



Department of Management Services
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ADDENDUM #4
September 21, 2020

TO: ALL Prospective Bidders
PROJECT: Contract 75 A.2-Tertiary Process Equipment:
Perforated Plate Screen
BID REFERENCE #: 89000-002.0
BID OPENING DATE/TIME: September 29, 2020 at 3:30 p.m. Local Time

The purpose of this addendum is to clarify and/or modify the Drawings and/or Specifications for this project. All work affected is subject to all applicable terms and conditions of the Bidding and Contract Documents.

- 1. REPLACE Invitation for Bid (IFB) ATTACHMENT B - DRAWINGS/PLANS – SHEET NO. IFB-S-H1 and SHEET NO. IFB-S-PE2 with the attached REVISED SHEET NO. IFB-S-H1 and REVISED SHEET NO. IFB-S-PE2 (Attachment A)**
- 2. REVISIONS & CLARIFICATIONS: The following changes to the Bid Document should be made, and clarifications considered, when submitting bids for this project:**

A) Clarification Invitation for Bid (IFB) Attachment A – Technical Specifications

The spec calls out construction in both 316SS and 304SS. We believe they want all 304 sst construction. This is how the spec breaks down:

316SS: We are assuming these are meant to be 304 sst

2.02.A.8 - Fabricated metal, unless otherwise stated

2.03.C.1.d - Screen side plates

304SS:

2.02.A.7 – Flanges

2.02.C.1.d – Controls enclosures

2.03.C.2.3.b - Chain

2.03.C.2.3.c – Sprockets & drive shaft

2.03.C.2.3.e – Chain guide tracks

2.03.C.7.b – Discharge chute

2.03.C.8.a – Covers

2.03.C.9.a.2.i – level sensor mounting brackets

The materials of construction shall be as stated within the specifications

B) ADD IFB Attachment A – Technical Specifications 1.02(C)(6)

“f. Offloading Requirements”

C) REPLACE IFB Attachment A – Technical Specifications 1.03(A)(2)(d) in its entirety with:

“Delivery to Site – Equipment shall be delivered on site, to the location specified by the Owner, and shall be in accordance with the approved Shop Drawings, including but not limited to, correct quantities, dimensions, and materials. Items shall be wrapped and protected from damage during shipping. Items shall be capable of offloading and site transport via a forklift without the requirement for rigging. Vendor shall submit offloading forklift requirements to the Owner prior to shipping. Any offloading delay costs incurred due to incomplete and/or inaccurate offloading requirements shall be paid for by the Vendor. Shipping documents shall be submitted to and accepted by Owner prior to payment.”

D) REPLACE IFB Attachment A – Technical Specifications 2.02(B)(9) in its entirety with:

“All motors shall be in use with a Variable Frequency Drive (VFD), unless otherwise noted. VFD shall be used in place of the function of a motor starter. All VFD’s shall be identical. Allen-Bradley PowerFlex family 750 series low voltage drives; PowerFlex 753 AC Drive.”

E) REPLACE IFB Attachment A – Technical Specifications 2.02(B)(11)(a) in its entirety with:

“Thermal protection devices shall be embedded within the motor windings terminated at the PTC input on the VFD. A signal shall also connect to the Equipment’s PLC for monitoring, reporting, and trending of changes in PTC circuit resistance.”

F) Clarification IFB Attachment A – Technical Specifications 2.02(C)

Is the intermediate 110v power panel required? It is not shown on IFB-S-E1. The 24v power supply could be located in the main power panel to power the 24v control panel. A divider could be provided in the main power panel to separate the high voltage and the low voltage.

The technical specification requires Qty (3) control panels: Main Power Panel (480VAC), Intermediate Power Panel (120VAC), and the Equipment PLC/OIT control panel (24VDC) (and a separate E-Stop local control station). Drawings IFB-S-E1 and IFB-S-I01 only show two control panels: 480VAC and the 24VDC. Please confirm the 120VAC and 24VDC control panel can be combined to a common control panel.

