



CITY OF PROVIDENCE, RHODE ISLAND

Department: DPW

RFP Title: CITY OF PROVIDENCE – 2024, HURRICANE BARRIER STREET GATE REPAIRS

Opening Date: 09/23/2024

Addendum #: 1

Issue Date: 09/13/2024

The purpose of this addendum is:

The purpose of this addendum is to issue changes, revisions, and supplemental information related to the Contract Documents. These changes include replacements and updates to bid forms, specification sections, and drawing sheets, along with responses to bidder questions to provide clarity on project requirements.



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ADDENDUM NO. 1

The following changes, revisions and/or supplemental information, as applicable, are hereby issued as ADDENDUM NO. 1 in connection with the Contract Documents (Specifications) issued for the above-referenced project.

1. Replace Bid Form, Schedule of Unit Price Form, Pages 1 through 4.
2. Replace specification section 01 25 00 – Measurement and Payment with the attached revised version that includes the updates to scopes as noted below.
3. Replace specification section 03 01 00 – Concrete Maintenance and Repair with the attached revised version that includes the addition to concrete spall repairs.
4. Replace page 4 of the Contract Book with the attached revised version. The revised version includes an increase in the Misc Metal Work, Fabrication, and Concrete Repairs Allowance from \$65,000 to \$100,000.
5. Replace drawing sheets G-002, SA301, SA501, SB201, and SB301 with the attached revised version that includes the updates to scope as noted below.
6. Pre-Bid Sign In – See attached sign-in sheets from the September 4, 2024 Pre-Bid meeting.
7. Pre-Bid Agenda - See attached meeting agenda from the September 4, 2024 Pre-Bid meeting.

RESPONSE TO BIDDER QUESTIONS

1. Response to Question Submitted 9/6/24:

Question Submitted:

“Please quantify Type I, Type II, and Type III concrete repairs the contractor should assume for bidding for Bid Item No. 9 – Allens Ave Concrete Repair and Bid Item No. 15 Manchester Street Station Concrete Repair.”

Response from Pare:

Budgetary Estimates for the concrete repair program at Allens Ave assumed 12 LF of joint sealant, 150 LF of crack repair Type I, 75 LF of crack repair Type II, and 5400 SF of epoxy crystalline coating. Estimates were based upon visual observations and not an investigation of the crack depths. The estimates are subject to change based upon the conditions of the cracks after preparation as specified on Sheet SA201. Additional sounding and hammer testing to be conducted after preparation with the Engineer.

Budgetary Estimates for the concrete repair program at the Manchester Power Plant assumed 6 LF of joint sealant, 64 LF of crack repair Type I, 48 LF of crack repair Type II, and 1300 SF of epoxy crystalline coating. Estimates were based upon visual observations and not an investigation of the

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crack depths. The estimates are subject to change based upon the conditions of the cracks after preparation as specified on Sheet SB201. During the pre-bid meeting two larger areas of spalls were noted and subsequently added to the scope of work in this Addendum. The repairs shall be inclusive under this item and be prepared in accordance with the added detail on Sheet SB201.

2. Response to Question Submitted 9/6/24:

Question Submitted:

“Please clarify the limits of concrete sealant for Bid Item No. 9 and Bid Item No. 15.”

Response from Pare:

Limits of concrete sealant shall be applied to all of the roadside faces of the concrete as the abutments not housing the gate still function as a flood control structure. The non-roadside faces of the concrete shall be treated where the concrete is exposed. The extent of the repair is not intended to displace the in-place riprap abutments or earthen embankments.

3. Response to Question Submitted 9/6/24:

Question Submitted:

“Bid Item No. 1 includes material testing. Please clarify what material testing is required as part of this Bid Item?”

Response from Pare:

Epoxy painting is required for the scope of work. All epoxy painted work shall be subjected to a Holiday test in accordance with ASTM G62 and provide the accompanying reports to the satisfaction of the Owner.

4. Response to Question Submitted 9/6/24:

Question Submitted:

“Bid Item No. 11 calls for cleaning/unclogging the drains between the front and lower recess structures as shown in the Contract Drawings. No drains are shown on the Contract Drawings. Please provide this drawing, or provide diameter and lengths of the drains that should be assumed for cleaning for bidding purposes?”

Response from Pare:

As shown on sheet SA-502 in the “Typical A-Frame Repairs” section, the drain running under the recess structures is a 2” C.I. pipe. Historical drawings (Sheet 55 Detail A/55) do not provide the length of this drain to the connecting catch basin. For bidding purposes, measurements should be



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based on as shown on sheet SA-502 in the “Typical A-Frame Repairs” section, the drain running under the recess structures is a 2” C.I. pipe. Historical drawings (Sheet 55 Detail A/55) do not provide the length of this drain to the connecting catch basin. For bidding purposes, measurements should be based on distances to feasible catch basin connections within the area.

5. Response to Question Submitted 9/6/24:

Question Submitted:

“Please provide a spec on the replacement Rubber Fiber Seals / Neoprene Bumper for Bid Item No. 10 and Bid Item No. 16?”

Response from Pare:

The performance specification for the Rubber Fiber Seals can be located within technical specification 05 10 01 Structural Metal Framing for Vehicular Gates section 2.07. The cross-sectional dimensions can also be located on sheet 65 of the historic drawings for Allens Ave and on sheet 73 of the historic drawings for the Manchester Power Plant.

6. Response to Question Submitted 9/6/24:

Question Submitted:

“Please confirm that Bid Item No. 10 includes 2 EA Rubber Fiber Seals – one on the East Abutment and one on the West Abutment?”

Response from Pare:

Both east and west Rubber Fiber Seals at Allens Ave are to be replaced (2 EA).

7. Response to Question Submitted 9/6/24:

Question Submitted:

“Please confirm that Bid Item No. 16 includes 2 EA Rubber Fiber Seals – one on the East Abutment and one on the West Abutment?”

Response from Pare:

Only the west, bayside, Rubber Fiber Seal at the Manchester Plant is to be replaced (1 EA).

8. Response to Question Submitted 9/6/24:

Question Submitted:

“Please supply the weights of each of the Hurricane Barrier Gates: Allens Ave East Abutment,



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Allens Ave West Abutment, and Manchester Street Station”

Response from Pare:

There is no historical information on the weights of each gate. Pare has completed a preliminary estimate based on materials from the historic drawings and are providing it for reference only. It is estimated that each Allens Ave gate is about 14-16 tons and the Manchester Power Plant gate is about 17-20 tons. The contractor is responsible for determining final weights when determining lifting and transportation equipment and shall provide their estimate as part of the lifting/hoisting submittal.

9. Response to Question Submitted 9/6/24:

Question Submitted:

“Reference Sheet No. SB501, Locking Rod Key Detail. Please confirm that 2 EA of the locking rod keys will need to be replaced.”

Response from Pare:

Both (2 EA) locking rod keys are to be replaced.

10. Response to Question Submitted 9/6/24:

Question Submitted:

“Please provide a detail or specification for the Valve Access Platform that is shown on Sheet No. SB501.”

Response from Pare: The platform is a custom or modified manufactured platform similar to the 3’x3’ aluminum platform manufactured by ErectAStep with custom modifications to the support attachment for folding.

11. Response to Question Submitted 9/6/24:

Question Submitted:

“Bid Item No. 13 calls for Sandblasting and Coating of the Manchester Street Station Steel Plates. Please clarify the limits of the sandblasting and coating.”

Response from Pare:

Both the exterior and full interior will be sandblasted and coated. However, inspection ports allowing visibility of the interior framing and backside of the ½” plate may reduce the actual area needing sandblasting and coating. The bidder shall provide a per square foot credit for any areas omitted. This credit will be calculated by multiplying the omitted area by the specified per square foot credit amount (see revised bid form for details).



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12. Response to Question Submitted 9/6/24:

Question Submitted:

“Reference Sheet No. SA502, Typical A-Frame Repairs (Based on Type 1) Detail. Please confirm under which Bid Item the following work should be included in: Chip out of 1 foot of concrete base and replace with 5000 psi concrete. Install couplers and new bolts on embedded bolts (6).”

Response from Pare:

The intent of design is to remove the bolts and reinstall nuts and washers on the existing bolts when resetting the recessed structures. Should the bolt upon removal of the plates be deemed unsalvageable by the Engineer, the proposed repair shall be performed until a competent section of the bolt is reached. The proposed repair shall be inclusive under the subtotal misc. metal work, fabrication, & concrete repairs allowance, not a base bid item. As an attachment for reference the Contractor may provide an estimate of the potential repair per location.

13. Response to Question Submitted 9/6/24:

Question Submitted:

“Reference Sheet No. SA301 Details references to Sheet 3.5 and Sheet 3.3. Please provide Sheets 3.5 and 3.3.”

Response from Pare:

The referenced sheet has been amended and supplemental sheets have been provided. Previously referenced sheet 3.3 can be located on sheet SA501, detail W3. Previously referenced sheet 3.5 can be located on Sheet 501A, Recess Cover Panels.

14. Response to Question Submitted 9/10/24:

Question Submitted:

“Please provide a detail/spec for the gear and winch systems that are referenced on Sheet SA301, Typical Rear Gate Elevation Detail.”

Response from Pare:

The gear and winch system shall be stainless steel, further detail/specifications on the gear and winch system cannot be determined until the systems are removed as the historic plans do not provide further detail than what is provided on reference plan sheets.



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15. Response to Question Submitted 9/10/24:

Question Submitted:

“Sheet SA301, Typical Rear Gate Elevation Detail has the note to “Remove and replace U-loop with a reinforced connection, see detail per sheet SA501”. No U-loop detail is shown on sheet SA501, please provide.”

Response from Pare:

The above referenced details have been provided on sheet SA501.

16. Response to Question Submitted 9/10/24:

Question Submitted:

“Sheet SA301 and Sheet SA501 detail the removal, sandblast, reapply epoxy, replace nuts and washers for the Upper Hinges, and coordination of inspection of the bolts with the engineer at the Allens Ave Gates. Please confirm which Bid Item the above work should be included in.”

Response from Pare:

The removal, sandblasting, reapplication of epoxy, and replacement of nuts and washers for the Upper Hinges should be included under Bid Item 5 "Allens Ave Gate Structural Repairs".

Any additional work required based on the inspection of the bolts will be covered under Allowance C and will be paid on a time and materials basis.

17. Response to Question Submitted 9/10/24:

Question Submitted:

“The plans allude to several steel items at the Allens Ave Gate that may need to be replaced, pending the engineer’s evaluation (lower hinge pintle, upper hinge bolts, and bolts inside the front recesses). Please confirm that these replacements pending the engineer’s evaluation will fall under Bid Item C Allowance.”

Response from Pare:

The potential replacement of steel items at the Allens Ave Gate (lower hinge pintle, upper hinge bolts, and bolts inside the front recesses), pending the engineer's evaluation, will fall under Allowance D "Subtotal Misc. Metal Work, Fabrication, & Concrete Repairs Allowance". Any additional work required will be paid on a time and materials basis.



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18. Response to Question Submitted 9/10/24:

Question Submitted:

“Please confirm that shop drawing submittal for the fabrication of the stainless steel pintle should be included in Bid Item No. 8 Allens Ave Hinge Repairs.”

Response from Pare:

Yes, the shop drawing submittal for the fabrication of the stainless steel pintle should be included under Bid Item No. 8 "Allens Ave Hinge Repairs".

However, the actual work of replacing the pintle and furnishing the materials will fall under Allowance D "Subtotal Misc. Metal Work, Fabrication, & Concrete Repairs Allowance" and will be paid on a time and materials basis.

19. Response to Question Submitted 9/10/24:

Question Submitted:

“Portadam has indicated that they provide a pre-engineered system and do not provide an RI PE stamped design. Please whether this is sufficient, or whether a RI PE stamped independent review of the pre-engineered system is required.”

Response from Pare:

An RI PE stamped independent review is required for any submitted water control system design. Please note that no separate payment will be made for this review. The cost should be factored into the bid item price.

Should you have any questions, please do not hesitate to contact Roger Biron at 401-680-7531.

Respectfully,

Roger C. Biron
City of Providence
Department of Public Works

Attachments:

1. Schedule of Unit Prices page 1 through 4
2. Specification Section 01 25 00 – Measurement and Payment



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3. Specification Section 03 01 00 – Concrete Maintenance and Repair
4. Instructions to Bidders Page 4 - Allowances
5. Drawing Sheet G-002 – General Notes
6. Drawing Sheet SA301
7. Drawing Sheet SA501 – Gate Details Allens Ave
8. Drawing Sheet SB201 – Abutment Elevations Manchester Street Station
9. Drawing Sheet SB301 – Gate Section Manchester Street Station
10. Pre-Bid sign in sheet
11. Pre-Bid meeting Agenda

SCHEDULE OF UNIT PRICES

P R O V I D E N C E, R H O D E I S L A N D

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

<u>Item Code</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Bid Price</u>	<u>Amount (PxQ)</u>
				<u>\$0.00</u>	<u>\$0.00</u>
<hr/> <u>BASE BID</u> <hr/>					
1	General Bid Items	1	LS	\$ _____	\$ _____
2	Flood Contingency Materials and Storage	1	LS	\$ _____	\$ _____
3	Allens Ave Mobilization & Demobilization	1	LS	\$ _____	\$ _____
4	Allens Ave Recess Repairs	1	LS	\$ _____	\$ _____
5	Allens Ave Gate Structural Repairs	1	LS	\$ _____	\$ _____
6	Allens Ave "A" Frame Repairs	1	LS	\$ _____	\$ _____
7	Allens Ave Internal Component Repairs	1	LS	\$ _____	\$ _____
8	Allens Ave Hinge Repairs	1	LS	\$ _____	\$ _____
9	Allens Ave Concrete Repair	1	LS	\$ _____	\$ _____

<u>Item Code</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Bid Price</u>	<u>Amount (PxQ)</u>
				<u>\$0.00</u>	<u>\$0.00</u>
10	Allens Ave Rubber Fiber Seal Replacement	1	LS	\$ _____	\$ _____
11	Allens Ave Drain Cleanout	1	LS	\$ _____	\$ _____
12	Manchester Street Station Mobilization & Demobilization	1	LS	\$ _____	\$ _____
13	Manchester Street Station Steel Plate Sandblasting and Coating	1	LS	\$ _____	\$ _____
13A	Credit Steel Plate Sandblasting and Coating omitted on interior (not to be included in A. Subtotal Bid Price)	N/A	SF	\$ _____	\$ _____
14	Manchester Street Station Hinge Repairs	1	LS	\$ _____	\$ _____
15	Manchester Street Station Concrete Repair	1	LS	\$ _____	\$ _____
16	Manchester Street Station Rubber Fiber Seal Replacement	1	LS	\$ _____	\$ _____
17	Manchester Street Station Control Repairs	1	LS	\$ _____	\$ _____

A. SUBTOTAL BID PRICE

\$ _____

B. FLOOD DEPLOYMENT CONTINGENCY ITEMS (AS NEEDED)

B1 Deployment of Flood Contingency Control at Allens Avenue
_____ 2 EA \$ _____ \$ _____

B2 Deployment of Flood Contingency Control at Manchester Street Station
_____ 2 EA \$ _____ \$ _____

SUBTOTAL FLOOD DEPLOYMENT \$ _____

**C. SUBTOTAL MISC. METAL WORK, FABRICATION,
& CONCRETE REPAIRS ALLOWANCE** **\$100,000.00**

D. SUBTOTAL UNIFORMED TRAFFIC CONTROL **\$20,000.00**

E. TOTAL BASE BID (A+B+C+D)* \$ _____
*(*Item 13A shall not be included in the total base bid summation.)*

ADDITIVE ALTERNATIVE

1 Add Alt 1: Purchase of Portadam
System from the Contractor by the
City of Providence
_____ 1 LS \$ _____ \$ _____

F. TOTAL ADDITIVE ALTERNATIVES \$ _____

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SECTION 01 25 00

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 ADMINISTRATIVE SUBMITTALS

- A. Application for Payment: In accordance with the General Conditions and as specified herein.
- B. Final Application for Payment: As specified herein.

