

SULLIVAN'S ISLAND STITH PARK – DRAINAGE IMPROVEMENTS

PREPARED FOR:
TOWN OF SULLIVAN'S ISLAND

T&H PROJECT No. J-32991

ADDENDUM NO. 2

April 7, 2026

TO: ALL HOLDERS OF RECORD OF CONTRACT DOCUMENTS

Acknowledge receipt of this addendum by inserting its number and date in the Bid Form. Failure to do so may subject the bidder to disqualification. This addendum forms a part of the Contract Documents. It modifies them as follows.

PART I – QUESTIONS & RESPONSES

1. Question – Is there a water source available for temporary irrigation of plants? **Response – Yes, the Town can show the successful contractor available connections.**

PART 2 – TECHNICAL SPECIFICATIONS

1. Attached is specification section 05603 for the slide gate in structure SMH#13.
 - The Slide Gate shall:
 - Be stainless steel
 - Hold water back from the marsh (north direction) side
 - Have a non-rising stem
 - Conform to the attached specification section *05603 Fabricated Stainless-Steel Slide and Weir Gates*

Other aspects of the project remain unchanged.

THOMAS & HUTTON


Mark F. Yodice, PE

Attachment – Specification Section 05603 Fabricated Stainless-Steel Slide and Weir Gates

End of ADDENDUM NO. 2

SECTION 05603**FABRICATED STAINLESS-STEEL SLIDE & WEIR GATES****PART 1 – GENERAL****1.1 DESCRIPTION****A. SCOPE:**

This section specifies heavy-duty, self-contained Stainless Steel upward opening slide gates for the SMH #13.

B. TYPE:

Slide gates shall be of fabricated stainless-steel heavy-duty construction, with gates, guides, and operators provided by one manufacturer. Gates shall meet the leakage requirements of AWWA C561.

The equipment provided under this section shall be fabricated, assembled, erected, and placed in proper operating condition in full conformity with the drawings, specifications, engineering data, instructions, and recommendations of the equipment manufacturer unless exceptions are noted by the engineer.

Gates and operators shall be supplied with all the necessary parts and accessories indicated on the drawings, specified, or otherwise required for a complete, properly operating installation and shall be the latest standard product of a manufacturer regularly engaged in the production of water control gates.

C. DESIGN CONDITIONS:

Self-contained slide gates shall be designed for continuous exposure to raw municipal wastewater and sea water. Fluid temperature is expected to range from 60 degrees F to 80 degrees F. The gates will be installed inside a box near a sat/brackish water receiving body.

1.2 QUALITY ASSURANCE**A. REFERENCES:**

This section contains references to the following documents. They are a part of this section as specified and modified. In case of a conflict between the requirements of this section and those of the listed documents, the requirements of this section shall prevail.

Unless otherwise specified, references to documents shall mean the documents in effect at the time of Notice Inviting Bids. If referenced documents have been discontinued by the issuing organization, references to those documents shall mean the replacement documents issued or otherwise identified by that organization or, if there are no replacement documents, the last version of the document before it was discontinued. Where document dates are given in the

following listing, references to those documents shall mean the specific document version associated with that date, whether the document has been superseded by a version with a later date, discontinued, or replaced.

Reference	Title
ASME	American Society of Mechanical Engineers
ASTM 240	Heat-Resisting Chromium and Chromium Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels
ASTM A276	Stainless and Heat-Resisting Steel Bars and Shapes
ASTM D1248	Polyethylene Plastics Molding and Extrusion Materials for Wire and Cable
ASTM D2000	Rubber Products in Automotive Applications
ASTM D4020	Ultra-High-Molecular-Weight Polyethylene Molding and Extrusion Materials
AWWA C561	Open-Channel, Fabricated Metal Slide Gates

B. SUBMITTALS:

The following information shall be submitted for approval:

1. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks shall denote full compliance with a paragraph. If deviations from the specifications are indicated, and therefore requested by the Contractor, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The Engineer shall be the final authority for determining acceptability of requested deviations. The remaining portions of the paragraph not underlined will signify compliance on the part of the Contractor with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.
2. Fabrication drawings with full dimensions.
3. Plan, cross section, and details showing proposed mounting for each size and typical application of gate.

