



City of Bentonville
Bentonville Utility Board Meeting
Tuesday, July 19th – 11:30 am
Bentonville City Hall 305 SW “A” St.
City Council Chambers

AGENDA

Call to Order
Pledge of Allegiance
Attendance
Approval of Minutes: July 5th, 2022

New Business

1. Ordinance & Bid Waiver – CIC wire – Travis Matlock, PE (pages 2-4)
2. Informational – NACA Plant Expansion – Garver/NACA (pages 5-36)
3. Adjournment



Agenda Item Form

Date of City Council Meeting	7/26/2022
Department	Inventory Control
Submitted by	Travis Matlock
Phone	479 271-3145

Item Type: (Check All That Apply)					
☐ Budget Adjustment	☐ Change Order	☐ Informational	☒ Ordinance	☐ Resolution	☐ Bid Award
Recommendation/Suggested Action (Enter recommendation in space below):					
Ordinance waiving the requirements for competitive bidding and entering into an agreement with Stuart Irby Company for 1/0 underground wire in the amount of \$290,400.00 plus applicable taxes.					

Estimated Cost	290,400
Is this Item Budgeted?	☒ Yes ☐ No
If no, please explain how item will be funded (briefly explain in space below) :	



MEMORANDUM

DATE: JULY 26, 2022

TO: City Council, Mayor Orman

FROM: Travis Matlock, Electric Utility Director

RE: 1/0 UNDERGROUND WIRE

The City of Bentonville recommends waiving the requirements for competitive bidding and enter into an agreement with Stuart Irby Company to purchase 1/0 UG wire in the amount of \$290,400.00 plus applicable taxes.

With current supply chain issues and the rate at which commodities are changing, Bentonville staff has made a decision to obtain 3 quotes and waive the requirements for competitive bidding. The bid process takes an extra 2 weeks, making the total time to purchase wire approximately 1 month due to the Utility Board and City Council schedules. The possibility exists that the price will dramatically change during this month. The process staff establish still ensures we will get the lowest price, but does not add the extra time.

The OH wire prices/lead time is not being affected the same way UG wire, transformers, or junction boxes.



City of Bentonville Electric Utilities Department
1/0 CIC Underground wire

BEUD Inventory Part Number	Wire Size	Feet Required	Price Per Foot	Extended Price	Lead Time	Supplier
2146	WIRE 1/0 KV 220MIL CIC 2" CONDUIT	60,000	4.84	\$290,400.00	10 weeks	Stuart Irby
		20-3000' reels	\$6.02	\$361,200.00	35-37 weeks	Arkansas Elec.
			\$0.00			Techline - no quote



NACA WWTP IMPROVEMENTS

Garver Project Number: 21W01055

JULY 19, 2022



Today we will briefly cover the following topics

Background

Improvements

Cost

Schedule

Open
Discussion

NACA WWTP opened in 2009 and has an average day rated capacity of 3.6 MGD and peak day flow capacity of 9 MGD



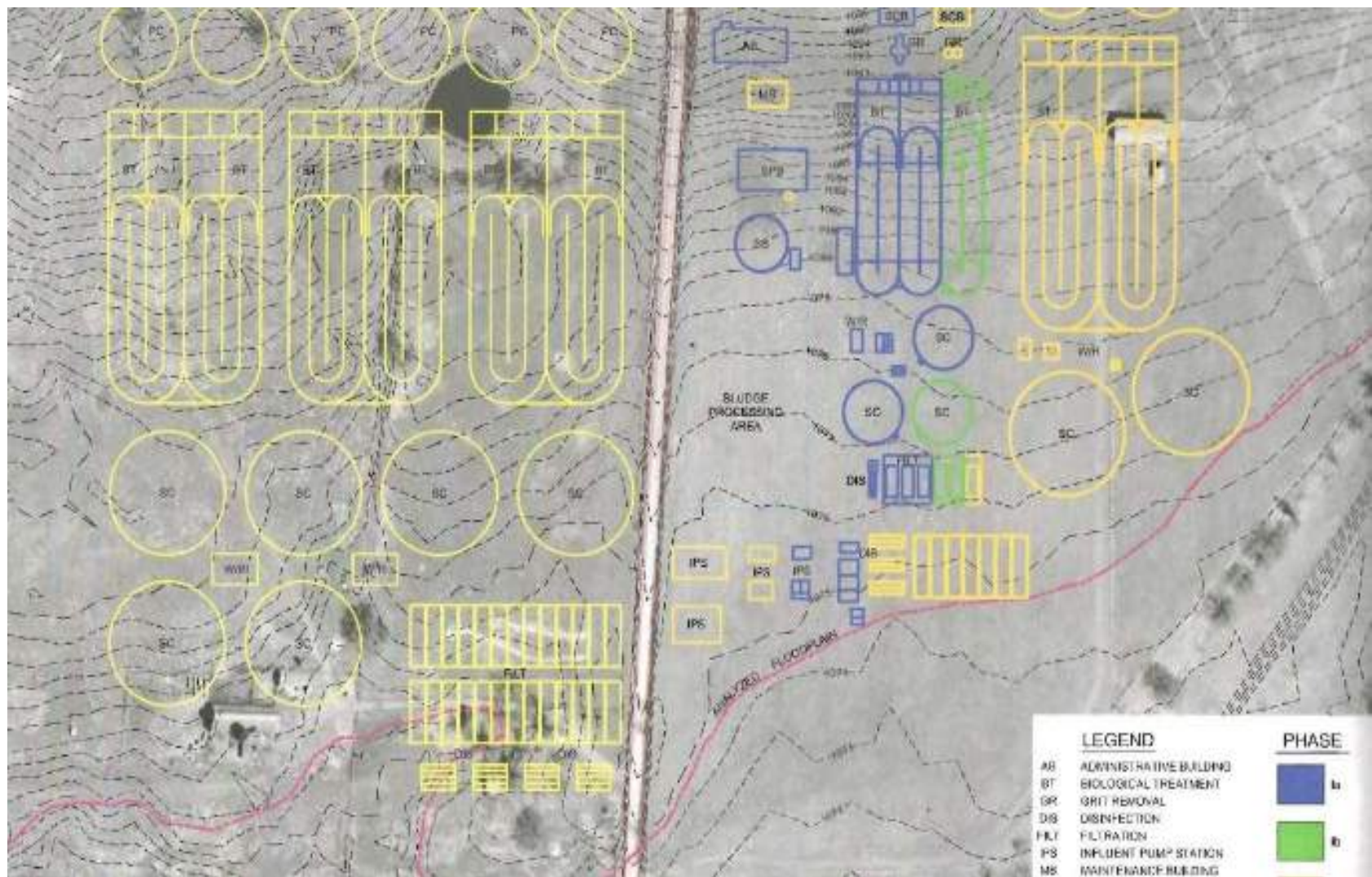
The following is a high-level summary of NACA

- NACA is over capacity and continues to have permit violations
- Rapid growth is projected to continue in NWA for the foreseeable future
- NACA currently serves Bentonville (about 90% of the flow to NACA), Tontitown and Elm Springs

The following is a high-level summary of NACA

- Cave Springs is currently working on connecting to NACA
- Bethel Heights planned to go to NACA, but was absorbed by Springdale
- NACA has space to expand for the foreseeable future

The original plan for NACA was to expand from 3.6 MGD to 5.4 MGD with space to expand to 80 MGD



Based upon flow projections, it was determined to maximize existing infrastructure as much as possible as cost effective as possible, expand from 3.6 MGD to 7.2 MGD, not 5.4 MGD.

