the sheath at the end and peel like a banana. Repeat this all the way around and cut off the stripped segments.
6. Strip a short segment of insulation off the end of each conductor for connection into panel terminal.
7. Remove a conduit knock-out in the bottom of the panel. Install the cable with its gasketed grip in this hole, and connect to the starter load terminals.
8. The unit is now ready for starting. See SECTION FOUR.

## SECTION FOUR – OPERATION

NOTE: See SECTION ONE, "SPECIAL CONSIDERATIONS," before starting unit in operation.

1. Close the disconnect switch, and operate the magnetic starter. If expected pressure or capacity is not produced, the unit may be running backwards. Shut the starter off, open the disconnect switch and reverse the motor rotation by interchanging any two leads of the power cable. **MARK THE LEADS SO THAT THEY MAY ALWAYS BE REPLACED IN THIS SAME POSITION ANY TIME THEY ARE REMOVED.**
2. Check the current drawn from the line on all three power leads. The current should not exceed the motor data plate value by more than 10%.
3. The line voltage should be measured between phases while the unit is pumping. The readings obtained should not be more than 10% above or below the rated motor voltage.
4. Should the unit fail to start, the voltage at the motor terminals may be too low. Some of the causes of such difficulties are:
  - (a) The transformers supplying the unit may be too small. It is recommended that the rating of the transformer bank in kva be at least equal to the horsepower of the motor.
  - (b) The line between the transformer bank and the starter may be too small or too long.

(c) The transformer voltage tap may be set too low.

(d) Poor voltage regulation of an engine-driven generator, if the power is obtained from such a source, can be very detrimental. Byron Jackson assumes no responsibility for units operated on such equipment unless otherwise agreed upon in writing.

5. If a reduced voltage starter is used, it is recommended that the voltage applied to the motor with the compensator in the starting position be not less than 80% of the rated motor voltage.
6. When the motor is started across the line, it should attain full speed in not more than 1 second. If after 10 seconds the line current is still high (over twice normal value), the unit is not attaining full speed. **STOP THE UNIT. DO NOT ATTEMPT TO RESTART UNTIL THE TROUBLE IS FOUND AND CORRECTED.**
7. After start-up and when discharge has cleared, proceed to test the unit and record the data as indicated on the "Submersible Periodic Test Record" card form P-528 found in the "Installation Instruction Kit" envelope.

### NOTE:

See the reverse side of test card for information relative to trouble shooting.

## SECTION FIVE – MAINTENANCE

### 5.1 STANDARD MAINTENANCE:

1. A faithful periodic check test card, and maintenance based on recommendations of the local Byron Jackson Sales Engineer, will prove very beneficial to the prolonged life and satisfactory operation of the unit. Such records will provide the information necessary to determine when preventive maintenance should be undertaken.
2. If the unit has "shut-off," and the reason can not be traced to a POSITIVE external source, DO NOT attempt to start the unit without first "megging" the motor. Shut off the power at the disconnect switch, disconnect the motor cable leads from the starter and "megg" them to ground (the well cas-

ing). This should be done whether the overload or circuit breaker have "kicked out" or a fuse has blown. NEVER just re-set or re-fuse and attempt to start without FIRST "megging" the unit.

### 5.2 REMOVAL FROM SERVICE:

1. Open the disconnect switch to stop the unit.
2. Disconnect the cable at the starter panel. Megger the leads for ground and continuity. Reading should be 10 megohms.
3. While removing the unit from the well, proceed as follows:
  - (a) If the bands are double wrapped, cut them

properly so that they can be saved for use as a single band for reinstallation.

- (b) Check the discharge support column for need of replacement, particularly the sections between high and low well levels.
  - (c) Inspect any column check valves for wear and proper functioning.
  - (d) Remove the coupling cap screws and separate the pump element from motor at the adapter and pump flange joint.
  - (e) Separate cable from motor and seal the cable with the original terminal box shipping cover (023).
  - (f) Megger the motor for ground and continuity. Reading should be 10 megohms or more.
  - (g) Seal the motor terminals with original shipping gasket (744-7) and cap (112-2) furnished.
4. If the motor is to be left in the well temporarily, cover the motor with a cloth.
5. If the motor is to be stored or removed from service proceed as follows:
- (a) Remove motor from well & while still vertical cover well opening with a canvas or similar protection. Then remove the adaptor bracket (#808).
  - (b) Install the shipping cap gasket (744-6) and cap (112-1).
  - (c) Store the motor in a vertical position, in an area safe from freezing temperatures (32°F).
  - (d) Drill a vent hole in the shipping cap (112-1) and fill the shipping cap (112-1) with water. Do not plug the vent hole. If it is later required that the shipping cap (112-1) be used (in the event motor is returned to factory), this vent hole can be closed by a pipe plug.

**WARNING: STEP 6 MUST BE PERFORMED BEFORE MOTOR IS LAID HORIZONTAL. IF NOT, MERCURY CAN BE SPILLED OUT OF MOTOR AND MAY PRESENT A HEALTH HAZARD TO WELL SERVICING PERSONNEL AND FACTORY REPAIR PERSONNEL.**

6. To prepare a motor for return to the factory, proceed as follows:
- (a) Remove shaft button screw (806-2), shaft adjusting button (130), and shims (262-6 and 262-7). Also, loosen the set screw (806-1) and remove the key (676-1) if possible.
  - (b) Lubricate shaft with some form of penetrating oil.
  - (c) Use a puller tool (preferably the three-arm type), if required, to remove the coupling (529). Also remove the key (676-1), if this was not previously removed.
  - (d) Wrap the coupling (529), key (676-1), set screw (806-1), shims (262-6 and 262-7), shaft adjusting button (130), and screw (806-2), and put with alignment parts (265, 806-3 and 690-4) and wrenches to be placed in shaft shipping cap (112-1).

