October 25, 2017

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION
DEPARTMENT OF ADMINISTRATION

DIVISION OF PURCHASES BID NO. 7565516

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

RHODE ISLAND CONTRACT NO.2017-CB-070

FEDERAL-AID PROJECT NO. FAP Nos: BRO-472(001), STP-RESF(360)

Horton Farm Bridge No. 472

Horton Farm Road Bridge No. 472

CITY/TOWN OF East Providence

COUNTY OF PROVIDENCE

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 2 Prospective bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, Proposal and Distribution of Quantities for this contract. These changes shall be incorporated in the Plans, Specifications, Proposal and Distribution of Quantities, and shall become an integral part of the Contract Documents.

A. Clarification

1. Substantial Completion Date

   Substantial Completion Date updated to "06/29/2019".

2. Bid Opening Date

   Bid Opening Date updated to "12/01/2017".

3. Item Code 108.9901

   The unit price for Item Code 108.9901 has been updated to display as the only acceptable unit price.

B. Proposal Pages

1. Proposal Page Numbers P-27 and P-28

   Remove and replace Proposal Pages P-27 and P-28 in their entirety with Proposal Page P-27 (Revision-2) and Proposal Page P-28(Revision-2) attached to this Addendum No. 2. The Bid Opening Date and Substantial Completion Date have been updated.

C. General Provisions - Contract Specific

1. Page CS-3

   Remove page CS-3 in its entirety and replace with revised page CS-3(R-1) attached to this Addendum No. 2. The brief scope of work has been revised.

2. Page CS-5

   Remove page CS-5 in its entirety and replace with revised page CS-5(R-1) attached to this Addendum No. 2. The list of contract drawings has been revised.

3. Page CS-7 thru CS-10

   Remove pages CS-7 thru CS-10 in their entirety and replace with revised pages CS-7(R-1) thru CS-10(R-1) attached to this Addendum No. 2. The notice to contractors has been revised.

4. Pages CS-11 and CS-12

   Remove pages CS-11 and CS-12 in their entirety and replace with revised pages CS-11(R-1) and CS-12(R-1) attached to this Addendum No. 2. The sequence of construction has been revised.

5. Pages CS-17 thru CS-19

   Remove pages CS-17 thru CS-19 in their entirety and replace with revised pages CS-17(R-1) thru CS-19(R-1) attached to this Addendum No. 2. The contractor's submittal list has been revised.

6. Pages CS-21 thru CS-55

   Remove pages CS-21 thru CS-55 in their entirety and replace with revised pages CS-21(R-1) thru CS-41(R-1) attached to this Addendum No. 2. The TMP has been revised. Pages CS-42 thru CS-55 are omitted intentionally.

D. Specifications - Job Specific

1. Pages JS-16A and JS-16B

   Insert pages JS-16A and JS-16B attached to this Addendum No. 2. CODE 109.06 PAYMENT FOR WORK has been added.

2. Pages JS-48 thru JS-55

   Remove pages JS-48 thru JS-55 in their entirety and replace with revised pages JS-48(R-1) to JS-55 (R-1) attached to this Addendum No. 2. CODE 800.9920 HORTON FARM ROAD BRIDGE NO. 472 SUPERSTRUCTURE has been revised in its entirety.

3. Pages JS-56 thru JS-61

   Remove pages JS-56 thru JS-61 in their entirety and replace with revised pages JS-56(R-1) to JS-61 (R-1) attached to this Addendum No. 2. CODE 800.9940 HORTON FARM ROAD BRIDGE NO. 472 SUBSTRUCTURE has been revised in its entirety.

4. Page JS-64

   Remove page JS-64 in its entirety and replace with revised page JS-64(R-1) attached to this Addendum No. 2. The existing structural steel weight has been revised.

5. Page JS-101A

   Insert page JS-101A attached to this Addendum No. 2. Code 936.9901 MOBILIZATION has been added.

ATTACHMENTS

E. Distribution of Quantities

1. Index Pages 1(R-1) thru 4(R-1)

   Remove index pages 1(R-1) thru 4(R-1) in their entirety and replace with revised index pages 1(R-2) thru 4(R-2) attached to this Addendum No. 2. The index has been revised and updated items are indicated in bold.

2. Page 64

   Remove page 64 in its entirety and replace with revised page 64(R-1) attached to this Addendum No. 2. Item Code 929.0110 has been updated.

3. Page 69

   Remove page 69 in its entirety and replace with revised page 69(R-1) attached to this Addendum No. 2. Item Code 936.0110 has been deleted.

4. Page 92

   Remove page 92 in its entirety and replace with revised page 92(R-1) attached to this Addendum No. 2. Item Code 936.9901 has been added.

F. Plans

1. VOLUME 1 SHEET 140 - CROSS SECTIONS - LANE F (HORTON FARM ROAD) SHEET 2 OF 6

   Remove and replace Sheet 140 in its entirety with Sheet 140(R-1) attached to this Addendum No. 2. This sheet has been revised.

2. VOLUME 1 SHEET 141 - CROSS SECTIONS - LANE F (HORTON FARM ROAD) SHEET 3 OF 6

   Remove and replace Sheet 141 in its entirety with Sheet 141(R-1) attached to this Addendum No. 2. This sheet has been revised.

3. VOLUME 2 SHEET 6 - GENERAL BRIDGE NOTES SHEET 3 OF 3

   Remove and replace Sheet 6 in its entirety with Sheet 6(R-1) attached to this Addendum No. 2. This sheet has been revised.

4. VOLUME 2 SHEET 8 - TYPICAL BRIDGE & APPROACH SECTIONS

   Remove and replace Sheet 8 in its entirety with Sheet 8(R-1) attached to this Addendum No. 2. This sheet has been revised.

5. VOLUME 2 SHEET 9 - CONSTRUCTION STAGING & DEMOLITION DETAILS SHEET 1 OF 3

   Remove and replace Sheet 9 in its entirety with Sheet 9(R-1) attached to this Addendum No. 2. This sheet has been revised.

6. VOLUME 2 SHEET 10 - CONSTRUCTION STAGING & DEMOLITION DETAILS SHEET 2 OF 3

   Remove and replace Sheet 10 in its entirety with Sheet 10(R-1) attached to this Addendum No. 2. This sheet has been revised.

ATTACHMENTS

7. VOLUME 2 SHEET 11 - CONSTRUCTION STAGING & DEMOLITION DETAILS SHEET 3 OF 3

   Remove and replace Sheet 11 in its entirety with Sheet 11(R-1) attached to this Addendum No. 2. This sheet has been revised.

8. VOLUME 2 SHEET 24 - ABUTMENT DETAILS

   Remove and replace Sheet 24 in its entirety with Sheet 24(R-1) attached to this Addendum No. 2. This sheet has been revised.

9. VOLUME 2 SHEET 28 - GEOGRID PLAN AND DETAILS

   Remove and replace Sheet 28 in its entirety with Sheet 28(R-1) attached to this Addendum No. 2. This sheet has been revised.

10. VOLUME 2 SHEET 32 - PRECAST TOLERANCE DETAILS

    Remove and replace Sheet 32 in its entirety with Sheet 32(R-1) attached to this Addendum No. 2. This sheet has been deleted.

11. VOLUME 2 SHEET 36 - DIAPHRAGM DETAILS

    Remove and replace Sheet 36 in its entirety with Sheet 36(R-1) attached to this Addendum No. 2. This sheet has been revised.

12. VOLUME 2 SHEET 38 - DECK GRADES

    Remove and replace Sheet 38 in its entirety with Sheet 38(R-1) attached to this Addendum No. 2. This sheet has been revised.

13. VOLUME 2 SHEET 39 - DECK PLAN

    Remove and replace Sheet 39 in its entirety with Sheet 39(R-1) attached to this Addendum No. 2. This sheet has been revised.

14. VOLUME 2 SHEET 40 - DECK REINFORCEMENT DETAILS

    Remove and replace Sheet 40 in its entirety with Sheet 40(R-1) attached to this Addendum No. 2. This sheet has been revised.

15. VOLUME 2 SHEET 41 - DECK PANEL DETAILS SHEET 1 OF 2

    Remove and replace Sheet 41 in its entirety with Sheet 41(R-1) attached to this Addendum No. 2. This sheet has been deleted.

16. VOLUME 2 SHEET 42 - DECK PANEL DETAILS SHEET 2 OF 2

    Remove and replace Sheet 42 in its entirety with Sheet 42(R-1) attached to this Addendum No. 2. This sheet has been deleted.

17. VOLUME 2 SHEET 43 - REINFORCING DETAILS

    Remove and replace Sheet 43 in its entirety with Sheet 43(R-1) attached to this Addendum No. 2. This sheet has been revised.

RI Department of Transportation

Administrator, Division of Project Management

ATTACHMENTS

Revised: 2/19/2002

Total or gross sum of bid for Rhode Island Contract Number: 2017-CB-070

Federal-Aid Project Number(s): BRO-472(001), STP-RESF(360)

WRITTEN IN WORDS:

The undersigned bidder declares that this Proposal is made without connection with any other person or persons making proposals for the same work, and is in all respects fair and without collusion or fraud. The undersigned bidder submits herewith, a proposal guarantee in the form of a bid bond in favor of the State of Rhode Island in the amount of 5% of the total or gross sum of the bid and agrees and consents that the proposal guarantee shall be forfeited to the State as liquidated damages if the required contract agreement and contract bond are not executed within ten(10) days of the notice of award. All surety companies must be listed with The Department of the Treasury, Fiscal Services, Circular 570, (Latest Revision published by The Federal Register). The State reserves the right to retain the surety of all bidders until the successful bidder enters into the Contract or until such time as the award or cancellation of the Contract is announced at which point Sureties will be returned to all bidders by the State of Rhode Island, Office of Purchases. The undersigned bidder further agrees, if awarded the contract on this proposal, to begin work within ten (10) calendar days after the date of execution of the contract unless otherwise specified under special provisions or permitted by the Engineer, and further agrees to complete the work on or before the dates outlined in the Contract Documents.

COMPLETION DATE(S)

DESCRIPTION	DATE
Advertise Date	September 29, 2017
Bid-Opening Date	December 1, 2017
Substantial Completion Date	June 29, 2019

THE BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING:

ADDENDA	DATE POSTED	DOCUMENT(S)	PAGE
NO.1	October 13, 2017	Status Certification for: Debarment, Eligibility, Indictments, Convictions or Civil Judgements	
NO.2		Anti-Collusion Certificate	
		DBE Affirmative Action Certification	
		Disclosure of Lobbying Activities	

Total or gross sum of bid for Rhode Island Contract Number: 2017-CB-070

Federal-Aid Project Number(s): BRO-472(001), STP-RESF(360)

Whoever, being an officer, agent, or employee of the United States, or of any State, or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the costs thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction of any highway or related project submitted for approval to the Secretary of Transportation; or Whoever, knowingly makes any false statement, false representation, false report, or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or Whoever, knowingly makes any false statement or false representation as to a material fact in any statement, certificate, or report submitted pursuant to the provisions of the Federal-aid Road Act approved July 11, 1916 (39 Stat. 355), as amended and supplemented, Shall be fined not more than $10,000 or imprisoned not more than five years, or both. By signing here the signee agrees that the disk submitted is the same as the paper submitted and that any discrepancies may result in disqualification of the bid.

BEING EITHER A (INDIVIDUAL, PARTNERSHIP,)
(OR CORPORATION INCORPORATED)
(UNDER THE LAWS OF ANY STATE)
(IN THE UNITED STATES OF AMERICA)

_____
Contractor

COMPOSED OF OFFICERS, PARTNERS

OR OWNER, AS FOLLOWS.

_____
President

_____
Vice-President

_____
Secretary

_____
Treasurer

Address _____

_____

CERTIFICATION SUMMARY: I hereby certify that I have read all of the above requirements and understand that it affects the acceptablility of my bid(s).

_____

Name of Signatore - Title Date

1. BRIEF SCOPE OF WORK

RI Contract No. 2017-CB-070, RI Federal Aid Project No. BRO-0472(001), for the Superstructure Replacement of Horton Farm Road Bridge No. 472 over I-195 corridor in the City of East Providence, County of Providence. Construction will include, but not be limited to the complete demolition of the existing bridge superstructure, including, but not limited to pier cap, pier columns, and pier footings, top of abutment backwalls, wingwall barriers, and approach slabs to the limits shown on the contract drawings. The bridge work will be completed in two stages. For each stage, the work for the bridge superstructure shall include the installation of the superstructure comprising two steel plate girder modular units, single plate girders and a cast-in-place concrete deck. The bridge concrete traffic barrier will be cast-in-place onto the concrete deck. The work for the bridge substructure shall include, but not limited to, the installation of cast-in-place pier footings, pier columns, pier caps, new approach slab supports at the backwalls, wingwall barriers and endposts, and approach slabs for both north and south abutments. Additional substructure work includes the demolition and concrete repair of portions of the existing concrete abutment faces and wingwall faces.

RI Federal Aid Project No. STP-RESF(360), for the I-195 corridor improvements shall also include, but is not limited to roadway micro-milling and overlay, full depth roadway construction at utility trenches, cleaning and flushing storm drain pipes, cleaning and repairing storm drain structures, adjusting storm drain structures frames, removal of existing guide signs and replacement with new signs, removal of existing roadway lighting and replacement with new lighting along I-195, associated ramps, and on Horton Farm Road Bridge 472. The work on Horton Farm Road at the Bridge 472 approaches shall include, but is not limited to roadway micro-milling and overlay, and full-depth construction The roadway work for this project will in general consist of erosion and sediment control, clearing and grubbing, saw cutting, pavement removal, excavation and grading, trimming and fine grading, dust control, bituminous pavement, gravel borrow for subbase course, curbing, sidewalk, pavement markings, drainage, landscaping, plantable soil borrow and seed, traffic control, uniform traffic persons, flag persons, temporary construction signs, temporary closures, maintenance and protection of traffic, signs, guard rail replacement, lighting, and construction field office.

11	Construction Staging & Demolition Details Sheet 3 of 3
12	Anchored Precast Concrete Barrier for Temporary Traffic Control
13	Temporary Protective Shielding Details
14	Abutment and Pier Demolition Plan
15	North Abutment Rehabilitation and Backwall Demolition
16	South Abutment Rehabilitation and Backwall Demolition
17	Wingwall Demolition and Rehabilitation Details Sheet 1 of 3
18	Wingwall Demolition and Rehabilitation Details Sheet 2 of 3
19	Wingwall Demolition and Rehabilitation Details Sheet 3 of 3
20	Pier Demolition
21	Rehabilitation Details
22	North Abutment Plan and Elevation
23	South Abutment Plan and Elevation
24	Abutment Details
25	Wingwall Details Sheet 1 of 2
26	Wingwall Details Sheet 2 of 2
27	Wingwall Details Sheet 3 of 3
28	Geogrid plan and Details
29	Pier Plan and Elevation
30	Pier Sections and Details Sheet 1 of 2
31	Pier Sections and Details Sheet 2 of 2
32	Deleted
33	Framing Plan
34	Girder Elevation and Details
35	Steel Details
36	Diaphragm Details
37	Camber Table
38	Deck Grades
39	Deck Panel Layout Plan
40	Deck Reinforcement Details
41	Deleted
42	Deleted
43	Reinforcing Details
44	Bearing Details Sheet 1 of 3
45	Bearing Detail Sheet 2 of 3
46	Bearing Detail Sheet 3 of 3
47	Roadway Joints
48	Light Standard Details
49	Snow Fence Details
50	End Post Details
51	Boring Logs Sheet 1 of 2
52	Boring Logs Sheet 2 of 2
53	Test Pit Logs

Pawtucket, RI 02860
All correspondence to: Anthony Filomeno, State Highway Administrator, (401)727-9543

The Contractor shall contact DIG SAFE (1-888-344-7233) prior to commencing with construction.

The locations of existing utilities have been shown on the Plans using the best available information and are approximate only. The Contractor shall verify the exact locations of all existing utilities and service connections both underground and overhead in accordance with DIG SAFE and the city of East Providence prior to commencing any work that may impact the utilities in the area. Any damage to the utilities, which are detailed by DIG SAFE or shown on the Plans, shall be the Contractor's responsibility. The cost to repair such damage shall be borne by the Contractor.

The Contractor is responsible for protecting the existing underground conduits that are located within the project area. If these conduits are damaged by construction operations, it shall be the responsibility of the Contractor to replace these conduits as directed by the Engineer.

4. SPECIALTY ITEMS

The following items are hereby designated as "Specialty Items"

1. Pavement Markings
2. Guardrail
3. Structural Steel
4. Chain Link Fence
5. Electrical
6. Sign Panels
7. Sign Structure
8. Paving
9. Bridge Bearings

5. NOTICE TO CONTRACTORS

1. Due to the use of ABC method of delivery for this project, the contractor attention is directed to the following activities, among others, anticipated as being on the Critical Path for Project completion:
    - Critical submittals are flagged as structural steel fabrication and erection shop drawings, crane submittals, reinforcing steel, demolition plans, Sequence plan, temporary protective shields, concrete mix, temporary shoring, and bearing.
    - Submission of Structural Steel Shop Drawings shall be thirty (30) days after Contract Award.
    - Critical submittals will be reviewed by the Engineer and returned to the Contractor for appropriate action within Twenty Eight (28) calendar days of submission.

2. There will be a modified winter shutdown prior to Stage 1 that will allow work after March 15, 2018. However, Horton Farm Road cannot be reduced to one lane earlier than April 22, 2018. Additionally there are no modifications to the winter shutdown in the other stages. Stage 1 demolition and substructure construction may be permitted to begin prior to completion of the fabrication of the structural steel with the Engineer's approval such that when steel is delivered it can be erected.
3. Once the Engineer's approval is granted to proceed with Stage 1, the Contractor will be permitted to close the easterly lanes of Horton Farm Road in accordance with the Contract Documents to begin the Stage 1 Demolition and Construction work.
4. The Contractor shall provide a storage/laydown site at the Contractors own expense. The Contractor shall submit the location of the storage/laydown site for review and approval to the Department prior to the commencement of work. Compensation for out of state inspection service shall be in accordance with RI Standard Specifications Section 809.
5. The Contractor's attention is directed to the following contract milestones;

Milestone
#1 - Interim Completion Date #1 – Full Bridge Open to Traffic
#2 - Substantial Completion

- Milestone #1 is defined as the completed bridge structure with all lanes on Horton Farm Road open to all traffic.
- Milestone #2 is defined as Substantial Completion per specification 101.71 and including all of the Works of the Bridge, final striping as well as Horton Farm Road and I-195 work.

6. The Contractor shall furnish the Engineer with time-lapse high end imaging documenting all of the construction activities starting with Stage 1 demolition and ending with the completion of Milestone #2.
7. The Contractor must provide all of the required detours in accordance with the TMP during the staged construction of the Horton Farm Road Bridge 472.
8. The Winter Shutdown shall be as defined in Section 101.80 of the Rhode Standard Specifications except as otherwise modified in this section.
9. The Contractor is reminded of the ABC nature of this contract and shall note specification "105.02 Plans and Shop Drawings". The Contractor shall submit duplicate Shop Drawings (two copies per submittal) directly to the attention of the Consulting Engineer (Louis Berger, 117 Kendrick Street, Suite #400, Needham, MA 02494, Attn: Phineas Fowler, PE) simultaneously with each of his official submittals to the Department.
10. The Contractor shall submit Requests for Information (RFI) through the RIDOT's Project Management Portal.
11. Strict adherence to the regulatory agencies' permit requirements is

mandatory.

12. The Department has obtained all necessary permits to build the job as shown in the contract documents. Proposals by the Contractor which require modifications to the permits shall be at the Contractor's expense.
13. The Contractor shall coordinate through RIDOT if modification is required for any permit that is included in this Contract.
14. Approval of the work schedule and time schedule by the Department is required before the start of any construction or other work associated with this contract.
15. The Contractor shall notify the Department in writing at least fourteen (14) days in advance of any intended lane restrictions and/or closures so that adequate public notice can be given. Upon the Engineer's approval, the Contractor shall coordinate the required traffic control.
16. The Contractor may work 24 hours a day, 7 days per week as long as the work is within the General Restrictions shown in the TMP for lane closures and as approved by the Engineer. For night time construction activities, the Contractor shall obtain approval from the City of East Providence and must comply with local noise ordinance.
17. The construction operations of this Project must be coordinated with the local community public officials. Upon award of the Contract and approval of the schedule, but prior to the commencement of construction, the Contractor shall coordinate the requirements for Uniformed Traffic Control Persons with the Engineer who will coordinate with state and local police departments.
18. The Contractor shall maintain power to the Interstate Route 195 lighting system located within the areas in which vehicular traffic is maintained during each construction phase.
19. The Contractor is advised that the signs and other traffic control devices shown on the Maintenance and Protection of Traffic Plans and Details are minimum requirements. The Contractor shall be responsible to supplement these as required to ensure the public's safety. Prior to beginning work that affects traffic, the Contractor shall furnish and install the required signs and other traffic control devices. Signs that impact the construction zone and need to be relocated shall be replaced in kind.
20. In cases of emergency and/or as directed by the Engineer, the Contractor shall move equipment to allow for the passage of emergency vehicles and/or open closed lanes to maintain traffic flow.
21. All work must be performed in a manner that causes the least disruption to existing vehicular and pedestrian traffic for as short a period of time as possible. When work commences in such areas, it shall be expeditiously completed without unnecessary interruptions. Unless otherwise permitted in writing by the Engineer.