Year	Average Daily Flow (MGD)
2025*	5.5
2030	6.7
2040	9.2

*Planning and funding the next NACA expansion should begin when flows reach about 75% of the rated capacity.

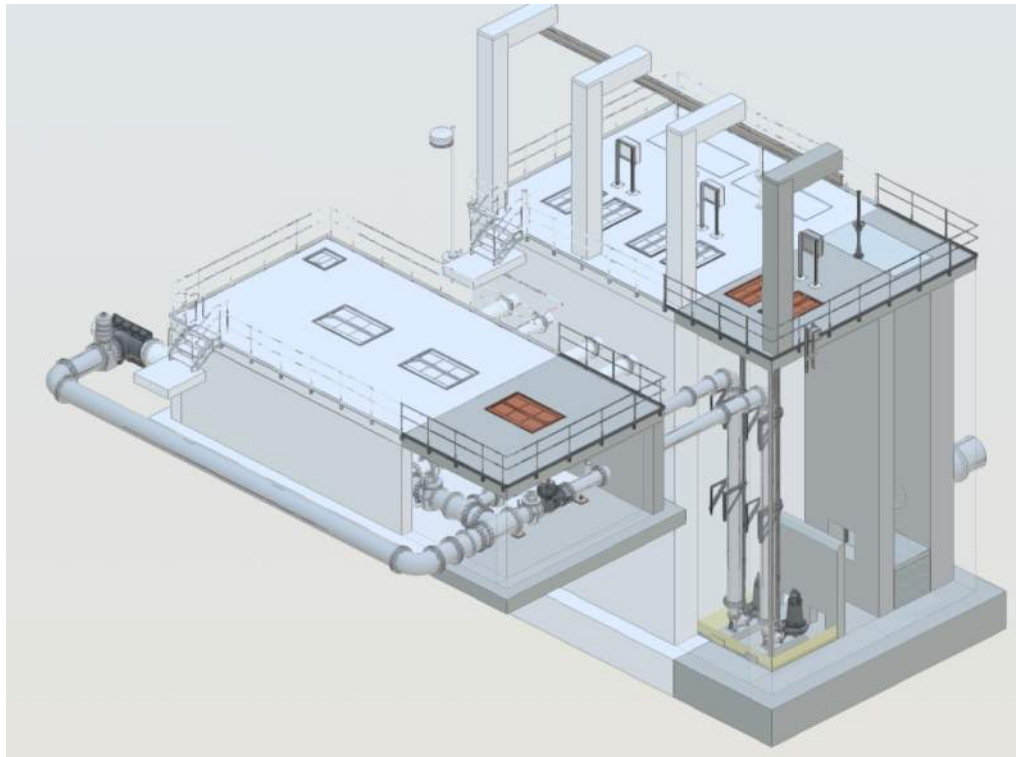


IMPROVEMENTS

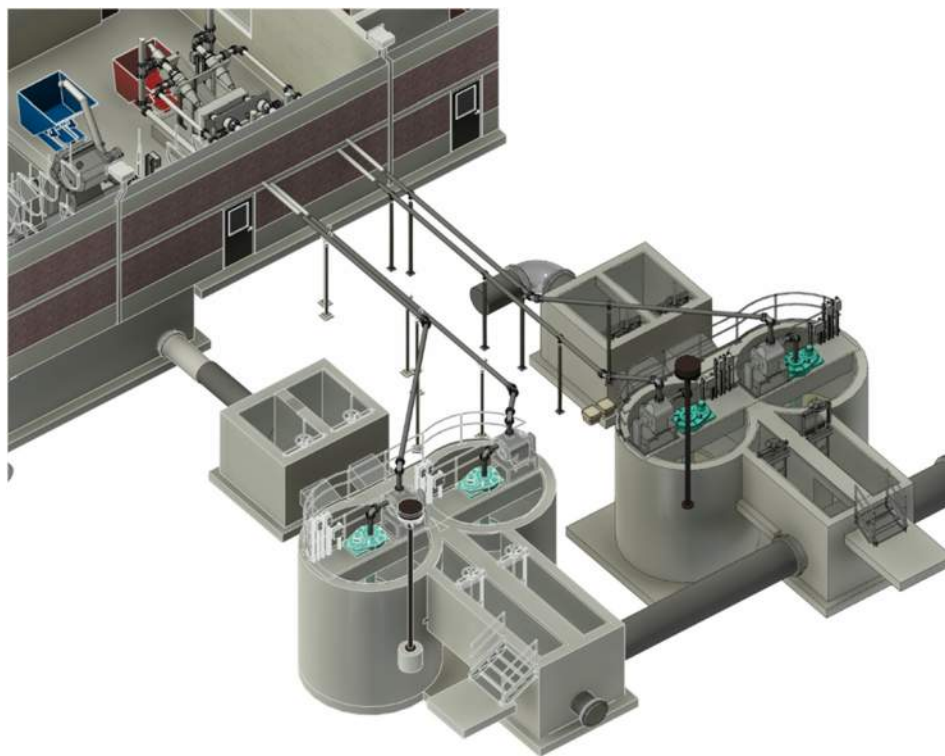
The NACA WWTP Improvements Project will double the capacity of the treatment plant to an average day capacity of 7.2 MGD and peak flow capacity of 18 MGD



