

City of Flint

Department of Purchases & Supplies

Sheldon A. Neeley

TO:

All Proposers

FROM:

Lauren Rowley

Purchasing Manager

DATE:

July 14, 2021

SUBJECT:

Addendum #02 - Bid# 22000047 - CWSRF Project Battery B Grit and Primary

Settling Tanks

This addendum has been issued because of the following:

1. Pre-Bid Meeting Minutes from June 29, 2021

All other bidding terms, requirements, and conditions continue as indicated in the remaining original bid documents.

The Purchasing Manager, Lauren Rowley, is an officer for the City of Flint with respect to this RFP.

In the submission of their proposal, Proposer must acknowledge receipt of this addendum. Proposer shall acknowledge this addendum by signing and returning one copy of this notice with their submission.

Company Name:			
Address:			<u></u>
City / State / Zip:			
Telephone:	Fax:	Email:	
Print Name:	Tit	Title:	
Signature:			
Thank you, Lauren Rowley Purchasing Manager	uley		

CITY OF FLINT, MICHIGAN

Water Pollution Control Grit Battery B System and Primary Tank Improvements Contract Number 200-156238-21001-S-1 SRF No. 5709-01

Addendum No. 2 July 08, 2021

To Prospective Bidders:

Information disclosed and/or questions raised since issuing Bidding Documents require that changes in or interpretations of these Bidding Documents be made as noted below. This Addendum No. 2 forms a part of the Contract Documents and modifies the original Bidding Documents dated June 2021. All provisions of the Bidding Documents, which are not so amended, remain in full force and effect.

Meeting minutes from the virtual pre-bid conference held on June 29, 2021, presentation slides, questions raised at the conference, their responses, and a conference sign-in sheet, consisting of 6 pages, is included at the end of this Addendum for information only. Actual changes to the Contract Documents, if any, are included as part of the text of this Addendum No. 2. Bidders are reminded that oral statements made at the pre-bid conference may not be relied upon, and will not be binding or legally effective. Note Bid Date Time has been changed to 3:00 P.M. from 1:00 P.M. in the Pre Bid meeting presentation.

CHANGES TO SPECIFICATIONS

1. Section 00100, Page 1, First Paragraph, delete paragraph and replace as follows:

Sealed Bids will be received by the City of Flint, Michigan at the office of the City of Flint Finance Department– Division of Purchases and Supplies, 1101 S Saginaw St, Room 203, Flint MI 48502 up to 3:00 p.m., prevailing local time, on July 22, 2021 and then publicly opened and read aloud for the construction of Contract 200-156238-21001. One fully completed hard copy of the Bid, including all necessary support forms, shall be submitted at time of bid. The hard copy of bid shall be submitted to City of Flint Finance Department – Division of Purchases and Supplies at the required time of acceptance of Bid, the digital copy shall be delivered to City of Flint Finance Department no later than 5:00 P.M. on day of bid. Bidders shall follow the following steps when delivering the hard copy of bid:

- 1) Contact Finance Department at 810-766-7340 to coordinate that staff is available at time to drop off bid package.
- 2) Personnel must practice all posted health and safety guidelines.
- 2. Section 00800, page 9, Paragraph SC-11.03 C.1 delete paragraph and replace as follows:
 - 1. If the total cost of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by CONTRACTOR differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and

Addendum No. 2, July 08, 2021

CHANGES TO DRAWINGS

- 1. Sheet P-101, delete sheet and replace with revised Sheet P-101 included as part of Addendum No. 2.
- 2. Sheet P-102, delete sheet and replace with revised Sheet P-102 included as part of Addendum No. 2.
- 3. Sheet P-201, delete sheet and replace with revised Sheet P-201 included as part of Addendum No. 2.
- 4. Sheet P-202, delete sheet and replace with revised Sheet P-202 included as part of Addendum No. 2.
- 5. Sheet E-002, Add note as follows:

25. THE WORK SEQUENCE IS TO BE COORDINATED WITH THE OWNER. THE PLANT AND GRIT A AND GRIT B PROCESSES SHALL REMAIN IN OPERATION. CONTRACTOR SHALL SEQUENCE THE WORK TO MAINTAIN UNINTERRUPTED OPERATIONS. REPOWER EXISTING SWITCHGEAR/PADMOUNT TRANSFORMERS AND STAGE AS REQUIRED TO ACCOMPLISH UNINTERRUPTD PRIMARY-GRIT OPERATIONS. CONTRACTOR SHALL PROVIDE HARDWARE, CONUIT, WIRE, GENERATOR(S) AS REQUIRED TO ACCOMPLISH THIS CONSTRUCTION SEQUENCE.

6. Sheet E-003, Add following clarification notes to drawings:

Note:

- No. 1 THE PAD DETAIL AT THE TOP OF THE SHEET, THE TRANSFORMER ON THE LEFT IS FOR EXISTING MCC-13 AN GOES TO NEW HANDHOLE NO.1. THE TRANSFORMER ON THE RIGHT GOES TO MCC-XP2A.
- No. 2 THE DUCTBANK LINE THAT GOES INTO EXISTING BLOWER BUILDING WHERE EXISTING MVUS NO.1 IS LOCATED NEEDS A NOTE THAT STATES "SEE NOTE NO.4".
- No. 3 EXISTING MCC NO.13 SHOULD BE SHOWN IN THE EXISTING MAINTENANCE BUILDING.
- No. 4 AT GRIT B BUILDING, ADD A NOTE REFERENCING THE NEW PADMOUNT TRANSFORMER/SWITCH WHICH STATES "FIELD LOCATED NEW CONCRETE PAD AND TRANSFORMER SECONDARY CONDUITS TO AVOID INSTALLATION OF NEW OUTDOOR AIR HANDLING EQUIPMENT."
- No. 5 NOTES NO. 6 AND NO. 7 ARE TO ALSO INCLUDE DEMOLITION OF THE EXISTING DUCTBANK.
- 7. Sheet E-005, Add following clarification notes to drawings:

Add note at existing transformer area photo as follows, "SEE SHEET E-006 FOR GRIT B TRANSFORMER/SWITCH DEMOLITION INFORMATION."

8. Sheet E-102, delete sheet and replace with revised sheet E-102 included in Addendum No. 2.

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- 9. Sheet E-103, NOTES, MCC-XP2A, Delete Note 1 and replace as follows, "REPLACE THE EXISTING MOTOR CONTROL CENTER IN IT'S ENTIRETY. OBTAIN THE SERVICES OF ROCKWELL TO REPLACE THIS MOTOR CONTROL CETNER IN IT'S ENTIRETY AND MATCH EXACTLY THE NUMBER OF FEEDER BREAKERS, AND STARTERS THAT CURRENTLY EXIST. IN THE SPACE, THAT PREVIOUSLY EXISTED WITH MCC-XP2A, ARE TO BE INSTALLED THE ADDITIONAL FEEDER BREAKERS AND STARTERS SHOWN ON THE ONE-LINE DIAGRAM FOR THE NEW SLUDGE COLLECTORS, CROSS COLLECTORS AND FEEDER BREAKERS FOR THE NEW MOTORIZED ACTUATORS AS WELL AS OTHER LOADS".
- 10. Sheet E-103, NOTES, EXISTING MCC-7D, Delete Note 3 and replace as follows, "TURN OVER ELECTRONIC COPIES OF PLC AND PANELVIEW PROGRAMS FOR OWNER'S USE IN INTEGRATING CHANGES TO EXISTING SCADA SYSTEM".
- 11. Sheet E-104, Add notes to drawings:

NOTE:

- No. 1 UNDER DEMOLITION PHOTOS FOR MCC-XP2A, ADD "SEE NOTES 1-3 AT LOWER LEFT".
- No. 2 FOR MCC-P7U AND P7D, CONTRACTOR IS REQUIRED TO FIELD VERIFY EXISTING EQUIPMENT LOCATIONS FOR EQUIPMENT SHOWN TO BE DEMOLISHED.
- No. 3 TO THE LEFT OF THE LIST OF LOADS SHOWN FOR MCC-XP2A, MAKE A NOTE THAT STATES TO "SEE NOTE NO. 1".
- 12. Sheet E-104, Delete Note 3 and Replace as Follows:
 - 3) NEW MCC-XP2A IS EXPECTED TO BE 11 SECTIONS TOTAL. INLCUDE IN BID TO INSTALL TWO ADDITIONAL SECTIONS AS SHOWN ON SHEET E-314, FOR NEW LOADS BEING ADDED THIS CONTRACT.
- 13. Sheet E-105, Add following clarification notes to drawings:

NOTE:

- NO. 1 SEAL FITTINGS ARE TO BE PVC COATED RMC. DELETE THE REFERENCE TO "OR ALUMINUM FOR SEAL FITTINGS". TYPICAL FOR SHEET E-105 WHERE ELSE SHOWN ON ONE-LINES THIS CONTRACT.
- 14. Sheet E-109, Change Grit Processor Panel from Load "XP2A-37" to Load "XP2A-38".
- 15. Sheet E-109, Add following clarification notes to drawing:

