

April 28, 2025

**Watertown Wastewater Treatment Facility, 800 Hoffman Road,  
Watertown, Wisconsin 53094.**

Attention: **City of Watertown and Applied Technologies, Inc.**

**Re: PURCHASE OF ULTRA-VIOLET DISINFECTION SYSTEM CITY OF WATERTOWN, WI**

Dear Sir/Madam,

We would like to thank you for the opportunity to provide a proposal for the Ultraviolet (UV) Disinfection System for the Watertown Wastewater Treatment Facility. The enclosed documents are based on the TrojanUVSigna™ System low-pressure high-intensity staggered inclined UV system. The proposed design consists of one (1) channels each with four (4) duty banks of UV lamps. Each bank will contain eighteen (18) lamps arranged in two (2) rows. With a total of seventy two (72) duty lamps. **When using the same dose the Signa™ system offers the lowest number of lamps (close to half of our competitors) with equivalent lower energy consumption.** Trojan used our 3<sup>rd</sup> party validated Fouling Factor of 0.94 to allow for the most efficient design possible to meet the dose requirements of the bid, and we used our 3<sup>rd</sup> party validated EOLL of 0.86.

During our >40 year history, Trojan has led the world's innovations in UV: from the introduction of the first large-scale medium-pressure lamp UV system to the commercialization of electronic ballasts and automated cleaning systems. This leadership is evidenced by the development of a high-efficiency UV reactor for the world's largest UV installation: the Catskill-Delaware Water Treatment Plant in New York City, New York, USA. These innovations along with our environmental stewardship are reasons why Trojan was awarded the 2009 Stockholm Water Prize – the industry's most prestigious award for water technology innovation and leadership. Our track record for successfully delivering large, technically-challenging projects sets Trojan apart.

I would like to take this opportunity to outline the key features that differentiate the proposed Signa™ system over other UV systems:

- Reactor and Lamp Orientation – the lamp orientation of the Signa™ system is a unique staggered, inclined array. This orientation was selected because it combines the best benefits of both horizontal and vertical lamp UV systems.
  - Like a horizontal system, it offers high disinfection performance, hydraulic benefits and is effective over a wide range of water quality. Like a vertical system, it offers maintenance benefits (e.g. easy lamp replacement).
  - The inclined arrangement overcomes the drawbacks of vertical system such as stress on quartz sleeves and debris collecting on the lamp arc length.
  - The inclined lamp position has additional benefits (over vertical systems) in that modules are more stable, less prone to vibration and are easier to remove from the channel.
  - The lamp pattern was developed specifically to maximize the reactor performance with the high powered 1,000 watt Solo Lamp™.

- The Solo Lamp™ utilized in the Signa™ system is the most powerful high efficiency low pressure high output lamp in the world. This results in the lowest lamp count which results in smaller equipment footprint as well as fewer lamps to maintain and replace.
- The Signa system incorporates a closed vessel reactor design, which means that the effluent through the reactor is controlled on all four sides (i.e. bottom, sides, and top). This design approach ensures the following reactor performance and benefits:
  - No possible short circuiting through the reactor as the entire reactor is fabricated in a controlled factory environment. Water level variations do not affect the reactor performance as it does with traditional open channel systems.
  - Water levels in the channel can fluctuate by up to 12", thereby eliminating the need to tightly regulate the water levels variation. The top of the reactor incorporates a proprietary light lock design which directs all flow through the reactor area. This design feature also provides a parking position outside of the lamp arc for the sleeve wipers when they are not in operation.
  - Lamp arc always remains submerged in the effluent. This ensures that no water to air interface is experience as typically are with vertical or inclined open channel systems. Over time the air/water interface of the lamp sleeve develops an excessive amount of fouling due to the water level fluctuation zone and over time becomes extremely difficult to remove even with strong cleaning chemicals. This fouling area then provides a possible short circuit path for the effluent due to increased fouling which then results in poor reactor performance as well as possible disinfection issues.
  - Channel floor and wall construction by the contractor are not critical since the entire reactor is factory fabricated. This means that the contractor does not need to maintain close tolerances for the channel construction as the channel floor and wall construction have no impact on the performance of the reactor.
- The Solo Lamp™ has been independently validated according to NWRI protocol to show 14% degradation over its guaranteed lifetime of an industry leading 18,000 operating hours.
- A fully automatic chemical/mechanical cleaning system (ActiClean™) is provided to maintain the quartz sleeve cleanliness. This fully automated sleeve cleaning system minimizes power consumption as well as greatly reduces operator involvement for sleeve cleaning. This feature significantly reduces the plants operating and maintenance costs (both labor and materials) as well as ensures consistent UV dose deliver as well as consistent disinfection results. The fully automatic wiper system is powered by a proven magnetically coupled drive system which results in no gears or drive screws submerged in the effluent. We have used this patented drive system in wide range of our products (WW & DW) for over 20 years, and it has proven to be an extremely reliable, effective, and low maintenance feature.
- The Solo Lamp™ is powered by a lamp driver located in a separate electrical panel. Because of the staggered orientation of the lamps, a single lamp can be changed while disinfection performance is maintained thus eliminating down time. The lamp driver is state of the art, fully digital and carries an industry best 10 year warranty.
- An integral lifting device for each UV bank means there is no need for overhead cranes. This integral lifting device provides safe, easy, and quick access to the entire UV reactor as the complete reactor including frame structure is lifted from the channel by the push of a button. The lifting system does not contain any parts such as gears or tracks submerged in the effluent.

- UV modules are rated 6P and are designed to tolerate temporary submergence and flood conditions.

The design and support of the proposed TrojanUVSigna™ system is provided by Trojan Technologies, a world leader in UV based disinfection technologies. Purchasing a UV system from Trojan Technologies offers the following advantages:

- The largest installed base of municipal systems in the world with over 12,000 municipal systems operating worldwide.
- Used lamp recycling at an EPA approved lamp recycling facility. This service is provide to the City free of charge for the life of the system
- A simple disinfection performance guarantee is provided, at no extra cost, and is valid for the life of the System.
- Also included in our support package is a 1-800 number with qualified Technicians available 24-hours / 7 days a week for plant support as well as a network of over 60 factory-trained and certified technicians located throughout North America.

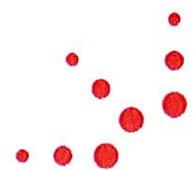
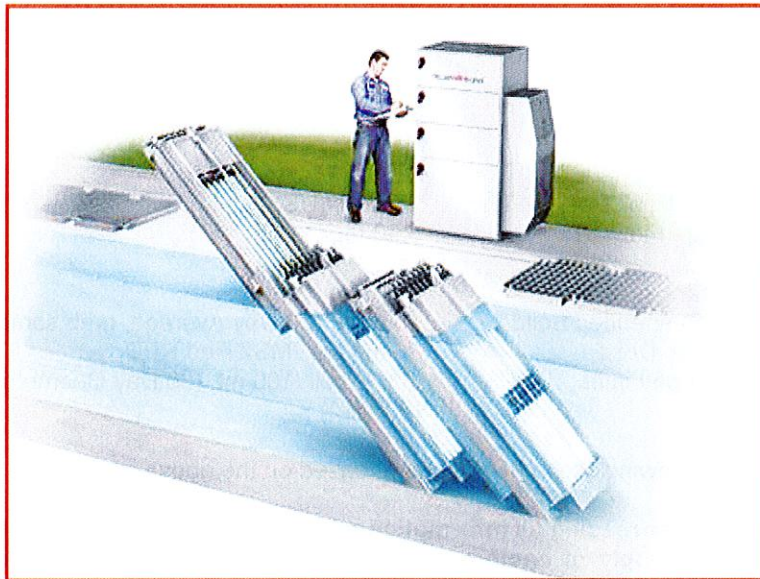
We would like to thank the The City of Watertown as well as Applied Technologies for the opportunity to submit our proposal for this important project. If you have any questions or require any additional information, please do not hesitate to contact our local representative Rick Knoelke with Mulcahy Shaw (414) 640-3411 or myself at (519) 457-3400.

Best regards,



Rob Jansen  
Regional Manager  
Trojan Technologies

## SCOPE OF SUPPLY





**SCOPE OF SUPPLY FOR WATERTOWN REPLACEMENT  
ULTRAVIOLET DISINFECTION EQUIPMENT – TROJANUVS<sup>TM</sup>**

**Prepared for:** All Bidding Contractors

**Specification Section:** 01 43 33 & 46 66 53

**Addendum:** 01

**Trojan Quote:** 229793

**Design Criteria:**

Current Peak Design Flow:	27 MGD(US)
Average Flow:	5.20 MGD(US)
UV Transmission:	65% minimum
Total Suspended Solids:	15 mg/L (30 Day Average, grab sample)
Minimum Dose:	30 mJ/cm <sup>2</sup> MS2 Red <b>RED</b>
Discharge Limit:	126 E.coli /100 mL (30 Day Geometric Mean, 410 Ecoli (90%ile))

We are pleased to submit the following scope of equipment based on the above criteria.

The purchaser is responsible for reading all information contained in this Supply Contract. Trojan will not be held accountable for the supply of equipment not specifically detailed in this document. Detailed installation instructions are provided with the shop drawings and are available earlier upon request. Changes to this Scope of Supply that affect selling price will be handled through a change order.

**Please refer inquiries to Trojan Manufacturer's Representative:**

Representative: Alex Ellis (Mulcahy Shaw) or Rich Knoelke

Phone: (414) 255 - 4463

Email: [aellis@mulcahyshaw.com](mailto:aellis@mulcahyshaw.com)

This proposal has been respectfully submitted by,  
**Trojan Technologies**

Rob Jansen  
Regional Sales Manager

## **GENERAL CONFIGURATION**

The TrojanUVSigna equipment described in this Scope of Supply consists of equipment for 1 channels with 4 duty and 0 redundant UV banks in each channel.