22. The Contractor shall backfill or shall place steel plates, as approved by the Engineer, capable of supporting HS-25 wheel loading over all trenches and excavations that are not protected by barrier at the end of each work day except when otherwise directed by the Engineer. There shall be no additional compensation for backfilling, re-excavating and/or plating these trenches. Use of steel plates is restricted to local roads.
23. All temporary construction signs shall be removed, covered or otherwise concealed when they are not needed to properly warn drivers and/or pedestrians. This includes the periods between erecting the signs and the start of operations, as well as when a phase is completed or suspended. The Contractor shall be compensated for this under Item Code 937.0200, "Maintenance and Movement Traffic Protection".
24. The measurement and payment for all traffic control devices and for the maintenance and movement of traffic protective devices will be made under the appropriate bid items at the Contract unit bid prices.
25. Temporary construction signs shall not be placed so they encroach on open lanes of traffic. Signs shall be trimmed when placed on median barriers to avoid encroaching on open travel lanes. This work shall be considered incidental and no extra payment shall be made.
26. All temporary signs shall be erected so that they are not obstructed by barrels or cones.
27. The Storm Water Pollution Prevention Plan (SWPPP) details the anticipated erosion & sediment controls required for this project. The Contractor must designate a SWPPP contact person, experienced in storm water management on large construction sites, who is available on site throughout the life of the project, and who has the authority to direct Contractor's personnel and/or subcontractor's personnel in carrying out corrective actions requested by RIDOT's SWPPP Inspector and/or Resident Engineer. The Contractor's designated SWPPP contact person must be available to oversee all SWPPP related activities and to accompany the RIDOT's SWPPP Inspector, as requested, when inspections are performed. All applicable sections of the SWPPP must be signed by the Contractor and applicable subcontractors prior to Notice to Proceed.
28. Erosion and sediment controls shall be installed prior to the initiation of any earthwork. Installation shall not begin more than 30 days prior to the scheduled start of earthwork in the vicinity of the controls. During the first 90 days following the initiation of earthwork, if the Engineer calls for the replacement of any controls which were installed more than 30 days prior to initiation of earthwork, due to deterioration of the materials, this shall be the responsibility of the Contractor, and shall be accomplished at no cost to the State.

6. SEQUENCE OF ACCELERATED BRIDGE CONSTRUCTION AND SCHEDULE

The following is the suggested sequence of work of major items and is not inclusive of all work items or other sequence of work:

Stage 1

- Horton Farm Road Traffic Control and Mobilization, Implement Horton Farm Road Traffic Control Plan (TCP) Stage 1.
- Install Support of Excavation at the North and South Approach of the Bridge prior to switching traffic on to the West Side.
- I-195 Pre-Demolition Activities -Set up Traffic Control on I-195.
- Switch Traffic to West Side of Bridge.
- Horton Farm Road Pre-Demolition Activities – Saw cut existing East Side Pavement and Concrete Deck
- Stage 1A. Demolition of Southeast Quadrant of the Superstructure during weekend crossovers.
- Stage 1B. Demolition of Northeast Quadrant of the Superstructure during weekend crossovers.
- Stage 1C. Demolition of existing East Pier Cap, Columns, and Footings; Demolition of existing Top of Backwalls, and Wingwall Barriers on the North and South Abutment Side; and Excavation for North and South Approach Slabs.
- Construct the New East Pier; Install New Approach Slab Supports at the Backwalls, and Wingwall Barriers on the North and South Abutment Side; and Install Crushed Stone Fill Wrapped in Geogrid for the Approach Areas.
- Stage 1C with Rolling Roadblocks. Erect Prefabricated SE Girders (Modular Unit with Side Shielding attached for Installation of Safety Barrier, Individual Girder and Diaphragms) during weekend rolling roadblocks.
- Stage 1C with Rolling Roadblocks. Erect Prefabricated NE Girders (Modular Unit with Side Shielding attached for Installation of Safety Barrier, Individual Girder and Diaphragms) during weekend rolling roadblocks.
- Stage 1C. Form Deck, Install Shear Studs, Place Deck Rebar, and Concrete, Place Approach Slab Rebar and Concrete.
- Place Safety Barrier, Snow Fence, Place Waterproofing Membrane, and Pave Bridge Deck and Approaches.
- Install Waterproofing, Wearing Surface, Temporary Striping and New Light Standards.
- Completion of Stage 1.

Stage 2

- Horton Farm Road Traffic Control and Mobilization, Implement Horton Farm Road Traffic Control Plan (TCP) Stage 2.
- Switch Traffic to East Side of Bridge.
- Stage 2A. Demolition of Southwest Quadrant of Superstructure during weekend crossovers.
- Stage 2B. Demolition of Northwest Quadrant of Superstructure during weekend crossovers.
- Stage 2C. Demolition of existing West Pier Cap, Columns, and Footings; Demolition of existing Top of Backwalls, and Wingwall Barriers on the North and South Abutment Side; Excavation for North and South Approach Slabs.
- Construct the New West Pier; Install New Approach Slab Supports at the Backwalls and Wingwall Barriers on the North and South abutment Side; Install Crushed Stone Fill Wrapped in Geogrid for the Approach Areas.
- Stage 2C with Rolling Roadblocks. Erect Prefabricated SW Girders (Modular Unit with Side Shielding attached for Installation of Safety Barrier, Individual Girder, and Diaphragms) during weekend rolling roadblocks.
- Stage 2C with Rolling Roadblocks. Erect Prefabricated NW Girders (Modular Unit with Side Shielding attached for Safety Barrier Construction, Individual Girder and Diaphragms) during weekend rolling roadblocks.
- Stage 2C. Form Deck, Install Shear Studs, Place Deck Rebar, and Concrete, Place Approach Slab Rebar and Concrete.
- Place Safety Barrier, Snow Fence, Place Waterproofing Membrane, and Pave Bridge Deck and Approaches. .
- Install Waterproofing, Wearing Surface, and Temporary Striping.
- Completion of Stage 2.
- Interim Completion #1: Open Full Bridge to Traffic
- Complete Concrete Surface Repair at Abutments and Wingwalls.
- Complete I-195 Roadway Mill and Pave Work at the Bridge.
- Substantial Completion.

Submittal No.	Description	Date Submitted to RIDOT	Date Returned to Contractor	Date Returned to RIDOT	Comments
CSL-017[2]	Temporary Earth Support System Design				
CSL-018[2]	Temporary Shoring				
CSL-019[2]	Miscellaneous Metals				
CSL-020	Deleted				
CSL-021[3]	Expansion Strip Seal Joint Assemblies				
CSL-022[3]	Structural Steel Paint Systems				
CSL-023[3]	Welding Procedures				
CSL-024[1]	Method for Controlling Water Run-off				
CSL-025[1]	Executed SWPPP with Certifications of All Contractor Personnel and Subcontractor Personnel				
CSL-026[1]	Earthwork Sequence of Construction and Proposed Equipment				
CSL-027[3]	Hot Mix Asphalt				
CSL-028[2]	Mass Concrete				
CSL-029[2]	Quality Control Plan for Bridge Superstructure				
CSL-030	Deleted				
CSL-031	Deleted				
CSL-032[2]	Erection Plan for Bridge Superstructure				

Submittal No.	Description	Date Submitted to RIDOT	Date Returned to Contractor	Date Returned to RIDOT	Comments
CSL-033[3]	Quality Control Plan for Bridge Substructure				
CSL-034	Deleted				
CSL-035	Deleted				
CSL-036[2]	Erection Plan for Bridge Substructure				
CSL-037[1]	Temporary Service for Highway Lighting				
CSL-038[3]	Deck Waterproofing Membrane				
CSL-039[3]	Concrete Surface Treatment (Protective Coating)				
CSL-040[2]	Shear Connectors				
CSL-041[1]	Pedestrian Chain Link Fence				
CSL-042[1]	Bridge Identification and Minimum Clearance Signs				
CSL-043[3]	Castings - CB Frame & Grate				
CSL-044[3]	Quality Control Plan Hot Mix Asphalt				
CSL-045[3]	Joint Sealant				
CSL-046[1]	Precast Concrete Barrier				
CSL-047[3]	Sedimentation Fence				
CSL-048[1]	SWPPP				
CSL-049[3]	Handholes				
CSL-050[2]	Highway Lighting Bracket Arm & Luminaire				
CSL-051[2]	Overhead and Ground Mounted Guide Signs				
CSL-052[2]	Overhead Guide Sign Supports				

Submittal No.	Description	Date Submitted to RIDOT	Date Returned to Contractor	Date Returned to RIDOT	Comments
CSL-053[3]	Reinforced Concrete Pipe				
CSL-054[2]	Snow Fence				
CSL-055	Deleted				
CSL-056	Deleted				
CSL-057	Deleted				
CSL-058	Deleted				

Notes:

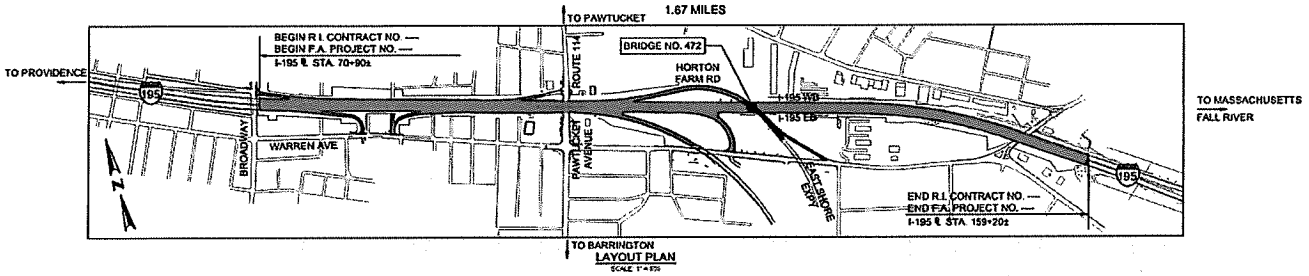
1. Submit for information only. Rhode Island P.E. stamp required.
2. Submit for review and approval. Rhode Island P.E. stamp required.
3. Submit for review and approval. For materials submission, if on RIDOT Approved Materials List, a cut sheet and C of C shall be submitted "For Info Only". If product is not on the list, material data shall be submitted for review and approval.

LEVEL 1 TRANSPORTATION MANAGEMENT PLAN

SIGNIFICANT PROJECT

Project Name: **Improvements to I-195 and Bridge 472**
RI Design Contract No(s): **98107**
RI Construction Contract No(s): **2017-CB-070**
FAP No(s): **STP-RESF(360)**
Municipalities: **City of East Providence**

Submission: 100% Date: **5-Oct-2017**



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TMP ROLES AND RESPONSIBILITIES

TMP Development Managers

Project design managers who oversee the development of this TMP

RIDOT		CONSULTANT	
Name:	**Anthony Pompei**	Name:	**Phineas Fowler**
Title:	**Project Manager**	Title:	**Project Manager**
Unit:	**Bridge Engineering**	Company/Unit:	**Louis Berger Group**
Office Phone:	**(401)222-2053**	Office Phone:	**(781)-707-7424**
Mobile Phone:		Mobile Phone:	
E-Mail:	Anthony.Pompei@dot.ri.gov	E-Mail:	PFowler@LouisBerger.com

TMP Implementation Managers

Project construction managers with the primary responsibility & authority for implementation of this TMP

RIDOT		CONTRACTOR	
Name:		Name:	
Title:		Title:	
Unit:		Company/Unit:	
Office Phone:		Office Phone:	
Mobile Phone:		Mobile Phone:	
E-Mail:		E-Mail:	

TMP Implementation Task Leaders

Other parties responsible for completing specific transportation management tasks required by this TMP

NAME / TITLE (if individual is named)	COMPANY / UNIT	PHONE	E-MAIL
	RIDOT / TMC	401-222-5826	tmc_operations@dot.ri.gov
Task Description / Responsibilities:	To be contacted via RIDOT notification form (FAX to 222-4225 / 222-5640) min. 48 hours prior to the implementation of lane closures and detours. Will update RIDOT 511 system as necessary.		
	RIDOT / Communications	401-222-1362	webmaster@dot.ri.gov
Task Description / Responsibilities:	To be contacted via RIDOT notification form (FAX to 222-3905) min. 48 hours prior to the implementation of lane closures and detours. Will update/issue RIDOT travel advisories web site / news releases as necessary.		
	RIDOT / Communications	401-222-2450	CustomerService@dot.ri.gov
Task Description / Responsibilities:	To be contacted via RIDOT notification form (FAX to 222-5648) min. 48 hours prior to the implementation of lane closures and detours. If necessary, will assist in coordinating the strategies included in the Public Information Plan.		
Task Description / Responsibilities:			

TMP Implementation Task Leaders (continued)

NAME / TITLE (if individual is named)	COMPANY / UNIT	PHONE	E-MAIL
Task Description / Responsibilities:			
Task Description / Responsibilities:			
Task Description / Responsibilities:			
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Task Description / Responsibilities:			
Task Description / Responsibilities:			

TMP Stakeholder Contacts

TMP Stakeholders to be consulted or coordinated with during the work

NAME / TITLE (if individual is named)	COMPANY / UNIT	PHONE	E-MAIL
Erik Skadberg, City Engineer	City of East Providence	(401) 435-7500	dberg@cityofeastprov.com
Role / Notification/Consultation Requirements:			
Role / Notification/Consultation Requirements:			
Role / Notification/Consultation Requirements:			
Role / Notification/Consultation Requirements:			
Role / Notification/Consultation Requirements:			
Role / Notification/Consultation Requirements:			
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Role / Notification/Consultation Requirements:			
Role / Notification/Consultation Requirements:			
Role / Notification/Consultation Requirements:			

Emergency Service Contacts

Emergency service agencies/providers expected to be impacted by the project work zones

NAME / TITLE (If individual is named)		AGENCY / UNIT	PHONE	E-MAIL
		City of East Providence Fire Dept	(401)435-7677	
Special Details / Requirements:				
		City of East Providence Emergency Medical Services Coordinator	(401) 435-7683	
Special Details / Requirements:				
		City of East Providence Police	(401) 435-7600	
Special Details / Requirements:				
		Bradley Hospital	(401) 432-1000	
Special Details / Requirements:				
		East Providence Medical Center	(401) 438-3170	
Special Details / Requirements:				
		Our Lady of Fatima Hospital	(401) 438-2452	
Special Details / Requirements:				
		Rhode Island Hospital	(401)444-7700	
Special Details / Requirements:				
		Rhode Island State Police	(401) 444-1000	
Special Details / Requirements:				
Special Details / Requirements:				
Special Details / Requirements:				
Special Details / Requirements:				
Special Details / Requirements:				

PROJECT INFORMATION

Brief Project Description

PROJECT WIDE – HIGHWAY WORK

The work shall include, but not be limited to road construction which includes gravel borrow subbase course, bituminous pavement, sawcutting, curbing, sidewalk, pavement marking, drainage, site separation; clearing and grubbing, removal of pavement, excavation and embankment, erosion control, trimming and fine grading, dewatering, handling and disposal of contaminated soil, dust control, landscaping; plantable soil and seed, plantings, uniform traffic persons, flagpersons, temporary construction signs, detours, temporary closures, maintenance and protection of traffic, permanent signing, lighting, and barrier installation, field office, mobilization, and all other incidentals, complete and accepted, as required by the Engineer.

HORTON FARM ROAD BRIDGE NO. 472 RECONSTRUCTION

The bridge work in the contract shall include the replacement of Horton Farm Road Bridge No. 472. The work shall include the demolition of the entire existing bridge superstructure and pier, and partial demolition of the abutment backwalls to the limits shown on the contract drawings, and the demolition of the wingwall barriers. The work for the bridge superstructure shall include the installation of plate girders, cast-in-place bridge deck, closure pours, and cast-in-place concrete barriers on the deck. The work for the bridge substructure shall include the installation of cast-in-place approach slab bracket support at the backwalls for the abutments, cast-in-place approach slabs, and cast-in-place concrete barriers on the wingwalls.

General Work Limits

The work will take place on I-195 between Broadway and the Massachusetts State Line. Resurfacing of the highway and ramps will affect mainline and entering/exiting traffic. The Horton Farm Road ramp bridge superstructure will be replaced as part of this project. Travel over the bridge will be restricted to one lane for the extent of the work. A closure and detour of Ramp FR-1 will be available as necessary to provide additional work space during the evening hours.

While some work will be completed outside of existing roadway limits most portions of the work will require temporary restrictions of traffic including lane closures, shoulder closures, lane shifts, road/ramp closures, and detours. The duration of each such restriction will vary depending on the work operation and will range from long-term (e.g. stationary lane shifts for construction of ramps and bridges) to short term (e.g. mobile lane closures for installation of pavement markings.

WORK ZONE LOCATIONS			
ROADWAY NAME or INTERSECTION	FROM	TO	APPROX. LENGTH
I-195	Broadway	Massachusetts State Line	8,800'
Horton Farm Road Ramps	Warren Ave	I-195	3,150'

General Project Schedule & Construction Sequence*

1. Approval of the work schedule and time schedule by the Department is required before the start of any construction or other work associated with this contract.

2. The Contractor shall note that nighttime work, unless otherwise noted as required, is allowed.

3. The construction operations of this Project must be coordinated with the local community public officials. Upon award of the Contract and approval of the schedule, but prior to the construction, the Contractor shall coordinate requirements for Uniformed Traffic Control Persons with the Engineer who will coordinate with state and local police departments.

4. The Contractor shall maintain power to the Interstate Route 195 lighting system located within the areas in which vehicular traffic is maintained during each construction phase.

5. The Contractor is advised that the signs and other traffic control devices shown on the Maintenance and Protection of Traffic Plans and Details are minimum requirements. The Contractor shall be responsible to supplement these as required to ensure the public's safety. Prior to beginning work that affects traffic, the Contractor shall furnish and install the required signs and other traffic control devices.

6. In cases of emergency and/or as directed by the Engineer, the Contractor shall move equipment to allow for the passage of emergency vehicles and/or open closed lanes to maintain traffic flow.

7. The Contractor shall notify the Department in writing at least fourteen (14) days in advance of any intended lane restrictions and/or closures so that adequate public notice can be given. Upon the Engineer's approval, the Contractor shall coordinate the required traffic control.

8. All work must be performed in a manner that causes the least disruption to existing vehicular and pedestrian traffic for as short a period of time as possible. When work commences in such areas, it shall be expeditiously completed without unnecessary interruptions.

9. The Contractor shall backfill or shall place steel plates, as approved by the Engineer, capable of supporting HS-25 wheel loading over all trenches and excavations that are not protected by barrier at the end of work each day except when otherwise directed by the Engineer. There shall be no additional compensation for backfilling, re-excavating and/or plating these trenches. Use of steel plates is restricted to local roads.

10. All temporary construction signs shall be removed, covered or otherwise concealed when they are not needed to properly warn drivers and/or pedestrians. This includes the periods between erecting the signs and the start of operations, as well as when a phase is completed or suspended. The Contractor shall be compensated for this under Item Code 937.0200, "Maintenance and Movement Traffic Protection".

11. The measurement and payment for all traffic control devices and for the maintenance and movement of traffic protective devices will be made under the appropriate bid items at the Contract unit bid prices.

13. Temporary construction signs shall not be placed so they encroach on open lanes of traffic. Signs shall be trimmed when placed on median barriers to avoid encroaching on open travel lanes. This work shall be considered incidental and no extra payment shall be made.

14. All temporary signs shall be erected so that they are not obstructed by barrels or cones.

*The information in this section is not intended to and shall not supersede the approved schedule and milestone/completion dates for the project.

