

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 3rd 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 3rd 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 (VWV & 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.

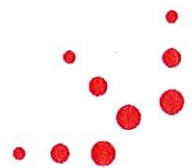
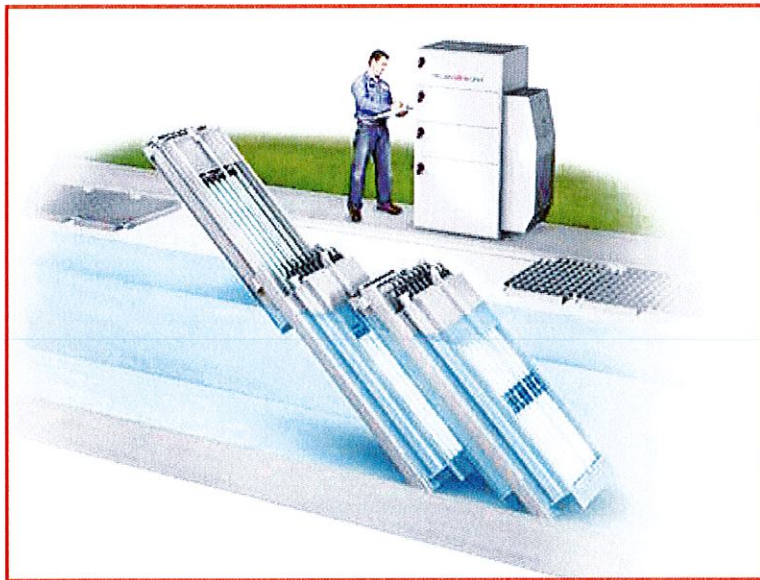
We would like to thank the The City of Watertown as well as Applied Technologies for the opportunity to submit our proposal for this important project. If you have any questions or require any additional information, please do not hesitate to contact our local representative Rick Knoelke with Mulcahy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

Best regards,

A handwritten signature in black ink, appearing to read "Rob Jansen", with a stylized flourish at the end.

Rob Jansen
Regional Manager
Trojan Technologies

BID FORMS



BID FORM

PROJECT IDENTIFICATION: Purchase Of Ultra-Violet Disinfection System

THIS BID IS SUBMITTED TO: City of Watertown
Wastewater Treatment Plant
800 Hoffman Road, Watertown, Wisconsin 53094

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for the period of time specified in the Invitation to Bid after the day of Bid opening. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Bidding Requirements within 15 days after the date of Owner's Notice of Award.
3. In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:
 - (a) Bidder has examined copies of all the Bidding Documents and of the following Addenda, receipt of all which is hereby acknowledged:

<u>Number</u>	<u>Date</u>
ADDENDUM NO. 1	16 April 2025

- (b) Bidder has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
 - (c) Bidder has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
 - (d) Bidder has given Engineer written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder.
 - (e) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
4. Bidder will complete the Work for the following prices:

TOTAL BASE BID:

The Bidder agrees to complete the Total Base Bid work for each type and unit of work called for in the Contract Documents set forth in the Contract Documents for the following amount:

Seven hundred and forty five thousand seven hundred and twenty
(use words)

_____ Dollars \$ 745,720 _____ .00
(use figures)

If the Contract is to be awarded, it will be awarded to the lowest, qualified, responsive and responsible Bidder based on the TOTAL BASE BID whose evaluation by Owner indicates that the award will be in the best interests of the Project.

5. Bidder agrees to the provisions of Article 3 of the Agreement as to the contract times, and the Bidder accepts the provisions of the Article 3 of the Agreement as to liquidated damages in the event of failure to complete the Work on time.
6. The following documents are attached to and made a condition of this Bid:
 - (a) Required Bid Security in the form of 5%
 - (b) Statement of the Bidder's qualification to do business in the state where the Project is located; or in the absence of such evidence, this bid constitutes Bidder's covenant to obtain such qualification prior to the award of the Contract.
7. Communications concerning this Bid shall be addressed to:

Name: Rob Jansen

Company Name: Trojan Technologies

Address: 3020 Gore Road, London, ON, Canada N5V 4T7

Telephone No.: 519-851-2253 (Email: rjansen@trojantechnologies.com)

SUBMITTED ON April 28, 2025

I hereby certify that as Bidder I/We have examined and carefully prepared this Bid from the Bidding Documents and have checked the same in detail before submitting this Bid, and that all statements herein are made on behalf of:

An Individual

By (Individual's Signature) _____ (SEAL)

Individual's Name (Print) _____

Doing business as (Firm Name) _____

Business address: _____

Phone No.: _____

A Partnership

By (Firm Name) _____ (SEAL)

Signature of General Partner _____

Name of General Partner (Print) _____

Business Address: _____

Phone No.: _____

A Corporation

By (Corporation Name) Trojan Technologies Corp.