1.02 APPLICATION FOR PAYMENT

- A. Reference the General Conditions.
- B. Use separate, AIA G702 Application and Certificate for Payment forms for each pay application.
- C. Preparation:
 - 1. List each Change Order and Written Amendment executed prior to date of submission as separate line item.
 - 2. Submit digital copies of AIA G702 Application and Certificate for Payment forms, and such supporting data as may be requested by Owner.

1.03 MEASUREMENT - GENERAL

- A. Reference the General Conditions for additional requirements on Unit Price Work.
- B. All unit prices which are specified for measurement by the linear foot (LF) shall be measured from the beginning to the termination point of the unit being measured.
- C. Measurement and payment for all bid items shall include furnishing all equipment, material, plant, and personnel required for completion of the work in accordance with the contract documents unless otherwise noted.
- D. Units of measure shown on the Bid Form shall be as follows unless specified otherwise.

<u>Item</u>	<u>Method of Measurement</u>
CY	Cubic Yard – Field Measure by Engineer using the Average-End -Area Method to Calculate Volume
EA	Each-Field Count by Owner/Engineer
TON	Ton-Certified Truck Scale
LF	Linear Foot-Field Measure by Engineer
LS	Lump Sum-Unit is one; no measurement will be made.
SF	Square Foot-Field Measured by Engineer
SY	Square Yard-Field Measured by Engineer
AL	Allowances

1.04 PAYMENT

- A. General: Progress payment requests shall be submitted monthly as specified in the General Conditions.
- B. Payment for Lump Sum Work covers all personnel, equipment, materials, and incidentals required to furnish, install and/or complete the Work as specified, indicated, and directed as indicated in the Construction Documents for the following items. Lump Sum Items shall be paid to the Contractor in progress payments based on the percentage of completion of each Lump Sum Item, as determined by the Owner or his representative.
- C. Payment for unit price items covers all personnel, equipment, materials, and incidentals required to furnish, install and/or complete the Work as specified, indicated, and directed as indicated in the Construction Documents for the following items.
- D. Payment for equipment, materials and labor for items not included on the Bid or described in Article PAYMENT, herein, shall be considered incidental and no separate payment will be made.

Bid Item No.	Unit	Title/Description
1	LS	General Bid Item Requirements: Furnish all material, labor, and equipment to furnish, work plans, schedules, meetings, submittals, temporary construction facilities, permits, QC/QA, materials testing (Holiday Test), closeout documentation, closeout survey, and Record Contract Documents as stated within the Contract Documents.
2	LS	Flood Contingency Materials and Storage: Furnish all material, labor, and equipment to purchase/rent, store, and protect flood contingency materials. The contractor is responsible for readily stockpiling the means, materials, design, labor, and equipment required to establish flood controls. Includes design calculations and drawings stamped by a Professional Engineer in the State of Rhode Island for the control of water design.
3	LS	<p>Allens Ave Mobilization & Demobilization: Furnish all material, labor, and equipment and stage on-site: personnel, equipment, and materials to complete all work items stated in the Contract documents; install site signage, traffic controls, and warning signs; install temporary security fencing to secure work areas; erosion controls; prepare the site for construction; establish and maintain access roads; protect site utilities and other facilities to remain; move out personnel, equipment, and unused material; restore and clean portions of the site disturbed by construction and entrances; remove and dispose of signs and security fencing; and remove all debris and rubbish. This item is inclusive of site restoration and loam and seeding for areas disturbed by construction.</p> <p>Total payment under this item shall be less than 10 percent of the total contract amount associated with Allens Avenue.</p> <p>Following mobilization of equipment on site and approval of shop drawings, the Contractor can invoice for 20 percent of this item. Following completion of 50 percent of the work under the Contract, the Contractor may invoice 60 percent (40 percent more) of this item. Following remobilization (if necessary for phased elements), the contractor may invoice up to 80 percent (20 percent more) of this item. Following the completion of all work under this item, the Contractor can invoice the remaining 20 percent of this item.</p>

4	LS	Allens Ave Recess Repairs: Furnish all materials, labor, and equipment to remove, transport, sandblast, complete steel repairs, epoxy coat, reinstall, and operate recessed gate components. This item shall also be inclusive of incidental metal fabrication, welding, and miscellaneous bolts, nuts, and washer replacements. The bolts, nuts, and washers are to be prepared as denoted within the Contract Documents.
5	LS	Allens Ave Gate Structural Repairs: Furnish all materials, labor, and equipment to remove/dispose denoted plates for removal and the sandblasting and epoxy coating off all components of the Allens Ave gate structures. Disassembling of the gate, as necessary, to sand and coat the steel shall be inclusive in this item. Furnish all materials, labor, and equipment to remove/dispose of the existing top WF members, fabricate/construct the replacement WF member with a steel coated cover plate which shall be inclusive of the hardware and welding as shown on the Contract Documents. This item shall include all materials, labor, and equipment to reinstall the top WF members to the hurricane barrier gates. Furnish all materials, labor, and equipment to sandblast, inspect, epoxy paint and reinstall the upper gate hinges.
6	LS	Allens Ave "A" Frame Repairs: Furnish all materials, labor, and equipment to remove/dispose of the existing "A" Frame WF section, fabricate/construct the replacement WF member which shall be inclusive of the hardware and welding as shown on the Contract Documents. This item shall include all materials, labor, and equipment to reinstall members to the hurricane barrier gate.
7	LS	Allens Ave Internal Component Repairs: Furnish all materials, labor, and equipment to remove/dispose of the existing steel panel flaps utilized when the gates are in the closed position to cover the gaps created by the opened recess structures, and the internal winch components. This item shall also be inclusive of all materials, labor, and equipment fabricate/construct/install replacement steel metal flaps and winch components to match the openings as present at each recess location as shown in the Contract Drawings. This item shall be inclusive of all plates, bolts, nuts, washers, hinges, welding, and coating as shown in the Contract Documents.
8	LS	Allens Ave Hinge Repairs: Furnish all materials, labor, and equipment to remove/dispose of the lower hinge shapes, plates, bolts, nuts, washers, and other miscellaneous steel and or metal as shown in the Contract Documents. This item shall also be inclusive of all materials, labor, and equipment to fabricate/construct/reinstall the replacement lower hinge members including any associated bolts, washers, nuts, shapes, and/or welds as shown in the contract documents. The condition of the pin should be evaluated under this item, but any replacement shall be carried under the unforeseen condition allowance.
9	LS	Allens Ave Concrete Repair: Furnish all materials, labor, and equipment to repair the concrete cracking observed throughout the concrete abutment structures. The item is inclusive of three concrete alternative repairs that shall be selected based upon the notes provided in the Contract Documents.
10	LS	Allens Ave Rubber Fiber Seal Replacement: Furnish all materials, labor, and equipment to remove the existing rubber fiber seals, prepare and coat the steel plate surface and install new rubber fiber seals as shown in the Contract Drawings.
11	LS	Allens Ave Drain Cleanout: Furnish all materials, labor, and equipment to clean/unclog the drains between the front and lower recess structures and the connecting catch basin as specified in the Contract Drawings.
12	LS	Manchester Street Station Mobilization & Demobilization: Furnish all material, labor, and equipment and stage on-site: personnel, equipment, and materials to complete all work items stated in the Contract documents; install site signage, traffic controls, and warning signs; install temporary security fencing to secure work areas; prepare the site for construction; establish and maintain access roads; protect site utilities and other facilities to remain; move out personnel, equipment, and unused material; restore and clean portions of the site disturbed by construction and entrances; remove and dispose of signs and security fencing; and remove all debris and rubbish. This item is inclusive of site restoration and loam and seeding for areas disturbed by construction.

		<p>Total payment under this item shall be less than 10 percent of the total contract amount associated with the Manchester Street Station.</p> <p>Following mobilization of equipment on site and approval of shop drawings, the Contractor can invoice for 20 percent of this item. Following completion of 50 percent of the work under the Contract, the Contractor may invoice 60 percent (40 percent more) of this item. Following remobilization (if necessary for phased elements), the contractor may invoice up to 80 percent (20 percent more) of this item. Following the completion of all work under this item, the Contractor can invoice the remaining 20 percent of this item.</p>
13	LS	<p>Manchester Street Station Steel Plate Sandblasting and Coating: Furnish all materials, labor, and equipment to sandblasting and epoxy coating off all components of the Manchester Street Station gate structure as shown in the Contract Drawings. Disassembling of the gate, as necessary, to sand and coat the steel shall be inclusive in this item.</p>
13A	SF	<p>Manchester Street Station Steel Plate Credit Sandblasting and Coating Omitting Interior: The credit provided to the City pending the interior inspection, by the Engineer, of the gate from the coupons specified to be cut. In the case the interior sandblasting and coating is not required a credit shall be applied, to the City, to furnish all materials, labor, and equipment no longer required to sandblasting and epoxy coating off all interior steel. This credit will be calculated by multiplying the omitted area by the specified per square foot credit amount</p>
14	LS	<p>Manchester Street Station Hinge Repairs: Furnish all materials, labor, and equipment to remove and inspect the components of the hinge and replace the deformed steel plate. Any findings during the inspection to indicate the replacement of the hinge system shall be carried under the Unforeseen Conditions Allowance.</p>
15	LS	<p>Manchester Street Station Concrete Repair: Furnish all materials, labor, and equipment to repair the concrete cracking observed throughout the concrete abutment structures. The item is inclusive of four concrete alternative repairs that shall be selected based upon the notes provided in the Contract Documents.</p>
16	LS	<p>Manchester Street Station Rubber Fiber Seal Replacement: Furnish all materials, labor, and equipment to remove the existing rubber west abutment fiber seal, prepare and coat the steel plate surface and install new rubber fiber seals as shown in the Contract Drawings.</p>
17	LS	<p>Manchester Street Station Control Repairs: Furnish all materials, labor, and equipment to install a ladder, operation platform, and fall protection anchor hook up. This item shall also be inclusive of all concrete preparation. Grouted anchors, nuts, bolts, washers, and other miscellaneous members as shown in the Contract documents or as indicated in the Manufacturers Recommendations for any approved products submitted.</p> <p>Furnish all materials, labor, and equipment to remove/dispose of the existing close hook, fabricate/construct the replacement reinforced Closure hooks as shown on the Contract Documents. Material, labor, and equipment required to fabricate as shown in the Contract Documents shall be included in this item.</p>

FLOOD DEPLOYMENT CONTINGENCY ITEMS

Bid Item No.	Unit	Title/Description
B1	EA	Allens Ave Flood Contingency Deployment: Furnish all material, labor, and equipment to deploy, maintain, and remove flood contingency cofferdams.
B2	EA	Manchester Street Station Flood Contingency Deploy: Furnish all material, labor, and equipment to deploy, maintain, and remove flood contingency cofferdams.

ALLOWANCES

Bid Item No.	Unit	Title/Description
C.	AL	Miscellaneous Metal Work, Fabrication, and Concrete Repairs: The allowance for the unforeseen field conditions, as indicated in the Contract Documents, shall only be billed against after the written approval/direction of the Owner/Engineer. See above select items with indicated inspections that may result in the billing against this item pending the Engineer field verified condition.
D.	AL	Uniformed Traffic Control Allowance: The allowance for the use of off-duty City of Providence Police Officers ("detail officers"), as deemed necessary by the Owner. The City of Providence Police Department will bill the Owner directly for detail officer services.

ADDITIVE ALTERNATIVES

Bid Item No.	Unit	Title/Description
ADD ALT 1	LS	Lump sum cost of the Portadam/flood control system stockpiled by the Contractor should the City elect to purchase the system at the conclusion of the project. It is not a guarantee the City will elect to buy the system. Item shall include all cost associated with the transportation and unloading of the Portadam system to DPW.

1.05 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
1. Loading, hauling, and disposing of rejected material.
 2. Quantities of material wasted or disposed of in manner not called for under the Contract Documents.
 3. Rejected loads of material, including material rejected after it has been placed by Contractor.
 4. Material not unloaded from transporting vehicle.
 5. Defective Work not accepted by the Engineer.
 6. Material remaining on hand after completion of Work.

1.06 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Final Payment: Will be made only for materials incorporated into the Work in the Contract; no partial payments shall be made for equipment or materials delivered to the site but not used.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Reference the General Conditions, and as may otherwise be required in the Contract Documents.
- B. Prior to submitting final application, make acceptable delivery of required documents.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 03 01 00

Concrete Maintenance and Repair

PART 1.00 - GENERAL

1.01 DESCRIPTION

A. Work Included:

1. Cleaning the concrete of deleterious materials and coatings.
2. Removal of unsound concrete.
3. Repair of cracks, spalls, scaling, and/or delamination.
4. Roughening of the existing concrete surface.
5. Resurfacing of concrete.

1.02 REFERENCES

A. The latest editions of the following American Concrete Institute (ACI) publications shall be used as reference standards:

1. ACI 546R-14 Guide to Concrete Repair

B. The latest editions of the following American Society for Testing and Materials (ASTM) publications shall be used as reference standards:

1. D4259 Practice for Abrading Concrete
2. E965 "Standard Test Method for Measuring Pavement Macrotexture Depth Using a Volumetric Technique"

C. The latest edition of the U.S. Department of the Interior, Bureau of Reclamation, "Best Practices of Preparing Concrete Surfaces Prior to Repairs and Overlays."

1.03 SUBMITTALS:

A. Submit the following:

1. Procedures for the removal of unsound concrete.
2. Procedures for the preparation of the concrete surface.
3. Procedures for the preparation of internal reinforcement.
4. Demolition plan for areas of concrete to be removed including areas and anticipated depths.
5. Repair plan showing the anticipated areas for each repair product to be used.
6. Data sheets for each repair product proposed for use.

1.04 QUALITY ASSURANCE:

A. Provide in accordance with the requirements of the Quality Control section and as specified.

PART 2.00 - PRODUCTS

2.01 GENERAL

- A. All products delivered to the site shall be new and unopened. In instances where cases are opened, but individual units are unopened the individual unopened units may be used. Previously opened jugs, individual units, buckets, or other storage containers shall not be used without the permission of the Engineer.
- B. Repair products shall be delivered and stored in accordance with manufacture recommendations.