Each Equipment Item shall be supplied with an adequate quantity of Industrial Control Panels (enclosures) such that each power type (AC or DC) and voltage (480V, 120V, 24V, etc.) is housed within its own enclosure. Housing each current type, voltage, and phase within its own enclosure allows for troubleshooting and maintenance within the enclosure while requiring the minimal PPE to safely be exposed to the current type, voltage, and phase within the enclosure, ie. ArcFlash PPE. Housing all electrical components of differing current, voltage and phasing within a single enclosure is not acceptable.

The circuits within an enclosure shall be designed such that the maximum Available Fault Current (AFC) within the enclosure is less than the Short Circuit Current Rating (SCCR) for the enclosure.

PLC Programming shall be used in place of relays whenever possible.

G) Clarification IFB Attachment A – Technical Specifications 2.02(C)

We have been informed by the VEGA representative that the VegaPULS WL61 has been discontinued. While it is still available, they do not know for how much longer. They have recommended the VEGAPILS 31 as a replacement to the WL61. Is this acceptable?

So long as available at time of product shipment, the specified unit is requested to be supplied.

H) ADD IFB Attachment A – Technical Specifications 2.02(C)(1)

“t. All terminations shall be finger-safe.”

I) DELETE IFB Attachment A – Technical Specifications 2.02(C)(3)(c) in its entirety

J) REPLACE IFB Attachment A – Technical Specifications 2.02(C)(4)(b) in its entirety with:

“Laptop power outlet with ethernet port shall be Hubbell PR4X205EB, Panduit DAP4BC-G0-4 with Panduit DAP-5AMP-KIT, or Owner approved equal.”

K) REPLACE IFB Attachment A – Technical Specifications 2.03(A)(7) in its entirety with:

“Screen General Design Information, these values may change upon final process design utilizing Equipment Manufacturer’s product which meets the specifications herein:

<i>System Criteria</i>	<i>Value or Description</i>
<i>Channel Width:</i>	<i>36 inches</i>
<i>Screen Panel Perforation Diameter:</i>	<i>2 mm</i>
<i>Screen Inclination:</i>	<i>30 degrees or 30/70° multi-angle design</i>
<i>Top of Channel Elevation:</i>	<i>765.00 ft</i>
<i>Screenings Discharge Elevation:</i>	<i>772.00 ft</i>
<i>Spray Water Flow, Pressure, minimum:</i>	<i>15 GPM @ 45 psi</i>
<i>Filter Panel Speed:</i>	<i>7 to 23 fpm</i>
<i>”</i>	

L) REPLACE IFB Attachment A – Technical Specifications 2.03(B) in its entirety with:

“Performance Requirements

<i>Parameter</i>	<i>Unit</i>	<i>Value</i>
<i>Rated Peak Flow per Screen*:</i>	<i>GPM</i>	<i>1,400</i>
<i>Downstream Liquid Level at Peak Flow:</i>	<i>feet</i>	<i>0.86</i>
<i>Maximum Head Loss At Peak Flow:</i>		
<i>Clean Screen:</i>	<i>inches</i>	<i>30.0</i>
<i>30% Blinding</i>	<i>inches</i>	<i>42.0</i>
<i>Minimum Screen Capture Rate (SCR):</i>	<i>%</i>	<i>85</i>
<i>Maximum upstream water level</i>	<i>ft</i>	<i>757.50</i>

Elevation of bottom of screen shall be set to suit hydraulics.

**Screen will see a higher peak flow than 1,400 gpm. An upstream overflow is provided to divert excess flow around the screen.
 ”*

M) REPLACE IFB Attachment A – Technical Specifications 5.01(B) in its entirety with:

“The model shall be provided in a format which is importable into Autodesk software at a scale dictated by the Owner.”

The Addendum can be viewed and downloaded from the City’s website at <https://www.kalamazoocity.org/bidopportunities>.

In order for a bid to be responsive, this signed addendum must be returned with your bid. If you have already submitted your bid, acknowledge receipt and acceptance of this addendum by signing in the place provided and returning it to the undersigned and it shall be incorporated in your bid. Please identify your return envelope with the bid reference number and project description.

