

# MCCOOK CITY COUNCIL

## REGULAR MEETING

**Monday, December 4, 2023  
5:30 PM - City Council Chambers**

Roll Call.

Excuse Absences.

Open Meetings Act Announcement.

Invocation - McCook Ministerial Association - Lisa Mensinger, Our Saviors Lutheran Church.

Pledge of Allegiance.

Call to Order.

Items.

1. Announcements & Recognitions.

2. Consent Agenda.

*\*The Consent Agenda is approved on one motion. Any item listed on the Consent Agenda may, by the request of any single Council member or public in attendance, be considered as a separate item under the Regular Agenda.*

A. Approve the minutes of the November 20, 2023 regular City Council meeting.

B. Approve Contract Amendment #1 for the McCook Nebraska Swimming Pool and authorize the Mayor to sign.

3. Regular Agenda.

A. Receive Miller & Associates presentation of the completed Facility Plan Summary for the Proposed Wastewater Treatment Facility upgrades and authorize city staff to submit the completed Facility Plan to USDA-RD for funding consideration.

B. Council Comments.

Adjournment.

**CITY MANAGER'S REPORT  
DECEMBER 4, 2023 CITY COUNCIL MEETING**

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**ITEM:**        2.A.

Approve the minutes of the November 20, 2023 regular City Council meeting.

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**BACKGROUND:**

Receive and approve the minutes.

**FISCAL  
IMPACT:**     None.

**APPROVALS:**

  
\_\_\_\_\_  
Lea Ann Doak, City Clerk

November 30, 2023

McCook City Council  
November 20, 2023  
5:30 P.M. Central

A MEETING OF THE MAYOR AND COUNCIL OF THE CITY OF MCCOOK, NEBRASKA convened in open, regular, and public session at 5:30 o'clock P.M. in the City Council Chambers.

Present: Mayor Taylor, Councilmembers Calvin, Weedon, Muehlenkamp, Rambali.

Absent: None.

City Officials present: City Manager Schneider, City Attorney Mustion, City Clerk Doak, Assistant City Manager Koetter, Library Director Crocker, Utilities Director Fawver (arrived 5:49 P.M.), Fire Chief Harpham, Public Works Director Potthoff, and Interim Police Chief Hodgson.

Notice of the meeting was given in advance thereof by publication in the McCook Daily Gazette on November 16, 2023, the designated method of giving notice, a copy of the proof of publication being attached to these minutes. Advance notice of the meeting was also given to the Mayor and members of the City Council and a copy of the Acknowledgement of Receipt of such notice is attached to these minutes. Availability of the agenda was communicated in the advance notice to the Mayor and Council. All proceedings hereafter shown were taken while the meeting was open to the attendance of the public.

Mayor Taylor announced that a copy of the Open Meetings Act was posted by the entrance to the Council Chambers and available for public review. Invocation was provided by Jeff Kelley, Memorial Methodist Church. Following the Pledge of Allegiance to the flag of the United States of America, Mayor Taylor called the meeting to order.

### **1. Announcements & Recognitions.**

City Manager Schneider reminded the Council that this coming Thursday and Friday are observed holidays for the City.

### **2. Public Hearings.**

2.A. Public Hearing - A report from the Economic Development Plan Citizen's Advisory Review committee regarding meeting held October 23, 2023.

Motion to recess as a City Council and convene a public hearing for the purpose of receiving public comment on a report from the Economic Development Plan Citizen's Advisory Review Committee regarding meeting held October 23, 2023 with the City Attorney to act as hearing officer. This motion, made by Calvin and seconded by Muehlenkamp, passed.

Taylor: YEA, Calvin: YEA, Weedon: YEA, Muehlenkamp: YEA, Rambali: YEA  
YEA: 5, NAY: 0

The City Attorney offered and received into evidence Exhibit #1 - the City Manager's Report dated November 20, 2023 (1 page); Exhibit #2 - Notice of Hearing published (1 page); Exhibit #3 - Agenda for the October 23, 2023 meeting of the Economic Development Plan Citizen's Advisory Review Committee and attachments (11 pages); and Exhibit #4 - the minutes of the July 24, 2023 Economic Development Plan Citizen's Advisory Review Committee (3 pages).

Charlie McPherson, McCook Economic Development Director, and Sean Wolfe, president of the Economic Development Plan Citizen's Advisory Review Committee, reviewed the information presented in Exhibit #3 and answered questions from the Council.

With no one else present to comment, motion to adjourn the public hearing and reconvene as a City Council. This motion, made by Muehlenkamp and seconded by Calvin, passed.

Taylor: YEA, Calvin: YEA, Weedin: YEA, Muehlenkamp: YEA, Rambali: YEA  
YEA: 5, NAY: 0

2.B. Accept the minutes of the July 24, 2023 Economic Development Plan Citizen's Advisory Review Committee meeting.

Motion to accept the minutes of the July 24, 2023 Economic Development Plan Citizen's Advisory Review Committee meeting. This motion, made by Calvin and seconded by Weedin, passed.

Taylor: YEA, Calvin: YEA, Weedin: YEA, Muehlenkamp: YEA, Rambali: YEA  
YEA: 5, NAY: 0

### **3. Consent Agenda.**

Motion to approve the consent agenda. This motion, made by Weedin and seconded by Muehlenkamp, passed.

Taylor: YEA, Calvin: YEA, Weedin: YEA, Muehlenkamp: YEA, Rambali: YEA  
YEA: 5, NAY: 0

3.A. Approve the minutes of the November 6, 2023 regular City Council meeting.

3.B. Receive and file the Financial Report for the period ending September 30, 2023.

3.C. Recommend approval to the Nebraska Liquor Control Commission the Application for Manager submitted by Suhr Enterprises, dba "Gary's Super Foods", 212 Westview Plaza, which holds License #C-122060, the applicant being Troy R. Werkmeister.

3.D. Adopt Resolution No. 2023-21 authorizing the signing of the Year-End Certification of City Street Superintendent Form 2023.

3.E. Accept City Manager Nate Schneider's appointment of Greg A. Wolford, Class A License S-875 and Professional Engineer License No. E-6362, as the City of McCook Street Superintendent January 1 through December 31, 2024, for the purpose of the 2024 calendar year.

- 3.F. Accept and authorize the Mayor to sign the Annual Certification Form confirming that funds received by the City of McCook from the State of Nebraska Department of Transportation as part of the Federal Aid Transportation Fund Purchase-Sale Agreement have been used according to such agreement.
- 3.G. Approve an agreement with the McCook Economic Development Corporation assigning financial responsibility for the North Pointe paving project to the McCook Economic Development Corporation.
- 3.H. Approve an agreement with the Southwest Public Health Department assigning financial responsibility for the West "C" Street paving project to the Southwest Public Health Department.
- 3.I. Authorize city staff to purchase one (1) new 2024 Caterpillar 926M High Lift Wheel Loader from Nebraska Machinery in the amount of \$278,000, using Sourcewell, for use in the Solid Waste Department.
- 3.J. Award the bid for the McCook Business Park Phase II sanitary sewer and water main extensions to Midlands contracting of Kearney, Nebraska in the amount of \$248,054.70, that being the lowest best bid.
- 3.K. Award bid for one (1) new 2024 ½ ton 4 x 4 Extended Cab pickup to Wagner Ford in the amount of \$41,738.00, that being the lowest responsive bid, to be utilized by the Water Treatment Facility.
- 3.L. Award bid for two (2) new 2024 ¾ ton 4 x 4 Extended Cab pickups to Wagner Ford in the amount of \$90,962, that being the lowest responsive bid, to be utilized at the Wastewater Facility and in the Water Distribution System.
- 3.M. Award bid for one (1) new 2024 mid-size SUV to Wagner Toyota in the amount of \$41,093, that being the lowest responsive bid, for use by the Administration Department.
- 3.N. Receive and file the claims for the month of October 2023, published November 14, 2023.

