J-U-B COMPANIES | THE LANGDON GROUP | GATEWAY MAPPING INC.

J·U·B ENGINEERS, INC.

ADDENDUM NO. 2

GRANGER-HUNTER IMPROVEMENT DISTRICT, UTAH
ANDERSON WATER TREATMENT PLANT PROJECT

November 20, 2024

Addendum No. 2 to the Plans, Contract Documents, and Specifications prepared by J-U-B ENGINEERS, Inc. is hereby submitted for use in bid preparation and submittal. Contractor must acknowledge receipt of all Addenda on the Bid Form.

The following clarifications, additions, and/or deletions are hereby made part of the Granger-Hunter Improvement District Anderson Water Treatment Plant Project as fully and completely as if the same were entirely set forth in the Contract Documents and Specifications.

The corrections, clarifications, changes, and approvals described herein shall become an integral part of any contract entered into between the Owner and Contractor.

MEETING MINUTES

The sign-in sheet, agenda and meeting minutes from the mandatory pre-bid meeting on Wednesday, November 13, 2024 at 2 p.m. MST are attached. Note that all GCs and ECs that were prequalified are being allowed to bid. There is one EC that showed up for the prebid meeting on Thursday and instead of Wednesday, and they are still being allowed to bid even though their name is not on the sign-in sheet.

PREBID MEETING QUESTIONS AND RESPONSES

The questions and responses that were asked at the prebid meeting are attached.

UTAH3P QUESTIONS AND RESPONSES

The questions and responses that have been posted on Utah3P thus far are attached.

VOLUME I FRONT ENDS

None.

VOLUME II TECHNICAL SPECIFICATIONS

1. Specification 01014 Work sequence.
    a. Delete "Well #16 is to remain in service throughout the project. GHID requires access to the Well." Add "Well 16 can be off-line during construction. GHID would like the down time to be minimized as much as possible, but they will need a detention basin so that pump-to-waste can occur. At a minimum Well 16 must be fully operational by April 2026."
    b. Reword as follows:
    Well #16 must ~~remain~~ be operational for the 2026 ~~in service during the~~ irrigation season (April 1 through October 31). All major outages (new transformer, relocation of the

generator, and new pump-to-waste/storm drain pond) shall be scheduled during the non-irrigation season.

2. Specification 14300 Bridge Crane and Monorail. Revise Part 1, Section 1.1.B.2.c monorail capacity from 2.5 tons to 1.5 tons.

3. Specification 03414 Precast Polymer Concrete. This specification can be deleted as it doesn't reference anything in this project.

VOLUME III DRAWINGS

1. Sheet CU-101 and CU-102: Box #1, Box #2, Box #3 and Box #4, which are currently called out as keynote #2 as follows "48-IN X 48-IN STORM CLEANOUT BOX PER APWA STD PLAN 331.2 TYPE B W/ 30" TYPE A FRAME & COVER PER APWA STD PLAN 302.1", shall be updated to: "48-IN X 48-IN STORM CLEANOUT BOX PER **WVC STD DWG NO. 331** W/ 30" TYPE A FRAME & COVER PER APWA STD PLAN 302.1".

2. Sheet S-103: The S-103 roof plan notes call out 23'-10" which needs to be revised to 18'-0".

3. Sheets E-002 and E-104: Sheet E-002 Panel H shows (3) 480V 10kW heaters H-14 through H-30. Sheet E-104 also shows those heaters fed from H-14 through H-30. Instead, those heaters are gas heaters with internal disconnects and will need 120V power fed from Panel L, with 20A single pole breakers - one for each heater. L-36 through L-40 are available for those three heater fans.

   Furthermore, on sheet E-104 there are (4) "HEATER RECEPTACLE" symbols shown along with one GFCI Receptacle in the valve vault fed from Circuit L-22. The Panel Schedule for L-22 shows spare. The (4) HEATER RECEPTACLES are to be removed from the plans. Only the GFCI receptacle in the valve vault will be fed from Circuit L-22 and the Panel Schedule updated to show that receptacle being fed.

VOLUME IV FILTER PROCUREMENT

1. J-U-B's submittal response #2 is now included.

Notice is hereby given that this Addendum must be signed and enclosed with a sealed bid for the Granger-Hunter Improvement District Anderson Water Treatment Plant Project as evidence that the Bidder has familiarized himself/herself with all changes incorporated herein.

NAME OF BIDDER:_____

BY: _____ _____
Signature Date

_____
Name (Print) Title

Submitted By:
J-U-B Engineers, Inc.

Christina Osborn, P.E.
Project Manager

Attachments:

- SciQuest/Utah 3P Questions and Responses (below)
- Pre-Bid Conference Agenda
- Pre-Bid Conference Presentation
- Pre-Bid Conference Sign-In Sheet
- Pre-Bid Conference Meeting Minutes & Prebid Questions and Responses
- Drawing CU-101 and CU-102
- JUB's 2nd submittal response to WesTech

UTAH3P QUESTIONS AND RESPONSES

Questions are in black and the responses are in red.

1. The plans shows 1.5 tons on Sheet S-301 and the specification refers to 2.5 tons. Thanks.
   The overhead crane shall be 2.5 tons. Keyed note 10 on Sheet S-102 correctly notes the 2.5-ton crane. Additionally, there will be a 1.5 ton hoist and trolley at the monorail beam over the mezzanine called out in the roof plan notes on sheet S-103.

   In specification 14300 Bridge Crane and Monorail we correctly note in Part 1, Section 1.1.B.1.c the 2.5 ton Bridge Crane. In Part 1, Section 1.1.B.2.c the monorail capacity should be revised from 2.5 tons to 1.5 tons. The specification has been modified accordingly.

   a. Is the monorail hoise rope or chain?
      Electric.

   b. What is the lift required- 23', 10' or 18'?
      The S-103 roof plan notes call out 23'-10" which needs to be revised to 18'-0". The drawings have been modified accordingly.

   c. What is the voltage 208 v or 460 v?
      208 v.

2. In the bid schedule on page H101, the mechanical schedule calls for (3) gas fired unit heaters with a 120v power source. On page E104 there are (3) 3 phase, 480v electric heaters shown on the plan and these same heaters on panel H load schedule. Are there (6) total heaters in the plant? If not, which requirement is correct?
   The unit heaters are gas, not electric. 120V is correct to run the fan. Also, all of the "Heater Receptacles" with L-22 need to be removed as they are not what will be feeding the 120V either. The drawings have been modified accordingly.

Agenda

GRANGER-HUNTER IMPROVEMENT DISTRICT
ANDERSON WATER TREATMENT PLANT PROJECT
PRE-BID CONFERENCE MEETING AGENDA

Wednesday, November 13, 2024 @ 2:00 p.m.

Introductions:

Name	Company	Role	Email	Phone Number
Todd Marti	Granger-Hunter Improvement District	Assistant GM & District Engineer	t.marti@ghid.gov	801-968-3551
Drew Ovard	Granger-Hunter Improvement District	Operations Manager	d.ovard@ghid.gov	801-968-3551
Zak Bedard	Granger-Hunter Improvement District	Engineer	z.bedard@ghid.gov	801-968-3551
Christina Osborn	J-U-B Engineers	Project Manager	cosborn@jub.com	801-750-4769c
Jon Farrell	J-U-B Engineers	Project Engineer	jfarrell@jub.com	208-232-1313, etc. 8008
Braxton Porter	J-U-B Engineers	Project Engineer	bporter@jub.com	801-886-9052
Jessie Shocklee	J-U-B Engineers	Structural Engineer	jshocklee@jub.com	801-886-9052
Danny Fullmer	J-U-B Engineers	Landscape Architect	dfullmer@jub.com	801-886-9052
Chase Steigers	J-U-B Engineers	Civil Engineer	csteigers@jub.com	801-886-9052
Katianne Jones	NJRA Architects	Architect	katjon@njraarchitects.com	801-364-9259
Bob Hillyer	Heath Engineering	Electrical Engineer	bhillyer@heatheng.com	801-322-0487
Karson Halverson	Heath Engineering	HVAC	khalverson@heatheng.com	801-322-0487
Rob Kesler	Heath Engineering	Plumbing	rkesler@heatheng.com	801-322-0487

*Utility contact information is listed on the plans.

Description of Project:

The project is generally described as follows:

- A CMU water treatment plant building, including two parallel pressure filters with GreenSand plus media and an onsite hypochlorite generation system. This also includes a new generator.
- The pressure filters have already been partially procured by the District. The signed contract with WesTech will be reassigned to the General Contractor. The submittal process is nearly complete and the design reflects these specific filters. The GC, once issued a NTP, can then issue a NTP to WesTech.
- The contractor will need to purchase the chemicals (12.5% sodium hypochlorite or potassium permanganate) to precondition the media prior to startup and after installation. Assume that quenching with sodium bisulfate (if using NaOCl) or sodium metabisulfite (KMnO4) is required.
- Two FRP tanks that will allow the backwash wastewater to slowly be released into the sewer system.
- Regrading of the site, including installing a storm drain pond, is included.
- Water—24-inch, sewer lines—8-inch, and stormwater lines. All waterlines are noted as PVC and the sewer as SDR 35.
- Relocate the existing generator.
- Startup. Coordinate with WesTech and Apco (SCADA provider).

Items to Address:

1. Sign-in Sheet- Each attendee should sign-in with their name, company and contact information.

2. Interested Parties-
    a. Granger-Hunter Improvement District-Owner, site access.
    b. Dominion Energy/Enbridge-gas line.
    c. Rocky Mountain Power-moving the electrical transformer.
    d. West Valley City
    e. Utah Division of Drinking Water-permitting, funding
    f. Bureau of Reclamation-funding
    g. Red Oaks Village-neighbors

3. Bidding Schedule-

Date	Selection Process
Tuesday, November 5th, 2024	Issue Invitation to Bid.
Wednesday, November 13th, 2024	Pre-bid meeting at (2:00 p.m. MST).
Tuesday, November 26th, 2024	End of inquiries, questions and interpretation period (5 p.m. MST).
Tuesday, December 3rd, 2024	Final Addendum Issued (if required).
Tuesday, December 10th, 2024	Bid submittal due (2:00 p.m. MST).
Thursday, December 12th, 2024	Initial bid evaluations complete.
Wednesday, December 18th, 2024	Notice of Award anticipated.

1. Board meeting is anticipated to be Tuesday, December 17th.

4. Contract Documents- Standard EJCDC Contract Documents-Bid security, performance and payment bonds, insurance, and etc.

5. Bid Form and Measurement and Payment-

Item No.	Description	Unit	Estimated Quantity	Bid Amount
1	Permits	LS	1	$10,000
2	Filter System Assigned to Contractor and Paid at Milestones Shown in Volume IV. Includes Freight and sales tax.	LS	1	$1,831,200
3	All Work as shown and specified in Volumes I, II, III, IV including acceptance of Filtration Equipment System Assignment, and installation of Filtration Equipment System.	LS	1	$
Total of All Unit Price Bid Items				$

6. SRF and BOR Conditions:
   a. AIS—See the sample letters attached to the Contract Documents.
   b. Davis Bacon Wages-update these at sam.gov/content/wage-determinations, until the contract is signed, used the highest wage rate between the Heavy and Building
   c. Disadvantaged Business (DBE)
   d. EEO—See the EEO requirements attached to the Contract Documents.
   e. BABA- Waiver, Section B for any purchases of **manufactured products**

7. Liquidated damages-
   a. Substantial Completion: Contractor shall pay Owner $_1000.00_ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
   b. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted

pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $ 1000.00 for each day that expires after such time until the Work is completed and ready for final payment.

c. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

8. Temporary Power and water-
    a. Power-Coordinate with Granger-Hunter Improvement District.
    b. Water-Coordinate with Granger-Hunter Improvement District.
        i. $1750 deposit for meter.

9. Permits and Agreements-Information is on the Drawings.
    a. Construction permit-DDW; completed.
    b. Storm water-DWQ/WVC.
    c. West Valley City. Building Permit, includes reviews from fire, building, zoning & planning, and engineering. They have seen the plans and responded with comments. Contractor must obtain the building permit and any other additional permits and pay for them.
    d. WVC Roadway and Excavation Permit:
        I. Lane closures with WVC. $50/lane/day for non-peak hours and $500/lane/day for peak hours. Non-peak hours are 9am-3:30pm daily. Maintain at least one East-West lane.
        II. ROW access $100/week.
        III. Asphalt Cut inspection fee $0.35/sf
        IV. Excavation Permit and ROW-WVC.
        V. All work must be plated overnight, if left more than 24 hours, then recess plates and mastic all sides.
        VI. Standard road repair is AWWA T-Patch
            i. Major arterials (3100 S) are superpaved, with 3-foot T-Patch for deeper than 4 foot excavations

10. Additional Specifications: Included in the Technical Specifications.
    a. Granger-Hunter Improvement District Engineering Standards and Construction Specifications: https://media.rainpos.com/3855/engineering_standards_construction_specifications_11_12_19.pdf.
    b. West Valley City.
    c. APWA.

11. Submittals, RFIs, etc.
    a. Contractor must provide a subscription to manage construction phase documents online.
    b. Currently we are using BIM360.

12. Construction meetings
    a. Contractor to provide a construction trailer for the construction observer/J-U-B and a location for construction meetings. Must also include a TV/screen for displaying information during meetings.

13. Project phone number-There will be a project phone number that will be staffed by TLG/J-U-B. TLG/J-U-B will also be working with the Red Oaks Village HOA throughout the construction project on the schedule and any concerns that they have.
14. Utilities- Information is on the Drawings.
    a. Waterlines-potholed by T2.
    b. Sewerlines.

15. Protect in place
    a. Utilities-water, sewer, fiber, irrigation, stormwater, gas.

16. Construction Staging/Stock piling/Work areas- Existing well 16 property only.

17. Adjacent Properties – Any damage to public or private property resulting from construction activities shall be restored to equal or better condition at the Contractor's own expense. Information is on the Drawings.
    a. Red Oaks Village Townhomes. Protect adjacent turf, asphalt, sprinkler system, etc. Coordinate with Red Oaks Village Townhomes.
    b. 3 individual residences to the west. They have been contacted and have agreed to a new fence at GHID's expense.

18. Existing Conditions – All of the work included in this project is within ROW or property owned by GHID. It is anticipated that the Contractor may encounter existing utilities and facilities that have not been identified on the plans.

19. Geotechnical-Geotechnical Report is included in Bid Package.
    a. Terracon, April 15, 2024.
    b. Dewatering – IS possible. Most likely in the valve vaults.

20. Dewatering
    a. See the geotech report.
    b. Dewatering Plan is required, if necessary.
    c. Reliable temporary/backup power is required. Plan must be stamped by a Utah PE.

21. Excavated Material –Excess excavated material may be disposed of by the Contractor.

22. Inspections - All construction efforts associated with this project and as prescribed in the project specifications will be subject to, but not limited to, daily inspections and site observation by Granger-Hunter Improvement District personnel, J-U-B Engineers, WVC, and County and local, federal and state personnel as required. Almost daily site visits will be made for construction observation and answering questions.

23. Materials Testing and Compaction and Concrete Testing – The Contractor is responsible for quality control and shall hire a third party testing agency to perform whatever quality control testing is necessary in order to meet its obligation to comply with the requirements of the construction contract. The Contractor shall submit all copies of such test results to the Engineer, as it may be used to help evaluate the Contractor's compliance with the requirements of the Contract. No separate payment will be made for materials certification and testing.
    a. Contractor to provide 3rd party testing on all soils, concrete, compaction, etc.
    b. Special inspections related to the building are noted on sheet S-001.
    c. Testing pipelines-BacT, air/water and disinfection.

24. Cold Weather Concrete Requirements and Cold Weather Masonry Requirements – Per ACI 306 (concrete) & ACI 530 (masonry) shall be followed. Hot water and/or heated aggregate may be used as allowed per ACI. Calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators will not be allowed.

25. Surveying – Engineer/Owner will set and/or identify construction survey control points (see the survey control sheet in the Drawings) for use by the Contractor prior to commencement of the contract times. Contractor shall be responsible for field survey to set alignments, building corners, and related facilities. Contractor shall not disturb Engineer established control points.

26. Traffic Control/Roadway – must be maintained.

27. Warranty-Failure of the constructed product before the end of the warranty period is the responsibility of the Contractor.

28. Safety – The Contractor is responsible for safety on the project as directed by federal, state and local governments.

29. Work Sequencing–
    a. The Contractor will have 18 months (540 days) to substantial completion and 30 additional days (570 days total) to final completion.

b. GHID works M-Th for inspections. GHID can provide someone on other days if notified ahead of time.
c. Well #16 is to remain in service throughout the project. GHID requires access to the well.