Sincerely,



Michelle Emig
Purchasing Division Manager

c: Ryan Stoughton, Public Services

FIRM: _____ SIGNED: _____

NAME: _____ DATE: _____

(Type or Print)



ADDENDUM #4

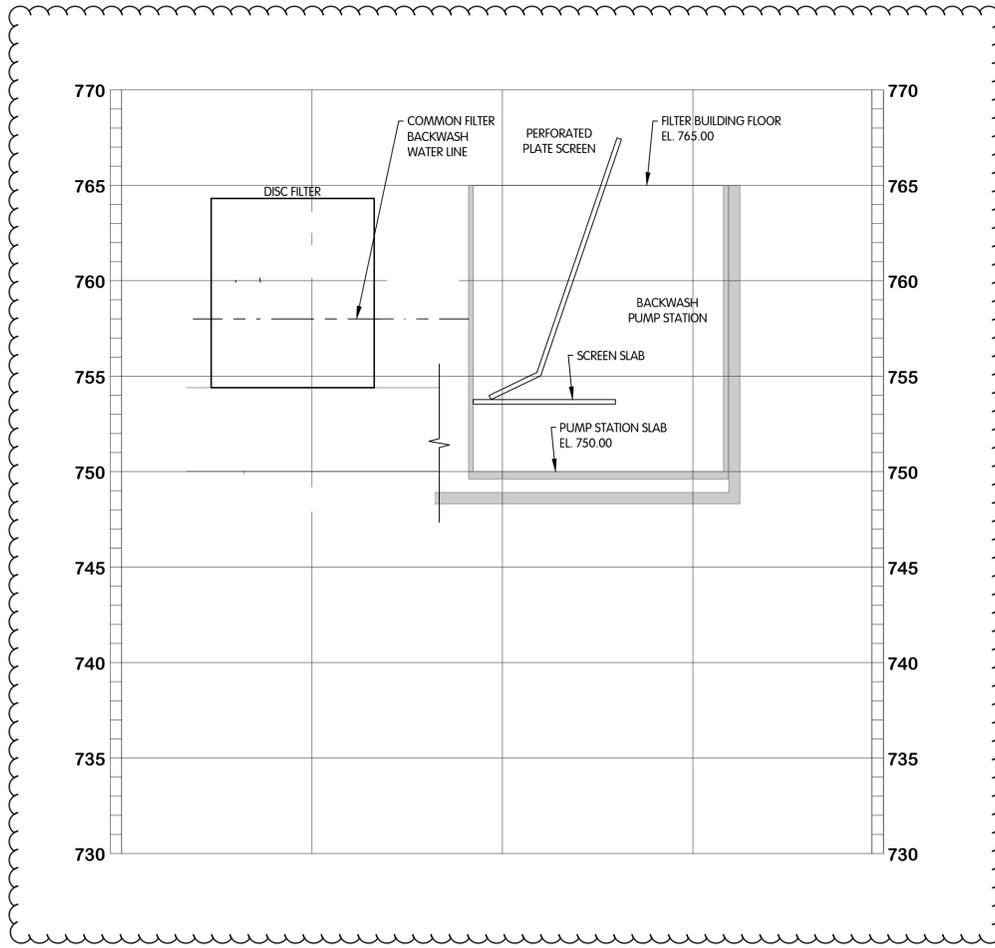
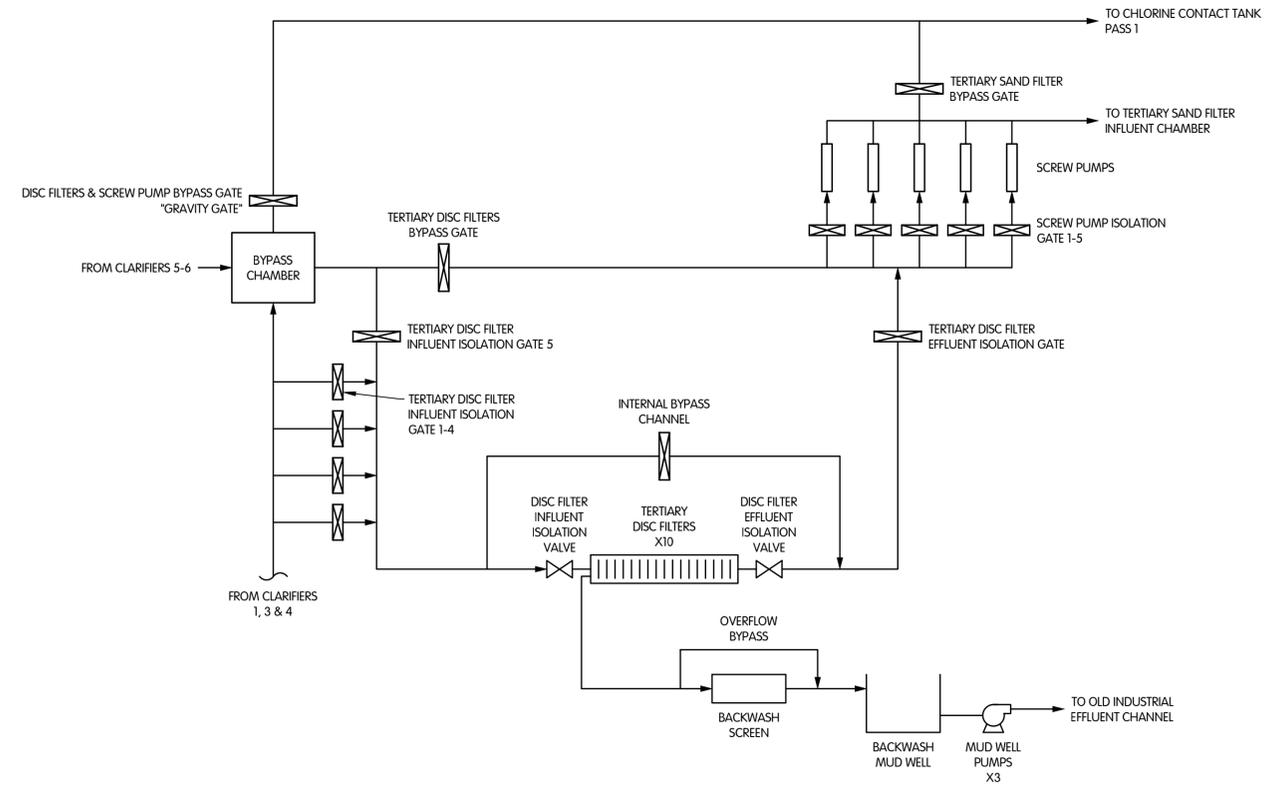
ATTACHMENT A