**4. Regular Agenda.**

- 4.A. Update regarding the swimming pool and ballpark projects.

A pool monthly progress meeting was held this past week with Lamp Rynearson & Carrothers Construction and a Pool Committee meeting is scheduled for this coming Wednesday, November 29, at 6:00 P.M. in the Council Chambers.

- 4.B. Discussion and update on the work completed to date by City staff in regard to a potential UTV ordinance.

Discussion was held regarding a potential UTV ordinance.

Jim Lewis suggested, for safety reasons, that the vehicle must be able to maintain a speed of 25-30 mph; that the vehicles should have head, tail, and brake lights; and that all occupants should have seat belts.

Maggie Repass requested that the definition of what a controlled access is, would like to see more intersections permitted for crossing of the highways.

After review by City Attorney Mustion, a proposed ordinance will be brought before the Council for consideration in January.

4.C. Ordinance No. 2023-3074 providing for the amendment of Appendix B, Cemetery Fees, of the City of McCook, Nebraska Code of Ordinances.

Mayor Taylor asked the Clerk to read Ordinance No. 2023-3074 by title.

AN ORDINANCE PROVIDING FOR THE AMENDMENT OF APPENDIX B: CITY CEMETERY FEES, OF THE CITY OF MCCOOK CODE OF ORDINANCES; PROVIDING FOR THE REPEAL OF ANY AND ALL ORDINANCES IN CONFLICT HEREWITH; AND PROVIDING FOR A TIME AND DATE FROM AND AFTER WHICH THIS ORDINANCE SHALL TAKE EFFECT AND BE IN FORCE.

Ordinance No. 2023-3074 has been read by title and I move to approve upon its third and final reading. This motion, made by Calvin and seconded by Rambali, passed.

Taylor: YEA, Calvin: YEA, Weedon: YEA, Muehlenkamp: YEA, Rambali: YEA

YEA: 5, NAY: 0

Mayor Taylor stated for the record that Ordinance No. 2023-3074 is declared lawfully passed and adopted upon publication as required by law.

4.D. Council Comments.

Mayor Taylor noted that we have a lot to be thankful for, the City of McCook has excellent employees and staff.

4.E. An Executive Session may be held upon a majority vote of the Council for the protection of public interest for a strategy session with respect to potential litigation - property located 1111 East "H" Street, Cindy and Ron Sabin.

Motion to go into executive session for the protection of public interest for a strategy session with respect to potential litigation - property located 1111 East "H" Street, Cindy and Ron Sabin at 6:00 P.M. This motion, made by Calvin and seconded by Taylor, passed.

Taylor: YEA, Calvin: YEA, Weedon: YEA, Muehlenkamp: YEA, Rambali: YEA

YEA: 5, NAY: 0

Mayor Taylor stated for the record that at this time, pursuant to the Nebraska Open Meetings Act, a closed session will be held for the purpose of the protection of public interest for a strategy session with respect to potential litigation - property located 1111 East "H" Street, Cindy and Ron Sabin. The Council will reconvene in public session following this closed session.

City Manager Schneider, City Attorney Mustion, Assistant City Manager Koetter, and City Clerk Doak stayed for the closed session.

Motion to come out of executive session at 6:37 P.M. This motion, made by Muehlenkamp and seconded by Calvin, passed.

Taylor: YEA, Calvin: YEA, Weedin: YEA, Muehlenkamp: YEA, Rambali: YEA  
YEA: 5, NAY: 0

4.F. An Executive Session may be held upon a majority vote of the Council for the protection of public interest for a strategy session with respect to real estate purchase for Sports Complex.

Motion to go into executive session for the protection of public interest for a strategy session with respect to real estate purchase for a Sports Complex at 6:38 P.M. This motion, made by Weedin and seconded by Calvin, passed.

Taylor: YEA, Calvin: YEA, Weedin: YEA, Muehlenkamp: YEA, Rambali: YEA  
YEA: 5, NAY: 0

Mayor Taylor stated for the record that at this time, pursuant to the Nebraska Open Meetings Act, a closed session will be held for the purpose of the protection of public interest for a strategy session with respect to real estate purchase for a Sports Complex. The Council will reconvene in public session following this closed session.

City Manager Schneider, City Attorney Mustion, Assistant City Manager Koetter, and City Clerk Doak stayed for the closed session.

Motion to come out of executive session at 7:02 P.M. This motion, made by Calvin and seconded by Muehlenkamp, passed.

Taylor: YEA, Calvin: YEA, Weedin: YEA, Muehlenkamp: YEA, Rambali: YEA  
YEA: 5, NAY: 0

### **Adjournment.**

There being no further business to come before the Council, Mayor Taylor declared the meeting adjourned at 7:03 P.M.

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Linda Taylor, Ex-officio Mayor

and Council President

ATTEST:

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Lea Ann Doak, City Clerk-Treasurer

**CITY MANAGER'S REPORT  
DECEMBER 4, 2023 CITY COUNCIL MEETING**

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**ITEM: 2.B.**

**RECOMMENDATION: APPROVE CONTRACT AMENDMENT NUMBER 1 FOR THE MCCOOK NEBRASKA SWIMMING POOL AND AUTHORIZE THE MAYOR TO SIGN.**

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**BACKGROUND:**

On July 5, 2023 the City of McCook and Carrothers Construction Co., LLC entered into a contract for construction of a new McCook Municipal Swimming Pool. Carrothers Construction has requested a contract amendment. Contract Amendment Number 1 adds the plans prepared by Lamp Rynearson; specifications prepared by Lamp Rynearson; Addendum Number 1 prepared by Lamp Rynearson; the Geotechnical Investigation prepared by Mid-State Engineering and Testing; changes the date of Substantial Completion to July 25, 2024 and the date of Final Completion to August 25, 2024, and includes a statement of work to be self-performed by Carrothers Construction Company.

As discussed at the November 20, 2023 McCook City Council meeting, the purpose for the modification to the Substantial Completion Date and Final Completion Date can be attributed to potential supply chain concerns. Carrothers has proven to be extremely efficient and diligent and based upon city staff members' observations, any delay would not be due to a lack of effort.