OTHER ACTIVITIES IN PROJECT VICINITY WITH POTENTIAL FOR CAUSING SIGNIFICANT CUMULATIVE IMPACTS	
ACTIVITY	DETAILS / DATES / LOCATIONS

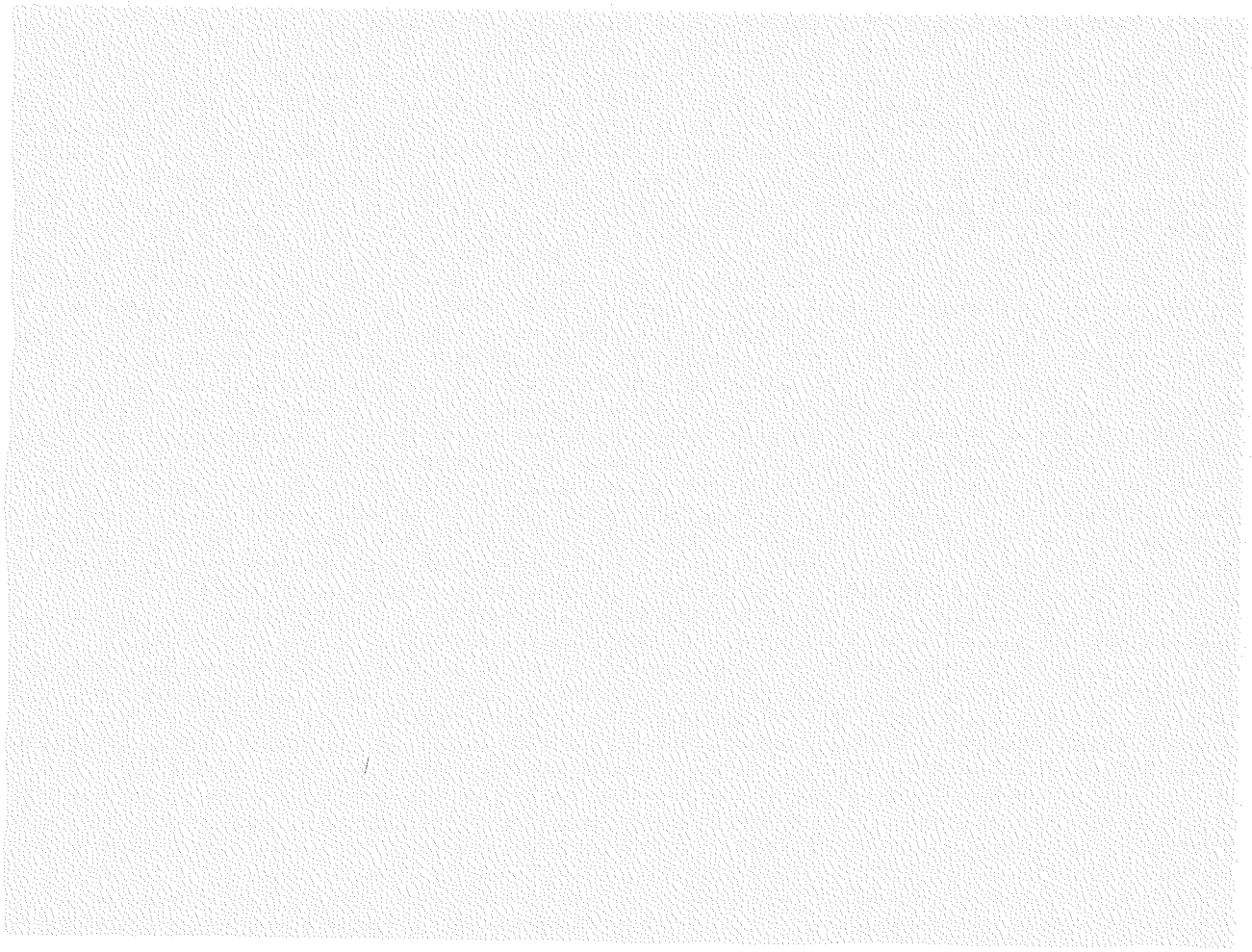
Traffic Data

Table 1 – Traffic Volumes
Wednesday, June 6, 2012

Time	Lane F	Ramp FR-1	Total
7:00 AM to 8:00 AM	1,600	376	1,976
8:00 AM to 9:00 AM	1,501	355	1,856
3:00 PM to 4:00 PM	1,230	563	1,793
4:00 PM to 5:00 PM	1,208	624	1,832
5:00 PM to 6:00 PM	1,396	643	2,039

Weekday I-195 Mainline Volumes
beneath East Shore Expressway Ramp

Time of Day	EB Volume	WB Volume
6:00-7:00	2270	3053
7:00-8:00	2040	4444
8:00-9:00	1517	3585
9:00-10:00	1847	2801
14:00-15:00	1351	3072
15:00-16:00	1431	3506
16:00-17:00	2809	3393
17:00-18:00	3477	3198
18:00-19:00	3625	2744
19:00-20:00	2740	1954



Intersection Control

Varies

Crash Data

Local Community Issues and Concerns

None known at this time.

Traffic Data

Table 1 – Traffic Volumes
Wednesday, June 6, 2012

Time	Lane F	Ramp FR-1	Total
7:00 AM to 8:00 AM	1,600	376	1,976
8:00 AM to 9:00 AM	1,501	355	1,856
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4:00 PM to 5:00 PM	1,208	624	1,832
5:00 PM to 6:00 PM	1,396	643	2,039

Weekday I-195 Mainline Volumes
beneath East Shore Expressway Ramp

Time of Day	EB Volume	WB Volume
6:00-7:00	2270	3053
7:00-8:00	2040	4444
8:00-9:00	1517	3585
9:00-10:00	1847	2801
14:00-15:00	1351	3072
15:00-16:00	1431	3506
16:00-17:00	2809	3393
17:00-18:00	3477	3198
18:00-19:00	3625	2744
19:00-20:00	2740	1954

Anticipated Demands from Other Activities in Vicinity of Project

None known at this time.

TRAFFIC-RELATED WORK RESTRICTIONS

General Restrictions

See attached 'Lane Closure Limitations' for number of lanes that must remain open to traffic during all times of the week.

Holiday Restrictions

No lane and/or shoulder closures allowed after 1:00 PM on the Friday preceding a holiday weekend.

Easter Sunday - No lane and/or shoulder closures allowed on Saturday.
No lane and/or shoulder closures allowed on Sunday.*

New Years Day, Independence Day & Christmas Day - No lane and/or shoulder closures allowed after 1:00 PM on the day before the holiday. No lane and/or shoulder closures allowed on the holiday.

Dr. Martin Luther Kind Jr. Day, Memorial Day, Labor Day, Columbus Day & Veteran's Day
No lane and/or shoulder closures allowed on Saturday and Sunday. No lane and/or shoulder closures allowed on Monday.*

Thanksgiving Day - No lane and/or shoulder closures allowed after 1:00 PM on the Wednesday preceding Thanksgiving Day. No lane and/or shoulder closures allowed on Thanksgiving Day. No land and/or shoulder closures allowed on Friday and Saturday. No lane and/or shoulder closures allowed on Sunday.*

*Up to 10 PM

TEMPORARY TRAFFIC CONTROL PLANS

These RIDOT- and/or Designer-Developed TTC Plans will be used during the work on this project

RIDOT-DEVELOPED TYPICAL TTC PLANS	Included in: TMP	Included in: Plan Set
[√] Mobile Operation		X
[√] Work Beyond the Shoulder		X
[ ] Shoulder Closure - Two Lane Road		
[√] Shoulder Closure - Limited Access		X
[ ] 1-Side Lane Shift - Two Lane Road		
[ ] 2-Side Lane Shift - Two Lane Road		
[√] Lane Shift - Limited Access		X
[ ] Lane Closure - Two Lane Road		
[ ] Lane Closure - Four Lane Road		
[√] Lane Closure - Limited Access		X
[√] Double Lane Closure - Limited Access		X
[ ] Others (list) -		

DESIGNER-DEVELOPED TTC PLANS	Included in: TMP	Included in: Plan Set
Stage 1A		X
Stage 1B		X
Stage 1C		X
Stage 1D		X
Stage 2A		X
Stage 2B		X
Stage 2C		X
Stage 2D		X
Resurfacing		X

PUBLIC INFORMATION PLAN

These strategies will be used to provide information concerning the project to road users and the community

Public Awareness Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
RIDOT travel advisories news releases	RIDOT TMP Imp. Mngr. to send RIDOT notification form to Communications min. 48 hrs. in advance of restrictions. Communications to include appropriate information in weekly news releases.
RIDOT travel advisories web site	RIDOT TMP Imp. Mngr. to send RIDOT notification form to Communications min. 48 hrs. in advance of restrictions. Communications to post appropriate information on RIDOT travel advisories web page.

Road User Information Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
RIDOT 511 traveler information system	RIDOT TMP Imp. Mngr. to send RIDOT notification form to RIDOT TMC min. 48 hrs. in advance of restrictions. RIDOT TMC to include appropriate restriction information in 511 phone and web services.
Changeable message signs (CMS)	Permanent RIDOT CMSs to be used by RIDOT TMC Operators as applicable based on submitted notification forms. Portable CMSs to be furnished by Contractor and programmed/installed at locations shown in the plans.
Highway advisory radio (HAR)	Permanent (existing) RIDOT HAR systems to be updated by RIDOT TMC Operators as applicable based on submitted notification forms.

TRANSPORTATION OPERATIONS PLAN

These strategies will be used to provide improved transportation operations/safety within project work zones

Corridor/Network Management Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
Parking restrictions	On street parking restrictions shall be coordinated with the City of East Providence.

Work Zone Safety Management Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
Speed limit reduction/variable speed limits	Per plans
Temporary traffic barrier	Per plans
Crash attenuators	Per plans

Traffic/Incident Management & Enforcement Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
RIDOT Transportation Management Center	RIDOT TMC Operators, using existing CCTV cameras, will coordinate and manage traffic and incidents in and aroun the project work zones
Dedicated (paid) police enforcement	State police will be parked within the work zone at locations shown on the plans

Demand Management Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

PERFORMANCE MONITORING PLAN

General Monitoring Requirements

The **Contractor's TMP Implementation Manager** is responsible for keeping the portion of the project being used by public traffic in a condition that (1) safely and adequately accommodates such traffic and (2) is in accordance with the Traffic-Related Work Restrictions, the Temporary Traffic Control Plans, and where appropriate, the other transportation management strategies identified above.

The **RIDOT TMP Implementation Manager** or his/her responsible designee should (1) inspect the project work zones at initial setup, at the start of each subsequent work day, and just prior to extended breaks in the work (e.g., weekends) for conformance with the Temporary Traffic Control Plans, the *ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features*, and where applicable, the other transportation management strategies identified above and (2) document all work zone-related feedback and complaints that are received from the public.

Project-Specific Performance Monitoring Strategies

SELECTED STRATEGIES	RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS
Team meetings	The RIDOT TMP Implementation Manager will meet with the Construction Management Chief, the State Traffic Engineer, and the Traffic Management Chief on a regular basis to discuss and assess the safety and mobility impacts of the project work zones to date. At these meetings, attendees will discuss how well the TMP is managing the project impacts and will verify that all appropriate stakeholders and project officials have been receiving timely notifications where required.
Surveillance: Traffic queues/delays	The Consultant TMP Development Manager will arrange to monitor queues/delays during the crossover implementat as directed by the RIDOT TMP Development Manager.

CHANGES TO TMP & CONTINGENCY PLANS

If at any time (1) a significant deviation from any of the strategies included in the TMP (e.g., the use of an alternate construction sequence) is desired by one or more members of the project implementation team, (2) field observations and/or data suggest that impacts to road users are or will be unacceptable, or (3) one or more performance requirements established in the TMP are not being met in the field, the RIDOT TMP Implementation Manager shall report the situation to his/her supervisor or Division/Section/Unit manager. The supervisor / manager will coordinate with the State Traffic Engineer, the Traffic Management Chief, the TMP Development and/or Implementation Manager(s), the Chief Engineer, and/or other interested parties as appropriate and/or necessary to consider and determine whether revised and/or alternate strategies should be implemented in an effort to lessen the adverse safety and/or mobility impacts of the project. If the supervisor / manager deems that strategy changes should be implemented, the changes shall be documented in a revised version of the TMP and the Traffic Management Chief, the State Traffic Engineer, and the Chief Engineer must approve of the revised TMP prior to their implementation.

If a significant deviation from any of the strategies included in the TMP is requested by the Contractor, unless directed otherwise by the RIDOT the Contractor is responsible for preparing and submitting to the RIDOT TMP Implementation Manager appropriate documentation (e.g., design calculations, analysis reports, Temporary Traffic Control Plans, etc.) showing that the requested change(s) are (1) feasible and (2) expected to result in safety and mobility impacts that are no more adverse than the impacts resulting from the strategies already included in the latest approved TMP. The RIDOT will review and consider the submittal(s) as described in the preceding paragraph and will determine whether the changes should be implemented. If the requested changes are approved by the RIDOT, unless otherwise directed by the RIDOT the Contractor shall prepare and submit to the RIDOT TMP Implementation Manager a revised version of the latest approved TMP in both printed and electronic (Microsoft® Excel) format that documents all of the approved changes. Work to implement the changes shall not begin until the Traffic Management Chief, the State Traffic Engineer, and the Chief Engineer have approved of the revised TMP.

When unexpected events (e.g., crashes, inclement weather, unforeseen traffic demands, etc.) occur in a project work zone where one or more lanes are closed, the RIDOT TMP Implementation Manager or his/her responsible designee should (1) determine whether or not the lane closure(s) can/should be removed in order to improve traffic operations and/or minimize delays and (2) if deemed appropriate, take action to remove the lane closure(s).

Project Specific Contingencies

TMP APPROVALS

All approvals must be obtained prior to start of work

ADMINISTRATOR OF PROJECT MANAGEMENT

Signature: David W. Fish
David Fish, P.E.

Date: 10-11-17

Revision #	Initials	Date

STATE TRAFFIC SAFETY ENGINEER

Signature:
Steven Pristawa, P.E.

Date 10-13-17

Revision #	Initials	Date

CHIEF ENGINEER OF INFRASTRUCTURE

Signature:
Robert Rocchio, P.E.

Date: 10-16-17

Revision #	Initials	Date

LIST OF ATTACHMENTS

1. Lane closure limitations

ATTACHMENT A: GENERAL RESTRICTIONS

I-195 MAINLINE AND BRIDGE 472
EAST PROVIDENCE

MIMUMUM NUMBER OF LANES & SHOULDERS TO REMAIN OPEN TO TRAFFIC									
	TIME OF DAY		DAY OF WEEK						
Location	From	To	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
I-195 EASTBOUND (West of Exit 7 Off Ramp)	0:00:00	6:00:00	2L	2L	2L	2L	2L	2L	2L
	6:00:00	9:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	9:00:00	15:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	15:00:00	20:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	20:00:00	24:00:00	2L	2L	2L	2L	2L	2L	2L
I-195 EASTBOUND (East of Exit 7 Off Ramp)	0:00:00	6:00:00	2L	2L	2L	2L	2L	2L	2L
	6:00:00	9:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	9:00:00	15:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	15:00:00	20:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	20:00:00	24:00:00	2L	2L	2L	2L	2L	2L	2L
I-195 WESTBOUND (West of Horton Farm Ramp)	0:00:00	6:00:00	2L	2L	2L	2L	2L	2L	2L
	6:00:00	9:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	9:00:00	15:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	15:00:00	20:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	20:00:00	24:00:00	2L	2L	2L	2L	2L	2L	2L
I-195 WESTBOUND (East of Horton Farm Ramp)	0:00:00	6:00:00	2L	2L	2L	2L	2L	2L	2L
	6:00:00	9:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	9:00:00	15:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	15:00:00	20:00:00	ALL	ALL	ALL	ALL	ALL	ALL	ALL
	20:00:00	24:00:00	2L	2L	2L	2L	2L	2L	2L
I-195 WESTBOUND ON-RAMP (Horton Farm)	0:00:00	6:00:00	1L	1L	1L	1L	1L	1L	1L
	6:00:00	9:00:00	1L	1L	1L	1L	1L	1L	1L
	9:00:00	15:00:00	1L	1L	1L	1L	1L	1L	1L
	15:00:00	20:00:00	1L	1L	1L	1L	1L	1L	1L
	20:00:00	24:00:00	1L	1L	1L	1L	1L	1L	1L
Ramp FR-1	6:00:00	22:00:00	1L	1L	1L	1L	1L	1L	1L
	22:00:00	6:00:00	Closed	Closed	Closed	Closed	Closed	Closed	Closed

SPECIAL EXCEPTION: MIMUMUM NUMBER OF LANES & SHOULDERS TO REMAIN OPEN TO TRAFFIC DURING THE CROSSOVER OR ROLLING ROADBLOCK PHASES ONLY						
	TIME OF DAY		DAY OF WEEK			
Location	From	To	Sunday	Monday	Friday	Saturday
I-195 EASTBOUND	0:00:00	6:00:00	1L	1L	2L	1L
	6:00:00	9:00:00	2L	3L	3L	2L
	9:00:00	15:00:00	2L	3L	3L	2L
	15:00:00	20:00:00	2L	3L	3L	2L
	20:00:00	24:00:00	2L	2L	2L	2L
I-195 WESTBOUND	0:00:00	6:00:00	1L	1L	2L	1L
	6:00:00	9:00:00	2L	3L	3L	2L
	9:00:00	15:00:00	2L	3L	3L	2L
	15:00:00	20:00:00	2L	3L	3L	2L
	20:00:00	24:00:00	2L	2L	2L	2L

LEGEND:

ALL	All travel lanes (minimum 11-foot wide) shall remain open to traffic
1L	A minimum of one 11-foot wide travel lane shall remain open to traffic in each direction
2L	A minimum of two 11-foot wide travel lane shall remain open to traffic
3L	A minimum of three 11-foot wide travel lane shall remain open to traffic

NOTES:

1 The set-up and break-down of temporary traffic contraol devices within a traveled way or shoulder shall be construed as a closure of that traveled way of shoulder.

2 The provisions noted herein shall not free the Contractor from his responsibility to conduct all work in such a manner that assures the lease possible obstruction to traffic.

3 Access must be maintained to all ramps, side streest and commercial driveways at all times with the exception of Ramp FR-1 which may be detoured

Replace **Subsection 109.06, Partial Payments,** pages 1-83 to 1-84 of the RI Standard Specifications for Road and Bridge Construction in its entirety with the following.

CODE 109.06

PAYMENT FOR WORK

109.06 PAYMENT FOR WORK.

a. General. The Department will make payment for Work before the Project is accepted and final payment is made. These payments for Work will be processed via progress payments. In order to receive a payment for Work, the Contractor shall prepare an invoice in accordance with **Subsection 109.06** paragraph (c.), Invoice for Payment for Work. The Department may suspend progress payments if the Contractor does not comply with the Engineer's directions or written orders. The Department will notify the Contractor, whenever progress payments will be suspended.

Processing of progress payments for Work prior to the Department's acceptance and final payment of the Work does not constitute the Department's acceptance of the Work, and does not relieve the Contractor of responsibility for the Work which includes but is not limited to:

1. Protecting, repairing, correcting, maintaining, or renewing the Work where necessary to meet Contract requirements before acceptance.

2. Replacing or repairing all defective Work or materials used in the construction of the Work and repairing all damage to other work or materials whose damage is attributable to such defective Work or materials.

3. All defects or damage that the Engineer may discover on or before the engineer's acceptance and final payment of the Work. The Engineer is the sole judge of these defects or damage.

b. Frequency. The Department will make periodic progress payments in accordance with established Department procedures. Progress payments will be subject to a 5 percent retainage.

Retainage will be released incrementally in accordance with Subsection 105.17 and the Department's Release of Retainage Procedures.

c. Invoice for Payment for Work. The Contractor shall submit a weekly invoice for payment of Work completed. The Contractor shall utilize invoice forms supplied by the Department and shall complete the forms including a certification for payment in accordance with the instructions contained thereon.

d. Invoice for Partial Payment for Materials, Supplies, and Equipment. The Engineer may allow invoicing as provided above and permit partial payments for those materials, supplies, and equipment delivered to an approved location but not yet incorporated into the

Work.

Payment for materials, supplies and equipment furnished at an approved site but not yet incorporated into the Work will not exceed the lesser of the following amounts.

1. 100 percent of the cost incurred by the Contractor, or

2. 80 percent of the value calculated by multiplying the quantity of the item delivered by the unit price for the corresponding item in the Bid Schedule.

For verification of costs, the Contractor shall provide the Engineer with an original paid invoice for the furnished materials, supplies or equipment within thirty (30) days after receiving the partial payment. Otherwise, the amount of the partial payment will be deducted from subsequent invoices.

The Engineer will not approve any payment for perishable plant materials until such plant materials are planted as specified in the Contract

e. Engineer's Review of Contractor's Request for Payment for Work and Request for Partial Payment for Materials, Supplies, and Equipment. Upon receipt of the Contractor's invoice, the Engineer will review the invoice and may approve or reject payment or portions thereof. The Engineer will notify the Contractor in writing of any modifications and/or rejection of the invoice. Modifications and reasons for the change will be made to the Excel spreadsheet in the columns provided. In the case of a rejection, the Engineer will request that the invoice be resubmitted.

f. Release of Retainage. Upon partial acceptance of work performed under a completed subcontract, the State, within 30 days, will pay the Contractor the relevant portion of retainage due for all Work covered by the acceptance. Within 30 days of receipt of such payment, the Contractor shall pay all retainage owed the subcontractor for accepted Work.

CODE 800.9920

HORTON FARM ROAD BRIDGE NO. 472 SUPERSTRUCTURE

DESCRIPTION: The work under this item shall consist of constructing the superstructure of the Horton Farm Bridge No. 472 from the North Abutment to the South Abutment, in accordance with the approved accelerated construction schedule and staged construction sequence, in its entirety. These Special Provisions shall supplement the relevant sections of the State of Rhode Island Standard Specifications for Road and Bridge Construction, Amended August 2013, including all applicable compilations of approved specifications (hereinafter referred to as the RI Standard Specifications), not replace them. All work shall be performed in accordance with the contract drawings, the RI Standard Specifications as modified by this Special Provision, and as directed by the Engineer. Where no specific requirement is directed for a component part of this item, the RI Standard Specifications shall apply, except for payment.

The work included for this item shall comprise all work pertaining to the construction of all superstructure components above the bridge beam seats consisting of:

1. Fabricating and furnishing the structural steel superstructure members as shown on the plans including steel girders, shear stud connectors, diaphragms, connection plates, bearing stiffener plates, drip plates, sole plates, shear plates, tie plates, painting structural steel, lifting anchors, welding, bolts, nuts, washers, miscellaneous metals, hardware, and any and all embedded or attached components.
2. All structural steel work shall be in accordance with the plans and to Section 824 Structural Steel Construction of the RI Standard Specifications, except for payment.
3. Delivery of the steel superstructure members to the project site.
4. Assembly of the structural steel superstructure modular units shall be consistent with the details shown on the plans.
5. Deleted
6. Deleted.
7. Preparing the bridge beam seats for the new superstructure.
8. Furnishing and installing the seismic isolation bridge bearings, and the elastomeric bridge bearings as shown on the plans.
9. Erecting the structural steel superstructure onto the bridge beam seats as required for the approved accelerated construction schedule and the staged construction sequence including field.
10. Erecting and placing the cast-in-place deck, shear studs, haunch forms, haunch reinforcing, bearing plates, closed cell non-absorbent foam joint filler, and any and all embedded or attached components as required to complete work.
11. Placing the cast-in-place longitudinal closure pour between Stage 1 and Stage 2 construction including steel reinforcement, dowel-in bars, dowel bar splicers; assembly, hardware, connectors, and any and all embedded components as required for completing the work.
12. Placing the strip seal frame, closed cell preformed polyethylene foam filler, hardware, connectors and any and all embedded or attached components.
13. Placing the cast-in-place concrete safety barrier for superstructure as shown on the plans including reinforcing, film-former protective coating, rubbed regular surface finishing,

electrical conduit, couplings, pull boxes, junction boxes, watertight expansion/deflection couplings, anchors for light standard, block-out for bent sliding plate, bent sliding plate, block out for strip seal frame, strip seal frame, additional reinforcing at strip seal joint, and any and all embedded or attached components as shown on the plans.