30. Startup and Commissioning—
    a. Coordinate with Apco, who will contract directly with GHID.
    b. Coordinate with equipment manufacturers.

31. Construction Schedule-Estimate

Item	Project Milestone	Estimated Date
1	Notice of Award Anticipated[1]	Wednesday, December 18, 2024
2	Contract Agreement	Tuesday, December 24, 2024
3	Notice to Proceed	Monday, January 6, 2025
4	Pre-Construction Meeting	TBD
5	Date of Substantial Completion (540 days)	Monday, July 6, 2026
6	Date of Final Completion (1 month after Substantial Completion, 570 days)	Thursday, August 6, 2026

1. Board meeting is anticipated to be Tuesday, December 17, 2024.

32. Construction Notes—
    a. All wetted parts and materials must be NSF 61.
    b. Use Denzo wax tape, not greased and bagged.
    c. Tracer wire.

33. Subcontractors, Superintendents, Foremen – State these in your Bid.

34. Minimum qualifications-

a. All General Contractors must be prequalified.

1	Gerber Construction	mn@1gerber.com	801-407-2000
2	Ralph L. Wadsworth	cfrost@wadsco.com	801-301-7047
3	VanCon, Inc.	bid@wedigutah.com	801-491-8898
4	Nelson Brothers Construction Co.	office@nelsonbros.com	(801) 487-5401

b.

c. General Contractors must work with a prequalified Electrical Contractor.

1	I-D Electric Co	cdh@idelect.com	801-268-1471
2	Morris Electric, Inc.	val@morrisele.com/ vmorris@morrisele.com	801-836-1617
3	Skyline Electric Company	elias.bishop@skyline.us/ michael.hamilton@skyline.us	801-972-3656
4	S&S Electric	rory@sseutah.com	801-369-3754

35. Project will be awarded based on the following-
    a. The low bid.

Questions or Concerns

Site Visit-After prebid meeting.

Presentation

HELPING EACH OTHER
CREATE BETTER COMMUNITIES

J-U-B

THE LANGDON GROUP

GATEWAY MAPPING INC.

J-U-B FAMILY OF COMPANIES

Granger-Hunter Improvement District

Anderson Water Treatment Plant

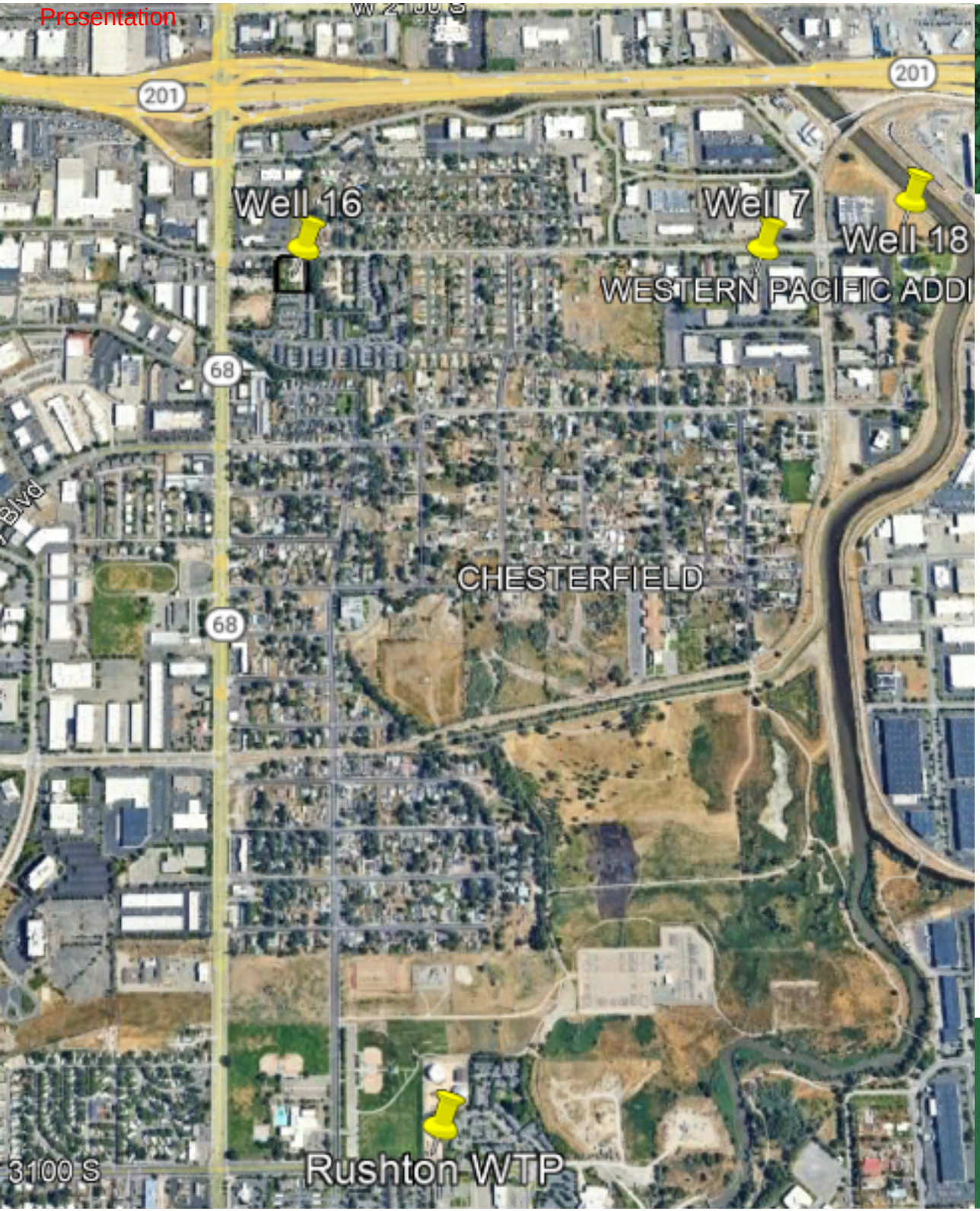
Pre-bid Meeting
November 13, 2024

GRANGER-HUNTER
IMPROVEMENT DISTRICT

Project Purpose

- To remove iron, manganese and ammonia from District's water supply
- The District has 2 wells that will be treated at this site—well 16 (adjacent) and well 18 (new, down the road

Presentation



General Vicinity Map

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CREATE BETTER COMMUNITIES

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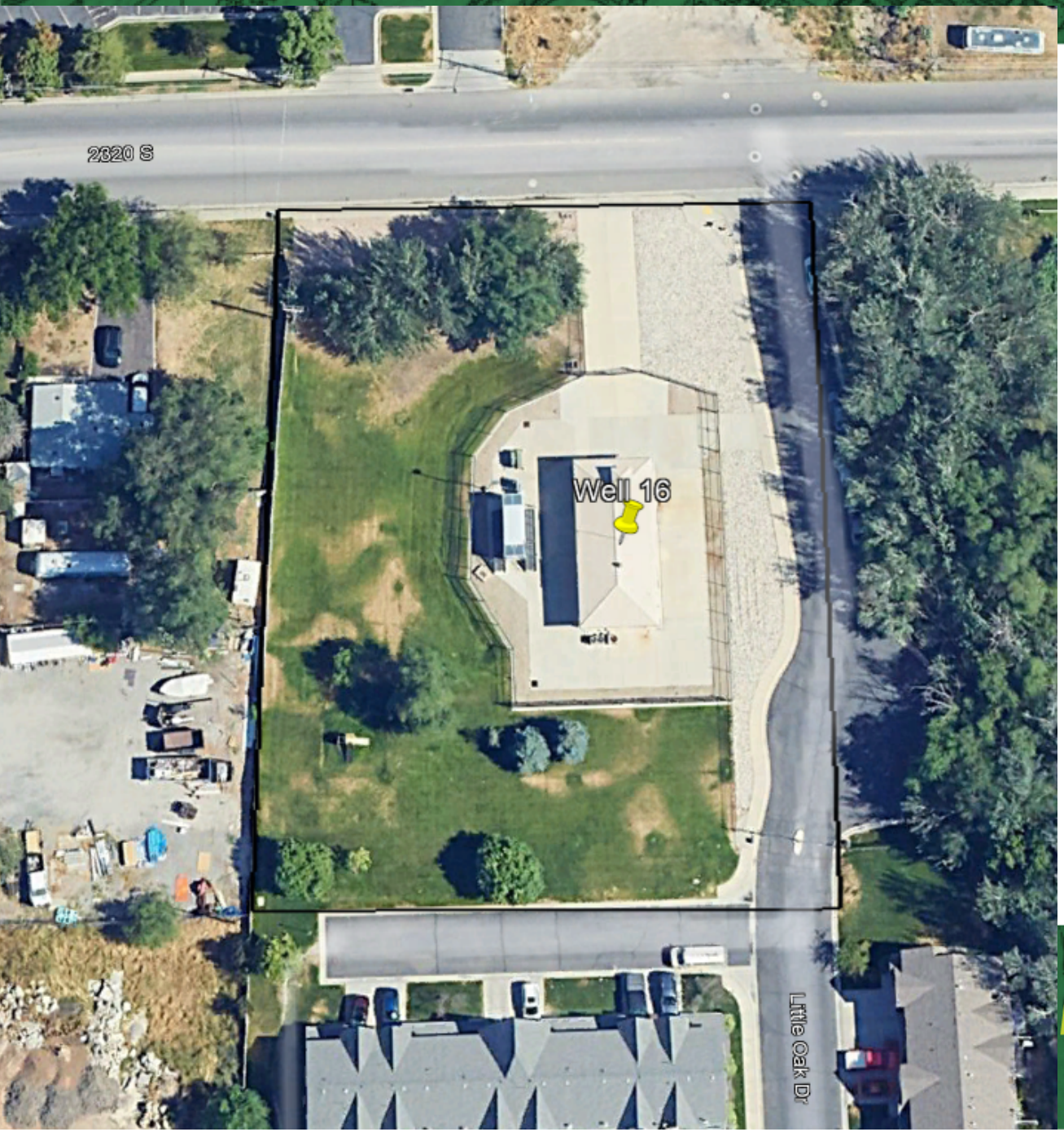
Anderson WTP Site



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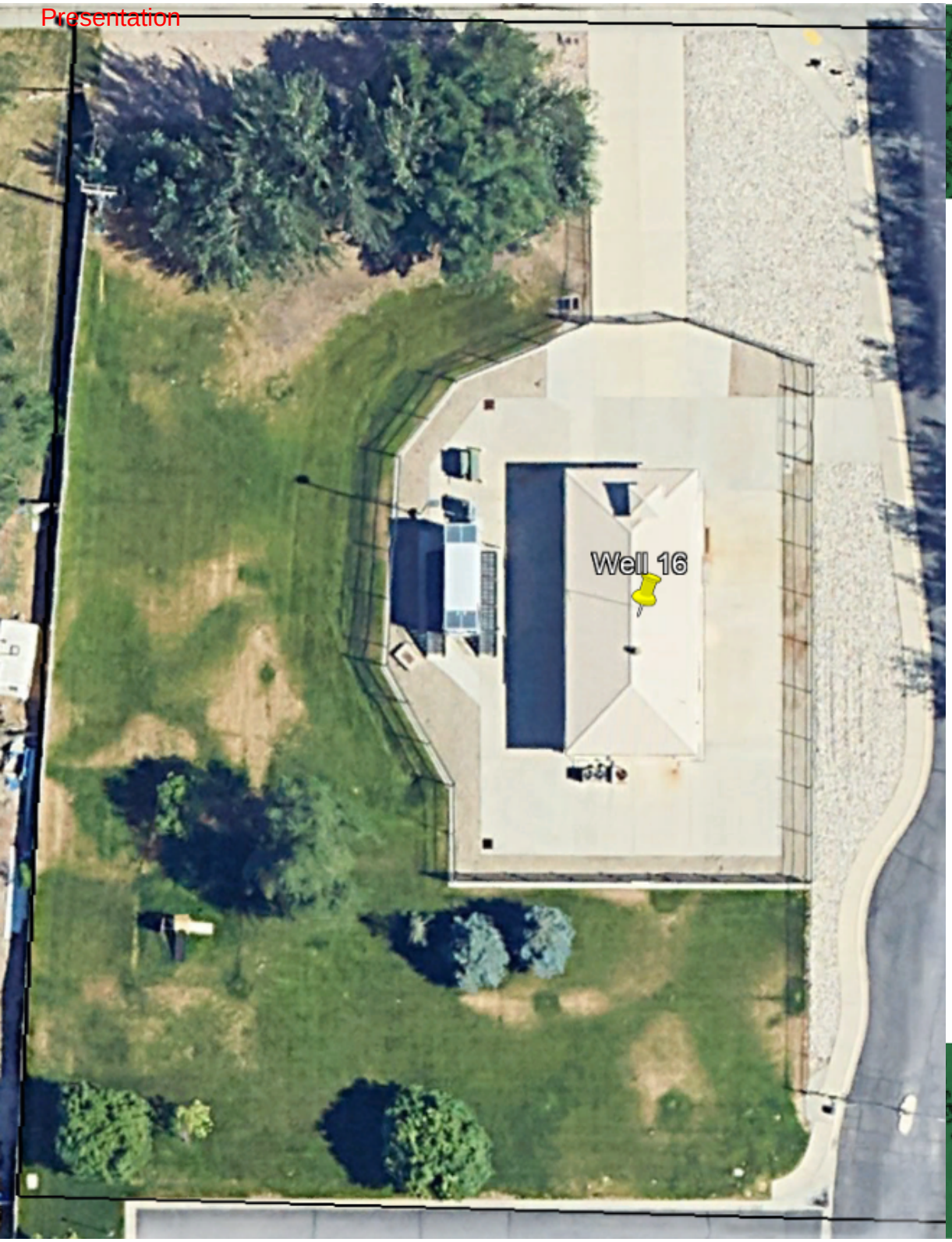
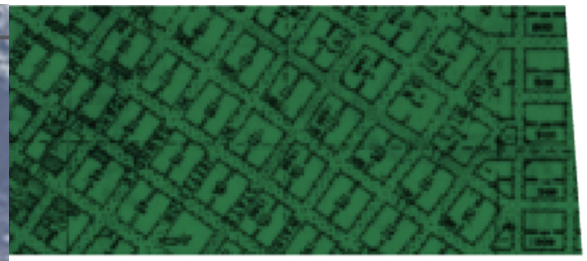

Well 16




HELPING EACH OTHER
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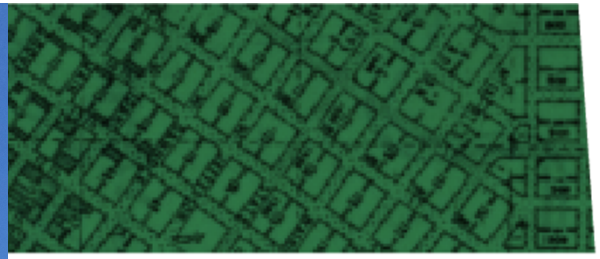
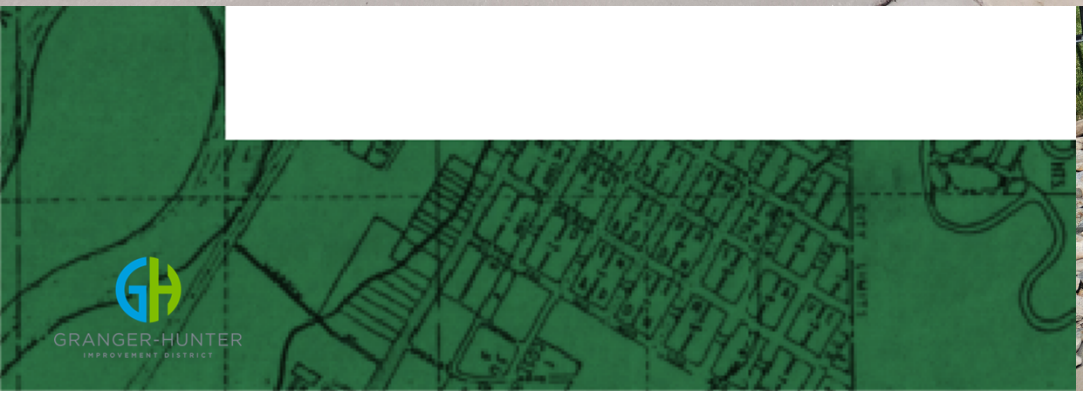
Presentation