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- No. 1 A 1 INCH CONDUIT WITH A 12 STRAND 50 MICRON MULTIMODE FIBER OPTIC CABLE SHOULD BE SHOWN FROM GRIT PROCESSOR PANEL TO GRIT IO PANEL NO. 1. FIELD LOCATE AND ROUTE THIS CONDUIT AND FIBER CABLE IN THE TUNNEL BETWEEN GRIT A AND GRIT B BUILDINGS.
- No. 2 THE FIBER OPTIC CABLE SHOWN FROM EACH GRIT SYSTEM CONTROL PANEL NO. 1 AND NO. 2 TO GRIT IO PANEL NO. 1 SHALL EACH BE 12 STRANDS.
- 16. Sheet E-111, OVERHEAD DOOR NO. 1, Revise as follows, delete "MPZ-70-19" and replace with "MPZ-70-17".
- 17. Sheet E-200, Add following clarification notes to drawings:

NOTE:

- No. 1 THE WIRING DIAGRAM FOR THE MOTORIZED MODULATING ACTUATORS SPECIFICALLY PRIMARY TANK 1-4 GATES ARE TO BE LABELED RESPECTIVELY A13, 14, 15, 16 FOR TANK NO. 1. A17, 18, 19, 20 FOR TANK NO. 2. A21, 22, 23, AND 24 FOR TANK NO.3, AND A25, 26, 27, AND 28 FOR TANK NO.4 THE REAMINDER OF THE NUMBERS ARE CORRECT. THIS DESIGNATION APPLIES TO THE LOADS SHOWN ON SHEET E-310 FROM LEFT TO RIGHT FOR PRIMARY TANKS GATE ACTUATORS ALSO.
- 18. Sheet E-201, Add following clarification notes to drawings:

NOTE:

- No. 1 THE WIRING DIAGRAM FOR THE FOUR GRIT PUMPS ARE 70-29, 30, 31, AND 32.
- 19. Sheet E-203, Revise as follows, replace FINE SCREEN NO. 1 VFD LAYOUT load label "70-42" with "70-38" and replace FINE SCREEN NO. 2 VFD LAYOUT load label "70-43" with "70-39".
- 20. Sheet E-204, Add notes as follows:
 - 1. FOR THE WIRING DIAGRAM FOR THE SLUDGE TANK COLLECTOR AND SLUDGE TANK CROSS COLLECTOR MECHANISMS, ADD A CONTROL RELAY TO MONITOR THE SECONDARY OF THE CONTROL POWER TRANSFORMER. A NORMALLY OPEN CONTACT SHALL BE PROVIDED FOR WIRING TO GPP AND GIOP-1 FOR POWER ON STATUS.
 - 2. FOR THE LIGHTING CONTACTOR NO. 1 (LC-1) A RUN LIGHT SHOULD BE SHOWN CONNECTED SO THAT IT IS ENERGIZED WHEN THE CL CONTACT CLOSES TO ENERGIZE THE ROOM LIGHTS.
 - 3. FURNISH AND INSTALL NEMA 4 STAINLESS STEEL ENCLOSURE, CONTACTOR, H-O-A SWITCH, AND LED RUN LIGHT FOR NEW DAMPER MOTOR NO. 1. WIRE CONTACT OFF CONTACTOR TO ENERGIZE DAMPER. WHEN SELECTOR SWITCH IS IN AUTO, THE CONTACTOR FOR THE DAMPER SHALL BE ENERGIZED BY AN OUTPUT FROM GIOP-1. WITHIN THE CONTACTOR PROVIDE A 20A CIRCUIT BREAKER DISCONNECT. MOUNT SWITCH AND PILOT LIGHT ON FACE OF ENCLOSURE. PROVIDE A NORMALLY OPEN

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CONTACT OFF THE CONTACTOR FOR INDICATING RUNNING STATUS TO GIOP-1. PROVIDE A 3 POLE CONTACTOR WITH 20A RATE CONTACTS. CONNECT THE DAMPER CONTACTOR STATUS'S FOR RUNNING, IN REMOTE AND DAMPER SWITCH POSITION TO INPUTS 3-16-12, 13, AND 14 ON SHEET I-323. PROVIDE FUSE FOR POWERING INPUTS AT GIOP-1. PROVIDE NEUTRAL CONNECTIONS AT GIOP-1 FOR THESE INPUTS.

- 4. THE THERMOSTAT SHOWN ON THE WIRING DIAGRAM FOR EXHAUST FAN NO.1 IS TO INPUT SPARE INPUT AT GIOP-1 INPUT 3-16-15 ON SHEET I-323. PROVIDE FUSE AT GIOP-1 FOR POWERING THIS INPUT. PROVIDE NETURAL CONNECTION WITHIN GIOP-1 FOR THIS INPUT.
- 21. Sheet E-205, Add notes as follows:
 - 1. CIRCUIT BREAKER NO. 18 AT MPZ 70-1 SHALL BE FOR POWERING THE DAMPER NO. 1 CONTACTOR.
- 22. Sheet E-206, FIXTURE TYPE "A", Add following clarification note to drawing:

"PROVIDE 90 MINUTE INTEGRAL BATTERY PACK FOR FIXTURES SHOWN ON BACKGROUND PLANS WITH NL/BP NEXT TO FIXTURES. PROVIDE EACH FIXTURE WITH WALL MOUNT BRACKETS FOR FIXTURE ADJUSTMENT".

23. Sheet E-300, Add following clarification notes to drawing:

Note:

- No. 1 AT THE VERY TOP OF THE DRAWING, FROM LEFT TO RIGHT CROSS HATCHING SHOULD BE SHOWN FOR ALL THE EXISTING GATES, AND PRIMARY TANK COLLECTOR MECHANISMS ETC.
- No. 2 AT THE LEFT SIDE OF THE DRAWING, THIS EXISTING MOTOR CONTROL CENTER IS MCC-7U, NOT MCC-7D.
- No. 3 AT THE LOWER MIDDLE OF THE SHEET, THE EXISTING BUTTERFLY GATE AND ACTUATOR SHOULD BE SHOWN TO BE DEMOLISHED, SAME AS TWO GATES ABOVE.
- 24. Sheet E-302, Add following clarification notes to drawing:

Note:

- No. 1 THE PICTURE IS OF EXISTING METER AND TRANSMITTER, WHICH ARE TO BE REMOVED.
- No. 2 THE NEMA 7 AREA ON THIS DRAWING REFERENCES THE TWO GRIT TANKS. THE AREA WHERE THE EXISTING FLOWMETER IS LOCATED IS A NEMA 4 AREA.
- 25. Sheet E-306, Add the following clarification notes to drawings:

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Note:

- No. 1 THE EXISTING MCC-7U SHOULD BE SHOWN IN ELEC. ROOM AT ELEVATION 729.25.
- No. 2 UNLOADING AREA FLOOR ELEVATION TO THE LEFT OF THE GRIT B BUILDING PLAN TITLE AND BELOW THE NEW LIT-402 AREA IS 714 +/-.
- 26. Sheet E-307, Add the following clarification notes to drawings:

Note:

- No. 1 THE UNLOADING AREA ELEVATION TO THE LEFT OF THE TITLE SHOULD STATE "ELEVATION 714".
- 27. Sheet E-307, Add notes as follows:
 - 1. THE THERMOSTAT FOR EXHAUST FAN NO. 1 IS TO HOMERUN TO GIOP-1.
 - 2. NEAR THE EXHAUST FAN NO. 1 IS MOTORIZED DAMPER NO.1 PROVIDE A 1 INCH CONDUIT WITH 3#10 WIRES TO THE DAMPER NO. 1 CONTACTOR LOCATED IN THE ELECTRICAL ROOM. PROVIDE A 1 INCH CONDUIT WITH 8#14 WIRES FROM THE DAMPER LIMIT SWITCH TO GIOP-1. CONDUIT TO BE PVC-RMC AND SEAL FITTINGS SHALL BE PROVIDED. CONSTRUCTION TO BE NEMA 7 RATED. PROVIDE A NEMA 7 RATED MANUAL MOTOR STARTER DISCONNECT FOR THE DAMPER MOTOR
 - 3. THE HOME RUNS FOR THE EXIT AND EMERGENCY FIXTURES ARE 24 AND 22 RESPECTIVELY FOR THE FIXTURES IN THE NEW UNLOADING AREA. THE HOMERUN FOR THE B TYPE FIXTURE TO THE LEFT OF THE NEW UNLOADING AREA IS 11.
- 28. Sheet E-307, cont.

Delete callout note: 'EXISTING LED INTERIOR LIGHTING TO REMAIN. CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIALS TO REMOVE AND REINSTAL UP TO 25 EXISTING LIGHT FIXTURES DURING THE CONSTRUCTION PROCESS. INCLUDE FOR EACH FIXTURE TO REWORK SEAL FITTINGS AND PROVIDE 10 FEET OF ALUMINUM CONDUIT NEMA 7 BOXES AND NEW SEAL FITTINGS AND WIRE AS REQUIRED. (TYP. FOR 25 FIXTURES).'