Unless otherwise indicated in this proposal all anchor bolts, conduit, conductors, local disconnects and transformers (if required) are the responsibility of the Installation Contractor and are not included in Trojan's Scope of Supply. Specific cable types listed below are for reference only. Selecting cables that are appropriate for the installation environmental conditions and in compliance with local code is the responsibility of the Installation Contractor.

Site to provide approved (engineered) anchor points for personnel to use as part of their fall restraint system around open channels. The anchor points must be positioned so that the preferred retractable lifeline of 8 ft (2.4 m) is of sufficient length to access the work at the channel. Refer to local safety regulation.

## **UV BANKS**

### ***Trojan's Responsibility:***

Each bank supplied will consist of TrojanUV Solo Lamps™, quartz sleeves, supporting structures, ActiClean™ chemical/mechanical cleaning system and an automatic bank lifting mechanism. UV lamps are powered from an individual electric feed from a lamp driver located in a Power Distribution Center (PDC).

<b>Model and Make:</b>	TrojanUVSigna™
<b>Quantity:</b>	4 UV Banks / Channel
	Each bank will be supplied with 18 UV lamps and quartz sleeves, one (1) UV intensity sensor, one (1) ActiClean chemical-mechanical wiping system and one (1) automatic bank lifting mechanism
<b>Rating:</b>	Type 6P / IP68 (lamp sleeve assemblies)
<b>Bank Frame:</b>	One (1) frame with included hardware is provided for up to two (2) banks
<b>Lamp Cables Length:</b> <i>available routing distance)</i>	Lamp Cable Length 30m (98') <i>(refer to Trojan layout drawing for</i>
<b>Approximate Weight:</b>	18 Lamp - 570 lbs

### ***Installation Contractor's Responsibility:***

The Installation Contractor shall install, align, secure, and seal (grout) each UV bank frame in the channel per the instructions provided. The Installation Contractor shall provide solid grating downstream of the UV bank to block out UV light. Please refer to the supplied Trojan-supplied drawings for details.

## **SYSTEM CONTROL CENTER**

### ***Trojan's Responsibility:***

A System Control Center (SCC) shall be supplied to monitor and control the UV disinfection System. Trojan will provide a PLC I/O and soft address map to aid the Installation Contractor with integration of the UV PLC and SCADA system. The UV SCC shall consist of the following:

<b>Quantity Supplied:</b>	1 SCC
<b>Location:</b>	PLC Wall Mount
<b>Controller Type:</b>	CompactLogix
<b>Operator Interface:</b>	SCC HMI Beijer -12" (Outdoor 4X Rated)
<b>Material / Rating:</b>	Painted Mild Steel (Type 12)
<b>Approximate Weight:</b>	200 lbs - Wall mount
<b>SCADA:</b>	EtherNet/IP
<b>Surge Protection:</b>	TVSS
<b>Panel UPS:</b>	15 min via 24VDC

***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for mounting the SCC as indicated on the drawings. Unless otherwise indicated, the Installation Contractor is also responsible for the supply, installation and connection of the following at the SCC:

1. One (1) 110-240V, 50/60 Hz, 1 Phase, 2 Wire + GND, 1.5 kVA (minimum)
2. One (1) bond link to plant ground, in accordance with applicable codes and standards
3. One (1) Modbus communication link per UV channel, Belden 3106A (or equivalent), to PDC(s) and HSC(s) (daisy chained)
4. One (1) Cat6 Ethernet communication link to SCADA
5. One (1) 4-20 mA analog shielded twisted pair from plant flow meter
6. One (1) 4-20 mA analog shielded twisted pair from online UV Transmittance monitor
7. Control signal conductors (as required by actuator) for control of inlet gate
8. One (1) discrete, 2 conductors, 20 gauge minimum, open command to weir gate
9. One (1) discrete, 2 conductors, 20 gauge minimum, close command to weir gate
10. One (1) discrete, 2 conductors, 20 gauge minimum, remote mode indication from weir gate
11. One (1) 4-20 mA analog shielded twisted pair, 20 gauge minimum, gate position indication from weir gate
12. One (1) 24V DC, 2 conductors + GND, power to the Level Sensor Monitor (if applicable)
13. One (1) 4-20 mA analog shielded twisted pair from the Level Sensor Monitor

**POWER DISTRIBUTION CENTER(S)**

***Trojan's Responsibility:***

The Power Distribution Center (PDC) distributes power to the UV lamps and shall consist of the following:

<b>Quantity Supplied:</b>	2 PDC(s)
<b>Method of Cooling:</b>	Forced Air (Climate Controlled Room Required)
<b>Material / Rating:</b>	304 Stainless Steel – Type 4X (IP66)
<b>Approximate Weight:</b>	AC Included 48 Lamp PDC (Single Wide) – 1213 lbs 96 Lamp PDC (Double Wide) – 1984 lbs
<b>Surge Protection:</b>	Trojan Standard TVSS

**\* Forced air cooled PDCs must be installed in climate-controlled room(s);  $\leq 30^{\circ}\text{C}$  (86°F)**

***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for setting in place and bolting the PDC in location. The Installation Contractor is also responsible for the supply, installation and connection of the following at each PDC:

1. One (1) 480 / 277V, 50/60 Hz, 3 phase, 4 wire + GND, 63 kVA/PDC for double PDC & 21.1kVA for single PDC power feed with local disconnect—(provided by others)
2. One (1) bond link to plant ground in accordance with applicable codes and standards (to underside of panel)
3. One (1) bond link from each UV bank to the corresponding PDC in accordance with the applicable drawings, specifications, codes, and standards
4. One (1) bank-in-place sensor cable (by Trojan) from each UV bank to the corresponding PDC
5. One (1) UV intensity sensor cable (by Trojan) from each UV bank to the corresponding PDC
6. One (1) Modbus communication link, Belden 3106A (or equivalent) from the SCC, daisy-chained to all HSC(s) and PDC(s)
7. One (1) discrete 2 conductor cable, from Level Control Panel for low water level signal
8. Installation and termination of lamp cables from the UV banks to each PDC. (Qty: 18 per UV Bank – supplied by Trojan)

### **HYDRAULIC SYSTEM CENTER(S)**

#### ***Trojan's Responsibility:***

The Hydraulic System Center (HSC) houses the ancillary equipment required to operate the quartz sleeve cleaning system and automatic bank lifting mechanism.

<b>Quantity Supplied:</b>	1 HSC(s)
<b>Materials / Rating:</b>	304 Stainless Steel (Type 4X, IP 66)
<b>Hydraulic Fluid:</b>	Mineral Oil
<b>Approximate Weight:</b>	500 lbs
<b>Surge Protection:</b>	Trojan Standard TVSS
<b>Hydraulic Hoses Length:</b>	Hose 6.0m (20') (refer to Trojan layout drawing for available routing distances)

#### ***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for setting in place and bolting the HSC(s) as shown on the Trojan drawings. The Installation Contractor is responsible for the supply, connection and installation of the following at each HSC:

1. One (1) 480V 60Hz, 3 Phase, 3 Wire + Ground, 2.5 kVA power feed with local disconnect
2. One (1) bond link to plant ground, in accordance with applicable codes and standards
3. One (1) Modbus communication link per UV channel, Belden 3106A (or equivalent) from the SCC, daisy-chained to all HSC(s) and PDC(s)
4. Cut and crimp hydraulic hoses (hoses and connections supplied by Trojan)
5. Connection of the hydraulic hoses, total of four (4) per UV bank

### **WATER LEVEL CONTROLLER(S)**

#### ***Trojan's Responsibility:***

A level control device is required to maintain and control the effluent level in UV channel, regardless of flow rate.

<b>Quantity Supplied:</b>	1 Motorized Weir Gate
<b>Material of Construction:</b>	304 Stainless Steel
<b>Effective Weir Length:</b>	51 in. per weir

#### ***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for setting in place, bolting, grouting and sealing each level control weir trough as per Trojan's and Engineer's drawings.

### **WATER LEVEL CONTROLLER (MWG)**

#### ***For MWG provided by Trojan:***

*Modulating Weir Gates (MWGs) shall be self-contained and shall be designed and manufactured by an experienced and reputable manufacturer, based on the AWWA C561 Standard for Fabricated Stainless Steel Slide Gates and AWWA C542 Standard for Electric Motor Actuators for Valves and Slide Gates in effect as of the date of this specification.*

*MWGs shall be designed for the following performance criteria:*

- *MWG actuation speeds shall be between 10" (255 mm) and 14" (356 mm) per minute*
- *MWG maximum design rate of change of flow shall be limited to 25% of the Peak Design Flow/Channel per minute, or alternatively, flow shall be ramped up (zero to peak) or down (peak to zero) in no less than 4 minutes*

- MWG actuators shall employ AWWA compliant, S4-50% duty class motors with a rated minimum 900 starts per hour capability
- MWG actuators shall employ AWWA compliant, Class B, solid-state Thyristor based switchgear capable of at least 5,000,000 modulating steps before overhaul; electromechanical type actuators and controls are not permitted

***It is the responsibility of the Plant designers to ensure the stated performance criteria are acceptable for the plant process or to modify the design accordingly.***

***Trojan's Responsibility***

Level control devices are required to maintain and control the effluent level in the channel, regardless of flow rate.

<b>Quantity Supplied:</b>	01 Water Level Controller(s)
<b>Actuator:</b>	AUMA Electric Actuator
<b>Material of Construction:</b>	304 Stainless Steel
<b>Effective Weir Width:</b>	51 in.
<b>Mounting Anchors:</b>	Supplied with each Gate
<b>Control Method:</b>	Digital Pulsed Open/Close Position Signals from the UV SCC

***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for setting in place, grouting and sealing the level control weir gate and the installation of the following connections at weir gate:

1. One (1) 380-480V, 50/60 Hz, 3 phase, 3 wire + GND, power feed
2. One (1) discrete, 2 conductors, 20 gauge minimum, open command from the SCC
3. One (1) discrete, 2 conductors, 20 gauge minimum, close command from the SCC
4. One (1) discrete, 2 conductors, 20 gauge minimum, remote mode indication to the SCC
5. One (1) discrete, 2 conductors, 20 gauge minimum, fault indication to the SCC
6. One (1) 4-20 mA analog shielded twisted pair, 20 gauge minimum, gate position indication to the SCC

**ULTRASONIC WATER LEVEL SENSOR**

***Trojan's Responsibility:***

One (1) Echomax XPS-10/15 ultrasonic level sensor and Siemens Milltronics monitor panel will be supplied per motorized weir gate (MWG), to monitor channel effluent levels specifically for the MWG control. The transducer will be supplied with a sufficient length of cable to distribute to the monitor panel.