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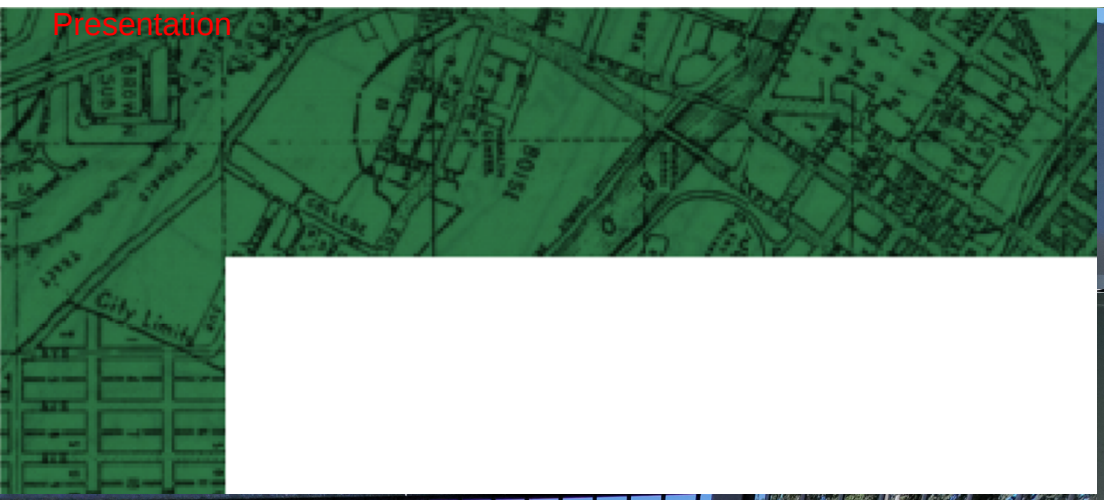

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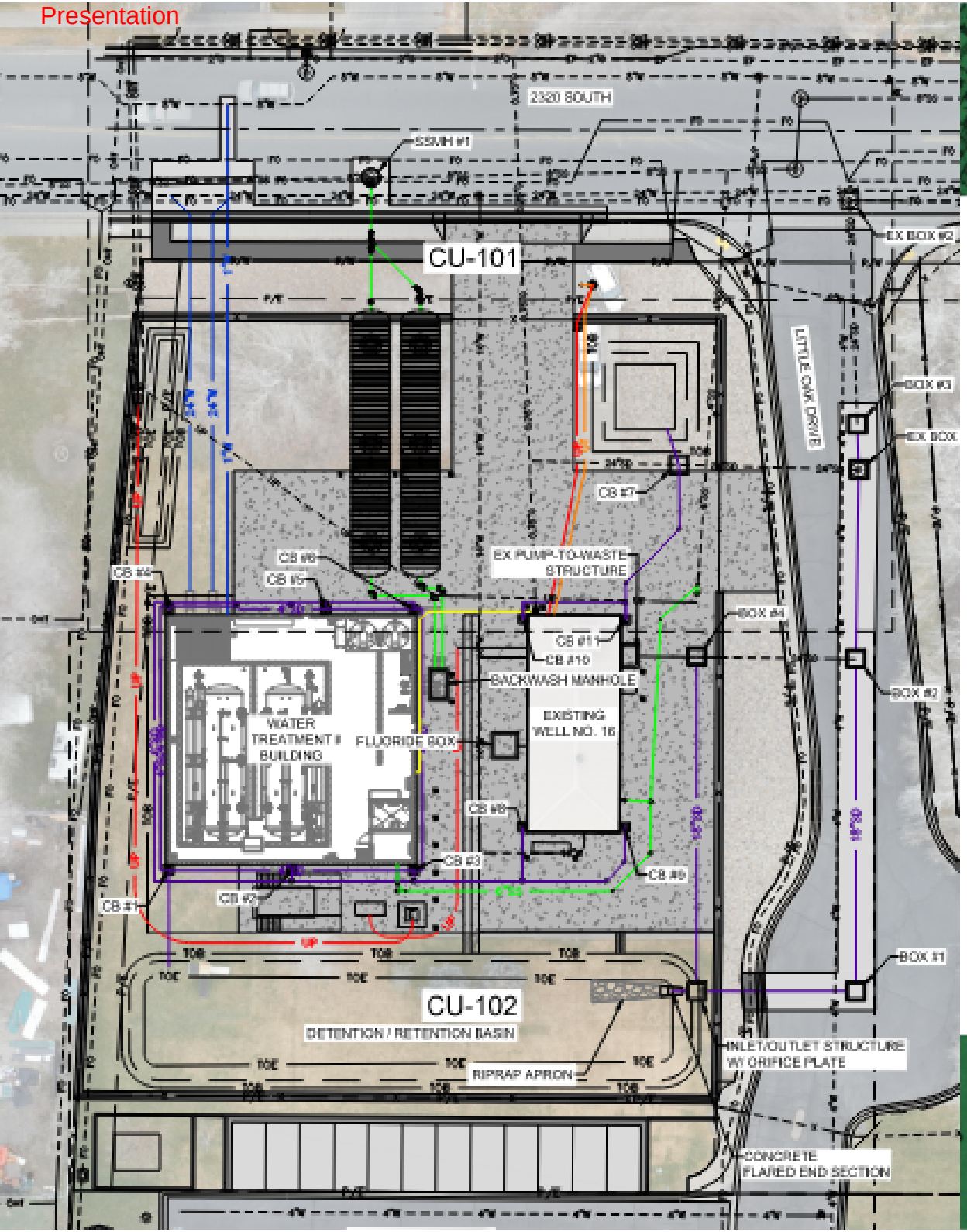
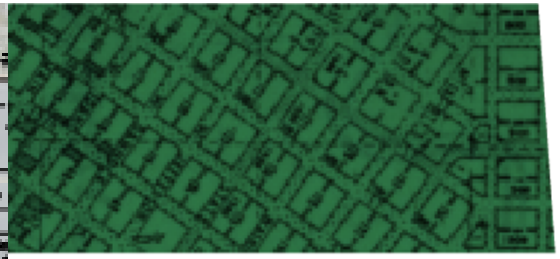
Presentation





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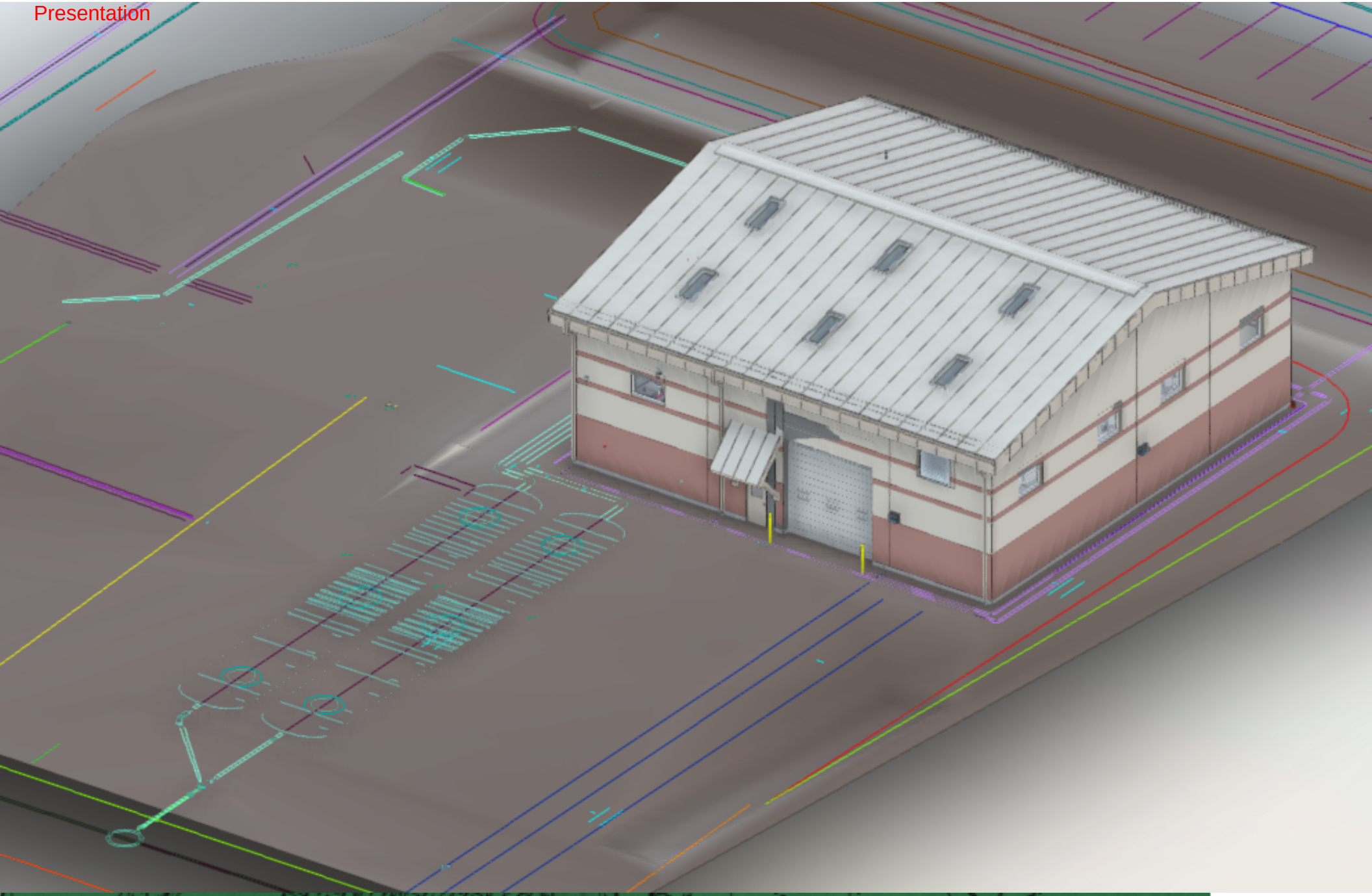

GRANGER-HUNTER
IMPROVEMENT DISTRICT

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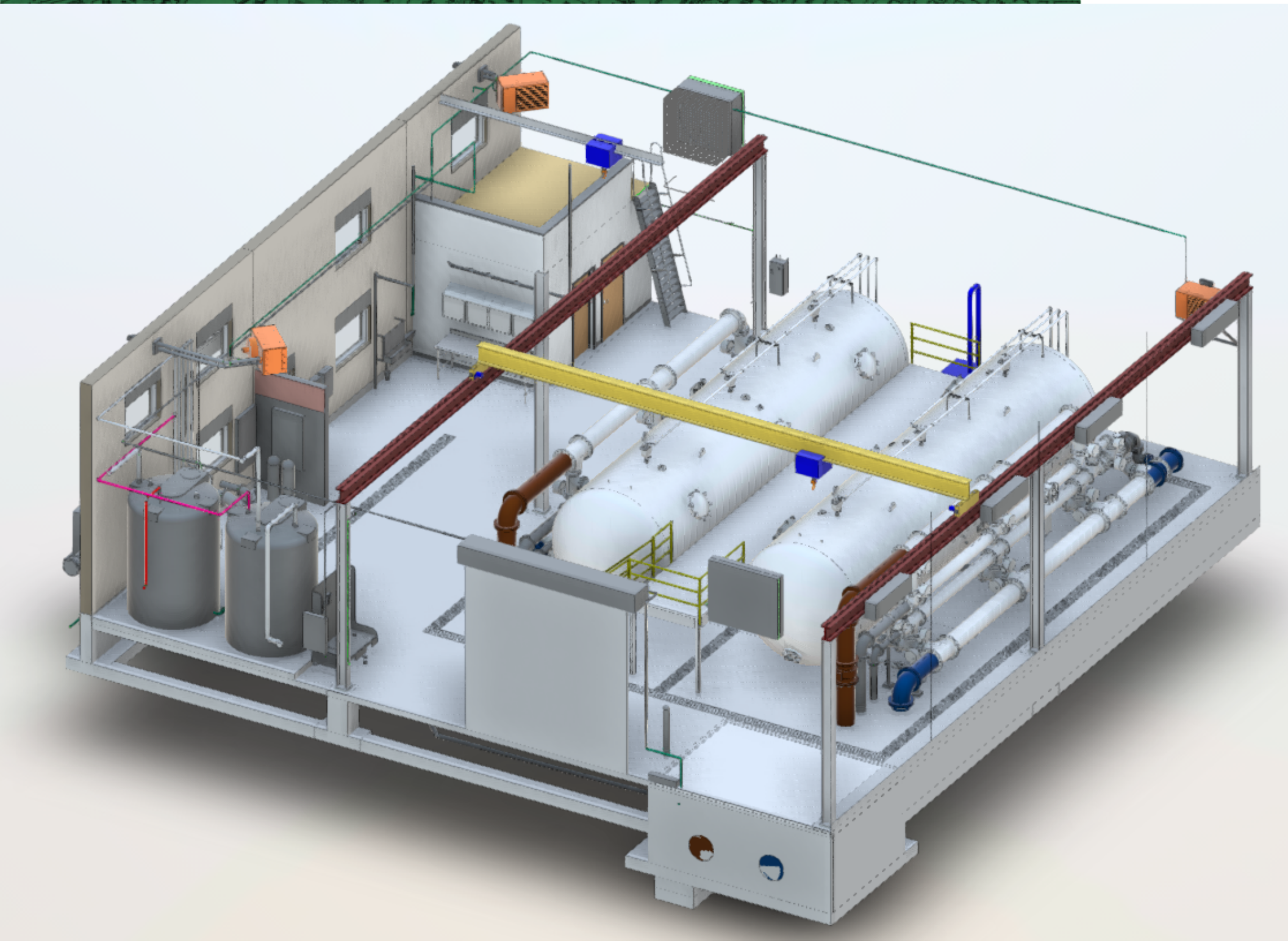

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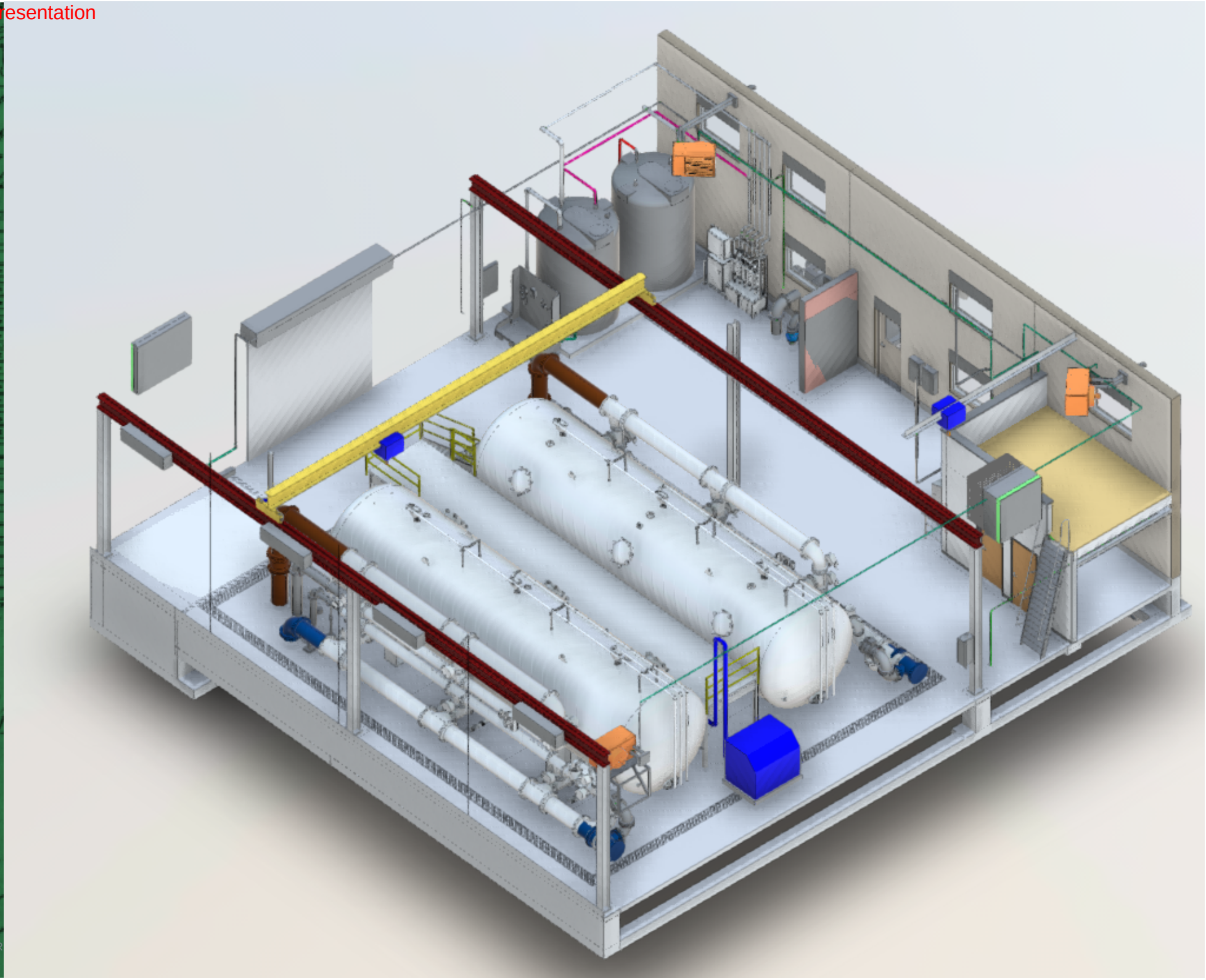


Sign-in

GRANGER-HUNTER IMPROVEMENT DISTRICT
Anderson Water Treatment Plant Project
Project #93-23-004

Bidding Documents available: Tuesday, November 5, 2024
Bid Opening is: Tuesday, December 10th at 2pm via SciQuest.