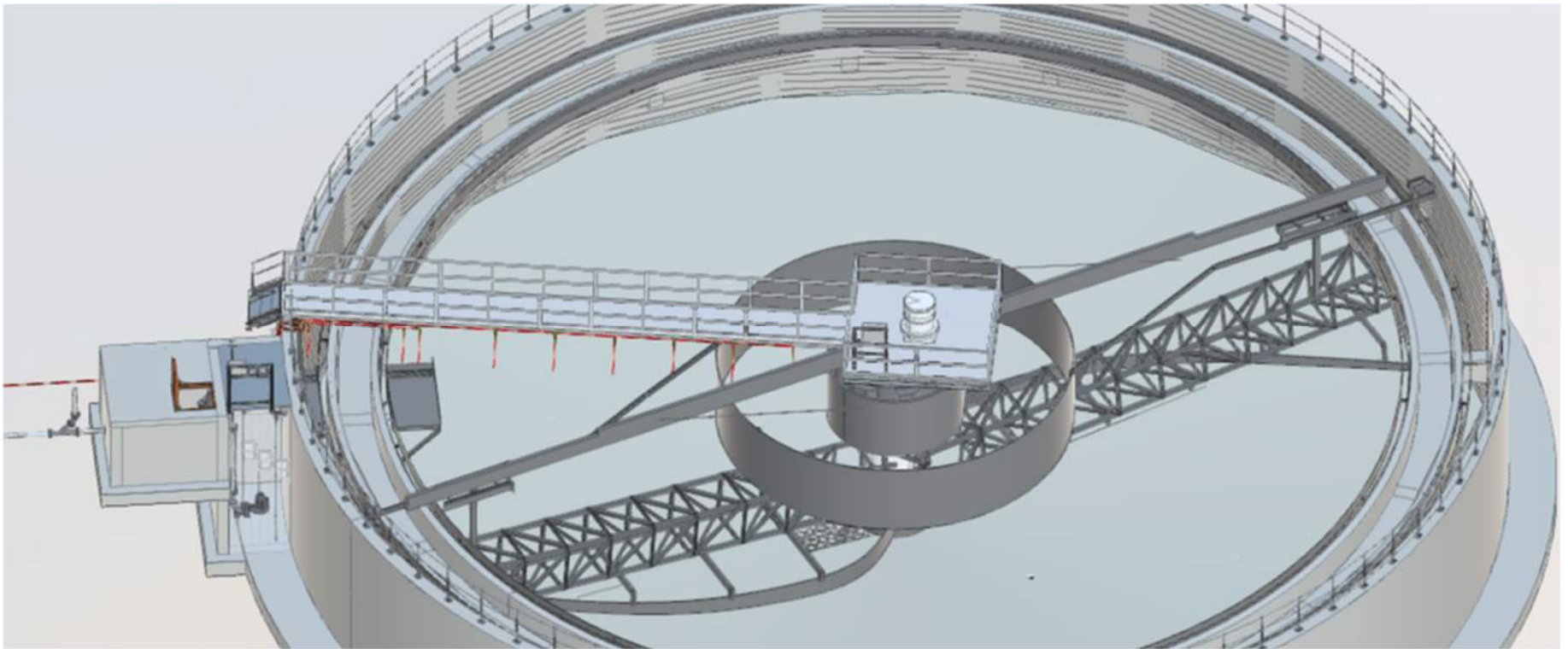
The influent pump station will be expanded to accommodate increased flows to process units



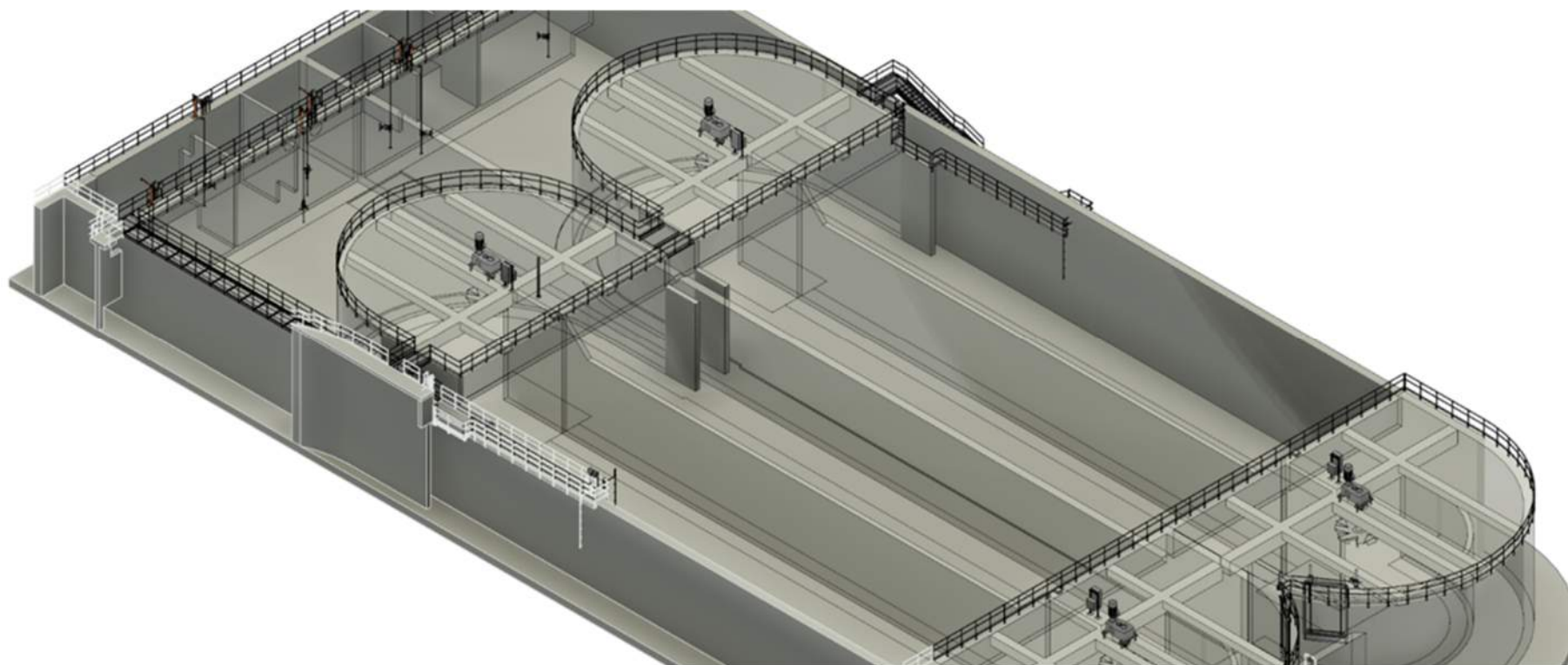
The headworks and grit will be expanded to remove solids from adversely impacting downstream treatment