14. Placing the subpavement deck drain, the cold spray-applied liquid membrane waterproofing on the bridge deck, and the 3" Modified Class 9.5 wearing surface for bridges.
15. Furnishing and installing the roadway joints at the abutments including temporary support angle for strip seal, elastomeric concrete, continuous neoprene strip seal, asphalt cement paint, and any and all embedded or attached components.

All of the above work shall be complete in place and accepted in accordance with the Contract Documents except that the Method of Measurement and Basis of Payment will be in accordance with Item CODE 800.9920 "HORTON FARM ROAD BRIDGE NO. 472 – SUPERSTRUCTURE".

MATERIALS:
The materials used shall be in accordance with the applicable sections of the RI Standard Specifications, Special Provisions, and plans for each respective item included in the construction of the superstructure.

CONSTRUCTION METHODS:

A. Structural Steel Construction Methods.
Refer to Section 824 Structural Steel Construction of the RI Standard Specifications.

B. Cast-In-Place Concrete Construction Methods.
Refer to Section 808 Cast-In-Place Concrete Masonry of these special provisions.

C. Quality Control

1. Deleted
2. Deleted
3. Deleted
4. Deleted
5. Deleted
6. The Contractor's concrete quality/process control shall conform to the applicable requirements of Sections 601, 808 and 814 of the RI Standard Specifications including all applicable compilations of approved specifications. Acceptance of material or construction shall be in accordance with Section 601 and shall be based on the specified 28 day compressive strength. Additional sampling and testing to confirm interim compressive strength will be required earlier than the specified 28 day compressive strength and/or at 48 hours as determined by the Engineer, as a prerequisite to subsequent construction activities shall be the Contractor's responsibility as part of the Contractor's quality/process control system.

D. Deleted

E. Deleted

F. Transportation.

1. It shall be the Contractor's responsibility to obtain all necessary permits for any oversize/overweight travel per all applicable State regulations. This is in addition to the stipulations and submissions required in this specification.
2. The Department will inspect for material, quality and condition after delivery to the project site, with this and any previous inspections constituting only partial acceptance.

G. Deleted

METHOD OF MEASUREMENT: This item of work will not be measured for payment.

BASIS OF PAYMENT: Item 800.9920 HORTON FARM ROAD BRIDGE NO. 472 SUPERSTRUCTURE will be paid for at the contract "Lump Sum" price as listed in the Proposal. The price so stated shall constitute full and complete compensation for all labor, materials, tools, equipment, and all other incidentals required to complete the construction of the superstructure as described above under "DESCRIPTION", and elsewhere in the Contract Documents, complete in place and accepted by the Engineer.

Partial payments for this "Lump Sum" item shall be made in accordance with Special Provision Code 109.07.

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CODE 800.9940

HORTON FARM ROAD BRIDGE NO 472 SUBSTRUCTURE

DESCRIPTION: The work under this item shall consist of constructing the substructure of the Horton Farm Bridge No. 472. These Special Provisions shall supplement the relevant sections of the State of Rhode Island Standard Specifications for Road and Bridge Construction, Amended August 2013, including all applicable compilations of approved specifications (hereinafter referred to as the RI Standard Specifications), not replace them. All work shall be performed in accordance with the contract drawings, the RI Standard Specifications as modified by this Special Provision, and as directed by the Engineer. Where no specific requirement is directed for a component part of this item, the RI Standard Specifications shall apply, except for payment.

The work included for this item shall comprise all work pertaining to the construction of all substructure components consisting of fabricating, furnishing, erecting, and installing all reinforced cast-in-place concrete members, the temporary earth retaining systems, cast-in-place pier footing, cast-in-place pier columns, cast-in-place pier caps, cast-in-place approach slab support brackets at the backwall, cast-in-place approach slabs, cast-in-place barriers, cast-in-place end posts, cast-in-place beam pedestals, closure pours, shear keys, non-shrink grout, protective coatings, rubbed regular surface finishing, backer rod, granite identification tablets, electrical conduit, couplings, expansion watertight coupling with 4 inch movement, pull boxes, junction boxes, block-out for bent sliding plate, strip seal hardware and inserts, miscellaneous metals, lifting anchors, hardware, and any and all embedded or attached components including all necessary materials and equipment to complete the work as shown on the plans.

The temporary earth retaining system for support of excavation is included as part of this work. Refer to Section 805.9910 of these special provisions.

All of the above work shall be complete in place and accepted in accordance with the Contract Documents except that the Method of Measurement and Basis of Payment will be in accordance with Item CODE 800.9940 "HORTON FARM BRIDGE NO 472 SUBSTRUCTURE".

MATERIALS:
The materials used shall be in accordance with the applicable sections of the RI Standard Specifications, Special Provisions, and plans for each respective item included in the construction of the superstructure.

Cast-In-Place Concrete Components.

1. All cast-in-place material specifications shall be in accordance with the plans and to Section 808 Cast-In-Place Concrete Masonry of these special provisions.
2. The Contractor shall have an approved independent concrete testing laboratory conduct concrete tests of the mass concrete elements as stipulated in Section 607 Mass Concrete.

CONSTRUCTION METHODS:

A. Cast-In-Place Concrete Construction Methods.
Refer to Section 808 Cast-In-Place Concrete Masonry of these special provisions.

B. Quality Control

1. Deleted
2. Deleted
3. Deleted
4. The Contractor's concrete quality/process control shall conform to the applicable requirements of Sections 601, 607 and 809 of the RI Standard Specifications including all applicable compilations of approved specifications. Acceptance of material or construction will be in accordance with Section 601 and will be based on the specified 28 or 56 day compressive strength. Additional sampling and testing to confirm interim compressive strength will be required earlier than the specified 28 or 56 day compressive strength and/or at 48 hours as determined by the Engineer, as a prerequisite to subsequent construction activities shall be the Contractor's responsibility as part of the Contractor's quality/process control system.

C. Deleted.

D. Deleted.

E. Deleted.

F. Deleted.

G. Deleted.

METHOD OF MEASUREMENT: This item of work will not be measured for payment.

BASIS OF PAYMENT: Item CODE 800.9940 "HORTON FARM BRIDGE NO 472 SUBSTRUCTURE" will be paid for at the contract "Lump Sum" price as listed in the Proposal. The price so stated shall constitute full and complete compensation for all labor, materials, tools, equipment, and all other incidentals required to complete the construction of the substructure as described above under "DESCRIPTION", and elsewhere in the Contract Documents, complete in place and accepted by the Engineer.

Partial payments for this "Lump Sum" item shall be made in accordance with Special Provision Code 109.07.

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Regardless of the method of removal, if in the opinion of the Engineer the removal operation causes excessive damage to portions of the concrete which are to remain, the Contractor shall cease his operations until such time that an alternate removal method has been proposed by the Contractor and has been approved by the Engineer. No resulting delays due to "cease of operations" will result in claims for additional payment by the Contractor to the State, or an extension of the project completion date.

All newly exposed concrete surfaces shall be free of loose particles and other foreign material. They shall be cleaned and be left roughened by the use of sandblasting, compressed air, air and water blasting, steam, wire brushing, or by other suitable methods approved by the Engineer. The exposed concrete surfaces shall be dampened with fresh water immediately prior to placement of the new concrete by "hosing down" the areas. The surface shall be free of standing water.

All removed materials shall be taken from the site and legally disposed as the work progresses. No storing or burying of material or debris on site will be permitted.

Prior to commencement of demolition activities, the Contractor shall prepare and submit to the Engineer for approval, detailed demolition plans signed and sealed by a Professional Engineer licensed in the State of Rhode Island. Said demolition plans shall include, but not be limited to, anticipated pick weights, rigging, equipment types and locations, removal sequence and effects on remaining structural elements, temporary support design, and all else necessary to clearly describe the work to be performed and method he proposes to use, in detail and the location where he intends to dispose of the demolition debris. An approved demolition plan as described above is required prior to commencement of any demolition activities. Approval(s) of demolition plans, procedures, etc. shall in no way relieve the Contractor of sole liability for damages resulting from the removal and disposal operations.

METHOD OF MEASUREMENT: Remove and Dispose Existing Bridge Superstructure – Horton Farm Road Bridge No. 472, and Remove and Dispose Existing Bridge Substructure – Horton Farm Road Bridge No. 472 shall be measured for payment as a "Lump Sum", completed and accepted. The estimated distribution of quantities is listed in the tables below.

Remove and Dispose Existing Bridge Superstructure	
Location	**Quantity**
Horton Farm Road Bridge No. 472 - steel	50 TONS
Horton Farm Road Bridge No. 472 - concrete	350 CY

CODE 936.9901

MOBILIZATION

Remove Section 936, Mobilization and Demobilization, pages AC-243 and AC-244 of the RI Standard Specifications for Road and Bridge Construction in its entirety and replace it with the following.

936.1 DESCRIPTION. This work consists of those efforts necessary for the movement of the Contractor's personnel and equipment to the project site and for the establishment of all the Contractor's field offices, buildings and other facilities required for the performance of the Contract.

936.2 MATERIALS. Not applicable.

936.3 CONSTRUCTION METHODS. Not applicable.

936.4 METHOD OF MEASUREMENT. This work will be measured for payments as follows:

a. First Payment. The first payment of 50 percent of the lump sum bid price for mobilization or 5 percent of the total contract amount without mobilization, whichever is the lesser, will be made on the first progress payment.

b. Second Payment. The second payment of 35 percent of the lump sum price for mobilization or 3.5 percent of the total contract amount without mobilization, whichever is the lesser, will be made when the progress payment estimate of the amount earned, not including that amount earned for mobilization, is 5 percent of the total contract amount without mobilization.

c. Third Payment. The third payment of 15 percent of the lump sum price for mobilization or 1.5 percent of the total contract amount without mobilization, whichever is the lesser, will be made when the progress payment estimate of the amount earned, not including that amount earned for mobilization, is 10 percent of the total contract amount without mobilization.

Final Payment. Upon completion of all the work on the project, including demobilization, payment of any amount bid for mobilization in excess of the total amount previously paid, will be paid.

936.5 BASIS OF PAYMENT. "Mobilization" will be paid for at the contract lump sum price as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials and equipment and other incidentals required to establish the Contractor's facilities at the site and, at the conclusion of the contract, for the complete removal thereof.

No lump sum breakdown will be required for this item of work.

Table of Contents - Distribution of Quantities

Project Name - Horton Farm Bridge No. 472
Estimate Name - Addendum No. 2
R.I. Contract No. - 2017-CB-070
FAP Nos: BRO-472(001), STP-RESF(360)

Table of Contents - Distribution of Quantities

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Project Name - Horton Farm Bridge No. 472
Estimate Name - Addendum No. 2
R.I. Contract No. - 2017-CB-070
FAP Nos: BRO-472(001), STP-RESF(360)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
112	926.9903 Cont.	STAGE 2H TO MEDIAN&STORAGE		2,675.00	0005	01
		STAGE 2I TO MEDIAN&STORAGE		2,823.00	0005	01
		RAMP F				
		STAGE 1A THRU 1D AND 2A THRU 2D		195.00	0005	01
		ROUNDING				
		PROJECT WIDE		10.00	0005	01
		Item 926.9903 Total:		**68,800.00**		
113	928.9901	**TRUCK MOUNTED ATTENUATOR WITH TRUCK MOUNTED FLASHING ARROW BOARD**	**HRS**			
		CROSSOVER SET UP/TAKE DOWN				
		PROJECT WIDE		240.00	0005	01
		NON-CROSSOVER STAGES				
		PROJECT WIDE		96.00	0005	01
		PREP WORK				
		PROJECT WIDE		480.00	0005	01
		RESURFACING DOUBLE LANE				
		PROJECT WIDE		700.00	0005	01
		RESURFACING SINGLE LANE				
		PROJECT WIDE		350.00	0005	01
		ROUNDING				
		PROJECT WIDE		34.00	0005	01
		Item 928.9901 Total:		**1,900.00**		
114	929.0110	**FIELD OFFICE**	**PMO**			
		PROJECT WIDE				
		PROJECT WIDE		24.00	0005	01
		Item 929.0110 Total:		**24.00**		
115	931.0110	**CLEANING AND SWEEPING PAVEMENT**	**HSY**			
		DRAINAGE TRENCHES/CATCH BASIN PATCH				

Distribution of Quantities

Project Name - Horton Farm Bridge No. 472
Estimate Name - Addendum No. 2
R.I. Contract No. - 2017-CB-070
FAP Nos: BRO-472(001), STP-RESF(360)

Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
118	935.0400 Cont.	83+43 TO 92+41, LT/RT		2,772.00	0005	01
		RAMP CR-6				
		115+50 TO 123+50, LT/RT		3,755.20	0005	01
		RAMP DR-5				
		70+23 TO 78+13, LT/RT		1,729.00	0005	01
		RAMP DR-6				
		95+41 TO 100+80, LT/RT		804.50	0005	01
		ROUNDING				
		PROJECT WIDE		331.10	0005	01
		Item 935.0400 Total:		**128,500.00**		
119	936.0110	MOBILIZATION	LS			
		HORTON FARM ROAD BRIDGE NO. 472				
		BRIDGE AND HIGHWAY			0005	01
		MOBILIZATION				
		Item 936.0110 Total:		**DELETED**		
120	937.0200	**MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION**	LS			
		PROJECT WIDE				
		PROJECT WIDE		1.00	0005	01
		Item 937.0200 Total:		**1.00**		
121	942.0200	**DETECTABLE WARNING PANEL STANDARD 48.1.0**	SF			
		BROADWAY				
		1+05, RT		8.00	0005	01
		1+07, LT		8.00	0005	01
		1+31, LT		8.00	0005	01
		1+48, LT		8.00	0005	01
		1+51, RT		8.00	0005	01
		1+65, LT		8.00	0005	01
		WARREN AVE				

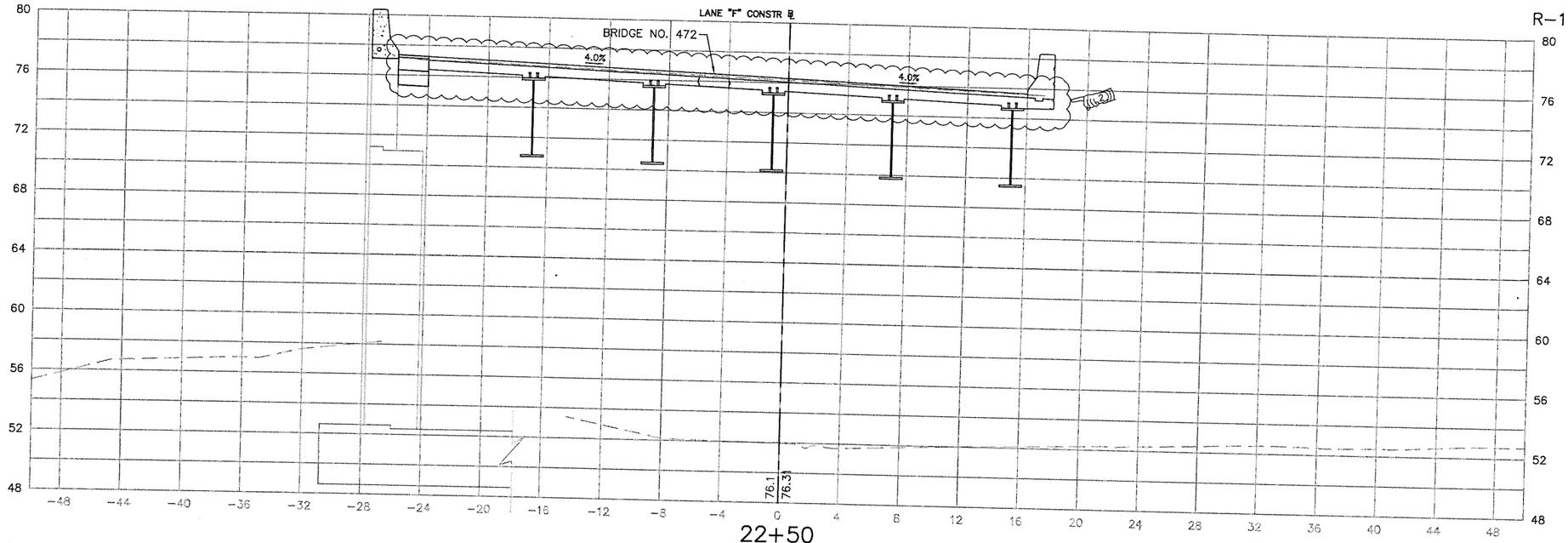
Distribution of Quantities

Project Name - Horton Farm Bridge No. 472
Estimate Name - Addendum No. 2
R.I. Contract No. - 2017-CB-070
FAP Nos: BRO-472(001), STP-RESF(360)

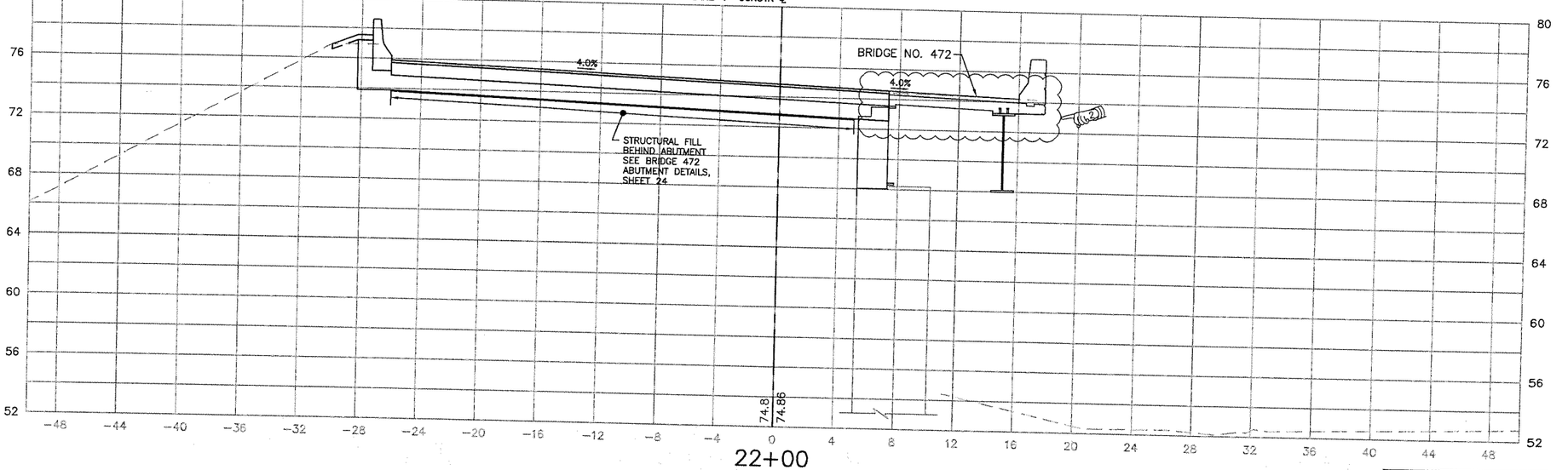
Item No.	Item Code	Description	UM	Qty.	Pay Code	Seq. No.
170	108.9901 Cont.	472				
		PROJECT WIDE				
		PROJECT WIDE		45.00	0005	01
		Item 108.9901 Total:		**45.00**		
171	936.9901	**MOBILIZATION**	**LS**			
		HORTON FARM ROAD BRIDGE NO. 472				
		BRIDGE AND HIGHWAY		1.00	0005	01
		MOBILIZATION				
		Item 936.9901 Total:		**1.00**		

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	STP-RESF(360)	2017	140	144

R-1



CUT	4.0 SF
FILL	0.0 SF
LOAM	0.0 SF



CUT	68.5 SF
FILL	0.1 SF
LOAM	0.9 SF

4 0 4 8 16

HORIZONTAL SCALE IN FEET
SCALE 1" = 4'-0"

ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

CROSS SECTIONS - LANE F (HORTON FARM RD)