Prebid Conference will be held at 2pm, Wednesday, November 13, 2024

Attendance is mandatory.

Pre-bid Meeting Sign-in:

Number	Company Name	Contact Name	Phone #	Email	Address
1	Ralph L. Wadsworth	Josh Lamb	435-619-1162	jlamb@wadsco.com	Draper, UT
2	Skyline electric	Riley Silcox	801 664 0605	Riley.Silcox@skyline.us	WJ, UT
3	ID Electric	Dave Edwards	801-268-1471	dhe@idelect.com	SLC UT
4	Vancon	David Lancaster	385-224-6738	bid@wedigutah.com	Provo, UT
5	NIELSON BROS CONST CO	LEE REDD	CELL 801-244-5205 801-487-5401 EXT 107	lredd@nelsonbros.com	347 W 1600S SLC UT 84115
6	MORRES ELECTRIC	VAL MORRES	801 836 1617	VMORRIS@MORRISELE.COM	SPRINGVILLE UT
7	MORRIS ELECTRIC	TYLER KOLTZ	805 794 1589	tyler@morrisele.com	SPRINGVILLE UT
8	Gerber Const	Mark Nielsen	801-380-9083	mn@1gerber.com	Lehi, UT
9	GHID	Zak Bedard	801-955-2242	z.bedard@ghid.gov	GHID
10	GHID	Drew Ovard	801-428-7427	d.ovard@ghid.gov	GHID
11	GHID	Del Smolka	801-910-5915	d.smolka@ghid.gov	GHID

Minutes

GRANGER-HUNTER IMPROVEMENT DISTRICT
ANDERSON WATER TREATMENT PLANT PROJECT
PRE-BID CONFERENCE MEETING MINUTES

Wednesday, November 13, 2024 @ 2:00 p.m.

Additions are in red.

Introductions:

Name	Company	Role	Email	Phone Number
Todd Marti	Granger-Hunter Improvement District	Assistant GM & District Engineer	t.marti@ghid.gov	801-968-3551
Drew Ovard	Granger-Hunter Improvement District	Operations Manager	d.ovard@ghid.gov	801-968-3551
Zak Bedard	Granger-Hunter Improvement District	Engineer, Project Manager	z.bedard@ghid.gov	801-968-3551
Dee Smolka	Granger-Hunter Improvement District	Water Facilities Maintenance Supervisor	d.smolka@ghid.gov	801-968-3551
Christina Osborn	J-U-B Engineers	Project Manager	cosborn@jub.com	801-750-4769c
Jon Farrell	J-U-B Engineers	Project Engineer	jfarrell@jub.com	208-232-1313, etc. 8008
Braxton Porter	J-U-B Engineers	Project Engineer	bporter@jub.com	801-886-9052
Jessie Shocklee	J-U-B Engineers	Structural Engineer	jshocklee@jub.com	801-886-9052
Danny Fullmer	J-U-B Engineers	Landscape Architect	dfullmer@jub.com	801-886-9052
Chase Steigers	J-U-B Engineers	Civil Engineer	csteigers@jub.com	801-886-9052
Katianne Jones	NJRA Architects	Architect	katjon@njraarchitects.com	801-364-9259
Bob Hillyer	Heath Engineering	Electrical Engineer	bhillyer@heatheng.com	801-322-0487
Karson Halverson	Heath Engineering	HVAC	khalverson@heatheng.com	801-322-0487
Rob Kesler	Heath Engineering	Plumbing	rkesler@heatheng.com	801-322-0487

*Utility contact information is listed on the plans.

Description of Project:

The project is generally described as follows:

- A CMU water treatment plant building, including two parallel pressure filters with GreenSand plus media and an onsite hypochlorite generation system. This also includes a new generator.
- The pressure filters have already been partially procured by the District. The signed contract with WesTech will be reassigned to the General Contractor. The submittal process is nearly complete and the design reflects these specific filters. The GC, once issued a NTP, can then issue a NTP/Notice to Fabric (NTF) to WesTech.
    - Per the contract in Volume 4 (P-520 Agreement, Article 2, 2.02.A, WesTech has 224 days from the Notice to Fabricate to deliver the goods. The goods are the vessels and other equipment.
- The contractor will need to purchase the chemicals (12.5% sodium hypochlorite or potassium permanganate) to precondition the media prior to startup and after installation. Assume that quenching with sodium bisulfate (if using NaOCl) or sodium metabisulfite (KMnO4) is required.
- Two FRP tanks that will allow the backwash wastewater to slowly be released into the sewer system.
- Regrading of the site, including installing a storm drain pond, is included.
- Water—24-inch, sewer lines—8-inch, and stormwater lines. All waterlines are noted as PVC and the sewer as SDR 35.
- Relocate the existing generator, including the catwalk around the generator.
- Startup. Coordinate with WesTech and Apco (SCADA provider).

Items to Address:

1. Sign-in Sheet- Each attendee should sign-in with their name, company and contact information. See attached for the list.

2. Interested Parties-
    a. Granger-Hunter Improvement District-Owner, site access.
    b. Dominion Energy/Enbridge-gas line.
    c. Rocky Mountain Power-moving the electrical transformer.
    d. West Valley City
    e. Utah Division of Drinking Water-permitting, funding
    f. Bureau of Reclamation-funding
    g. Red Oaks Village-neighbors

3. Bidding Schedule-

Date	Selection Process
Tuesday, November 5th, 2024	Issue Invitation to Bid.
Wednesday, November 13th, 2024	Pre-bid meeting at (2:00 p.m. MST).
Tuesday, November 26th, 2024	End of inquiries, questions and interpretation period (5 p.m. MST).
Tuesday, December 3rd, 2024	Final Addendum Issued (if required).
Tuesday, December 10th, 2024	Bid submittal due (2:00 p.m. MST).
Thursday, December 12th, 2024	Initial bid evaluations complete.
Wednesday, December 18th, 2024	Notice of Award anticipated.

1. Board meeting is anticipated to be Tuesday, December 17th.

4. Contract Documents- Standard EJCDC Contract Documents-Bid security, performance and payment bonds, insurance, and etc.

5. Bid Form and Measurement and Payment-

Item No.	Description	Unit	Estimated Quantity	Bid Amount
1	Permits	LS	1	$10,000
2	Filter System Assigned to Contractor and Paid at Milestones Shown in Volume IV. Includes Freight and sales tax.	LS	1	$1,831,200
3	All Work as shown and specified in Volumes I, II, III, IV including acceptance of Filtration Equipment System Assignment, and installation of Filtration Equipment System.	LS	1	$
Total of All Unit Price Bid Items				$

6. SRF and BOR Conditions:
   a. AIS—See the sample letters attached to the Contract Documents.
   b. Davis Bacon Wages-update these at sam.gov/content/wage-determinations, until the contract is signed, used the highest wage rate between the Heavy and Building
   c. Disadvantaged Business (DBE)
   d. EEO—See the EEO requirements attached to the Contract Documents.
   e. BABA- Waiver for Section B for any purchases of **manufactured products.**

Table of BABA product coverage.

Product	Definition	Examples	Project Funds
Iron & Steel Products	A product that contains >50% iron and steel by material cost.	Lined and unlined pipe, lined and unlined fittings, tanks, flanges, pipe clamps and restraints, structural steel, valves, hydrants, precast, and iron/steel reinforced concrete.	$10M of project funds must meet this requirement for BABA and 100% of funds must meet this requirement for AIS.
Construction Materials	Includes materials or supplies that consist primarily of non-ferrous metals, plastic, and polymer-based products, lumber, or drywall.	Polyvinyl chloride (PVC) pipe and fittings, composite building materials, polymers used in fiber optic cables (including optic glass), and glass plates.	$10M of project funds must meet this requirement for BABA and 100% of funds must meet this requirement for AIS.
Manufactured Products	Must be manufactured in the U.S., and the cost of product components produced, or manufactured in the U.S. must be >55% of the total cost of all product components.	Pumps, motors, blowers, aerators, generators, instrumentation and control systems, gauges, meters, measurement equipment, treatment equipment, dewatering equipment, and actuators.	BABA is waived. 100% of funds must meet this requirement for AIS.

7. Liquidated damages-
    a. Substantial Completion: Contractor shall pay Owner $ 1000.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
    b. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $ 1000.00 for each day that expires after such time until the Work is completed and ready for final payment.
    c. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

8. Temporary Power and water-
    a. Power-Coordinate with Granger-Hunter Improvement District.
    b. Water-Coordinate with Granger-Hunter Improvement District.
        I. $1750 deposit for meter.

9. Permits and Agreements-Information is on the Drawings.
    a. Construction permit-DDW; completed.
        I. GHID has paid for the following West Valley City permits/fees: conditional use amendment fee and the commercial site plan review fee totaling $1,903.00 and the building permit fee of $2520.30.
    b. Storm water-DWQ/WVC.
    c. West Valley City. Building Permit, includes reviews from fire, building, zoning & planning, and engineering. They have seen the plans and responded with comments. Contractor must obtain the building permit and any other additional permits and pay for them.
    d. WVC Roadway and Excavation Permit:
        I. Lane closures with WVC. $50/lane/day for non-peak hours and $500/lane/day for peak hours. Non-peak hours are 9am-3:30pm daily. Maintain at least one East-West lane.
        II. ROW access $100/week.
        III. Asphalt Cut inspection fee $0.35/sf
        IV. Excavation Permit and ROW-WVC.
        V. All work must be plated overnight, if left more than 24 hours, then recess plates and mastic all sides.
        VI. Standard road repair is AWWA T-Patch
            i. Major arterials (3100 S) are superpaved, with 3-foot T-Patch for deeper than 4 foot excavations

10. Additional Specifications: Included in the Technical Specifications.
    a. Granger-Hunter Improvement District Engineering Standards and Construction Specifications: https://media.rainpos.com/3855/engineering_standards_construction_specifications_11_12_19.pdf.
    b. West Valley City.
    c. APWA.

11. Submittals, RFIs, etc.
    a. Contractor must provide a subscription to manage construction phase documents online.
    b. Currently we are using BIM360.

12. Construction meetings
    a. Contractor to provide a construction trailer for the construction observer/J-U-B and a location for construction meetings. Must also include a TV/screen for displaying information during meetings.

13. Project phone number-There will be a project phone number that will be staffed by TLG/J-U-B. TLG/J-U-B will also be working with the Red Oaks Village HOA throughout the construction project on the schedule and any concerns that they have.
    a. TLG will communicate Little Oak Drive road closures to the Red Oaks Village HOA.
    b. Vehicles are often parked on Little Oak Drive.
    c. The contractor will need to communicate to Red Oaks Village if temporary water shutoffs are planned.

14. Utilities- Information is on the Drawings.
    a. Waterlines-potholed by T2.
    b. Sewerlines.

15. Protect in place
    a. Utilities-water, sewer, fiber, irrigation, stormwater, gas.
        I. Fiber is critical for ongoing operations. The contractor is to locate the fiber at well 16 prior to excavation.
    b. Existing Generator to be relocated.
        I. Generator fuel tank to be at same level at the beginning of construction as at the end of construction.
        II. The contractor can relocate at their expense the generator to the GHID administrative building site or the Rushton WTP site—as determined by GHID. Moving it back and dealing with the fuel are the responsibility of the contractor.

16. Construction Staging/Stock piling/Work areas- Existing well 16 property only.
    a. There is an empty lot across 2320 South and an empty lot to the west of the Anderson WTP site. The contractor is welcome to approach the property owners about temporarily leasing either or both properties to allow for more areas for construction staging and stock piling. All sites used during construction must remain secured throughout the duration of the project.

17. Adjacent Properties – Any damage to public or private property resulting from construction activities shall be restored to equal or better condition at the Contractor's own expense. Information is on the Drawings.
    a. Red Oaks Village Townhomes. Protect adjacent turf, asphalt, sprinkler system, etc. Coordinate with Red Oaks Village Townhomes.
    b. 3 individual residences to the west. They have been contacted and have agreed to a new fence at GHID's expense.

18. Existing Conditions – All of the work included in this project is within ROW or property owned by GHID. It is anticipated that the Contractor may encounter existing utilities and facilities that have not been identified on the plans.

19. Geotechnical-Geotechnical Report is included in Bid Package.
    a. Terracon, April 15, 2024.
    b. Dewatering – IS possible. Most likely in the valve vaults.

20. Dewatering
    a. See the geotech report.
    b. Dewatering Plan is required, if necessary.
    c. Reliable temporary/backup power is required. Plan must be stamped by a Utah PE.
    d. Well 16 pump to waste currently discharges to the existing pond.
    e. The contractor will want to consider constructing the detention basin and connecting to the West Valley City storm drain system, prior to doing any excavations that may require dewatering so that there is a location to dispose of the water from excavations.
    f. Another option is for the contractor to provide a frac tank onsite for dewatered water and then a temporary connection to the sewer or storm drain systems. This would allow a slow release into the sewer or storm drain systems.

21. Excavated Material –Excess excavated material shall be disposed of by the Contractor.
    a. GHID is open to having a conversation about taking any potential cut material.

22. Inspections - All construction efforts associated with this project and as prescribed in the project specifications will be subject to, but not limited to, daily inspections and site observation by Granger-Hunter Improvement District personnel, J-U-B Engineers, WVC, and County and local, federal and state personnel as required. Almost daily site visits will be made for construction observation and answering questions.

23. Materials Testing and Compaction and Concrete Testing – The Contractor is responsible for quality control and shall hire a third party testing agency to perform whatever quality control testing is necessary in order to meet its obligation to comply with the requirements of the construction contract. The Contractor shall submit all copies of such test results to the Engineer, as it may be used to help evaluate the Contractor's compliance with the requirements of the Contract. No separate payment will be made for materials certification and testing.
    a. Contractor to provide 3rd party testing on all soils, concrete, compaction, building, painting/coating, and etc.
    b. Special inspections related to the building are noted on sheet S-001, and in the WVC Inspection Schedule in Volume II, Attachment B.
    c. Testing pipelines-BacT, air/water and disinfection.

24. Cold Weather Concrete Requirements and Cold Weather Masonry Requirements – Per ACI 306 (concrete) & ACI 530 (masonry) shall be followed. Hot water and/or heated aggregate

may be used as allowed per ACI. Calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators will not be allowed.

25. Surveying – Engineer/Owner will set and/or identify construction survey control points (see the survey control sheet in the Drawings) for use by the Contractor prior to commencement of the contract times. Contractor shall be responsible for field survey to set alignments, building corners, and related facilities. Contractor shall not disturb Engineer established control points.

26. Traffic Control/Roadway – must be maintained.

27. Warranty-Failure of the constructed product before the end of the warranty period is the responsibility of the Contractor.

28. Safety – The Contractor is responsible for safety on the project as directed by federal, state and local governments.

29. Work Sequencing–
    a. The Contractor will have 18 months (540 days) to substantial completion and 30 additional days (570 days total) to final completion.
    b. GHID works M-Th for inspections. GHID can provide someone on other days if notified ahead of time.
    c. Well #16 ~~is to remain in service throughout the project. GHID requires access to the well. Well 16 will not shut down.~~ Well 16 can run without a generator. Well 16 receives salt and fluoride deliveries.
    ~~d.~~ Well 16 can be off-line during construction. GHID would like the down time to be minimized as much as possible, but they will need a detention basin so that pump-to-waste can occur. At a minimum Well 16 must be fully operational by April 2026.
    e. There is no time commitment on when parking is installed for the HOA.
    f. Well 16 refurbishment will not occur until after the construction of the Anderson WTP.

