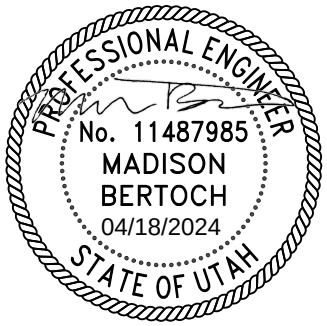
Magna Water District

Magna Water Reclamation Facility
Influent Project

Project No 181301587

Addendum 2 – April 18, 2024



Stantec
2890 East Cottonwood Parkway Suite 300
Salt Lake City, Utah 84121

ADDENDUM 2: **Magna WRF Influent Project**

Date: April 18, 2024

The following changes are made to the Magna Water Reclamation Facility Influent Project Contract Documents. Please reference any associated changes or clarifications to the Contract Documents as noted below.

SPECIFICATIONS

1. **Section 00 41 00 - Bid Forms**
    a. Replaced Page 5 Bid Schedule – Lump Sum of Section 00 41 00 – Bid Forms with the new Bid Schedule attached. Line items added for the Contractor to include the remaining balance due on the pre-procurement contracts for the Lakeside screw pump equipment and Smith & Loveless grit washing equipment.

2. **Section 33 41 04 - Centrifugally Cast FRPM Pipe**
    a. Section 33 41 04 - Centrifugally Cast FRPM Pipe added to Contract Documents. See attached.

DRAWINGS

1. **I-601**
    a. Modify drawing as shown to include PLC-100. See attached.

BID SCHEDULE - LUMP SUM

Schedule of prices for construction of Magna Water Reclamation Facility Influent Design Project in accordance with the Contract Documents.

Item	Description	
1.	Bid Prices: Bidder shall complete the Work in accordance with the Contract Documents for the Lump Sum Prices indicated below:	
	a. Balance Due on Screw Pumps (Lakeside) Pre-Procurement Contract	$ 335,191.50
	b. Balance Due on Grit Washing Equipment (Smith & Loveless) Pre-Procurement Contract	$ 414,000.00
	c. Installation of Pre-Procured Equipment (screw pumps, grit washing equipment)	$
	d. Site Work (grading, paving, landscaping, etc.)	$
	e. Earthwork (excavation and fill for new structures)	$
	f. Concrete (structures, flatwork, forming, materials, etc.)	$
	g. Mechanical (fittings, valves, pipes, equipment install, etc.)	$
	h. Electrical and I&C (panel, conduit, wire, terminations, etc.)	$
	i. Allowance Items (Section 01 95 00)	$ 400,000.00
	j. Other (mobilization, bonds/insurance, OH&P)	$
	Base Bid - Total Lump Sum (Sum items of a through j)	$

(Base Bid Amount in Words)

k. Bid Alternate A – Replacement of Existing Intermediate Pumps (Section 01 95 10)

$

Total Lump Sum Bid (Base Bid plus item k) $

SECTION 33 41 04 - CENTRIFUGALLY CAST FRPM PIPE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Requirements for manufacture of Centrifugally Cast or Filament Wound Fiberglass Reinforced Polymer Mortar (FRPM) piping for installation by Direct Buried Open-Trench (DB) construction methods.

B. Special Fittings: Special fittings shall be manufactured from pipe material.

1.2 REFERENCES

A. Section 01 33 00 – Submittal Procedures

B. ASTM D2412 – Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel Plate Testing

C. ASTM D477 – Specification for elastomeric seals (gaskets) for joining plastic pipe

D. ASTM C33 – Standard specification for concrete aggregates

E. ASTM C579 – Standard test method for compressive strength of chemical resistant mortars, grouts, monolithic surfacing and polymer concretes

1.3 DESIGN CRITERIA

A. Provide a pipe with a wall thickness determined by the manufacturer that meets the requirements of this specification with a minimum pipe stiffness of 46 psi (SN 46) according to ASTM D2412.

B. Provide pipe that is round and smooth.

1.4 SUBMITTALS

A. Submittals shall be in accordance with Section 01 33 00.

B. Submit the following:

1. Pipe specification compliance certifications.

2. Full dimensional data on the pipe.

3. Shop drawings of the joint details with full dimensions for the pipe, machined joint, and bell ring including gasket material proposed.

4. Provide gasket resistance chart and composition of gasket material. The gasket material shall not have plasticizer as an ingredient.

5. Strength calculations showing that the pipe will meet the strength requirements of the installed condition per AWWA M45 Design Manual. Review the depth of bury and axial loading from DB operations as shown on the Drawings and provide calculations showing that the strength provided will meet the strength requirement for earth loading, groundwater, with less than 5% diametrical

deflection per ASTM D3262/ISO 9001, 14001. Provide calculations signed by a Professional Engineer registered in the State of Utah.