Replace with: 'EXISTING LED INTERIOR AND EXTERIOR LIGHTING TO REMAIN. CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIALS TO REMOVE AND REINSTAL UP TO 25 EXISTING LIGHT FIXTURES DURING THE CONSTRUCTION PROCESS. INCLUDE FOR EACH FIXTURE TO REWORK SEAL FITTINGS, AND PROVIDE 10 FEET OF PVC-RMC CONDUIT, NEMA 7 BOXES, NEW SEAL FITTINGS, AND WIRE AS REQUIRED. (TYP. FOR 25 FIXTURES).'

29. Sheet E-308, Add following clarification notes to drawings:

Note:

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- No. 1 THE HOMERUN FOR THE FE/FIT AT THE LOWER LEFT SIDE OF THE DRAWING SHOULD GO TO 10.
- No. 2 THE SENSOR/BOX BELOW THE LAST FE ON THE LEFT SIDE OF THE SHEET SHOULD HOMERUN TO GRIT CONTROL PANEL NO. 2. THE PUSHBUTTON TOWARDS THE TOP OF THE SHEET SHOULD HOMERUN TO GRIT CONTROL PANEL NO. 1.
- 30. Sheet E-310, Add following clarification notes to drawings:

Note:

- No. 1 FOR PRIMARY TANK ACTUATORS ON TANKS 1-4 REVISE THE LOAD NUMBERS AS DESCRIBED ABOVE ON SHEET E-200.
- No. 2 INCLUDE NOTE AT THE DUCTBANK ON THE LEFT AND RIGHT SIDE OF THE DRAWING FOR GRIT A AND GRIT B, THAT STATES, "CONDUITS THAT CONTAIN SHIELDED CABLES THAT ARE TO BE CONCRETE ENCASED, AND SHALL BE STEEL OR PVC-RMC".
- No. 3 THE TITLE ON THE LEFT SIDE OF THE DRAWING IS FOR TANKS 1-6, AND THE TITLE ON THE RIGHT SIDE IS FOR TANKS 7-10.
- 31. Sheet E-312, Add the following clarification notes to drawings:

Note:

- No. 1 GRIT SYSTEM CONTROL PANEL NO. 1 IS LOAD 36, GRIT SYSTEM CONTROL PANEL NO. 2 IS LOAD 33, GIOP-1 LOAD IS NUMBER 58.
- No. 2 THE MAU REMOTE PANEL SHOULD BE SHOWN ON THE LOWER LEFT WALL. THE BOX AT THE TOP OF THE DRAWING THAT HOMERUNS TO AC-1 IS A THERMOSTAT.
- No. 3 THE NEMA RATING BELOW THE TITLE SHOULD SAY "NEMA 4 AREA".
- 32. Sheet E-312, Add note as follows:
 - 1. THE DAMPER CONTACTOR NO. 1 SHALL BE LOCATED ON THE WALL AT THE BOTTOM OF THE DRAWING. FROM THIS CONTACTOR PROVIDE A 1 INCH CONDUIT WITH 3#10 WIRES TO MPZ 70-1. FROM THIS CONTACTOR PROVIDE A 1 INCH CONDUIT WITH 12#14 WIRES TO GIOP-1 FOR IO CONNECTIONS AS DESCRIBED HEREIN.
- 33. Sheet E-313, Add the following clarification notes to drawings:

Notes:

- No. 1 THE HOMERUNS FOR THE EXIT AND EMERGENCY LIGHTS GO TO MPZ 70-2 AND 70-3 RESPECTIVELY.
- No. 2 THE NEMA RATING BELOW THE TITLE SHOULD SAY "NEMA 4 AREA".

- 34. Sheet E-403, DUCT DETAILS, Add note as follows:
 - 1. THE CONCRETE STRENGTH FOR THE DUCT BANKS SHOULD BE 5000 PSI STRENGTH.
- 35. Sheet E-404, TRANSFORMER/SWTICH PAD (TYP.), Add note as follows:
 - 1. THE CONCRETE STRENGHT FOR THE TRANSFORMER AND SWITCH PADS SHALL BE 4000 PSI STRENGHT. THE CONCRETE PADS FOR THE VARIOUS CONTROL PANELS, MOTOR CONTROL CENTER, VFD'S ETC., SHOULD BE 4000 PSI STRENGTH.
- 36. Sheet I-100, Add the following clarification notes to drawings:

Note:

- No. 1 THE MODEL NUMBER OF THE PANELVIEWS SHOWN ON THIS DRAWING SHALL BE 2711P-T15C22D9P.
- No. 2 THE MODEL NUMBER OF THE STRATIX SWITCH IN MOTOR CONTORL CENTER XP2A SHALL BE 1783-EMSO8T.
- 37. Sheet I-100, Add note as follows:
 - 7. PROVIDE PA-75 POWER SUPPLIES FOR ALL THE RACKS SHOWN ON SHEET I-100 AND SHEET I-101.
- 38. Sheet I-100, Delete Note No.6 and Replace as Follows:
 - 6. PROVIDE THE FOLLOWING SPARE PARTS; 1756-L81E, EN2T, PA75, IA16I, OW16I, IF8IH, OF81.
- 39. Sheet I-101, Add the following clarification notes to drawings:

Note:

- No. 1 DELETE THE REFERENCE TO THE 10.4 INCH PANELVIEWS ON THIS DRAWING. PANELVIEWS SHOWN ON THIS DRAWING SHALL BE MODEL NUMBER 2711P-T15C22D9P. TYPICAL OF 4.
- No. 2 THE MODEL NUMBER OF THE STRATIX SWITCH IN MOTOR CONTROL CENTER 70 SHALL BE 1783-EMSO8T.
- 40. Sheet I-202, Add notes as follows:
 - 2. THE MECHANICAL SCREENS ARE "FINE SCREENS".
 - 3. THE FOUR GRIT PUMPS EACH HAVE 9 DISCRETE INPUTS. REFER TO THE WIRING DIAGRAMS AND THE IO CARDS FOR ADDITIONAL REQUIREMENTS.

41. Sheet I-300, Add the following clarification notes to drawings:

Notes:

- No. 1 A BREAKER SHOULD BE SHOWN FOR POWERING RACK NO. 1.
- No. 2 A BREAKER SHOULD BE SHOWN FOR POWERING RACK NO. 2.
- No. 3 PANELVIEW DISPLAY SHALL BE MOUNTED AT 60 INCHES ABOVE FLOOR STANDING HEIGHT AS MEASURED FROM FLOOR TO CENTERLINE OF PANELVIEW. HEIGHT SHALL INCLUDE HEIGHT OF CONTROL PANEL MOUNTING PAD.
- 42. Sheet I-306, Add the following clarification note to drawing:

Note:

- No. 1 A SECOND OVERTORQUE ALARM SHOULD BE SHOWN AT I1205. THIS IS TPYICAL FOR THE PRIMARY TANKS SLUDGE AND CROSS COLLECTORS AT GPP AND GIOP-1.
- 43. Sheet I-317, Add the following clarification notes to drawing:

Note:

- No. 1 TWO BREAKERS SHOULD BE LABELED AS RACK NO. 2 POWER AND RACK NO. 3 POWER.
- No. 2 PANELVIEW DISPLAY SHALL BE MOUNTED AT 60 INCHES ABOVE FLOOR STANDING HEIGHT AS MEASURED FROM FLOOR TO CENTERLINE OF PANELVIEW. HEIGHT SHALL INCLUDE HEIGHT OF CONTROL PANEL MOUNTING PAD.
- No. 3 THE REFERENCE AT LINE NO. 27 REQUIRES A SPARE POWER SUPPLY AS SHOWN.
- 44. Sheet I-324, Add note as follows:
 - 1. SHIFT 3 INPUTS DOWN ONE SPACE EACH FOR GRIT PUMP NO. 3 PLUG VALVE SO THAT INPUT NO. 11 IS LABELED FOR OVERTORQUE FOR THE PRIMARY TANK. TYPICAL FOR ALL PRIMARY TANK SLUDGE COLLECTORS AND CROSS COLLECTORS.
- 45. Sheet I-325, Add the following clarification note to drawing:

Note:

No. 1 – CONNECT OUPUT FOR DAMPER MOTOR NO. 1 OPEN/CLOSE TO Q4709.