- (e) Loosen case closure nut (003-7 R.H. Thread) three full turns, freeing the seal baffle (014).
- (f) Lubricate the ring (200) and gasket (744-5) inside the seal baffle closure cap (112).
- (g) Using a twisting motion, press the seal baffle closure cap (112), down over the shaft extension and baffle lip. Continue pressing down until the gasket (744-5) is over the lip and the baffle (014) can be felt to "bottom".
- (h) Install baffle cap screw (806-4) and use an eight-inch crescent or similar wrench to torque the cap screw (806-4) to 35 foot pounds (34 to 47 N.m).
- (i) Check to see that case closure nut (M-084), ring (M-083) and gasket (M-082) are loose and free.
- (j) Place the coupling and components in the shaft shipping cap (112-1) with its gasket (744-6) and bolt cap securely in place.
- (k) Elevate motor over a sump or drum to drain oil from motor.
- (l) Remove casing drain plug from bottom side of lower casing, then remove case vent plug (609) at top of motor and allow motor to fully drain.
- (m) Replace drain and vent plugs. The motor may now be laid horizontal for shipping.

#### **NOTICE OF MERCURY SAFETY REFERENCE: CAUTION:**

**BEFORE STARTING DISASSEMBLY OF THIS MOTOR, PERSONS DOING SO SHOULD BE AWARE THAT THE SHAFT SEAL CONTAINS MERCURY.**

The following mercury safety references should be consulted:

- (a) American Industrial Hygiene Association, Hygienic Guide Series: Mercury and Its Organic Compounds (Hg-Rev 1966) American Industrial Hygiene Association, 66 South Miller Road, Akron, Ohio 44313.
- (b) National Safety Council Mercury Data Sheet 203, Rev. A Extensive. National Safety Council, Chemical Section, 444 North Michigan Avenue, Chicago, Illinois 60611.
- (c) National Institute for Occupational Safety and Health, A Recommended Standard for Exposure to Inorganic Mercury. U.S. Department of Health and Human Resources NIOSH, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857.
- (d) National Institute for Occupational Safety and Health, Criteria for a Recommended Standard ...Occupational Exposure to Inorganic Mercury. U.S. Department of Health and Human Resources NIOSH, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857.



# BYRON JACKSON SUBMERSIBLE MOTORS

## TYPE H

### Pulling Motor From Well Procedure

The following is the suggested procedure for the handling of a Byron Jackson Type "H" submersible motor if electrical failure is evident or suspected. It is based on the supposition that the probable heat generated during a substantial stator burn-out would cause an intense internal pressure increase of a magnitude to overcome the motor's normal balance system, forcing elemental mercury from the motor seal upward into the lower bowl assembly component, the adapter bracket. This bracket is designed to enclose a neutral pressure, sealed chamber located below the suction casting. Commonly, mercury displaced into the adapter bracket casting is fully contained preventing escape into the well and allowing recovery after pulling of the pump. This procedure is intended to maximize the eco-conscious design of the bowl assembly and motor combination by avoiding improper handling at the well head.

Where there is some question that a motor may have burned or thrust bearing may have failed or whenever we suspect that mercury may be present when we get motor and bowl to surface the standard practice should be followed by everyone. There will be no exceptions to this method.

The procedure would be implemented when the bowl and motor reach the surface. We would use either a slip plate on the motor upper case notch or a fabricated motor tub, either one is acceptable.

1. Place visqueen plastic sheeting on the ground, pump house floor, or drill floor, surrounding the well. This should be extended in the direction of the intended path of motor removal from the well and should extend beyond the planned motor preparation area.
2. Take and record the final megger reading of the power cable/motor. Disconnect the power cable from the motor. Clean the motor conductor leads and surrounding gland plate surface. Take and record megger readings of the motor only in all six combinations. Secure the power cable clear of the well. Install the motor terminal gasket and cap furnished with the motor.
3. Cut an additional plastic shroud to be wrapped closely around the motor to cover the slip plate and all open areas of the well. The shroud may be cinched tightly with tape.

(continued)



4. Remove the two square-head pipe plugs located in the bowl assembly casting directly above the motor. This will be later referred to as the "adapter". While removing these plugs, watch for flocculated mercury (tiny droplets) on the inside surface of the plugs. If present, the droplets should be brushed into a sealable container away from the well in the motor preparation area.
5. Scan the inside of the adapter through the plug holes. Determine the location of the hex heads of two coupling bolts installed through the upper half of the two-piece coupling. It may be necessary to rotate the coupling to bring these bolts into position for extraction through the plug holes. Using the proper sized socket wrench with extension, carefully loosen and remove these bolts. Store them in the motor preparation area. (See alternate number 5 below.)
6. Clean the casting joint above the plug holes and remove the cap screws fastening this joint. This will permit the bowl assembly with the bowl-half coupling to be carefully lifted clear of the motor.
7. Using an Allen wrench, remove the bolt installed into the end of the motor shaft. Also, remove the motor shaft end (thrust bottom) and shim stack. Store these items in the motor prep area.
8. Using a suction device with a hose or tube extension, remove all liquid contained in the adapter. Drain this into a sealable container. Pour about one pint of commercial alcohol into the adapter and remove this by suction.
9. Remove the nuts and bolts fastening the adapter to the motor. Lift the adapter clear of the motor. Any remaining mercury on the motor upper surface or adapter internal bore should be brushed in to the salvage container.
10. Put motor bowl adapter back onto bowl. We can now lay bowl down on rack or runway. This is done to protect shaft or bowl from being damaged.
11. Loosen the set screw bearing on the motor coupling key. Remove the motor coupling and key. Clean any mercury particles on the bottom of the coupling. (See alternate number 11, 12, 13 and 14 below.)
12. Loosen the large hex nut (baffle nut) located at the top of the motor at least four full turns or more so that the sleeve (baffle) on which the nut is threaded can be depressed without the nut contacting the ring below the nut.

(continued)

13. Install one shaft shipping cover using the fastener provided. Some light oil may be helpful at the point of engagement.
14. Sub-assemble the motor coupling, aligning jib, thrust button, coupling bolts and lock washers, thrust screw and shims. Store this assembly within the irregular portion of the motor shipping cover.
15. Fit the motor shipping cover gasket to the top motor surface and mount the shipping cover. Apply and tighten the fasteners provided.
16. Using a sling and shackle arrangement, release, lift, and move the motor safely out of the motor preparation area to storage or transfer.
17. Carefully lift and fold all plastic sheeting used to contain any mercury spillage for transport off the site by the installing contractor.
18. Scan the area for any accidental spillage. If evident, clean up appropriately.

