



## CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (SMP2022-101, SSDP2022-103 & EA2022-126)

Notice is hereby given that the City of Richland Public Works Department has applied for a Shoreline Management Substantial Development & Special Use Permit to install a fiberglass enclosure approximately 45 square feet in size that will house equipment used to collect water samples for analysis within shoreline management jurisdiction of the Columbia River, along the riverfront trail near 50 Comstock Street, Richland, WA. The proposal has been determined to be consistent with the City of Richland's Critical Areas regulations.

Copies of the complete application packet, SEPA Checklist and related materials can be obtained by visiting the City of Richland website ([www.ci.richland.wa.us](http://www.ci.richland.wa.us)).

The Richland Hearings Examiner will conduct a public hearing and review of the application at 6:00 p.m., Monday, November 14, 2022 in the Richland City Hall Council Chambers, 625 Swift Boulevard. All interested parties are invited to participate and present testimony at the public hearing either in person or via Zoom by visiting the City of Richland website ([www.ci.richland.wa.us](http://www.ci.richland.wa.us)).

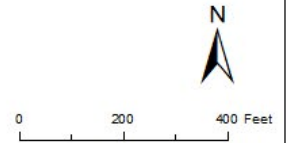
**Environmental Review:** The proposal is subject to environmental review. The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development. The environmental checklist and related file information are available to the public and can be viewed at [www.ci.richland.wa.us](http://www.ci.richland.wa.us).

Any person desiring to express their views or to be notified of any decisions pertaining to this application should notify Kyle Hendricks, Planner, 625 Swift Boulevard, MS #35, Richland, WA 99352. Comments may also be emailed to [khendricks@ci.richland.wa.us](mailto:khendricks@ci.richland.wa.us). Written comments should be received no later than 5:00 p.m. on Wednesday, November 2, 2022 to be incorporated into the staff report. Comments received after that date will be entered into the record at the hearing.

The application will be reviewed in accordance with the regulations in RMC Title 19 Development Regulations Administration and Title 26 Shoreline Master Program. Appeal procedures of decisions related to the above referenced application are set forth in RMC Chapter 19.70. Contact the Richland Planning Division at the above referenced address with questions related to the available appeal process.

# Vicinity Map

Item: City of Richland Sewer Outfall Meter  
Applicant: City of Richland  
File #: SSDP2022-103 & SMP2022-101





## Shoreline Master Program Special Use Application

**Note: A Pre-Application meeting is required prior to submittal of an application.**

### PROPERTY OWNER INFORMATION

☐ Contact Person

Owner: City of Richland

Address: 625 Swift Blvd. Richland, WA 99352

Phone:

Email:

### APPLICANT/CONTRACTOR INFORMATION (if different)

☒ Contact Person

Company: City of Richland

UBI#: 036001852

Contact: Marc La Vanway

Address: 625 Swift Blvd. Richland, WA 99352

Phone: 509-942-7791

Email: mlavanway@ci.richland.wa.us

### PROPERTY INFORMATION

Legal Description:

NE Corner of T. 9 N. R. 28 E. S. 14

Parcel #: 114981020564010

Current Zoning: Waterfront

Current Land Use Designation: Waterfront

Shoreline Designation: Waterfront

### DESCRIPTION OF PROJECT

Work will include installing a fiberglass enclosure over the existing sewer outfall structure. Within the structure there will be equipment to analyze information from data sensors such as flow and equipment to obtain a water sample for analysis.

A concrete pad will poured adjacent to existing structure as shown on the site plan.

The existing fence shall be removed and replaced with a 6 ft high fence with barbed wire with privacy slats. A 12-ft gate shall be installed to allow access for maintenance as needed.

The enclosure will attach to the existing concrete. A laserflow velocity sensor will be installed outside of the shoreline boundary at a nearby sewer manhole that will communicate with enclosure equipment through an electrical conduit within the existing sewer easement.

All power for the equipment shall be supplied by the nearby transformer as shown in the site plan.

### PURPOSE

The purpose of a special use permit is to provide a system within the master program which allows flexibility in the application of use regulations in a manner consistent with the policies of RCW 90.58.020. In authorizing a special use, special conditions may be attached to the permit by local government or the department to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the act and the Richland Shoreline Master Program.

**APPLICATION MUST INCLUDE**

1. Completed application and filing fee
2. Title insurance company certificate, issued no more than 30 days prior to application, showing ownership of the property and all lien holders
3. A site plan, drawn to scale, showing all details of the proposal – include property lines, easements, building location(s) and dimensions, parking areas, access driveways, landscaping areas, critical area features, fences, signs, storm water control features, existing wells and drain fields, fire hydrants, significant cut or fill areas, etc. See WAC 173-27-180.
4. Preliminary layout of building interior (uses and sizes of rooms)
5. Any other information the Administrator deems necessary to determine compliance with applicable codes and WAC 173-27-180
6. SEPA Checklist

**ANSWER THE FOLLOWING AS THOROUGHLY AS POSSIBLE**

**Describe how the proposed use is consistent with the policies of RCW 90.58.020 and the Richland Master Program:**

The proposed use will preserve the natural character of the shoreline, protect resources and ecology of the shoreline, and recognizes and protects the statewide interest over local interest. Work will take place approximately 115 feet from the ordinary high-water mark of the Columbia River.

In accordance with RMC 26.50.040, this project conforms to the shoreline master program and policies.

In accordance with RMC 26.50.050, this project will not interfere with the normal use of public shorelines, will not cause significant adverse impacts to the shoreline environment and is compatible with authorized uses within the area.