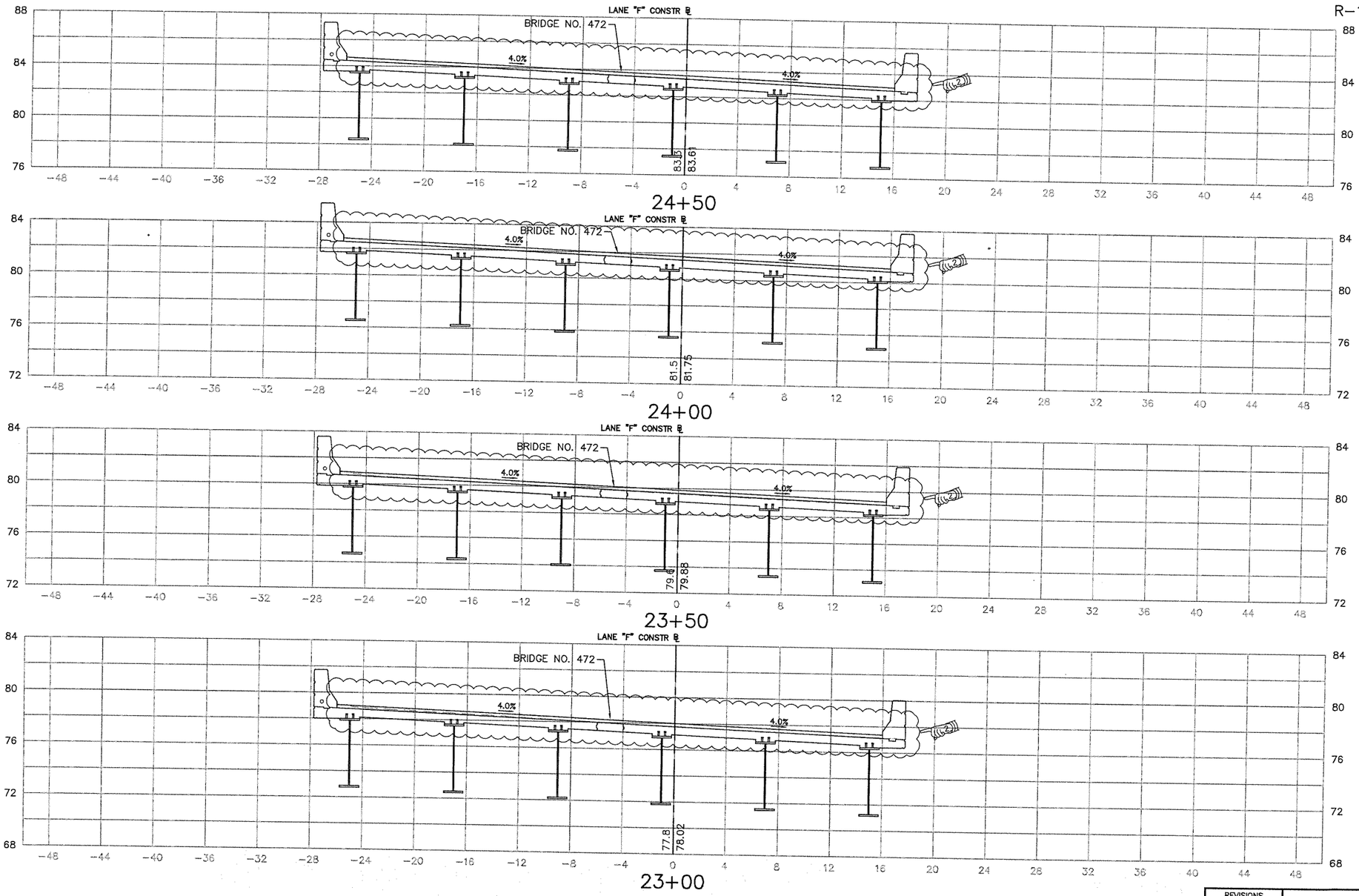
SHEET 2 OF 6

CHECKED BY PWS DATE 6/1/17 SCALE AS NOTED

SECTIONS.DWG

Louis Berger
166 VALLEY STREET, BUILDING 5
PROVIDENCE, RI 02909
TEL 401 521 5980
WWW.LOUISBERGER.COM

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	STP-RESF(360)	2017	141	144



4 0 4 8 16

HORIZONTAL SCALE IN FEET
SCALE 1" = 4'-0"

ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

CROSS SECTIONS - LANE F (HORTON FARM RD)

SHEET 3 OF 6

CHECKED BY PWS DATE 6/1/17 SCALE AS NOTED

Louis Berger
166 VALLEY STREET, BUILDING 5
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SECTIONS.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	6	53

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STRUCTURAL STEEL NOTES CONT.

12. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO AASHTO DESIGNATION M 164, AND THEY SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 824 OF THE RI STANDARD SPECIFICATIONS.

13. WASHERS MEETING AASHTO DESIGNATION M 293 ARE TO BE USED OVER ALL HOLES THAT ARE MORE THAN 1/16" IN DIAMETER GREATER THAN THE BOLT DIAMETER AND UNDER ALL PARTS TURNED DURING ASSEMBLY.

14. WELDING ELECTRODES SHALL HAVE THE SAME CORROSION RESISTANCE AS THE BASE METAL AND SHALL BE FREE OF MOISTURE AT THE TIME OF USE.

15. STRUCTURAL STEEL SHALL BE PREPARED AND PAINTED IN ACCORDANCE WITH THE RI STANDARD SPECIFICATIONS.

16. UNLESS OTHERWISE SPECIFIED, THE UPPER SURFACES OF GIRDER TOP FLANGES SHALL BE FREE OF PAINT, OIL OR OTHER IMPURITIES THAT WOULD IN ANY WAY REDUCE THE BOND OF CONCRETE TO STEEL.

17. PRIOR TO FABRICATION, ALL MATERIALS SHALL FIRST BE SOLVENT CLEANED TO SSPC-SP1 TO REMOVE ALL OIL, GREASE, AND DIRT; FOLLOWED BY BLAST-CLEANING TO SSPC-SP10 TO REMOVE ALL MILL SCALE, RUST, AND OTHER DELETERIOUS MATERIALS FROM THE SURFACE OF THE STEEL TO BE FABRICATED.

18. PRIOR TO SHOP COATING AS SPECIFIED IN SECTION 825 OF THE RI STANDARD SPECIFICATIONS, ALL CORNERS AND EDGES OF STEEL WHICH HAVE BEEN FLAME CUT OR OTHERWISE HARDENED SHALL BE SOFTENED BY GRINDING OR BLAST-CLEANING TO PROVIDE A SURFACE SUITABLE FOR APPLICATION OF THE SPECIFIED PAINT SYSTEM.

19. WELDING OF ATTACHMENTS TO GIRDER FLANGES OR WEBS FOR CONSTRUCTION PURPOSES IS NOT PERMITTED EXCEPT WHEN APPROVED BY THE ENGINEER.

20. THE ENDS OF ALL GIRDERS SHALL BE VERTICAL AFTER ALL DEAD LOADS HAVE BEEN PLACED.

21. INTERMEDIATE STIFFENERS SHALL BE PLACED ON THE INTERIOR SIDE OF THE FASCIA GIRDER WEBS AND ON BOTH SIDES OF ALL INTERIOR GIRDER WEBS.

22. BEARING STIFFENERS SHALL BE FABRICATED AS SHOWN ON THE PLANS AND SHALL BE PLACED ON BOTH SIDES OF ALL GIRDER WEBS.

23. INTERMEDIATE STIFFENERS AND CONNECTION PLATES SHALL BE SET PERPENDICULAR TO THE FLANGES OF THE GIRDERS.

24. END BEARING STIFFENERS AT GIRDER ENDS SHALL BE PLUMB AFTER DEAD LOADS ARE APPLIED.

25. BOLTED CONNECTIONS SHALL BE DESIGNED AS SLIP-CRITICAL CONNECTIONS. THE FAYING SURFACES SHALL SATISFY CLASS B SURFACE CONDITION AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

26. THE GIRDERS SHALL BE CAMBERED TO THE AMOUNTS SHOWN ON THE PLANS. THE FABRICATOR'S SHOP DRAWINGS SHALL INCLUDE, IN ADDITION TO ANY CUTTING OR CAMBER DIAGRAMS NECESSARY FOR THEIR PURPOSES, A SHOP ASSEMBLY DIAGRAM WHICH PROVIDES CAMBER OFFSETS CALCULATED BY THE FABRICATOR AT THE REFERENCE POINTS PROVIDED BY THE ENGINEER (USUALLY TENTH POINTS OF THE SPANS), THE INFORMATION PROVIDED SHALL BE SUFFICIENT ENOUGH FOR THE ENGINEER TO EVALUATE WHETHER THE CAMBER HAS BEEN CORRECTLY INTERPRETED.

27. ALL SHOP CONNECTIONS AND SPLICES SHALL BE WELDED. WELDING PROCEDURES AND TECHNIQUES TO BE USED IN FABRICATION AND ERECTION OF THE GIRDERS SHALL BE AS SHOWN ON THE SHOP DRAWINGS AND SHALL INCORPORATE THE FOLLOWING:
    - BOTH FLANGES AND THE WEB SHALL BE COMPLETELY FABRICATED FOR THEIR ENTIRE LENGTHS BEFORE THE WELDING OF THE FLANGES TO THE WEB IS PERFORMED.
    - ALL THE WEB AND FLANGE SPLICES OTHER THAN THOSE SHOWN ON THE PLANS MUST BE APPROVED BY THE ENGINEER. ALTERNATE OR ADDITIONAL SPLICES ARE TO BE LOCATED AND DESIGNED BY THE FABRICATOR AND SHOWN ON THE SHOP DRAWINGS. THESE SPLICES ARE TO FULLY DEVELOP THE STRENGTH OF THE WEB AND FLANGES PLATES. WEB SPLICES, IF USED, SHALL BE LOCATED 2'-0" MINIMUM FROM ANY STIFFENER.
    - NO MORE THAN TWO SHOP WEB SPLICES WILL BE PERMITTED BETWEEN FIELD SPLICES. SPLICING OF GIRDERS BY FIELD WELDING WILL NOT BE PERMITTED.

28. ALL FILLET WELDS SHALL BE IN ACCORDANCE WITH THE BRIDGE WELDING CODE ASSHTO/AWS D1.5 TABLE 2.1 (¼" MINIMUM).

29. ALL SHEAR STUD CONNECTORS SHALL BE WELDED BY THE AUTOMATIC TIMED ELECTRIC ARC PROCESS. SHEAR STUDS SHALL BE INSPECTED AND TESTED IN ACCORDANCE WITH SECTION 824 OF THE RI STANDARD SPECIFICATIONS.

30. WHEN STEEL DIE STAMPS ARE USED TO IDENTIFY PIECES AND MEMBERS, FABRICATORS SHALL UTILIZE LOW STRESS STAMPS.

31. FOR SIZE AND LOCATION OF ANCHOR BOLTS, SEE ABUTMENT, AND BEARING DRAWINGS.

32. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE EXPANSION JOINT SYSTEM PROVIDED WILL BE COMPATIBLE WITH BOTH THE END OF DECK HAUNCHES AND/OR THE STRUCTURAL STEEL FRAMING CONFIGURATION. THAT IS, THE EXPANSION JOINT SYSTEM AND ALL ITS INHERENT COMPONENTS AND ATTACHMENT DEVICES SHALL BE SIZED OR ARRANGED TO BE COMPATIBLE WITH THE GIRDER AND DIAPHRAGM FLANGES, CONNECTION PLATES, BOLTS, SHEAR STUDS, AND REINFORCING STEEL THAT SHARE THE END HAUNCH REGION.

GENERAL NOTES REGARDING TEMPORARY CONSTRUCTION CONDITIONS:

1. DESIGN WIND PRESSURES FOR CONSTRUCTION:

   MINIMUM WIND PRESSURES TO BE USED BY THE CONTRACTOR FOR DESIGN DURING THE CONSTRUCTION CONTRACT (WITH THE EXCEPTION OF SIGNS) SHALL BE FROM THE FOLLOWING TABLE:

HEIGHT ABOVE GROUND	WIND PRESSURE (PSF)
UP TO 17'	23
OVER 17' AND UP TO 33'	27
OVER 33' AND UP TO 50'	30
OVER 50' AND UP TO 75'	34
OVER 75' AND UP TO 100'	37

TABLE NOTES:

A. APPLICATION OF THE TABULAR PRESSURE:
   - BRIDGE COMPONENTS DURING CONSTRUCTION, PRIOR TO THE INSTALLATION OF THE PERMANENT BRACING SYSTEMS, NOT INCLUDING CRANE LIFTING.
   - FALSE WORK, SHORING, AND SCAFFOLDING AS DEFINED IN FHWA "GUIDE DESIGN SPECIFICATION FOR BRIDGE TEMPORARY WORKS", EXCLUDING 3-DIMENSIONAL LATTICED OR TRUSSED FRAMES OR TOWERS;
   - TEMPORARY SHIELDING.

WIND PRESSURES FOR ALL OTHER STRUCTURES SHALL BE CALCULATED BASED ON ASCE "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION", SEI/ASCE 37-02 (ALL REFERENCES TO THE ASCE 7 IN THE SEI/ASCE 37-02 PUBLICATION, SHALL BE THE LATEST REVISION OF ASCE 7). THE EXPOSURE CATEGORY SHALL BE B.

B. FOR STRUCTURES SITUATED ABOVE LIVE INTERSTATE TRAFFIC, THE TABULAR VALUES SHALL BE INCREASED BY 5 PSF.

2. ERECTION OF BRIDGE COMPONENTS:

   FOR THE ERECTION OF STRUCTURES, THE FOLLOWING SHALL APPLY:
   - THE CONTRACTOR SHALL SUBMIT AN ERECTION PLAN THAT PROVIDES COMPLETE DETAILS OF THE PROCESS INCLUDING, BUT NOT LIMITED TO, TEMPORARY SUPPORTS, SCHEDULING AND OPERATION SEQUENCING, CRANE PLACEMENT, AND ASSUMED LOADS AND CALCULATED STRESSES DURING VARYING STAGES OF LIFTING. THIS APPLIES TO STRUCTURES OF ANY KIND. THE CAPACITY OF THE CRANE AND ALL LIFTING AND CONNECTING DEVICES SHALL BE ADEQUATE FOR 150 PERCENT OF THE TOTAL PICK LOAD INCLUDING SPREADERS AND OTHER MATERIALS. THIS FACTOR OF SAFETY SHALL BE IN ADDITION TO ALL MANUFACTURERS' PUBLISHED FACTORS OF SAFETY.
   - A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF RHODE ISLAND, WILL BE REQUIRED TO STAMP THE CONTRACTOR'S ERECTION PLAN.
   - THE CONTRACTOR'S PROFESSIONAL ENGINEER WILL BE REQUIRED TO INSPECT AND PROVIDE WRITTEN APPROVAL OF EACH PHASE OF A BEAM/MODULAR UNIT INSTALLATION, PRIOR TO ALLOWING VEHICLES OR PEDESTRIANS ON OR BELOW THE STRUCTURE. THE PROFESSIONAL ENGINEER MUST ALSO STAMP ALL CHANGES TO THE CONTRACTOR'S ERECTION PLAN. ADDITIONALLY, ALL PROPOSED CHANGES MUST BE SUBMITTED TO RIDOT FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION.
   - A MANDATORY PRE-ERECTION CONFERENCE WILL BE HELD AT LEAST TWO WEEKS PRIOR TO THE START OF THE BEAM/MODULAR UNIT INSTALLATION TO DISCUSS THE PLAN AND PROCEDURES, WORK SCHEDULES, CONTINGENCY PLANS, SAFETY REQUIREMENTS AND TRAFFIC CONTROL. THE CONTRACTOR'S PROFESSIONAL ENGINEER AND ERECTION SUBCONTRACTOR WILL BE REQUIRED TO ATTEND THIS MEETING, AS WILL THE RIDOT RESIDENT ENGINEER, THE DESIGN PROJECT ENGINEER AND THE DESIGN CONSULTANT. BASED UPON DISCUSSIONS AT THIS MEETING AND A REVIEW OF THE CONTRACTOR'S ERECTION PLAN, RIDOT MAY ORDER THE CONTRACTOR TO MODIFY AND RESUBMIT THE ERECTION PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.
   - THE CONTRACTOR WILL BE REQUIRED TO PERFORM DAILY INSPECTIONS OF THE ERECTED GIRDERS UNTIL THE BRIDGE DECK IS COMPLETELY POURED.
   - THE COST OF PREPARING AND STAMPING THE ERECTION PLAN, COMPUTATIONS, AND REPORTS, RESPONDING TO RIDOT'S COMMENTS AND MAKING THE NECESSARY REVISIONS, AND ATTENDANCE AT MEETINGS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE SUPERSTRUCTURE PAY ITEM, BE IT CONCRETE, STEEL OR TIMBER.

3. TEMPORARY BARRIER ON BRIDGES
   - TEMPORARY BARRIER TO BE UTILIZED ON BRIDGES AND THEIR APPROACH DURING CONSTRUCTION SHALL MEET TEST LEVEL TL-4.

UTILITY NOTES

1. NO CONSTRUCTION EQUIPMENT OR PERSONNEL SHALL BE PERMITTED WITHIN A TEN (10) FOOT RADIUS OF THE ENERGIZED OVERHEAD LINES.

SHOP DRAWING SUBMITTAL

1. BRIDGE DEMOLITION
2. REMOVE AND DISPOSE EXISTING SUPERSTRUCTURE
3. REMOVE AND DISPOSE EXISTING SUBSTRUCTURE
4. CRANE SUBMITTALS
5. TEMPORARY PROTECTIVE SHIELDING
6. CONCRETE: MIX DESIGNS, PLACING AND METHODS AND EQUIPMENT, CURING PLAN AND METHODS, PERSONNEL RESOURCES
7. REINFORCING STEEL, SPLICES AND INSERTS
8. CONCRETE FORMS
9. STRUCTURAL STEEL
10. DRILL AND GROUT REINFORCING
11. BRIDGE BEARING ASSEMBLIES
12. BEAM ERECTION PROCEDURES
13. BRIDGE NAME/SEAL TABLETS
14. CONTROLLED LOW STRENGTH MATERIAL
15. CONCRETE SURFACE REPAIR
16. ACCELERATED BRIDGE CONSTRUCTION SCHEDULE
17. TEMPORARY EARTH SUPPORT SYSTEM DESIGN
18. TEMPORARY SHORING
19. MATERIAL CUT SHEETS
20. UTILITY SUPPORTS
21. ~~MISCELLANEOUS METALS~~
22. DELETED (2)
23. ~~STRIP SEAL EXPANSION JOINT~~ ASSEMBLIES
24. CONCRETE SUBCONTRACTORS QUALIFICATIONS AND EXPERIENCE
25. STRUCTURAL STEEL PAINT SYSTEMS
26. WELDING PROCEDURES
27. QUALITY CONTROL PLAN FOR BRIDGE SUPERSTRUCTURE
28. DELETED (2)
29. DELETED (2)
30. DELETED
31. CONCRETE SURFACE TREATMENT (PROTECTIVE COATING)
32. SHEAR CONNECTORS
33. BRIDGE IDENTIFICATION AND MINIMUM CLEARANCE SIGNS
34. SNOW FENCE

NECESSARY SUBMITTALS MAY NOT BE LIMITED TO THE ABOVE LIST AND MAY REQUIRE OTHER SUBMITTALS AT THE RESIDENT ENGINEER'S REQUEST FOR: SHOP DRAWINGS, CERTIFICATE OF COMPLIANCE, PRODUCT INFORMATION, CATALOG CUTS, TEST DATA OR OTHER.

ADDENDUM NO. 2

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

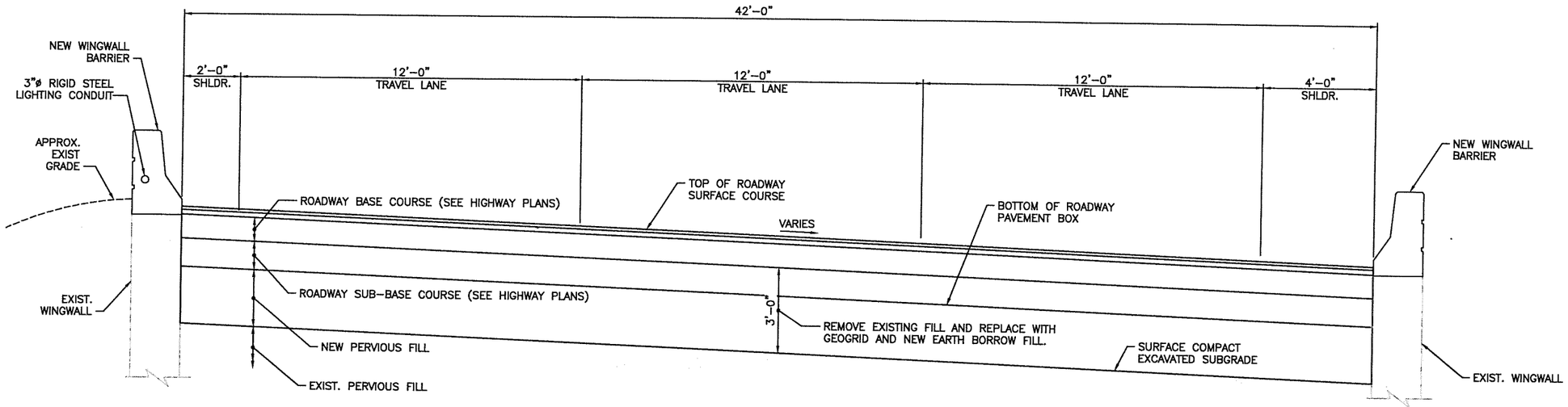
GENERAL BRIDGE NOTES
SHEET 3 OF 3

CHECKED BY PNF DATE 9/22/17 SCALE NONE

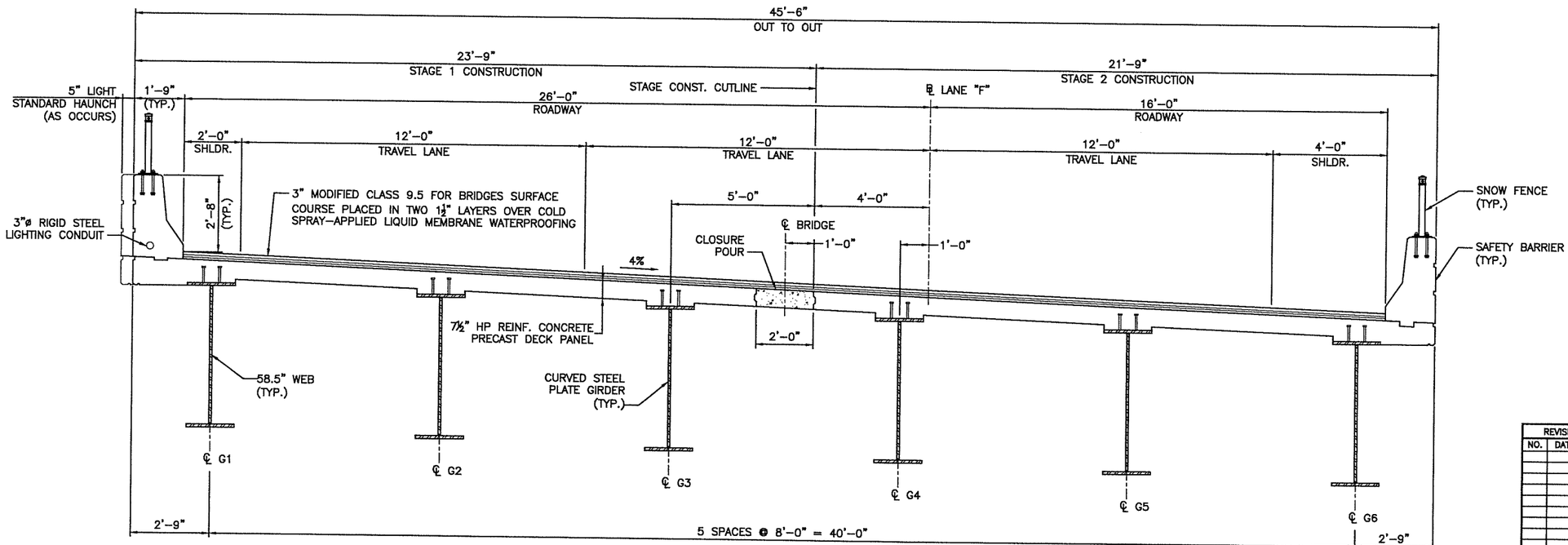
GENERAL NOTES SHEETS.DWG

R-1

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	8	53



TYPICAL APPROACH SECTION
STA. 21+75 & 25+25
SCALE: 1/2"=1'-0"



TYPICAL TRANSVERSE BRIDGE SECTION
(LOOKING UPSTATION)
SCALE: 1/2"=1'-0"
(SPAN 1 SHOWN, SPAN 2 SIMILAR)

NOTES:

1. SEE HIGHWAY PLANS FOR NOTES AND DIMENSIONS NOT SHOWN.
2. FOR PAVEMENT MARKING LAYOUT SEE HIGHWAY SIGNING AND STRIPING PLANS.
3. FOR LIGHTING LOCATION, SEE SHEET 7.
4. FOR LIGHTING DETAILS, SEE SHEET 49.
5. FOR SNOW FENCE DETAILS SEE SHEET 48.