Alternate #5:

In the event that the coupling will not rotate to permit coupling screw extraction, bearing damage to the bowl assembly or motor may exist. In this case, the following steps should be taken:

- (a) Remove the fasteners at the case joints above the adapter plug holes. Lift the pump approximately  $3/16"$  to open this case joint. Rotate the entire bowl assembly. If the problem is a damaged bowl bearing, the coupling should be free to rotate.
- (b) If a damaged motor bearing exists, the pump would rotate in 5(a), but the coupling would not. In this case, the pump should be raised an additional  $1/16"$  to open the case joint  $1/4"$ . This would be the maximum lift of the bowl assembly since the stationary internal casting surfaces would come in contact with the impellers. While holding the bowl weight only with the pump rig, again rotate the bowl assembly. Chain wrenches may be required on both the bowl assembly and the motor as a "back up". This force should be sufficient to rotate the coupling to the desired position for bolt extraction.

(continued)

Alternate #11, 12, 13 and 14: It is not unusual for the motor coupling to be locked in place. If the coupling resists movement with a coupling puller, it should be left in place for removal at the Byron Jackson factory. In no case should the coupling be only partly pulled and left in a raised position since this would prevent the fitting of the motor shipping cover and the sealing of the motor for storage or shipment.

Loosen the baffle nut until its upper surface engages tightly the underside of the coupling. This contact would affect an internal closure of the mercury seal container. Wrap good quality electrical tape around the lower end of the coupling, the baffle nut, and the exposed seal baffle to form a containment.

Pack the shaft shipping cover, aligning jig, coupling bolts, thrust button, and thrust screw within the irregular portion of the motor shipping cover. Provided the coupling is in its normal running position, the cover gasket and cover should be able to be mounted correctly.

(continued)

## MERCURY HAZARDS IN BYRON-JACKSON PUMP MOTORS

Anyone who has worked with Byron-Jackson equipment knows that the motors contain a strange looking liquid called mercury. Mercury is a very dense metal with a very high melting point, this is the reason it is so heavy and is a liquid at room temperature. **MERCURY IS ALSO VERY TOXIC TO HUMANS AND THE ENVIRONMENT.** The main routes of exposure to humans is through skin contact and inhalation of vapors. Mercury exposure can cause coughing chest pains, tremors, insomnia, headache, fatigue and weakness. Long term exposure affects the central nervous system and the kidneys. Mercury is noncombustible and is not detected by organic vapor or gas monitors. Hopefully, the mercury will stay contained within the motor, but in the event of a spill, there are a few safe practices to follow when working with mercury.

- \* Immediately report all spills to a supervisor. The supervisor must in turn report the spill to the Legal Department in Mission Woods, Kansas (913/362-0510). The EPA reportable quantity for a mercury spill is 1 pound. Since it is so heavy, a very small spill (less than 6 ounces) is reportable.
- \* Contain the spill. Some BJ motors contain up to 10 pounds of mercury. Mercury droplets splatter on impact, spreading mercury beads. Isolating the area prevents spreading contamination. **DO NOT TRY TO CLEAN UP A MERCURY SPILL,** you will probably only make it worse. Mercury can attach to equipment and clothing, so be sure to use proper decontamination procedures.

Some proactive steps should be taken by offices working the BJ motors. Follow all procedures set forth by Byron-Jackson when working with these motors. If you are not aware of proper motor installation or removal procedures, contact your supervisor. A mercury spill kit should be available at each office and several personnel trained in its use to clean up spills immediately.

**MERCURY SHOULD NOT BE TRANSPORTED IN LAYNE VEHICLES FOR THE PURPOSE OF SERVICING MOTORS ON SITE.**

For BJ motor installation or removal procedures, clean-up information, or where to acquire spill kits, contact the SEHS Department at 913/342-4803.

IN BYRON JACKSON TYPE "H" SUBMERSIBLES

TO BE USED IN CONJUNCTION WITH DWG #232-1 IN MANUAL

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1. When bowl assembly and motor has reached the surface, secure motor unit with U plate below upper motor flange.
2. Detach bowl assembly by dismantling the bolting between the motor and pump adaptor.
3. Remove plugs #794 on either side of adaptor. This will permit access to two coupling bolts and lock washers #907.
4. Using a socket wrench, remove bolts and washers. Note: It may be necessary to rotate the shaft to bring bolts into view.
5. Lift bowl assembly from motor and dispose of it.
6. Loosen baffle nut #606 at least three full turns. This operation isolates the seal cavity internally by lowering the seal baffle #541.
7. Attach a suitable choker to the motor by using eye bolts.
8. Remove vent plug #610.
9. Detach upper balance tube fittings #661.
10. Raise motor and place a barrel or other suitable container under it to receive the oil to be drained.
11. Remove drain plug #793. Vent plug #610 must be removed as described in step 8 above.
12. Allow oil to drain completely.
13. Remove balance tube and check to make sure that it is clean and clear.
14. Replace drain plug #793.
15. Attach balance line to bottom of motor.
16. If space in well permits, lower motor to a height comfortable for access to upper balance tube. Oil refilling must be done through this tube.

17. Attach a funnel to upper end of balance tube. If possible, the funnel should be preceded by as long a piece of plastic tube as is practical to insure a higher head of oil to save time in filling. Vent plug must be removed during filling. Byron Jackson Submersible oil must be used. Quantities are as follows:

MOTOR SIZE	QUANTITY (Gals.)
8"	4
10"	8
14" - 15"	20
16" - 17"	25

A barrel pump may be used for filling if proper fittings are available for connection to the upper balance tube.