30. Startup and Commissioning—
    a. Coordinate with Apco, who will contract directly with GHID. Their proposal is included as an Appendix to Volume I.
    b. Coordinate with equipment manufacturers.

31. Construction Schedule-Estimate

Item	Project Milestone	Estimated Date
1	Notice of Award Anticipated[1]	Wednesday, December 18, 2024
2	Contract Agreement	Tuesday, December 24, 2024
3	Notice to Proceed	Monday, January 6, 2025
4	Pre-Construction Meeting	TBD
5	Date of Substantial Completion (540 days)	Monday, July 6, 2026
6	Date of Final Completion (1 month after Substantial Completion, 570 days)	Thursday, August 6, 2026

1. Board meeting is anticipated to be Tuesday, December 17, 2024.

32. Construction Notes—
    a. **All wetted parts and materials must be NSF 61.**
    b. **Use Denzo wax tape, not greased and bagged.**
    c. **Tracer wire.**

33. Subcontractors, Superintendents, Foremen – State these in your Bid.

34. Minimum qualifications-
    a. All General Contractors must be prequalified.

1	Gerber Construction	mn@1gerber.com	801-407-2000
2	Ralph L. Wadsworth	cfrost@wadsco.com	801-301-7047
3	VanCon, Inc.	bid@wedigutah.com	801-491-8898
4	Nelson Brothers Construction Co.	office@nelsonbros.com	(801) 487-5401

    b. General Contractors must work with a prequalified Electrical Contractor.

1	I-D Electric Co	dhe@idelect.com	801-268-1471
2	Morris Electric, Inc.	val@morrisele.com/ vmorris@morrisele.com	801-836-1617
3	Skyline Electric Company	elias.bishop@skyline.us/ michael.hamilton@skyline.us	801-972-3656
4	S&S Electric	rory@sseutah.com	801-369-3754

35. Project will be awarded based on the following-
    a. The low bid.

PREBID MEETING QUESTIONS AND RESPONSES

Questions are in black and the responses are in red.

1. 03414 polymer manhole spec, are there any polymer manholes?
No, there are no polymer manholes on this project. Specification 03414 can be deleted.

2. Is detail C-02255 retaining wall on sheet CZ-906 being used on this project?
No, it is not planned to have any retaining walls on this project. Not all of the CZ details are necessarily being used on this project.

3. What process has started with rocky mountain power?
We have reached out to RMP and they have been out to the site and they have a contract with GHID. GHID is waiting to pay them pending receipt of an executed contract.

4. What has been started with Enbridge/Dominion gas?
We have reached out to Enbridge about upsizing the meter. Enbridge will upsize the meter. The General Contractor will upsize the gas lines per the plans. GHID has requested a pre-evaluation order, and they are still waiting.

5. Can the contractor dig a test pit?
Potentially, please coordinate this with GHID for the location and site access. The general contractor would need to dig the pit and assume all liability. Reference the Geotech Report.

6. Materials disposal. Fill dirt for canals?
Potentially, this will need to be coordinated with GHID.

7. What is the depth of concrete around the existing well house 16?
The depth of concrete is approximately 8" to the north and west, and 6" to the south and east.

8. Where will the existing generator go during construction?
It can be stored at either the GHID Administration building or the GHID Rushton WTP site. GHID to determine the location. Moving the generator to and from the site is the responsibility of the contractor.

9. Who provides pipe supports? How about for the WesTech equipment?
The contractor is to provide all pipe supports, including for the WesTech equipment. Pipe supports to be engineered per the standard details called out in Volume III of the Plans. Specification 15060, Section 1.4.D notes that "calculations verifying that the system can withstand all pipe system forces" must be submitted.

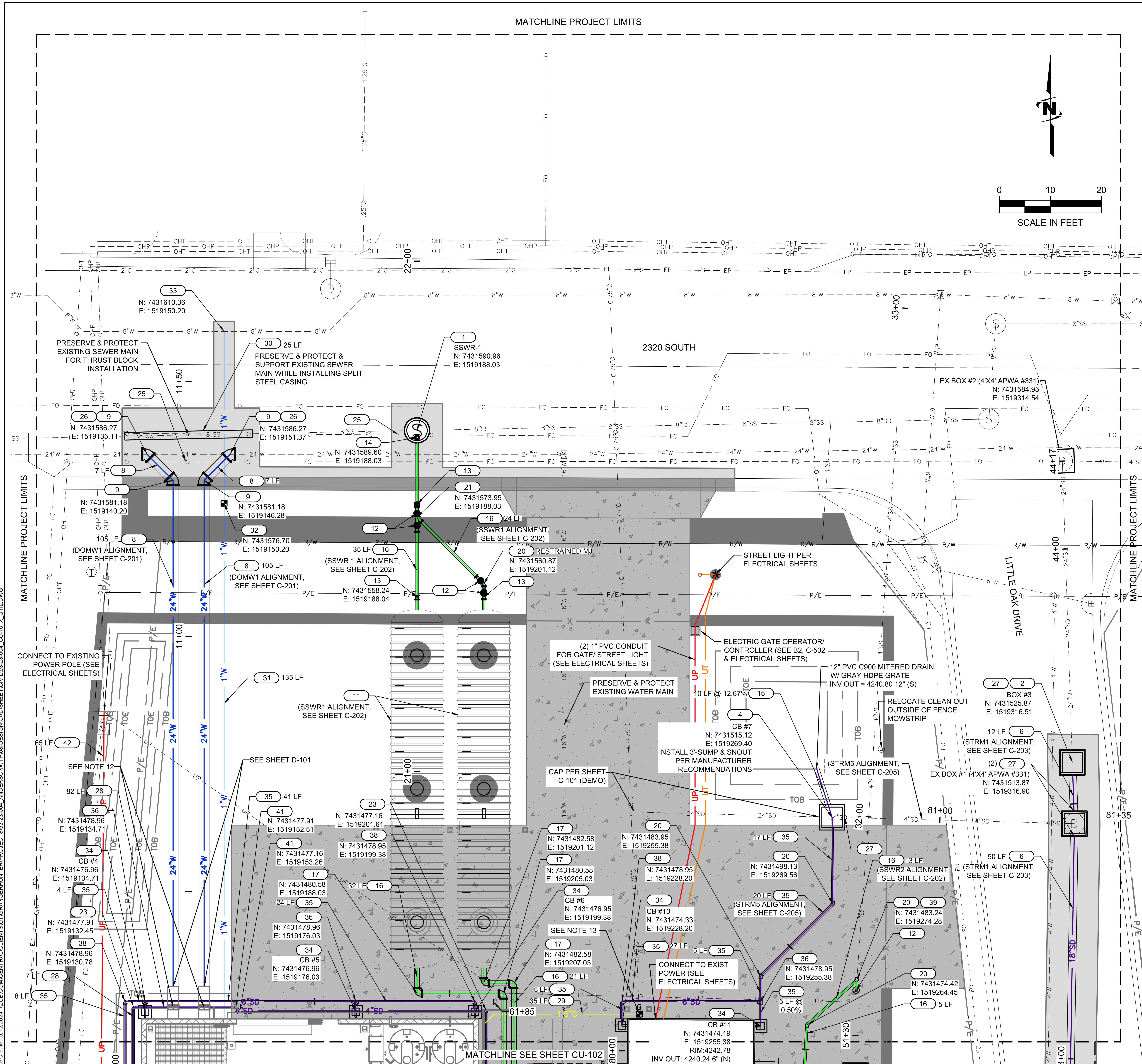
10. Specify the sandblasting and coating for the trusses.
See the U3P questions and answers. Addendum 3.

11. Has WesTech submitted the shop drawings? Has J-U-B completed review of the shop drawings?
J-U-B is currently reviewing the second submittal from WesTech. All submittals and responses to date have been included in Volume IV.

12. Can the existing rock onsite be reused?
This material can potentially be reused for the rock mulch in the park strip and/or for the riprap if it meets the requirements noted in the drawings and specifications.

Site Visit-After prebid meeting.
The Rushton WTP was visited after the conclusion of the prebid meeting.

Drawings



CIVIL UTILITY KEYED NOTES:

1. 60-IN DIAM. DOGHOUSE SEWER MANHOLE W/ COLLAR PER DETAIL D1, C-503.
2. 48-IN X 48-IN STORM CLEANOUT BOX PER WVC STD DWG NO 331 W/ 30" TYPE A FRAME & COVER PER APWA STD PLAN 302.1.
3. ROUND CONCRETE FLARED END SECTION FOR 18" RCP STORM PIPE PER APWA STD PLAN 323.1.
4. 48-IN X 48-IN CATCH BASIN W/ FRAME & GRATE PER APWA STD PLAN 332.
5. ORIFICE PLATE PER DETAIL D1, C-501.
6. 18-IN RCP STORM PIPE (SLOPE PER PROFILE).
7. 12-IN RCP STORM PIPE (SLOPE PER PROFILE).
8. 24-IN DI CULINARY WATER PIPE.
9. 24-IN 45-DEG DI FITTING W/ MECH. THRUST RESTRAINTS (1100 SERIES MEGALUG OR APPROVED EQUAL) & THRUST BLOCKS PER DETAIL 1, S-509.
10. 84-IN X 48-IN BACKWASH MANHOLE PER DETAIL A2 & B2, C-505.
11. DETENTION TANK PER DETAIL A1 & A2, C-504 (XERXES OR APPROVED EQUAL).
12. 6-IN PVC SEWER CLEAN-OUT PER DETAIL C-02105, CZ-903.
13. 6-IN PLUG VALVES/GATE VALVE, SEE SHEET C-504 FOR VALVE TYPE/LOCATION.
14. 6-IN IN-LINE CHECK VALVE.
15. 12-IN PVC C-900 PIPE (SLOPE PER PROFILE).
16. 6-IN PVC C-900 PIPE (SLOPE PER PROFILE).
17. 12-IN 90-DEG DI FITTING (RESTRAINED MJ).
18. 12-IN 45-DEG PVC FITTING.
19. 6-IN 90-DEG PVC FITTING.
20. 6-IN 45-DEG PVC FITTING.
21. 6-IN WYE PVC FITTING.
22. 4-IN PVC DRAIN PIPE (FLUORIDE).
23. 4-IN 90-DEG PVC FITTING.
24. 72-IN X 72-IN X 60-IN DEEP FLUORIDE COLLECTION BOX (EPOXY-LINED) PER APWA STD PLAN 331.2 TYPE B & 44" FRAME & COVER PER APWA 303 W/ HEAVY DUTY ERGO XL HATCH w/ LEVEL SENSOR & ALARM (SEE ELECTRICAL SHEETS).
25. COORDINATE W/ LUMEN/CENTURY LINK TO RE-ROUTE FIBER LINE AS REQ'D.
26. CONNECT TO EXISTING CULINARY WATER MAIN (MATCH EXISTING MATERIALS).
27. CONNECT TO EXISTING STORM PIPE/STRUCTURE (MATCH EXISTING MATERIALS & CORE DRILL AS REQ'D).
28. 4-IN PERFORATED FOOTING DRAIN PIPE PER DETAIL C-02175, CZ-904.
29. 1.5-IN POLYETHYLENE GAS SERVICE PIPE (YELLOW).
30. 18-IN STEEL SPLIT CASING, 0.312" MIN. THICK (IRONHED OR APPROVED EQUAL).
31. 1-IN POLYETHYLENE CULINARY WATER SERVICE (CWS) PIPE (BLUE).
32. CULINARY WATER SERVICE METER PER GHID STD DETAIL, PAGE 13.
33. CONNECT NEW CWS PIPE TO WATER MAIN PER GHID STD DETAIL, PAGE 13.
34. 18-IN X 18-IN CATCH BASIN W/ FRAME & GRATE PER APWA STD PLAN 332.
35. 6-IN ADS N-12 STORM PIPE (SLOPE PER PROFILE).
36. 6-IN X 6-IN ADS N-12 HDPE TEE FITTING.
37. 6-IN X 6-IN ADS N-12 HDPE CROSS FITTING.
38. 6-IN ADS N-12 HDPE 90-DEG FITTING.
39. 6-IN X 4-IN ECCENTRIC REDUCER PVC FITTING (CONNECT TO EXIST LATERAL).
40. 4-IN PVC SDR 35 SEWER PIPE (SLOPE PER PROFILE).
41. 4-IN 45-DEG PVC FITTING.
42. 4-IN PVC CONDUIT FOR UNDERGROUND POWER (SEE ELECTRICAL SHEETS).

DRAINAGE NOTES:

1. ALL STORM DRAIN TO BE CONSTRUCTED PER THE MOST RECENT VERSION OF APWA STD PLANS & SPECS.
2. GRATE & FRAME TO BE H-20 RATED. MANUFACTURED BY INWESCO OR EQUAL - UNLESS OTHERWISE NOTED. SIZE TO MATCH BOX AS SPECIFIED IN PLANS.
3. SOLID LIDS TO BE H-20 RATED. MANUFACTURED BY NEENAH FOUNDRY OR EQUAL - UNO. SIZE TO MATCH BOX AS SPECIFIED IN PLANS.
4. SEE SHEET CG-100 SERIES FOR GRADING DESIGN.
5. SEE SHEET V-101 FOR SURVEY CONTROL BENCHMARKS.

SEWER NOTES:

1. SEWER PIPE LENGTHS & SLOPES ARE MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.
2. EXISTING SEWER INVERTS ARE APPROXIMATE BASED ON FIELD DATA. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION & IMMEDIATELY NOTIFY PROJECT ENGINEER OF ANY DISCREPANCIES.

YARD PIPING NOTES:

1. COORDINATE & VERIFY UTILILTY LOCATIONS & ELEVATIONS WITH BUILDING MECHANICAL DRAWINGS.
2. ALL MANHOLE, CLEANOUT, VALVE BOX, ETC. FINISHED GRADE ELEVATIONS TO MATCH FINISHED GRADE OR AS SHOWN ON THE PLANS.
3. THE CONTRACTOR SHALL SECURE APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILL OVER ANY UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING AND ACCURATELY RECORD THE LOCATION OF ALL NEW UNDERGROUND UTILITIES PRIOR TO BACKFILL.
4. ALL WATER AND WASTEWATER SERVICES, PIPING, VALVES, HYDRANTS, & APPURTENANCES SHALL BE INSTALLED, TESTED, & APPROVED PRIOR TO FINAL SURFACE REPAIR.
5. CONTRACTOR SHALL VERIFY NO CROSS-CONNECTIONS EXIST BETWEEN THE POTABLE WATER LINES & NON-POTABLE WATER LINES PRIOR TO PLACING THE NON-POTABLE WATER SYSTEM INTO SERVICE.
6. THE LIMITS FOR YARD PIPING VARY DEPENDING ON THE CONNECTION REQUIREMENTS AT THE STRUCTURE. CONTRACTOR'S ATTENTION IS DIRECTED TO THE INDIVIDUAL COMPONENT DRAWINGS FOR CONNECTION REQUIREMENTS & RELATED DETAILS.
7. ALL UTILITIES SHALL HAVE A MINIMUM COVER OF 3' FROM FINISHED GRADE UNLESS NOTED OTHERWISE. STRAIGHT GRADE BETWEEN GIVEN ELEVATIONS.
8. WATER LINES SHALL HAVE A MINIMUM COVER OF 4' FROM FINISHED GRADE.
9. ALL WATER LINES SHALL BE DISINFECTION TESTED PER CONTRACT DOCUMENTS PRIOR TO USE.
10. ALL CROSSINGS OF WATER LINES SHALL FOLLOW SEPARATION REQUIREMENTS FOR WATER & SEWER.
11. MAINTAIN 12" MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL PIPES FOR CONSTRUCTABILITY & MAINTAIN SEPARATION DISTANCES BETWEEN PIPELINES AS PER UTAH ADMINISTRATIVE CODE R317-3.
12. PROVIDE STRAIGHT UNRESTRAINED FLEXIBLE PIPE COUPLINGS WITHIN 5' OF EXTERIOR FOOTING FACE FOR ALL PIPES 4" & LARGER.
13. GAS TO BE COORDINATED BY CONTRACTOR WITH ENBRIDGE GAS.