<b>Description:</b>	Ultrasonic Sensor with monitor panel to be supplied for MWG
<b>Quantity Supplied:</b>	01

**Disclaimer Note** (*for Ultrasonic package for flow measurement option*): Please be advised that for cases where the ultrasonic level sensor package is used to calculate 'flow over weir', the resulting 'flow over weir' is only intended for UV equipment operation and disinfection purposes. This calculated flow value should not be used for any external flow reporting or overall plant operation.

***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for mounting the bracket and transducer in the UV channel and for mounting the monitor panel adjacent to the channel. Installation Contractor shall distribute the following cable/wiring between these two components and the SCC in appropriate conduit at each sensor:

1. One (1) 24V DC, 2 conductors + GND, 36 VA power from the SCC to the Level Sensor Monitor
2. One (1) 4-20 mA analog shielded twisted pair from the Level Sensor Monitor to the SCC
3. One (1) communication link using 33 ft (10 m) of cable (supplied by Trojan) from the Level Sensing Transducer to the Level Sensor Monitor

### LOW WATER LEVEL SENSOR(S)

***Trojan's Responsibility:***

A Gems-Warrick discrete probe Low Water Level Sensor is required downstream of the UV System to generate a low water level signal that will shut down and protect the UV System if the water level in the channel drops too low.

<b>Quantity Supplied:</b>	One (1) of Electrode type water level sensor per UV channel
<b>Approximate Weight:</b>	10 lbs (panel)

***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for setting in place and bolting the water level sensor panel to the effluent channel wall as per Trojan's and Engineer's drawings.

### LEVEL CONTROL PANEL(S)

***Trojan's Responsibility:***

Trojan will provide a wall mounted Level Control Panel to provide power and relays for level sensors.

<b>Quantity Supplied:</b>	One (1) Level Control Panel (LCP) per UV channel
<b>Controller Dimensions:</b>	24 x 14 x 6 in (61 x 36 x 15 cm)
<b>Materials / Rating:</b>	304 Stainless Steel (Type 4X)
<b>Approximate Weight:</b>	40 lbs

***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for mounting the Level Control Panel (LCP) as indicated on the drawings. The Installation Contractor is also responsible for supplying mounting hardware, watertight conduit and for the supply, installation and connection of the following at each LCP:

1. One (1) 120 Volt, 1 phase, 2 wire + GND 0.12 kVA power supply
2. One (1) discrete, 2 conductor cable from the Low Level Sensor to the LCP
3. One (1) discrete, 2 conductor cable from the LCP to each PDC (for low water level signal)

### ON-LINE UV TRANSMISSION MONITOR (if applicable)

***Trojan's Responsibility:***

<b>Description:</b>	One (1) Hach UVT meter containing: <ul style="list-style-type: none"><li>• one (1) submersible UVAS probe with multi-beam flash photometer,</li><li>• one (1) 25' cable between the probe and the controller,</li><li>• one (1) Hach SC4500 UV-254 Controller.</li></ul>
<b>Enclosure Rating:</b>	UL50E type 4X, IEC/EN 60529-IP 66, NEMA 250 type 4X Metal enclosure with a corrosion-resistant finish
<b>Controller Dimensions:</b>	5.7 x 5.7 x 7.6 in. (144 x 144 x 192 mm)
<b>Altitude:</b>	6562 ft (2000 m) maximum
<b>Operating Temperature:</b>	35.6 to 104°F (Probe), -4 to 113°F (Controller)
<b>Approximate Weight:</b>	30 lbs (includes Probe and Controller)
<b>Probe Immersion Depth:</b>	Minimum 6 feet
<b>Probe Mounting:</b>	Pole mounting hardware provided includes wall mount bracket, hardware and 6.56ft (2m) pole
<b>Controller Mounting:</b>	Pedestal provided
<b>Sunroof:</b>	<b>**Optional</b> Included, with visor and mounting hardware

***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for setting in place and mounting the Controller panel and the probe. The Installation Contractor is also responsible for the supply, installation and connection of the following at each Controller:

1. Standard One (1) 120 Volt, 1 phase, 2 wire + GND, 1 A (28 W sensor load) power supply,
2. One (1) 4-20mA DC Analog communications link between the Controller and the SCC
3. Installation of sensor communication cable between Probe and Controller (Cable supplied by Trojan)
4. Supply of the required bolts for mounting Controller to the pedestal and Probe to the channel edge

**FLOW CONDITIONER**

***Trojan's Responsibility:***

In order to ensure flow distribution to the UV System flow conditioner(s) (FC) will be supplied.

<b>Quantity Supplied:</b>	01
<b>Material of Construction:</b>	304/316 Stainless Steel
<b>Associated Headloss per FC:</b>	2.42 inches at Peak Flow
<b>Approximate Weight:</b>	496.8 lbs

***Installation Contractor's Responsibility:***

Contractor is responsible for mounting L-frames to channel walls.

**STREAM™ CONNECTION**

***Trojan's Responsibility:***

Stream™ Connection is a digital support tool that provides our Technical Assistance Center with instant access to the UV system to quickly diagnose and resolve UV issues. The Stream connection is a free service to streamline technical support requests. Stream provides secure and encrypted connection external to the SCADA network and configured in the UV System Control Center.

**SPARE PARTS AND ADDITIONAL EQUIPMENT**

***Trojan's Responsibility:***

The following equipment will be supplied with the UV system:

Description	Qty
1000W Solo Lamp	4
2kW Solo Lamp Driver	1
1000W Solo Sleeve	4
Signa 2 Row - Single Wiper Seal (Need 2 per Lamp, Seals Only)	4
Trojan UVSigna Operator Kit (with Wiping)	1

#### **NOTES AND CLARIFICATIONS TO SPECIFICATION**

- **Section 00 41 00-1 – Bid Form – article 3.02 Liquidated Damages:** PLEASE NOTE: Trojan assumed this applies to the eventual contractor as the language states the contractor shall pay BUT if it does apply or eventually flow down to the UV Supplier than we cannot accept an uncapped LD and would need the total amount of the LD to be capped at 5% of the bid price.
- **Section 46 66 53, article 2.4.F.9 – Clarification:** (Page 5) Detailed diagnostic data is accessible only through the System/Lamp Driver Diagnostics screen. To view this information, the user must click on a specific lamp or driver and select "Get Data." This action retrieves the diagnostics from the BCB and displays them on the HMI.

Please note that only a common alarm is shown on both the HMI and SCADA systems—this appears as either "Bank X Lamp Fault" or "Bank X Driver Fault," depending on the issue. Individual fault indicators such as lamp status, driver high temperature, or end of lamp life are not shown separately on the main interface.

- **Section 46 66 53, article 2.6.A.1.b – Clarification:** Trojan's UV Signa standard HMI has a 12" screen (AB PanelView Plus 7)
- **Section 46 66 53, article 2.6.A.1.c.1 – Clarification:** Please confirm if standard alarms are acceptable. In the event of a lamp failure in a bank, a "Bank X Lamp Fault" alarm gets posted to the HMI & SCADA. Individual lamp faults are graphically shown on the Bank Overview screen.
- **Section 46 66 53, article 2.6.A.1.h.1 – Clarification:** (Page 8) Please confirm if 120VAC discrete outputs are specifically required, as Trojan's standard configuration provides 24VDC contact closure outputs.
- **Section 46 66 53, article 1.4.A.8 – Clarification:** (Please confirm if UV Signa standard SCADA map is acceptable
- **Section 01 43 33, article 1.4.D – Clarification:** Please note that training will take place after start-up activities are performed.
- **Section 01 43 33, article 3.1.C – Clarification:** Please note that Trojan warranties parts during the warranty period, but not labor

#### **MICROBIOLOGICAL PERFORMANCE TESTING**

##### ***Trojan's Responsibility:***

Trojan will supply a performance testing protocol to the Installation Contractor to be forwarded to the Engineer for approval. Trojan will produce the final test report (based on data supplied by the independent lab) and will forward the final report to the Installation Contractor. Trojan will also supply the services of a trained technician for conducting sampling and training the Contractor staff for 3 days

##### ***Installation Contractor's Responsibility:***

The Installation Contractor is responsible for covering all associated onsite costs for performance testing (retaining an independent lab for sample analysis and services, bottles, shipment, etc.). The Installation Contractor is also responsible for completing the performance testing as per the testing protocol supplied by Trojan and approved by the Engineer.

#### **DOCUMENTATION (SHOP DRAWINGS AND O&M MANUALS)**

The following documentation will be supplied by Trojan per the following schedule:

- One (1) electronic copy of Trojan Shop Drawing Submittals within a minimum 4 – 6 weeks after receipt of written purchase order. **Note that Submittals will not be issued externally until PO is fully executed.**
- One (1) electronic copy of Trojan Standard O&M manuals at time of equipment delivery (hardcopies available upon request)

#### **DELIVERY, START-UP AND TRAINING**

- Equipment shipment to be within 22-24 weeks after approval of Shop Drawings.