2.02 SPALLING AND INJECTION CRACK REPAIR

- A. Sikadur 35 Hi-Mod LV LPL, or approved equal epoxy resin adhesive, shall be used to inject cracks.
- B. Sikadur 33, or approved equal, shall be used to seal cracks prior to injection.
- C. Sikatop 123, or approved equal, shall be used to patch saw cut areas that are too large for pressure injected epoxy resin adhesive and/or fill pock marks, as shown on the plans.
- D. Products shall be installed following manufacturer recommendations.

2.03 CONSTRUCTION JOINT REPAIR

- A. Closed cell foam backer rod shall be used to fill construction joints deeper than 1 inch.
- B. SikaFlex 2c NS, or approved equal, shall be used as a joint sealant for construction joint repair.
- C. SikaFix HH, or approved equal, an expandable hydrophilic closed cell foam sealant shall be used as a construction joint filler material on fish passage construction joints.

2.04 BONDING AGENTS

- A. Bonding agents shall be used in accordance with manufacture recommendations.
- B. When manufacture recommendations list bonding agents as optional; the Contractor shall not apply a bonding agent as part of this work.

PART 3.00 - EXECUTION

3.1 CONCRETE REMOVAL GENERAL

- A. The process of concrete preparation for repair is the process by which sound, clean, and suitably roughened surfaces are produced on concrete substrates. This process includes the removal of unsound and, if necessary, sound concrete and bond inhibiting foreign materials from the concrete and reinforcement surfaces, opening the concrete pore structure, and preparation and repair of damaged reinforcement that may be present.
- B. Unsound or deteriorated concrete is defined as: concrete affected by weakness, spalling,

delamination, cracking, disintegration, and concrete in areas with cracking due to corrosion of reinforcing steel.

- C. Concrete removal involves the removal of unsound material, as well as, some sound concrete to permit for adequate repair geometry, to remove contaminated concrete, to prepare embedded reinforcement, and to permit structural modifications.
- D. Do not use methods to remove concrete or to prepare the concrete and reinforcement to receive the repair material that weakens the remaining sound concrete and reinforcement.
- E. Structural Safety
 - 1. Review the effect of concrete removal on the structural integrity of a structure prior to removal of existing concrete. Provide temporary shoring in cases where removal of concrete and/or reinforcing steel can affect the load carrying capacity of the structure or its elements. Caution needs to be exercised in order that the safety of the structure is not jeopardized by repair activities.
 - 2. Review details of shoring to be used that are designed and stamped by a Professional Engineer. However, the Contractor is responsible for the safety and adequacy of the shoring system.
 - 3. The limitations for concrete removal such as the depth, reduction of cross section, the amount of concrete removed from the top surface, etc. are subjected to the restrictions described in the contract.
- F. Prior to Concrete Removal
 - 1. Examine areas where concrete is to be removed to determine if there are electrical conduits, utility lines, or other embedments in the concrete which may be damaged during removal.
 - 2. If required, enclose work areas with a barrier suitable to confine dust and debris inside the work areas. Inspect the enclosures to ensure they are securely constructed and inspect the enclosure each working day to ensure that there are no holes or tears.
 - 3. Ensure that the level of equipment exhaust fumes (such as from air compressors or portable generators) is within acceptable limits. Use equipment and locate the equipment so that the fumes can be properly exhausted away from occupied areas.
 - 4. Ensure that dust and debris does not constitute a hazard to personnel, equipment, the structure, its occupants and the general public. Keep dust and debris away from the working area by continuous cleaning.

3.2 CONCRETE REMOVAL GEOMETRY

- A. The location, number, and extent of defects shown in the Contract are indicative only. The true location, number, and extent of defects requiring repair can only be assessed properly by close inspection and other testing during the course of concrete removal. Mark the limits of each repair with chalk or paint as a series of straight lines on the surface. The limits of each shall be approved by the Engineer before removal begins
- B. Modify areas requiring repair to provide for simple layouts. Design the layouts to reduce boundary edge length and eliminate acute angles.
- C. Make right angle cuts to the concrete surface by saw cutting, chipping, grinding or hydrodemolition at the perimeters of repairs that involve concrete removal.
- D. Measure and record on drawings the extent and depth of concrete removal required. Obtain approval from the Engineer as the work proceeds.

3.3 CONCRETE REMOVAL METHODS

A. Saw Cutting

1. Make saw cut along the perimeter of the area where concrete is to be removed to reduce edge spalling and to provide a sound edge surface against which the repair material will be placed.
2. Make the saw cuts as deep as practical and to a minimum depth of 3/4 inch (19.05 mm). Adjust or eliminate saw cutting to prevent damage to the embedments.
 - a. If necessary, use a grinder to create a minimum ¼-inch face perpendicular to the repair surface in areas that cannot be saw cut (Part 3.01.H).
 - b. Roughen saw cuts prior to application of the repair material. This can be accomplished by sand blasting at the same time as cleaning of exposed reinforcement.
 - c. Care needs to be exercised when roughening the cut surfaces to avoid damage to the repair cavity edges.
3. Use water-wash equipment to remove sawing slurry from the repair area before it dries.
4. Saw overcuts shall be chipped out and repaired in a similar fashion as described within this section. No additional payment shall be made for saw overcut repairs.

B. Chip Cutting

1. This method will only be allowed under special circumstances and will require permission from the Engineer prior to use due to the potential to damage (microfracture) sound concrete outside of the repair area.
2. The boundaries in the chip cutting procedure are the same as in the saw cut procedure, except the repair boundaries are not sawed. The concrete in the center of the repair area is removed using a light jackhammer with a maximum weight of 15 lb (6.8 kg). The concrete near the repair borders is then removed using a light jackhammer with a maximum weight of 15 lb (6.8 kg) and hand tools. The work should progress from the inside of the repair toward the edges, and the chisel point should be directed toward the inside of the repair.

C. Edge Grinding

1. This method will only be allowed under special circumstances.
2. The boundaries in the edge grinding procedure are the same as in the saw cut procedure, except the repair boundaries are not as deep. Make grind cuts along the perimeter of the area where concrete is to be removed to reduce edge spalling and to provide a sound edge surface against which the repair material will be placed.
3. Make the grind cuts as deep as practical and to a minimum depth of approximately 1/4 inch (3 mm). Roughen ground surfaces prior to application of the repair material. This can be accomplished by sand blasting at the same time as cleaning of exposed reinforcement. Care needs to be exercised when roughening the ground surfaces to avoid damage to the repair cavity edges.

D. Hydrodemolition

1. Pressures from hydrodemolition used for concrete removal and surface preparation can be defined as follows:
 - a. Low: Maximum 5000 psi (35 MPa)
 - b. High: Between 5000 psi and 20,000 psi (35 MPa to 140 MPa)
 - c. Ultra high: Between 20,000 psi and 45,000 psi (140 MPa to 310 MPa)
2. Hydrodemolition may be used as a primary means for removal of concrete when it is desired to preserve and clean the steel reinforcement for reuse and to minimize damage to the concrete remaining in place. Hydrodemolition disintegrates concrete, returning it to sand and gravel-sized pieces. This process works preferentially on unsound or deteriorated concrete and leaves a rough profile.

3. Hydrodemolition shall not be allowed for concrete removal if there is a possibility that unbonded post-tensioned systems are within the concrete removal zone. The only viable method of concrete removal in this situation is concrete removal using lightweight chipping hammers.

E. Impact Method Concrete Removal Procedures

1. Delineate the repair boundaries.
2. Remove the deteriorated concrete in the center of the repair using a light jackhammer with a maximum weight of 15 lb (6.8 kg).
3. The work shall progress from the inside of the repair toward the edges.
4. When all unsound concrete in the repair area is removed and repair geometry is established, remove the concrete near the repair borders using a light jackhammer and/or hand
5. tools.
6. Removal near the repair boundaries must be completed with hammers fitted with spade bits. Gouge bits shall not be used along the repair boundary.
7. Jackhammers and mechanical chipping tools should be operated at an angle less than 45 degrees from the vertical.

F. Hydro Demolition Removal Procedures

1. The equipment manufacturer should be consulted to confirm the water demand.
2. Two trial areas, one of sound concrete and one of deteriorated concrete, shall be used to determine the appropriate hydrodemolition operating parameters. These parameters include speed, pressure, and the number of overlapping passes.
 - a. Using trial and error in the test areas, the hydrodemolition machine must be programmed to prevent removing sound concrete unnecessarily. In the sound area, consistent concrete removal depth to the prescribed clear space behind the reinforcing bar shall be obtained as a minimum.
 - b. After successful cutting of the test area, with specified depth control, the operation shall be moved to the deteriorated concrete, and a test performed to remove all deteriorated concrete. If a result is obtained which meets the specified requirements, these parameters shall be used as a basis for the production removal. If not, the Contractor shall repeat the trial process and recalibrate or replace the equipment until a result which meets the specified requirements is obtained.
 - c. Once properly calibrated, the operating parameters should not be changed during hydrodemolition of the deteriorated concrete, unless the concrete changes (for example, a harder aggregate has been used in one section of the structure).
 - d. If the concrete does change, the hydrodemolition machine must be recalibrated.
3. All concrete within a marked repair area should be removed to a minimum depth of 2 in (51 mm) with neat vertical faces. Then the repair area must be tested again for soundness. Any additional unsound concrete must be removed by continued hydrodemolition.

3.4 CONCRETE REMOVAL DEPTH

- A. Remove all unsound concrete. If during the removal operation, reinforcing steel is exposed, then remove concrete around the bar to provide a minimum 3/4 inch (19.05 mm) clear space between the rebar and surrounding concrete or a clear space of 1/4 inch (6.35 mm) larger than the maximum size aggregate in the repair material, whichever is greater.
- B. Remove concrete to a minimum depth suitable for the selected concrete repair material as indicated on the plan details. Some materials may require more concrete removal than removal depth required for removal of damaged concrete.

3.5 CONCRETE REMOVAL ALONG REINFORCING STEEL

- A. Proper evaluation of the condition of reinforcing steel exposed in the repair area and proper reinforcement treatment steps are required.
- B. The first step in preparing reinforcing steel for repair or cleaning is the removal of deteriorated concrete or chloride contaminated concrete surrounding the reinforcement. Extreme care should be exercised to prevent further damage to the reinforcing or prestressing steel through the process of removing concrete.
 - 1. Impact breakers can damage reinforcing steel if the breaker is used without regard to the location of the reinforcement.
 - 2. Once the larger areas of unsound concrete have been removed, a smaller chipping hammer (15 lbs.) should be used to remove the concrete in the vicinity of the reinforcement. Care should be taken not to vibrate the reinforcement or otherwise cause damage to its bond to concrete adjacent to the repair area.
- C. Perform additional concrete removal along corroded exposed bars until a continuous length of 2 in (50 mm) of bar free from corrosion is exposed. Assessing the limit of active corrosion shall be on a visual basis. The edges of any additional areas removed shall be cut square as specified above. The extent of concrete removal shall be agreed to by the Engineer before any removal commences.
- D. An additional length of uncorroded bar will have to be exposed if couplers or lap splices are to be used for replacement reinforcement.

3.6 CONCRETE SURFACE ROUGHNESS

- A. Substrate roughness depends to a large extent on the method of substrate surface preparation.
- B. The decisions about surface preparation, and its roughness in particular, cannot be made without knowing the properties and application requirements of the selected repair/overlay material. If a prepackaged repair material is selected for use, consult the material manufacturer for the required surface roughness.
- C. For selecting, specifying and evaluating the concrete surface profile follow the International Concrete Repair Institute (ICRI) Guideline No. ICRI 310.2-19974. The nine concrete surface profile (CSP) chips provide benchmark profiles to aid in achieving the desired results. Each profile carries a number ranging from a base line of 1 (typically designated as CSP-1 which is nearly flat) through 9 (CSP-9, very rough).

3.7 CONCRETE SUBSTRATE SURFACE CLEANING GENERAL

- A. For a successful repair, the following conditions must be satisfied:
 - 1. The concrete must be strong and sound;
 - 2. The surface should receive the optimum moisture conditioning;
 - 3. The surface should be free of dust, laitance or any other foreign materials;
 - 4. The surface should have an open pore system;
 - 5. The surface temperature should be within suitable limits to permit proper wetting by the repair materials.
- B. Place repair materials as soon as possible after concrete removal and cleaning is completed or protect the cleaned and prepared concrete and reinforcement surfaces from contamination.

3.8 CONCRETE SURFACE CLEANING

- A. Concrete removal methods may leave the surface to receive the repair material too smooth, too rough,

- too irregular, and without open pores. In these cases, procedures specifically intended for surface cleaning are necessary.
- B. First stage cleaning operations shall commence in a repair area after all necessary concrete removal has been completed. The remaining concrete surface must have laitance, partially loosened chips of concrete and the bruised (microcracked) concrete layer, removed by blasting.
 - C. Second Stage Blasting and Cleaning
 - 1. If in the Engineer's opinion bruising and/or contaminants, or weathered and carbonated concrete surface, which might interfere with bond, are present on the prepared surface, second stage blasting and cleaning must be performed as directed by the Engineer prior to placement of the repair material.
 - 2. If excessive time passes after concrete removal and cleaning before repair material placement is performed, additional cleaning to remove the carbonated surface is justified.
 - D. The following cleaning techniques consist of removing thin layers of surface concrete using abrasive equipment such as sandblasters, shotblasters, or high-pressure waterblasters. The process uses common abrasive medium as a primary abrading tool. The process may be executed in one of three following methods:
 - 1. Sandblasting — Use sand, silica sand, metallic sand or slag (Black Beauty) as the primary abrading agent.
 - 2. Shotblasting — Shotblasting shall use a self-contained system which separates concrete particulates from metal shot, allowing the shot to be reused and concrete debris to be disposed.
 - 3. Waterblasting — Spray water at pressures between 5,000 and 15,000 psi (35-105 MPa). This technique is suitable for vertical and horizontal surface cleaning.
 - 4. Waterblasting (with abrasive) — Use aluminum oxide or garnet in the waterblasting stream to expose fine aggregates.

3.9 REINFORCEMENT CLEANING, INSPECTION AND REPAIR

- A. The initial cleaning of exposed reinforcement shall take place during the concrete surface cleaning procedures using blasting techniques.
- B. After the initial cleaning, reinforcing steel shall be carefully inspected to determine whether the steel shall be cleaned or repaired. The objective of the inspection is to determine whether the reinforcing steel is capable of performing as intended by the design. If the cross-section area of the rebar has been reduced by corrosion by more than 25 percent, the Engineer shall make the decision on the actions to be taken. One of three options may be taken:
 - 1. To do nothing;
 - 2. Add supplemental reinforcement;
 - 3. Replacement.
- C. Methods of supplementing reinforcement are as follows:
 - 1. Extra reinforcement using straight laps. The concrete should be chipped away to allow placement of the supplemental bar beside the existing bar. The length of the supplemental bar should be equal to the length of the damaged segment of the existing bar plus a lap splice length on each end equal to the lap splice requirements for the smaller bar diameter of the two as specified in the applicable code.
 - 2. Anchored extra reinforcement. Extra reinforcement may be installed with reduced laps by

anchoring the ends at 90° to the concrete face. The ends should be embedded using epoxy cement. Care must be taken to avoid damaging adjacent areas where the existing reinforcement to concrete bond remains intact.