**APPROVALS:**

  
\_\_\_\_\_  
Lea Ann Doak, City Clerk

November 30, 2023

  
\_\_\_\_\_  
Nate Schneider, City Manager

November 30, 2023

  
\_\_\_\_\_  
Tera Koetter, Assistant City Manager

November 30, 2023

# Contract Amendment #1

## McCook Nebraska Swimming Pool

- The Contract for Construction of the McCook Nebraska Swimming Pool dated July 5<sup>th</sup>, 2023, between The City of McCook Nebraska and Carrothers Construction Co., LLC (Contract) shall be amended as follows:
  - **Article 15, Paragraph 15.1:** Change the first sentence to read: CONTRACT DOCUMENTS The Contract Documents are as follows:
  - Add the following to **Article 15, Paragraph 15.1, Subparagraph (a) Drawings:**
    - Plans as prepared by Lamp Rynearson, sealed on September 22<sup>nd</sup>, 2023, and as approved by the State of Nebraska Department of Environment and Energy on September 25<sup>th</sup>, 2023, consisting of the following drawings:

CIVIL SHEET LIST	
SHEET#	SHEET NAME
C1	SITE DEMOLITION PLAN
C2	SITE GRADING PLAN
C3	SITE STAKEOUT PLAN
C4	SITE LANDSCAPE PLAN
C5	SITE UTILITY PLAN
C6	STAKEOUT DATA AND DETAILS

The rest of this page has been left blank intentionally

AQUATICS SHEET LIST	
SHEET#	SHEET NAME
AQ000	AQUATICS COVER SHEET
AQ001	SITE SURVEY BY OTHERS
AQ100	POOL LAYOUT PLAN
AQ101	POOL SECTIONS
AQ102	POOL SECTIONS
AQ103	POOL DETAILS
AQ104	POOL DETAILS
AQ105	POOL DETAILS
AQ110	POOL DECK JOINTING PLAN
AQ111	POOL DECK DRAINAGE PLAN
AQ112	POOL DECK DRAIN PIPING PLAN
AQ120	MECHANICAL BUILDING PLAN
AQ121	ENLARGED PUMP ROOM PLAN
AQ122	MECHANICAL BUILDING EXTERIOR ELEVATIONS
AQ123	MECHANICAL BUILDING INTERIOR SECTIONS
AQ124	MECHANICAL BUILDING INTERIOR SECTIONS
AQ125	MECHANICAL BUILDING DETAILS
AQ126	POOL CONTROL SCHEMATICS
AQ130	POOL MECHANICAL PLAN
AQ131	POOL MECHANICAL DETAILS
AQ132	POOL MECHANICAL DETAILS
AQ133	WINTER DRAIN MANHOLE DETAILS
AQ134	SPRAY FEATURE REFERENCE DETAILS
AQ135	SPRAY FEATURE REFERENCE DETAILS
AQ140	BATHHOUSE FLOOR PLAN
AQ141	BATHHOUSE EXTERIOR ELEVATIONS
AQ142	BATHHOUSE INTERIOR ELEVATIONS
AQ143	DOOR & WINDOW SCHEDULE AND DETAILS
AQ144	BATHHOUSE ROOF PLAN
AQ150	BATHHOUSE DETAILS
AQ151	BATHHOUSE DETAILS
AQ160	CURRENT CHANNEL PLAN AND DETAILS
AQ200	POOL STRUCTURAL PLAN
AQ201	POOL TYPICAL STRUCTURAL DETAILS
AQ202	POOL STRUCTURAL DETAILS
AQ203	POOL STRUCTURAL DETAILS
AQ204	POOL STRUCTURAL DETAILS
AQ220	MECHANICAL BUILDING STRUCTURAL PLAN
AQ221	MECHANICAL BUILDING STRUCTURAL SECTIONS
AQ222	MECHANICAL BUILDING STRUCTURAL DETAILS
AQ240	BATHHOUSE STRUCTURAL FOUNDATION PLANS & DETAILS
AQ241	BATHHOUSE STRUCTURAL FRAMING PLAN & DETAILS
AQ260	CURRENT CHANNEL STRUCTURAL PLAN & DETAILS
G001	TYPICAL ADA CLEARANCES
G002	TYPICAL DEVICE & SIGNAGE MOUNTING

MEP SHEET LIST	
SHEET#	SHEET NAME
ME0	COVER SHEET - MECHANICAL/ELECTRICAL
ME1	SITE PLAN - MECHANICAL/ELECTRICAL
ME2	SITE PLAN - BONDING
M1	FLOOR PLAN - BATHHOUSE PLUMBING
M2	FLOOR PLAN - BATHHOUSE MECHANICAL
M3	FLOOR PLAN - FILTER BUILDING MECHANICAL/ PLUMBING
M4	MECHANICAL DETAILS & SCHEDULES
E1	ELECTRICAL DETAILS
E2	FLOOR PLANS - BATHHOUSE ELECTRICAL
E3	FLOOR PLANS - FILTER BUILDING ELECTRICAL
E4	ELECTRICAL - DETAILS & SCHEDULES

- Add the following to **Article 15, Paragraph 15.1, Subparagraph (b) Specifications**:
  - Specifications as prepared by Lamp Rynearson, sealed on September 22<sup>nd</sup>, 2023, and as approved by the State of Nebraska Department of Environment and Energy on September 25<sup>th</sup>, 2023, consisting of the following sections:

SWIMMING POOL  
FOR  
CITY OF MCCOOK, NEBRASKA

SUBJECT	PAGE TO PAGE (INCLUSIVE)
00002 – Engineer’s Certification .....	1 : 1
00005 – Table of Contents .....	1 : 2
 <b>DETAILED SPECIFICATIONS</b>	
<b>Division One</b>	
01 30 00 – Administrative Requirements .....	1 : 9
01 40 00 – Quality Requirements .....	1 : 5
01 45 23 – Watertightness Test for Hydraulic Structures .....	1 : 3
01 60 00 – Product Requirements .....	1 : 3
 <b>Division Two</b>	
02 41 00 – Demolition .....	1 : 3
 <b>Division Three</b>	
03 10 00 – Concrete Forms and Accessories .....	1 : 4
03 10 01 – Swimming Pool Waterstops .....	1 : 5
03 20 00 – Concrete Reinforcement .....	1 : 3
03 30 00 – Cast In Place Concrete .....	1 : 12
03 30 01 – Concrete Curing .....	1 : 2
 <b>Division Four</b>	
04 05 11 – Mortar and Masonry Grout .....	1 : 5
04 20 00 – Reinforced Unit Masonry Assemblies .....	1 : 8
 <b>Division Five</b>	
05 52 13 – Pipe and Tube Railings .....	1 : 4
 <b>Division Six</b>	
06 10 00 – Rough Carpentry .....	1 : 5
06 10 11 – Lumber .....	1 : 3
06 17 30 – Plate-Connected Wood Trusses .....	1 : 3
06 17 53 – Shop-Fabricated Wood Trusses .....	1 : 3
06 60 00 – PVC Ceiling Paneling .....	1 : 3
 <b>Division Seven</b>	
07 31 13 – Asphalt Shingles .....	1 : 3
07 31 14 – Asphalt Roof System .....	1 : 3
07 62 00 – Sheet Metal Flashing and Trim .....	1 : 2
07 71 23 – Gutters and Downspouts .....	1 : 2
07 92 01 – Joint Sealant for Buildings .....	1 : 5
07 92 02 – Swimming Pool Joint Sealant .....	1 : 2

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**Division Eight**

08 11 13 – Hollow Metal Doors and Frames .....	1 : 2
08 33 23 – Overhead Coiling Doors .....	1 : 4
08 36 13 – Sectional Overhead Doors .....	1 : 6
08 71 00 – Door Hardware .....	1 : 2

**Division Nine**

09 91 13 – Paintings and Coatings .....	1 : 5
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**Division Ten**

10 14 00 – Identifying Devices .....	1 : 4
10 20 00 – Louvers and Vents .....	1 : 3
10 21 13.16 – Shower and Dressing Compartments .....	1 : 4
10 21 13.19 – Plastic Toilet Compartments .....	1 : 2
10 28 00 – Toilet Accessories .....	1 : 4