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
392. E. Winchester St., Suite 300
Salt Lake City, UT 84107
Phone: 801.547.0393
www.jub.com

Subconsultant:

BID SET

PROFESSIONAL ENGINEER No. 12222515 CHASE A. STEIGERS 11-19-24 STATE OF UTAH

REVISION

NO.	DESCRIPTION	BY	APR.	DATE
1	ADDENDUM #2	CAS	CLO	11/19/24

ANDERSON WATER TREATMENT PLANT
GRANGER-HUNTER IMPROVEMENT DISTRICT

CIVIL (C)
UTILITY PLAN
1629 WEST 2320 SOUTH

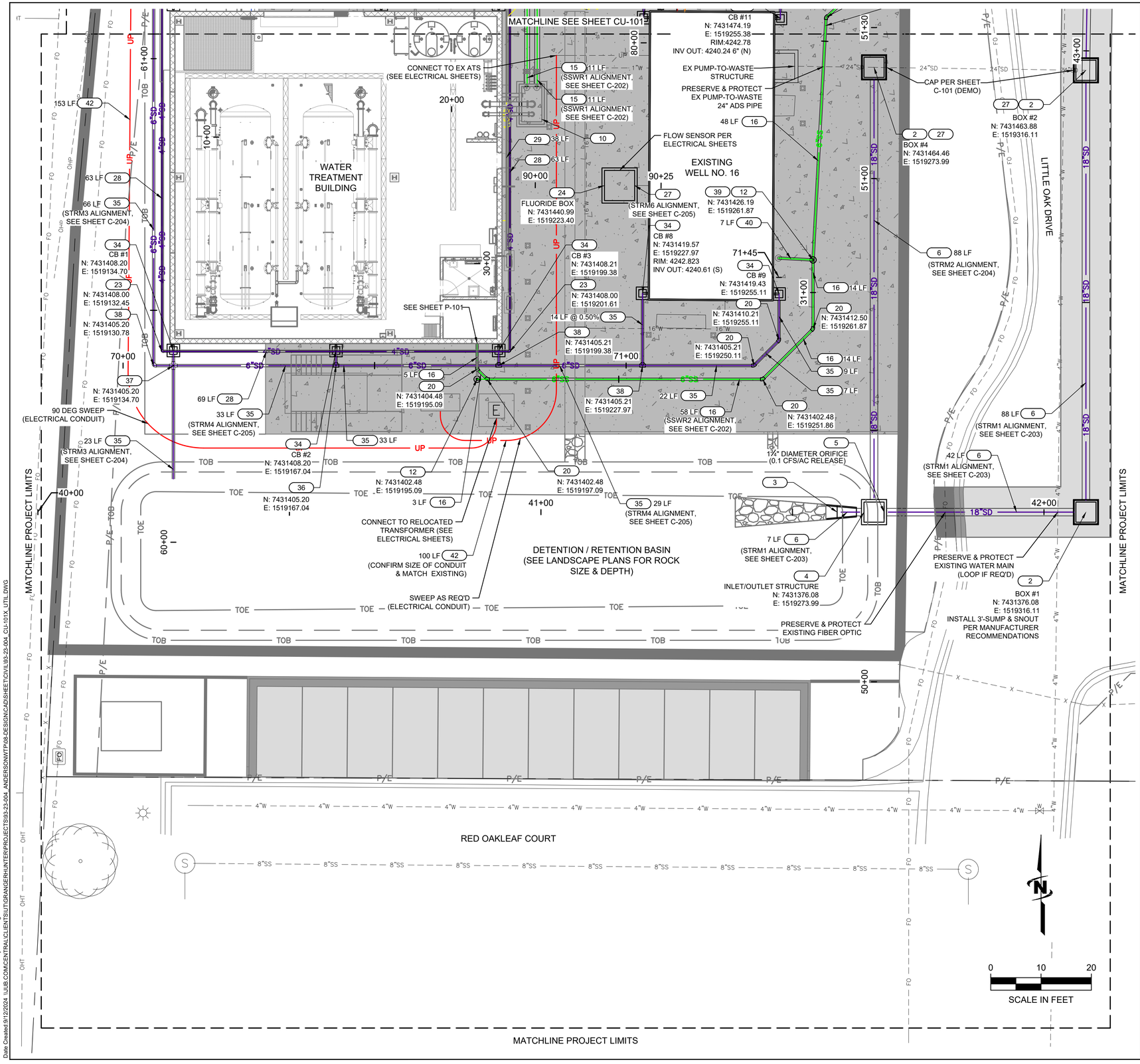
FILE : 93-23-004_CU-101X_UTIL
JUB PROJ. # :93-23-004
DRAWN BY: JTB
DESIGN BY: CAS / JPG
CHECKED BY: CLO

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 11/19/2024

DRAWING:
CU-101

Plot Date:11/19/2024 12:41 PM Plotted By: Chase Steigers
Date Created:9/12/2024 \\JUB.COM\CENTRAL\CLIENTS\UT\GRANGERHUNTER\PROJECTS\93-23-004_ANDERSONWTP\60-DESIGN\CAD\SHEETCIVIL\93-23-004_CU-101X_UTIL.DWG



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7. 12-IN RCP STORM PIPE (SLOPE PER PROFILE).
8. 24-IN DI CULINARY WATER PIPE.
9. 24-IN 45-DEG DI FITTING W/ MECH. THRUST RESTRAINTS (1100 SERIES MEGALUG OR APPROVED EQUAL) & THRUST BLOCKS PER DETAIL 1, S-509.
10. 84-IN X 48-IN BACKWASH MANHOLE PER DETAIL A2 & B2, C-505.
11. DETENTION TANK PER DETAIL A1 & A2, C-504 (XERXES OR APPROVED EQUAL).
12. 6-IN PVC SEWER CLEAN-OUT PER DETAIL C-02105, CZ-903.
13. 6-IN PLUG VALVES/GATE VALVE, SEE SHEET C-504 FOR VALVE TYPE/LOCATION.
14. 6-IN IN-LINE CHECK VALVE.
15. 12-IN PVC C-900 PIPE (SLOPE PER PROFILE).
16. 6-IN PVC C-900 PIPE (SLOPE PER PROFILE).
17. 12-IN 90-DEG DI FITTING (RESTRAINED MJ).
18. 12-IN 45-DEG PVC FITTING.
19. 6-IN 90-DEG PVC FITTING.
20. 6-IN 45-DEG PVC FITTING.
21. 6-IN WYE PVC FITTING.
22. 4-IN PVC DRAIN PIPE (FLUORIDE).
23. 4-IN 90-DEG PVC FITTING.
24. 72-IN X 72-IN X 60-IN DEEP FLUORIDE COLLECTION BOX (EPOXY-LINED) PER APWA STD PLAN 331.2 TYPE B & 44" FRAME & COVER PER APWA 303 W/ HEAVY DUTY ERGO XL HATCH w/ LEVEL SENSOR & ALARM (SEE ELECTRICAL SHEETS).
25. COORDINATE W/ LUMEN/CENTURY LINK TO RE-ROUTE FIBER LINE AS REQ'D.
26. CONNECT TO EXISTING CULINARY WATER MAIN (MATCH EXISTING MATERIALS).
27. CONNECT TO EXISTING STORM PIPE/STRUCTURE (MATCH EXISTING MATERIALS & CORE DRILL AS REQ'D).
28. 4-IN PERFORATED FOOTING DRAIN PIPE PER DETAIL C-02175, CZ-904.
29. 1.5-IN POLYETHYLENE GAS SERVICE PIPE (YELLOW).
30. 18-IN STEEL SPLIT CASING, 0.312" MIN. THICK (IRONHED OR APPROVED EQUAL).
31. 1-IN POLYETHYLENE CULINARY WATER SERVICE (CWS) PIPE (BLUE).
32. CULINARY WATER SERVICE METER PER GHID STD DETAIL, PAGE 13.
33. CONNECT NEW CWS PIPE TO WATER MAIN PER GHID STD DETAIL, PAGE 13.
34. 18-IN X 18-IN CATCH BASIN W/ FRAME & GRATE PER APWA STD PLAN 332.
35. 6-IN ADS N-12 STORM PIPE (SLOPE PER PROFILE).
36. 6-IN X 6-IN ADS N-12 HDPE TEE FITTING.
37. 6-IN X 6-IN ADS N-12 HDPE CROSS FITTING.
38. 6-IN ADS N-12 HDPE 90-DEG FITTING.
39. 6-IN X 4-IN ECCENTRIC REDUCER PVC FITTING (CONNECT TO EXIST LATERAL).
40. 4-IN PVC SDR 35 SEWER PIPE (SLOPE PER PROFILE).
41. 4-IN 45-DEG PVC FITTING.
42. 4-IN PVC CONDUIT FOR UNDERGROUND POWER (SEE ELECTRICAL SHEETS).

DRAINAGE NOTES:

1. ALL STORM DRAIN TO BE CONSTRUCTED PER THE MOST RECENT VERSION OF APWA STD PLANS & SPECS.
2. GRATE & FRAME TO BE H-20 RATED. MANUFACTURED BY INWESCO OR EQUAL - UNLESS OTHERWISE NOTED. SIZE TO MATCH BOX AS SPECIFIED IN PLANS.
3. SOLID LIDS TO BE H-20 RATED. MANUFACTURED BY NEENAH FOUNDRY OR EQUAL - UNO. SIZE TO MATCH BOX AS SPECIFIED IN PLANS.
4. SEE SHEET CG-100 SERIES FOR GRADING DESIGN.
5. SEE SHEET V-101 FOR SURVEY CONTROL BENCHMARKS.

SEWER NOTES:

1. SEWER PIPE LENGTHS & SLOPES ARE MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.
2. EXISTING SEWER INVERTS ARE APPROXIMATE BASED ON FIELD DATA. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION & IMMEDIATELY NOTIFY PROJECT ENGINEER OF ANY DISCREPANCIES.

YARD PIPING NOTES:

1. COORDINATE & VERIFY UTILILTY LOCATIONS & ELEVATIONS WITH BUILDING MECHANICAL DRAWINGS.
2. ALL MANHOLE, CLEANOUT, VALVE BOX, ETC. FINISHED GRADE ELEVATIONS TO MATCH FINISHED GRADE OR AS SHOWN ON THE PLANS.
3. THE CONTRACTOR SHALL SECURE APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILL OVER ANY UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING AND ACCURATELY RECORD THE LOCATION OF ALL NEW UNDERGROUND UTILITIES PRIOR TO BACKFILL.
4. ALL WATER AND WASTEWATER SERVICES, PIPING, VALVES, HYDRANTS, & APPURTENANCES SHALL BE INSTALLED, TESTED, & APPROVED PRIOR TO FINAL SURFACE REPAIR.
5. CONTRACTOR SHALL VERIFY NO CROSS-CONNECTIONS EXIST BETWEEN THE POTABLE WATER LINES & NON-POTABLE WATER LINES PRIOR TO PLACING THE NON-POTABLE WATER SYSTEM INTO SERVICE.
6. THE LIMITS FOR YARD PIPING VARY DEPENDING ON THE CONNECTION REQUIREMENTS AT THE STRUCTURE. CONTRACTOR'S ATTENTION IS DIRECTED TO THE INDIVIDUAL COMPONENT DRAWINGS FOR CONNECTION REQUIREMENTS & RELATED DETAILS.
7. ALL UTILITIES SHALL HAVE A MINIMUM COVER OF 3' FROM FINISHED GRADE UNLESS NOTED OTHERWISE. STRAIGHT GRADE BETWEEN GIVEN ELEVATIONS.
8. WATER LINES SHALL HAVE A MINIMUM COVER OF 4' FROM FINISHED GRADE.
9. ALL WATER LINES SHALL BE DISINFECTION TESTED PER CONTRACT DOCUMENTS PRIOR TO USE.
10. ALL CROSSINGS OF WATER LINES SHALL FOLLOW SEPARATION REQUIREMENTS FOR WATER & SEWER.
11. MAINTAIN 12" MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL PIPES FOR CONSTRUCTABILITY & MAINTAIN SEPARATION DISTANCES BETWEEN PIPELINES AS PER UTAH ADMINISTRATIVE CODE R317-3.
12. PROVIDE STRAIGHT UNRESTRAINED FLEXIBLE PIPE COUPLINGS WITHIN 5' OF EXTERIOR FOOTING FACE FOR ALL PIPES 4" & LARGER.
13. GAS TO BE COORDINATED BY CONTRACTOR WITH ENBRIDGE GAS.

J-U-B ENGINEERS, INC.
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Subconsultant:

BID

PROFESSIONAL ENGINEER
No. 12222515
CHASE A. STEIGERS
11-19-24
STATE OF UTAH

SET

NO.	DESCRIPTION	BY	DATE
1	ADDENDUM #2	CAS/JPG	11-19-24
	REVISION		

ANDERSON WATER TREATMENT PLANT
GRANGER-HUNTER IMPROVEMENT DISTRICT

CIVIL (C)
UTILITY PLAN
1629 WEST 2320 SOUTH

FILE : 93-23-004_CU-101X_UTIL
JUB PROJ. # :93-23-004
DRAWN BY: JTB
DESIGN BY: CAS / JPG
CHECKED BY: CLO
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 11/19/2024

DRAWING:
CU-102

Plot Date:11/19/2024 12:41 PM Plotted By: Chase Steigers
Date Created:9/12/2024 \\JUB.COM\CENTRAL\CLIENTS\UT\GRANGERHUNTERPROJECTS\93-23-004_ANDERSON\WTP\08-DESIGN\CAD\SHEET\CIVIL\93-23-004_CU-101X_UTIL.DWG

J-U-B's 2nd submittal response to WesTech

J-U-B ENGINEERS, INC.

J-U-B COMPANIES | THE LANGDON GROUP | GATEWAY MAPPING INC.

SUBMITTAL REVIEW FORM

TO:	Brad Oswalt	**PROJECT:**	Anderson Water Treatment Plant
	WesTech Engineering, LLC	**PROJECT NO.:**	93-23-004
	600 Arrasmith Trail	**DATE RECEIVED:**	November 1, 2024
	Ames, Iowa 50010	**DATE RETURNED:**	November 14, 2024

FROM: Jon Farrell, P.E.; c.c. Bob Hillyer, P.E. (Electrical Engineer)

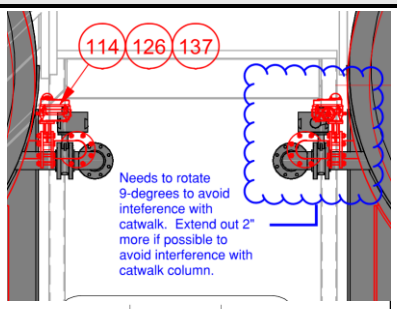
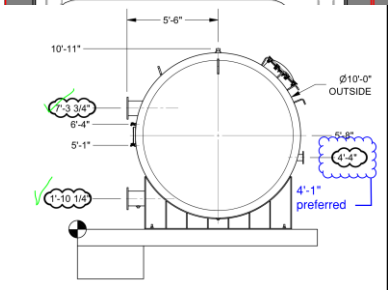
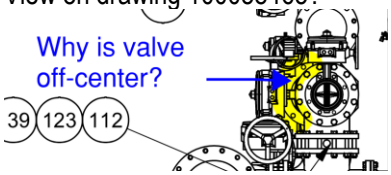
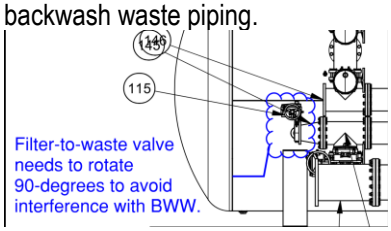
SUBMITTAL #: 11100-01-01 Horizontal Pressure Filter Equipment

This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Review of a specific item shall not include review of an assembly of which the item is a component. Contractor is responsible for dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction; coordination of the Work of all trades; and for performing all work in a safe and satisfactory manner.

Submittal Review Designations:
1 – No Exceptions Taken
2 – Revise and Re-submit
3 – Rejected
4 – Submit Specific Item

Comment #	Specification or Reference	Item Description	Submittal Designation	Comments
-	-	-	-	See attached comments from Electrical Engineer.
1	1.5 & 1.7.A.8	Warranty	1	No Exceptions Taken. Remove the redundant warranty from the electrical submittal.
2	1.6.A.1-2	Mechanical Drawings GA Dwg and Layout	-	Schedule a conference call to discuss (see attached overlay redlines): 1. Thank you for matching the filter spacing to what's shown in the bid set drawings. 2. Air wash valve piping appears to clear the catwalk columns by 1-inch. More clearance (approx. 3-inches) would be preferred to avoid interferences during installation. Verify the air wash valve can be rotated 90-degrees to avoid interference with the catwalk joists.