- D. The method of replacing reinforcement is to cut out the damaged portion and splice in replacement bar. A conventional lap splice shall be used.
 - 1. When lap splices are not applicable, welded splices or approved mechanical connectors in the form of threaded couplers or bar grips shall be used.
 - 2. If used, welded connections shall require submittal by the Contractor and approval by the Engineer of a welding procedure along with the test results to demonstrate the strength of the welded joint and metallurgical compatibility of the weld material with the reinforcing steel.
- E. When epoxy-coated steel reinforcement is exposed in the repair area it should be recoated with an epoxy coating. Special care must be exercised during the recoating operation to achieve defect free full surface coverage.
- F. When uncoated reinforcing steel is exposed in the repair area application of a protective coating should not be done, because it may cause corrosion in areas immediately adjacent to the repair area.
- G. To reduce the likelihood of “hot spots” from forming, embed galvanic anodes following manufacturer’s recommendations.

3.10 MOISTURE CONDITIONING OF THE CONCRETE SUBSTRATE

- A. The optimum moisture condition will vary from substrate to substrate in otherwise equal conditions.
- B. The optimum water condition of a concrete substrate for a particular cement-based repair material shall be in accordance with the manufacturer recommendations for the given repair product.
- C. In cases where no such recommendation is given, Saturated Surface Dry (SSD) moisture conditioning should be applied. Under this condition the substrate looks damp but contains no free water on the surface.

3.11 MAINTENANCE OF THE PREPARED SURFACE

- A. After the substrate has been prepared, it should be maintained in a clean condition and protected from damage until the repair/overlay material is placed.
- B. Prepared areas should be protected from repair activities in adjacent areas. Mud, debris, cement, dust, etc., when deposited on a prepared surface, will act as a bond breaker if not cleaned up before the repair material is placed.
- C. In hot climates shade should be provided, if practically possible, to keep the substrate cool, thereby reducing rapid hydration or hardening of repair materials. In wintertime, necessary steps should be taken to provide sufficient insulation and/or heat to prevent the repair area from being covered with snow, ice, or snowmelt water.

3.12 QUALITY CONTROL OF SURFACE PREPARATION

- A. The integrity and ultimate performance of repairs and overlays is in large part determined by the quality of the existing concrete surface preparation. It is imperative that care be taken, specifications followed, and surface preparation quality control and related decisions be made by qualified personnel.

B. Qualified personnel are required for all inspection operations.

3.13 BONDING AGENTS

A. Bonding agents shall be installed in accordance with Manufacture recommendations.

3.14 APPLICATION OF REPAIR MATERIALS

A. All products shall be installed following manufacture recommendations and procedures.

B. Prior to placement of repair materials, the application surface, application equipment, and the material being applied shall be within the manufactures recommended application temperature. Heating or cooling of the application surface, application equipment, and/or repair material shall be considered inclusive to the work.

END OF SECTION

2.5. ALLOWANCES

- A. Allowances shall be included as part of the Base Bid TOTAL and then further delineated in the Project Schedule of Values where the drawdowns shall be accounted for. Allowances are subject to all general conditions and standards of the Contract. All unused funds connected with the allowances shall be fully credited to the Owner at project closeout.

1. **Miscellaneous Metal Work, Fabrication, and Concrete Repairs (\$100,000):**

- (a) This allowance includes possible scope changes resulting from changes due to field conditions, discovery of steel and concrete conditions that were not visible due to the limitations of the inspection during the gate operation investigation and may present harm to person, property, or otherwise jeopardizes the project schedule and team from proceeding in a timely manner, changes required by the utility companies that modify/adjust the direction of the prescribed plan set and/or other circumstance's that may be required due to items including but not limited to field conditions, regulatory changes and other processes.
- (b) The remediation work under this allowance will be compensated on a time and materials basis including overhead and profit defined in Section 5.10. Contractor to provide Owner a detailed cost estimate of work for review and approval by Owner.

2. **Uniformed Traffic Control Allowance (\$20,000):**

- (a) This allowance is intended to cover the cost of supplementary uniformed traffic control measures, including the use of off-duty City of Providence Police Officers ("detail officers"), as deemed necessary by the Owner.
- (b) The Contractor shall coordinate and implement all necessary traffic control measures, including those requiring the services of detail officers. The Contractor shall be responsible for obtaining all necessary permits and approvals for traffic control operations.
- (c) The City of Providence Police Department will bill the Owner directly for detail officer services. The Contractor shall furnish the Owner with copies of the detail slips as supporting documentation to verify the services provided and facilitate accurate billing.

- B. While allowances are part of the Overall Bid Value (Base Bid) submitted, that Contractor is advised that there are No Guarantees that they will be used or otherwise drawn down on and should have no expectation of the allowance work being awarded. Allowances will be accounted for the Schedule of Values as separate Lines Items with the value debited as separate values as they are drawn against. Change Orders are used to memorialize the work completed but do not alter the Base contract value unless total exceeds the awarded sum.

2.6. BIDS

- A. All Bids must be submitted on forms supplied by the Owner and shall include all of the requirements of the Contract Documents, including, but not limited to, the Drawings and other incidental and appurtenant exhibits including these INSTRUCTIONS TO BIDDERS. All Bids shall be complete in every respect and no interlineations, excisions or special conditions shall be made to be included in the Bid Form by the Bidder.
- B. All blank spaces for Bid Prices shall be filled-in in ink or typewritten; in both words and figures.

GENERAL NOTES:

- FOR THE PURPOSE OF THIS PROJECT
 - OWNER - CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS
700 ALLENS AVENUE
PROVIDENCE, RI 02905
 - ENGINEER - PARE CORPORATION
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
 - CONTACT - TODD TURCOTTE, PE, WEDG
- ALL CONSTRUCTION INDICATED ON THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE RHODE ISLAND STATE BUILDING CODE, ALL FEDERAL AND MUNICIPAL BUILDING CODES, AND THE SPECIFICATIONS INCLUDED IN THIS CONTRACT. THESE PLANS ARE INCOMPLETE UNLESS ACCOMPANIED BY THE SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, AND SAFETY OF WORK.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- HORIZONTAL DATUM: RHODE ISLAND STATE PLANE - NAD83
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM - NGVD29
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS. PLANS SHALL NOT BE SCALED FOR DIMENSIONS.
- NOTES, TYPICAL DETAILS, AND SCHEDULES APPLY TO ALL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS OF SIMILAR NATURE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL PROJECT DEMOLITION AND EXCESS MATERIAL IN ACCORDANCE WITH RHODE ISLAND, LOCAL, AND FEDERAL LAWS.
- THE CONTRACTOR SHALL PROTECT ALL ADJACENT STRUCTURES AND UTILITIES.
- THE CONTRACTOR SHALL FOLLOW ALL OSHA, FEDERAL, STATE, AND LOCAL STANDARDS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL SITE SAFETY PROCEDURES AND PRACTICES REGARDLESS OF THE PRESENCE OF THE OWNER OR ENGINEER.
- THE CONTRACTOR WILL SUBMIT A CONSTRUCTION SCHEDULE TO THE OWNER. THE CONTRACTOR WILL UPDATE SCHEDULE IN CONFORMANCE WITH CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL STAGE ALL EQUIPMENT IN THE DESIGNATED STAGING AREA. ALL GREASING AND REFUELING ACTIVITIES SHALL OCCUR IN THE STAGING AREA. ALL NECESSARY MEASURES SHALL BE TAKEN TO PREVENT BY ANY METHOD, OIL, CONSTRUCTION DEBRIS, STOCKPILED MATERIALS, AND OTHER MATERIALS ON THE SITE, FROM ENTERING THE WATERWAY. STAGING/LAYDOWN AREAS SHALL BE RESTORED BY THE CONTRACTOR TO THE EXISTING CONDITION. IN ADDITION, THE CONTRACTOR SHALL REPLACE ALL DAMAGED MATERIALS AS A RESULT OF HIS OPERATIONS, TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ALL CONSTRUCTION DEBRIS OR WASTE FROM FALLING INTO ADJACENT WATER BODIES AND DRAINAGE SYSTEMS. ANY DEBRIS FALLING INTO ADJACENT WATER BODIES AND DRAINAGE SYSTEMS SHALL BE RECOVERED AND PROPERLY DISPOSED OF.
- THE CONTRACTOR SHALL MAINTAIN A SECURE SITE AND PROVIDE APPROPRIATE SAFETY MEASURES TO PREVENT ACCIDENTS. THE SAFETY MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO SIGNAGE, BARRICADES, FENCES, FLASHING WARNING LIGHTS, AND POLICING IF NECESSARY.
- UPON COMPLETION OF THE PROJECT, CONTRACTOR WILL PROVIDE TWO AS-BUILT PLAN SETS, ONE ELECTRONIC PDF, AND ONE HARD COPY, TO THE ENGINEER DEPICTING ANY FIELD CHANGES OF DIMENSION OR DETAIL, LOCATION OF UNDERGROUND STRUCTURES AND/OR UTILITIES, CONSTRUCTION DEVIATIONS, CHANGES DUE TO FIELD OR CHANGE ORDER, AND DETAILS NOT ON THE ORIGINAL DRAWINGS.
- THE GENERAL MODIFICATION OF THE VEHICULAR GATE AND GATE COMPONENTS IS TO BE PERFORMED AT AN OFFSITE LOCATION PROVIDED BY THE CONTRACTOR.

CONCRETE NOTES:

- CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF ACI 318 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE RHODE ISLAND STATE BUILDING CODE.
- CONCRETE SHALL BE NORMAL WEIGHT, WITH TYPE II CEMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 5,000 PSI ON CAP, 3,000 PSI FOR THE BACKFILL, 3/4" AGGREGATE-TYPICAL WITH 2 GAL DCI. ALL CONCRETE DESIGN MIXES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- ALL CONCRETE SHALL BE AIR-ENTRAINED WITH AN AIR CONTENT OF 6% +/- 1%.
- WHEN CONCRETE IS PLACED AGAINST PREVIOUSLY HARDENED CONCRETE, THE INTERFACE SHALL BE CLEAN, FREE OF LAITANCE AND INTENTIONALLY ROUGHENED TO FULL AMPLITUDE OF APPROXIMATELY 1/4 INCH. APPLY SIKABOND (OR PRE-APPROVED EQUIVALENT BONDING AGENT) AS REQUIRED PER PRODUCT SPECIFICATIONS.
- PREPARATION OF THE CONCRETE SURFACES FOR REPAIR TO OCCUR IN ACCORDANCE TO SPECIFICATION SECTION 03 01 00.
- CONCRETE WASHOUT OPERATIONS TO OR WITHIN THE ADJACENT WATER BODIES AND DRAINAGE SYSTEMS MUST NOT TAKE PLACE AT ANY TIME. CONCRETE WASHOUT OPERATIONS TO TAKE PLACE IN A WASHOUT PIT OR DISPOSABLE BOX IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL ENVIRONMENTAL LAW REQUIREMENTS.

SPILL PREVENTION AND CONTROL NOTES:

- SPILLS AND LEAKS SHALL BE AVOIDED THROUGH FREQUENT INSPECTION OF EQUIPMENT AND MATERIAL STORAGE AREAS, AND SHALL BE REMEDIATED AND REPAIRED AS NECESSARY.
- HAZARDOUS MATERIAL STORAGE TO BE PLACED ONLY IN DESIGNATED AREAS. MATERIAL STORAGE AREAS SHALL BE ROUTINELY INSPECTED FOR LEAKY CONTAINERS, OPEN CONTAINERS, OR IMPROPER STORAGE TECHNIQUES THAT MAY LEAD TO SPILLS OR LEAKS.
- APPROPRIATE SPILL REMEDIATION PROCEDURES AND SUPPLIES SHALL BE READILY AVAILABLE ON-SITE. TOOLS AND SUPPLIES SHALL BE CLEARLY MARKED SO THAT ALL PERSONNEL CAN LOCATE AND ACCESS THESE SUPPLIES.
- SPILL REMEDIATION SHALL BE PERFORMED IMMEDIATELY. CONTRACTOR SHALL FOLLOW PROPER RESPONSE PROCEDURES IN ACCORDANCE WITH ANY APPLICABLE REGULATORY REQUIREMENTS.
- AT NO TIME SHALL SPILLS BE DIVERTED TOWARD STORM DRAINS OR TO THE WATERWAY.
- EQUIPMENT/VEHICLE FUELING AND REPAIR/MAINTENANCE OPERATIONS SHALL TAKE PLACE ONLY WITHIN DESIGNATED STAGING AREAS.
- THE EQUIPMENT OPERATOR SHALL FULLY MONITOR FUELING OPERATIONS TO EQUIPMENT AND VEHICLES AT ALL TIMES.
- ANY SPILLAGE SHALL BE IMMEDIATELY CLEANED WITH SPILL KITS KEPT ON SITE.
- IN THE CASE OF SMALL AMOUNTS OF SOIL CONTAMINATION, SUCH SOIL SHALL BE PLACED IN 55 GALLON DRUMS FOR DISPOSAL BY A LICENSED HAZARDOUS WASTE HAULER.
- IN THE CASE OF A LARGE AMOUNT OF SOIL CONTAMINATION OR DISCHARGE TO THE WATERWAY, RHODE ISLAND DEM AND APPLICABLE AGENCIES SHALL BE NOTIFIED AS REQUIRED. A HAZARDOUS WASTE REMEDIATION FIRM SHALL BE CONTRACTED TO REMOVE AND DISPOSE OF THE CONTAMINATED MATERIAL OR CONTAIN THE SPILL AT NO ADDITIONAL COST.