**Describe how the proposed use will not interfere with the normal public use of public shorelines:**

In accordance with RMC 26.20.050, the proposed project will not interfere with normal public use by limiting or impacting public access. The proposed project will have privacy slats around the fence to designate the separation of uses (public use of shoreline versus utility).

Minimal work will take place outside the existing structure footprint. Minimal work to be approximately 45 SF of new concrete, removal of existing fence, installation of new fence. Electrical conduit will be installed underground from the new enclosure, within the existing sewer easement, to an existing manhole (outside of the shoreline designation area) as shown on the site plan.

All work will take place within the existing sewer easement.

**Describe how the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the Comprehensive Plan and Shoreline Master Program:**

In accordance with RMC 26.30.110, the proposed project is needed for sampling of the effluent of the wastewater close to end of pipe as possible, more reliable maintenance, monitoring and cheaper replacement costs. The end of sewer outfall effluent pipe offers the most representative sample location and was actually the original spot identified when the plant was built out. The existing sewer outfall structure currently exists and this project would be pouring a concrete slab, removing and replacing existing fencing, and putting an automated sampler and enclosure on top of the existing and new concrete as shown in the site plan.

**Describe how the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located and how the public interest suffers no substantial detrimental effect:**

In accordance with RMC 26.20.020, no significant adverse effects to the shoreline environment will occur.

The public interest suffers no substantial detrimental effect by this project as the existing sewer outfall structure and the proposed enclosure will be hidden behind a fence with privacy slats.

I authorize employees and officials of the City of Richland the right to enter and remain on the property in question to determine whether a permit should be issued and whether special conditions should be placed on any issued permit. I have the legal authority to grant such access to the property in question.


I also acknowledge that if a permit is issued for land development activities, no terms of the permit can be violated without further approval by the permitting entity. I understand that the granting of a permit does not authorize anyone to violate in any way any federal, state, or local law/regulation pertaining to development activities associated with a permit.

I hereby certify under penalty of perjury under the laws of the State of Washington that the following is true and correct:

1. I have read and examined this permit application and have documented all applicable requirements on the site plan.
2. The information provided in this application contains no misstatement of fact.
3. I am the owner(s), the authorized agent(s) of the owner(s) of the above referenced property, or I am currently a licensed contractor or specialty contractor under Chapter 18.27 RCW or I am exempt from the requirements of Chapter 18.27 RCW.
4. I understand this permit is subject to all other local, state, and federal regulations.

*Note: This application will not be processed unless the above certification is endorsed by an authorized agent of the owner(s) of the property in question and/or the owner(s) themselves. If the City of Richland has reason to believe that erroneous information has been supplied by an authorized agent of the owner(s) of the property in question and/or by the owner(s) themselves, processing of the application may be suspended.*

Applicant Printed Name: Marc La Vanway

Applicant Signature: 