C. MANUFACTURING:

Manufacturer's welders shall be certified per ASME, Section 1X or American Welding Society.

D. EXPERIENCE:

Manufacturers shall have a minimum of ten years' experience in the fabrication of the model of gate provided. Submit installation list of the model of gate provided to confirm this requirement.

PART 2—PRODUCTS

2.1 PRODUCTS

Fabricated stainless steel weir gates shall be Whipps or equivalent, modified as necessary to provide the specified features and to meet the specified operating conditions.

2.2 MATERIALS

Materials for components shall be as follows:

Component	Material
Frames, slides, rails, and yokes	ASTM A276 or ASTM A240, Type 316L Stainless Steel
Fasteners and anchor bolts	ASTM A276, Type 316 Stainless Steel
Stems	ASTM A276, Stainless Steel, Type 316
Stem Guides	ASTM A276, Stainless Steel, Type 316L, with bronze or UHMW Polyethylene bushing
Seals	ASTM D2000, Grade AA625, Buna-N or neoprene rubber, or ASTM D4020 UHMW Polyethylene

2.3 EQUIPMENT FEATURES

- A. GENERAL DESIGN. Weir gates shall be self-contained, non-rising stem configuration. Design stresses shall not exceed the lesser of 40% of the yield strength or 25% of the ultimate strength of the materials at maximum load conditions. Minimum thickness of slide, its reinforcing members, and all structural components of the guide and frame shall be 0.25 inches.
- B. FRAME. The gate frame shall be constructed of structural members or formed plate welded to form a rigid one-piece frame. The frame shall be of a flange back design, suitable for mounting on a concrete wall (CW). The guide slot shall be made of UHMWPE (ultra high molecular weight polyethylene).
- C. SLIDE. The slide shall consist of a flat plate reinforced with formed plates or structural members to limit its deflection to 1/720 of the gate's span under the design head. The gate frame shall be a rigid, welded unit, composed of guide rails, cross bars, and deadrails, with a clear opening the same size as the waterway, unless otherwise specified. They shall be integral flange back or embedded type. The guides will be of sufficient length to support two-thirds (2/3)

the height of the slide, when the gate is fully open. On wall mounted gates, compressible gaskets or grout shall be provided between frame and wall as needed to ensure full mating of surfaces and no leakage.

Where the guides extend above the operating floor, they shall be sufficiently strong so that no further reinforcement will be required. The yoke to support the operating device shall be formed by members welded or bolted at the top of the guides. The arrangement of the yoke shall be such that the slide and stem can be removed without disconnecting the yoke. When the slide is too long to allow this, the yoke shall be bolted for easy removal.

- D. GUIDES AND SEALS. The guides shall be made of UHMWPE (ultra high molecular weight polyethylene) and shall be of such length as to retain and support at least two thirds (2/3) of the vertical height of the slide in the fully open position.

The bottom and side seals shall be made of UHMWPE (ultra high molecular weight polyethylene) of the self-adjusting type. A continuous compression cord shall ensure contact between the UHMWPE guide and the gate in all positions. The sealing system shall maintain efficient sealing in any position of the slide and let the water flow only in the open part of the gate.

Seals shall maintain the specified leakage rate in both seating and unseating conditions.

- E. OPERATOR STEM AND COUPLINGS. The operating stem shall be of stainless steel designed to transmit in compression at least two (2) times the rated output of the operating manual mechanism with a 40 lbs (178 N) effort on the crank or hand wheel.

The stem shall have a slenderness ratio (L/r) less than 200. The threaded portion of the stem shall have machine cut threads of the Acme type.

For stems in more than one piece and with a diameter of 1 3/4 inches (45 mm) and larger, the different sections shall be joined together by solid bronze couplings. Stems with a diameter smaller than 1 3/4 inches, shall be pinned to an extension tube.

The couplings shall be grooved and keyed and shall be of greater strength than the stem.