18. Continue filling until oil issues forth from vent opening.
19. Replace vent plug #610. Make sure copper bushing (or O-ring on larger motors) is in position.
20. Remove base or barrel pump fittings and reattach balance line to upper motor casing.
21. When pump is to be reinstalled, proceed as initiated in Type H instruction manual including the following steps:
  - F. Tighten baffle nut.
  - I. Turn coupling so that C/L of jaws are in line with cable terminal.
  - J. Remove adaptor #808, bolt to motor, and balance motor in the standard manner. Alternately, motor can be balanced in the "Schneller" manner by installing the bowl assembly with the adaptor in place and piping to one of the adaptor openings.

Note: It is realized that filling as described should balance the motor. But, to guard against any change in oil levels which may occur as the baffle nut is retightened, it is recommended that balance be checked after seal is again released.
22. Proceed with installation.



Reviewed By:	
Legal	<input type="checkbox"/>
Finance	<input type="checkbox"/>
Engineer	<input checked="" type="checkbox"/>
City Administrator	<input checked="" type="checkbox"/>
Community Development	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>
Police	<input type="checkbox"/>
Public Works	<input type="checkbox"/>
Parks and Recreation	<input type="checkbox"/>

Agenda Item Number

New Business #6

Tracking Number

PW 2021-74

### Agenda Item Summary Memo

**Title:** Lake Michigan Allocation – Engineerin Agreement

**Meeting and Date:** Public Works Committee – December 21, 2021

**Synopsis:** \_\_\_\_\_  
\_\_\_\_\_

### Council Action Previously Taken:

Date of Action: \_\_\_\_\_ Action Taken: \_\_\_\_\_

Item Number: \_\_\_\_\_

**Type of Vote Required:** Majority

**Council Action Requested:** Approval

**Submitted by:** Bart Olson Administration  
Name Department

### Agenda Item Notes:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Agreement for Professional Services  
United City of Yorkville, Kendall County, IL  
Lake Michigan Allocation Permit Application**

THIS AGREEMENT, by and between the United City of Yorkville, hereinafter referred to as the "City" or "OWNER" and Engineering Enterprises, Inc. hereinafter referred to as the "Contractor" or "ENGINEER" agrees as follows:

**A. Services:**

The Engineer shall furnish the necessary personnel, materials, equipment and expertise to make the necessary investigations, analysis and calculations along with exhibits, cost estimates and narrative, to complete all necessary engineering services to the City as indicated on the included Attachment B. Services to be provided include engineering services for the Lake Michigan Allocation Permit Application as indicated on Attachment C.

**B. Term:**

Services will be provided beginning on the date of execution of this agreement and continuing, until terminated by either party upon 7 days written notice to the non-terminating party or upon completion of the Services. Upon termination the Contractor shall be compensated for all work performed for the City prior to termination.

**C. Compensation and maximum amounts due to Contractor:**

Contractor shall receive as compensation for all work and services to be performed herein based on a time and material basis. The Estimate of Level of Effort and Associated Cost, included as Attachment C, suggests the budget for the Contractor's services to be \$88,800. All payments will be made according to the Illinois State Prompt Payment Act and not less than once every thirty days.

**D. Changes in Rates of Compensation:**

In the event that this contract is designated in Section B hereof as an Ongoing Contract, Contractor, on or before February 1<sup>st</sup> of every given year, shall provide written notice of any change in the rates specified in Attachment C hereof (or on any attachments hereto) and said changes shall only be effective on and after May 1<sup>st</sup> of that same year.

**E. Ownership of Records and Documents:**

Contractor agrees that all books and records and other recorded information developed specifically in connection with this agreement shall remain the property of the City. Contractor agrees to keep such information confidential and not to disclose or disseminate the information to third parties without the consent of the City. This



confidentiality shall not apply to material or information, which would otherwise be subject to public disclosure through the freedom of information act or if already previously disclosed by a third party. Upon termination of this agreement, Contractor agrees to return all such materials to the City. The City agrees not to modify any original documents produced by Contractor without contractors consent. Modifications of any signed duplicate original document not authorized by ENGINEER will be at OWNER's sole risk and without legal liability to the ENGINEER. Use of any incomplete, unsigned document will, likewise, be at the OWNER's sole risk and without legal liability to the ENGINEER.

#### **F. Governing Law:**

This contract shall be governed and construed in accordance with the laws of the State of Illinois. Venue shall be in Kendall County, Illinois.

#### **G. Independent Contractor:**

Contractor shall have sole control over the manner and means of providing the work and services performed under this agreement. The City's relationship to the Contractor under this agreement shall be that of an independent contractor. Contractor will not be considered an employee to the City for any purpose.

#### **H. Certifications:**

Employment Status: The Contractor certifies that if any of its personnel are an employee of the State of Illinois, they have permission from their employer to perform the service.

Anti-Bribery: The Contractor certifies it is not barred under 30 Illinois Compiled Statutes 500/50-5(a) - (d) from contracting as a result of a conviction for or admission of bribery or attempted bribery of an officer or employee of the State of Illinois or any other state.

Loan Default: If the Contractor is an individual, the Contractor certifies that he/she is not in default for a period of six months or more in an amount of \$600 or more on the repayment of any educational loan guaranteed by the Illinois State Scholarship Commission made by an Illinois institution of higher education or any other loan made from public funds for the purpose of financing higher education (5 ILCS 385/3).

Felony Certification: The Contractor certifies that it is not barred pursuant to 30 Illinois Compiled Statutes 500/50-10 from conducting business with the State of Illinois or any agency as a result of being convicted of a felony.

Barred from Contracting: The Contractor certifies that it has not been barred from contracting as a result of a conviction for bid-rigging or bid rotating under 720 Illinois Compiled Statutes 5/33E or similar law of another state.

**Drug Free Workplace:** The Contractor certifies that it is in compliance with the Drug Free Workplace Act (30 Illinois Compiled Statutes 580) as of the effective date of this contract. The Drug Free Workplace Act requires, in part, that Contractors, with 25 or more employees certify and agree to take steps to ensure a drug free workplace by informing employees of the dangers of drug abuse, of the availability of any treatment or assistance program, of prohibited activities and of sanctions that will be imposed for violations; and that individuals with contracts certify that they will not engage in the manufacture, distribution, dispensation, possession, or use of a controlled substance in the performance of the contract.