Tetra Tech

This Addendum No. 2 consists of:

10 Pages of Addendum Text

Addendum No. 2, July 08, 2021

- 22 Pages of pre-bid meeting minutes, presentation, questions and answers, and attendance roster (for information only)
- 1 Revised Sheet P-101
- 1 Revised Sheet P-102
- 1 Revised Sheet P-201
- 1 Revised Sheet P-202
- 1 Revised Sheet E-102

Pre-Bid Meeting

City of Flint WPC

Grit Battery B System and Primary Tank Improvements

SRF No. 5709-01

June 29th, 2021

- I. Introductions
 - A. OWNER's Representatives
 - B. ENGINEER's Representative
 - C. EGLE's Representative
 - D. Any Answers provided at this meeting are clarifications of the bidding documents and are not intended to change them. If a point or concern raised during this meeting is deemed by ENGINEER and OWNER to require a change to the bidding documents, such change will be reflected by the issuance of an addendum.
- II. Bidding and Contract Requirements
 - A. Sign-in sheet Attendees shall send email to brent.bode@tetratech.com to indicate meeting attendance. The list of attendees will be included as part of addendum.
 - B. Bid preparation
 - 1. Requirement of document and/or site inspection
 - 2.Bid date and time

Thursday July 22nd, 2021 @ 3:00 PM at City of Flint Finance Department – Division of Purchases and Supplies, 1101 S Saginaw St, Room 203, Flint MI 48502. Hard copies shall be submitted to Finance Department at 3:00 PM, a digital copy of Bid shall be submitted to City of Flint Finance Department – Division of Purchases and Supplies no later than 5:00 PM on bid date.

- 3. One addenda issued to date.
- 4. Final day to submit questions,
- 5. Bid hold period is 90 calendar days starting from bid date.
- C. Assembly of bid
 - 1. Fill in lump sum where called for
 - 2. Alternates
 - a) No alternates
 - 3. Allowances
 - a) Allowance No.1 SCADA Programming \$150,000
 - b) Allowance No.2 Unforeseen Conditions \$125,000
 - 4. Unit Price Table
 - 5. Fill in completely Statement of Bidder's Qualification and Non-Collusion Statement Affidavit
 - 6.Officer of the Company to sign bid and seal bid. A certified check payable to OWNER or a satisfactory bid bond executed by the bidder and surety company

- in the amount equal to five percent (5%) of the proposal is to be included with each bid. Surety to be certified for bid bond amount.
- 7. Bidder to list major subcontractors and major equipment manufacturers names where requested.
- 8. Bidder to confirm receipt of all addenda issued by listing on front envelope of bid package and/or on the bid form.
- 9. Include MBE, WBE, DBE, outreach documentation.
- D. Time of final completion is 630 calendar days starting from the date posted on the Notice to Proceed with OWNER and CONTRACTOR's confirmation signature. Liquidated damages: \$1,000 per calendar day in excess of completion date without a time extension by change order.
- E. CONTRACTOR to include in bid costs associated with local buildings permits and property/income taxes.

III. Other Contract Requirements

- A. Davis Bacon Prevailing Wage Rates
- B. Payroll Reports
- C. Overtime Pay
- D. Evening and weekend work
- E. On-site interviews
- F. MBE, WBE and DBE
 - 1. Requirements of Section 00450 including Certificate of Debarment, completed MBE/DBE Good Faith Efforts Worksheet forms.
- G. Buy American Requirement

IV. Insurance Requirements

- A. Worker's Compensation
- B. Public Liability and Property Damage (Builder's Risk)
- C. Comprehensive General Liability (Engineer additionally named)
- D. Excess (umbrella) Liability (Engineer additionally named)
- E. Owner's Protective Liability (Engineer additionally named)
- F. Property Insurance (if applicable)
- G. Bond Requirements: Performance, Labor & Material Payment, and Maintenance

V. Summary of Work

- A. Construction Concerns
 - 1. Sequence
 - a) Grit Battery B
 - a. Work may not begin in Grit Battery B until improvements in Grit Battery A are complete.
 - b. Once approved by Owner Grit Battery B may be taken out of service to perform work.
 - c. Replacement of existing 60-inch influent raw sewage pipe shall be completed once existing Grit Conveyor chutes and floor are removed.
 - d. Existing rectangular butterfly gates shall remain closed and in place until proposed gates are available for installation.

Contractor shall complete the replacement of gates within 2 weeks of existing gate removal. This is necessary to allow WPC to utilize bypass channel in an emergency situation.

b) Primary Tanks

- a. Prior to submitting primary tank mechanism shop drawings CONTRACTOR shall enter one tank in Battery A and one tank in Battery B to verify existing tank configurations. One primary tank can be retrofitted at time.
- b. Prior to starting work in a tank, plant operators will take the entire battery that the tank is located in off-line. Two weeks notice minimum is required before this can occur.
- c. CONTRACTOR shall immediately install the new primary influent gates and make them watertight. Concurrently CONTRACTOR shall install a temporary bulkhead in the tank's Parshall flume channel to isolate the effluent end of the tank. Once started this Work shall be complete as soon as possible and not to exceed 5 working days so the remaining tanks in battery can be placed back in service.
- d. After being isolated on the influent and effluent ends tank modifications can be completed with the new mechanism and inlet gates commissioned before the next tank is worked on.
- e. Depending on other projects being constructed at the plant CONTRACTOR might have access to all the tanks (7 thru 10) in Battery B at one time. This cannot be guaranteed but may be possible depending on the schedule for Work occurring in Grit Battery B. If this cannot be arranged CONTRACTOR shall plan on doing one tank at a time as described above.
- 2. Storage and staging areas
- 3. Access routes
- 4. Start up
- B. Constraints in the Contract as listed in Project Manual
 - 1. CONTRACTOR shall coordinate with other projects onsite.
 - 2. Influent flow and water service to the WPC shall be maintained at all times.
 - 3. No interruptions of any part of the WPC treatment process shall occur without the expressed prior approval of the OWNER and ENGINEER.
 - 4. CONTRACTOR responsible for any fines that result in NPDES permit violations.
 - 5. CONTRACTOR shall provide Drawings and other necessary details of temporary facilities for approval
 - 6. CONTRACTOR shall place matting over all tunnels, channels, tanks, and piping where heavy equipment will be travelling.
 - 7. Protect all structures, tunnels and building adjacent to work.

- 8. The WPC shall attempt to flush sediment from channels, tanks and pipes to the best of their ability. CONTRACTOR shall be prepared to handle and remaining solids or liquid as necessary to perform their works. Remaining solids levels are approximately 16 inches in channels and influent pipe.
- C. Health and Safety Plan Requirements
- D. Hazardous Material
 - 1. Asbestos survey has been performed and materials identified. Unknown if asbestos in pipe gaskets but likely because of age. Contractor shall be prepared to properly handle and dispose of.
 - 2.Lead paint likely on piping.
- VI. Project Manual
 - A. Contractor Responsibility to Manage the Work
 - B. "Or Equal"
 - C. Section 01110 Summary of Work
 - D. Others
- VII. Contract Administration: Tetra Tech
 - A. Construction Schedule
 - 1.A detailed schedule is required from CONTRACTOR prior to the start of work. The schedule must meet the approval of OWNER. CONTRACTOR is requested to distribute the project schedule at or prior to the Preconstruction Conference and must have an approved schedule before the first payment will be processed. CONTRACTOR shall update and distribute at selected progress meetings.
 - B. Project Administration Items
 - 1. CONTRACTOR responsible for field verification dimensions and clearances prior to shop drawing submittals.
 - 2. CONTRACTOR responsible for construction layout.
 - 3. ENGINEER will check all installations before concrete pours, backfill, etc.
 - 4. CONTRACTOR shall schedule his work to allow ample time for such inspections.
 - 5. Temporary utility service required by CONTRACTOR's operation shall be provided by CONTRACTOR.
 - C. Periodic Payments

Periodic progress payments will be made on a monthly basis with details established at the Preconstruction Conference. The initial payment is contingent upon submitting an acceptable progress schedule.

- D. Permits
 - 1. CONTRACTOR is responsible for obtaining all building permits and scheduling local inspections.
- E. Testing, Sampling, and Submittals
 - 1. CONTRACTOR is responsible for submittals in accordance to the construction documents including, but not limited to the following:
 - a) Pipe certification

- b) Design mixes for concrete and bituminous
- c) Sieve analysis for granular material and specified aggregate materials
- d) Audio visual tape coverage or project site
- e) All general, mechanical, electrical, and instrumentation as-constructed drawings

2.ENGINEER will provide:

- a) Soil density
- b) Concrete Testing
- F. Progress Meetings

Progress meetings will be conducted monthly or more frequently as necessary. Representatives from ENGINEER, OWNER, and CONTRACTOR should be present. Progress meeting schedule will be developed by ENGINEER.

- G. Public Safety and Project Site Maintenance
 - 1. Definition of project area and haul roads
 - 2. Signage
- H. Site Visits
 - 1. Site Visits dates
 - a) July 1, 2021 at 11:00 AM and 1:00 PM
 - b) July 8, 2021 at 9:00 AM and 11:00 AM
 - 2. Requirements
 - a) Indicated preferred time to <u>brent.bode@tetratech.com</u>
 - b) Must wear PPE
 - c) Sign in at WWTP

I.