STEEL NOTES:

- DESIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AISC SPECIFICATION FOR BUILDINGS.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
 - A. STRUCTURAL STEEL A992 GR. 50 Fy=50 KSI
 - B. PLATES AND ANGLES ASTM A36 Fy=36 KSI
 - C. STRUCTURAL TUBING ASTM A500, GR. B Fy=46 KSI
 - D. HIGH STRENGTH BOLTS A325 (TYPE III) Fy=92 KSI
 - E. STAINLESS STEEL BOLTS PINS SAE316 Fy=30KSI
 - F. ANCHOR RODS F1554 (GRADE 36) Fy=36 KSI
 - G. HEADED STUDS A108 GR. 50 Fy=50 KSI
 - H. DRILL& EPOXY ANCHOR RODS A449 Fy=92 KSI
- STRUCTURAL STEEL CONNECTIONS NOT DETAILED ON THE PLANS SHALL DEVELOP (1/2) OF MEMBER'S TOTAL UNIFORM LOAD CAPACITY, TYPICAL UNLESS NOTED OTHERWISE.
- ALL BOLTED CONNECTIONS SHALL USE 3/4" DIA., ASTM A-325-N BOLTS, UNLESS NOTED OTHERWISE.
- HIGH STRENGTH BOLTS SHALL BE TORQUED TO 70% OF THE MINIMUM TENSILE STRENGTH OF THE BOLT IN CONFORMANCE WITH AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS. PROVIDE ONE HARDENED WASHER UNDER THE ELEMENT TURNED IN TIGHTENING.
- WELDS SHALL BE MADE ONLY BY OPERATORS CERTIFIED BY THE STANDARD QUALIFICATION PROCEDURE OF THE AMERICAN WELDING SOCIETY.
- WELDING: IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1 CODE FOR WELDING IN BUILDING CONSTRUCTION. USE E70 SERIES ELECTRODES UNLESS NOTED OTHERWISE.
- FIELD WELDING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS SPECIFICALLY INDICATED.
- FURNISH AND INSTALL ONE WASHER AND ONE HEAVY HEX NUT WITH ASTM F1554 ANCHOR BOLTS UNLESS OTHERWISE INDICATED.
- PROVIDE FITTED WELDED 3/8" WEB STIFFENER PLATES ON EACH SIDE OF ALL BEAMS SEATED ON WALLS OR COLUMNS UNLESS NOTED OTHERWISE.
- FIELD CUTTING OR MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
- SURFACES OF GALVANIZED MEMBERS TO BE WELDED SHALL BE GROUND TO BARE METAL PRIOR TO WELDING, AND TOUCHED UP AFTER WELDING.
- MINIMUM FILLET WELD (LEG) SIZE SHALL BE 3/16", UNLESS NOTED OTHERWISE.
- ALL REPLACED BOLTS, NUTS, WASHERS AND PINS SHALL BE SAE 316
- STRUCTURAL STEEL, PLATES, PANELS, AND BRACKETS TO BE EPOXY CODED PER SPECIFICATIONS

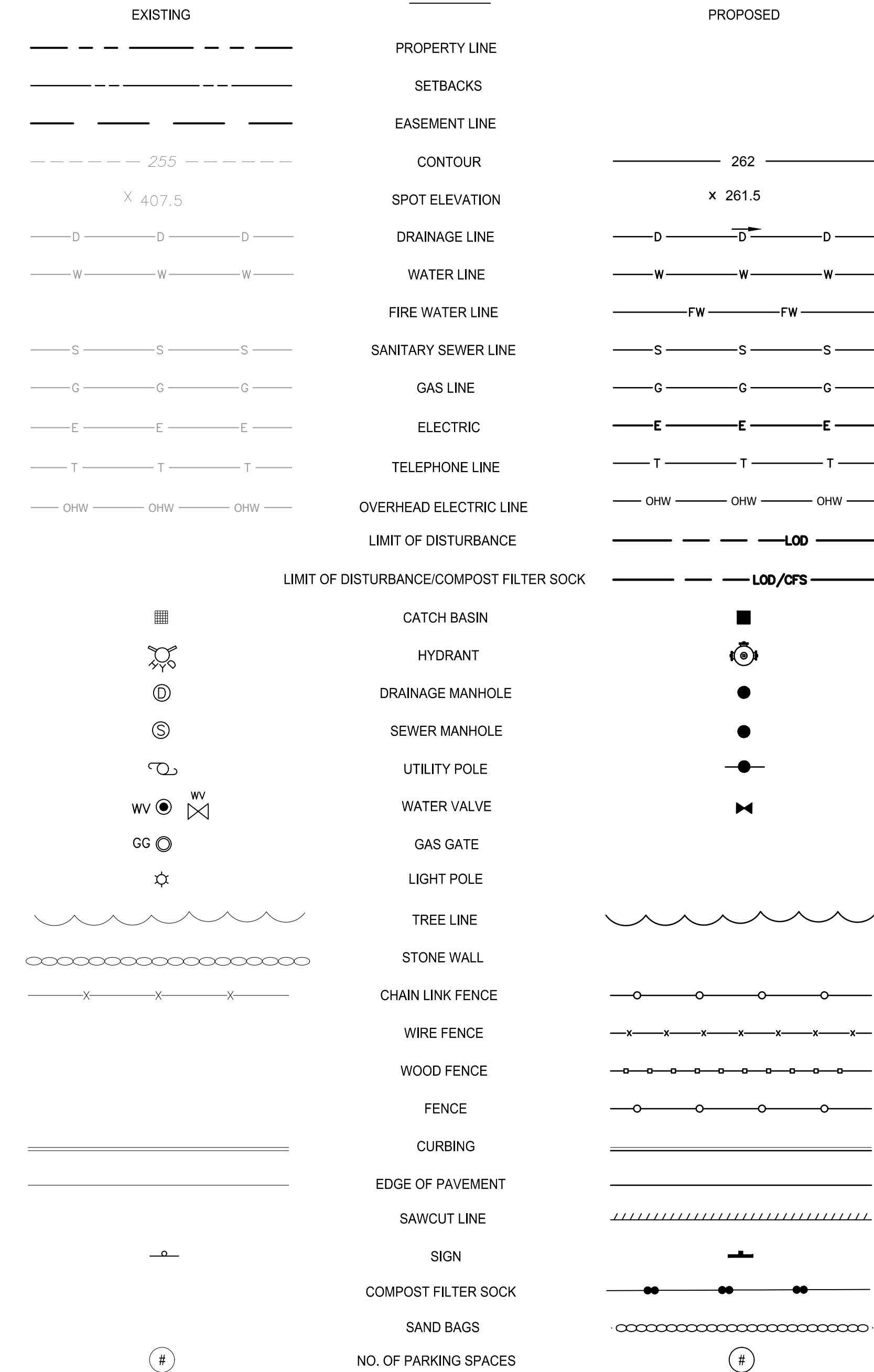
GENERAL SCOPE OF WORK

ALLENS AVENUE:

- MOBILIZE EQUIPMENT AND PERSONNEL TO THE JOB SITE;
- INSTALL EROSION CONTROLS AND TEMPORARY SECURITY FENCING;
- REMOVE, STOCKPILE, AND PROTECT FOR REUSE ALL SIGNAGE;
- REMOVE, TRANSPORT, AND MODIFY GATE SPECIFIC REPAIRS AS INDICATED IN THE CONTRACT DOCUMENTS OFF-SITE;
- INSPECTION OF GROUND PIN CONDITIONS AT THE LOWER HINGE LOCATIONS, REMOVE AND REPLACE IF NEEDED AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE REINSTALLATION OF THE PIN TO AS-BUILT CONDITIONS.
- OFF-SITE MODIFICATIONS INCLUDE, BUT ARE NOT LIMITED TO: SANDBLASTING, EPOXY COATING, REMOVAL AND REPLACEMENT OF 20 GAUGE STEEL SKIN, REPLACING THE LOWER HINGE FOR THE GATE, MODIFYING OF FRONT AND REAR RECESS STRUCTURES, FABRICATING THE REINFORCED "U" HOOK, FABRICATING THE STEEL PANEL FLAPS, MODIFYING THE CENTRAL "A" FRAME OF THE EAST GATE AS INDICATED, REMOVAL AND REPLACEMENT OF THE TOP WF SECTION INCLUSIVE OF INSTALLING A COVER PLATE;
- REINSTALLATION OF VEHICULAR GATE AND DEMONSTRATING FUNCTIONALITY INCLUSIVE OF FULL CLOSURE WITH BOLTS EXTENDING THROUGH THE BUTTRESS STRUCTURE;
- CLEAN ON SITE DRAINS BETWEEN THE FRONT AND REAR RECESS AND JETTING TO THE CATCH BASIN;**
- SEAL CONSTRUCTION JOINTS OF THE CONCRETE ABUTMENT ROOFS;
- IMPLEMENT ONSITE CONCRETE REPAIR PROGRAM;
- REMOVE AND REPLACE RUBBER FIBRE SEAL AT BOTH ABUTMENTS;
- SITE CLEAN-UP AND RESTORATION OF AREAS AS NECESSARY;
- DEMOLITION;

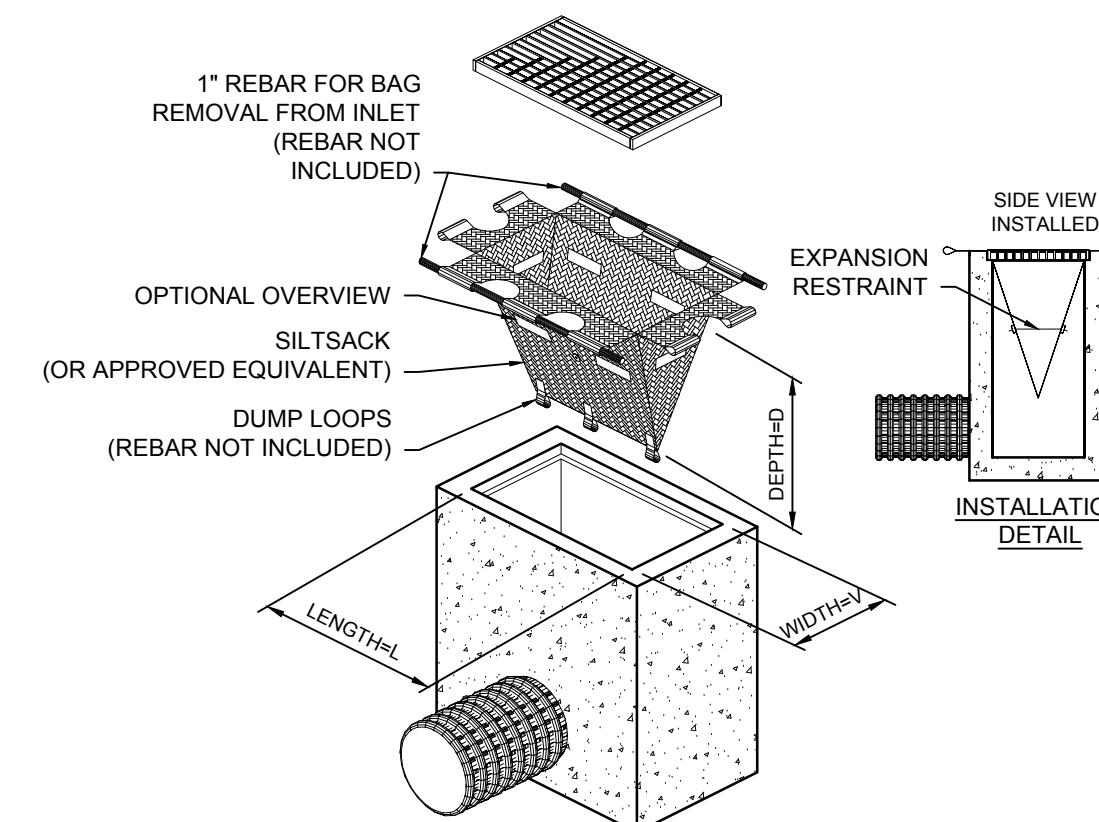
MANCHESTER STREET STATION PLANT:

- MOBILIZE EQUIPMENT AND PERSONNEL TO THE JOB SITE;
- INSTALL EROSION CONTROLS AND TEMPORARY SECURITY FENCING;
- REMOVE, STOCKPILE, AND PROTECT FOR REUSE ALL SIGNAGE;
- REMOVE, TRANSPORT, AND MODIFY GATE SPECIFIC REPAIRS AS INDICATED IN THE CONTRACT DOCUMENTS OFF-SITE;
- OFF-SITE MODIFICATIONS INCLUDE: SANDBLASTING, EPOXY COATING, HINGE PLATE REPLACEMENT, AND REPLACEMENT OF THE CLOSURE HOOK BRACKETS AS MODIFIED IN THE CONTRACT DOCUMENTS;
- REINSTALLATION OF VEHICULAR GATE AND DEMONSTRATING FUNCTIONALITY;
- REMOVAL AND REPLACEMENT OF CLOSURE HOOKS;
- INSTALLATION OF LADDER AND OPERATION PLATFORM;
- REMOVAL AND POTENTIAL REPLACEMENT OF CRANK OPERATING BAR.
- PROJECT CLOSE-OUT.



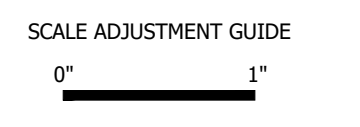
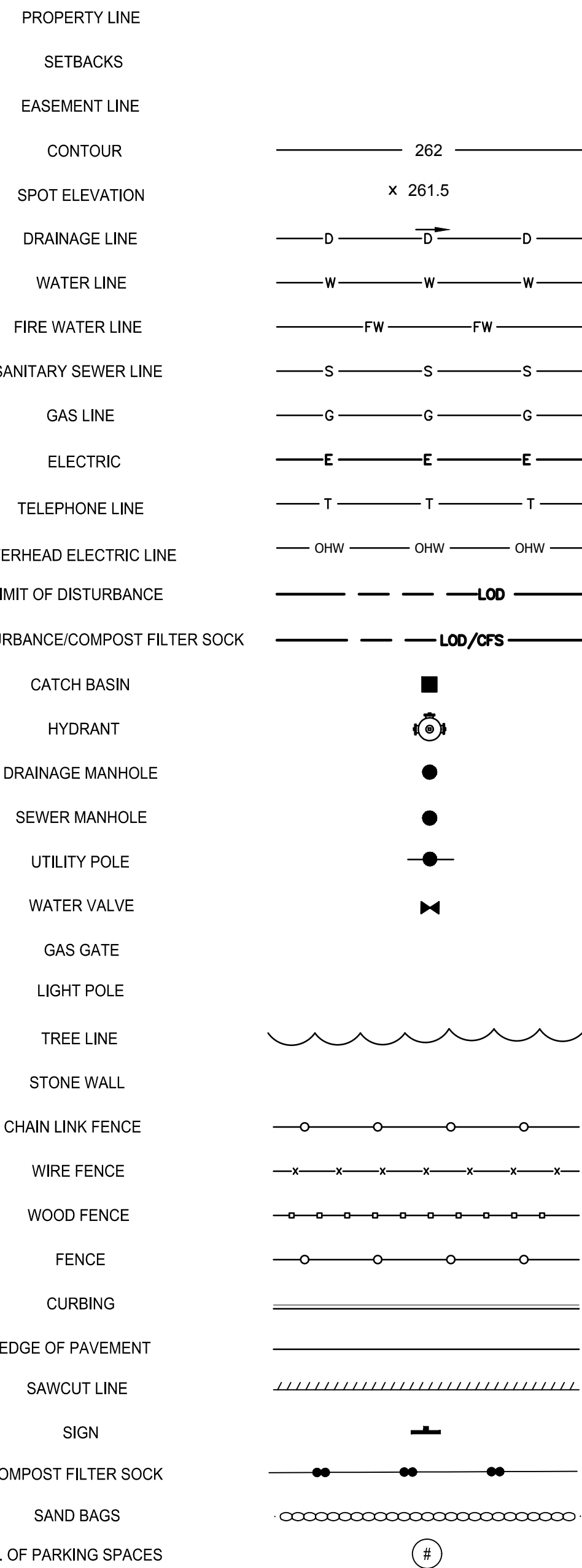
EROSION CONTROL NOTES:

- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES FOR THE DURATION OF THE PROJECT.
- CONTRACTOR SHALL PREVENT SEDIMENT FROM ENTERING THE ADJACENT WATER BODIES AND DRAINAGE SYSTEMS VIA DISCHARGES THROUGH ANY DRAINAGE STRUCTURES OR RUNOFF FROM WITHIN THE LIMITS OF WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING, RESTORING AND REPAIRING ALL DAMAGE AS A RESULT OF UNAUTHORIZED WORK OR DISCHARGES AT NO ADDITIONAL COST TO THE OWNER.