State of Incorporation Delaware

Signature of Authorized Representative Mark Selander

Name of Authorized Rep. (Print) Mark Selander

Title Director of North American Municipal System Sales (SEAL)

Attest (Signature) Rob Jansen

Name of Attester (Print) Rob Jansen

Business address: 839 NY State Route 13
Cortland, NY 13045

Phone No.: 1-866-388-0488

A Joint Venture

By (Representative's Signature) _____ (SEAL)

Representative's Name & Title (Print) _____

Doing business as (Firm Name) _____

Business address: _____

Phone No.: _____

By (Representative's Signature) _____ (SEAL)

Representative's Name & Title (Print) _____

Doing business as (Firm Name) _____

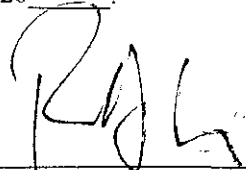
Business address: _____

Phone No.: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above).

Sworn and subscribed to before me this

25th day of April, 2025.



Notary or Other Officer Authorized To
Administer Oaths

My commission expires: Aug. 6, 2027

Harold Rodney Black, Notary Public, Province of Ontario,
limited to the attestation of instruments and the taking
of affidavits, for Trojan Technologies Group ULC and its
subsidiaries, associated companies and affiliates.
Expires August 6, 2027.

BID BOND



BID BOND

Trojan Technologies Corp.
hereinafter called the Principal (Bidder), and Travelers Casualty and Surety Company of America
a corporation duly organized and existing under the laws of the State of Connecticut,
having its principal place of business at One Tower Square, Hartford, CT 06183, and authorized to do
business in the State of Wisconsin, as Surety, are held and firmly bound unto the _____
City of Watertown, Watertown Wastewater Treatment Facility, 800 Hoffman Road,
Watertown, WI 53094

hereinafter called the Obligee, in the penal sum of _____
Five Percent (5%) of Total Amount Bid ----- DOLLARS
(\$ 5%) for the payment of which we bind ourselves, our heirs, executors,
administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

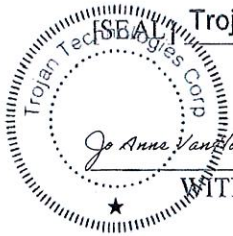
WHEREAS, the Principal is herewith submitting its Bid for:

Purchase of Ultra-Violet Disinfection System

said Bid, by reference thereto, being hereby made a part hereof.

Now, therefore, if the Bid submitted by the Principal is accepted, and the Contract awarded to the Principal, and if the Principal shall execute the proposed Agreement and shall furnish such Performance Bond and Payment Bond as required by the Contract Documents within the time fixed by the Documents, then this obligation shall be void; if the Principal shall fail to execute the proposed Agreement and furnish the bonds, the Surety hereby agrees to pay to the Oblige the penal sum as liquidated damages.

Signed and sealed this 28th day of April, 2025.



Trojan Technologies Corp.

PRINCIPAL

Jo Anne VanHooydonk

WITNESS

BY

Jo Anne VanHooydonk

(TITLE)

[SEAL] Travelers Casualty and Surety Company of America

SURETY

JoAnn R. Frank
WITNESS

JoAnn R. Frank

BY

Elizabeth A. Hartzberg
(TITLE)

Elizabeth A. Hartzberg, Attorney-in-Fact



Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY


KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Elizabeth A. Hartzberg of Pittsburgh, Pennsylvania, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 21st day of April, 2021.



State of Connecticut

City of Hartford ss.

By: 
Robert L. Raney, Senior Vice President

On this the 21st day of April, 2021, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2026




Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 28th day of April, 2025.




Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.