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

ADDENDUM NO. 2

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

TYPICAL BRIDGE & APPROACH SECTIONS

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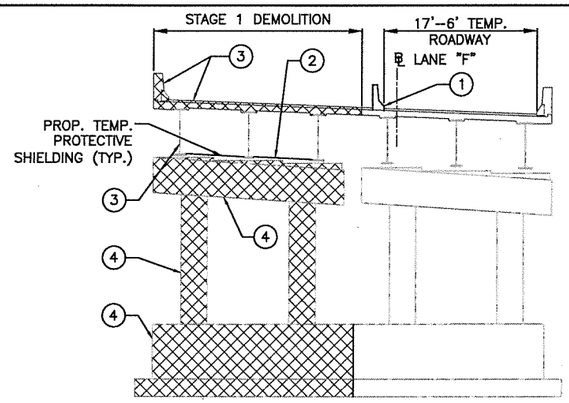
CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

TYPICAL SECTIONS.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	9	53



STAGE 1 DEMOLITION

1.) INSTALL MAINTENANCE AND PROTECTION OF TRAFFIC ON I-195 EB AND WB AND LANE "F".

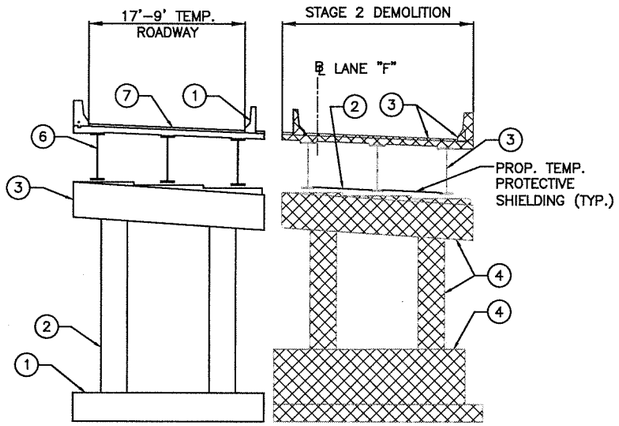
2.) INSTALL TEMPORARY PROTECTIVE SHIELDING AS REQUIRED, SEE SHEET 13 FOR DETAILS.

3.) DEMOLISH EXISTING SUPERSTRUCTURE USING CROSSOVER DURING NIGHT HOURS.

4.) DEMOLISH EXISTING PIER CAPS AND COLUMNS.

5.) DEMOLISH EXISTING PIER FOOTINGS.

6.) DEMOLISH EXISTING APPROACH SLABS, PARTIAL ABUTMENT TOP OF BACKWALLS, AND PART OF WINGWALL (NOT SHOWN).



STAGE 2 DEMOLITION

1.) INSTALL MAINTENANCE AND PROTECTION OF TRAFFIC ON I-195 EB AND WB AND LANE "F".

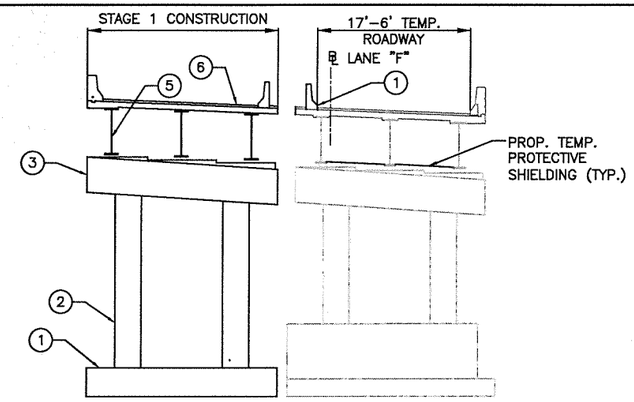
2.) INSTALL TEMPORARY PROTECTIVE SHIELDING AS REQUIRED, SEE SHEET 13 FOR DETAILS.

3.) DEMOLISH EXISTING SUPERSTRUCTURE USING CROSSOVER DURING NIGHT HOURS.

4.) DEMOLISH EXISTING PIER CAPS, COLUMNS

5.) DEMOLISH EXISTING PIER FOOTINGS.

6.) DEMOLISH EXISTING APPROACH SLABS, PARTIAL TOP OF ABUTMENT BACKWALLS AND PART OF WINGWALLS (NOT SHOWN).



STAGE 1 CONSTRUCTION

1.) CONSTRUCT PROPOSED PIER FOOTING.

2.) CONSTRUCT PROPOSED PIER COLUMN.

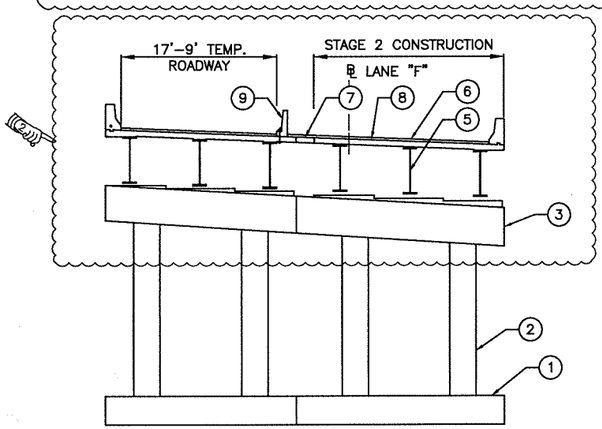
3.) CONSTRUCT PROPOSED PIER CAP.

4.) CONSTRUCT PROPOSED APPROACH SLAB SHELF ON EXISTING BACKWALLS. (NOT SHOWN)

5.) INSTALL STEEL SUPERSTRUCTURE USING CROSSOVER DURING NIGHT HOURS.

6.) CONSTRUCT DECK.

7.) CONSTRUCT STAGE 1 BARRIER, WEARING SURFACE AND SNOW FENCE (NOT SHOWN).



STAGE 2 CONSTRUCTION

1.) CONSTRUCT PROPOSED PIER FOOTING.

2.) CONSTRUCT PROPOSED PIER COLUMN AND CONNECTION BETWEEN COLUMN AND FOOTING.

3.) CONSTRUCT PROPOSED PIER CAP.

4.) CONSTRUCT PROPOSED APPROACH SLAB SHELF ON EXISTING BACKWALLS. (NOT SHOWN)

5.) INSTALL STEEL SUPERSTRUCTURE USING CROSSOVER DURING NIGHT HOURS.

6.) CONSTRUCT DECK.

7.) CONSTRUCT CLOSURE POUR BETWEEN STAGE 1 AND STAGE 2 DECKS.

8.) CONSTRUCT STAGE 2 WEARING SURFACE AND SNOW FENCE (NOT SHOWN).

9.) REMOVE MAINTENANCE AND PROTECTION BARRIER AND REPAIR DECK.

LEGEND:

DEMOLITION AREA

ADDENDUM NO. 2

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REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

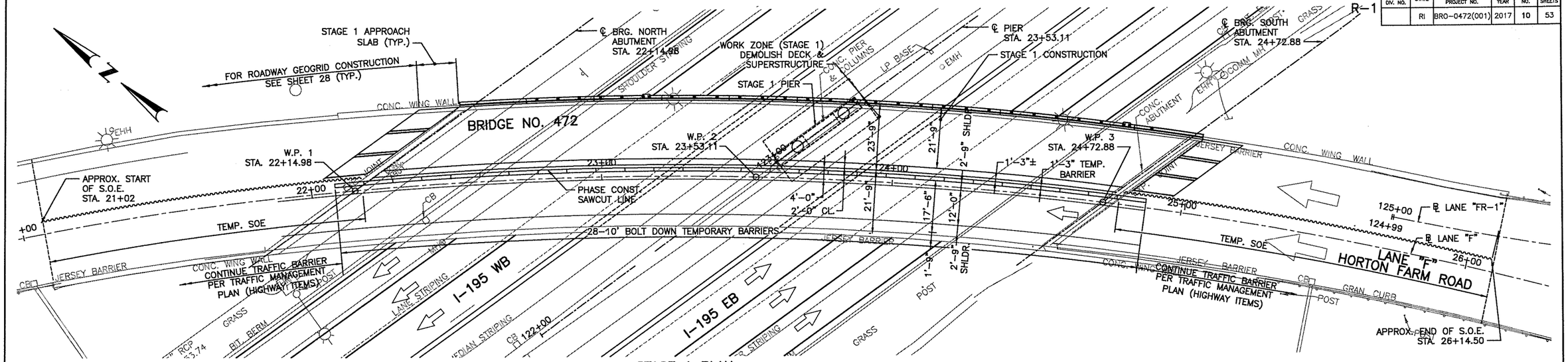
CONSTRUCTION STAGING & DEMOLITION DETAILS

SHEET 1 OF 3

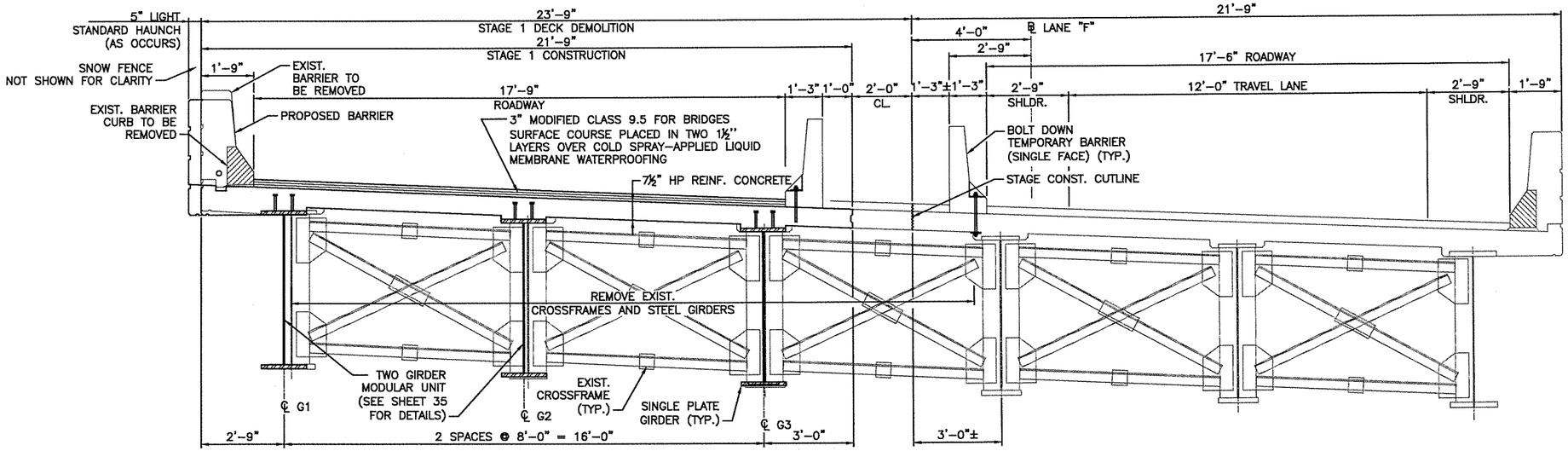
CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

CONSTRUCTION STAGING 1.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	10	53



STAGE 1 PLAN
SCALE: 1/16"=1'-0"



SECTION STAGE 1
(LOOKING UPSTATION)
SCALE: 1/2"=1'-0"

STAGE 1 DEMOLITION

1. INSTALL MAINTENANCE AND PROTECTION OF TRAFFIC ON I-195 EB AND WB AND ON RAMP THEN CONSTRUCT MEDIAN CROSS-OVER "STAGE 1", SEE HIGHWAY PLANS.
2. INSTALL TEMPORARY SOE TO LIMITS SHOWN ON STAGE 1 PLAN.
3. INSTALL TEMPORARY PROTECTIVE SHIELDING, SEE SHEET 13 FOR DETAILS.
4. DEMOLISH EXISTING HORTON FARM ROAD BRIDGE PARAPETS AND DECK AFTER INSTALLING TEMPORARY PROTECTIVE SHIELDING.
5. AFTER REMOVING TEMPORARY SHIELDING, DEMOLISH EXISTING SUPERSTRUCTURE INCLUDING CROSSFRAMES AND STEEL GIRDERS
6. DEMOLISH EXISTING PIER.

(NOT SHOWN) 7. DEMOLISH EXISTING APPROACH SLABS, TOP OF ABUTMENT BACKWALLS, AND WINGWALL BARRIERS.

STAGE 1 CONSTRUCTION

1. CONSTRUCT PROPOSED APPROACH SLAB SHELF.
2. CONSTRUCT PROPOSED PIER FOOTING, COLUMN AND CAP.
3. INSTALL TWO GIRDER MODULAR UNITS.
4. INSTALL SINGLE PLATE GIRDER AND CONNECT WITH PREVIOUSLY INSTALLED TWO GIRDER.
5. CONSTRUCT DECK.
6. CONSTRUCT WINGWALL BARRIERS AND FILL SHEAR STUD BLOCKOUTS.
7. CONSTRUCT APPROACH SLAB.
8. INSTALL SNOW FENCE.
9. INSTALL GEOGRID, SEE SHEET 28.

ADDENDUM NO. 2

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

CONSTRUCTION STAGING & DEMOLITION DETAILS

SHEET 2 OF 3

CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

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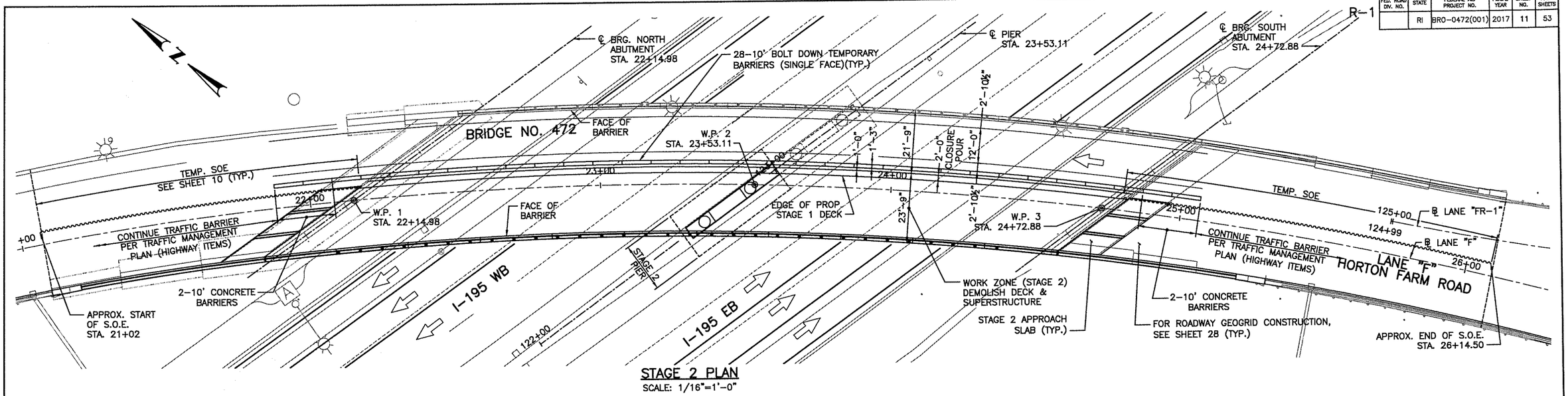
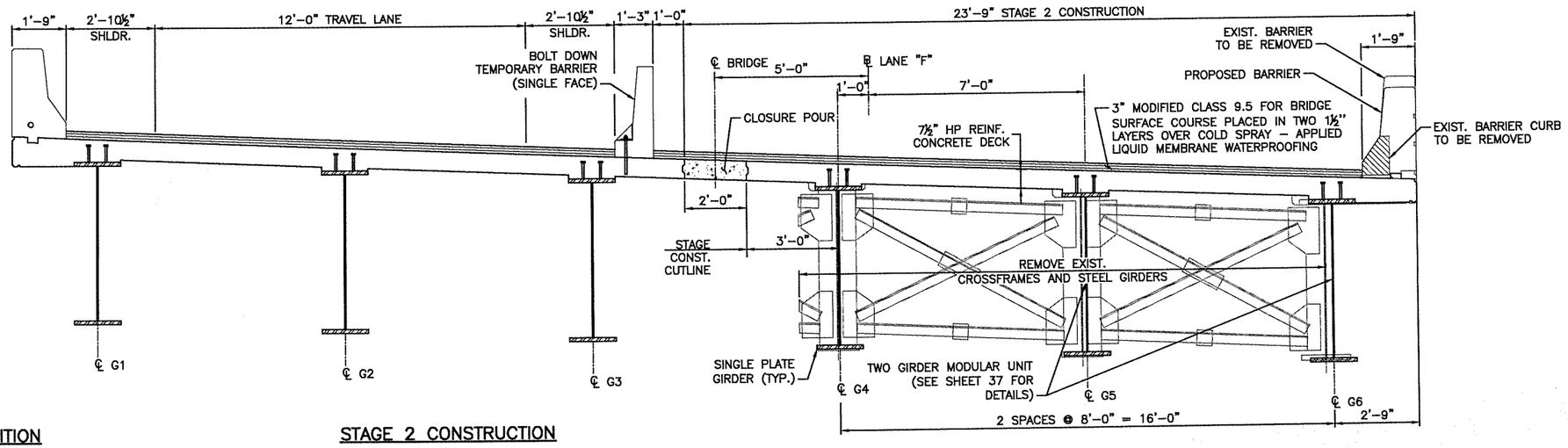
STAGING PLANS.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	11	53



STAGE 2 PLAN
SCALE: 1/16"=1'-0"



SECTION STAGE 2
(LOOKING UPSTATION)
SCALE: 1/2"=1'-0"

STAGE 2 DEMOLITION

1. INSTALL MAINTENANCE AND PROTECTION OF TRAFFIC ON I-195 EB AND WB AND ON RAMP THEN CONSTRUCT MEDIAN CROSS-OVER "STAGE 2", SEE HIGHWAY PLANS.
2. INSTALL TEMPORARY PROTECTIVE SHIELDING, SEE SHEET 13 FOR DETAILS.
3. DEMOLISH EXISTING HORTON FARM ROAD BRIDGE PARAPETS AND DECK AFTER INSTALLING TEMPORARY PROTECTIVE SHIELDING.
4. AFTER REMOVING TEMPORARY SHIELDING, DEMOLISH EXISTING SUPERSTRUCTURE INCLUDING CROSS FRAMES AND STEEL GIRDERS.
5. DEMOLISH EXISTING PIER CAPS, COLUMNS AND PIER FOOTING.

(NOT SHOWN) 6. DEMOLISH EXISTING APPROACH SLABS, TOP OF ABUTMENT BACKWALLS, AND WINGWALL BARRIERS.