TEMPORARY INLET PROTECTION
SCALE: NOT TO SCALE

LEGEND



**HURRICANE BARRIER
STREET GATE REPAIRS
PROVIDENCE, RHODE ISLAND
CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS**

REVISIONS:		
1	9/9/2024	ADD-1

PROJECT NO.: 24040.00
DATE: SEPTEMBER 2024
SCALE: AS NOTED
DESIGNED BY: JPN
CHECKED BY: BMD
DRAWN BY: CD/LMC
APPROVED BY: TDT

GENERAL NOTES AND LEGEND
SHEET NO.: **G-002**
2 OF 18

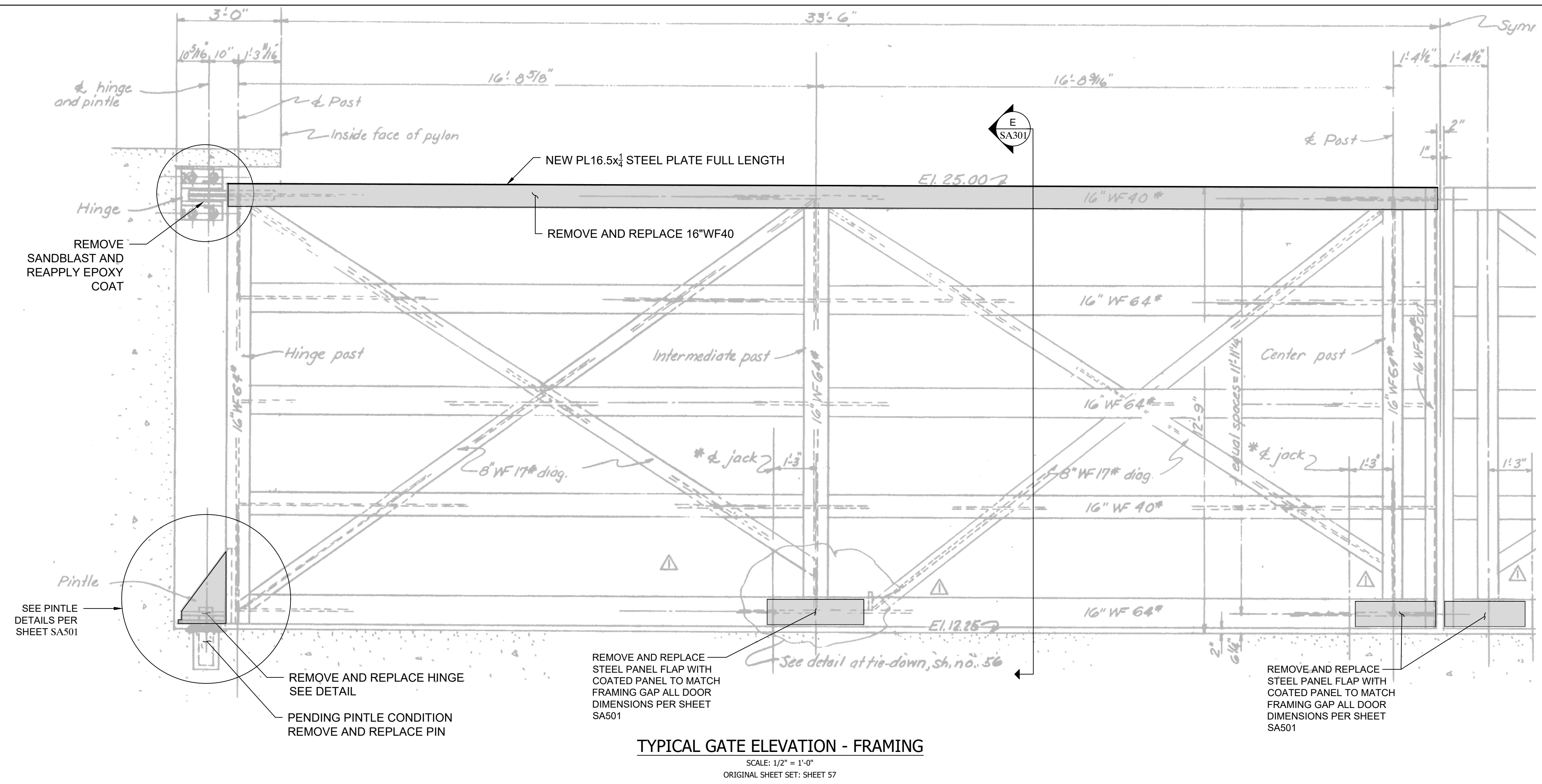
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NOT FOR CONSTRUCTION**

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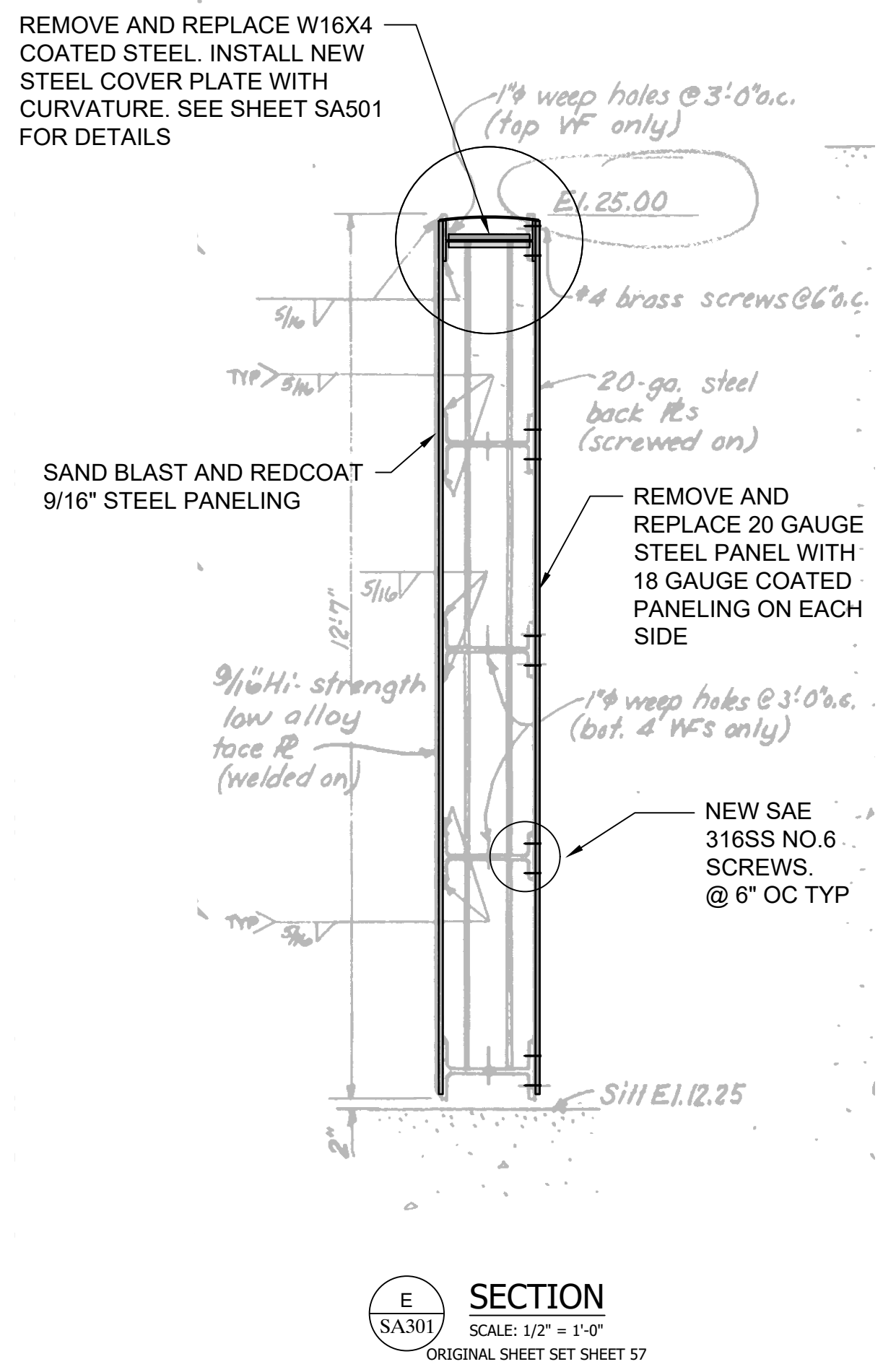


SCALE ADJUSTMENT GUIDE
 0" 1"

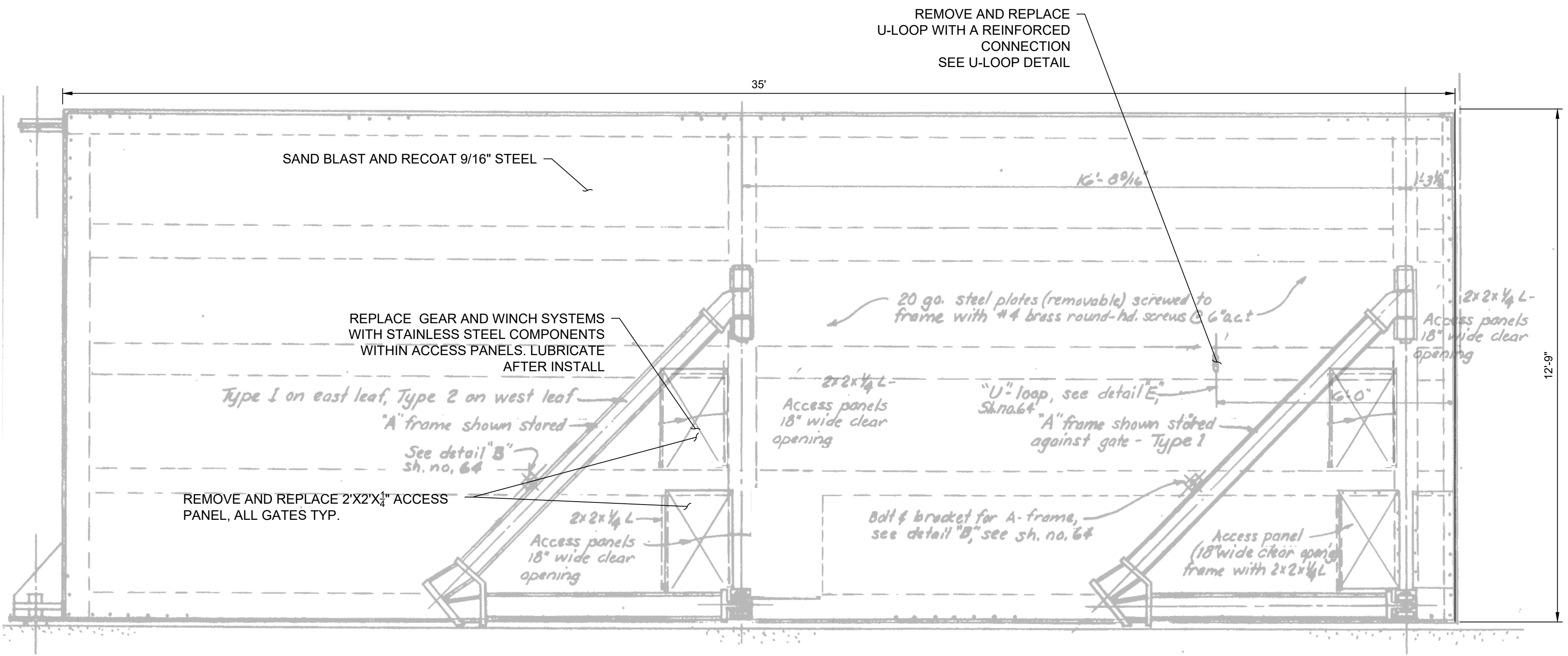
**HURRICANE BARRIER
 STREET GATE REPAIRS**
 PROVIDENCE, RHODE ISLAND
 CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS



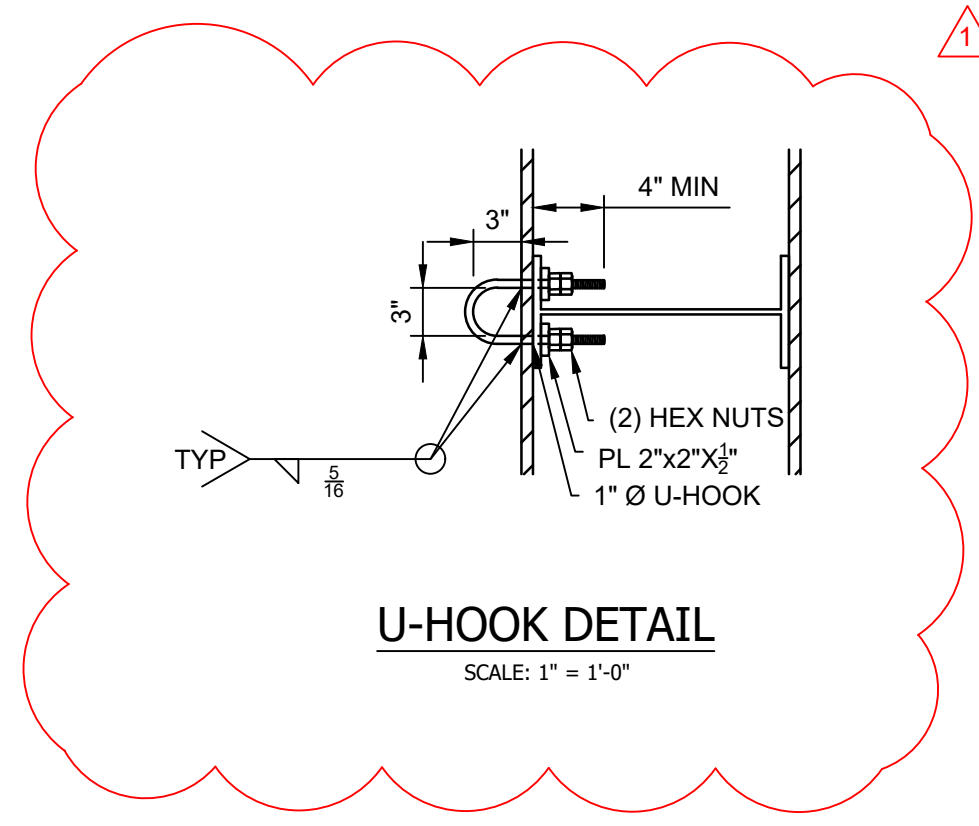
TYPICAL GATE ELEVATION - FRAMING
 SCALE: 1/2" = 1'-0"
 ORIGINAL SHEET SET: SHEET 57