**Division Thirteen**

13 11 43.02 – Swimming Pool Gutter and Grating .....	1 : 2
13 11 46 – Swimming Pool Deck Equipment .....	1 : 6
13 14 13 – Swimming Pool Waterslides Bridge .....	1 : 9
13 15 30 – Aquatic Play Equipment .....	1 : 4
13 31 00 – Shade Structure .....	1 : 3

**Division Twenty-Two**

22 15 19.01 – Swimming Pool Filters .....	1 : 7
22 15 19.03 – Swimming Pool Mechanical Equipment .....	1 : 12
22 51 13 – Swimming Pool Piping and Valves .....	1 : 10
22 51 23.01 – Chemical Safety Equipment .....	1 : 2
22 51 23.02 – Swimming Pool Chemical Automation System .....	1 : 4

- Add the following to **Article 15, Paragraph 15.1, Subparagraph (c) Addenda**:
  - Addendum Number One dated September 19, 2023, as prepared by Lamp Rynearson.
- Add the following to **Article 15, Paragraph 15.1, Subparagraph (d) Owner Provided Information**:
  - Geotechnical Investigation sealed and dated August 22<sup>nd</sup>, 2023, as prepared by Mid-State Engineering & Testing
- Change the second to last sentence of **Exhibit “A”, Schedule of Work and GMP** to read:
  - Date of Substantial Completion is July 25<sup>th</sup>, 2024
- Change the last sentence of **Exhibit “A”, Schedule of Work and GMP** to read:
  - Date of Final Completion to be August 25<sup>th</sup>, 2024
- Add the following after the last sentence of **Exhibit “A”, Schedule of Work and GMP**:
  - Statement of work to be self-performed: Carrothers Construction Company LLC will be self-performing pool, deck, bathhouse foundations and filter building concrete construction along with demolition, excavation and pool mechanical equipment and piping. Fencing, reinforcing installation, masonry, roofing, painting/coatings, slide installation, domestic plumbing, HVAC and electrical will be subcontracted.

OWNER: City of McCook Nebraska

By: \_\_\_\_\_ Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Witness: \_\_\_\_\_ Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

CONSTRUCTION MANAGER: Carrothers Construction Co., LLC

By: \_\_\_\_\_ Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Witness: \_\_\_\_\_ Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

**CITY MANAGER'S REPORT  
DECEMBER 4, 2023 CITY COUNCIL MEETING**

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ITEM: 3.A.

Receive Miller & Associates presentation of the completed Facility Plan Summary for the Proposed Wastewater Treatment Facility upgrades and authorize city staff to submit the completed Facility Plan to USDA-RD for funding consideration.

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**BACKGROUND:**

The City is currently planning for wastewater treatment facility (WWTF) improvements, which will provide reliable treatment for the 20-year planning period. The existing WWTF is still generally operating in compliance with its discharge permit, however, the age and obsolescence of equipment are making the job of operations decidedly more challenging. In addition, the City has been notified by the Nebraska Department of Environment and Energy (NDEE) that new, more stringent limits on ammonia may be included in the next permit renewal. Environmental standards will continue to become more stringent, and it is anticipated that the WWTF will see new limitations on the discharge of total nitrogen and total phosphorus in the near future.

The completed Facility Plan was prepared to address the current and future needs of the McCook WWTF. The proposed improvements will provide cost-effective, reliable and operator-friendly treatment of the wastewater that is projected to be generated by the City over the next 20 years.

Funding for this project has not been provided to date. It is recommended that the City submit the completed Facility Plan to USDA-RD for funding consideration.

**FISCAL  
IMPACT:** None.

**APPROVALS:**

  
\_\_\_\_\_  
David Blau, Project Engineer

November 29, 2023

  
\_\_\_\_\_  
Paf Fawver, Utility Director

November 29, 2023

  
\_\_\_\_\_  
Nathan A. Schneider, City Manager

November 29, 2023

# PROPOSED WWTF UPGRADES

## Facility Plan Summary

December 4<sup>th</sup>, 2023

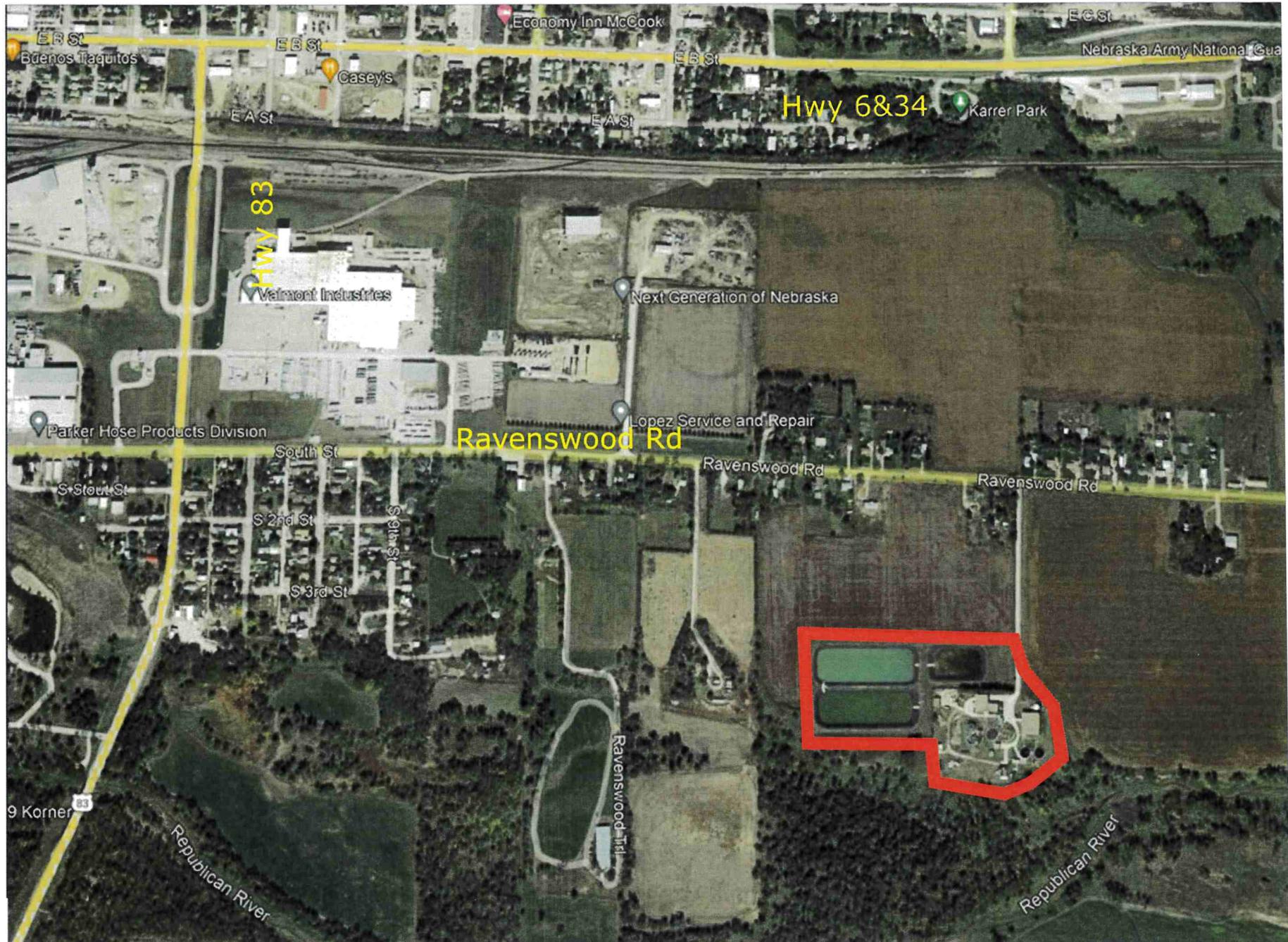


**Miller & Associates**  
CONSULTING ENGINEERS, P.C.

# Project Objectives

- Concern of the Age of Current Facilities
  - Last upgrade 20 years ago
  - Some Basins 70 years old
- Equipment Failure Concerns
- NDEE is continually modifying Permit Limits changes for Ammonia
- Future Nutrient (Nitrogen and Phosphorus) Limits
- Evaluation of Process, Sustainability, Energy Efficiency, etc.
- Growth Potential