**Non-Discrimination, Certification, and Equal Employment Opportunity:** The Contractor agrees to comply with applicable provisions of the Illinois Human Rights Act (775 Illinois Compiled Statutes 5), the U.S. Civil Rights Act, the Americans with Disabilities Act, Section 504 of the U.S. Rehabilitation Act and the rules applicable to each. The equal opportunity clause of Section 750.10 of the Illinois Department of Human Rights Rules is specifically incorporated herein. The Contractor shall comply with Executive Order 11246, entitled Equal Employment Opportunity, as amended by Executive Order 11375, and as supplemented by U.S. Department of Labor regulations (41 C.F.R. Chapter 60). The Contractor agrees to incorporate this clause into all subcontracts under this Contract.

**International Boycott:** The Contractor certifies that neither it nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act (30 ILCS 582).

**Record Retention and Audits:** If 30 Illinois Compiled Statutes 500/20-65 requires the Contractor (and any subcontractors) to maintain, for a period of 3 years after the later of the date of completion of this Contract or the date of final payment under the Contract, all books and records relating to the performance of the Contract and necessary to support amounts charged to the City under the Contract. The Contract and all books and records related to the Contract shall be available for review and audit by the City and the Illinois Auditor General. If this Contract is funded from contract/grant funds provided by the U.S. Government, the Contract, books, and records shall be available for review and audit by the Comptroller General of the U.S. and/or the Inspector General of the federal sponsoring agency. The Contractor agrees to cooperate fully with any audit and to provide full access to all relevant materials.

**United States Resident Certification:** (This certification must be included in all contracts involving personal services by non-resident aliens and foreign entities in accordance with requirements imposed by the Internal Revenue Services for withholding and reporting federal income taxes.) The Contractor certifies that he/she is a:   x   United States Citizen        Resident Alien        Non-Resident Alien The Internal Revenue Service requires that taxes be withheld on payments made to non resident aliens for the performance of personal services at the rate of 30%.

Tax Payer Certification : Under penalties of perjury, the Contractor certifies that its Federal Tax Payer Identification Number or Social Security Number is (provided separately) and is doing business as a (check one): ☐ Individual ☐ Real Estate Agent ☐ Sole Proprietorship ☐ Government Entity ☐ Partnership ☐ Tax Exempt Organization (IRC 501(a) only) ☒ Corporation ☐ Not for Profit Corporation ☐ Trust or Estate ☐ Medical and Health Care Services Provider Corp.

#### **I. Indemnification:**

Contractor shall indemnify and hold harmless the City and City's agents, servants, and employees against all loss, damage, and expense which it may sustain or for which it will become liable on account of injury to or death of persons, or on account of damage to or destruction of property resulting from the performance of work under this agreement by Contractor or its Subcontractors, or due to or arising in any manner from the wrongful act or negligence of Contractor or its Subcontractors of any employee of any of them. In the event that the either party shall bring any suit, cause of action or counterclaim against the other party, the non-prevailing party shall pay to the prevailing party the cost and expenses incurred to answer and/or defend such action, including reasonable attorney fees and court costs. In no event shall the either party indemnify any other party for the consequences of that party's negligence, including failure to follow the ENGINEER's recommendations.

#### **J. Insurance:**

The contractor agrees that it has either attached a copy of all required insurance certificates or that said insurance is not required due to the nature and extent of the types of services rendered hereunder. (Not applicable as having been previously supplied).

#### **K. Additional Terms or Modification:**

The terms of this agreement shall be further modified as provided on the attached Exhibits. Except for those terms included on the Exhibits, no additional terms are included as a part of this agreement. All prior understandings and agreements between the parties are merged into this agreement, and this agreement may not be modified orally or in any manner other than by an agreement in writing signed by both parties. In the event that any provisions of this agreement shall be held to be invalid or unenforceable, the remaining provisions shall be valid and binding on the parties. The list of Attachments are as follows:

**Attachment A:** Standard Terms and Conditions

**Attachment B:** Scope of Services

**Attachment C:** Estimated Level of Effort and Associated Cost

**Attachment D:** Anticipated Project Schedule

**Attachment E:** 2021 Standard Schedule of Charges

**L. Notices:**

All notices required to be given under the terms of this agreement shall be given mail, addressed to the parties as follows:

For the City:

City Administrator and City Clerk  
United City of Yorkville  
800 Game Farm Road  
Yorkville, IL 60560

For the Contractor:

Engineering Enterprises, Inc.  
52 Wheeler Road  
Sugar Grove, IL 60554

Either of the parties may designate in writing from time to time substitute addresses or persons in connection with required notices.

Agreed to this \_\_\_\_ day of \_\_\_\_\_, 2022.

United City of Yorkville

Engineering Enterprises, Inc.:

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John Purcell  
Mayor

---

Bradley P Sanderson, P.E.  
Chief Operating Officer / President

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Jori Behland  
City Clerk

---

Jeffrey W. Freeman, P.E. CFM, LEED AP  
Chief Executive Officer

## **Attachment A:**

### **STANDARD TERMS AND CONDITIONS**

**Agreement:** These Standard Terms and Conditions, together with the Professional Services Agreement, constitute the entire integrated agreement between the OWNER and Engineering Enterprises, Inc. (EEI) (hereinafter “Agreement”), and take precedence over any other provisions between the Parties. These terms may be amended, but only if both parties consent in writing.

**Standard of Care:** In providing services under this Agreement, the ENGINEER will endeavor to perform in a matter consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under same circumstances in the same locality. ENGINEER makes no other warranties, express or implied, written or oral under this Agreement or otherwise, in connection with ENGINEER’S service.

**Construction Engineering and Inspection:** The ENGINEER shall not supervise, direct, control, or have authority over any contractor work, nor have authority over or be responsible for the means, methods, techniques sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety of the site, nor for any failure of a contractor to comply with laws and regulations applicable to such contractor’s furnishing and performing of its work.