Date

7/13/2022



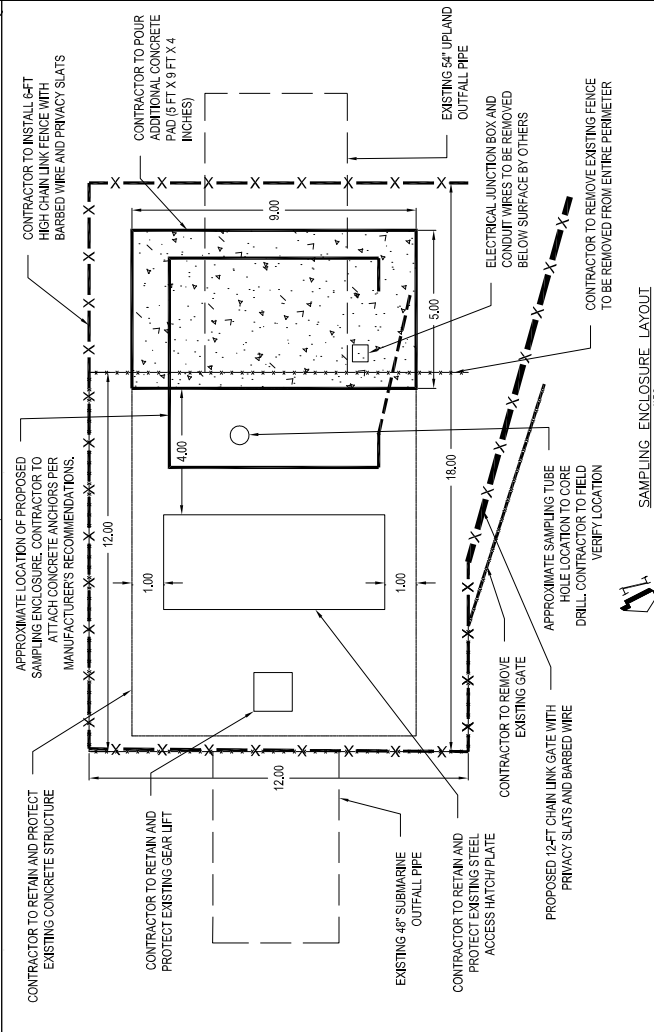
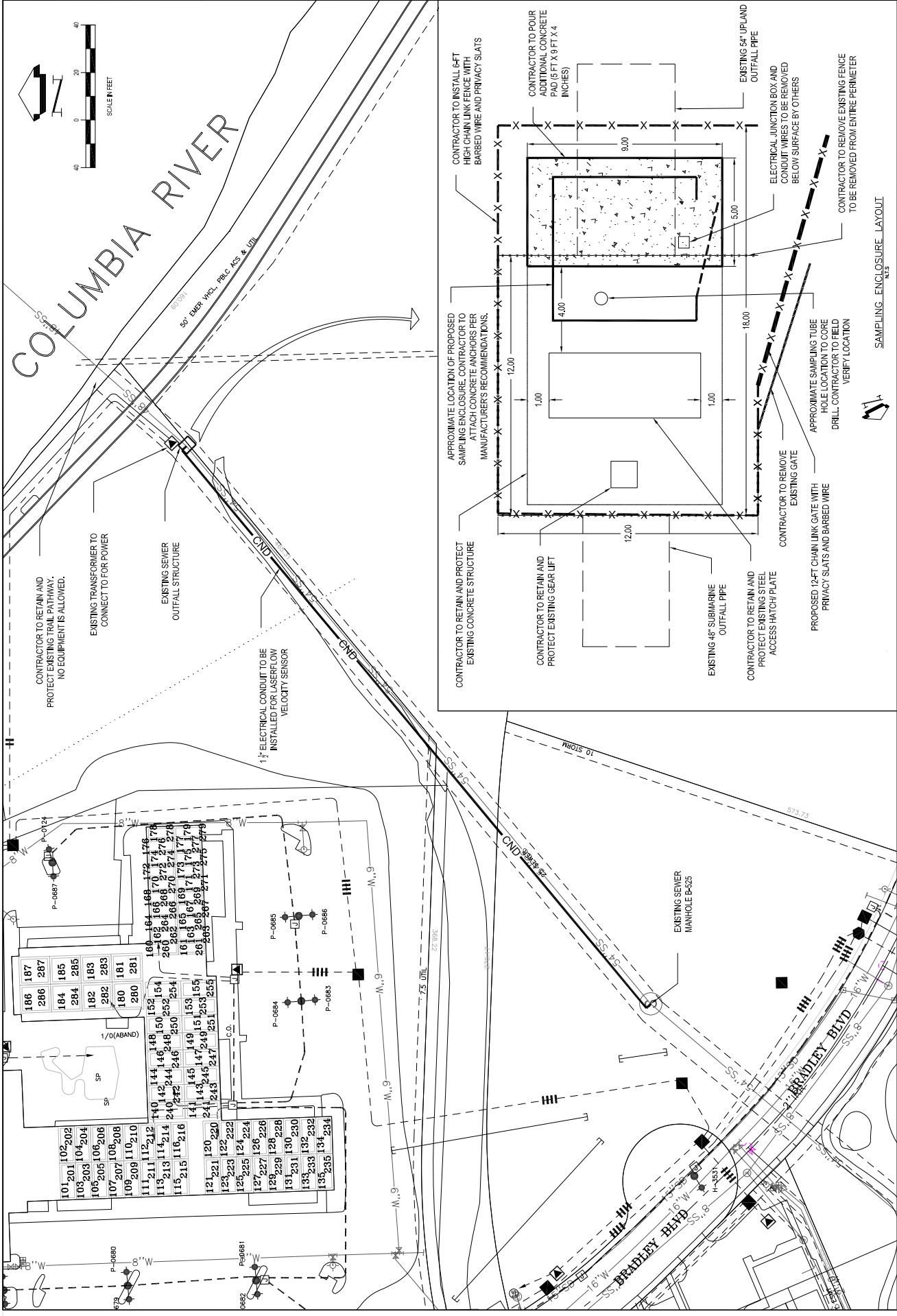


DRAFT

CITY OF RICHLAND  
PUBLIC WORKS DEPARTMENT

WASTEWATER EFFLUENT SAMPLING ENCLOSURE  
SITE PLAN

ONE INCH = AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY
CAD: DMC
CONTRACT NO.: 102-2481
DATE: 07-13-2022
DESIGNER: M. J.
RECORD: DMC
SHEET



SAMPLING ENCLOSURE LAYOUT  
N.T.S.

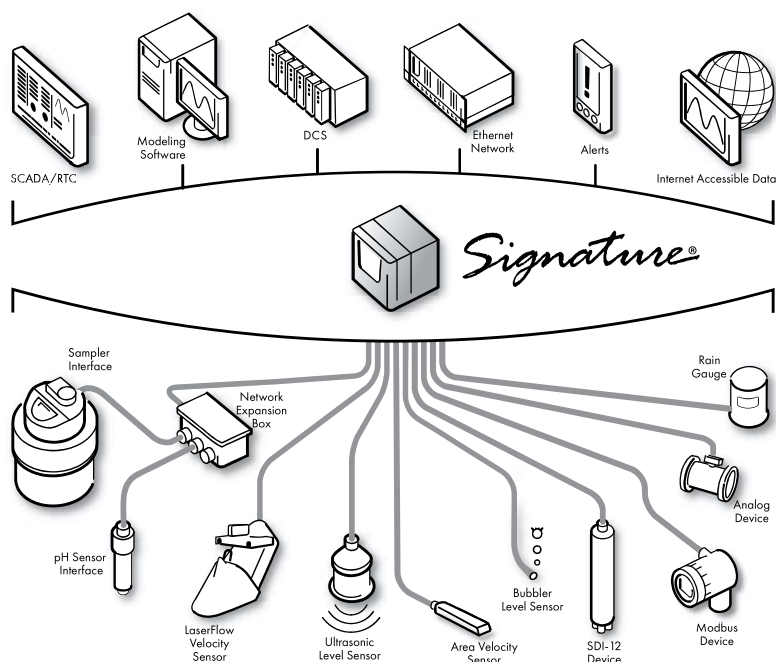
# Signature® Flowmeter

The Signature flowmeter is designed for open channel flow monitoring applications. It supports flow measurement technologies including bubbler, non-contact laser area velocity, submerged Doppler ultrasonic area velocity, and ultrasonic.