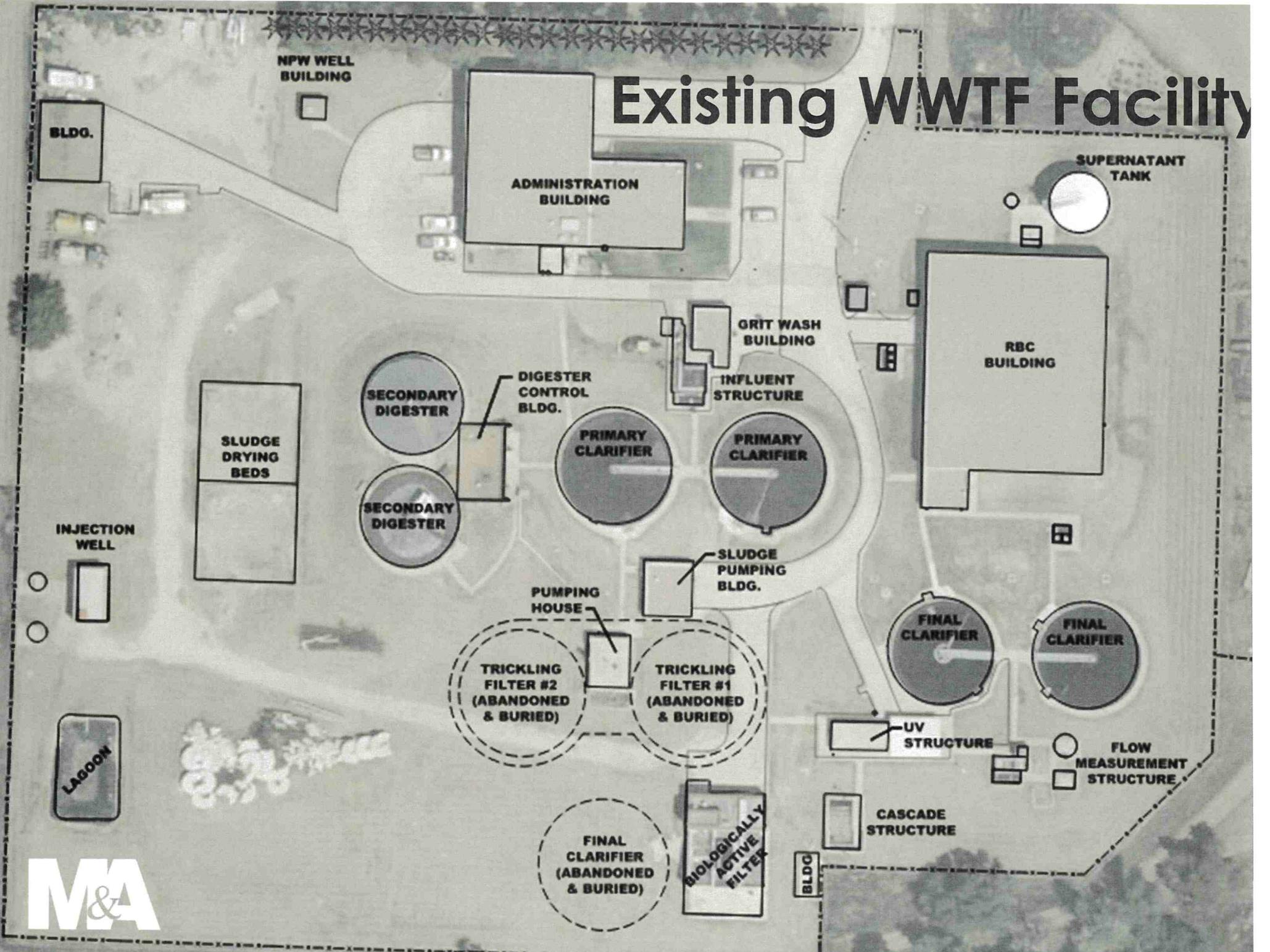
# Facility Location



# McCook Facility



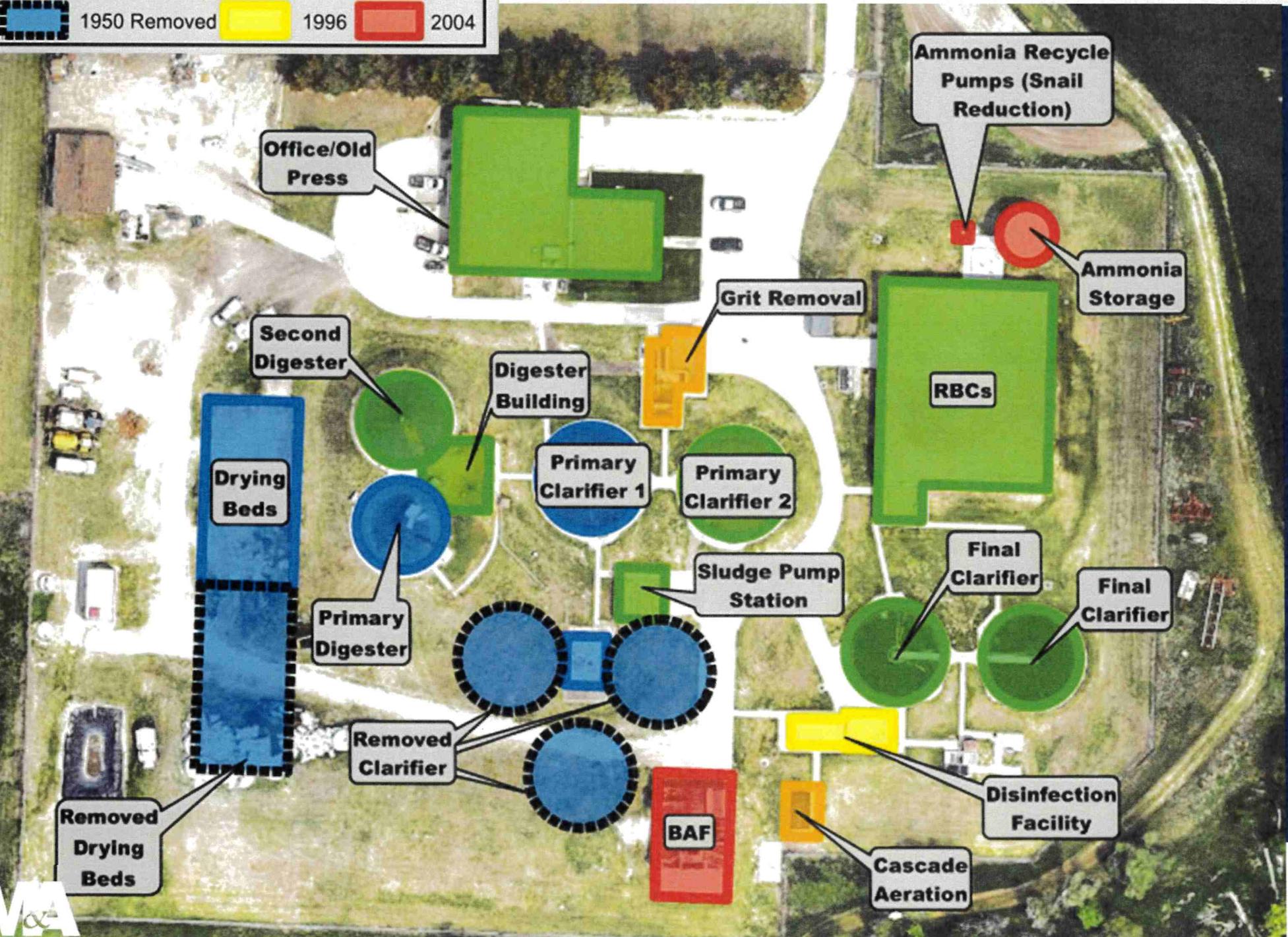
# Existing WWTF Facility



# Age of System

## LEGEND

	1950		1978		1999
	1950 Removed		1996		2004



# Basis of Design

Parameter	Metcalf and Eddy Table 3-15	Existing Conditions at WWTF (Influent)	5-Year (2028) Conditions at WWTF at 0.25% Growth	20 Year (2043) Conditions at WWTF at 0.25% Growth
Population		7,446	7,711	<b>7,886</b>
Gallons per capita per day (GPCD)		94.0	100	100
Flow (MGD)				
Average Daily Flow		0.70	0.77	<b>0.79</b>
Peak Hour Flow (MGD)		2.24	2.47	<b>2.52</b>
Peak Hour Flow (gpm)		1,556	1,714	1,752
c-BOD <sup>1</sup>				
mg/L	110-350	155	250	250
Ammonia (NH <sub>3</sub> -N) <sup>1</sup>				
mg/L	12-45	28.2 <sup>2</sup>	35	35
TSS <sup>1</sup>				
mg/L	120-400	236	300	300
Phosphorus <sup>1</sup>				
mg/L	4-12	4.2 <sup>2</sup>	7	7
Chloride <sup>1</sup>				
mg/L	30-90	541 <sup>2</sup>	600	600

**Notes:**

1. BOD, Ammonia, TSS, Phosphorus and Chloride concentration projections (pounds/day) are based upon the Maximum Monthly Flow.