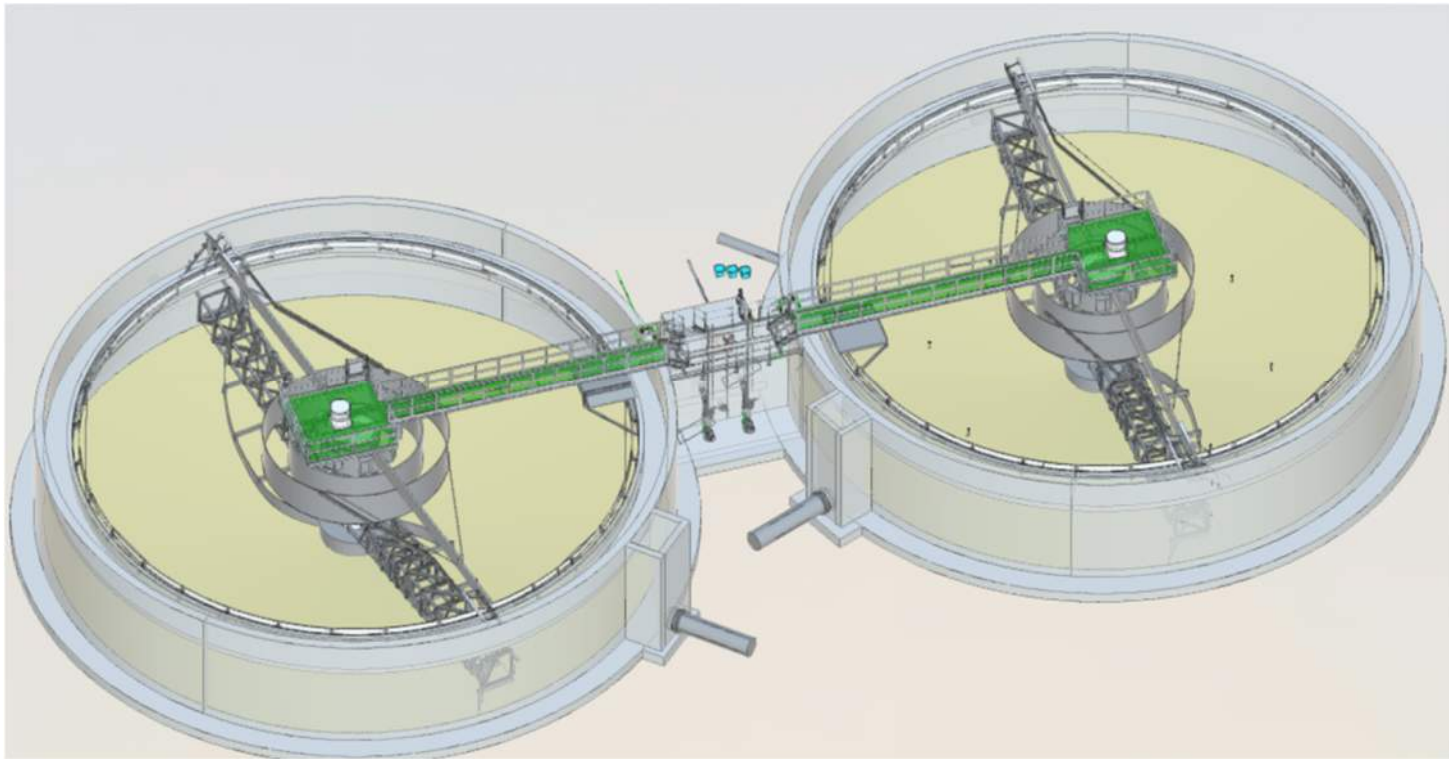
A new primary clarifier will be added to aid in removal of solids during high loading events and leachate from the WM Landfill, process treatment required by ADEQ



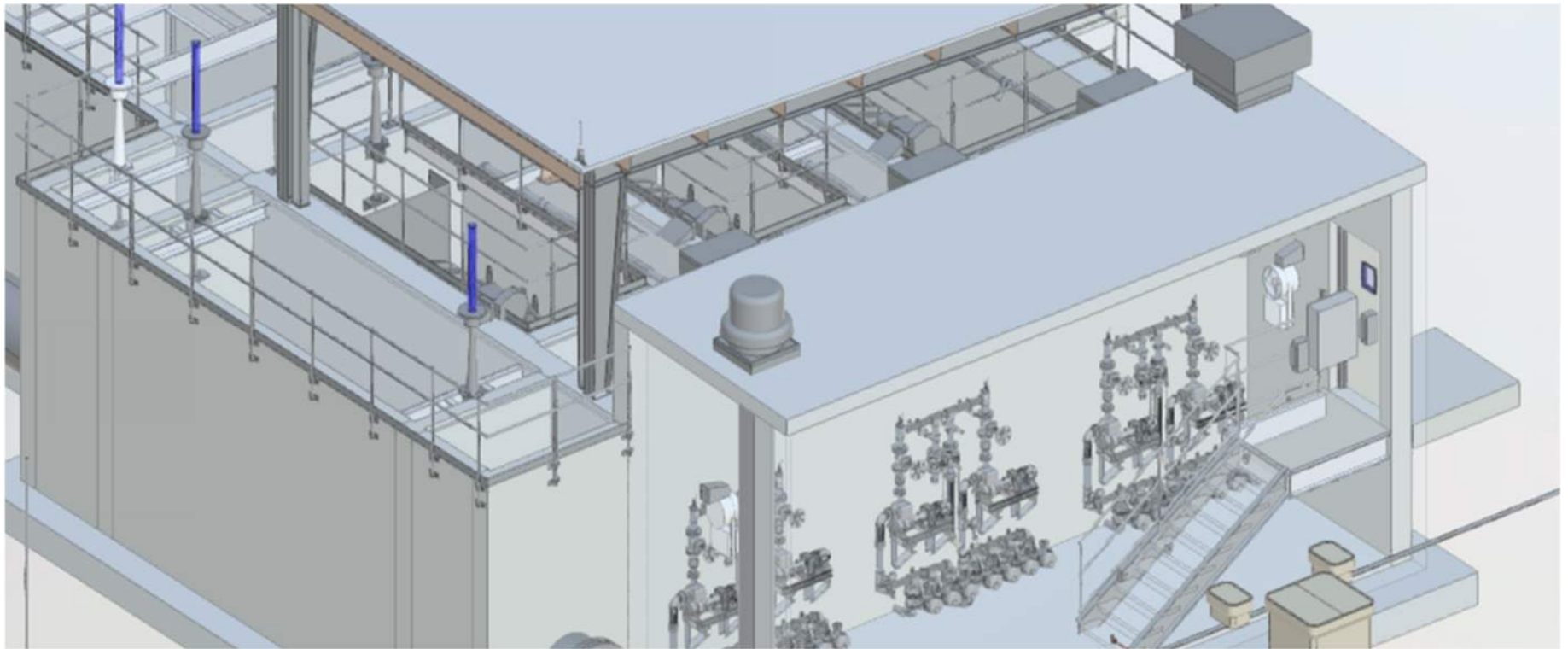
Two process trains will be added to increase treatment capacity