J-U-B's 2nd submittal
response to WesTech

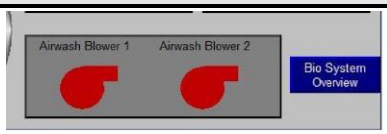
Comment #	Specification or Reference	Item Description	Submittal Designation	Comments
				  3. Why is a valve off-center on Left Side View on drawing 100058465?  4. Filter-to-waste valve needs to rotate 90-degrees to avoid interference with backwash waste piping.  5. Re-submit mechanical drawings to match layout as shown on the attached redlines: 6. List the operating weights (needed for structural design of the filter support pads). Only vessel weight provided without concrete on drawing 100058440.
3	1.6.A.3	P&ID	2	Schedule a conference call to discuss: Previous comment: Redline the P&ID (I-004A/B) in the attached bid set if changes are needed or provide a new P&ID.
4	1.6.A.4	Catalog Sheets	1	No Exceptions Taken.

Comment #	Specification or Reference	Item Description	Submittal Designation	Comments
5	1.6.A.5	Design Calculations	-	Not provided.
6	1.6.A.6	Coating Submittal	1	No Exceptions Taken. Submit color chart showing Owner the proposed WesTech blue (light blue) color for their approval.
7	1.6.A.9, 1.4.A	Quality Assurance	3	Exemption is rejected. BABA and AIS certification is required from WesTech just like it was required by the other manufacturers during bid. We are aware of the EPA exemptions, but specifically required manufacturers to comply with AIS and BABA for this project. Re-submit AIS and BABA certificates of compliance. Sample certificates were included in the procurement package.
8	1.6.A.11, 3.4A	Installation Manual	4	Noted these will be provided. Previous comment: Submit installation, operation, and maintenance manual before shipment.
9	1.6.A.12	Media installation and conditioning	4	Noted these will be provided. Previous comment: Submit media installation and conditioning instructions before shipment.
10	1.6.A.13	Factory Testing	4	Noted these will be provided. Previous comment: Submit after factory testing, including paint coating photographs.
11	1.6.A.18	3D Revit Model	2	Consult with zschuster@jub.com for the correct filetype. Step .stp files usually work well. Previous comment: Resubmit with the updated piping layouts (see Comment #2). Resubmit as filetype compatible with Revit 2023.
12	1.10	Performance Guarantee	4	Noted that DRAFT performance guarantee was submitted (same version from proposal). Signed copy will need to be submitted prior to startup. Previous note: Submit written performance guarantee.
13	2.2.C.5	Filter Saddles	-	Saddle/tank height may be raised up to 4 inches to accommodate installation of the 16” flanged fitting that connects to the finished water header through

Comment #	Specification or Reference	Item Description	Submittal Designation	Comments
				the floor as shown in the attached drawing redlines. Also to accommodate downturned backwash waste piping.
14	2.3	Underdrain System	1	No Exceptions Taken. Adjust as needed to accommodate the piping layout (see Comment #2).
15	2.4	Airwash Grid	1	No Exceptions Taken to updated drawing eliminated field solvent weld of lateral caps. Previous comment: Delete requirement to "field solvent weld airwash grid lateral caps" (Drawing 100058499) and provide them pre-assembled or justify why the contractor is expected to do this. Laterals to be furnished at proper length per the specification.
16	2.5	MULTIWASH PRO Trough	1	No Exceptions Taken.
17	2.6	Gravel Support Bed	1	No Exceptions Taken.
18	2.7.D	Filtration Media	1	No Exceptions Taken. Note: media may be shipped in supersacks to facilitate installation by the contractor.
19	2.8.A	Automatic Process Valves	1	No Exceptions Taken to Bray process valves.
20	2.8.B, 2.10.C.3	Air Release Valves	1	No Exceptions Taken to fusion bonded epoxy air release valves. Previous comment: Resubmit with the optional "non-stick fusion bonded epoxy" coating to match the specification requirements. No exceptions taken to the sizing.
21	2.12.A	Loss of head gauge assembly	1	No Exceptions Taken.
22	2.12.A.1	Pressure Transmitter	1	No Exceptions Taken.
23	2.12.B	Sampling Cocks	1	No Exceptions Taken.
24	2.12.C	Blower	1	No Exceptions Taken.
25	2.12.D	Flow Meters	1	No Exceptions Taken.
26	2.12.E	Orifice Plates	1	No Exceptions Taken.
27	2.13	Spare Parts	1	No Exceptions Taken.
28	1.6.A.14	HMI Screens	4	Noted final screens will be submitted for approval.

Comment #	Specification or Reference	Item Description	Submittal Designation	Comments
				Previous comment: Submit final screens for approval. See below for Owner's comments comparing the preliminary HMI screens from WesTech to the Rushton WTP screens: "Both screens have merits. I like that the [Rushton WTP] screen provides all the information on one screen, I can easily see which valves are open and closed (it may be beneficial to see if the valves are moving as well). However, it is very busy looking. I am open to WesTech's suggestions."
29	1.6.A.15	HMI Screens (Digital Copy)	4	Submit prior to shipment.
30	1.6.A.16-17	Ethernet IP Data/Registers	4	Submit prior to shipment.
31	2.11.C.7	Trending	-	Please coordinate with the Owner's SCADA integrator to incorporate trending via SCADA as opposed to the filter control panel PLC.
32	2.11	Description of Operation	2	Schedule a conference call to discuss: Previous comment: Resubmit with the following corrections: 1. "Typical In-Service Operation" Delete second sentence about influent flow modulation. Influent flow will be controlled by the Well pumps and vary between 400 to 6000 gpm. 2. "Typical In-Service Operation" or "Interlocks, Special Features…" Add that "during periods of low flows, the filter system shall automatically take cell(s) offline to prevent channeling through the filter bed." The number of filter cells online for a given flow shall be determined by the filter manufacturer's experience (Section 11100-2.11.A.2.a). Alternatively, per our discussion on 10/15/2024, submit the minimum allowable flow through the filters if there is one to determine if this requirement is necessary. 3. "Mode Selection" Confirm that the operator will be able to adjust the high headloss setpoint value (Section 11100-2.12.A.1.a). 4. "Auto Backwash Sequence (In Service Cells)"

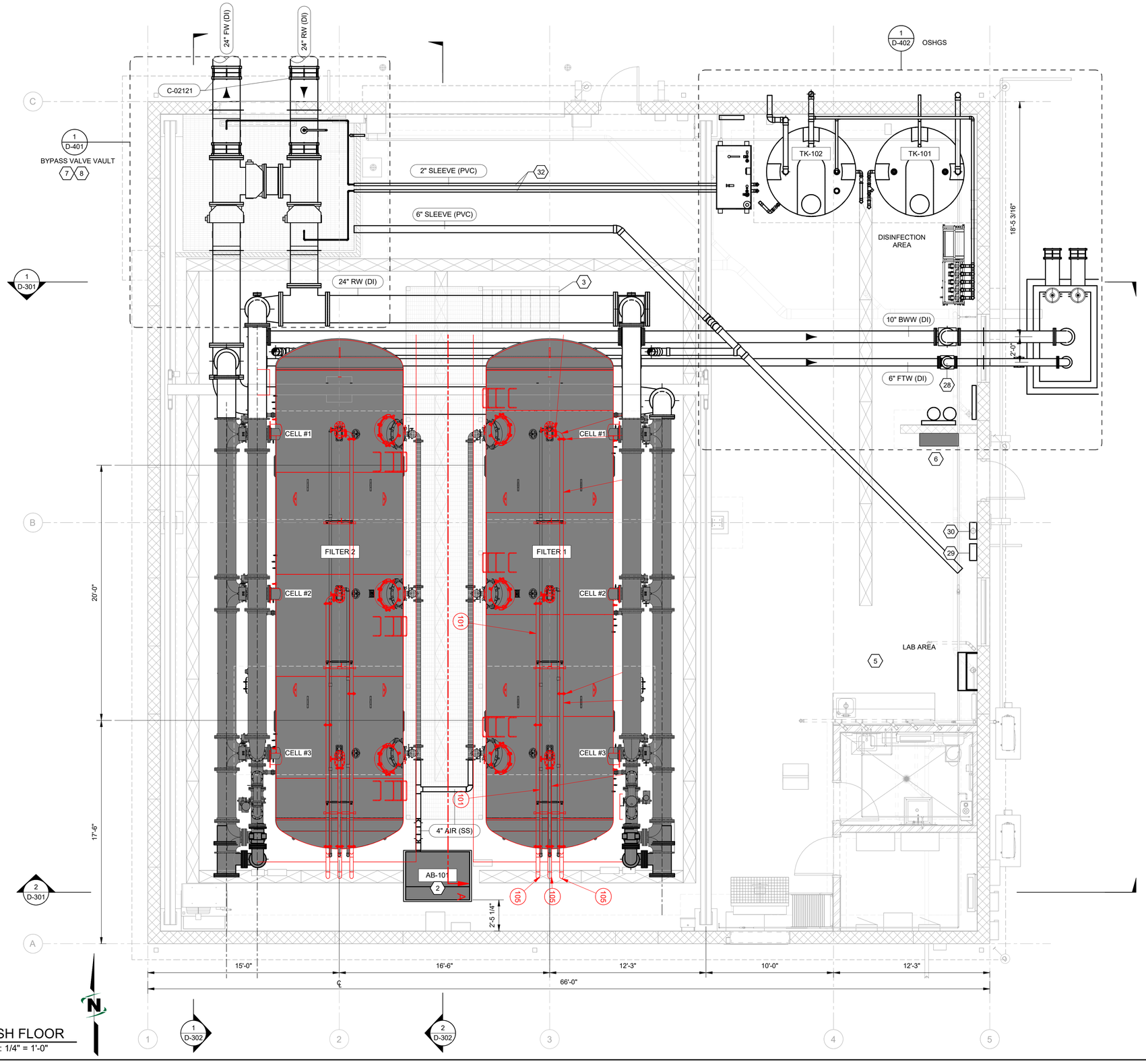
Comment #	Specification or Reference	Item Description	Submittal Designation	Comments
				a. Step #3, re-write so that operator can enter % open to adjust without opening the entire valve housing (Section 11100-2.8.A.2.f). b. Step #5, re-write so that high-rate water only (re-stratification) will automatically modulate to maintain flow setpoint entered by the operator (Section 11100-2.8.A.2.e). This is critical since distribution pressures may vary. c. Step #7, add sentence clarifying that "the operator shall be able to program the most recently backwashed cell to open to a set position until the next cell is backwashed" (Section 11100-2.11.A.2.b). ***Note:*** *If WesTech disagrees with any of these requirements or feels that they are unnecessary, then please schedule a conference call to discuss with the Engineer.*
33	1.6.A.4	Elec. Datasheets	-	No comments.
34	2.11.B.1.b	Manual pushbuttons	-	The Owner is okay with switching to digital pushbuttons which would also save programming time and hardware costs to WesTech.
Heath Engineering Review Summary (Electrical Engineer)				
35			1	Actuator Voltage is not specified in the Submittal. Provide 120VAC Bray Actuator Voltage as required on Electrical sheets I-004A/B.
36			-	Understood that the final approved HMI screens will reflect two, 3-cell pressure filter units. Previous comment: Correct the Filter Control Panel to reflect two, 3-cell pressure filter units.
37			-	This was noted because the sample HMI showed two blowers. Understood that the final approved HMI screens will only show one blower.

Comment #	Specification or Reference	Item Description	Submittal Designation	Comments
				 Previous comment: Correct the Filter Control Panel to reflect one Airwash Blower only.
38			-	WesTech noted this change and will correct. Previous comment: Sheet 09 of 25 indicates a SPARE DIGITAL INPUT on rung 0936. Correct to match the Utility Power Fail.

Attachments:

0. Heath Engineering Review (Electrical Engineer)
1. WesTech Mechanical Drawing Redlines
2. Anderson WTP Bid Set (Select Drawings) for WesTech's reference

J-U-B's 2nd submittal
response to WesTech



GENERAL NOTES:

1. THESE DRAWINGS ARE INTENDED TO CONVEY THE GENERAL INTENT AND ARRAGNGEMENT OF THE SYSTEMS, EQUIPMENT AND RELATED COMPONENTS. CERTAIN ITEMS OR DETAILS MAY NOT BE INCLUDED OR MAY BE SHIFTED OR OMITTED FROM CERTAIN VIEWS FOR CLARITY. REFER TO MAUFACTURER DRAWINGS AND INSTALLATION MANUALS.
2. SEE CIVIL SHEETS FOR ALL PIPING BEYOND BUILDING WALLS.
3. PIPE SUPPORTS ARE REQUIRED. SEE CIVIL-MECHANICAL DETAILS.
4. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH EQUIPMENT SUPPLIER.
5. FOR CLARITY NOT ALL SMALL DIAMETER <2" CHEMICAL FEED AND DISINFECTION SYSTEM PIPING SHOWN. CONTRACTOR RESPONSIBLE TO FIELD ROUTE SMALL PIPING.
6. PIPE SIZE, MATERIAL, VALVES, INSTRUMENTATION, FITTINGS AND CONNECTION LOCATIONS ARE SHOWN SCHEMATICALLY ON THE INSTRUMENTATION DRAWINGS AND STANDARD DETAILS.
7. ENCASE ALL RAW, FW, BWW, AND FTW BELOW-SLAB PIPING IN CONTROLLED-DENSITY FILL. WRAP ALL PIPES AND DUCTILE IRON FITTINGS IN WAX TAPE IN ACCORDANCE WITH GHID STANDARDS.

FURNISHED BY FILTER MFG.

SHEET KEYED NOTES

2	BLOWER ASSEMBLY
3	MAINTENANCE ACCESS CATWALK & STAIRS, SEE STRUCUTRAL SHEETS.
5	WORKBENCH, SAMPLING SINK, & INSTRUMENTATION, SEE ARCHITECTURAL SHEETS.
6	FILTER CONTROL PANEL
7	BYPASS VALVE VAULT WITH CHEMICAL FEED INJECTION POINTS & SAMPLE LINES. SEE STRUCTURAL SHEET FOR MORE DETAILS.
8	ROUTE SAMPLE LINES TO SAMPLING SINK, SEE PLUMBING SHEETS.
28	FILTER TO WASTE FLOW METER
29	TURBIDITY METER
30	CHLORINE ANALYZER (FREE, TOTAL, PH, TEMP)
32	ROUTE HDPE-NaOCl CHEMICAL FEED LINES FROM THE CHEMICAL METERING PUMPS THROUGH THE UNDERGROUND SLEEVES TO THE BYPASS VALVE VAULT.