VIII. Questions

- A. When is Loan Closing? Likely end of September
- B. What is value of project? \$14.0 million.
- C. Is there a quantity on the amount of residual? There is an estimated depth in the documents.
- D. Is digital copy by email or thumb drive? Thumb drive is preferred
- E. Would it be possible to submitted digital copies one hour after when bids are due? City reviewing.
- F. When is anticipated Notice to Proceed? Likely October

Pre-Bid Meeting

Sign-In

Project: City of Flint WPC – Grit Battery B System and Primary Tank Improvements Date: June 29, 2021

Name	Company or Agency	Phone	Email
Jeanette Best	City of Flint	810.766.7210	jbest@cityofflint.com
John Florshinger	City of Flint	810.766.7210	jflorshinger@cityofflint.com
Brent Bode	Tetra Tech	616.262.4203	brentbode@tetratech.com
John Barber	Tetra Tech	810.956-9324	John.Barber@tetratech.com
Allen LeMieux	West Michigan Instrumentation Systems, Inc.		adlemieux@gmail.com
Henry Traylor	Newkirk Electric Associates, Inc.		hbtraylor@newkirk-electric.com
Jessica George	J.F. Cavanaugh Co.		jessica@jfcav.com
Scott Kelley	Systems Specialties		skelley@sysspec.com
Matt Glaz	Commercial Contracting Corporation		matt.glaz@cccnetwork.com
Jake Shook	John E. Green Company		jacobshook@johnegreen.com
Tom Tacey	John E. Green Company		tomtacey@johnegreen.com
Adam Case	RCL Construction Co. Inc.		adam@rclconstruct.com
Laurie Dishaw	Spence Brothers		lauriedishaw@spencebrothers.com
Dustin Morrow	Gerace Construction		DMorrow@geraceconstruction.com
Jennifer Ryan	City of Flint		-
Sahar Abdallah	Sorensen Gross Company		sabdallah@sgcs.net
David Bruce	Spence Brothers		davidb@spencebrothers.com
Richard Quinn	KSB Dubric, Inc.		Richard.quinn@KSB.com

City of Flint WPC

Grit Battery B System and Primary Tank Improvements – SRF No 5696-01 Pre Bid Meeting June 29, 2021



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Flint WPC – Grit Battery B System and Primary Tank Improvements

- Introductions
- City of Flint WPC
- Jeanette Best
- John Florshinger
- Tetra Tech
- Brent Bode
- John Barber
- MIEGLE
- Eric Pocan
- Charles Bennett

- Mandatory Pre Bid Meeting
- Indicate attendance through response email to <u>brent.bode@tetratech.com</u> at completion of meeting
- The attendees with be indicated in Minutes distributed as part of Addendum
- Bid Date
- July 22, 2021 at <u>1:00 P.M.</u>
- Hard Copy of Bid Package to City of Flint Finance Department
- Digital Copy to City of Flint Finance Department Division of Purchases and Supplies at <u>purchasingbids@cityofflint.com</u>.

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Primary Tank Improvements Flint WPC – Grit Battery B System and

- Bid Hold 90 days
- Substantial Completion 600 days, Final Completion 630 days
- \$1,000/day liquidated damages
- Insurance Requirements outline in Bid Documents

- **SRF Requirements**
- Davis Bacon Prevailing Wage
- Wage Interviews
- MBE, WBE, DBE Forms Required
- Good Faith Effort Worksheet with Bid Package
- **Debarment Form**
- Buy American Requirements and Documentation

5

Flint WPC – Grit Battery B System and Primary Tank Improvements

- Bid Package
- Bid Form
- SRF Documentation
- **Alternates**
- Allowances No Alternates
- No. 1 SCADA Programming
 No. 2 Unforeseen
- Conditions

- Affidavits

Concrete Repair

Unit Price Table

- Qualifications
- **Bid Bond**
- Subcontractor and Supplier

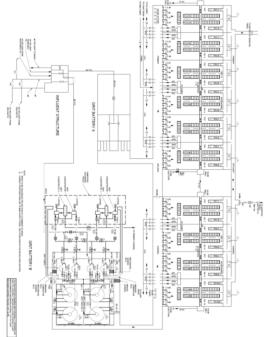
Addendum Acknowledgement

Flint WPC – Primary Tank Improvements Grit Battery B System and

- **WPC Summary**
- Scope of Work
- Replacement of existing 60-inch Influent Pipe
- Replacement of ex. Rectangular Butterfly Gates
- Installation of two mechanical bar screens with washer/compactor units
- Conversion of aerated grit tanks to stacked plate grit settling system with grit pumps and classifier system
- Building addition to handling screenings and grit dumpster
- Replacement of 40 Primary tank influent gates
 Replacement of 10 Primary Tank Clarifier Mechanisms
- Replacement of Primary tank effluent weirs.
- Structural Rehabilitation
- **Electrical and SCADA improvements**

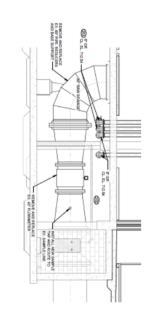
Flint WPC Primary Tank Improvements Grit Battery B System and

- Scope of Work
- Modifications to **Battery System** existing Grit B
- Influent Pipe
- Screens
- **Grit Removal**
- **Primary Influent** Replacement Gate and Mechanism



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- Scope of Work
- Replacement of existing 60-inch Influent Pipe and Flowmeter





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Flint WPC – Grit Battery B System and Primary Tank Improvements

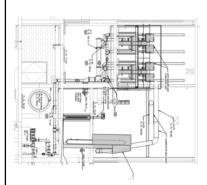
- Scope of Work
- Replacement of existing Rectangular Butterfly Gates

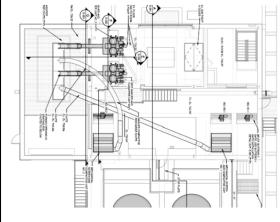




Flint WPC -Primary Tank Improvements Grit Battery B System and

- Scope of Work
- Install two Mechanical Bar Screens and washer/compactor units





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Flint WPC Primary Tank Improvements Grit Battery B System and

- Scope of Work
- Remove existing Aerated Grit Tanks, Conveyor and Classifier

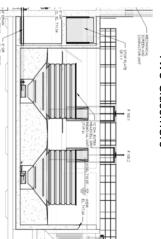


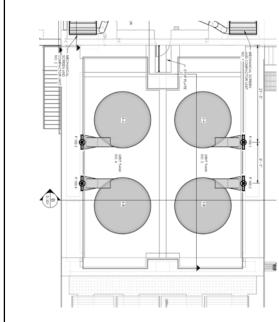




Flint WPC -Primary Tank Improvements Grit Battery B System and

- Scope of Work
- Install stacked plate Grit Removal system
- Four Grit Pumps
- Two Classifiers

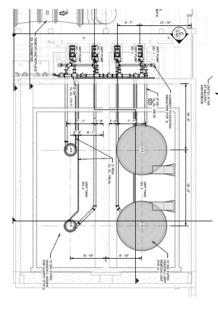




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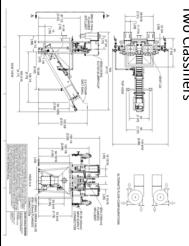
Flint WPC – Grit Battery B System and Primary Tank Improvements

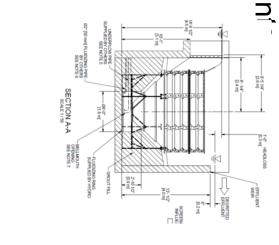
- Scope of Work
- Install stacked plate Grit Removal system
- Four Grit Pumps
- Two Classifiers



Flint WPC – Primary Tank Improvement Grit Battery B System and

- Scope of Work
- Install stacked plate Grit Removal system
- Four Grit Pumps
- Two Classifiers



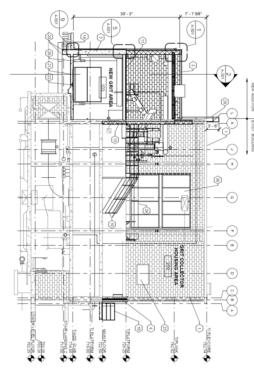


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Flint WPC – Grit Battery B System and Primary Tank Improvements

Scope of Work

Building Addition



Flint WPC -Primary Tank Improvements Grit Battery B System and

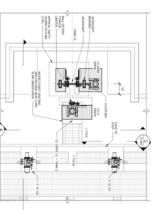
- Scope of Work
- Replace existing Primary Tank Influent Gates and Mechanisms



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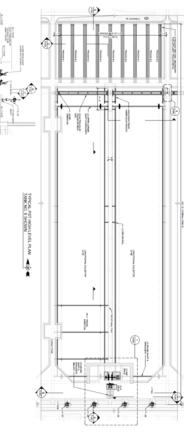
Flint WPC – Grit Battery B S Primary Tank Improvements Grit Battery B System and

- Scope of Work
- Replace existing
 Primary Tank
 Influent Gates
 and
 Mechanisms