2. "Existing Conditions at WWTF (Influent)" concentrations for Ammonia, Phosphorus and Chloride are based upon influent sampling performed by the City from October 2022 through August 2023.



# Options Evaluated

Do Nothing

Rehabilitate Existing RBC/BAF System

Sequencing Batch Reactor (SBR) Process

- Keep Existing Primary Clarifiers
- Eliminate Primary Clarifiers

Modified Ludzack-Ettinger (MLE) Process

- Keep Existing Primary Clarifiers
- Replace Primary Clarifiers

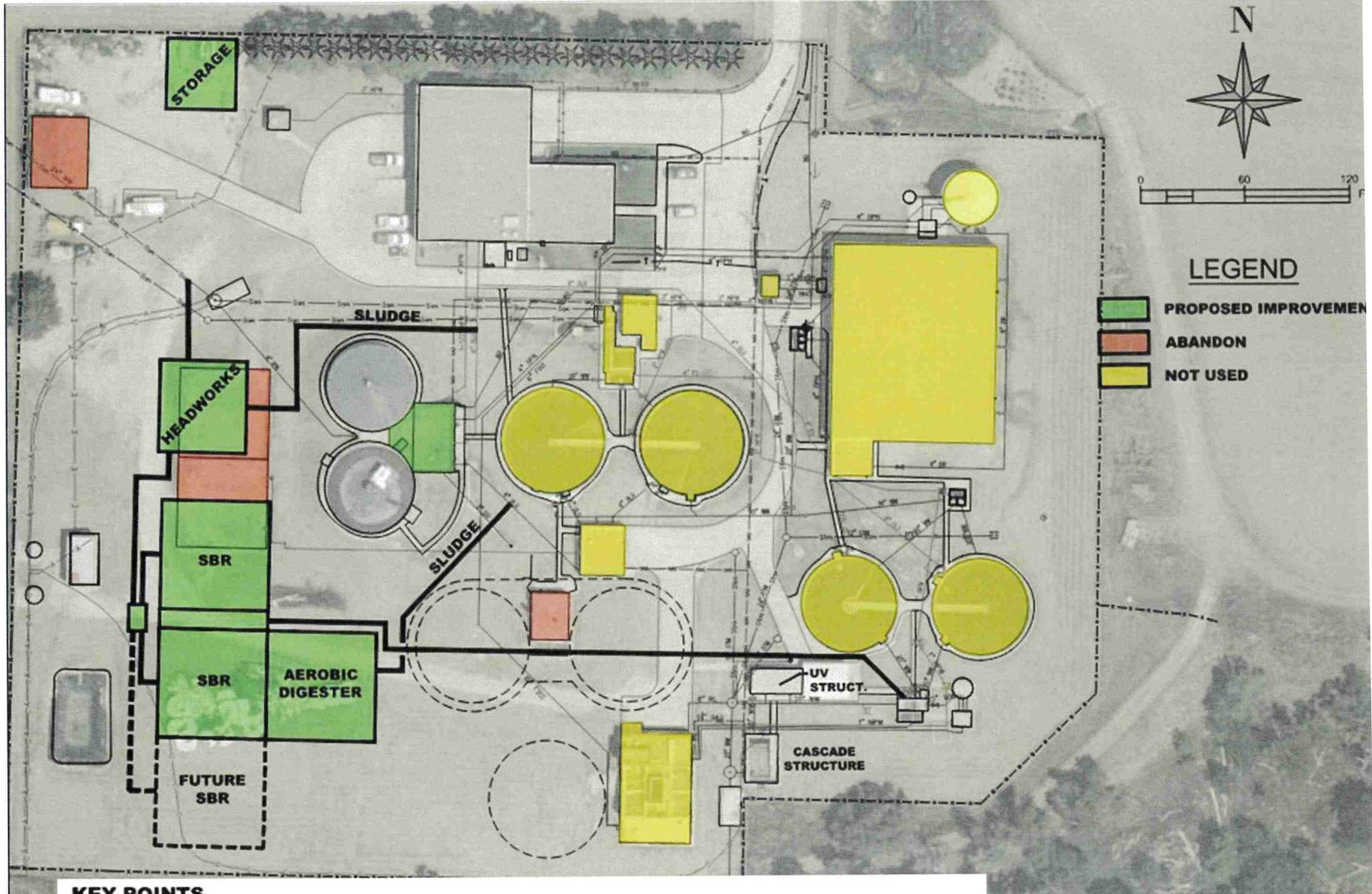
# Cost Comparison

Treatment Alternative	Estimated Capital Cost
<b><u>Alternative No. 1</u></b> – Improvements to Existing RBC/BAF	\$17,706,850
<b><u>Alternative No. 2</u></b> - Sequencing Batch Reactor with Primary Clarifiers	\$13,888,900
<b><u>Alternative No. 3</u></b> - Sequencing Batch Reactor with No Clarifiers	\$13,436,500
<b><u>Alternative No. 4</u></b> - Modified Ludzack-Ettinger with Existing Primary Clarifiers and New Final Clarifiers	\$16,877,950
<b><u>Alternative No. 5</u></b> - Modified Ludzack-Ettinger with New Primary and Final Clarifiers	\$19,117,200