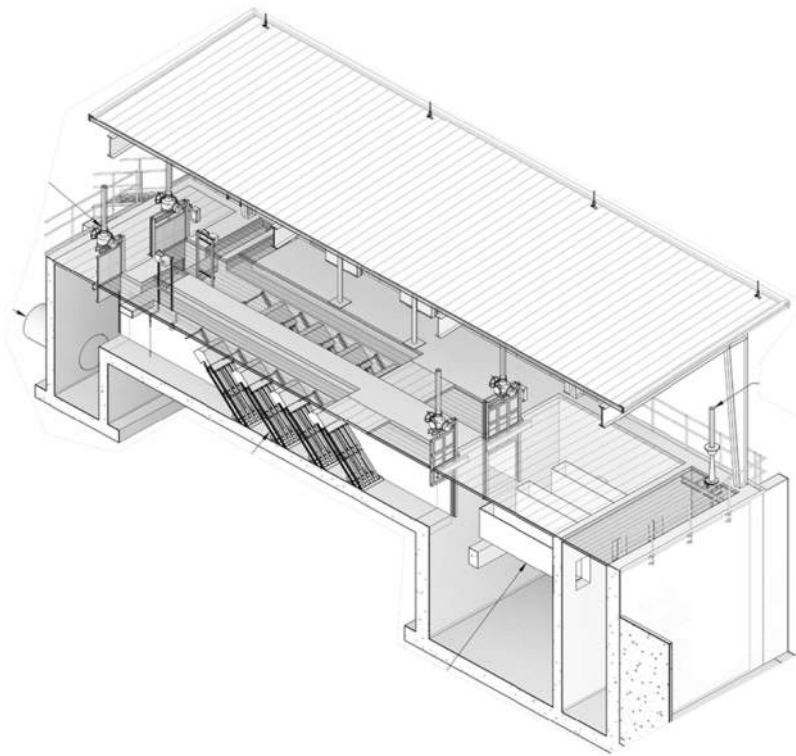
Two secondary clarifiers will be added to increase treatment capacity, deeper than existing for improved treatment



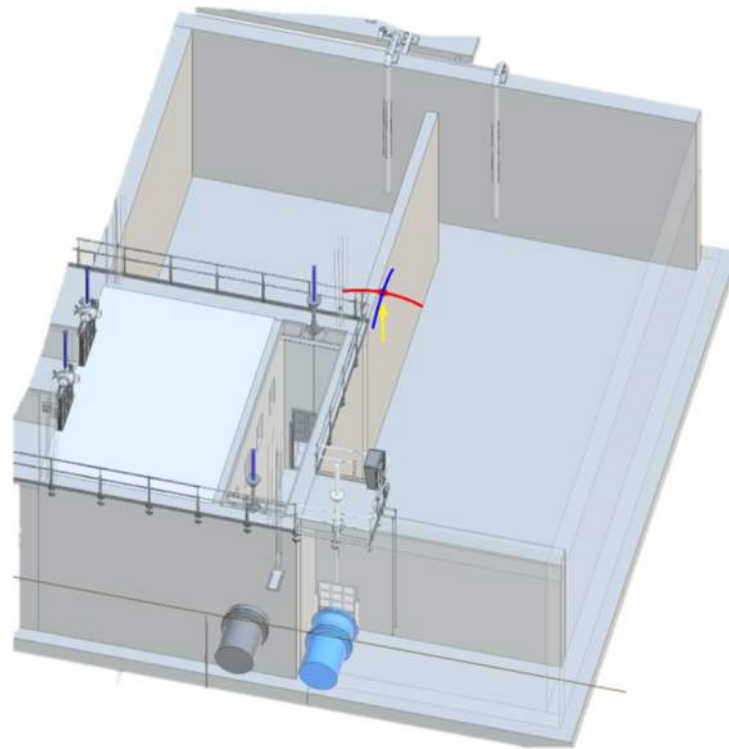
Tertiary filtration was pilot tested and will be added with upstream coagulation and flocculation to optimize treatment and minimize chemical cost



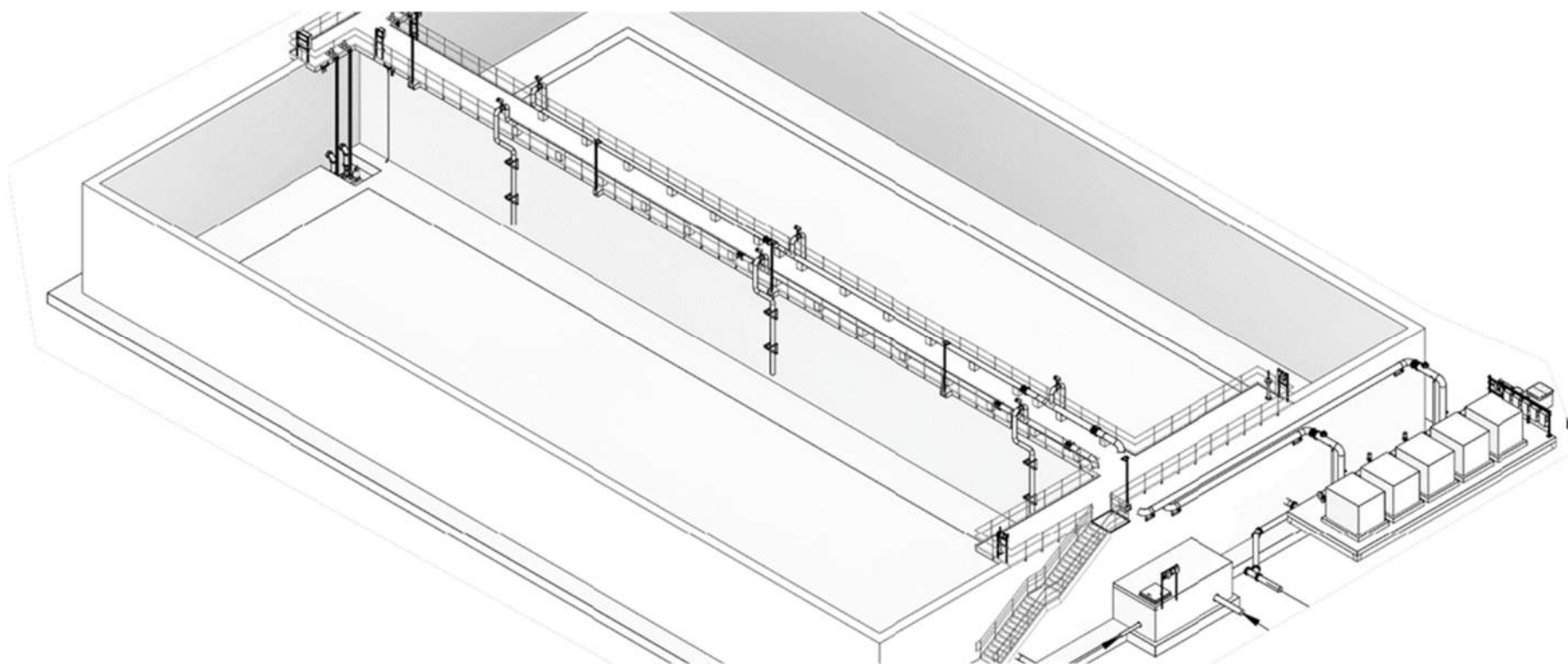
Improved UV disinfection technology will be added to replace existing UV nearing the end of its useful life