*A highly flexible monitoring platform, adapting right along with your current need and any future changes in your monitoring requirements.*

The meter can calculate flow using standard open channel level-to-flow and area velocity conversions, as well as user defined equations, level to area data points, or level to flow data points, depending on the application needed.

The Signature flowmeter has unique features to verify data integrity. It logs key events such as changes in calibration and power outages to validate data accuracy. Data can be easily reviewed to detect any type of data alteration. With multiple smart interface options and multi-parameter logging (such as pH), the Signature flowmeter provides a common platform for control, action, reporting, and communication.



## Signature®

### Applications:

- Industrial pretreatment compliance
- Shallow flow measurement in large and small pipes
- Permit enforcement
- Wastewater treatment plants
- Outfall
- Stormwater monitoring

### Standard Features

- Multiple parameter data logging
- Program and summary reports
- Triggering, sampler enabling
- Compatibility with Flowlink® software
- Load calculation
- Add, subtract average multiple inputs

## EXHIBIT B

## Data Collection

### Flowlink® Data Analysis

Teledyne ISCO Flowlink® software is a powerful tool for analyzing flow and water quality data. It provides site setup and data retrieval/analysis, as well as advanced reporting and graphing. Flowlink software also gives you the ability to generate site data graphing and reports.

### Remote Communication

Remote communication options allow meter configuration and data/report retrieval from remote locations. They also enable the transfer of data to a dedicated server running Flowlink Pro software.

### USB Connectivity

With a USB flash drive attached, you can quickly update firmware in the Signature flowmeter and connected TIENet® devices, and download data files for use with Flowlink software. In addition, the USB port provides direct serial connection with a computer running Flowlink software.

### Data Integrity

Data Integrity is ensured by logging event data types that can be verified, thereby producing confidence with verifiable data including; Summary, Diagnostic, Program, History and Verify Report files.

## Signature Flow Meter

<b>Size (HxWxD):</b>	8.88 x 12.22 x 8.22 in (with mounting bracket) 16.74 x 13.58 x 10.48 in (with stand)
<b>Materials:</b>	PPO Polyphenylene Oxide
<b>Enclosure:</b>	IP66 (self-certified)
<b>Power Required:</b>	100 to 240 VAC 50/60 Hz 10–28.5 VDC nominal, 36 VDC max (current consumption varies depending upon configuration)
<b>Cable Entry:</b>	Standard: ¾" NPT conduit Optional: ¾" NPT cord grips
<b>Flow Measurement Technologies:</b>	Ultrasonic (TIENet 310) Bubbler (TIENet 330) Area Velocity (TIENet 350, 360)
<b>Inputs:</b>	Two SDI-12, Two MODBUS ASCII/RTU, pH Measurement (TIENet 301) Analog In (TIENet 307), Rain In
<b>Setup:</b>	Front Panel Keypad-Flowlink Software with serial USB, remote cellular, or Ethernet
<b>Flow Conversions:</b>	Area Velocity, Weir, Flume, British Flume, Metering Insert, Manning Formula, Equation, Level to Flow Data, Points, Level to Area Data Points
<b>Data Storage:</b>	Non-volatile flash; retains stored data during program updates. Capacity: 8M Interval: 15 or 30 seconds; 1, 2, 5, 15, or 30 minutes; or 1, 2, 4, 12, or 24 hours Capacity: 180 days with 5 parameters logged at 1 minute intervals, reports once per day
<b>Data Retrieval:</b>	USB drive, Flowlink Software—with serial USB, remote cellular, or Ethernet
<b>Outputs:</b>	MODBUS ASCII/RTU, Analog (TIENet 308), Contact Output (TIENet 304), SMS Alarm
<b>Sampler Interface:</b>	TIENet 306

## Input Options

- Multiple simultaneous flow technologies
- pH and temperature
- SDI-12
- RS-485 Modbus
- Rain gauge
- Analog (optional TIENet® 307 card)

## Output Options

- RS-485 Modbus
- Analog (optional TIENet® 308 card)
- Contact (optional TIENet® 304 card)

## Available Measurement Technologies

- Bubbler and Ultrasonic
- Non-Contact Laser Velocity
- Continuous Wave Area Velocity

## Teledyne ISCO

P.O. Box 82531, Lincoln, Nebraska, 68501 USA  
Toll-free: (800) 228-4373 • Phone: (402) 464-0231 • Fax: (402) 465-3091

teledyneisco.com



Teledyne ISCO is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.





# LaserFlow®

## Non-Contact Subsurface Velocity Sensor

The LaserFlow® velocity sensor remotely measures flow in open channels with non-contact Laser Doppler Velocity technology and non-contact Ultrasonic Level technology. The sensor uses advanced technology to measure velocity with a laser beam at single or multiple points below the surface of the wastewater stream.