##### ***Trojan's Responsibility:***

The following start-up services will be provided by Trojan-certified technicians:

- Installation assistance as required by phone or fax. Technical Assistance Center 1-866-388-0488 or [tac@trojantechnologies.com](mailto:tac@trojantechnologies.com)
- Up to 7 days in 3 trips for:
  - inspection of the final installation prior to start-up
  - start-up, testing of the installed UV equipment and classroom and/or jobsite training for operations staff
    - Note that If the Trojan's Certified Service Technician determines the Contractor work is not complete and the start-up cannot be completed in the allotted time a return visit will be scheduled at the Contractors expense.
    - If trainees are not available a return visit will be scheduled at the Contractors expense.
- One (1) trained personnel for 5 on-site days in 2 trips for performance testing (as stated above in section "MICROBIOLOGICAL PERFORMANCE TESTING")

##### ***Installation Contractor's Responsibility:***

The Contractor is responsible for:

- Unloading of the components supplied by Trojan, storage of all components, if required in a clean dry environment including ActiClean™ Gel. *Note the ActiClean gel must be stored in a climate-controlled area to prevent freezing.*
- Installing the equipment outlined in the scope of Supply in accordance with contract drawings, Trojan's shop drawings, instructions and installation checklist(s).
- Supplying all conduits and conductors and components per the sites state regulations and components indicated as supplied by others.
- Completing and submitting the Checklist at least two (2) weeks prior to date requested for commissioning.
- Trojan panels with forced-air cooling design require installation in an environmentally controlled room suitable for electrical distribution or motor drive equipment.

#### **WARRANTY**

Trojan will warrant the equipment and parts for a period of 24 months from date of start-up or 30 months after shipment, whichever comes first. Warranty does not cover labor, consumables and/or wear components. Refer to attached Terms and Conditions for additional details.

- UV lamps shall be warranted for 15,000 hours prorated after 9,000 hours.
- Lamp drivers shall be warranted for 10 years, prorated after 1 year.

#### **SELLING PRICE**

- Selling price does not include any tariffs, duties or taxes that may be applicable.
- Freight included if destination is within North America.
- Incoterms 2020, Ex Works (EXW), Insurance and Freight (CIF) to destination or port will apply for all other destinations.

\* This price is valid for 90 days from the date of this letter.

**PREFERRED PAYMENT TERMS AND INVOICING MILESTONE BREAKDOWN**

Net 30 Days \*\*

- 10% upon Award of PO
- 20% upon Completion of Submittal package by Seller
- 20% upon Approval of Submittal package or approval to release to manufacturing by Owner/Engineer
- 45% upon Shipment or 30 days after Notice to Ship (whichever comes first)
- 5% upon Equipment Acceptance or 180 days after Shipment (whichever occurs first)

Please note that if UV System start-up is required within 30 days of equipment shipment, Trojan requires 95% payment unless agreed upon in writing before authorizing system Start-up.

**\*\* In the event payments are not made or not made in a timely manner, Trojan reserves the right to charge interest on the outstanding balance at a rate of 1.5% per month or the maximum rate permitted by law, if lower, for each month or part thereof that there is an outstanding balance plus applicable storage charges and/or inventory carrying charges.**

**TERMS AND CONDITIONS - ATTACHED**

Trojan appreciates the opportunity to submit this proposal. Our proposal is submitted subject to and based on Trojan's standard terms and conditions, which we have attached as part of our proposal. We believe these terms and conditions are customary in the trade and respectfully reserve the opportunity to negotiate, fair and reasonable contract terms acceptable to both parties, if Trojan is selected for this project.

## TERMS AND CONDITIONS OF SALE

This document sets forth the Terms & Conditions of Sale for goods manufactured and/or supplied, and services provided, by the seller entity identified on the purchase order ("SELLER") and sold to the original purchaser thereof ("BUYER"). The term "SELLER" includes only SELLER, and none of its affiliates. Unless otherwise specifically stated in a previously-executed written purchase agreement signed by authorized representatives of SELLER and BUYER, these Terms & Conditions of Sale establish the rights, obligations and remedies of SELLER and BUYER which apply to this offer and any resulting order or contract for the sale of SELLER's goods and/or services ("Products").

1. **APPLICABLE TERMS & CONDITIONS:** These Terms & Conditions of Sale are contained directly and/or by reference in SELLER's proposal, offer, order acknowledgment, packing slip, and/or invoice documents. The first of the following acts constitutes an acceptance of SELLER's offer and not a counteroffer and creates a contract of sale ("Contract") in accordance with these Terms & Conditions of Sale: (i) BUYER's issuance of a purchase order document against SELLER's offer; (ii) acknowledgement of BUYER's order by SELLER; or (iii) commencement of any performance by SELLER pursuant to BUYER's order. Provisions contained in BUYER's purchase documents (including electronic commerce interfaces) that materially alter, add to, or subtract from the provisions of these Terms & Conditions of Sale are not a part of the Contract.
2. **CANCELLATION AND RETURN:** The whole or any part of this order may be cancelled only with the prior written consent of SELLER. If SELLER does consent to a cancellation, such consent will be given only upon payment of reasonable cancellation charges in an amount determined by SELLER and which will include recovery of costs plus reasonable profit. In addition, with respect to any Products returned on cancellation, BUYER will pay SELLER's cost of placing the returned Products in a saleable condition, sales expenses incurred by SELLER in connection with such returned Products, a reasonable restocking charge and freight costs incurred in connection with the original shipment and in connection with returning such Products to SELLER, all in such amounts as are advised to the BUYER by SELLER. SELLER may cancel all or part of any order prior to delivery without liability if the order includes any Products that SELLER determines may not comply with export, safety, local certification, or other applicable compliance requirements. If SELLER'S offer contains a cancellation schedule, such schedule shall apply in lieu of the cancellation charges stated above.
3. **DELIVERY:** Delivery will be accomplished FCA SELLER's determined shipping point; or on SELLER's discretion it will ship DDP or DAP foreign port unless otherwise expressly agreed between the parties using Incoterms® 2020. At SELLER's discretion other terms under Incoterms® 2020 may be used as required. In the event of any reference to "prepay and add" the applicable Incoterms® 2020 will be DDP or DAP at SELLER's discretion, while any reference to "collect" will be deemed to be FCA under the Incoterms® 2020 regardless of reference to reference to shipping point. In the event DDP or DAP is used for a transaction SELLER reserves the right to select the carrier and shipping mode. BUYER agrees to pay SELLER for any sales tax, brokerage fees, or other costs incurred as a result of the shipping mode chosen by SELLER. For all intents and purposes the FOB/FOD Legal title and risk of loss or damage pass to BUYER upon transfer to the first carrier, regardless of final destination and mode of transit. SELLER will use commercially reasonable efforts to deliver the Products ordered herein within SELLER's normal lead-time necessary for SELLER to deliver the Products sold hereunder. Upon prior agreement with BUYER and for an additional charge paid by BUYER, SELLER will deliver the Products on an expedited basis. Seller may, in its sole discretion, without liability or penalty, deliver partial shipments of Products to Buyer and ship the Products as they become available, in advance of the quoted delivery date. If the Products are delivered in installments, then insofar as each shipment is subject to the same Agreement, the Agreement will be treated as a single contract and not severable. Products will be boxed or crated as determined appropriate by SELLER for protection against normal handling and there will be an extra charge to the BUYER for additional packaging required by the BUYER with respect to waterproofing or other added protection. BUYER has sole responsibility for off-loading, storage and handling of the Products at the site. Where BUYER is responsible for any delay in the delivery date or installation date, the earlier of the date of delivery or the date on which the Products are ready for shipment by SELLER may be treated as the delivery date for purposes of determining the time of payment of the purchase price. Moreover, BUYER will be responsible for storage and insurance expenses with respect to such Products. Should BUYER fail to effect pick-up of Product as previously agreed in a timely manner, SELLER may, at its discretion, assess storage charges and a surcharge to the account of BUYER.

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4. **INSPECTION:** BUYER will promptly inspect and accept any Products delivered pursuant to this Contract after receipt of such Products. In the event the Products do not conform to any applicable specifications, BUYER will promptly notify SELLER of such nonconformance in writing. SELLER will have a reasonable opportunity to repair or replace the nonconforming Product at its option. BUYER will be deemed to have accepted any Products delivered hereunder and to have waived any such nonconformance for such Products unless a written notification pursuant to this paragraph is received by SELLER within fourteen (14) calendar days of delivery to BUYER destination on order.
5. **PRICES & ORDER SIZES:** Prices do not include any charges for services such as insurance; brokerage fees; sales, use, inventory, or excise taxes; import or export duties; tariff, special financing fees; value added tax, income, or royalty taxes; consular fees; special permits or licenses; or other charges imposed upon the production, sale, distribution, or delivery of Products. BUYER will either pay any and all such charges or provide SELLER with acceptable exemption certificates, which obligation survives performance under this Contract. Installation, maintenance and any other services which relate to the Products are not included unless specifically set forth in the offer. SELLER reserves the right to establish minimum order sizes and will advise BUYER accordingly. Any orders below the minimum order size are subject to a fee as set out by SELLER. Notwithstanding anything to the contrary set out herein, in the event of any delay to SELLER's delivery schedule caused by BUYER or its representatives (other than for Force Majeure or delays caused by SELLER), including without limitation, a suspension of work or the project, a postponement of the delivery date or failure to timely issue of a notice of commencement or similar document, then (i) the Purchase Price shall increase by 1% for every month or partial month of such delay and this Agreement shall be construed as if the increased Purchase Price were originally inserted herein, and BUYER shall be billed by SELLER on the basis of such increased Purchase Price, or (ii) SELLER shall have the right to terminate this Contract without penalty.
6. **PAYMENTS:** All payments must be made in agreed-to currency, normally Canadian or U.S. Dollars. Unless other payment terms are expressly agreed to by SELLER or otherwise required by the SELLER, invoices are due and payable NET 30 DAYS from date of the invoice, without regard to delays for inspection or transportation, with payments to be made by check to SELLER at the address listed in the purchase order or by bank transfer to the account obtainable from SELLER's Accounts Receivable Manager. In the event payments are not made or not made in a timely manner, SELLER may, in addition to all other remedies provided at law, either: (a) declare BUYER's performance in breach and terminate this Contract for default; (b) withhold future shipments until delinquent payments are made; (c) deliver future shipments on a cash-with-order or cash-in-advance basis even after the delinquency is cured; (d) charge interest on the outstanding balance at a rate of 1.5% per month or the maximum rate permitted by law, if lower, for each month or part thereof that there is an outstanding balance plus applicable storage charges and/or inventory carrying charges; (e) repossess the Products for which payment has not been made; (f) pursue other collection efforts and recover all associated costs including reasonable attorney's fees; or (g) combine any of the above rights and remedies as is practicable and permitted by law. BUYER is prohibited from setting off any and all monies owed under this Contract from any other sums, whether liquidated or not, that are or may be due to the BUYER, which arise out of a different transaction with SELLER or any of its affiliates. Should BUYER's financial condition become unsatisfactory to SELLER in its discretion, SELLER may require payment in advance or other security. If BUYER fails to meet these requirements, SELLER may treat such failure as reasonable grounds for repudiation of this Contract, in which case reasonable cancellation charges shall be due to SELLER. BUYER hereby grants SELLER a security interest in the Products, wherever located, and whether now existing or hereafter arising or acquired from time to time, and in all accessions thereto and replacements or modifications thereof, as well as all proceeds of the foregoing, to secure payment in full of all amounts to SELLER, which payment releases the security interest but only if such payment could not be considered an avoidable transfer under applicable laws. The security interest granted hereby constitutes a purchase money security interest under the applicable Uniform Commercial Code or Personal Property Security Act or other applicable law, and SELLER is authorized to make whatever registration or notification or take such other action as SELLER deems necessary or desirable to perfect such security interest. BUYER's insolvency, bankruptcy, assignment for the benefit of creditors, or dissolution or termination of the existence of BUYER, constitutes a default under this Contract and affords SELLER all of the remedies of a secured creditor under applicable law, as well as the remedies stated above for late payment or non-payment.
7. **LIMITED WARRANTY:** Unless specifically provided otherwise in SELLER's offer, SELLER provides the following Limited Warranty. SELLER warrants that Products sold hereunder will be free from defects in material and workmanship and will, when used in accordance with the manufacturer's operating and maintenance instructions, conform to any express written