SECTION
 SCALE: 1/2" = 1'-0"
 ORIGINAL SHEET SET SHEET 57



TYPICAL REAR GATE ELEVATION
 SCALE: 1/2" = 1'-0"
 ORIGINAL SHEET SET: SHEET 57



U-HOOK DETAIL
 SCALE: 1" = 1'-0"

NOTES:

- SAND BLAST AND RECOAT ALL INTERIOR/EXTERIOR STEEL MEMBERS/COMPONENTS. INCLUDING 9/16" STEEL PLATE TO REMAIN IN PLACE, UNLESS STATED OTHERWISE.
- 20 GAUGE STEEL PANELING ALL EXPOSED FACE IN THE STORED POSITION SHALL BE REMOVED AND REPLACED WITH 18 GAUGE COATED (ALL SIDES) STEEL

REVISIONS:

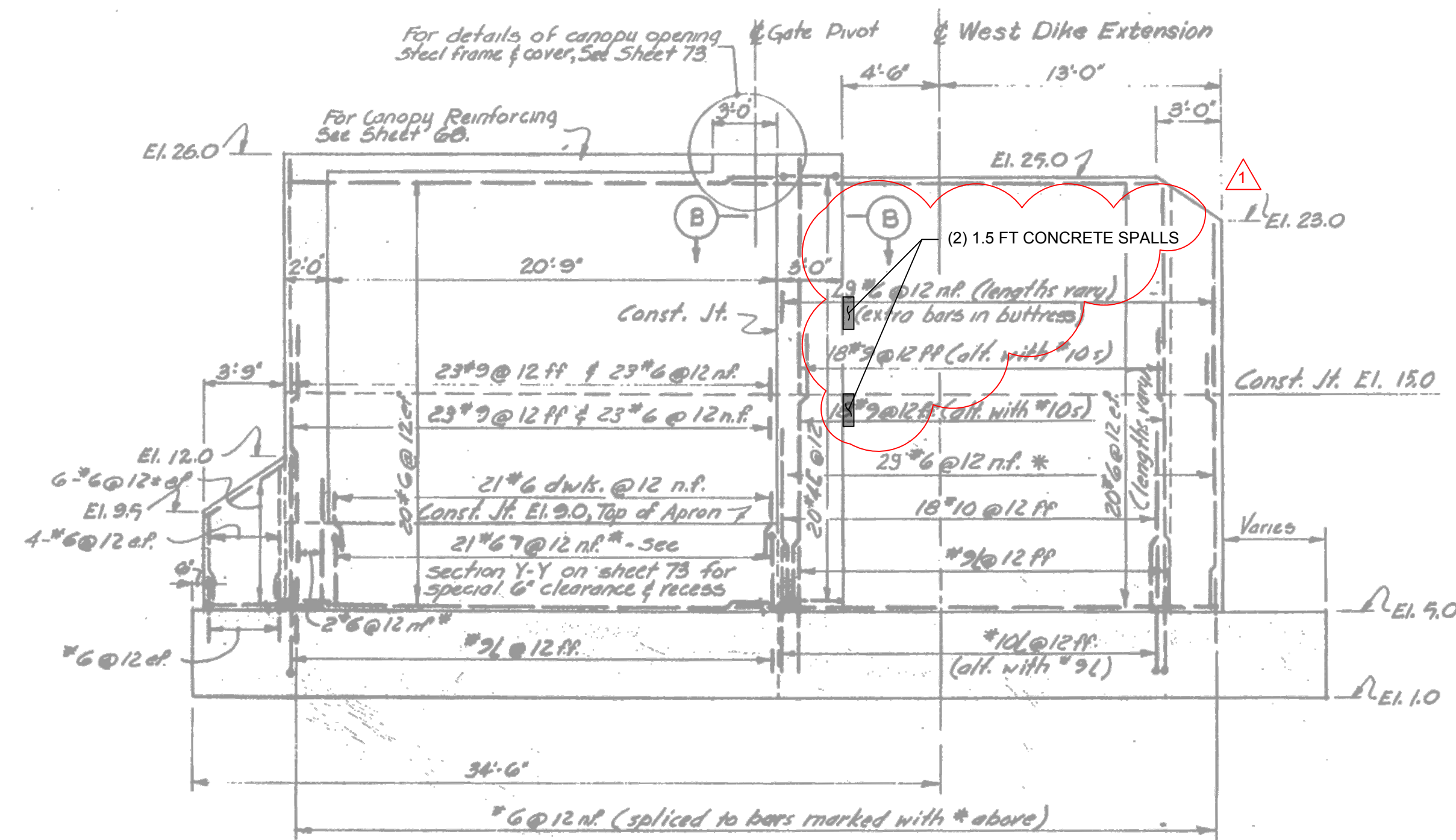
1	9/9/2024	ADD-1

PROJECT NO.: 24040.00
 DATE: SEPTEMBER 2024
 SCALE: AS NOTED
 DESIGNED BY: JPN
 CHECKED BY: BMD
 DRAWN BY: CD/LMC
 APPROVED BY: TDT

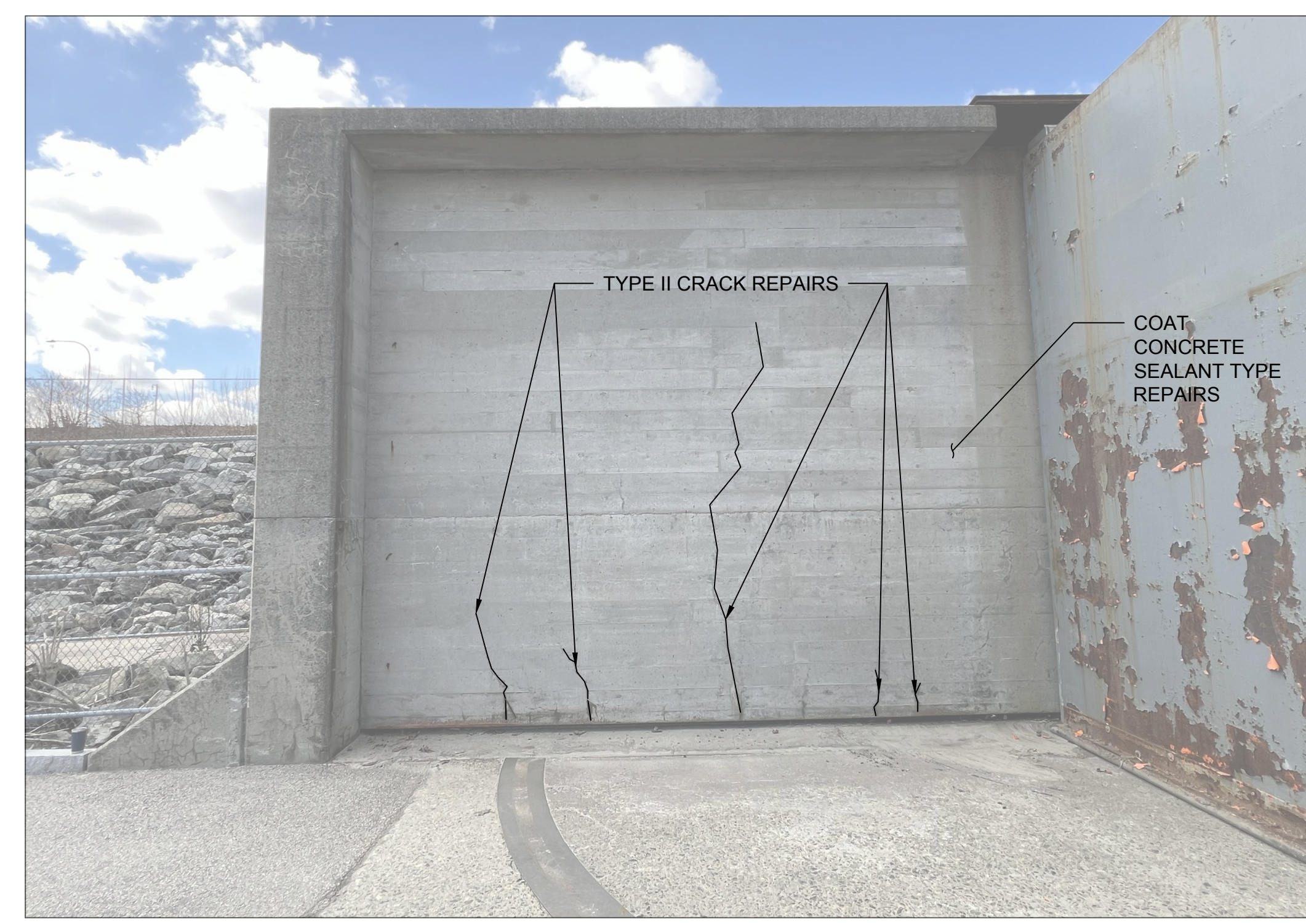
GATE PLAN
 ALLENS AVENUE

SHEET NO.:
SA301

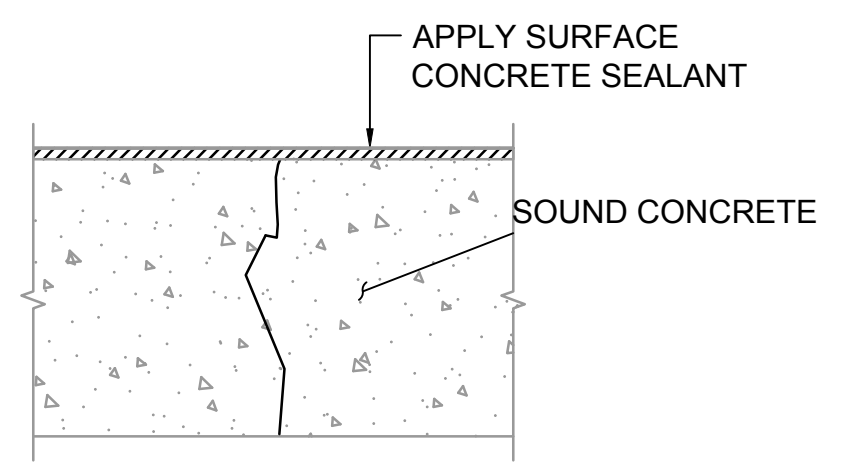
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SECTION C-C
 SCALE: 1/4"=1'-0"
 ORIGINAL SHEET SET: SHEET 69