*The only non-contact flow measurement device to read below the surface.*

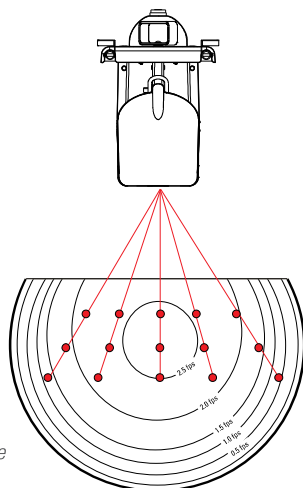
The sensor uses an ultrasonic level sensor to measure the level and determines a sub-surface point to measure velocity. The sensor then focuses its laser beam at this point and measures the frequency shift of the returned light.

The LaserFlow is ideal for a broad range of wastewater monitoring applications. It is compatible with both the Teledyne ISCO Signature® Flow Meter and the 2160 LaserFlow Module, depending on the type of installation.

During submerged conditions, flow measurement continues without interruption with optional continuous wave Doppler Ultrasonic Area Velocity technology.

With its specially designed mounting bracket in place, the LaserFlow can be deployed and removed from street level. This avoids the risk and expense of confined space entry. A variety of communication options enable programming and data retrieval from a remote location. Information about data quality can be recorded and transmitted with the flow data.

Additionally, built-in diagnostic tools simplify installation, maintenance, and advanced communication options reduce site visits.



*The LaserFlow device can be programmed to take velocity measurements at single or multiple points below the water's surface.*



## LaserFlow®

### Applications:

- Permanent and portable flow measurement for CSO, SSO, I&I, SSEs, CMOM, and other sewer monitoring programs
- Wastewater treatment plant influent, process, and effluent flow measurement
- Industrial process and discharge flow measurement
- Stormwater conveyance and outfall
- Irrigation canals and channels
- Shallow flow measurement in varying pipe sizes

### Standard Features:

- Non-contact velocity and level measurement
- Single or multiple point measurement below the liquid surface
- Rugged, submersible enclosure with IP68 ingress protection
- Zero deadband from measurement point in non-contact level and velocity measurements
- Quality readings without manual profiling
- Bidirectional velocity measurement

## LaserFlow® Sensor

Size (H x W x D):	14.96 x 10.3 x 22.32 in (38.01 x 26.21 x 56.7 cm)
Weight :	8.7 kg (19.2 lbs)
Materials:	Conductive Carbon Filled ABS, SST, Conductive Kynar® <sup>a</sup> , Anodized Aluminum, UV Rated PVC
Cable Lengths:	32.8 or 75.5 ft (10 or 23 m) <sup>b</sup>
Enclosure:	IP68
Certifications:	CE EN61326; FDA CDRH 21CFR1040; IEC 60825-1
Laser Class:	Class 3R
Temperature Range:	Operating: -4 to 140 °F (-20 to 60 °C) Storage: -40 to 140 °F (-40 to 60 °C)
Power Required:	Input voltage: 8 to 26 VDC 12 VDC Nominal
Flow Accuracy:	±4% of reading <sup>c</sup>
Communication Protocol:	TIENet™

## Velocity

Technology:	Non-Contact, Subsurface Laser Doppler Velocity (patented)
Measurement Range:	-15 ft/s to 15 ft/s (-4.6 m/s to 4.6 m/s)
Maximum distance from liquid surface to bottom of sensor:	10 ft (3 m)
Minimum depth:	0.5 in (0.01 m) <sup>c</sup>
Direction:	Selectable Bidirectional Measurement <sup>d</sup>
Accuracy:	±0.5% of reading 0.1 ft/s (±0.03 m/s)
Minimum Velocity:	0.5 ft/s (0.15 m/s)

## Level

Technology:	Non-Contact Ultrasonic
Measurement Range:	0 to 10 ft (0 to 3 m) from measurement point
Accuracy @ 72 °F (22 °C)	0.02 ft (±0.006 m) at <1 ft level change 0.04 ft (±0.012 m) at <1 ft level change
Temperature Coefficient within compensated range:	± 0.0002 x D (m) per degree C ± 0.00011 x D (ft) per degree F (D = Distance from transducer to liquid surface)
Beam Angle:	10° (5° from center line)
Ultrasonic Signal:	50 KHz
Deadband:	Zero deadband from bottom of LaserFlow sensor <sup>e</sup>

## Optional Surcharge Measurement:

## TIENet™ 350 Area Velocity Sensor

Probe Size (H x W x L):	0.75 x 1.3 x 6.0 in (19 x 33 x 152 mm)
Materials:	Sensor: Epoxy, chlorinated CPVC, SST Cable: UV-Rated PVC
Certifications:	CE EN61326
Temperature Range:	32 to 158 °F (0 to 70 °C)

## Velocity

Technology:	Submerged Continuous Wave Doppler
Ultrasonic:	Measurement
Range:	-5 to 20 ft/s (-1.5 to 6.1 m/s)
Velocity Measurement:	Bidirectional
Accuracy:	±0.1 ft/s (±0.03 m/s) from -5 to 5 ft/s ±2% of reading from 5 to 20 ft/s, Uniform velocity profile
Minimum Depth:	0.08 ft (25 mm)
Frequency:	500 kHz

## Level

Technology:	Submerged Differential Linear Pressure Transducer
Measurement Range:	0.033 to 10 ft (0.01 to 3.05 m)
Accuracy:	± 0.10% of full scale
Maximum Depth:	34 ft (10.5 m)
Stability:	±0.023 ft/yr (±0.007 m/yr)

## Options and Accessories

- Flow measurement during submerged conditions via Ultrasonic Doppler technology
- Redundant flow measurement with simultaneous Continuous Wave Doppler or Ultrasonic Level Sensing
- Permanent and temporary mounting hardware
- Sensor retrieval arm enables installation and removal without confined space entry
- Remote ultrasonic level sensor options for drop manhole and outfall applications

<sup>a</sup> Kynar® is a registered trademark of Arkema, Inc.