warranty pertaining to the specific goods purchased, which for Products is for a period of twelve (12) months from delivery. SELLER warrants that services furnished hereunder will be free from defects in workmanship for a period of thirty (30) days from the completion of the services. Products repaired or replaced are not covered by any warranty except to the extent repaired or replaced by SELLER, an authorized representative of SELLER, or under specific instructions by SELLER, in which cases, the Products will be covered under warranty up to the end of the warranty period applicable to the original Products. The above warranties do not include the cost of shipping and handling of returned items. Parts provided by SELLER in the performance of services may be new or refurbished parts functioning equivalent to new parts. Any non-functioning parts that are repaired by SELLER shall become the property of SELLER. Except as included in SELLER'S offer, no warranties are extended to consumable items and for normal wear and tear. SELLER's special warranties may include additional limitations. All other guarantees, warranties, conditions and representations, either express or implied, whether arising under any statute, law, commercial usage or otherwise, including implied warranties of merchantability and fitness for a particular purpose, are hereby excluded. The sole remedy for Products not meeting this Limited Warranty is replacement, repair, credit or refund of the purchase price, as determined by SELLER in its sole discretion. This remedy will not be deemed to have failed of its essential purpose so long as SELLER is willing to provide such replacement, credit or refund. To make a warranty claim, BUYER must notify SELLER in writing within 5 days of discovery of the defect in question. This notification must include a description of the problem, a copy of the applicable operator's log, a copy of BUYER's maintenance record and any analytical results detailing the problem. Any warranty hereunder or performance guarantees shall only be enforceable if (a) all equipment is properly installed, inspected regularly, and is in good working order, (b) all operations are consistent with SELLER recommendations, (c) operating conditions at the installation site have not materially changed and remain within anticipated specifications, and (d) no reasonably unforeseeable circumstances exist or arise. Products manufactured by a third party ("Third Party Product") which are not incorporated into SELLER's Products are not covered by the warranty. With respect to any Third Party Product, the warranty, if any, is provided solely through the manufacturer of such Third Party Product, the terms of which vary from manufacturer to manufacturer and Seller assumes no responsibility on their behalf. For Third Party Products, specific warranty terms may be obtained from the manufacturer's warranty statement.

8. **INDEMNIFICATION:** Indemnification applies to a party and to such party's successors-in-interest, assignees, affiliates, directors, officers, and employees ("Indemnified Parties"). SELLER is responsible for and will defend, indemnify and hold harmless the BUYER Indemnified Parties against all losses, claims, expenses or damages to the proportional extent caused by SELLER's breach of the Limited Warranty. BUYER is responsible for and will defend, indemnify and hold harmless SELLER Indemnified Parties against all losses, claims, expenses, or damages which may result from accident, injury, damage, or death due to the negligence or misuse or misapplication of any Products or the breach of any provision of this Contract by the BUYER or any third party affiliated or in privity with BUYER.
9. **PATENT PROTECTION:** SELLER shall further defend and indemnify BUYER Indemnitees from and against all Claims for actual infringement of all letters patent, trademarks, copyright or corresponding rights pertaining to goods provided under the Purchase Order, solely by reason of the sale or normal use of any goods sold to BUYER hereunder as finally determined by a court of competent jurisdiction in any suit for infringement of any U.S. patent. SELLER's warranty as to use patents only applies to infringement arising solely out of the inherent operation of the goods according to their applications as envisioned by SELLER's specifications. In case the goods are in such suit held to constitute infringement and the use of the goods is enjoined, SELLER will, at its own expense and at its option, either procure for BUYER the right to continue using such goods or replace them with non-infringing products, or modify them so they become non-infringing, or remove the goods and refund the purchase price (prorated for depreciation) and the transportation costs thereof. The foregoing states the entire liability of SELLER for patent infringement by the goods. Further, to the same extent as set forth in SELLER's above obligation to BUYER, BUYER agrees to defend, indemnify and hold harmless SELLER for patent infringement related to (x) any goods manufactured to the BUYER's design, (y) services provided in accordance with the BUYER's instructions, or (z) SELLER's goods when used in combination with any other devices, parts or software not provided by SELLER hereunder. Subject to all limitations of liability provided herein, SELLER will, with respect to any Products of SELLER's design or manufacture, indemnify BUYER from any and all damages and costs as finally determined by a court of competent jurisdiction in any suit for infringement of any U.S. or Canadian patent (or European patent for Products that SELLER sells to BUYER for end use in a member state of the E.U. or the U.K.) that has issued as of the delivery date, solely by reason of the sale or normal use of any Products sold to BUYER hereunder and from reasonable expenses incurred by BUYER in defense of such suit if SELLER does not undertake the defense thereof, provided that BUYER promptly notifies SELLER of such suit and offers SELLER either (i) full and exclusive control of the defense of such

suit when Products of SELLER only are involved, or (ii) the right to participate in the defense of such suit when products other than those of SELLER are also involved. SELLER's warranty as to use patents only applies to infringement arising solely out of the inherent operation of the Products according to their applications as envisioned by SELLER's specifications. In case the Products are in such suit held to constitute infringement and the use of the Products is enjoined, SELLER will, at its own expense and at its option, either procure for BUYER the right to continue using such Products or replace them with non-infringing products, or modify them so they become non-infringing, or remove the Products and refund the purchase price (prorated for depreciation) and the transportation costs thereof. The foregoing states the entire liability of SELLER for patent infringement by the Products. Further, to the same extent as set forth in SELLER's above obligation to BUYER, BUYER agrees to defend, indemnify and hold harmless SELLER for patent infringement related to (x) any goods manufactured to the BUYER's design, (y) services provided in accordance with the BUYER's instructions, or (z) SELLER's Products when used in combination with any other devices, parts or software not provided by SELLER hereunder.

10. **TRADEMARKS AND OTHER LABELS:** BUYER agrees not to remove or alter any indicia of manufacturing origin or patent numbers contained on or within the Products, including without limitation the serial numbers or trademarks on nameplates or cast, molded or machined components.
11. **SOFTWARE AND INTELLECTUAL PROPERTY:** All licenses to SELLER's separately provided software products are subject to the separate software license agreement(s) accompanying the software media. In the absence of such express licenses and for all other software, SELLER grants BUYER only a personal, non-exclusive license to access and use the software provided by SELLER with Products purchased hereunder solely as necessary for BUYER to enjoy the benefit of the Products. A portion of the software may contain or consist of open source software, which BUYER may use under the terms and conditions of the specific license under which the open source software is distributed. BUYER agrees that it will be bound by all such license agreements. Title to software remains with the applicable licensor(s). All SELLER contributions to the Products, the results of the services, and any other work designed or provided by SELLER hereunder may contain or result in statutory and non-statutory Intellectual Property, including but not limited to patentable subject matter or trade secrets; and all such Intellectual Property remains the sole property of SELLER; and BUYER shall not disclose (except to the extent inherently necessary during any resale of Product sold hereunder), disassemble, decompile, or any results of the Services, or any Products, or otherwise attempt to learn the underlying processes, source code, structure, algorithms, or ideas.
12. **PROPRIETARY INFORMATION AND PRIVACY:** "Proprietary Information" means any information, technical data, or know-how in whatever form, whether documented, contained in machine readable or physical components, mask works or artwork, or otherwise, which SELLER considers proprietary, including but not limited to service and maintenance manuals. BUYER and its customers, employees, and agents will keep confidential all such Proprietary Information obtained directly or indirectly from SELLER and will not transfer or disclose it without SELLER's prior written consent, or use it for the manufacture, procurement, servicing, or calibration of Products or any similar products, or cause such products to be manufactured, serviced, or calibrated by or procured from any other source, or reproduce or otherwise appropriate it. All such Proprietary Information remains SELLER's property. No right or license is granted to BUYER or its customers, employees or agents, expressly or by implication, with respect to the Proprietary Information or any patent right or other proprietary right of SELLER, except for the limited use licenses implied by law. In respect of personal data supplied by BUYER to SELLER, BUYER warrants that is duly authorized to submit and disclose these data, including but not limited to obtaining data subjects' informed consent. SELLER will manage BUYER's information and personal data in accordance with its Privacy Policy, a copy of which is available to BUYER upon request. In respect of other data and information that SELLER may receive in connection with BUYER's use of the Products including without limitation data that are captured by the Products and transmitted to SELLER, BUYER hereby grants SELLER a non-exclusive, worldwide, royalty-free, perpetual, non-revocable license to use, compile, distribute, display, store, process, reproduce, or create derivative works of such data as needed for Product operation and maintenance, and to aggregate such data for use in an anonymous manner, solely to facilitate marketing, sales and R&D activities of SELLER and its affiliates.
13. **SPECIAL TOOLS, DIES, JIGS, FIXTURES AND PATTERNS:** Any tools, dies, jigs, fixtures, patterns and similar items which are included or required in connection with the manufacture and/or supply of the Products will remain the property of SELLER without credit to the BUYER. SELLER assumes the cost for maintenance and replacement of such items and shall have the right to discard and scrap any such item after it has been inactive for a minimum of one year, without credit to the BUYER.