STAGE 2 CONSTRUCTION

1. CONSTRUCT PROPOSED APPROACH SLAB SHELF.
2. CONSTRUCT PROPOSED PIER FOOTING, COLUMNS AND CAP.
3. INSTALL TWO GIRDER MODULAR UNITS.
4. INSTALL SINGLE GIRDER AND CONNECT WITH PREVIOUSLY INSTALLED TWO GIRDER UNIT.
5. INSTALL C.I.P. DECK.
6. CONSTRUCT CLOSURE POUR BETWEEN STAGE 1 AND STAGE 2 DECK.
7. CONSTRUCT WINGWALL BARRIERS.
8. CONSTRUCT END CLOSURE POURS AND PLACE APPROACH SLABS AND WEARING SURFACE.

(NOT SHOWN) 9. INSTALL GEOGRID, SEE SHEET 28.

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

CONSTRUCTION STAGING & DEMOLITION DETAILS
SHEET 3 OF 3

CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

ADDENDUM NO. 2

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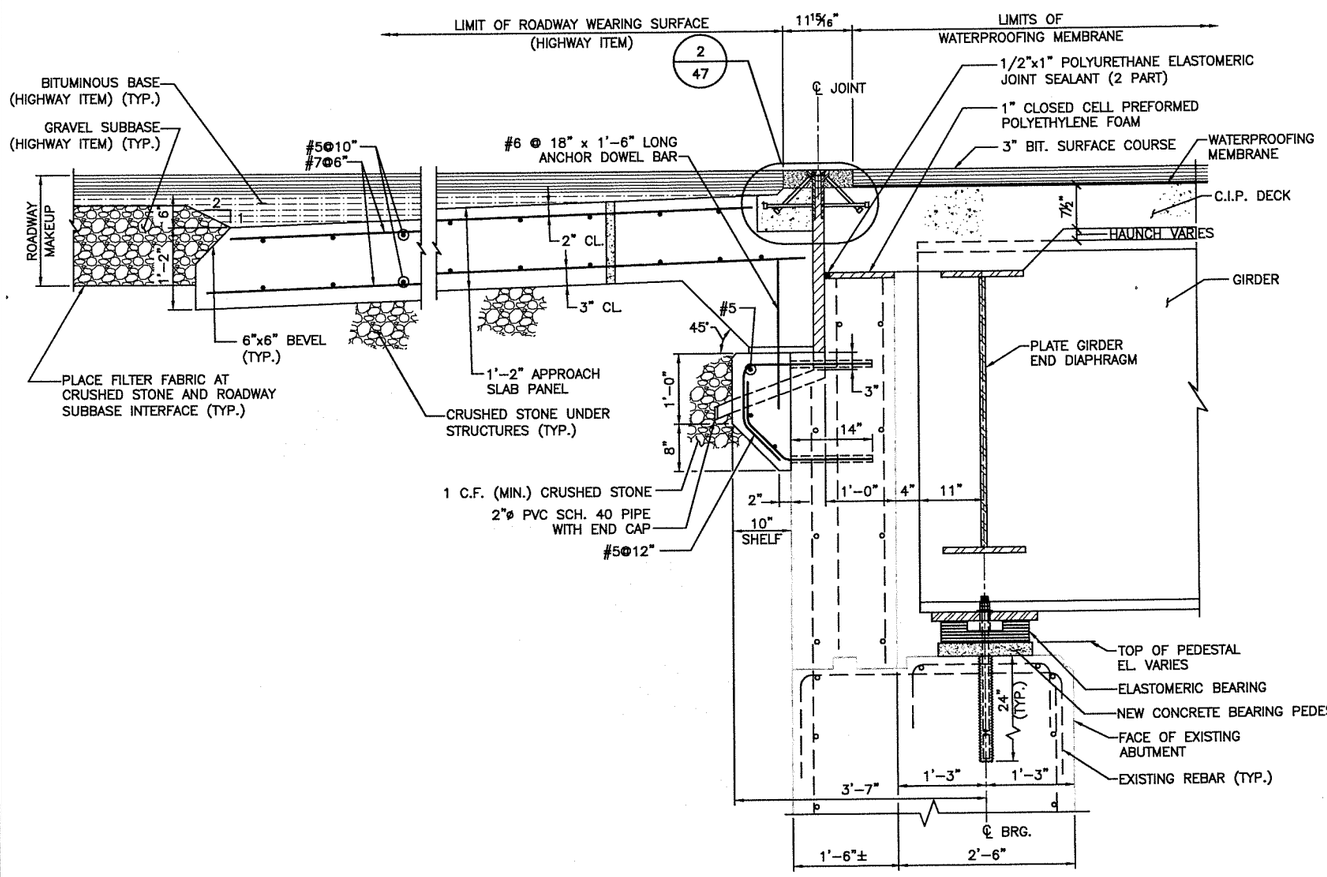
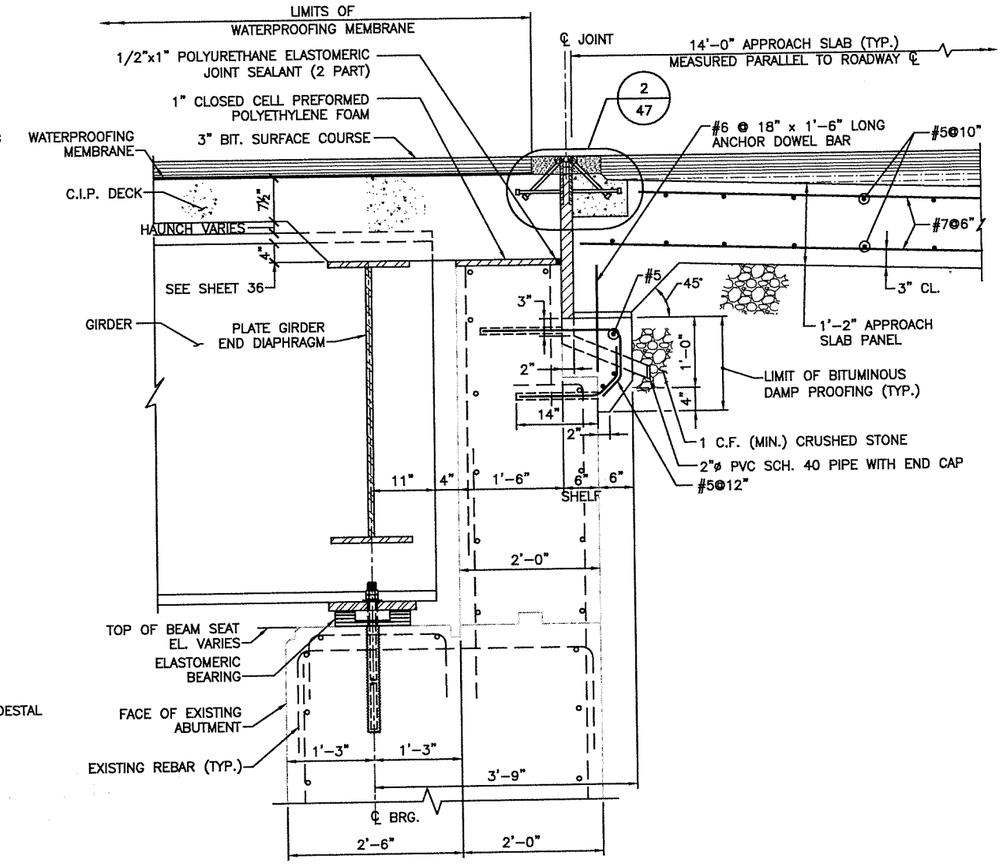
STAGING PLANS.DWG

R-1

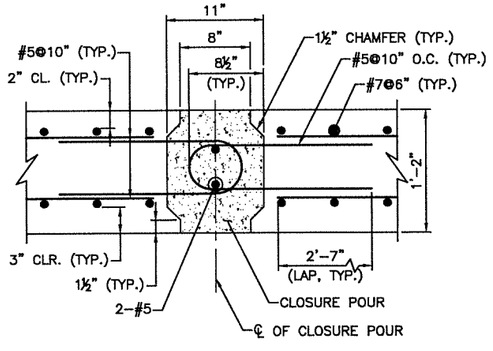
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	24	53



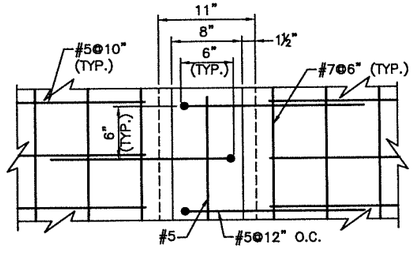
SECTION AT NORTH ABUTMENT (EXP.)
SCALE: 1"=1'-0"



SECTION AT SOUTH ABUTMENT (EXP.)
SCALE: 1"=1'-0"



APPROACH SLAB CLOSURE POUR
SCALE: 1½"=1'-0"



TYPICAL HORIZONTAL SECTION THRU APPROACH SLAB CLOSURE POUR
SCALE: 1½"=1'-0"

APPROACH SLAB INSTALLATION NOTES:

1. FOR JOINT WIDTHS SEE MISCELLANEOUS DETAILS SHEET.

NOTES:

1. FOR END DIAPHRAGM DETAILS, SEE SHEET 36.
2. FOR DECK DETAILS, SEE SHEET 40.

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

ADDENDUM NO. 2

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

ABUTMENT DETAILS

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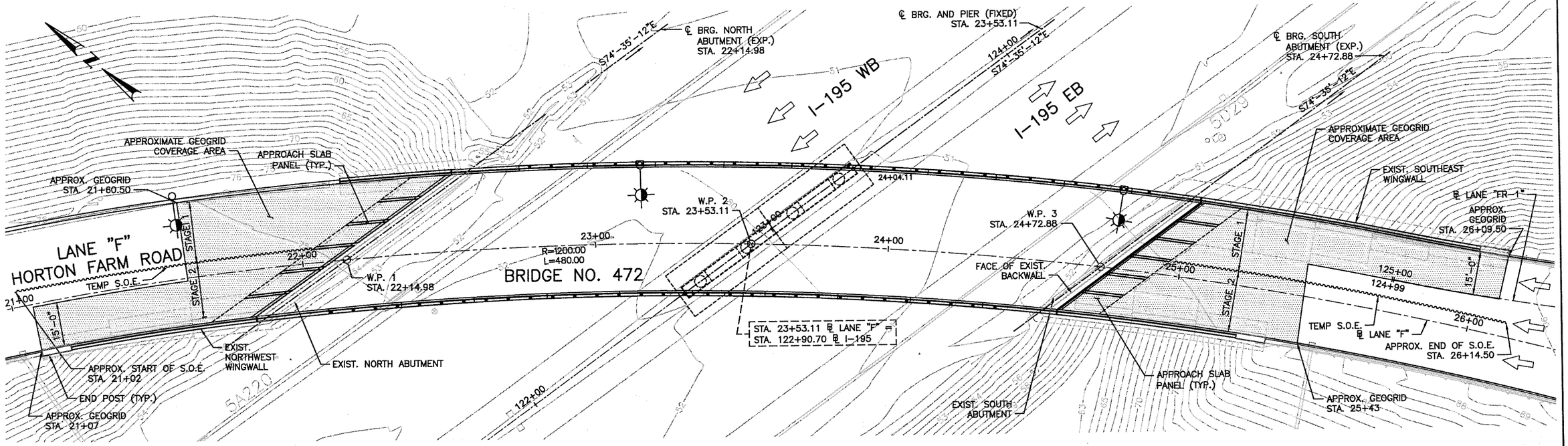
CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

ABUTMENT DETAILS.DWG

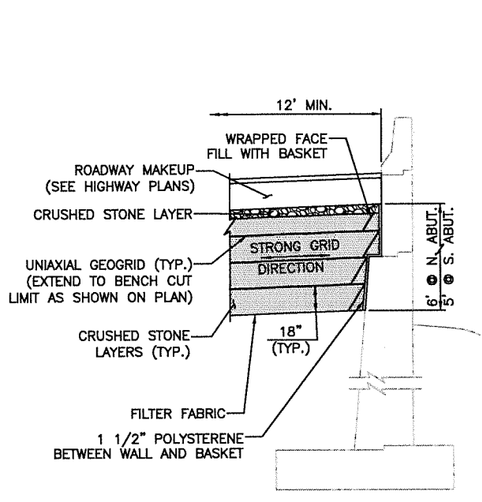
R-1

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	28	53

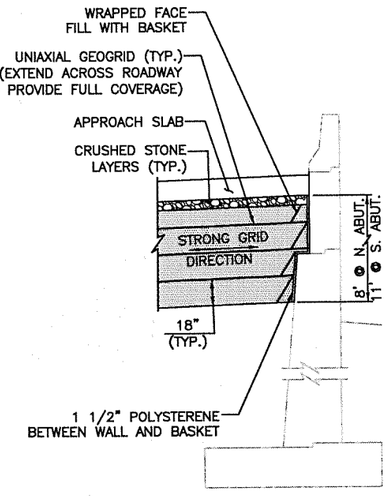


PROPOSED GEOGRID PLAN

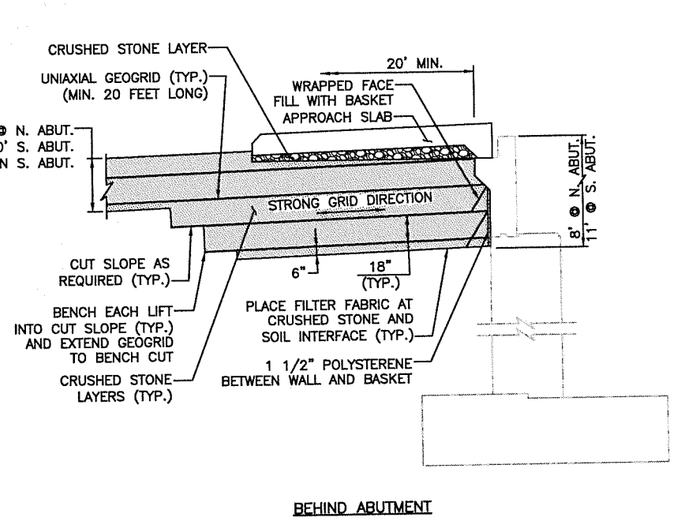
SCALE: 1/16"=1'-0"



AT END OF WINGWALL



AT APPROACH SLAB



BEHIND ABUTMENT

LIMIT OF STRUCTURAL FILL AND WRAPPED REINFORCED CRUSHED STONE

NOT TO SCALE:

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

GEOGRID PLAN AND DETAILS

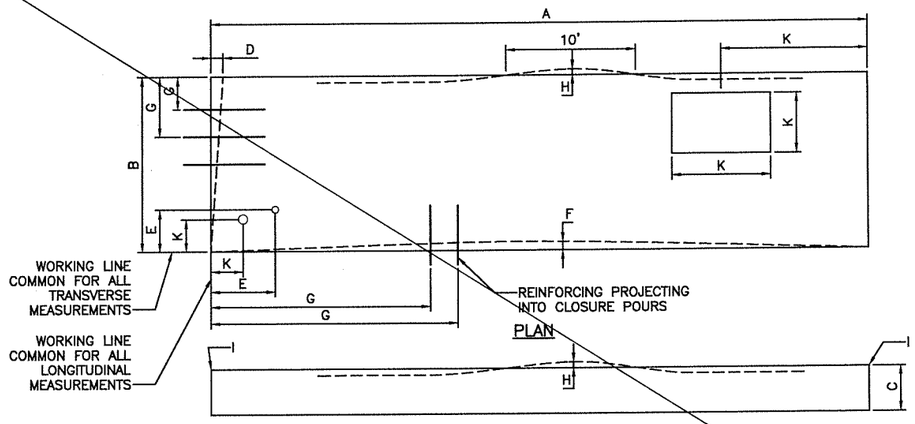
Louis Berger
166 VALLEY STREET, BUILDING 5
PROVIDENCE, RI 02909
TEL 401 521 5980
WWW.LOUISBERGER.COM

CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

GEOGRID PLAN AND DETAILS.DWG

R-1

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	32	53



ELEVATION

NOTE:
THESE TOLERANCES APPLY TO THE FOLLOWING ELEMENTS;
APPROACH SLABS.

APPROACH SLAB TOLERANCES

A	LENGTH	± ⅛"
B	WIDTH (OVERALL)	± ⅛"
C	DEPTH (OVERALL)	± ⅛"
D	VARIATION FROM SPECIFIED PLAN END SQUARENESS OR SKEW	± ¼"
E	LOCATION OF LEVELING BOLTS	± 1"
F	SWEEP OVER MEMBER LENGTH:	± 3/16"
G	LOCATION OF PROJECTING REINFORCING MEASURED FROM A COMMON REFERENCE POINT	± ¼"
H	LOCAL SMOOTHNESS OF ANY SURFACE	± 1/16" IN 10 FEET
I	ERECTION ELEVATION TOLERANCE (SURFACE APPROACH SLABS ONLY)	± 1/16"
K	LOCATION OF GROUT PORT BLOCKOUTS	± ⅛"

SHEET DELETED BY ADDENDUM NO. 2

ADDENDUM NO. 2

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

PRECAST TOLERANCE DETAILS

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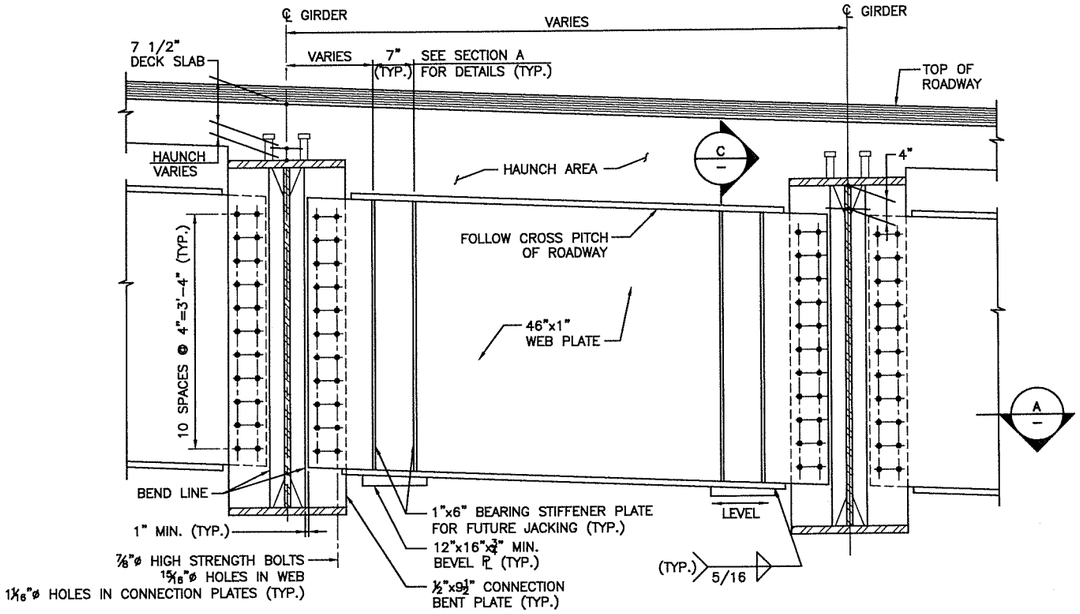
CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

PRECAST TOLERANCE DETAILS.DWG

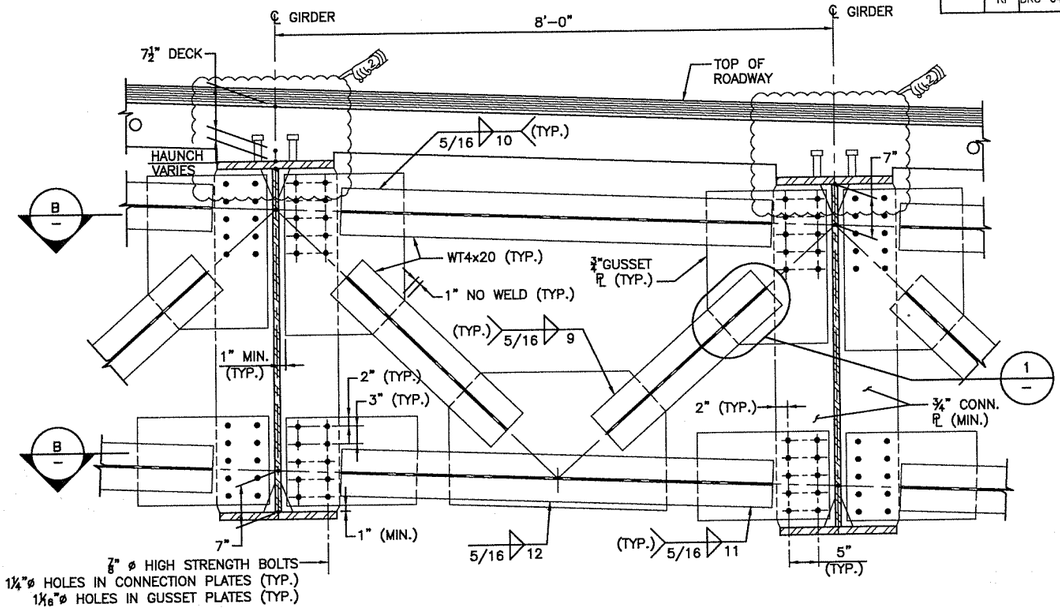
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	36	53



NOTE:
END BEARING STIFFENER NOT SHOWN FOR CLARITY.