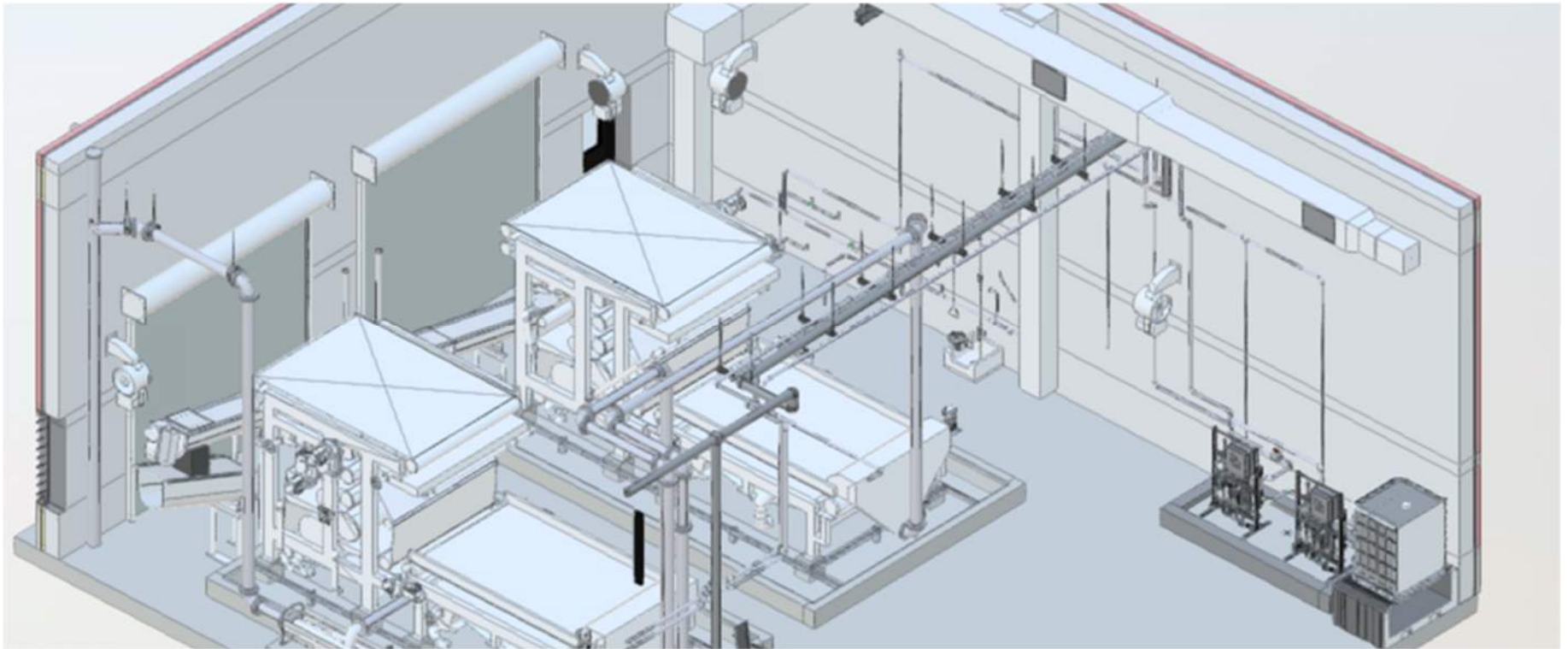
Post aeration will be added to meet dissolved oxygen permit requirements at increased flows



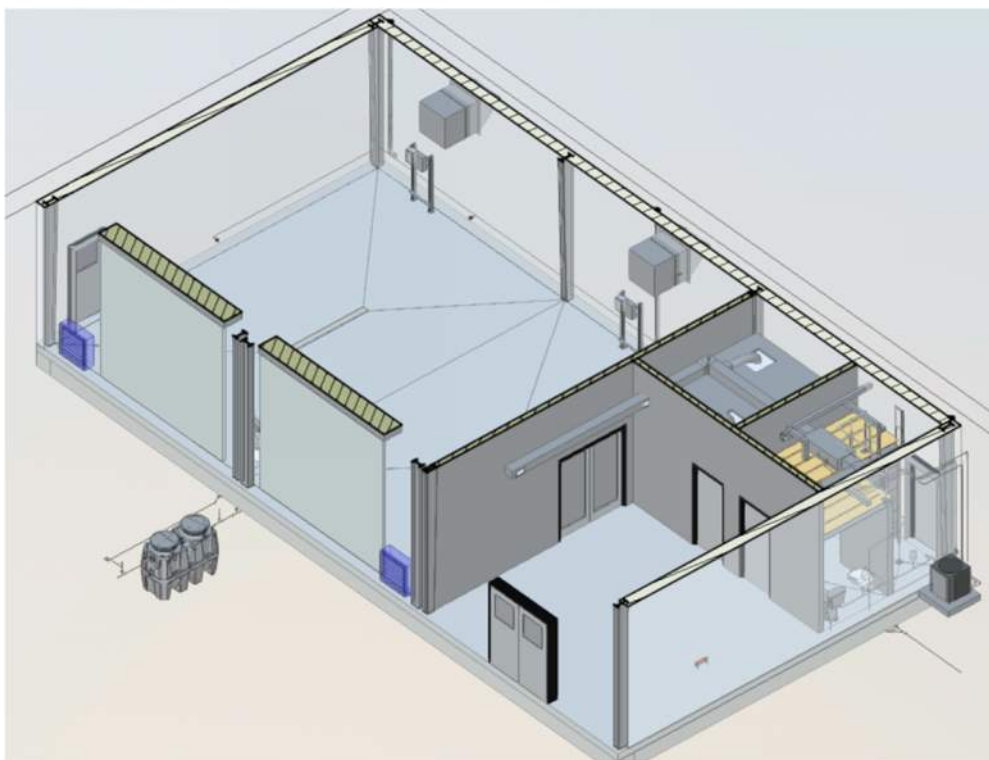
Aerobic digesters will be added so NACA does not have to rely solely on landfill disposal, producing a Class B biosolid with land application disposal options outside the watershed