14. **CHANGES AND ADDITIONAL CHARGES:** SELLER reserves the right to make design changes or improvements to any products of the same general class as Products being delivered hereunder without liability or obligation to incorporate such changes or improvements to Products ordered by BUYER unless agreed upon in writing before the Products' delivery date. SELLER shall not be obligated to implement any changes or variations in the scope of work described in SELLER's scope of supply unless BUYER and SELLER agree in writing to the details of the change and any resulting price, schedule or other contractual modifications. This includes any changes or variations necessitated by a change in applicable law occurring after the effective date of this Agreement including these Terms.
15. **SITE ACCESS / PREPARATION / WORKER SAFETY / ENVIRONMENTAL COMPLIANCE:** In connection with services provided by SELLER, BUYER agrees to permit prompt access to equipment. BUYER assumes full responsibility to back-up or otherwise protect its data against loss, damage or destruction before services are performed. BUYER is the operator and in full control of its premises, including those areas where SELLER employees or contractors are performing service, repair, and maintenance activities. BUYER will ensure that all necessary measures are taken for safety and security of working conditions, sites, and installations during the performance of any services. BUYER is the generator of any resulting wastes, including without limitation hazardous wastes. BUYER is solely responsible to arrange for the disposal of any wastes at its own expense. BUYER will, at its own expense, provide SELLER employees and contractors working on BUYER's premises with all information and training required under applicable safety compliance regulations and BUYER's policies. SELLER has no responsibility for the supervision or actions of BUYER's employees or contractors or for non-SELLER items (e.g., chemicals, equipment) and disclaims all liability and responsibility for any loss or damage that may be suffered as a result of such actions or items, or any other actions or items not under SELLER's control.
16. **LIMITATIONS ON USE:** BUYER will not use any Products for any purpose other than those identified in SELLER's catalogs and literature as intended uses. Unless SELLER has advised the BUYER in writing, in no event will BUYER use any Products in drugs, food additives, food, or cosmetics, or medical applications for humans or animals. In no event will BUYER use in any application any Product that requires FDA 510(k) clearance unless and only to the extent the Product has such clearance. BUYER will not sell, transfer, export, or re-export any SELLER Products or technology for use in activities which involve the design, development, production, use, or stockpiling of nuclear, chemical, or biological weapons or missiles, nor use SELLER Products or technology in any facility which engages in activities relating to such weapons. Unless the "ship-to" address is in California, U.S.A., the Products are not intended for sale in California and may lack markings required by California Proposition 65; accordingly, unless BUYER has ordered Products specifying a California ship-to address, BUYER will not sell or deliver any SELLER Products for use in California. Any warranty granted by SELLER is void if any goods covered by such warranty are used for any purpose not permitted hereunder.
17. **EXPORT AND IMPORT LICENSES AND COMPLIANCE WITH LAWS:** Unless otherwise expressly agreed, BUYER is responsible for obtaining any required export or import licenses necessary for Product delivery. BUYER will comply with all laws and regulations applicable to the installation or use of all Product, including applicable import and export control laws and regulations of the U.S., E.U., and any other country having proper jurisdiction, and will obtain all necessary export or import licenses in connection with any subsequent export, re-export, transfer, and use of all Product and technology delivered hereunder. BUYER will not sell, transfer, export, or re-export any SELLER Product or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical, or biological weapons or missiles, nor use SELLER Product or technology in any facility which engages in activities relating to such weapons. BUYER will comply with all local, national, and other laws of all jurisdictions globally relating to anti-corruption, bribery, extortion, kickbacks, or similar matters which are applicable to BUYER's business activities in connection with this Contract, including but not limited to the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "FCPA"). BUYER agrees that no payment of money or provision of anything of value will be offered, promised, paid, or transferred, directly or indirectly, by any person or entity, to any government official, government employee, or employee of any company owned in part by a government, political party, political party official, or candidate for any government office or political party office to induce such organizations or persons to use their authority or influence to obtain or retain an improper business advantage for BUYER or for SELLER, or which otherwise constitute or have the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks, or other unlawful or improper means of obtaining business or any improper advantage, with respect to any of BUYER's activities related to this Contract. SELLER asks BUYER to "Speak Up!" if aware of any violation of law, regulation, or our Code of Conduct ("CoC") in relation to this Contract. See

<https://www.veraltointegrity.com> and <https://www.veralto.com/integrity-compliance> for a copy of the CoC and for access to our Helpline portal.

18. **RELATIONSHIP OF PARTIES:** BUYER is not an agent or representative of SELLER and will not present itself as such under any circumstances, unless and to the extent it has been formally screened by SELLER's compliance department and received a separate duly-authorized letter from SELLER setting forth the scope and limitations of such authorization.
19. **FORCE MAJEURE:** SELLER is excused from performance of its obligations under this Contract to the extent caused by acts or omissions that are beyond its control, including but not limited to Government embargoes, blockages, seizures or freezing of assets, delays, or refusals to grant an export or import license, or the suspension or revocation thereof, or any other acts of any Government; fires, floods, severe weather conditions, or any other acts of God; quarantines; epidemics and pandemics; labor strikes or lockouts; riots; strife; insurrections; civil disobedience or acts of criminals or terrorists; war; material shortages or delays in deliveries to SELLER by third parties. In the event of the existence of any force majeure circumstances, the period of time for delivery, payment terms, and payments under any letters of credit will be extended for a period of time equal to the period of delay. If the force majeure circumstances extend for six months, SELLER may, at its option, terminate this Contract without penalty and without being deemed in default or in breach thereof.
20. **ASSIGNMENT AND WAIVER:** BUYER will not transfer or assign this Contract or any rights or interests hereunder without SELLER's prior written consent. SELLER shall be permitted to assign and transfer this Contract and any ancillary agreement hereunder to an affiliate of SELLER so long as such affiliates are either Trojan Technologies Group ULC or Trojan Technologies Corp. Upon any assignment of this Contract the assignee shall have all rights, and be liable for all obligations and responsibilities, under this Contract. Failure of either party to insist upon strict performance of any provision of this Contract, or to exercise any right or privilege contained herein, or the waiver of any breach of the terms or conditions of this Contract, will not be construed as thereafter waiving any such terms, conditions, rights, or privileges, and the same will continue and remain in force and effect as if no waiver had occurred. This Agreement is for the sole benefit of the parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of these Terms.
21. **FUNDS TRANSFERS:** BUYER and SELLER both recognize that there is a risk of banking fraud when individuals impersonating a business demand payment under new mailing or banking transfer instructions. To avoid this risk, BUYER must verbally confirm any new or changed mailing or banking transfer instructions by calling SELLER and speaking with SELLER's Accounts Receivable Manager before transferring any monies using the new instructions. Both parties agree that they will not institute mailing or banking transfer instruction changes and require immediate payment under the new instructions, but will instead provide a ten (10) day grace period to verify any mailing or banking transfer instruction changes before any new or outstanding payments are due using the new instructions.
22. **LIMITATION OF LIABILITY:** None of SELLER, its successors-in-interest, assignees, affiliates, directors, officers, and employees will be liable to any BUYER Indemnified Parties under any circumstances for any special, treble, incidental, or consequential damages, including without limitation, damage to or loss of property other than for the Products purchased hereunder; damages incurred in installation, repair, or replacement; lost profits, revenue, or opportunity; loss of use; losses resulting from or related to downtime of the Products or inaccurate measurements or reporting; the cost of substitute products; or claims of any of BUYER's Indemnified Parties' customers for such damages, howsoever caused, and whether based on warranty, contract, and/or tort (including negligence, strict liability or otherwise). The total liability of SELLER, its successors-in-interest, assignees, affiliates, directors, officers, and employees arising out of the performance or nonperformance hereunder, or SELLER's obligations in connection with the design, manufacture, sale, delivery, and/or use of Products, will in no circumstance exceed the amount actually paid to SELLER for Products delivered hereunder.
23. **APPLICABLE LAW AND DISPUTE RESOLUTION:** All issues relating to the construction, validity, interpretation, enforcement, and performance of this agreement and the rights and obligations of SELLER and the BUYER hereunder shall be governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein; provided that if SELLER is Trojan Technologies Corp., then the applicable governing laws shall be the State of New York and the applicable federal laws therein. Any provisions of the International Sale of Goods Act or any convention on contracts for the international sale of goods shall not be applicable to this agreement. The parties submit to and consent to the non-exclusive

jurisdiction of courts located in the Province of Ontario; provided that if SELLER is Trojan Technologies Corp., then the parties submit to and consent to the non-exclusive jurisdiction of courts located in the State of New York.