- Scope of Work
- Replace existing Primary Tank Influent Gates Mechanisms



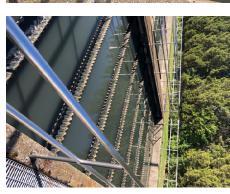
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Flint WPC Primary Tank Improvements Grit Battery B System and

- Scope of Work
- Replace existing Primary Tank Mechanisms Influent Gates





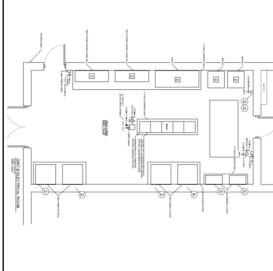
Flint WPC -Primary Tank Improvements Grit Battery B System and

- Scope of Work
- Structural
 Repair in Grit B
 Building and
 Primary Tanks

2

Flint WPC – Grit Battery B System and Primary Tank Improvements

- Scope of Work
- Electrical and SCADA improvements
- Programming Allowance



- Site Layout
- Staging Area
- Coordinate with Other Work
- Protect tunnels and structures



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Flint WPC – Aeration System Improvements

- Constraints
- CONTRACTOR shall coordinate with other projects onsite.
- Influent flow and water service to the WPC shall be maintained at all times.
- No interruptions of any part of the WPC treatment process shall occur without the expressed prior approval of the OWNER and ENGINEER.
- CONTRACTOR responsible for any fines that result in NPDES permit violations.
- CONTRACTOR shall provide Drawings and other necessary details of temporary facilities for approval
- CONTRACTOR shall place matting over all tunnels, channels, tanks, and piping where heavy equipment will be travelling.
- The WPC shall attempt to flush sediment from channels, tanks and pipes to the best of their ability. CONTRACTOR shall be prepared to handle and remaining solids or liquid as necessary to perform their works. Remaining solids levels are approximately 16 inches in channels and influent pipe.

Sequence – Grit Battery B

- Work may not begin in Grit Battery B until improvements in Grit Battery A are complete.
- Once approved by Owner Grit Battery B may be taken out of service to perform work.
- Replacement of existing 60-inch influent raw sewage pipe shall be completed once existing Grit Conveyor chutes and floor are removed.
- Existing rectangular butterfly gates shall remain closed and in place until proposed gates are available for installation. Contractor shall complete the replacement of gates within 2 weeks of existing gate removal. This is necessary to allow WPC to utilize bypass channel in an emergency situation.

Flint WPC – Grit Battery B System and Primary Tank Improvements

Sequence – Primary Tank

- Prior to submitting primary tank mechanism shop drawings CONTRACTOR shall enter one tank in Battery A and one tank in Battery B to verify existing tank configurations. One primary tank can be retrofitted at time.
- Prior to starting work in a tank, plant operators will take the entire battery that the tank is located in off-line. Two weeks notice minimum is required before this can occur.
- CONTRACTOR shall immediately install the new primary influent gates and make them watertight. Concurrently CONTRACTOR shall install a temporary bulkhead in the tank's Parshall flume channel to isolate the effluent end of the tank. Once started this Work shall be complete as soon as possible and not to exceed 5 working days so the remaining tanks in battery can be placed back in service.
- After being isolated on the influent and effluent ends tank modifications can be completed with the new mechanism and inlet gates commissioned before the next tank is worked on.

 Depending on other projects being constructed at the plant CONTRACTOR might have access to all the tanks (7 thru 10) in Battery B at one time. This cannot be guaranteed but may be possible depending on the schedule for Work occurring in Grit Battery B. If this cannot be arranged CONTRACTOR shall plan on doing one tank at a time as described above.

- Contract Items
- SRF Funded, Prevailing Wage, Buy American Requirements
- Insurance Requirements indicated in documents
- Contractor Responsible for own safety program
- Field Verification of layout and pipe lengths prior to submittals
- General Contractor Responsible to Manage the Work
- Scheduling and Sequencing
- Coordinating with WPC and other Projects
- Health and Safety Plan
- "Or Equal" and Substitutions

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Flint WPC – Grit Battery B System and Primary Tank Improvements

- Contract Items
- Hazardous Materials
- Possibility of asbestos material in pipe gaskets give age of construction
- Lead Paint
- Contractor responsible to field verify dimensions and layout prior to shop drawing submittal
- Contractor shall coordinate with Engineer for inspection and concrete testing
- One Payment Application per month
- Contractor to obtain Building and Other Permits
- Monthly Progress meetings
- Contractor to furnish detailed project schedule prior to start of work and update

- Schedule
- Pre Bid Meeting June 29, 2021
- Site Visit Dates and Times
- Thursday, July 1 at 11:00 AM, and 1:00 PM Thursday, July 8 at 9:00 AM and 11:00 AM
- Proper PPE
- Last Day to submit questions
- 10:00 AM on Monday, July 19
- Bid Date
- Thursday July 22, 2021 at <u>1:00 P.M.</u>

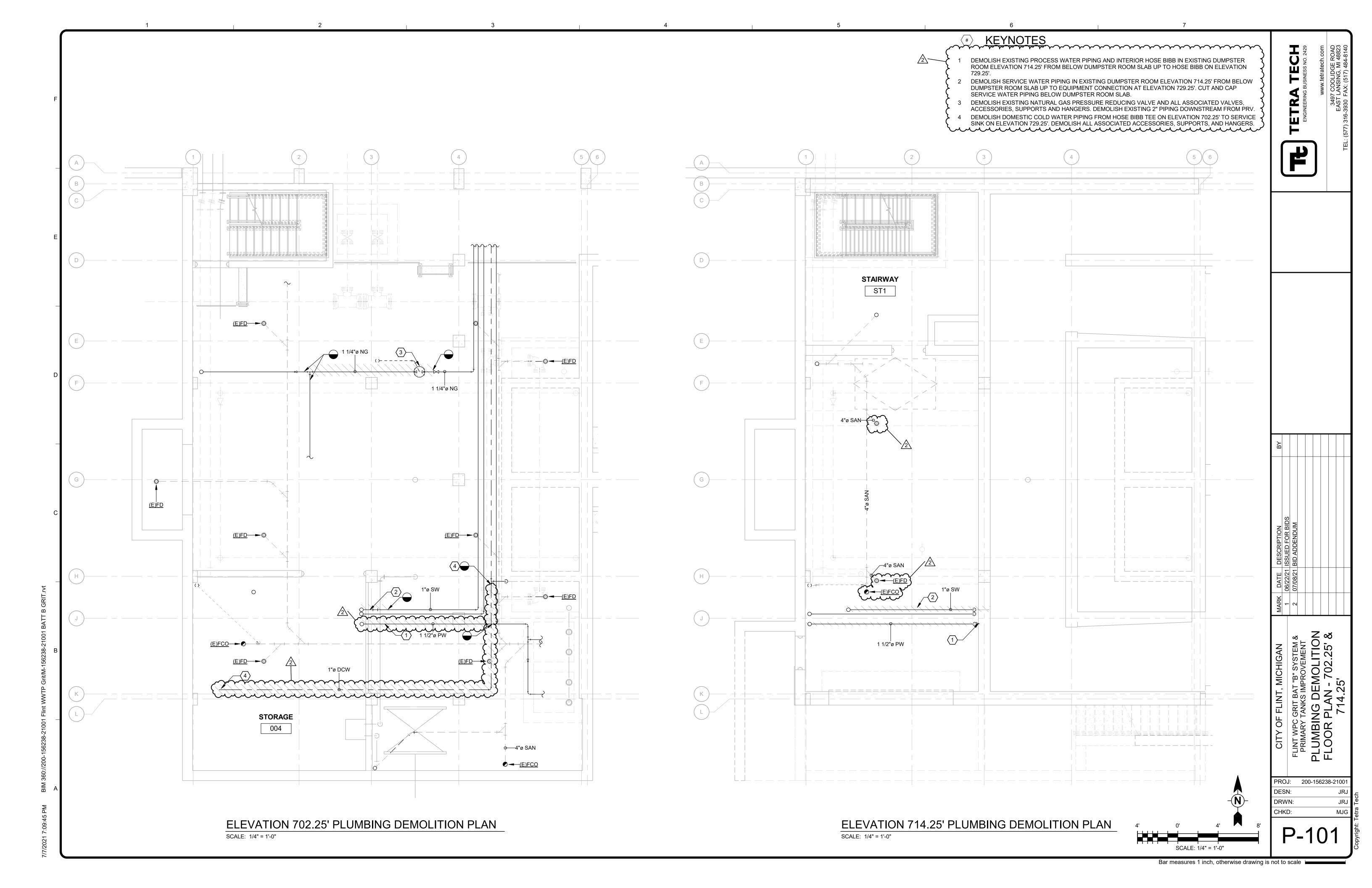
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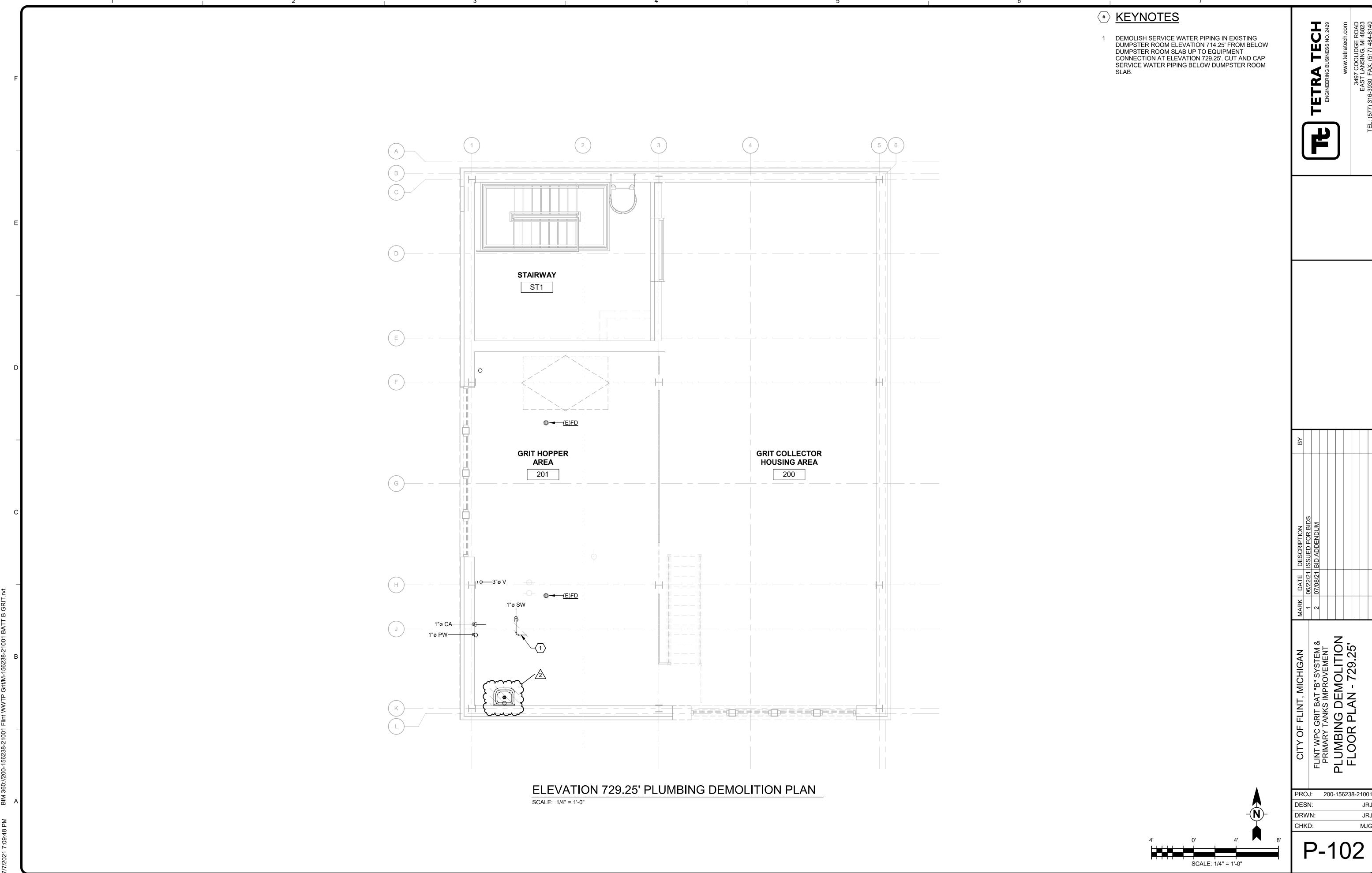
Primary Tank Improvements Flint WPC – Grit Battery B System and