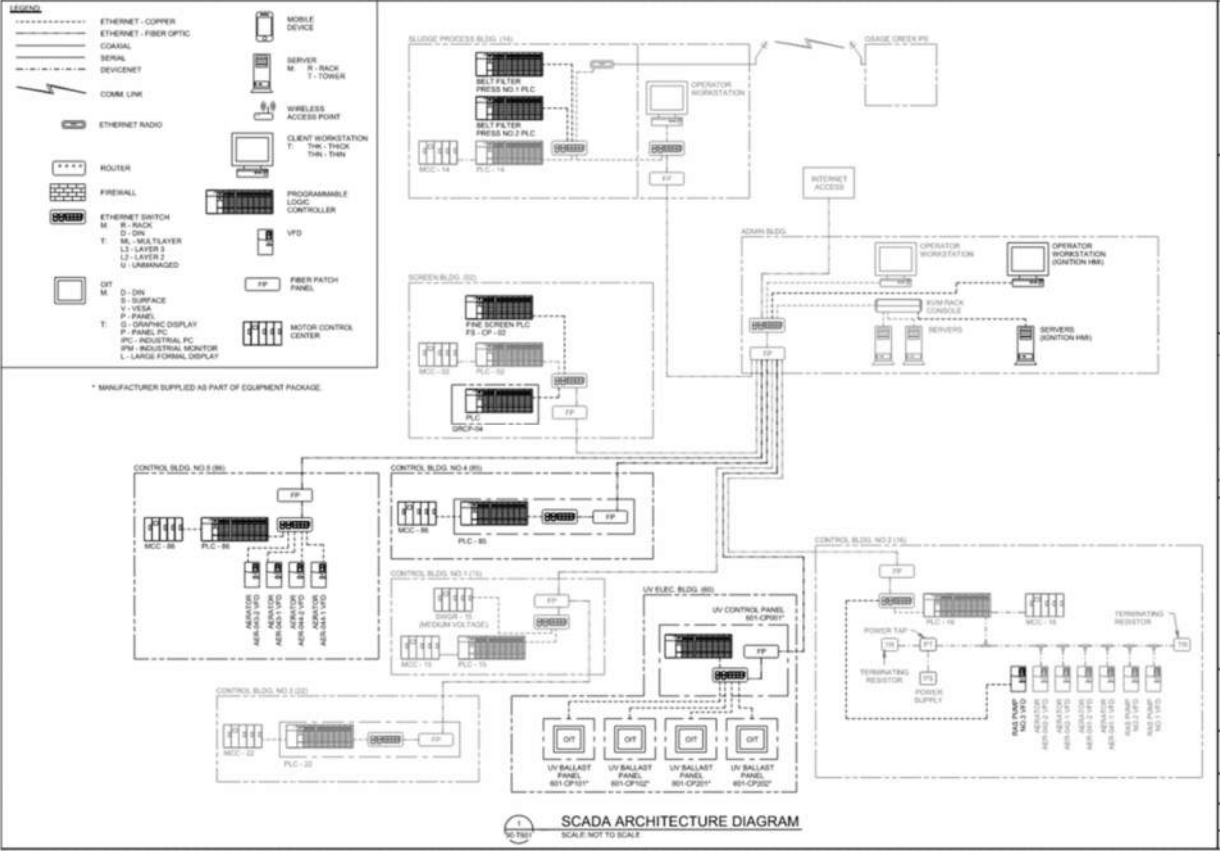
Two new dewatering units will be added to replace the single unit nearing the end of its useful life and provide redundancy



A maintenance building will be added, and NACA currently does not have a maintenance building



The work also includes associated splitter boxes to fix existing problems, pumping, chemical, electrical, backup power, and automation improvements to optimize treatment costs (power and chemicals) and minimize labor