Gates having width equal to or greater than two times their height shall be provided with two lifting mechanisms connected by a tandem shaft.

- F. STEM GUIDES. Stem guides shall be fabricated from type 316L stainless steel. The guide shall be equipped with a UHMWPE bushing. Guides shall be adjustable and shall be spaced in accordance with the manufacturer's recommendation. The L/r ratio shall not be greater than 200.
- G. STEM COVER. Rising stem gates shall be provided with a clear polycarbonate stem cover. The stem cover shall have a cap and condensation vents as well as a clear mylar position indicating tape. The tape shall be field applied to the stem cover after the gate has been installed and positioned.

- H. LIFTING MECHANISM. Manual operators of the types listed in the schedule shall be provided by the gate manufacturer.

Operators shall be hand wheel type. Operators shall meet AWWA C501 specifications, except as otherwise specified. Gears and bearings shall be enclosed in a weatherproof housing, and pressure type fittings shall be provided for grease lubrication of the bearings and gears. A maximum effort of 40 pounds pull of the crank or hand wheel shall operate the gate under the specified operating conditions.

The operator shall be either pedestal or bench mounted as specified. Pedestal type floor standards shall be the offset type or the standard type with wall mounting bracket. Pedestal or bench stands shall be cast iron. The head of the pedestal or bench stand operator shall have a solid bronze, internally threaded operating nut. The operator shall be mounted on anti friction roller bearings. Cranks and handwheels shall be removable from the operator. Hand crank operators shall be provided with a 2-inch AWWA operating nut in horizontal appropriate for use with portable electric operators.

- I. YOKE. Self-contained gates shall be provided with a yoke made of structural members or formed plates. The maximum deflection shall be 1/360 of the gate's span. The yoke shall be sufficiently strong to support the lift forces when subjected to a load of 100 pounds pull on the operator. The yoke should be designed so that its deflection under full operating load will not exceed 1/360 of the gate width.

- J. MATERIALS

PART	MATERIAL
Frame, yoke, stem guides, slide, stem extension	Stainless steel ASTM A-240 type 316L
Guides, side and bottom seals, stem guide liner	Ultra high molecular weight polyethylene (UHMWPE) ASTM D-4020
Compression cord	Nitrile ASTM D2000 M6BG 708, A14, B14, E014, E034
Threaded stem	Stainless steel ASTM A-276 type 303 MX or 316
Fasteners	ASTM F593 and F594 and GR2 for type 316
Pedestal, hand wheel and crank	Tenzaloy aluminum
Gasket (between frame and wall)	EPDM ASTM 1056
Stem cover	Polycarbonate ASTM D-3935
Lift nut, couplings	Manganese bronze ASTM B584 UNS-C86500

In addition to the above, the gates shall meet the following.

1. All wall mounted frames shall have a minimum guide weight of 13 pounds per foot. The portion of the frame, where the anchor penetrates, shall have a minimum thickness of 1/2-inch.
2. The guide extensions shall have a minimum weight of 6 pounds per foot and shall be constructed of formed plate. Angles are not acceptable for guide extensions.
3. The yoke members shall be C-channel structural members. Angles are not acceptable for yoke members.
4. The portion of the slide that engages the frame shall have a minimum thickness of 1/2-inch.
5. The stem shall have a minimum diameter of 1-1/2 inches.

2.4 PRODUCT DATA

The following information shall be submitted for approval:

1. Product information, charts, or graphs to verify that the product provided meets the requirements set forth in the specification.
2. Sworn statements of compliance in accordance with AWWA C561.
3. Applicable operation and maintenance.

PART 3—EXECUTION

3.1 INSTALLATION

Unless otherwise specified, self-contained slide gates shall be installed in accordance with manufacturer's instructions.

3.2 TESTING

For this specification, field leakage tests shall be performed as specified in Section 6.3 of AWWA C513 field leakage tests shall be conducted with no head on one side of the gate being tested.

Gate shall be operated over a minimum of two cycles, to confirm operation. Limit switches and other stops shall be adjusted per the manufacturer's recommendations.

END OF SECTION