The ENGINEER neither guarantees the performance of any contractor nor assumes responsibility for contractor’s failure to furnish and perform the work in accordance with the contract documents.

The ENGINEER is not responsible for the acts or omissions of any contractor, subcontractor, or supplies, or any of their agents or employees or any other person at the site or otherwise furnishing or performing any work.

Shop drawing and submittal review by the ENGINEER shall apply to only the items in the submissions and only for the purpose of assessing if upon installation or incorporation in the project work they are generally consistent with the construction documents. OWNER agrees that the contractor is solely responsible for the submissions and for compliance with the construction documents. OWNER further agrees that the ENGINEER’S review and action in relation to these submissions shall not constitute the provision of means, methods, techniques, sequencing or procedures of construction or extend or safety programs or precautions. The ENGINEER’S consideration of a component does not constitute acceptance of the assembled items.

The ENGINEER’S site observation during construction shall be at the times agreed upon in the Project Scope. Through standard, reasonable means the ENGINEER will become generally familiar with observable completed work. If the ENGINEER observes completed work that is inconsistent with the construction documents, that information shall be communicated to the contractor and OWNER for them to address.

**Opinion of Probable Construction Costs:** ENGINEER'S opinion of probable construction costs represents ENGINEER'S best and reasonable judgment as a professional engineer. OWNER acknowledges that ENGINEER has no control over construction costs of contractor's methods of determining pricing, or over competitive bidding by contractors, or of market conditions or changes thereto. ENGINEER cannot and does not guarantee that proposals, bids or actual construction costs will not vary from ENGINEER'S opinion of probable construction costs.

**Copies of Documents & Electronic Compatibility:** Copies of Documents that may be relied upon by OWNER are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to OWNER are only for convenience of OWNER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of the project.

**Changed Conditions:** If, during the term of this Agreement, circumstances or conditions that were not originally contemplated by or known to the ENGINEER are revealed, to the extent that they affect the scope of services, compensation, schedule, allocation of risks, or other material terms of this Agreement, the ENGINEER may call for renegotiation of appropriate portions of this Agreement. The ENGINEER shall notify the OWNER of the changed conditions necessitating renegotiation, and the ENGINEER and the OWNER shall promptly and in good faith enter into renegotiation of this Agreement to address the changed conditions. If terms cannot be agreed to, the parties agree that either party has the absolute right to terminate this Agreement, in accordance with the termination provision hereof.

**Hazardous Conditions:** OWNER represents to ENGINEER that to the best of its knowledge no Hazardous Conditions (environmental or otherwise) exist on the project site. If a Hazardous Condition is encountered or alleged, ENGINEER shall have the obligation to notify OWNER and, to the extent of applicable Laws and Regulations, appropriate governmental officials. It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a Hazardous Condition. In the event ENGINEER or any other party encounters a Hazardous Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the project affected thereby until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Hazardous Condition; and (ii) warrants that the project site is in full compliance with applicable Laws and Regulations.

**Consequential Damages:** Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the OWNER nor the ENGINEER, their respective officers, directors, partners, employees, contractors, or subcontractors shall be liable to the other

or shall make any claim for any incidental, indirect, or consequential damages arising out of or connected in any way to the Project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation, or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract, and breach of strict or implied warranty. Both the OWNER and the ENGINEER shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.

**Termination:** This Agreement may be terminated for convenience, without cause, upon seven (7) days written notice of either party. In the event of termination, the ENGINEER shall prepare a final invoice and be due compensation as set forth in the Professional Services Agreement for all costs incurred through the date of termination.

Either party may terminate this Agreement for cause upon giving the other party not less than seven (7) calendar days' written notice for the following reasons:

- (a) Substantial failure by the other party to comply with or perform in accordance with the terms of the Agreement and through no fault of the terminating party;
- (b) Assignment of the Agreement or transfer of the project without the prior written consent of the other party;
- (c) Suspension of the project or the ENGINEER'S services by the OWNER for a period of greater than ninety (90) calendar days, consecutive or in the aggregate.
- (d) Material changes in the conditions under which this Agreement was entered into, the scope of services or the nature of the project, and the failure of the parties to reach agreement on the compensation and schedule adjustments necessitated by such changes.

**Payment of Invoices:** Invoices are due and payable within 30 days of receipt unless otherwise agreed to in writing.

**Third Party Beneficiaries:** Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the OWNER or the ENGINEER. The ENGINEER'S services under this Agreement are being performed solely and exclusively for the OWNER'S benefit, and no other party or entity shall have any claim against the ENGINEER because of this Agreement or the performance or nonperformance of services hereunder. The OWNER and ENGINEER agree to require a similar provision in all contracts with contractors, subcontractors, vendors and other entities involved in this Project to carry out the intent of this provision.

**Force Majeure:** Each Party shall be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming party promptly provides notice of such prevention to the other party. Such excuse shall be continued so long as the condition constituting force majeure



continues. The party affected by such force majeure also shall notify the other party of the anticipated duration of such force majeure, any actions being taken to avoid or minimize its effect after such occurrence, and shall take reasonable efforts to remove the condition constituting such force majeure. For purposes of this Agreement, "force majeure" shall include conditions beyond the control of the parties, including an act of God, acts of terrorism, voluntary or involuntary compliance with any regulation, law or order of any government, war, acts of war (whether war be declared or not), labor strike or lock-out, civil commotion, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe. The payment of invoices due and owing hereunder shall in no event be delayed by the payer because of a force majeure affecting the payer.

**Additional Terms or Modification:** All prior understandings and agreements between the parties are merged into this Agreement, and this Agreement may not be modified orally or in any manner other than by an Agreement in writing signed by both parties. In the event that any provisions of this Agreement shall be held to be invalid or unenforceable, the remaining provisions shall be valid and binding on the parties.

**Assignment:** Neither party to this Agreement shall transfer or assign any rights or duties under or interest in this Agreement without the prior written consent of the other party. Subcontracting normally contemplated by the ENGINEER shall not be considered an assignment for purposes of this Agreement.