# Site Plan Selected Option

DEQ Issued Permit - NPDES MUNICIPAL WASTEWATER.pdf

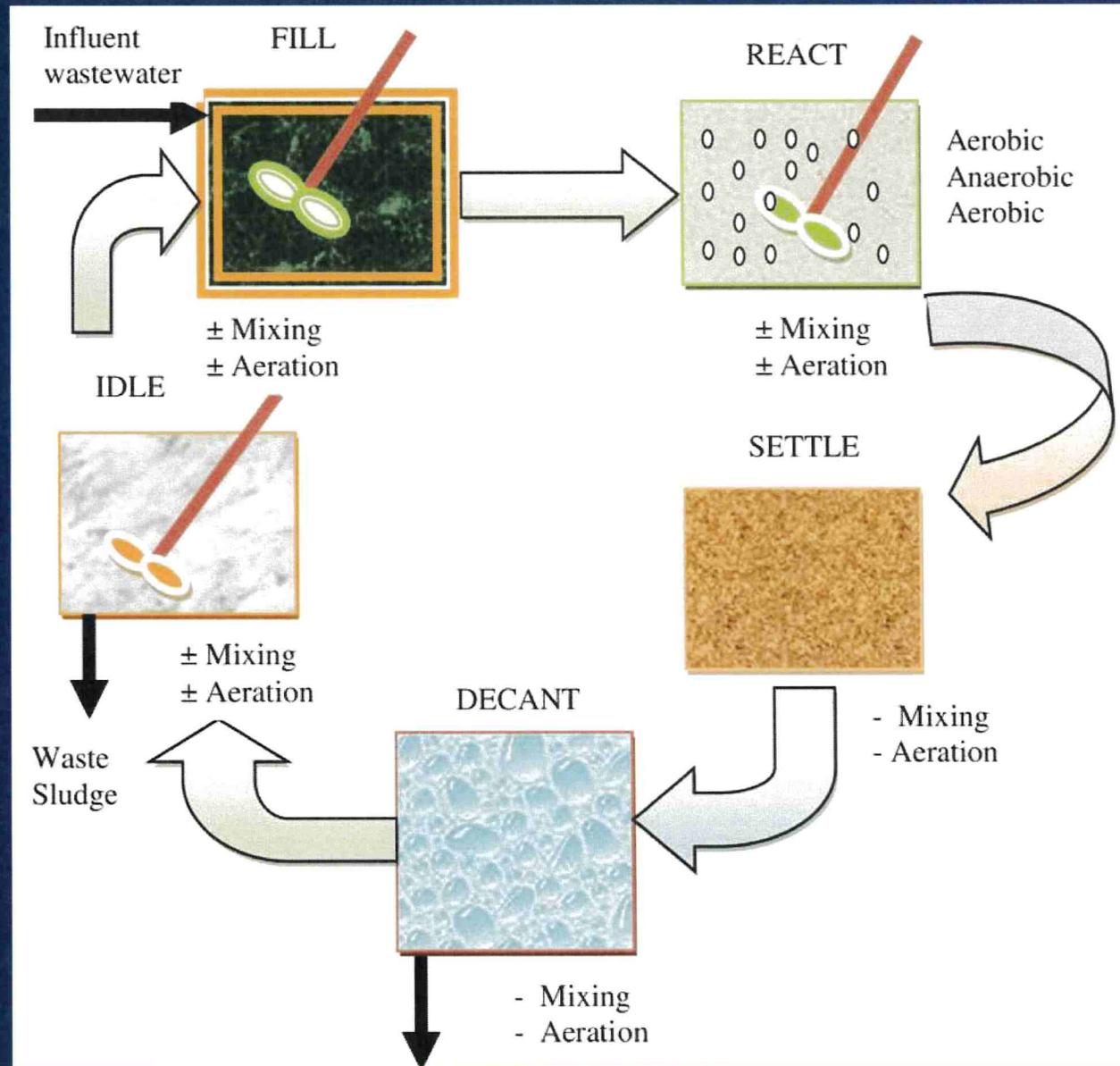


## KEY POINTS

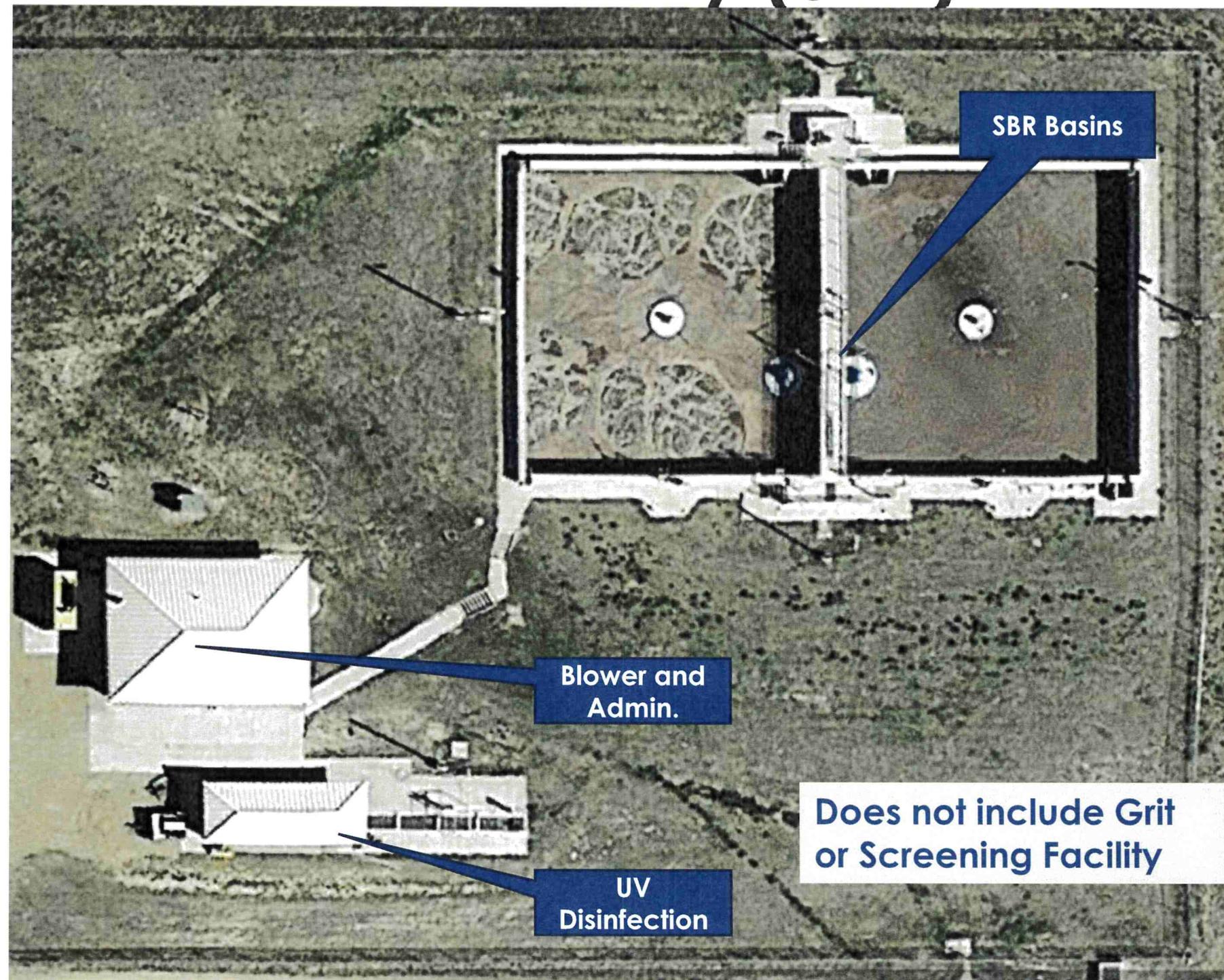
- NEW HEADWORKS WITH SCREEN, VORTEX GRIT, FAN PRESS, MCC, & BLOWERS
- NEW AEROBIC TANKS
- COULD CONVERT EXISTING ANAEROBIC TANK TO AEROBIC WITHOUT NEW TANK
- COULD CONVERT RBC TO STORAGE
- NO CLARIFIERS OR PUMP STATION REQUIRED