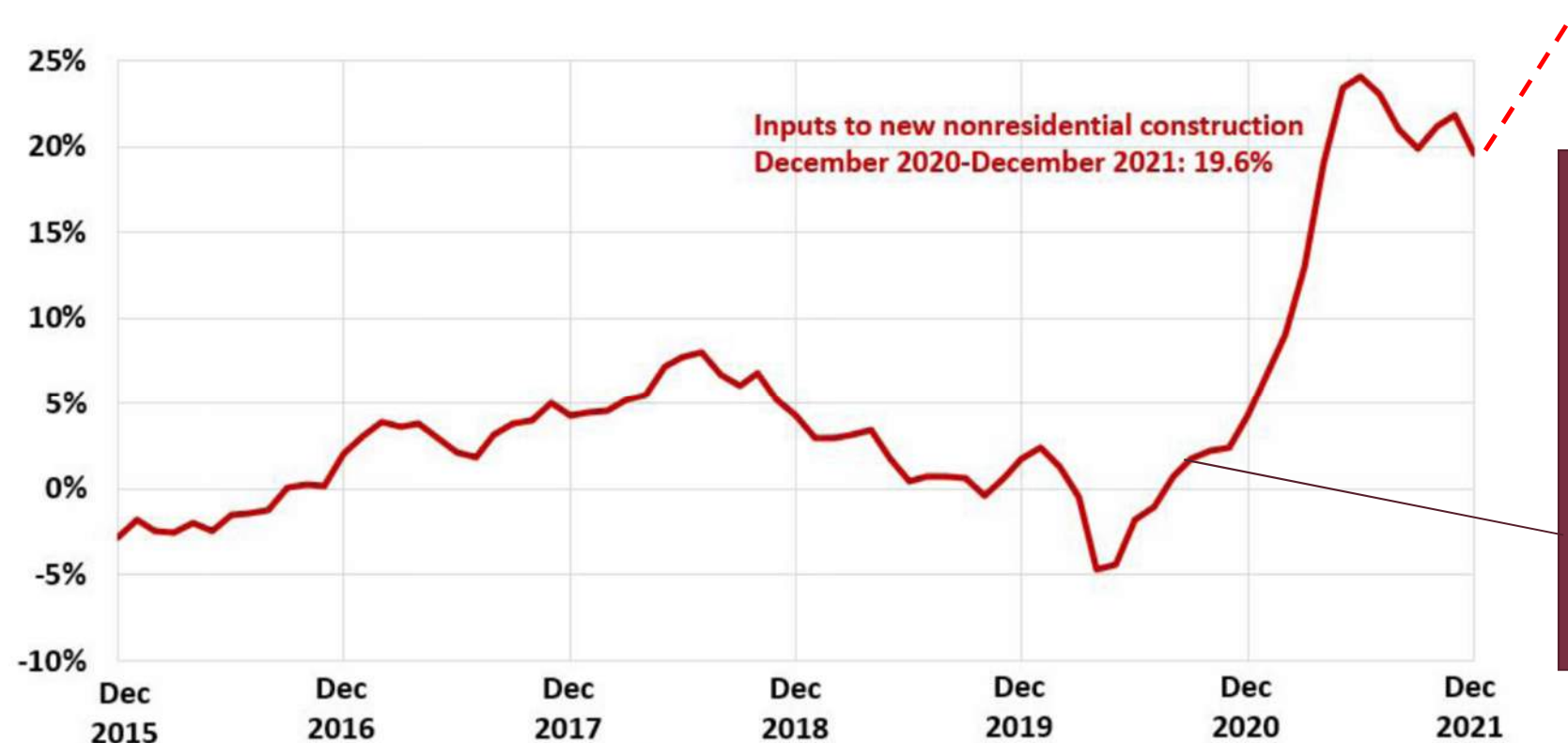


COST

Association of general contractors has issued a “2022 CONSTRUCTION INFLATION ALERT”



AGC
THE CONSTRUCTION
ASSOCIATION



Garver Completed a Conceptual Engineering Report and cost estimate in November 2020, and since then prices have increased at unprecedented rates

Funding has been secured with the Arkansas Natural Resources Commission (ANRC)

- Special interest rate of 0.5% plus a 1% servicing fee for the Illinois River Watershed has been secured, much cheaper than WIFIA and bonds, for 30 years
- Grants and funding, such as rescue plan funding, have been difficult and not resulted in any relief to date. We will continue to try.
- Contractor capacity to complete work is very limited, and we were able to pre-qualified four contractors to bid.

Bids were received on June 2, 2022, and Garver and NACA will work the Thalle during construction to value engineer items, entertaining substitution request, to try and reduce cost.

Contractor	Base Bid
Thalle Construction Co., Inc.	\$74,338,000.00
Flintco, LLC	\$79,884,270.00
Oscar Renda Contracting, Inc.	\$81,575,000.00
Branco Enterprises, Inc.	\$89,000,000.00

A preliminary schedule of values was received from the low bidder, and the following summarizes the cost for each facility below

Facility	Cost
GENERAL REQUIREMENTS	\$ 1,187,901
SITE CIVIL	\$ 6,702,000
PROCESS AND INSTRUMENTATION	\$ 600,000
INFLUENT PUMP STATION	\$ 6,357,000
SCREENINGS FACILITY	\$ 1,440,000
GRIT REMOVAL FACILITY	\$ 1,535,000
PRIMARY CLARIFIER	\$ 3,199,000
PRIMARY SLUDGE PUMP STATION	\$ 1,274,000
RAS ANOXIC MIXING SPILTTER BOX	\$ 1,979,000
PROCESS TRAINS	\$ 13,592,000
MLSS SPLITTER BOX	\$ 821,000
SECONDARY CLARIFIERS	\$ 3,755,000
RAS/WAS PUMP STATION	\$ 784,000
TERTIARY FILTRATION	\$ 2,564,000
UV DISINFECTION	\$ 3,203,600

Facility	Cost
POST AERATION FACILITY	\$ 1,419,000
CHEMICAL STORAGE AND FEED	\$ 708,000
AEROBIC DIGESTERS	\$ 5,661,000
AEROBIC BLOWER FACILITY	\$ 1,044,000
SOLIDS DEWATERING	\$ 1,742,000
MAINTENANCE FACILITY	\$ 1,536,013
CONTROL BUILDING NO. 4	\$ 204,000
CONTROL BUILDING NO. 5	\$ 206,000
ELECTRICAL	\$ 10,140,000
TRENCH SAFETY SYSTEM	\$ 10,000
DISK FILTER EQUIPMENT	\$ 1,227,682
WET-PIT SUBMERSIBLE PUMPS	\$ 871,804
WORK CHANGE DIRECTIVES	\$ 500,000
INDEPENDENT TESTING	\$ 50,000
FIELD OFFICE	\$ 25,000

The total project cost is \$85 million

Construction Cost	\$74,338,000
Geotechnical	\$48,750
Filter Pilot Testing	\$14,481
Task 1 -Project Management and Administration	\$111,000
Task 2 – Preliminary Design	\$1,014,000
Task 3 – Final Design	\$2,266,000
Task 4 – Contractor Pre-Qualifications and Bidding Services	\$158,000
Application Engineering (SCADA)	\$440,000
Task 5 – Construction Administration	\$1,406,000
Task 5 – Construction Observation	\$2,094,000
Task 6 – Operations and Maintenance Manual	\$150,000
Legal and Accounting	\$350,000
Contingency	\$2,609,769



SCHEDULE

To accommodate continued growth, continued investments in infrastructure are needed as soon as possible.

- NACA and ANRC have approved awarding the construction contract
- The contractor is currently executing the agreement and preparing bonds and insurance
- Construction is scheduled to start in the coming weeks, in accordance with the Memorandum of Agreement between NACA and ANRC
- The construction contract time is 900 calendar days, completion late 2024
- ANRC requires an O&M after completion
- ADEQ requires one year monitoring related to leachate

The following is the amortization schedule

Loan Closing Date	Disbursement Cut-off Date	First Payment Date	Repayment Length Years	Annual Lending Rate	Total Principal	Semi-Annual Payment
Aug 25, 2022	Apr 15, 2025	Oct 15, 2025	30	1.50%	\$85,000,000.00	\$ 1,764,460.00
Semi-Annual Payment						Outstanding Principal
Period	Date	Payment Amount	1.00% Servicing Fee	0.50% Interest	Principal	Balance
						\$85,000,000.00
1	Oct 15, 2025	\$ 1,764,460.00	\$ 425,000.00	\$ 212,500.00	\$ 1,126,960.00	83,873,040.00
2	Apr 15, 2026	1,764,460.00	419,365.00	209,683.00	1,135,412.00	82,737,628.00



OPEN DISCUSSION

The NACA and Garver team were honored at the Governor's Mansion on March 31, 2022, at the American Council of Engineering Companies of Arkansas Engineering Excellence Awards Gala, winning the large category for studies, research, and consulting engineering services on the NACA Conceptual Engineering Report