<sup>b</sup> Custom cable lengths also available.

<sup>c</sup> Under normal flow conditions.

<sup>d</sup> Turbidity > 20 NTU. Distance < 48 inches.

<sup>e</sup> Deadband for remote TIENet™ 310 ultrasonic level sensor varies, depending on the type of mounting hardware.

## Teledyne ISCO

P.O. Box 82531, Lincoln, Nebraska, 68501 USA  
Toll-free: (800) 228-4373 • Phone: (402) 464-0231 • Fax: (402) 465-3091

teledyneisco.com



Teledyne ISCO is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.



# 5800

## Refrigerated Sampler

The 5800 Refrigerated Sampler is Teledyne ISCO's answer to the rigorous demands of water monitoring, with user-friendly controls and task accommodating features. Along with easy control and on-site programmability, it also has a unique slide-out bottle rack to easily access sample containers.

*The only choice for stationary sampling in both municipal and industrial wastewater applications.*

The controller actively regulates and displays the sample compartment temperature and logs a 24-hour summary to confirm proper sample cooling. The temperature record is downloadable using a basic utility program, such as Tera Term, or data can be viewed on the unit display.

The 5800 Sampler follows the Teledyne ISCO standard for weather and corrosion resistance. The tough, double-wall LLDPE cabinet protects against exposure in harsh environments. The well-insulated cabinet promotes temperature stability. Samples remain cool in hot and humid conditions, and a built in heater prevents freezing in cold conditions.

Electro- and powder-coating protects the stainless steel components of the refrigeration system, ensuring long life and reliability in corrosive treatment plant conditions.

The 5800 Sampler uses proven peristaltic pump technology to deliver samples at the EPA-recommended line velocity of at least 2 ft/s (0.6 m/s), and at head heights up to 25 feet (7.6 m).

Sample volume accuracy is assured by the pump revolution counter and Teledyne ISCO's liquid detection system.



*The 5800 sampler offers different glass and plastic bottle configurations to meet various sampling programs.*



### Applications:

- Wastewater treatment plants
- Industrial pretreatment
- Influent and effluent sampling

### Standard Features:

- Composite or sequential sampling
- Operating range of -20 to 120 °F (-29 to 49 °C), without additional heaters
- Four digital alarm outputs
- 4-20 mA and DC pulse flowmeter input
- Powerful compressor delivers energy-efficient, high-performance cooling
- Four stored programs
- Lifting handles for easy installation

## 5800 Refrigerated Sampler

<b>Size (HxWxD):</b>	52 x 29 x 33 in (132 x 74 x 84 cm)
<b>Weight (empty):</b>	195 lb (88.5 kg)
<b>Refrigerator Body:</b>	Linear low-density polyethylene
<b>Power Requirements:</b>	115VAC, 60 Hz, or 230 VAC, 50 Hz
<b>Operational Temperature:</b>	-20 ° to 120 °F (-29 ° to 49 °C) The display response time may be longer at temperatures below 0 °F

## Pump

<b>Intake Suction Tubing</b>	
-Length:	3 to 99 ft (0.9 to 30 m)
-Material:	Vinyl or FEP-lined PE
-Inside Diameter:	3/8 in (9 mm)
<b>Pump Tubing Life:</b>	Typically 1,000,000 pump counts
<b>Maximum Suction Lift:</b>	28 ft (8.5 m)
<b>Typical Repeatability:</b>	±5 ml or ±5% of the average volume in a set, whichever is greater, at lifts up to 25 ft
<b>Typical Accuracy at Lifts Up to 25 ft:</b>	±10 ml or ±10% of programmed value, whichever is greater
<b>Typical Line Velocity at Head Height:</b>	3 ft (0.9 m) head height: 3.0 ft/s (0.9 m/s) 10 ft (3 m) head height: 2.9 ft/s (0.88 m/s) 15 ft (4.6 m) head height: 2.7 ft/s (0.82 m/s)

<b>Liquid Presence Detector:</b>	Non-wetted, non-conductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights
----------------------------------	---

## Controller

<b>Enclosure Rating:</b>	NEMA 4X, 6 (IP67)
<b>Program Memory:</b>	Non-volatile ROM
<b>Flow Meter Signal Inputs:</b>	5 to 15 volt DC pulse or 25 ms isolated contact closure for Teledyne ISCO flow meters. 4–20 mA input or non-Teledyne ISCO flow meters
<b>Digital Alarms:</b>	4 programmable outputs; 5V, 100 mA
<b>Number of Composite Samples:</b>	Programmable from 1 to 999 samples

## Software

<b>Sample Frequency:</b>	1 minute to 99 hours 59 minutes, in 1-minute increments 1 to 9,999 flow pulses
<b>Sampling Modes:</b>	Constant time – constant volume, constant time – variable volume, variable time – constant volume, (flow modes are controlled by external flow meter signal)
<b>Programmable Sample Volumes:</b>	10 to 9,990 ml in 1 ml increments
<b>Sample Retries:</b>	If no sample is detected, up to 3 attempts; user selectable
<b>Rinse Cycles:</b>	Automatic rinsing of suction line up to 3 rinses for each sample collection
<b>Controller Diagnostics:</b>	Tests for RAM, ROM, pump, display, and electrical components

## Ordering Information

### 5800 Refrigerated Sampler

Suction line, strainer, and bottle configuration not included; order separately.