24. **ENTIRE AGREEMENT, MODIFICATION, & SURVIVAL:** These Terms & Conditions of Sale constitute the entire agreement between the parties and supersede any prior agreements or representations, whether oral or written. Upon thirty (30) days prior written notice, SELLER may, in its sole discretion, elect to terminate any order for the sale of Products and provide a pro-rated refund for any pre-payment of undelivered Products. No change to or modification of these Terms & Conditions shall be binding upon SELLER unless in a written instrument specifically referencing that it is amending these Terms & Conditions of Sale and signed by an authorized representative of SELLER. SELLER rejects any additional or inconsistent Terms & Conditions of Sale offered by BUYER at any time, whether or not such terms or conditions materially alter the Terms & Conditions herein and irrespective of SELLER's acceptance of BUYER's order for the described goods and services. All payment, confidentiality and indemnity obligations, warranties, limitations of liability, product return, and ownership of materials provisions together with those sections the survival of which is necessary for the interpretation or enforcement of these Terms, shall continue in full force and effect for the duration stated in such provisions or the applicable statute of limitations.

## **TERMS AND CONDITIONS COVERING SALES OF CONFIGURED-TO-ORDER PROJECTS AND SYSTEMS**

In addition to all terms and conditions above, unless otherwise addressed as part of SELLER's offer, the following sections apply to sales of Configured-to-Order Projects, Systems, and the like, except for any Aria Filtra Products:

### **101. PAYMENT.**

101.1 Payments will be made per the schedule of payment events set forth in SELLER's offer; provided that if the Start-Up Date (as defined below) is less than 30 days after the Delivery Date, 90% of the purchase price is due before the Start-Up Date.

101.2. In the event that achievement of a scheduled payment event is delayed or suspended due to the BUYER's convenience or other reasons for which the BUYER or its representatives is responsible, such payment event will be deemed to have occurred and SELLER shall be entitled to invoice BUYER as if achievement of such payment event had been achieved. In such circumstances, BUYER must notify SELLER in writing of the reasons for the delay and anticipated duration of the delay. SELLER will mark the Products (or parts thereof) as the BUYER's property and BUYER shall make arrangements for a third party to store the Products at BUYER's cost.

### **102. DELIVERY**

102.1 SELLER will request the BUYER to provide a firm date for delivery of the Products to the project site (the "Delivery Date") which SELLER will then use to establish the production schedule for the Products. The Delivery Date will then be binding on the BUYER except for any changes made in accordance with the provisions below.

102.2 SELLER reserves the right to reschedule the Delivery Date to a date prior to or subsequent to the scheduled Delivery Date in order to accommodate its shipping, production or other requirements. This right to reschedule will be applicable unless otherwise agreed to in writing by an authorized officer of SELLER. SELLER will provide the BUYER or its representative with a minimum of 24 hours' notice of any such rescheduling.

102.3 Where any change to the Delivery Date is made at BUYER's request and upon SELLER's agreement, for all purposes with respect to the warranty and payment requirements provided by SELLER in connection with the Products, the initial Delivery Date will be deemed to be the Delivery Date regardless of any change later made to the Delivery Date.

### **103. ACCEPTANCE**

103.1 During the period between the Delivery Date and the Start-up Date, the BUYER shall prepare the Products and the project site for installation and start-up and, unless otherwise agreed in writing by an authorized representative of SELLER, shall complete acceptance testing with respect to the Products. The Products shall be deemed to be accepted on the earliest to occur

of the following dates (the "Acceptance Date"): (a) that date on which the Products can function in either manual or automatic operation and provide treatment in accordance with criteria specified in the Quotation, or (b) 60 days after the Delivery Date.

103.2 All amounts which remain owing by the BUYER for the Products, including any amount which is specified to be payable on the Acceptance Date, will be paid by the BUYER to SELLER within 30 days after the Acceptance Date, unless otherwise agreed in writing by an authorized representative of SELLER.

103.3 Written notification must be given by the BUYER to SELLER within seven days after the Acceptance Date listing any outstanding deficiencies with respect to the Products and SELLER will use all reasonable efforts to correct such deficiencies promptly.

#### 104. START-UP

104.1 SELLER will request a firm date for start-up of the Equipment (the "Start-Up Date"). Trojan will then schedule its technician to be on-site for the Start-up Date. The Start-up Date is binding except for any changes made in accordance with the provisions below.

104.2 On the Start-up Date, BUYER must have the Equipment and site ready as provided in the Installation Preparation Checklist contained in the Contractor Installation Package sent to BUYER and must have paid all amounts then due and payable to SELLER.

104.3 BUYER can request a rescheduling of the Start-up Date by notifying SELLER in writing not less than three weeks prior to the Start-up Date. BUYER may request that the Start-up Date be extended but may not request that the Start-up Date be moved forward. SELLER requires a minimum extension period of two weeks between the existing Start-up Date and the requested new Start-up Date in order to reschedule its technician.

104.4 SELLER may, in its sole discretion, agree to reschedule the Start-up Date where a BUYER requests less than a two-week extension but is under no obligation to do so. In the event that SELLER does agree to less than a two-week extension or that BUYER requests more than two changes to the Start-up Date, BUYER will be charged an administration fee in an amount determined by SELLER.

104.5 SELLER reserves the right to reschedule the Start-up Date to a date which is prior to or subsequent to the scheduled Start-up Date in order to accommodate its resource availability. This right to reschedule will be applicable unless otherwise agreed in writing by an authorized officer of SELLER. SELLER will provide BUYER or its representative with a minimum of 72 hours' notice of any such change to the Start-up Date.

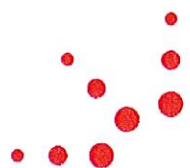
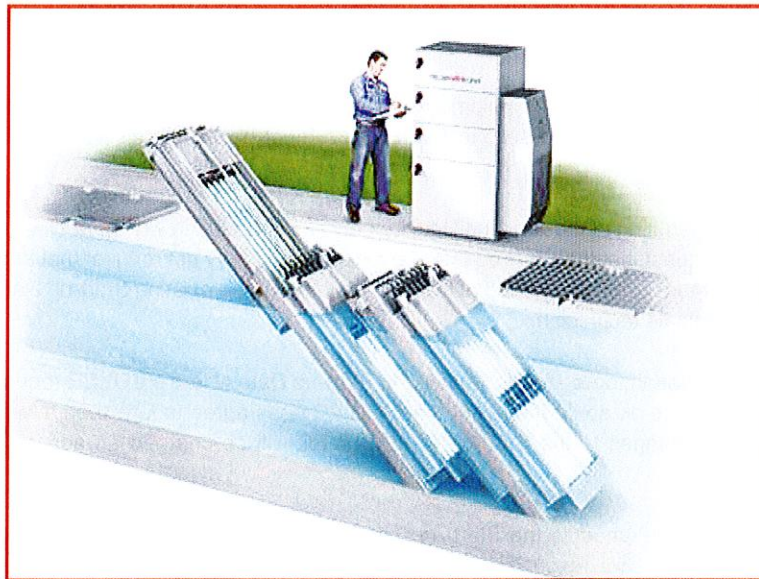
104.6 In the event that SELLER'S technician arrives at the project site and finds that the Equipment or the project site is not ready for start-up as defined in the Contractor Installation Package, or any amounts then due and payable to SELLER remain unpaid, BUYER may either:

(a) provided all amounts then due and payable to SELLER have been paid, issue a purchase order for all costs involved in having SELLER correct the deficiencies, or

(b) have SELLER'S technician leave the site and then reschedule the Start-up Date to a date when all deficiencies will be corrected, and the Equipment will be ready for start-up as defined in the Contractor Installation Package. If BUYER selects this option, the cost of rescheduling will be not less than a minimum amount specified by SELLER, with the final cost being determined by SELLER based on its costs and expenses incurred in connection with the rescheduling.

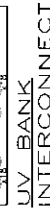
Rev. February 12, 2025

## DRAWINGS



100

\* GROUND CONNECTION REQUIRED TO PLANT GRID (BY OTHERS)



DETAIL  
SCALE: N.D. TO SCALE



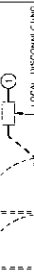
INTERCONNECT DATA  
SCALE: NOT TO SCALE

Downloaded from <http://ajphaphapublications.sagepub.com/> at National Archive Publishing Co on May 12, 2015

10



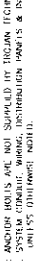
SCONF CLING



MEANS AND  
OVERCURRENT  
PROTECTION OF VICE



ONLY EQUIPMENT ONLY  
ONE PERSON.  
with



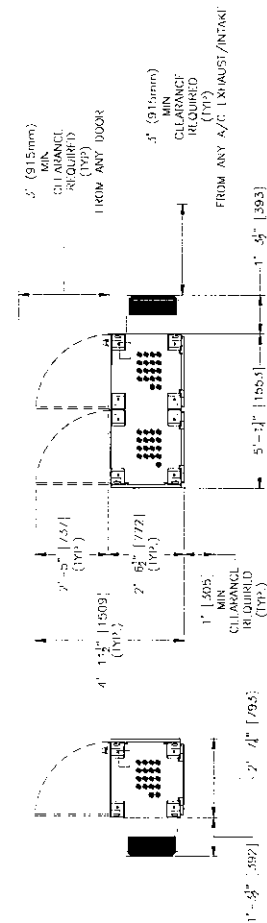
- ILLUSTRATE HOW MAIN'S SKILLS ARE TO SUPPORT IT
- REMOVABLE GRATING SECTIONS SHALL BE EASILY REMOVED
- MAXIMUM WEIGHT OF THE SECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS

PRELIMINARY, NOT  
FOR CONSTRUCTION  
VERIFY DIMENSIONS BEFORE COMMENCING ON- OR DESIGN WORK

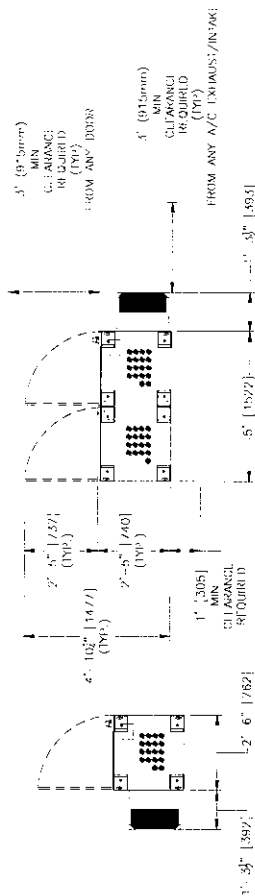
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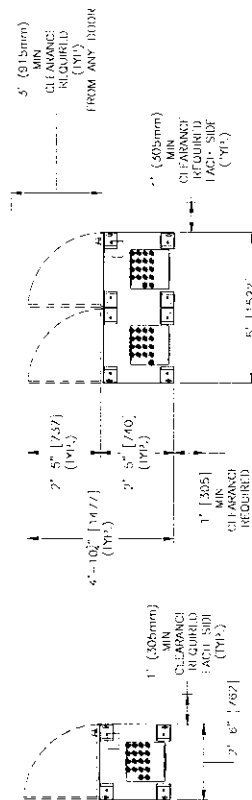