**Waiver:** A party's waiver of, or the failure or delay in enforcing any provision of this Agreement shall not constitute a waiver of the provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

**Attorney's Fees:** In the event of any action or proceeding brought by either party against the other under this Agreement, the prevailing party shall be entitled to recover from the other all costs and expenses including without limitation the reasonable fees of its attorneys in such action or proceeding, including costs of appeal, if any, in such amount as the Court may adjudge reasonable.

**Headings:** The headings used in this Agreement are inserted only as a matter of convenience only, and in no way define, limit, enlarge, modify, explain or define the text thereof nor affect the construction or interpretation of this Agreement.

## **Attachment B:**

# **SCOPE OF SERVICES**

### **Introduction:**

The United City of Yorkville, along with its Waterlink partners (Villages of Montgomery and Oswego), have selected Lake Michigan as their long-term sustainable water source. The City will need to secure a Lake Michigan Allocation in order to utilize it as their water source. The City would like to proceed with an application for a Lake Michigan allocation with the ultimate goal of receiving an allocation permit. The scope of services for this project includes the development of the application and its supplementary components, as well as consultation services throughout the submittal development and hearing process.

The proposed work items for this project are as follows:

### **PROJECT FACILITATION & STATUS REVIEW PROJECT TEAM MEETINGS**

- 0.1 Project Administration
- 0.2 Data Collation & Status Review Meetings (3 Online Meetings)
- 0.3 Waterlink Coordination Meetings (2 Online Meetings)
- 0.4 Pre-Application Meeting With IDNR (Online)

### **APPLICATION PREPARATION**

- 1.1 Coordinate Information Collation
- 1.2 Summarize Data
- 1.3 Input Data Into Application
- 1.4 Application Review & Finalization

### **REPORT IN SUPPORT OF APPLICATION PREPARATION**

- 2.1 Develop Existing & Proposed Wastewater Discharge Location Map
- 2.2 Summarize Water Demand Projections
- 2.3 Summarize Existing Water Works System
- 2.4 Summarize Proposed System
- 2.5 Summarize Conservation Practices
- 2.6 Summary Implementation Schedule
- 2.7 Report Review & Finalization

### **NONREVENUE REDUCTION PLAN PREPARATION**

- 3.1 Summarize Historical Water Loss Audit Results
- 3.2 Summarize NRW Reduction Strategies and Actions
- 3.3 Define NRW Reduction Implementation Schedule
- 3.4 Report Review & Finalization

### **TESTIMONY PREPARATION**

- 4.1 Review and Edit Testimony

### **HEARING PROCESS**

- 5.1 Pre-Hearing Notification

- 5.2 Pre-Hearing Preparation & Pre-Hearing
- 5.3 Application Package Revisions
- 5.4 Application Package Response Testimony
- 5.5 Hearing Preparation & Hearing

The above scope summarizes the work items that will be completed for this contract. Additional work items, including additional meetings beyond the meetings defined in the above scope, shall be considered outside the scope of the base contract and will be billed in accordance with the Standard Schedule of Charges.

**ATTACHMENT C: ESTIMATE OF LEVEL OF EFFORT AND ASSOCIATED COST  
PROFESSIONAL ENGINEERING SERVICES**

CLIENT					PROJECT NUMBER		
United City of Yorkville					YO2150-P		
PROJECT TITLE					DATE		PREPARED BY
Lake Michigan Allocation Permit Application					12/16/21		JWF

TASK NO.	TASK DESCRIPTION	ROLE	PIC	PM	PM	PE	PE	GIS Tech	ADMIN	HOURS	COST
		PERSON	BPS	JWF	MLP	ALI	KAM	MJT	DRA		
		RATE	\$217	\$217	\$212	\$147	\$147	\$100	\$70		
PROJECT FACILITATION & STATUS REVIEW PROJECT TEAM MEETINGS											
0.1	Project Administration		6	12						18	\$ 3,906
0.2	Data Collation & Status Review Meetings (3 Online Meetings)		3	9	3	3				18	\$ 3,681
0.3	Waterlink Coordination Meetings (2 Online Meetings)		2	4						6	\$ 1,302
0.4	Pre-Application Meeting With IDNR (Online)		2	6	2	2				12	\$ 2,454
Project Facilitation & Project Team Meetings Subtotal:			13	31	5	5	-	-	-	54	\$ 11,343

<b>APPLICATION PREPARATION</b>											
1.1	Coordinate Information Collation		2	6	6	6				20	\$ 3,890
1.2	Summarize Data		1	4	4	30	10			49	\$ 7,813
1.3	Input Data Into Application		1	4	4	20	8			37	\$ 6,049
1.4	Application Review & Finalization		2	6	4	6			2	20	\$ 3,606
<b>Application Preparation Subtotal:</b>			<b>6</b>	<b>20</b>	<b>18</b>	<b>62</b>	<b>18</b>	<b>-</b>	<b>2</b>	<b>126</b>	<b>\$ 21,358</b>

<b>REPORT IN SUPPORT OF APPLICATION PREPARATION</b>											
2.1	Develop Existing & Proposed Wastewater Discharge Location Map			1		6		4		11	\$ 1,499
2.2	Summarize Water Demand Projections			2		6				8	\$ 1,316
2.3	Summarize Existing Water Works System			1		6		2		9	\$ 1,299
2.4	Summarize Proposed System			2		6		4		12	\$ 1,716
2.5	Summarize Conservation Practices			1		3				4	\$ 658
2.6	Summary Implementation Schedule			1		3				4	\$ 658
2.7	Report Review & Finalization		2	4		12			2	20	\$ 3,206
<b>Report in Support of Application Preparation Subtotal:</b>			<b>2</b>	<b>12</b>	<b>-</b>	<b>42</b>	<b>-</b>	<b>10</b>	<b>2</b>	<b>68</b>	<b>\$ 10,352</b>