Questions?

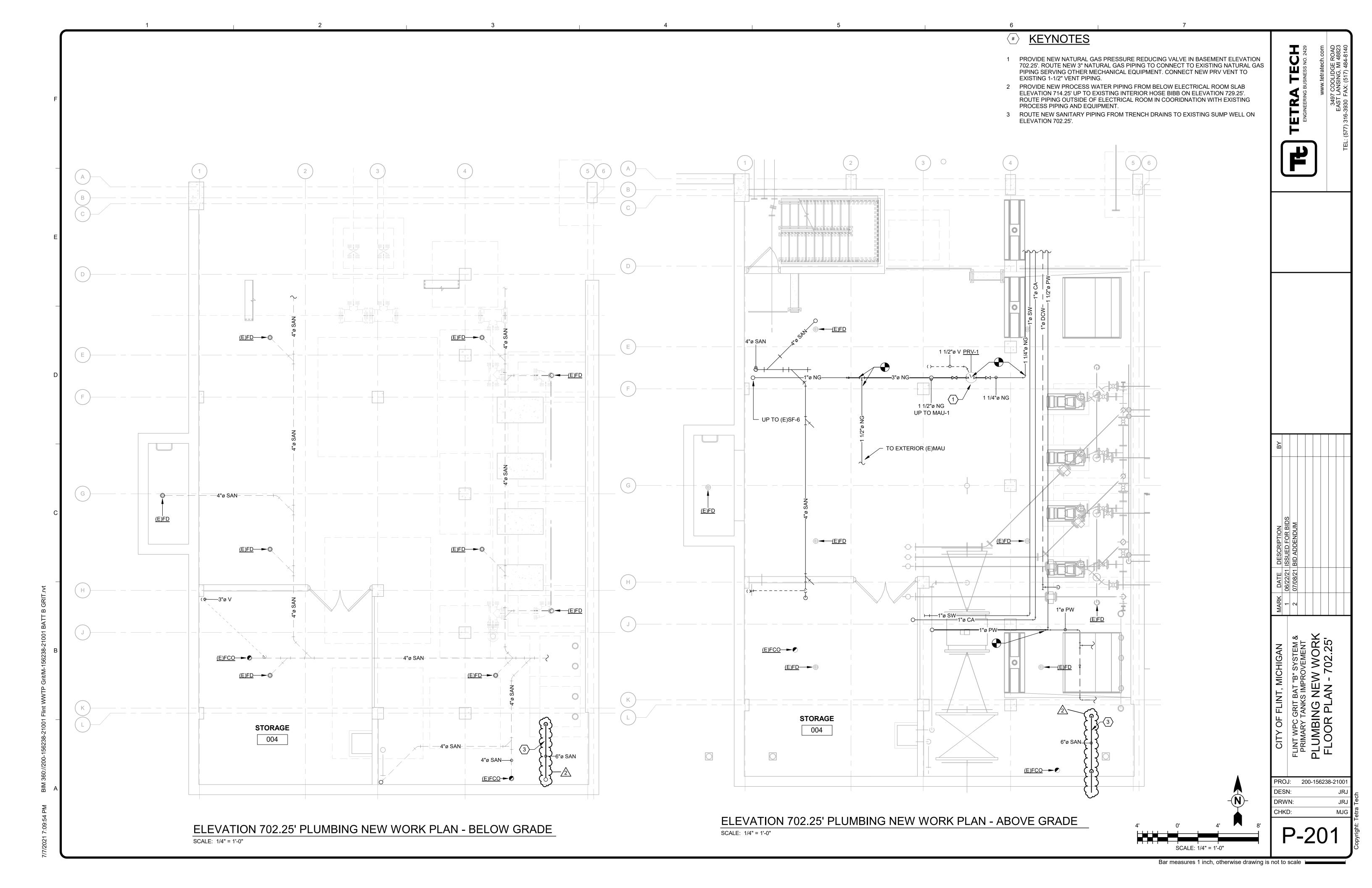
Flint WPC - Grit Battery B System and Primary Tank Improvements