FINISH FLOOR
SCALE: 1/4" = 1'-0"

J-U-B ENGINEERS, INC.
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Phone: 801.886.9052
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Subconsultant:

BID

SET

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

ANDERSON WATER TREATMENT PLANT
GRANGER-HUNTER IMPROVEMENT DISTRICT

PROCESS MECHANICAL (D)
PROCESS PLAN
1629 WEST 2320 SOUTH

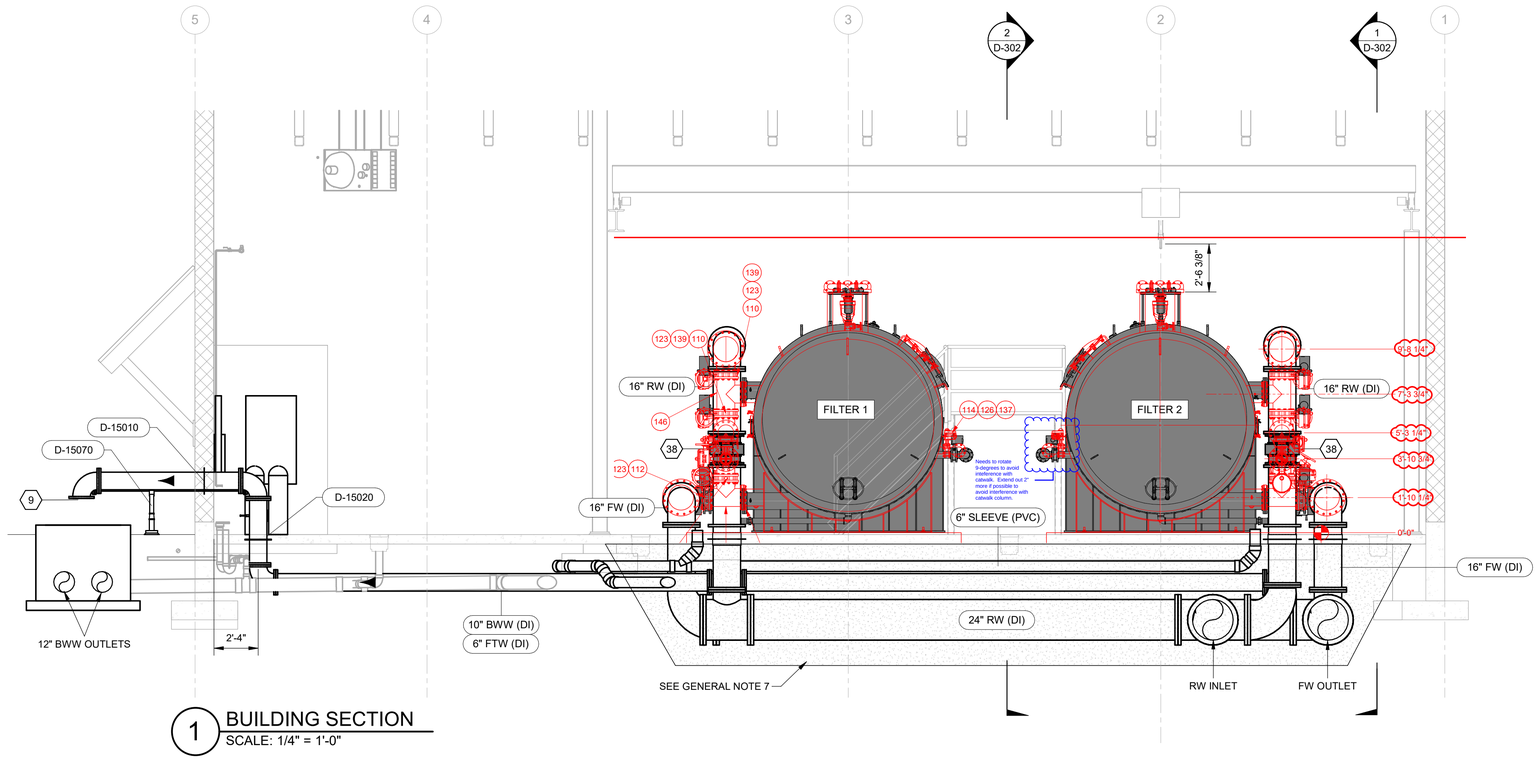
FILE:	
JUB PROJ. #:	93-23-004
DRAWN BY:	ZJS
DESIGN BY:	JBF
CHECKED BY:	CO

ONE INCH
AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY

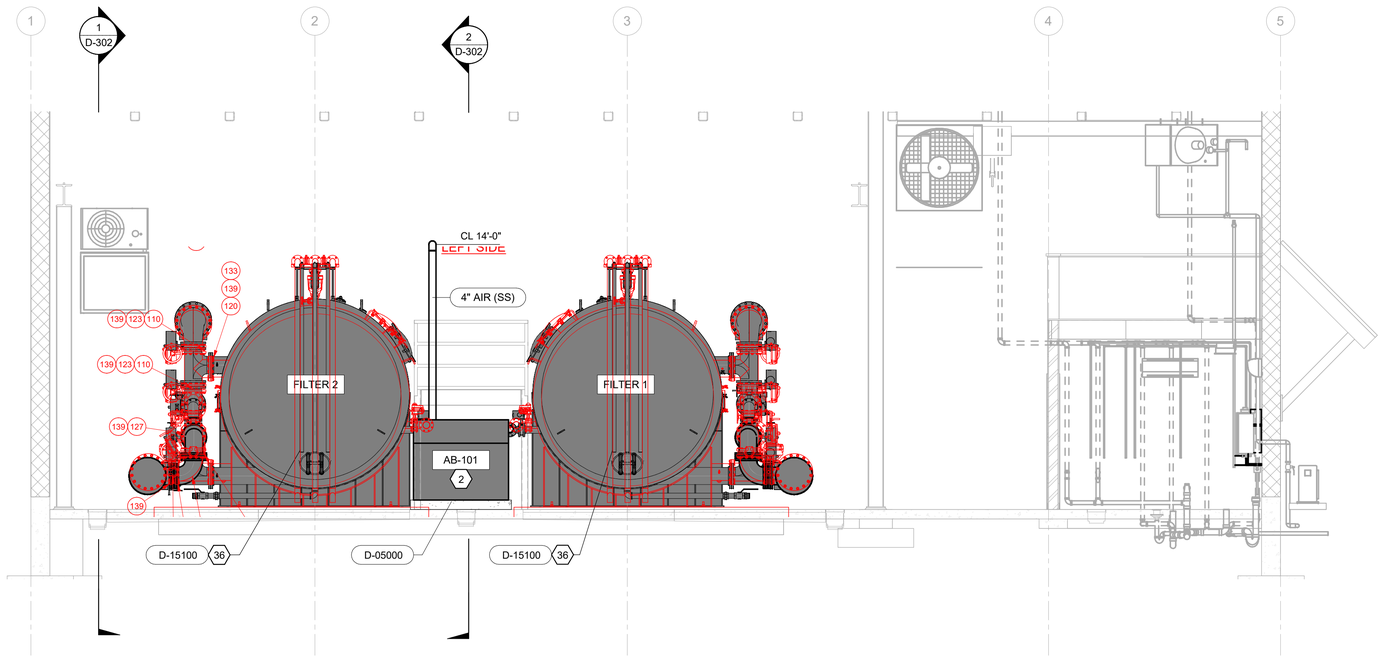
LAST UPDATED: 9/4/2024

DRAWING:
D-101

J-U-B's 2nd submittal
response to WesTech



1 BUILDING SECTION
SCALE: 1/4" = 1'-0"



2 BUILDING SECTION
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. THESE DRAWINGS ARE INTENDED TO CONVEY THE GENERAL INTENT AND ARRAGNGEMENT OF THE SYSTEMS, EQUIPMENT AND RELATED COMPONENTS. CERTAIN ITEMS OR DETAILS MAY NOT BE INCLUDED OR MAY BE SHIFTED OR OMITTED FROM CERTAIN VIEWS FOR CLARITY. REFER TO MAUFACTURER DRAWINGS AND INSTALLATION MANUALS.
2. SEE CIVIL SHEETS FOR ALL PIPING BEYOND BUILDING WALLS.
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4. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH EQUIPMENT SUPPLIER.
5. FOR CLARITY NOT ALL SMALL DIAMETER <2" CHEMICAL FEED AND DISINFECTION SYSTEM PIPING SHOWN. CONTRACTOR RESPONSIBLE TO FIELD ROUTE SMALL PIPING.
6. PIPE SIZE, MATERIAL, VALVES, INSTRUMENTATION, FITTINGS AND CONNECTION LOCATIONS ARE SHOWN SCHEMATICALLY ON THE INSTRUMENTATION DRAWINGS AND STANDARD DETAILS.
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FURNISHED BY FILTER MFG.

SHEET KEYED NOTES

2	BLOWER ASSEMBLY
9	BACKWASH/FILTER TO WASTE AIR GAP. SEE SHEET C-505.
36	ROUTE AIR RELEASE PIPING TO DISCHARGE OVER THE CENTER OF THE TRENCH DRAIN. PROVIDE PIPE SUPPORTS.
38	16" RAW WATER FLOW METER

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www.jub.com

Subconsultant:

BID

SET

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

ANDERSON WATER TREATMENT PLANT
GRANGER-HUNTER IMPROVEMENT DISTRICT

PROCESS MECHANICAL (D)
SECTIONS
1629 WEST 2320 SOUTH

FILE:
JUB PROJ. #:93-23-004
DRAWN BY:ZJS
DESIGN BY:JBF
CHECKED BY:CO

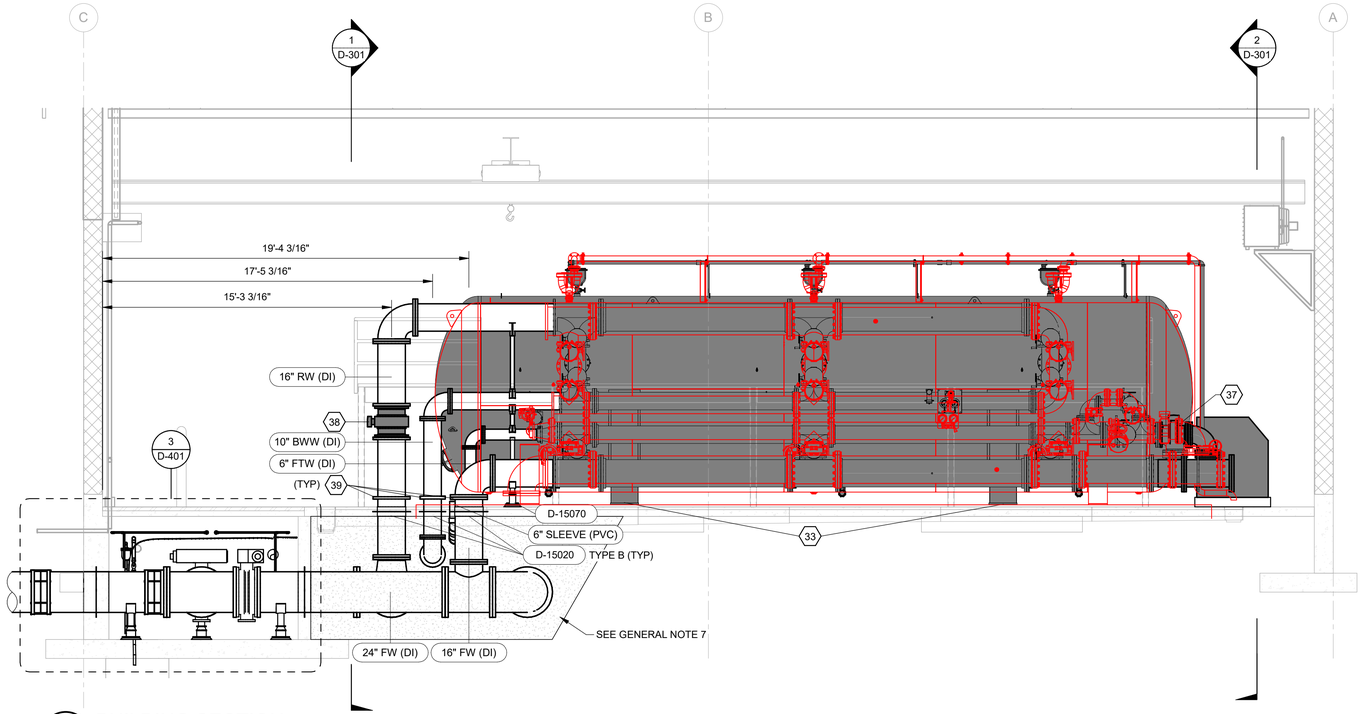
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED:9/4/2024

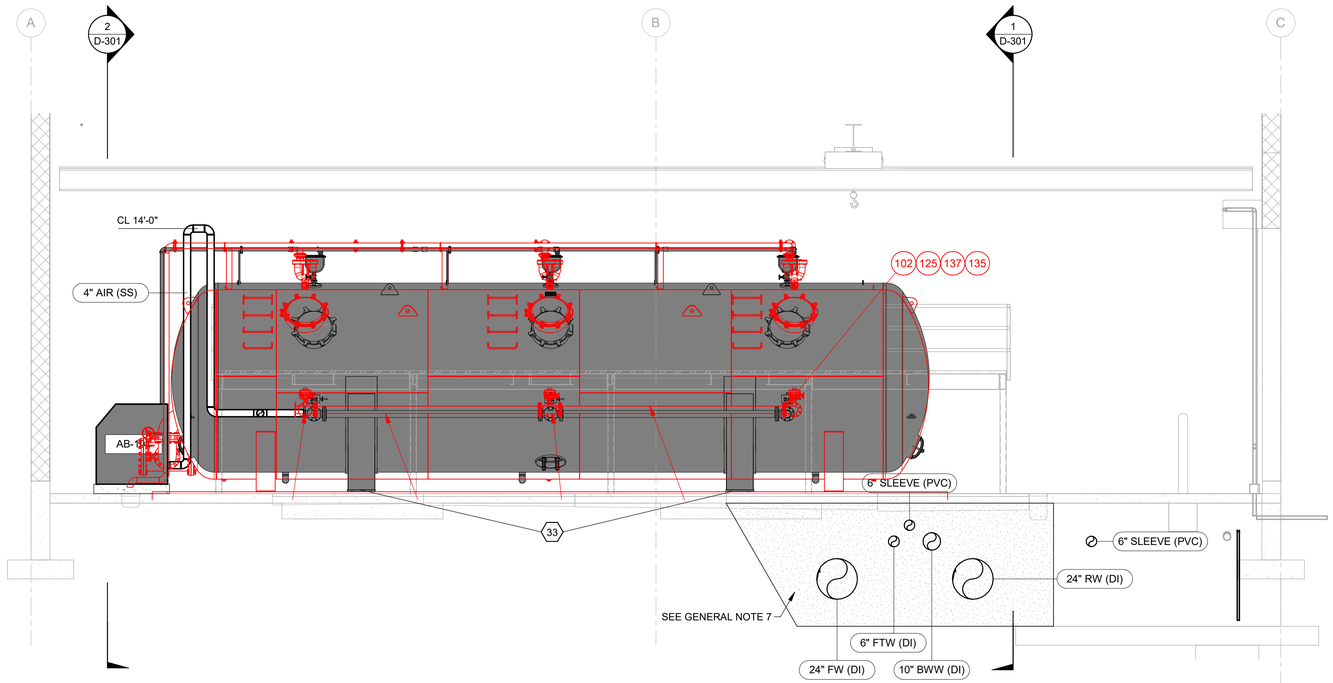
DRAWING:
D-301

Autodesk Docs://GHID Anderson WTP/93-23-004_D.rvt

J-U-B's 2nd submittal
response to WesTech



1 BUILDING SECTION
SCALE: 1/4" = 1'-0"



2 BUILDING SECTION
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. THESE DRAWINGS ARE INTENDED TO CONVEY THE GENERAL INTENT AND ARRAGNGEMENT OF THE SYSTEMS, EQUIPMENT AND RELATED COMPONENTS. CERTAIN ITEMS OR DETAILS MAY NOT BE INCLUDED OR MAY BE SHIFTED OR OMITTED FROM CERTAIN VIEWS FOR CLARITY. REFER TO MAUFACTURER DRAWINGS AND INSTALLATION MANUALS.
2. SEE CIVIL SHEETS FOR ALL PIPING BEYOND BUILDING WALLS.
3. PIPE SUPPORTS ARE REQUIRED. SEE CIVIL-MECHANICAL DETAILS.
4. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH EQUIPMENT SUPPLIER.
5. FOR CLARITY NOT ALL SMALL DIAMETER <2" CHEMICAL FEED AND DISINFECTION SYSTEM PIPING SHOWN. CONTRACTOR RESPONSIBLE TO FIELD ROUTE SMALL PIPING.
6. PIPE SIZE, MATERIAL, VALVES, INSTRUMENTATION, FITTINGS AND CONNECTION LOCATIONS ARE SHOWN SCHEMATICALLY ON THE INSTRUMENTATION DRAWINGS AND STANDARD DETAILS.
7. ENCASE ALL RAW, FW, BWW, AND FTW BELOW-SLAB PIPING IN CONTROLLED-DENSITY FILL. WRAP ALL PIPES AND DUCTILE IRON FITTINGS IN WAX TAPE IN ACCORDANCE WITH GHID STANDARDS.

FURNISHED BY FILTER MFG.

SHEET KEYED NOTES

33	PROVIDE FILTER TANK FOOTING AND NON-SHRINK GROUT PAD PER STRUCTURAL SHEETS.
37	BACKWASH FLOW METER, SEE MANUFACTURER'S GENERAL ARANGEMENT DRAWINGS FOR MORE DETAILS.
38	16" RAW WATER FLOW METER
39	PROVIDE VITAULIC COUPLINGS TO JOIN THE BELOW GRADE PIPE TO THE ABOVE GRADE PIPE FOR THE RAW, FTW, AND BWW PIPE SERVICES. PROVIDE FLANGED CONNECTION FOR THE FW PIPE SERVICE OR ALTERNATIVE VITAULIC COUPLINGS IF CLEARANCE IS TOO TIGHT FOR A FLANGED CONNECTION.

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Subconsultant:

BID

SET

NO.	DESCRIPTION	DATE	BY	APP.
	REVISION			

ANDERSON WATER TREATMENT PLANT
GRANGER-HUNTER IMPROVEMENT DISTRICT

PROCESS MECHANICAL (D)
SECTIONS
1629 WEST 2320 SOUTH

FILE:
JUB PROJ. #:93-23-004
DRAWN BY:ZJS
DESIGN BY:JBF
CHECKED BY:CO

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED:9/4/2024

DRAWING:
D-302

Autodesk Docs://GHID Anderson WTP/93-23-004_D.rvt