<b>NONREVENUE REDUCTION PLAN PREPARATION</b>											
3.1	Summarize Historical Water Loss Audit Results			2	4		10			16	\$ 2,752
3.2	Summarize NRW Reduction Strategies and Actions		2	2	6		14	4		28	\$ 4,598
3.3	Define NRW Reduction Implementation Schedule		2	2	6		4			14	\$ 2,728
3.4	Report Review & Finalization		2	2	4		14		2	24	\$ 3,914
<b>Nonrevenue Reduction Plan Preparation Subtotal:</b>			<b>6</b>	<b>8</b>	<b>20</b>	<b>-</b>	<b>42</b>	<b>4</b>	<b>2</b>	<b>82</b>	<b>\$ 13,992</b>

<b>TESTIMONY PREPARATION</b>											
4.1	Review and Edit Testimony		4	4		4				12	\$ 2,324
<b>Testimony Preparation Subtotal:</b>			<b>4</b>	<b>4</b>	<b>-</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12</b>	<b>\$ 2,324</b>

<b>HEARING PROCESS</b>											
5.1	Pre-Hearing Notification		1	2		2			4	9	\$ 1,225
5.2	Pre-Hearing Preparation & Pre-Hearing		12	12		12				36	\$ 6,972
5.3	Application Package Revisions		2	6		16				24	\$ 4,088
5.4	Application Package Response Testimony		2	6		12				20	\$ 3,500
5.5	Hearing Preparation & Hearing		16	16		16				48	\$ 9,296
<b>Hearing Process Subtotal:</b>			<b>33</b>	<b>42</b>	<b>-</b>	<b>58</b>	<b>-</b>	<b>-</b>	<b>4</b>	<b>137</b>	<b>\$ 25,081</b>

**PROJECT TOTAL: | 64 | 117 | 43 | 171 | 60 | 14 | 10 || 479 | 84,450**

**EEl STAFF**

BPS Bradley P. Sanderson, P.E.  
JWF Jeffrey W. Freeman, P.E., CFM, LEED AP  
TGH Michele Piotrowski, P.E., LEED AP  
ALI Ali Ghasemmi, Ph.D, E.I.  
KAM Kamelia Afshinnia, Ph.D, E.I.  
MJT Matthew J. Taylor  
DRA Deborah R. Anderson

**DIRECT EXPENSES**

Printing/Scanning =	\$ 250
Mileage =	\$ 100
Illinois State Water Survey =	\$ 4,000
<b>DIRECT EXPENSES =</b>	<b>\$ 4,350</b>

**LABOR SUMMARY**

EEl Labor Expenses =	\$ 84,450
<b>TOTAL LABOR EXPENSES</b>	<b>\$ 84,450</b>

**TOTAL COSTS \$ 88,800**



## ATTACHMENT D: ESTIMATED SCHEDULE

CLIENT		PROJECT NUMBER											
United City of Yorkville		YO2150-P											
PROJECT TITLE		DATE						PREPARED BY					
Lake Michigan Allocation Permit Application		12/16/21						JWF					
TASK NO.	TASK DESCRIPTION												
		2022											
		JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
PROJECT FACILITATION & STATUS REVIEW PROJECT TEAM MEETINGS													
0.1	Project Administration												
0.2	Data Collation & Status Review Meetings (3 Online Meetings)												
0.3	Waterlink Coordination Meetings (2 Online Meetings)												
0.4	Pre-Application Meeting With IDNR (Online)												
APPLICATION PREPARATION													
1.1	Coordinate Information Collation												
1.2	Summarize Data												
1.3	Input Data Into Application												
1.4	Application Review & Finalization												
REPORT IN SUPPORT OF APPLICATION PREPARATION													
2.1	Develop Existing & Proposed Wastewater Discharge Location Map												
2.2	Summarize Water Demand Projections												
2.3	Summarize Existing Water Works System												
2.4	Summarize Proposed System												
2.5	Summarize Conservation Practices												
2.6	Summary Implementation Schedule												
2.7	Report Review & Finalization												
NONREVENUE REDUCTION PLAN PREPARATION													
3.1	Summarize Historical Water Loss Audit Results												
3.2	Summarize NRW Reduction Strategies and Actions												
3.3	Define NRW Reduction Implementation Schedule												
3.4	Report Review & Finalization												
TESTIMONY PREPARATION													
4.1	Review and Edit Testimony												
HEARING PROCESS													
5.1	Pre-Hearing Notification												
5.2	Pre-Hearing Preparation & Pre-Hearing												
5.3	Application Package Revisions												
5.4	Application Package Response Testimony												
5.5	Hearing Preparation & Hearing												





## Standard Schedule of Charges

January 1, 2021

EMPLOYEE DESIGNATION	CLASSIFICATION	HOURLY RATE
Senior Principal	E-4	\$217.00
Principal	E-3	\$212.00
Senior Project Manager	E-2	\$206.00
Project Manager	E-1	\$185.00
Senior Project Engineer/Planner/Surveyor II	P-6	\$174.00
Senior Project Engineer/Planner/Surveyor I	P-5	\$162.00
Project Engineer/Planner/Surveyor	P-4	\$147.00
Senior Engineer/Planner/Surveyor	P-3	\$135.00
Engineer/Planner/Surveyor	P-2	\$123.00
Associate Engineer/Planner/Surveyor	P-1	\$110.00
Senior Project Technician II	T-6	\$158.00
Senior Project Technician I	T-5	\$147.00
Project Technician	T-4	\$135.00
Senior Technician	T-3	\$123.00
Technician	T-2	\$110.00
Associate Technician	T-1	\$ 97.00
GIS Technician	G-1	\$100.00
Engineering/Land Surveying Intern	I-1	\$ 79.00
Administrative Assistant	A-3	\$ 70.00

### VEHICLES. REPROGRAPHICS, DIRECT COSTS, DRONE AND EXPERT TESTIMONY

Vehicle for Construction Observation		\$ 15.00
In-House Scanning and Reproduction	\$0.25/Sq. Ft. (Black & White)	
	\$1.00/Sq. Ft. (Color)	
Reimbursable Expenses (Direct Costs)	Cost	
Services by Others (Direct Costs)	Cost + 10%	
Unmanned Aircraft System / Unmanned Aerial Vehicle / Drone		\$ 200.00
Expert Testimony		\$ 250.00