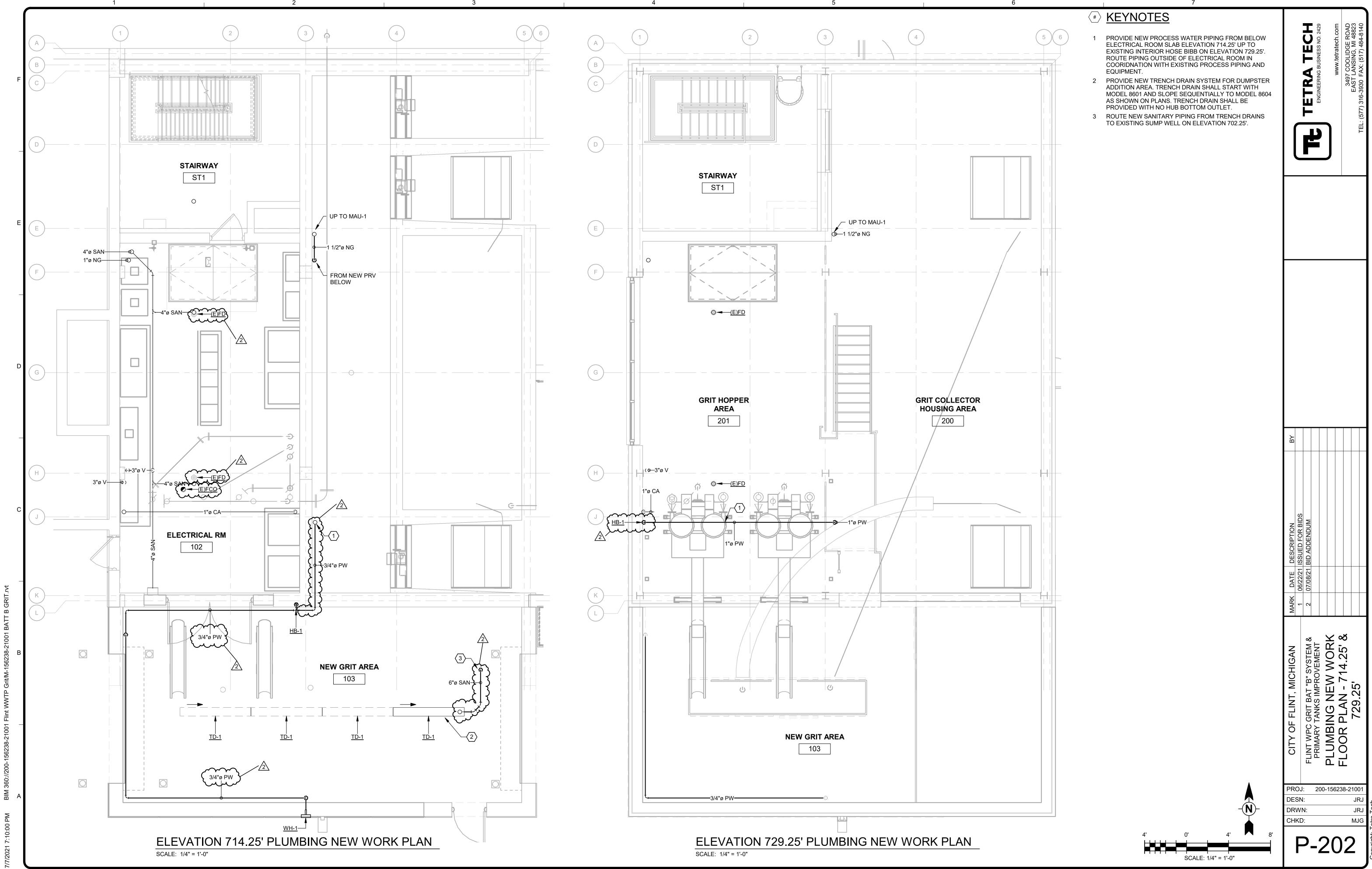
- Closing
- Pre Bid Meeting June 29, 2021
- Site Visit Dates and Times
- Thursday, July 1 at 11:00 AM, and 1:00 PM Thursday, July 8 at 9:00 AM and 11:00 AM
- Proper PPE
- Last Day to submit questions
- 10:00 AM on Monday, July 19
- Bid Date
- Thursday July 22, 2021 at 1:00 P.M.
- Good Faith Effort Worksheets





Bar measures 1 inch, otherwise drawing is not to scale





— EXISTING BLOWER SWITCHGEAR (MVUS NO.1) 5 KV, 60 KVBIL, 350 MVA RATED. NEMA 12 ENCLOSURE. 4160V, 3 PH, 3W, 60 HZ, 1200A BUS, 60 KVBIL, 50 KA RMS SYM. BRACING 4 - K2 LOCKS 3 - K2 KEYS — ⟨K2⟩— — 600A √ 600A EXISTING 5K SWITCHGEAR MVUS NO.1 IN BLOWER BUILDING - PARTIAL ONE-LINE LOCATED IN BLOWER BUILDING SEE SHEET E-003 FURNISH WARNING SIGNS AT EXISTING SWITCHES AND NEW SWITCHES INDICATING BACKFEED. TURN OFF BOTH SWITCHES, AND DE-ENERGIZE AT - EXISTING GROUND BUS MVUS NO.1 TO SERVICE EQUIPMENT. SWITCHES ARE BACKFED/FED FROM MULTIPLE POWER SOURCES (RED BACKGROUND, YELLOW LETTERS) - 5"C(3#500 KCMIL, 8 KV RATED, 1#4/0) 5"C(3#500 KCMIL, 8 KV RATED, 1#4/0) 5"C(3#500 KCMIL, 8 KV RATED, 1#4/0) PROVIDE SWITCH WITH IR WINDOWS. 5"C(3#500 KCMIL, 8 KV RATED, 1#4/0) TYPICAL OF THREE SWITCHES. INSTALL TWO NEW K2 LOCKS. MATCH EXISTING **4** - K2 LOCKS K2 LOCKS AT MVUS NO.1. 4 - K2 LOCKS, 3 - K2 KEYS. 3 - K2 KEYS PROVIDE SWITCH WITH IR NEMA 3R/4 STAINLESS STEEL PROVIDE SWITCH WITH IR WINDOWS. TYPICAL OF WINDOWS. TYPICAL OF ENCLOSURE. 5 KV, 60 KVBIL LOAD _-**K**2 INTERRUPTER SWITCH. 38 KA RMS THREE SWITCHES. THREE SWITCHES. 600A SYM. BRACING. NEMA 3R/4 STAINLESS STEEL ► NEMA 3R/4 STAINLESS STEEL ENCLOSURE. 5 KV LOAD ENCLOSURE. 5 KV LOAD INTERRUPTER SWITCH. 38 KA INTERRUPTER SWITCH. 38 KA RMS SYM. BRACING. RMS SYM. BRACING. SURGE ARRESTORS. (TYP.) SURGE ARRESTORS. (TYP.) -SURGE ARRESTORS. (TYP.) PROVIDE CPT, FUSING, PROVIDE CPT, FUSING, PROVIDE CPT, PRIMARY AND AND THERMOSTATICALLY AND THERMOSTATICALLY SECONDARY FUSING, AND CONTROLLED STRIP CONTROLLED STRIP THERMOSTATICALLY CONTROLLED HEATER. (TYP.) HEATER. (TYP.) STRIP HEATER. (TYP.) 80E **120VAC** 150E **120VAC** 5"C(3#500 KCMIL, 8 KV RATED, 1#4/0) 5"C(3#500 KCMIL, 8 KV RATED, 1#4/0) 5"C(3#500 KCMIL, 8 KV RATED, 1#4/0) 225 KVA 4160V, 3 PH, 500 KVA 4160V, 3 PH, 500 KVA 4160V, 3 PH, 60 HZ, 60 KVBIL, 60 HZ, 60 KVBIL, 480/277V, 5.75% Z 60 HZ, 60 KVBIL, 480/277V, 5.75% Z 480/277V, 5.75% Z OIL FILLED PADMOUNT TRANSFORMER. ENVIRONMENTALLY FRIENDLY FILL FLUID. (TYP. OF 3 TRANSFORMERS) -BREAKERS TO HAVE ADJUSTABLE LSI SETTINGS. BREAKERS TO HAVE ADJUSTABLE LSI SETTINGS. BREAKERS TO HAVE ADJUSTABLE LSI SETTINGS. 2-5"C(3#500 KCMIL, 1#4/0) 5"C(3#500 KCMIL, 1#4/0) BREAKER TO HAVE 85KA RMS SYM BRACING. BREAKER TO HAVE 85KA RMS SYM BRACING. BREAKER TO HAVE 85KA RMS SYM BRACING. 2-5"C(3#500 KCMIL, 1#4/0) (TYP.) FURNISH NAMETAGS INDICATING (TYP.) FURNISH NAMETAGS INDICATING (TYP.) FURNISH NAMETAGS INDICATING SECONDARY CIRCUIT BREAKER IN TRANSFORMER SECONDARY CIRCUIT BREAKER IN TRANSFORMER SECONDARY CIRCUIT BREAKER IN TRANSFORMER NEW HANDHOLE NO.1. SEE SECONDARY COMPARTMENTS. (TYP.) SECONDARY COMPARTMENTS. (TYP.) SECONDARY COMPARTMENTS. (TYP.) SITE PLAN SHEET E-003. TO NEW MCC-XP2A IN TO EXISTING MCC-7D **GRIT-A BUILDING** IN GRIT-B BUILDING EXISTING CONDUIT/WIRE TO EXISTING ►INTERCEPT EXISTING CONDUIT/WIRE. REWORK TO NEW MCC-13 IN MAINTENANCE BUILDING. SEE SHEET E-103 LOWER LEVEL PRE-CAST HANDHOLE NO.1. SPLICE EXISTING WIRES TO SEE SHEET E-103 NEW WIRES FROM NEW PADMOUNT TRANSFORMER. TO EXISTING MCC-13 MAIN BREAKER IN MAINTENANCE/VEHICLE STORAGE BUILDING DRWN: CHKD: PARTIAL POWER ONE-LINE DIAGRAM - PROPOSED WORK

NO SCALE

PROJ: 200-156238-2100