6. Provide details and material specifications for gaskets with a statement that the material is sewage, and grease resistant.

7. Manufacturers Certified Letter stating that their pipe is guaranteed to withstand the cleaning water pressure specified in Paragraph 3.03 herein.

8. Provide manufacturer's written shipping, handling, storage, and assembly instructions.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Calculations shall be prepared by a Professional Engineer licensed by the State of Utah.

B. Pipe Segments:

1. Field assemble water tight joints in accordance with manufacturer's written procedures.

PART 2 - PRODUCTS

2.1 FIBERGLASS OPEN-CUT PIPE

A. Materials:

1. Wall Resin Systems: Polyester resin system with a proven history of performance for CCFRPM piping systems.

2. Liner Resin Systems: Flexiblized polyester liner with a nominal 0.040-inch (1 mm) thickness and minimum elongation of 50% when tested in accordance with ASTM D638.

3. Glass Reinforcement: glass fibers of commercial E-glass filaments with binder and sizing compatible with impregnating resins.

4. Silica Sand: minimum 98 percent silica with a maximum moisture content of 0.2 percent.

5. Additives: resin additives including curing agents, pigments, dyes, fillers, thixotropic agents shall not detrimentally affect the performance of the pipe.

6. Elastomeric Gaskets: gaskets shall be EPDM supplied by a qualified gasket manufacturer and shall be oil and grease resistant suitable for sewage service.

B. Dimensions:

1. Outside Diameter: Outside diameter shall be in accordance with ASTM D3262 or ISO 9001, 14001.

2. Nominal Inside Diameters (ID): shall be not less than 24 inches.

3. Length: Pipe for open-cut shall be supplied in length meeting the contractor installation methods but not greater than 20 feet in length.

4. Wall Thickness: Provide wall thicknesses sufficient to meet the Pipe Stiffness required for overburden conditions.

C. End Squareness: Square to plus or minus 1/8-inch (3.5 mm) tolerance.

D. Strain Corrosion Testing Data: Not required for this project.

E. Manufacture:

1. Process: Manufactured in accordance with ASTM D3262 and ISO 10467.

2. Joints:

a. Open-cut Pipe Couplings: A double belled coupling manufactured from CCFRPM. The elastomeric sealing gaskets made of EPDM rubber meeting the requirements of ASTM D4161/ISO 9001, 14001 for sanitary sewer service shall be placed in the bell or the spigot of the pipe, where coupling bridges over to provide a complete watertight seal with minimum 25 psi internal pressure.

b. Fittings: Mold or fabricate fittings from pipe joined with glass-fiber-reinforced overlays to meet the fitting requirements.

3. Only manufacturers with 10 years of proven history in supplying CCFRPM pipes in 54” or larger per ASTM D3262/ISO 9001, 14001 are acceptable. A certified letter shall be provided by the pipe manufacturer stating that the pipe to be supplied is guaranteed for use as a open-cut pipe and meets the loading requirements for the project based on the information in the Geotechnical Report.

4. Acceptable manufacturers

a. Hobas Pipe

b. Flowtite Pipe

c. Or Approved equal

PART 2 - EXECUTION

3.1 INSTALLATION OF PIPING BY OPEN-CUT METHODS

A. Install the pipe into the ground by open-cut, per manufacture’s published instructions. Interior of installed pipe shall be smooth without gouges and free of obstructions.

3.2 PIPELINE LINING REPAIR

B. During installation of piping, damage to the interior lining sometimes occurs. Repair this damage in accordance with the manufacturer’s published instructions.

1. Pipe Scratches: Scratches that do not penetrate the surface resin coating shall be repaired by cleaning the scratched area, drying the cleaned area, then applying a coat of resin thickened with mill fiber.

2. Pipe Gouges: Gouges that penetrate the interior resin veil shall be repaired by cleaning the gouge area, drying the cleaned area, applying a one layer of fiberglass patch, and then over coating the patched area with a coat of resin thickened with mill fiber.