115V/60Hz .....	68-5800-001
230V/50Hz .....	68-5800-002
230V/50Hz w/ Chinese Display .....	68-5800-003

### Bottle Configurations

Twenty-four 1-liter PP bottles .....	68-5800-015
Twenty-four 350-ml glass bottles .....	68-5800-016
Four 10-liter round PE bottles .....	68-5800-005
Four 10-liter round glass bottles .....	68-5800-006
Four 20-liter square PE bottles .....	68-5800-019
Two 10-liter round PE bottles .....	68-5800-007
Two 10-liter round glass bottles .....	68-5800-008
One 20-liter round PE bottle .....	68-5800-011
One 20-liter round glass bottle .....	68-5800-012
One 10-liter round PE bottle .....	68-5800-009
One 10-liter round glass bottle .....	68-5800-010
Twenty-four 1-liter ProPak bottles .....	68-5800-017
One 10-liter ProPak bottle .....	68-5800-018

## Teledyne ISCO

P.O. Box 82531, Lincoln, Nebraska, 68501 USA  
Toll-free: (800) 228-4373 • Phone: (402) 464-0231 • Fax: (402) 465-3091

teledyneisco.com



Teledyne ISCO is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.





F

E

D

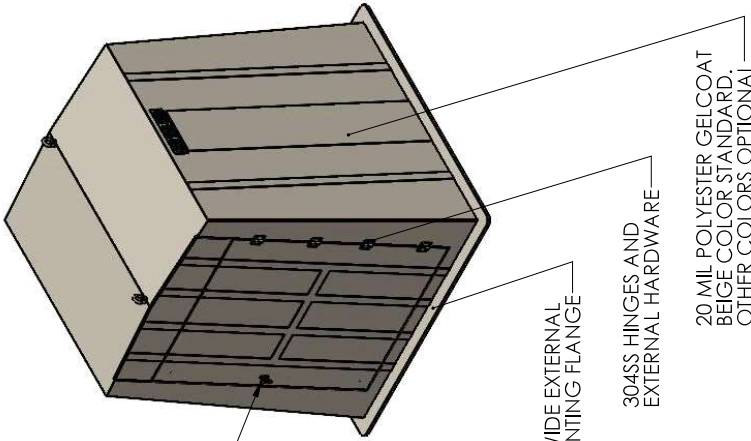
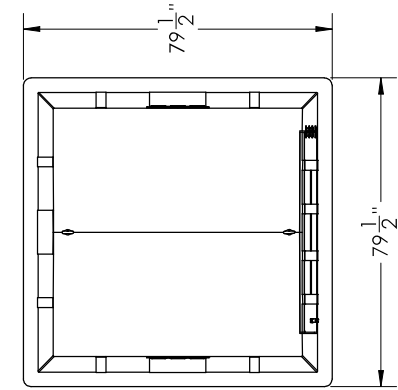
C

B

A

1 2 3 4 5 6 7 8

R7 INSULATION VALUE STANDARD, HIGHER R  
VALUES AVAILABLE



THREE POINT LATCH WITH  
KEYED LOCKABLE TURN  
HANDLE

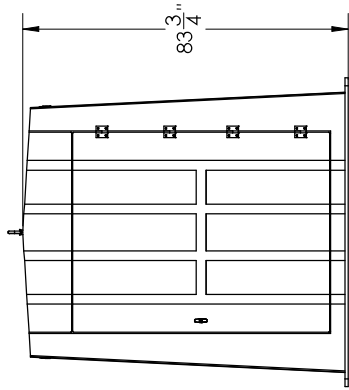
PAIR OF STAINLESS STEEL LIFTING EYES  
STANDARD

SCREENED FIXED LOUVER  
VENT STANDARD

4IN WIDE EXTERNAL  
MOUNTING FLANGE

304SS HINGES AND  
EXTERNAL HARDWARE

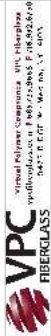
20 MIL POLYESTER GELCOAT  
BEIGE COLOR STANDARD.  
OTHER COLORS OPTIONAL



OPTIONAL FEATURES:

- 3/8" THICK INTEGRAL FIBERGLASS FLOOR
- EQUIPMENT MOUNTING BOARD
- 110V, 60W INCANDESCENT LIGHT WITH WALL SWITCH
- VENTILATION FAN, 60CFM WITH REMOTE THERMOSTAT
- BASEBOARD 500W ELECTRIC HEATER W INTEGRAL THERMOSTAT
- 110/220V LOAD CENTER WITH 100A MAIN AND 4X 20A BREAKERS
- 12"x12" WINDOW IN DOOR

CUSTOM CONFIGURATIONS AVAILABLE!



Virtual Polymer Compounds - VPC Fiberglass  
Fiberglass Enclosures - 1000's of Configurations  
1-800-875-8757 • Fax: 408-245-1400

NAME CD DATE 8/17/2020

DRAWN CHECKED ENG APPR. MFG APPR. Q.A.

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL: ± .005  
ANGULAR: MACH ± .005  
TWO PLACE DECIMAL ± .005  
THREE PLACE DECIMAL ± .0005  
INTERPRET GEOMETRIC  
TOLERANCING PER:  
MATERIAL:  
FINISH:  
NEXT ASSY USED ON APPLICATION  
DO NOT SCALE DRAWING

REVISIONS:  
REV M600 -

SIZE DWG. NO. B M600

SCALE: WEIGHT: SHEET 1 OF 3

TITLE:  
ENDURO MODEL 600  
FIBERGLASS ENCLOSURE

PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS  
DRAWING IS THE SOLE PROPERTY OF  
VPC FIBERGLASS. IT IS TO BE USED  
ONLY FOR THE PROJECT AND SITE  
REPRODUCTION IN PART OR AS A WHOLE  
WITHOUT THE WRITTEN PERMISSION OF  
VPC FIBERGLASS IS PROHIBITED.