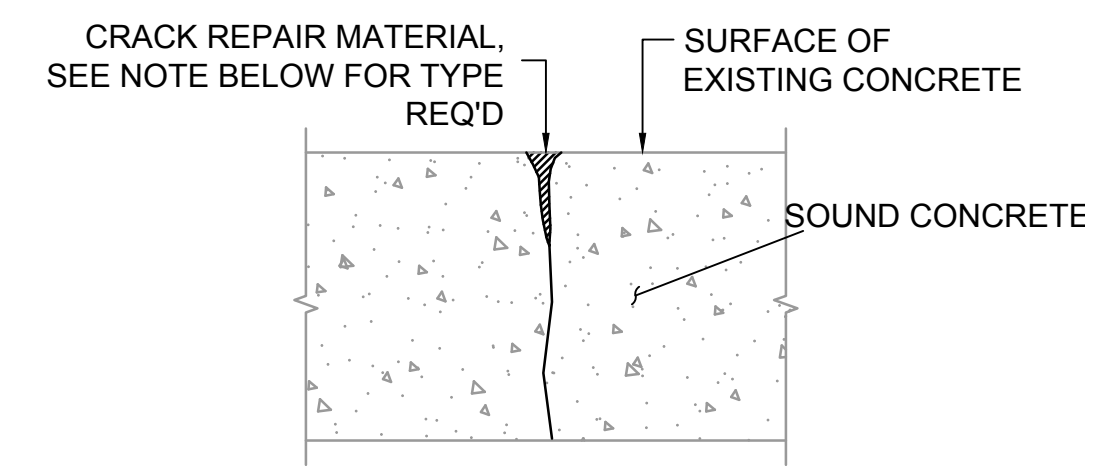


WEST ABUTMENT ELEVATION PHOTO
 SCALE: NOT TO SCALE



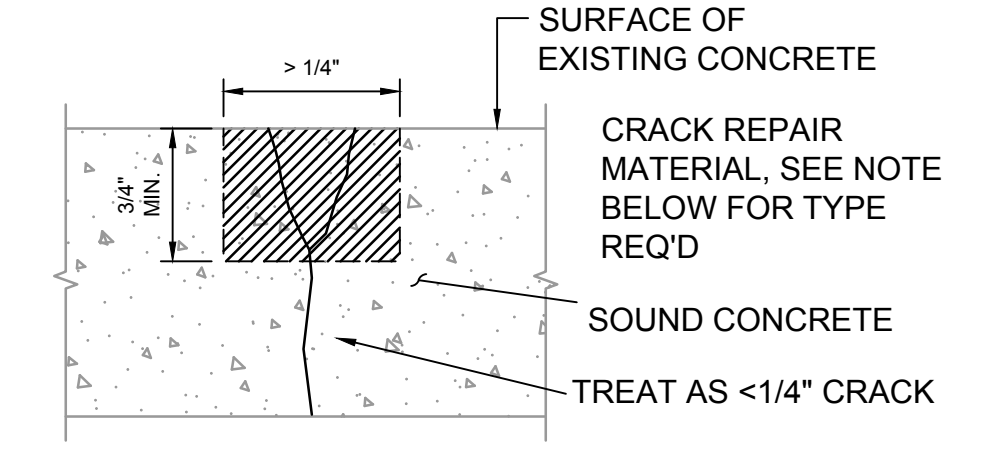
TYPE I- CONCRETE COATING CRACK REPAIRS <= 1/32"
 SCALE: NOT TO SCALE

1. SURFACE SHALL BE CLEAN AND FREE OF DUST AND DEBRIS
2. PREPARE SURFACE PER SEALANT MANUFACTURERS INSTRUCTIONS



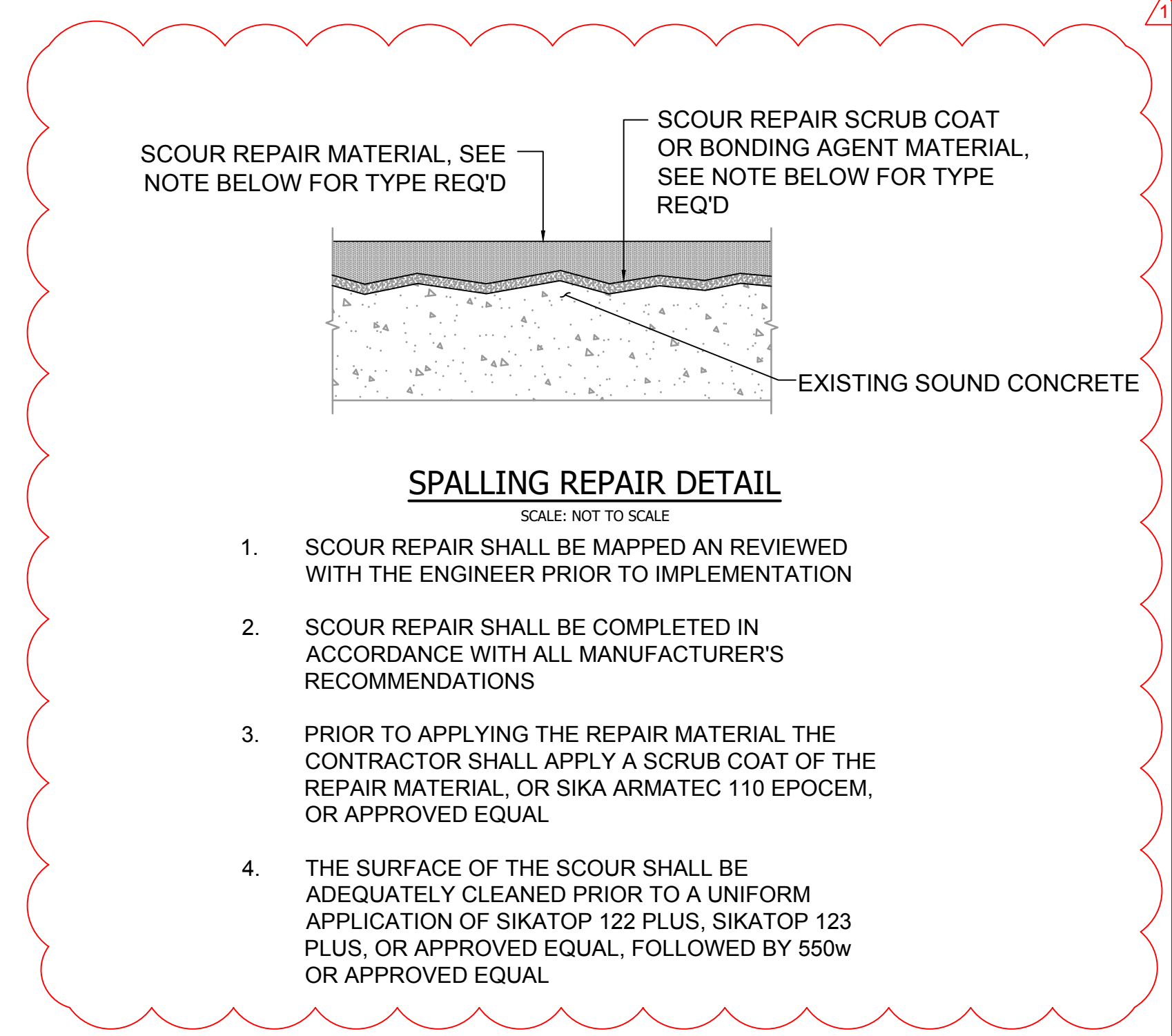
TYPE II- CRACK WIDTHS < 1/4 " REPAIR NOTES:
 SCALE: NOT TO SCALE

1. PRESSURE INJECT WITH EPOXY RESIN ADHESIVE (SIKADUR 35, HI-MOD LV LPL OR APPROVED EQUAL).
2. SURFACE SEALANT SHALL BE SIKADUR 33 OR APPROVED EQUAL.
3. SEALANT SHALL BE GROUND TO MATCH EXISTING FINISH WHEN HARDENED.



TYPE III - CRACK WIDTHS > 1/4" REPAIR NOTES:
 SCALE: NOT TO SCALE

1. SAW CUT LOOSE CONCRETE TO A 3/4" MINIMUM DEPTH AND UNTIL CRACK IS 1/4" OR LESS IN WIDTH.
2. IF CRACK EXTENDS BEYOND SAW CUT, TREAT CRACK WITH INJECTION REPAIR AS SHOWN
3. PATCH CRACK WITH SIKADUR 123 PLUS OR APPROVED EQUAL.
4. CRACK REPAIR SHALL BE COMPLETED IN ACCORDANCE WITH ALL MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION OF THE APPROVED SEALANT.
5. THE CONTRACTOR SHALL PROVIDE MEASURES TO PROTECT SURROUNDING AREAS FROM EXCESS REPAIR MATERIAL.
6. EXCESS REPAIR MATERIAL SHALL BE REMOVED FROM THE FACE OF THE EXISTING CONCRETE.
7. CONTRACTOR SHALL NOTIFY ENGINEER AFTER THE CRACK IS CLEANED BUT PRIOR TO REPAIR MATERIAL INSTALLATION.



SPALLING REPAIR DETAIL
 SCALE: NOT TO SCALE

1. SCOUR REPAIR SHALL BE MAPPED AND REVIEWED WITH THE ENGINEER PRIOR TO IMPLEMENTATION
2. SCOUR REPAIR SHALL BE COMPLETED IN ACCORDANCE WITH ALL MANUFACTURERS RECOMMENDATIONS
3. PRIOR TO APPLYING THE REPAIR MATERIAL THE CONTRACTOR SHALL APPLY A SCRUB COAT OF THE REPAIR MATERIAL, OR SIKADUR ARMATEC 110 EPOCEM, OR APPROVED EQUAL
4. THE SURFACE OF THE SCOUR SHALL BE ADEQUATELY CLEANED PRIOR TO A UNIFORM APPLICATION OF SIKADUR 122 PLUS, SIKADUR 123 PLUS, OR APPROVED EQUAL, FOLLOWED BY 550w OR APPROVED EQUAL

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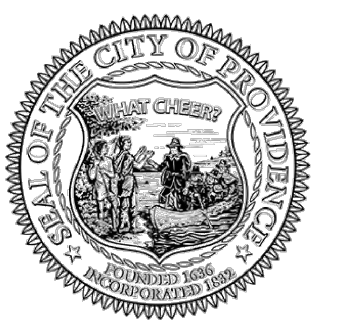
REVISIONS:	
1	9/9/2024 ADD-1

PROJECT NO.:	24040.00
DATE:	SEPTEMBER 2024
SCALE:	AS NOTED
DESIGNED BY:	JPN
CHECKED BY:	BMD
DRAWN BY:	CD/LMC
APPROVED BY:	TDT

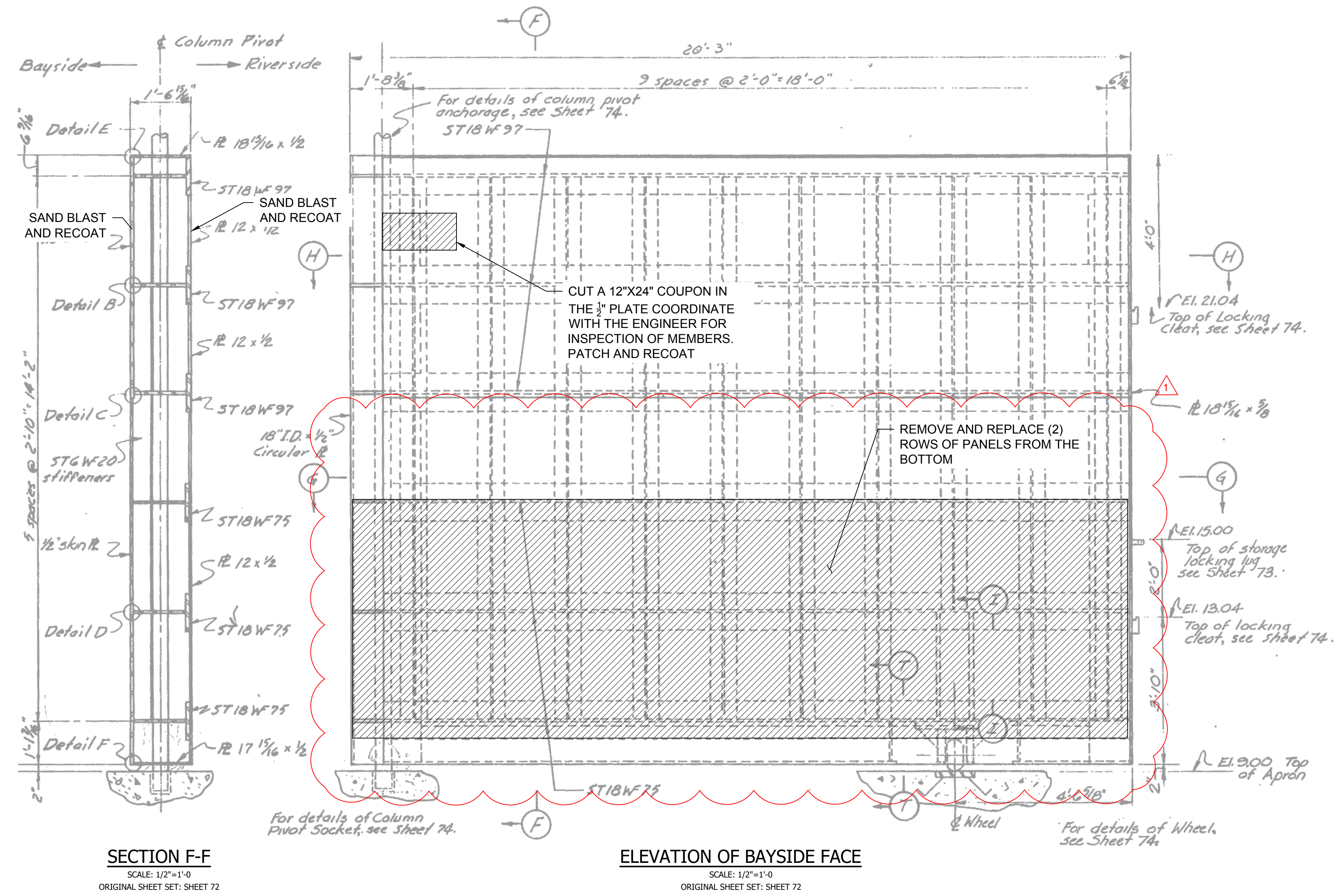
ABUTMENT
 ELEVATIONS
 MANCHESTER STREET
 STATION

SHEET NO.:
SB201

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**HURRICANE BARRIER
 STREET GATE REPAIRS**
 PROVIDENCE, RHODE ISLAND
 CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS



SECTION F-F
 SCALE: 1/2"=1'-0"
 ORIGINAL SHEET SET: SHEET 72

ELEVATION OF BAYSIDE FACE
 SCALE: 1/2"=1'-0"
 ORIGINAL SHEET SET: SHEET 72

REVISIONS:

1	9/9/2024	ADD-1

PROJECT NO.:	24040.00
DATE:	SEPTEMBER 2024
SCALE:	AS NOTED
DESIGNED BY:	JPN
CHECKED BY:	BMD
DRAWN BY:	CD/LMC
APPROVED BY:	TDT

GATE SECTION
 MANCHESTER STREET
 STATION

SHEET NO.:
SB301

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PRE-BID MEETING SIGN IN SHEET
HURRICANE BARRIER STREET GATE REPAIRS BID
 Providence, RI ~ Pare Project 24040.00
 September 4, 2024; 9:00 am

Name	Company	Phone	Email
Brian Dutra	Pare Corporation	508-543-1755	bdutra@parecorp.com
Jon Namt	Pare	-	jnamt@parecorp.com
Alex Lavey	R. Zoppo Corp.	781-774-9039	ALEVEY@ZOPPO.COM
Roscoe Brown	PROVIDENCE DPW	401-368-4685	rbrown@providence.ri.gov





PRE-BID MEETING AGENDA

**CITY OF PROVIDENCE
2024 HURRICANE BARRIER STREET GATE REPAIRS
Providence, Rhode Island
Owner: City of Providence
Pare Project 24040.00 / City Procurement No. 46322
September 4, 2024; 9:00 am**

Name of Owner: City of Providence, RI
Name of Engineer: Pare Corporation

Location: Near 64 Allens Avenue, Providence, RI
Manchester Street Station – 40 Point Street, Providence, RI

ATTENDEES: See sign in sheet

Scope of Work (by Contractor)

- 1. Mobilize to the site.**
- 2. Flood contingency materials and storage.**
 - a. 48 -hour deployment requirement after notice from City
 - b. Storage of deployable barrier onsite
- 3. Allens Avenue**
 - a. Remove Gates.
 - b. Sandblast and epoxy coat specified gate support components.
 - c. Fabricate and replace gate specified gate support components.
 - d. Sandblast and epoxy coat gate, remove and replace steel plating, and specified bracing member.
 - e. Sandblast and epoxy coat A-frame subcomponents and replace steel bearing plates.
 - f. Prepare steel panel for stainless steel winch installation.
 - g. Fabricate, install, and epoxy coat components required for lower hinge repair.
 - h. Repair cracks in the adjacent concrete, and apply joint sealant, and epoxy crystalline coating as specified.
 - i. Remove existing fiber seal, prepare the surface and replace fiber seal.
 - j. Reinstall gate.
 - k. Vacuum and clean adjacent storm drainage.
- 4. Manchester Street Station**
 - a. Remove Gate.
 - b. Sand blast and epoxy coat gate structure.
 - c. Repair cracks in the adjacent concrete, and apply joint sealant, and epoxy crystalline coating as specified.
 - d. Remove existing fiber seal, prepare the surface and replace fiber seal.
 - e. Remove and dispose of existing hooks, wheels, and brackets. Replace in-kind.
 - f. Reinstall gate.
 - g. Install new ladder and operation platform for gate operations.

Notes:

- 1. All phasing is conceptual in nature and the contractor will be allowed to work according to their means and methods and in accordance with the project specifications.*

- Contractor to coordinate inspections of specified sub-assemblies with engineer and accommodate potential change orders subject to findings.*

Work Restrictions

- Work hours 7:00 am to 5:00 pm from Monday to Friday. No work on weekends or Owner holidays without prior approval from Owner

Coordination

- Coordination with the City Department of Public Works is required and updated schedules and timelines shall be submitted on a regular basis.
- Road closures shall be coordinated with the City.
- Coordination with the Dominion Energy Manchester Street Station is required for work within the plant and at the gate to limit disturbance and operations.
- The Contractor shall coordinate with the City and the U.S. Army Corps of Engineers (USACE) for any flood mitigation operations and to maintain access to the Fox Point Hurricane Barrier.

Health and Safety

- Work takes place in a FEMA designated Flood Zone. The Contractor shall comply with the requirements outlined in the project contract documents.
- 100% tie-off when working above regulated heights beyond the protection of guardrails. Zero-tolerance policy on failure to use fall protection
- Provide lighting, ventilation, and other provisions as necessary to provide a safe working environment

Contract Time

- Work may commence after November 30, 2024
- Gates must be reinstalled and operational prior to April 1, 2025
- Final Completion – May 2, 2025

Prevailing Wages

- This project is subject to RI Prevailing Wage and Davis-Bacon Act Prevailing Wage Rates

MBE/WBE

- Combined goal for MBE/WBE participation is 20%
 - MBE participation goal is 10%
 - WBE participation goal is 10%
- No bids will be accepted without a MBE/WBE Participation Affidavit

Payments

- Monthly payments - 5% withheld for retainage until Final Completion
- Contractor will receive 100% of retainage upon Final Completion of the Project

Bid Question Submission Deadline – Tuesday, September 10, 2024, at 12:00 pm
Bid Document Addenda Issued - Friday, September 13, 2024, at 5:00 pm
Bid Opening - Monday, September 23, 2024, at 2:15 pm
(Bids valid for 60 days)