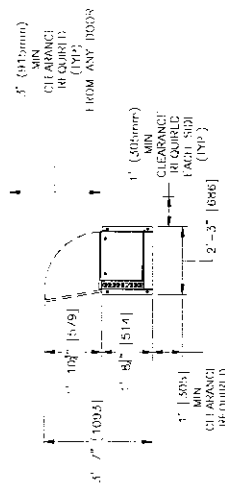
WITH SUNSHADE  
SCALINIS



# WITHOUT SUN SHADES

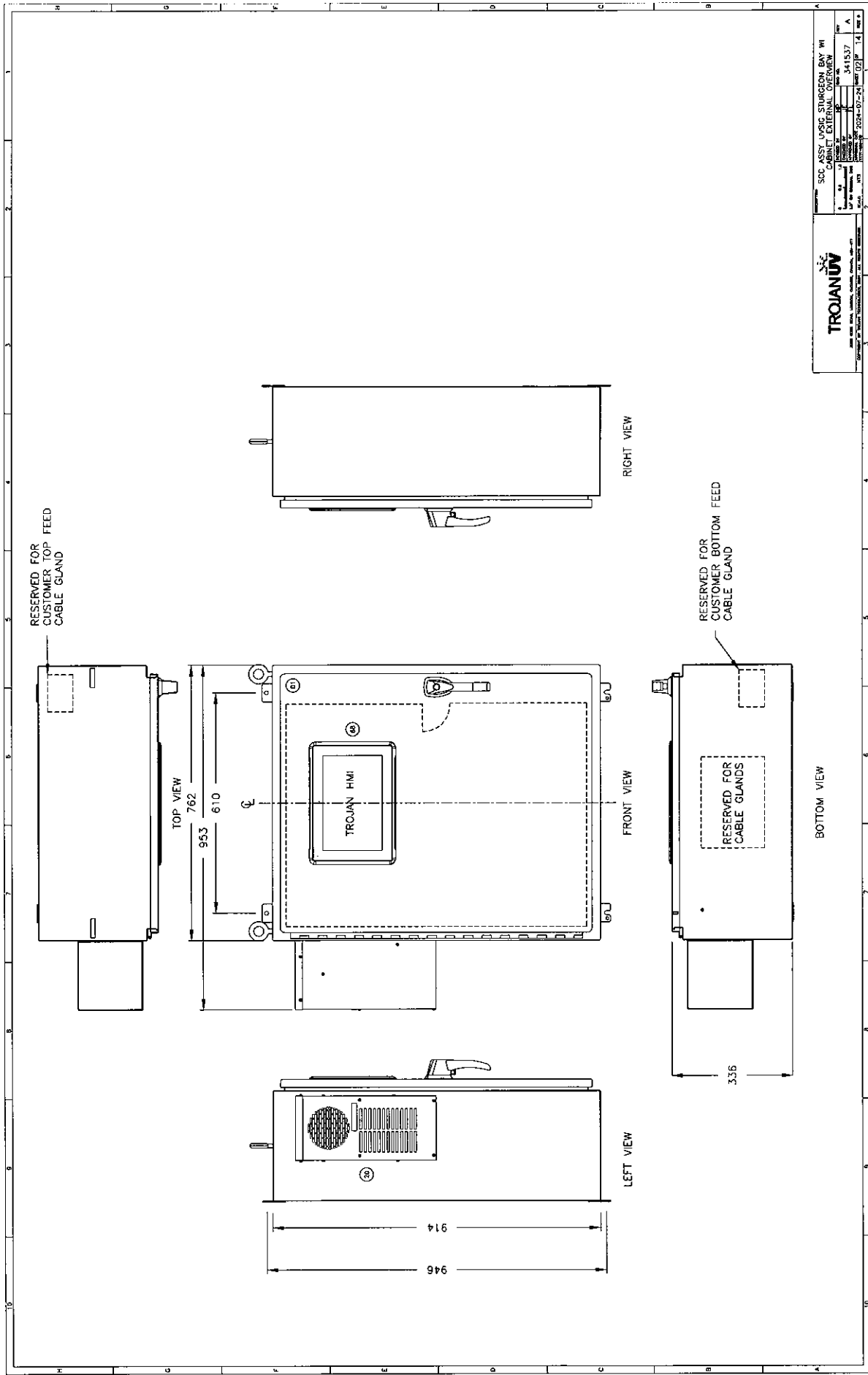


WITHOUT SUN SHADE & A/C  
SCALE: 1:15



1450  
SCALE: VES

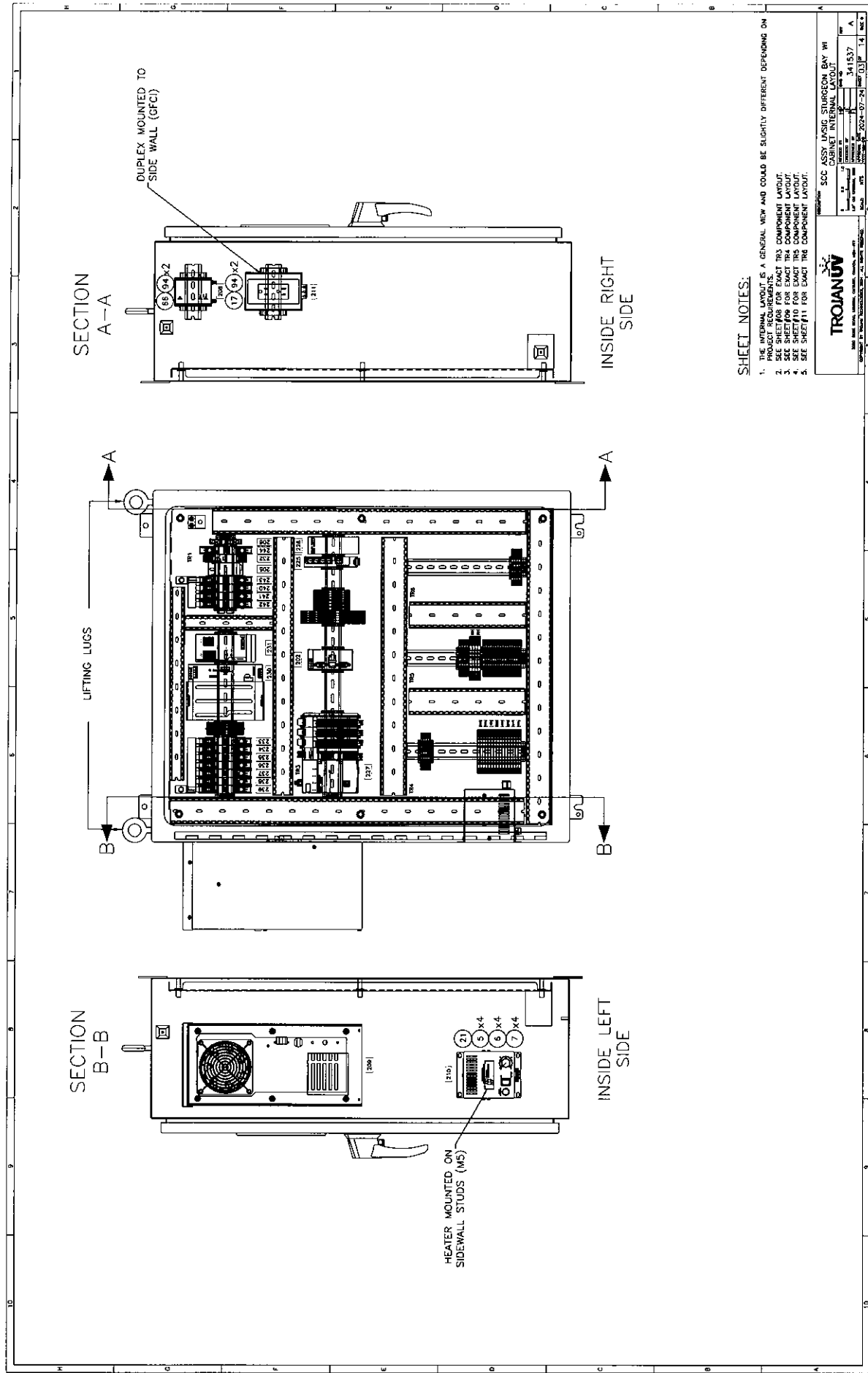
[illegible]



**TROJANUV**

SCC ASSY UV31C STURGEON BAY HI  
CABINET EXTERNAL OVERVIEW

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100	02/11/2024	341537		



**SHEET NOTES:**

1. THE INTERNAL LAYOUT IS A GENERAL VIEW AND COULD BE SLIGHTLY DIFFERENT DEPENDING ON PROJECT REQUIREMENTS.
2. SEE SHEET 103 FOR EXACT TRS COMPONENT LAYOUT.
3. SEE SHEET 104 FOR EXACT TRS COMPONENT LAYOUT.
4. SEE SHEET 105 FOR EXACT TRS COMPONENT LAYOUT.
5. SEE SHEET 111 FOR EXACT TRS COMPONENT LAYOUT.

TROJAN UV		SCC ASSN. LVSIG STURGEON BAY WI	
PROJECT: INTERIOR LAYOUT		341537	
DATE: 07-24-2024		REV: 0.01	
DRAWN BY: [Signature]		CHECKED BY: [Signature]	
SCALE: 1/8" = 1'-0"		SHEET: 14	