F

E

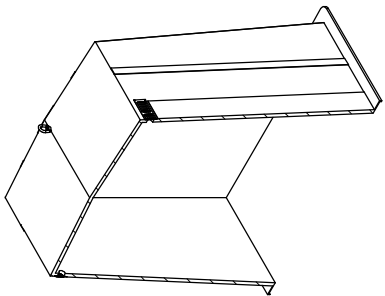
D

C

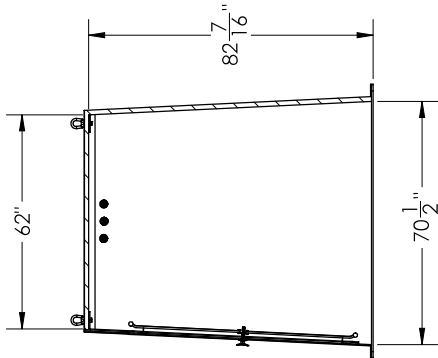
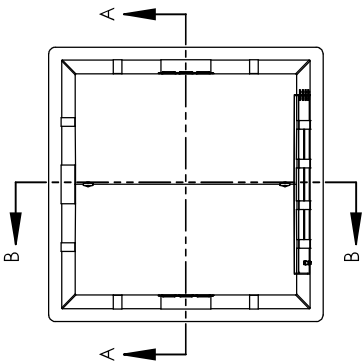
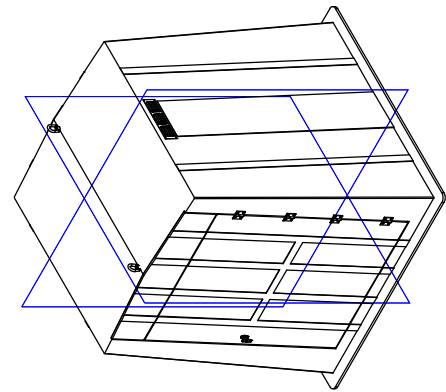
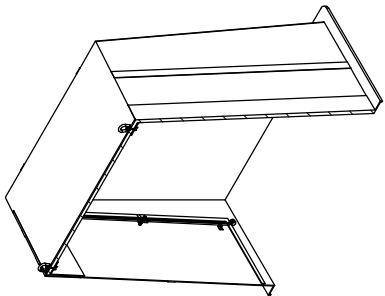
B

A

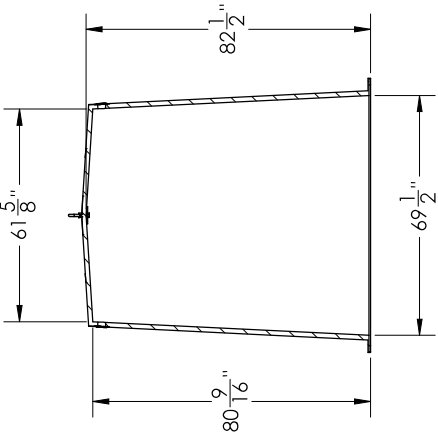
12345678



SECTION A-A



SECTION B-B



SECTION A-A

SECTION B-B

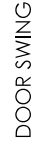
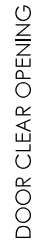
UNLESS OTHERWISE SPECIFIED:	NAME	DATE	CD	8/17/2020
DIMENSIONS ARE IN INCHES	DRAWN	CHECKED	ENG APPR.	MFG APPR.
FRACTIONAL: ±	—	—	—	—
ANGULAR: MACH ±	—	—	—	—
TWO PLACE DECIMAL ±	—	—	—	—
THREE PLACE DECIMAL ±	—	—	—	—
INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.	COMMENTS:	—	—
MATERIAL:	—	—	—	—
FINISH:	—	—	—	—
USED ON	—	—	—	—
NEXT ASSY	—	—	—	—
APPLICATION	—	—	—	—
DO NOT SCALE DRAWING	—	—	—	—

**VPC**  
VIRTUAL POLYMER COMPOUNDS  
FIBERGLASS

TITLE:  
**ENDURO MODEL 600**  
**FIBERGLASS ENCLOSURE**

SIZE	DWG. NO.	REV
<b>B</b>	<b>M600</b>	<b>-</b>
SCALE:	WEIGHT:	SHEET 2 OF 3

**PROPRIETARY AND CONFIDENTIAL**  
THE INFORMATION CONTAINED IN THIS  
DRAWING IS THE SOLE PROPERTY OF  
VIRTUAL POLYMER COMPOUNDS, INC.  
REPRODUCTION IN PART OR AS A WHOLE  
WITHOUT THE WRITTEN PERMISSION OF  
VIRTUAL POLYMER COMPOUNDS IS  
PROHIBITED.



**PROPRIETARY AND CONFIDENTIAL**  
THE INFORMATION CONTAINED IN THIS  
DRAWING IS THE SOLE PROPERTY OF  
VIRTUAL POLYMER COMPOUNDS. ANY  
REPRODUCTION IN PART OR AS A WHOLE  
WITHOUT THE WRITTEN PERMISSION OF  
VIRTUAL POLYMER COMPOUNDS IS  
PROHIBITED.