# SBR Process Schematic



# Broken Bow Facility (SBR)



SBR Basins

Blower and  
Admin.

UV  
Disinfection

Does not include Grit  
or Screening Facility

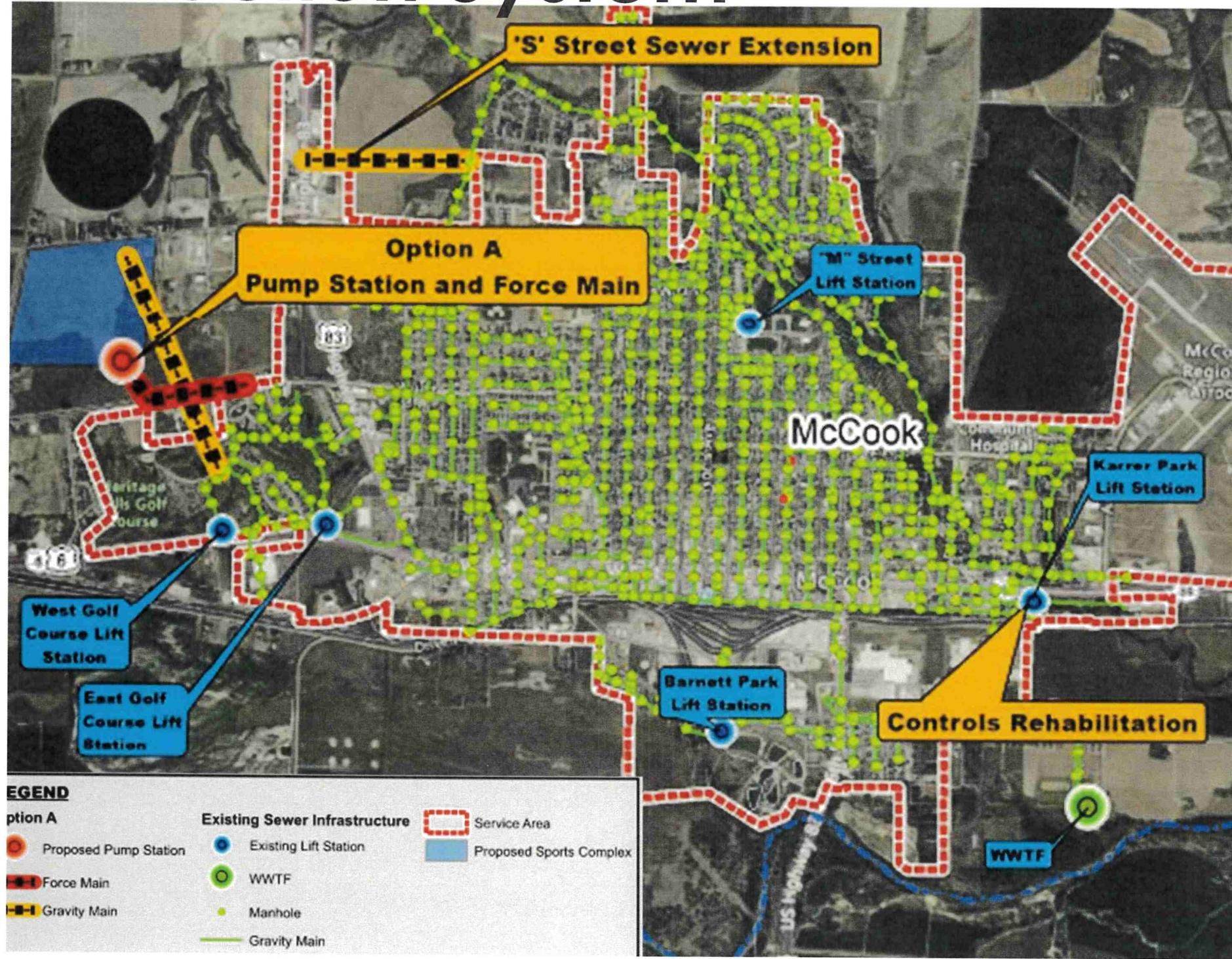
# Recommended Improvements

- New Headworks/Solids Handling Building, including a mechanical bar screen and vortex grit system, as well as already-purchased dewatering equipment (fan press)
- Construction of two Activated Sludge SBR reactors
- Reuse of the existing UV disinfection
- Reuse of the cascade aeration system

- Convert from anaerobic digesters to aerobic digesters or new aerobic digester.
- Provide a new private hauler dump station
- Provide process Sludge Storage
- Convert the RBC building to storage (if the budget allows)
- Construct new storage building (Completed)



# Collection System



**LEGEND**

<b>Option A</b>	<b>Existing Sewer Infrastructure</b>	<b>Service Area</b>
Proposed Pump Station	Existing Lift Station	Service Area
Force Main	WWTF	Proposed Sports Complex
Gravity Main	Manhole	
	Gravity Main	



# Collection System Cost

Project Description	Engineers Opinion of Probable Construction Cost
S Street Sewer Extension from West of Hwy 83 along S Street through existing farm ground to a Connection at the Existing Kelley Creek Trunk Line	\$600,000
Karrer Park Lift Station Controls Rehabilitation	\$60,000
Future Sewer Extension to New Sports Complex	\$310,000
Collection System Cleaning & CCTV Inspection (1 <sup>st</sup> Year)	\$86,000
<b>TOTAL</b>	<b>\$1,056,000</b>



# Overall Project Cost and User Impact

Recommended Improvements	Estimated Capital Costs
Recommended Alternative No. 3 – Sequencing Batch Reactor with No Clarifiers	\$13,436,500
Sanitary Sewer Improvements	\$1,056,000
<b>Estimated Total</b>	<b>\$14,492,500</b>

Description	Project Cost \$14,492,500
Annual P&I Payment	\$626,980
Monthly P&I Payment	\$52,248
Average Increased User Cost Per Month	\$15.60



# Questions & Comments

*Thank you!*



**Miller & Associates**  
CONSULTING ENGINEERS, P.C.