REVISED SHEET NO. IFB-S-H1
REVISED SHEET NO. IFB-S-PE2

**CONTRACT 75 A.2-TERTIARY PROCESS
EQUIPMENT: PERFORATED PLATE
SCREEN**

Bid Reference #: 89000-002.0

REVISED



TOL-7593001_IFB-S-H1-HYDRAULIC PROFILE
 5/21/2019 8:26 AM - RWURLEY
 11:00 AM - RWURLEY
 11:00 AM - RWURLEY



PERFORATED PLATE SCREEN INFORMATION FOR BID
 PROCESS FLOW DIAGRAM AND HYDRAULIC PROFILE
 TERTIARY TREATMENT PROCESS UPGRADE - KALAMAZOO, MICHIGAN
 CONTRACT 75

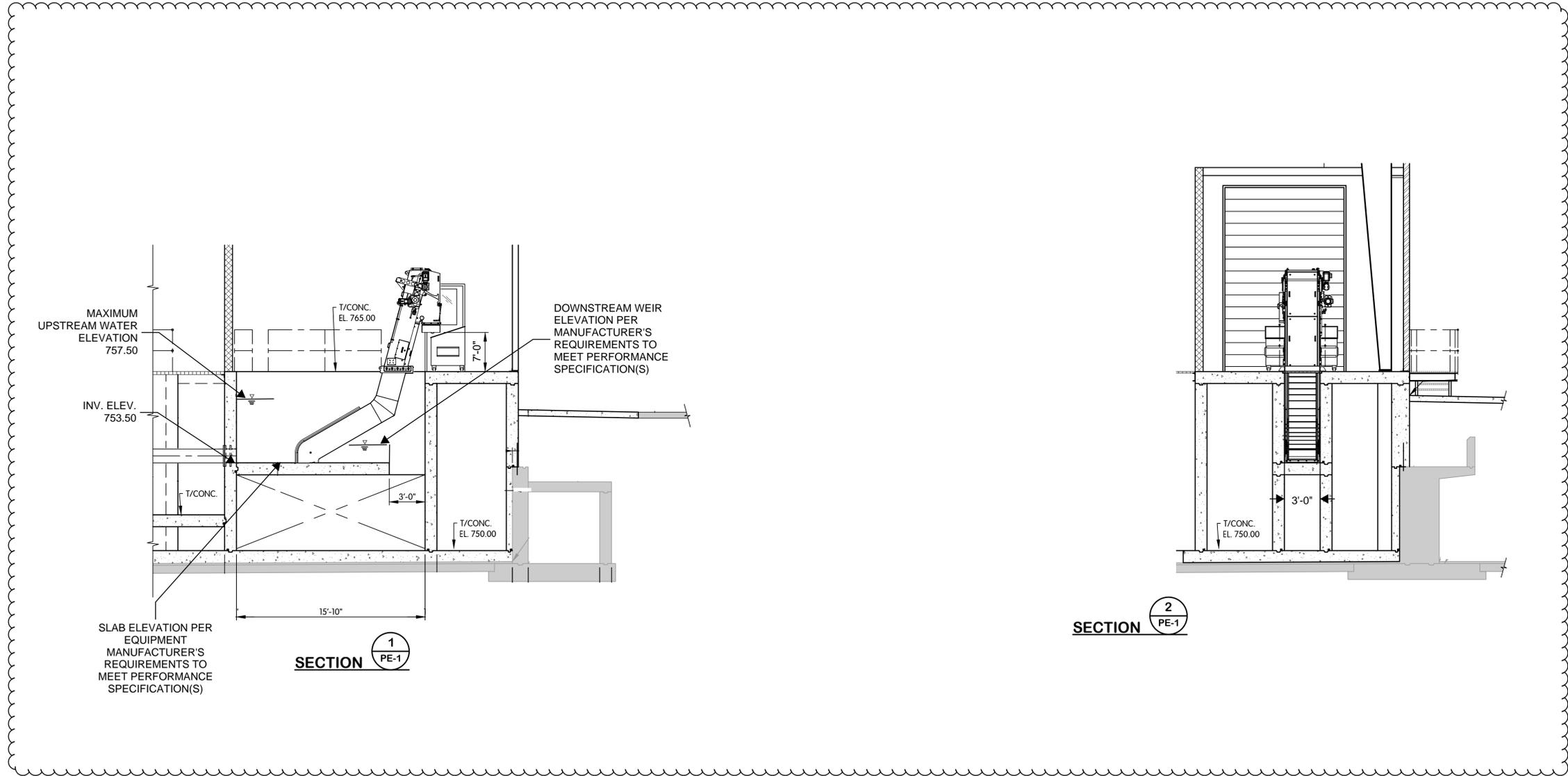
Jones & Henry
 Engineers, Ltd.

 Fluid thinking.[®]
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JOB NO.	017-7593.001	
SCALE	NONE	
DESIGNED	DRAWN	CHECKED
PEF	RGW	PEF
STATUS	PRELIMINARY	
DATE	NOVEMBER 2019	

SHEET NO.
IFB-S-H1
 1 of 6

REVISED



PERFORATED PLATE SCREEN INFORMATION FOR BID
 FINAL SETTLING TANK 2
 PIPING AND EQUIPMENT
 SECTIONS

TERTIARY TREATMENT PROCESS UPGRADE - KALAMAZOO, MICHIGAN
 CONTRACT 75

REVISIONS AFTER ISSUED FOR BID
 NO. DATE BY

Jones & Henry
 Engineers, Ltd.



Fluid thinking®
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JOB NO. 017-7893.001

SCALE NOT TO SCALE

DESIGNED PEF DRAWN RGW CHECKED PEF

STATUS: PRELIMINARY

DATE: NOVEMBER 2019

SHEET NO.
 IFB-S-PE2

3 OF 6

TOL-7893001_IFB-S-PE1-SECTION
 5/20/2020 9:00 AM - RWORLEY
 PLOT SCALE: 1/8"=1'-0"
 REFERENCE FILES:
 T:\7893001\DWG