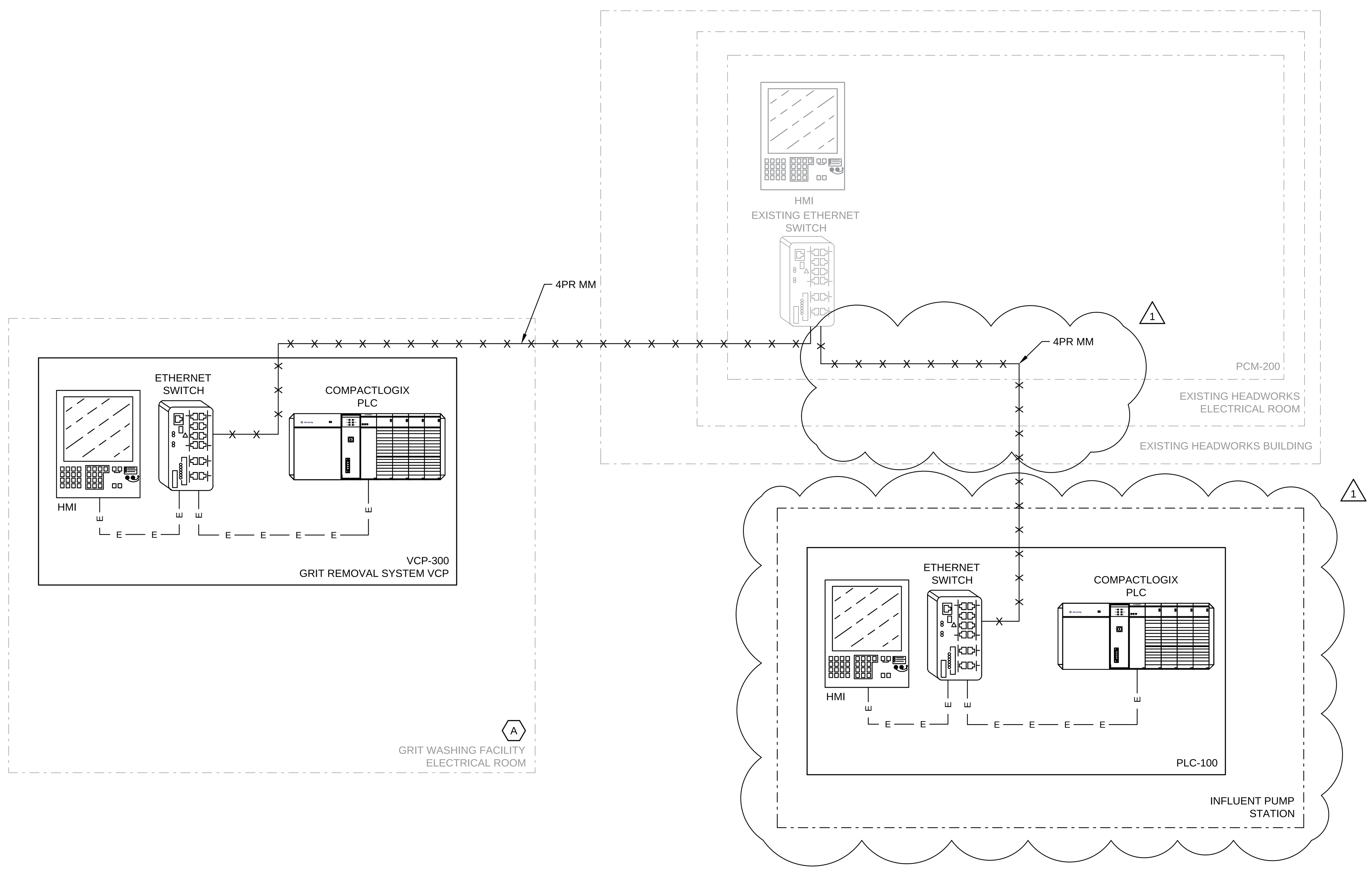
3.3 PIPELINE CLEANING

A. The pipe manufacturer shall certify that their pipe is capable and guaranteed to withstand pressure cleaning methods by pulling a cleaning skid nonstop through section to be cleaned. The pipe shall withstand a cleaning pressure of not less than 2,000 PSI at the pump gauge from the water pressure nozzles of the cleaning skid.

END OF SECTION

SHEET KEYNOTES

A. EXISTING GRIT VCP 240 TO BE DEMOLISHED. RETURN ANY NETWORK EQUIPMENT TO THE OWNER.



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Consultant

1	ADDENDUM	EB	MB	2024.04.18
Revision		By	Appd	YYYY.MM.DD

0	CONSTRUCTION SET	MB	JCR	2024.03.18
Issued		By	Appd	YYYY.MM.DD

Permit/Seal

Client/Project
MAGNA WATER DISTRICT

MAGNA WATER RECLAMATION FACILITY "INFLUENT DESIGN PROJECT"
Magna, UT

Project No.: 181301587
File Name: I-601
Scale: NO SCALE

EB	BH	SL	2024.03.18
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
CONTROL SYSTEM NETWORK ARCHITECTURE

Revision: Sheet: 84 of 160
Drawing No.
I-601

ORIGINAL SHEET - ANSI D