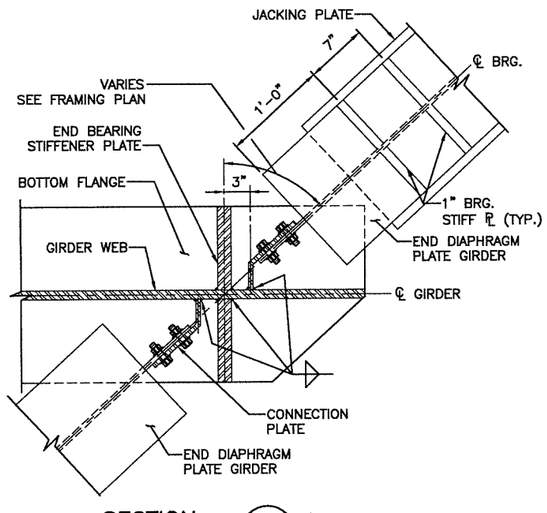
END DIAPHRAGM (D1)

SCALE: 1"=1'-0"



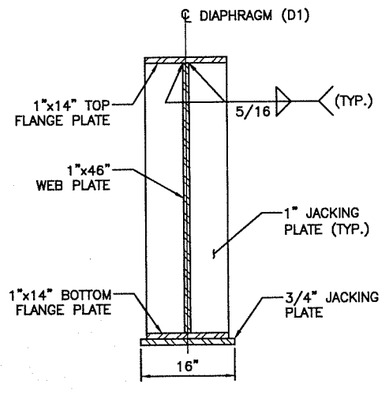
INTERMEDIATE "K" FRAME (D2)

SCALE: 1"=1'-0"



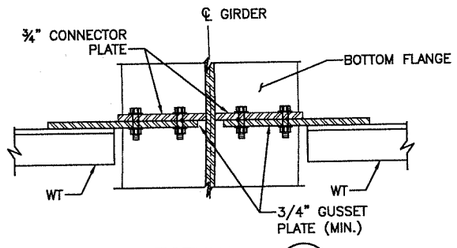
SECTION A

SCALE: 1 1/2"=1'-0"



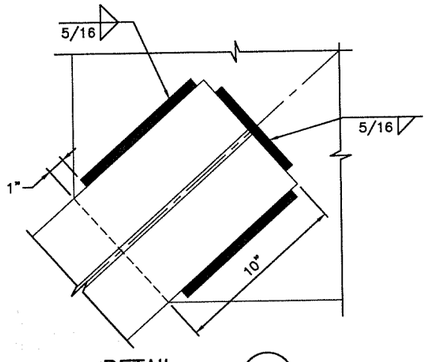
SECTION C

SCALE: 1"=1'-0"



SECTION B

SCALE: 1 1/2"=1'-0"



DETAIL 1

SCALE: 3"=1'-0"

END DIAPHRAGM NOTES:

1. THE END DIAPHRAGMS ARE TO FOLLOW THE CROSS PITCH OF THE ROADWAY.
2. LOCATIONS OF HOLES IN CONNECTION PLATES SHALL BE DETERMINED BY THE FABRICATOR.

INTERMEDIATE DIAPHRAGM NOTE:

1. DO NOT TIGHTEN BOLTS UNTIL AFTER DECK IS IN PLACE.

ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

DIAPHRAGM DETAILS

CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

DIAPHRAGM DETAILS.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	38	53

CONCRETE DECK DEFLECTIONS (INCHES)

GIRDER NO.	CL BRG. N. ABUT.	SPAN 1									CL BRG. PIER	SPAN 2									CL BRG. S. ABUT.
		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	
GIRDER G1	0.00	0.56	1.05	1.37	1.52	1.47	1.26	0.92	0.53	0.21	0.00	0.02	0.15	0.35	0.53	0.67	0.72	0.67	0.52	0.30	0.00
GIRDER G2	0.00	0.53	0.96	1.28	1.43	1.41	1.21	0.91	0.55	0.20	0.00	0.01	0.15	0.32	0.50	0.62	0.67	0.63	0.49	0.27	0.00
GIRDER G3	0.00	0.53	0.98	1.30	1.45	1.42	1.24	0.92	0.55	0.23	0.00	0.00	0.12	0.31	0.48	0.61	0.66	0.61	0.48	0.27	0.00
GIRDER G4	0.00	0.56	1.04	1.38	1.54	1.51	1.31	0.99	0.60	0.22	0.00	-0.01	0.12	0.28	0.47	0.59	0.65	0.61	0.48	0.27	0.00
GIRDER G5	0.00	0.61	1.13	1.50	1.68	1.66	1.45	1.09	0.68	0.28	0.00	-0.03	0.08	0.27	0.44	0.58	0.64	0.61	0.48	0.27	0.00
GIRDER G6	0.00	0.67	1.24	1.67	1.90	1.90	1.68	1.29	0.80	0.33	0.00	-0.06	0.04	0.21	0.41	0.56	0.63	0.61	0.48	0.27	0.00

SUPERIMPOSED DEAD LOAD DEFLECTIONS (INCHES)

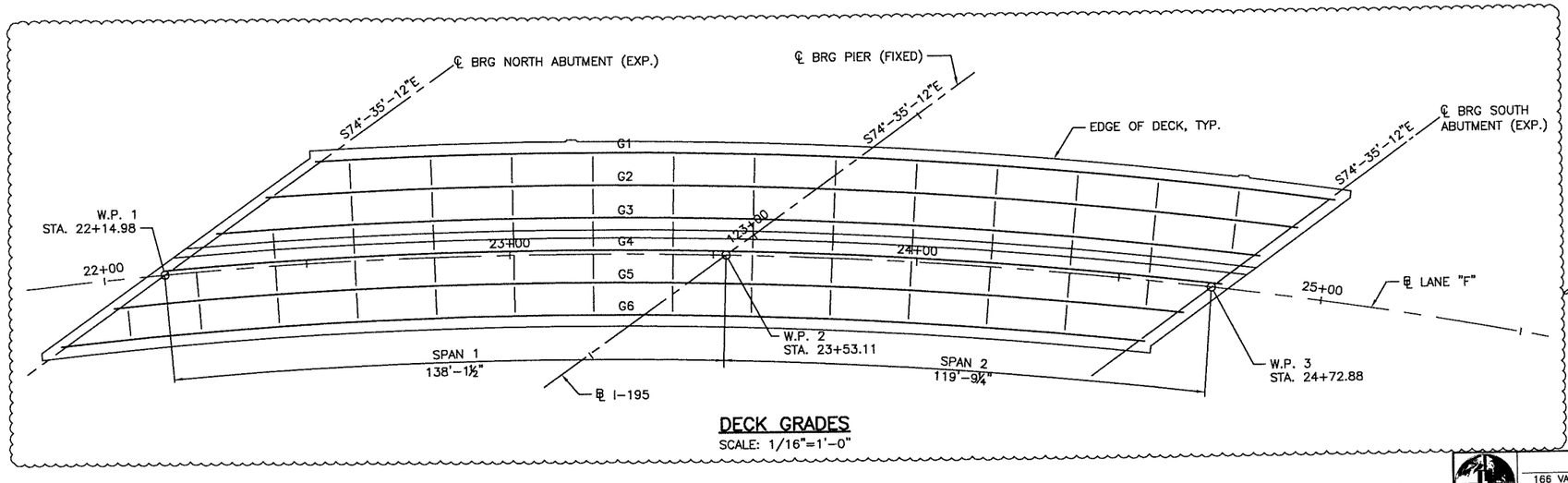
GIRDER NO.	CL BRG. N. ABUT.	SPAN 1									CL BRG. PIER	SPAN 2									CL BRG. S. ABUT.
		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	
GIRDER G1	0.00	0.23	0.44	0.57	0.64	0.62	0.53	0.39	0.22	0.09	0.00	0.01	0.06	0.14	0.22	0.28	0.30	0.28	0.22	0.13	0.00
GIRDER G2	0.00	0.18	0.33	0.45	0.51	0.51	0.44	0.34	0.21	0.08	0.00	-0.01	0.03	0.09	0.15	0.20	0.22	0.21	0.17	0.09	0.00
GIRDER G3	0.00	0.17	0.31	0.41	0.46	0.46	0.40	0.30	0.18	0.08	0.00	-0.01	0.02	0.07	0.12	0.16	0.18	0.17	0.14	0.08	0.00
GIRDER G4	0.00	0.18	0.33	0.44	0.49	0.47	0.41	0.30	0.18	0.07	0.00	-0.01	0.03	0.07	0.13	0.16	0.18	0.17	0.13	0.07	0.00
GIRDER G5	0.00	0.21	0.39	0.52	0.57	0.56	0.48	0.35	0.21	0.08	0.00	-0.01	0.03	0.09	0.15	0.19	0.21	0.20	0.15	0.09	0.00
GIRDER G6	0.00	0.25	0.47	0.62	0.70	0.70	0.62	0.47	0.29	0.12	0.00	-0.02	0.03	0.10	0.18	0.24	0.27	0.26	0.20	0.11	0.00

TOP OF FORM ELEVATIONS BEFORE PLACEMENT OF CONCRETE

GIRDER NO.	CL BRG. N. ABUT.	SPAN 1									CL BRG. PIER	SPAN 2									CL BRG. S. ABUT.
		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	
GIRDER G1	76.59	77.81	78.95	79.87	80.56	80.97	81.16	81.16	81.08	81.12	81.30	81.75	82.36	83.07	83.75	84.38	84.87	85.24	85.45	85.55	85.56
GIRDER G2	75.88	77.01	78.02	78.92	79.60	80.06	80.30	80.38	80.38	80.40	80.61	81.05	81.66	82.31	83.00	83.59	84.10	84.47	84.73	84.87	84.94
GIRDER G3	75.18	76.28	77.30	78.17	78.84	79.28	79.54	79.63	79.65	79.72	79.92	80.35	80.93	81.62	82.27	82.88	83.39	83.78	84.04	84.21	84.31
GIRDER G4	74.48	75.61	76.67	77.54	78.21	78.65	78.88	78.96	78.96	78.99	79.21	79.65	80.25	80.90	81.59	82.20	82.71	83.11	83.39	83.56	83.67
GIRDER G5	73.78	74.99	76.10	77.03	77.71	78.14	78.34	78.36	78.33	78.33	78.50	78.92	79.51	80.22	80.89	81.53	82.07	82.47	82.75	82.93	83.03
GIRDER G6	73.10	74.39	75.58	76.58	77.33	77.78	77.96	77.93	77.78	77.68	77.77	78.16	78.77	79.46	80.20	80.87	81.43	81.86	82.14	82.31	82.38

FINISH GRADE ELEVATIONS ALONG C.L. GIRDER

GIRDER NO.	CL BRG. N. ABUT.	SPAN 1									CL BRG. PIER	SPAN 2									CL BRG. S. ABUT.
		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	
GIRDER G1	77.47	77.89	78.34	78.80	79.28	79.76	80.24	80.73	81.21	81.69	82.18	82.60	83.03	83.45	83.88	84.30	84.73	85.16	85.58	86.01	86.43
GIRDER G2	76.76	77.18	77.61	78.06	78.53	79.02	79.52	80.01	80.50	81.00	81.49	81.92	82.35	82.79	83.22	83.65	84.08	84.51	84.95	85.38	85.81
GIRDER G3	76.05	76.46	76.89	77.33	77.80	78.28	78.78	79.28	79.79	80.29	80.79	81.23	81.67	82.11	82.55	82.99	83.43	83.86	84.30	84.74	85.18
GIRDER G4	75.35	75.75	76.17	76.60	77.06	77.54	78.03	78.55	79.06	79.57	80.09	80.53	80.98	81.43	81.87	82.32	82.76	83.21	83.65	84.10	84.55
GIRDER G5	74.66	75.05	75.45	75.88	76.33	76.80	77.29	77.80	78.32	78.85	79.37	79.83	80.28	80.73	81.18	81.64	82.09	82.54	83.00	83.45	83.90
GIRDER G6	73.97	74.35	74.74	75.16	75.60	76.06	76.54	77.05	77.57	78.11	78.65	79.11	79.57	80.03	80.49	80.95	81.41	81.87	82.33	82.79	83.26

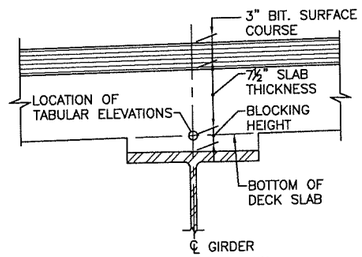


DECK GRADES

SCALE: 1/16"=1'-0"

DECK GRADE NOTES:

1. ELEVATIONS OF GIRDERS ARE GIVEN AT THE CENTERLINE OF BEARING OF EACH GIRDER AND AT THE TENTH POINTS OF EACH SPAN.
2. FINISH GRADE ELEVATIONS SHOWN IN THE TABLE ARE THE PROPOSED TOP OF DECK ELEVATIONS AFTER ALL DEAD LOADS HAVE TAKEN PLACE.
3. TOP OF GIRDER ELEVATIONS SHOWN IN THE TABLE ARE THE THEORETICAL ELEVATIONS AT THE TOP OF GIRDER PRIOR TO PLACING OF CONCRETE.
4. BEFORE THE FORMS ARE BUILT, ELEVATIONS ON THE TOPS OF GIRDER SHALL BE OBTAINED AT THE POINTS INDICATED IN THE TABLE. THE DIFFERENCE BETWEEN THE ELEVATIONS OBTAINED AND THE TOP OF FORM ELEVATIONS SHOWN IN THE TABLE ARE THE ACTUAL BLOCKING DISTANCES FROM THE TOP OF GIRDER TO THE BOTTOM OF SLAB AT THE CENTERLINE OF GIRDER. IF THE ACTUAL ELEVATIONS OBTAINED VARY BY MORE THAN 1", THE ENGINEER SHALL BE CONTACTED, AND ANY ADJUSTMENTS APPROVED, PRIOR TO SETTING OF THE FORMS.



HAUNCH DETAIL

SCALE: 1 1/2"=1'-0"

NOTE:

AFTER THE GIRDERS ARE ERECTED, BUT BEFORE THE DECK IS PLACED, ELEVATIONS ON THE TOP OF FLANGE OF THE GIRDERS ARE TO BE OBTAINED AT THE POINTS INDICATED IN THE ELEVATION TABLE. THE DIFFERENCE BETWEEN THE ELEVATIONS OBTAINED AND THOSE SHOWN IN THE TABLE GIVES THE ACTUAL BLOCKING DISTANCE FROM THE TOP OF FLANGE TO THE BOTTOM OF SLAB AT CENTER LINE OF WEB.

ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

DECK GRADES

Louis Berger
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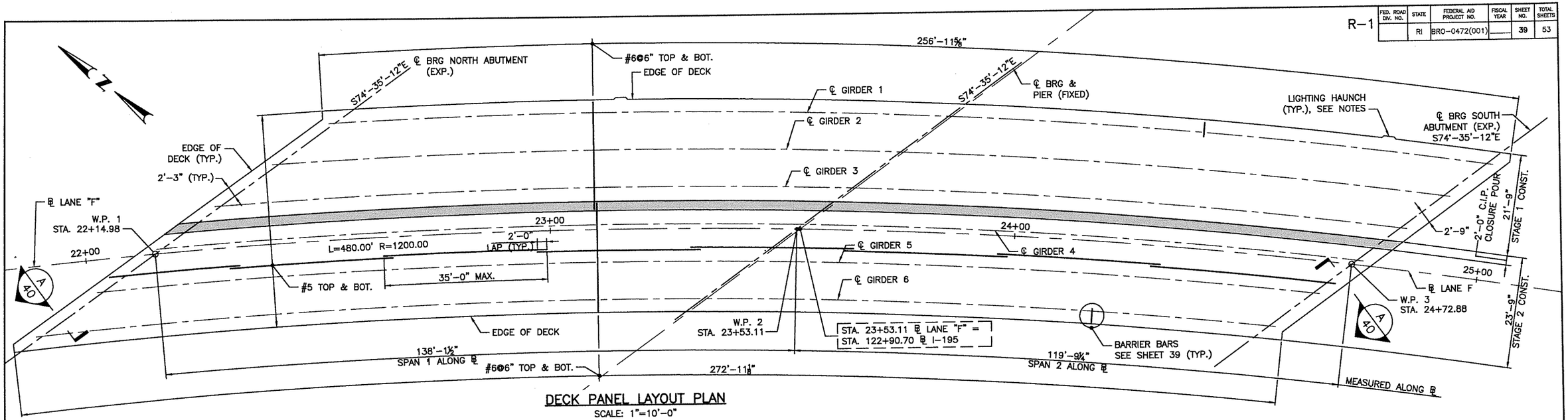
WWW.LOUISBERGER.COM

CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

DECK GRADES.DWG

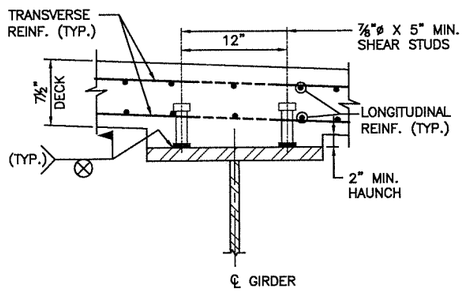
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)		39	53

R-1



DECK PANEL LAYOUT PLAN

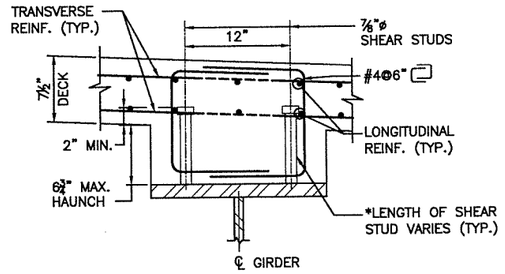
SCALE: 1"=10'-0"



SHEAR CONNECTOR DETAIL

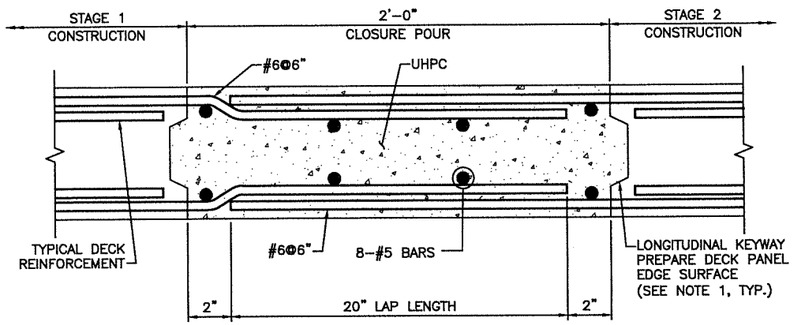
FOR HAUNCHES ≤ 4"

SCALE: 1 1/2"=1'-0"



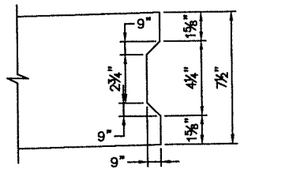
SHEAR CONNECTOR FOR HAUNCH > 4"

SCALE: 1 1/2"=1'-0"



TYPICAL LONGITUDINAL CLOSURE POUR DETAIL

SCALE: 3"=1'-0"



LONGITUDINAL KEYWAY DETAIL

SCALE: 3"=1'-0"

CLOSURE POUR NOTE:

1. ROUGHENED TO PROVIDE AN EXPOSED AGGREGATE SURFACE. PRECAST SURFACE SHALL BE WETTED TO A SATURATED SURFACE DRY CONDITION IMMEDIATELY PRIOR TO UHPC PLACEMENT.

NOTES:

1. FOR ADDITIONAL PLAN REINFORCING DETAILS SEE SHEETS 40 AND 43.
2. SPACE HAUNCH REINFORCING BETWEEN GIRDERS OR BEAMS AND TIE TO BOTTOM REINFORCING OF DECK.
3. TRANSVERSE REINFORCEMENT LISTED AS STRAIGHT SHALL BE SHOP OR FIELD BENT AS REQUIRED TO PROVIDE MINIMUM COVER.
4. DECK SLAB REINFORCING COVER SHALL HAVE TOLERANCE OF (+)1/4", (−)0" FOR TOP BARS AND (+)1/8", (−)0" FOR BOTTOM BARS.
5. CHAIRS SHALL BE SPACED TO PROVIDE THE REQUIRED CONCRETE COVER WITH THE SPECIFIED TOLERANCES. MAXIMUM SPACING OF CHAIRS SHALL BE 5'-0" ON CENTER, PREFERABLY LOCATED AT THE INTERSECTION OF REINFORCEMENT. CHAIRS SHALL HAVE APPROVED CORROSION PROTECTION (i.e. EPOXY COATED, PLASTIC COATED, ETC.)
6. DECK CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIAL PROVISIONS.
7. SHOULD ADDITIONAL HAUNCH REINFORCING OR ADJUSTMENTS TO THE SHEAR STUD LENGTHS BE NECESSARY DUE TO DEVIATIONS IN THE AS BUILT CAMBER OF THE SUPERSTRUCTURE STEEL IT SHALL BE CONSIDERED AS INCIDENTAL TO THE APPROPRIATE BID ITEMS FOR REINFORCING STEEL AND/OR SHEAR STUDS. THE ADJUSTED LENGTHS OF SHEAR STUDS SHALL BE DETERMINED BY THE ENGINEER. THE REQUIREMENTS FOR REINFORCING HAUNCHES GREATER THAN 4" HIGH AS SHOWN ON THIS SHEET.
8. FOR LOCATION OF LIGHTS, SEE GENERAL PLAN SHEET 7. FOR LIGHT SUPPORT DETAILS, SEE SHEET 49.

SHEAR STUD NOTES:

1. HAUNCH MUST BE REINFORCED WHERE DEPTH EXCEEDS 4". AT THESE LOCATIONS, USE THE REINFORCING LAYOUT SHOWN.
2. * INDICATES LENGTH OF SHEAR STUD VARIES. EXTEND 3" MIN. TO 5½" MAX. INTO DECK.
3. METHOD OF FORMING HAUNCH TO BE DETERMINED BY THE CONTRACTOR. REMOVE FORMS AFTER 24 HOURS.

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

DECK PLAN

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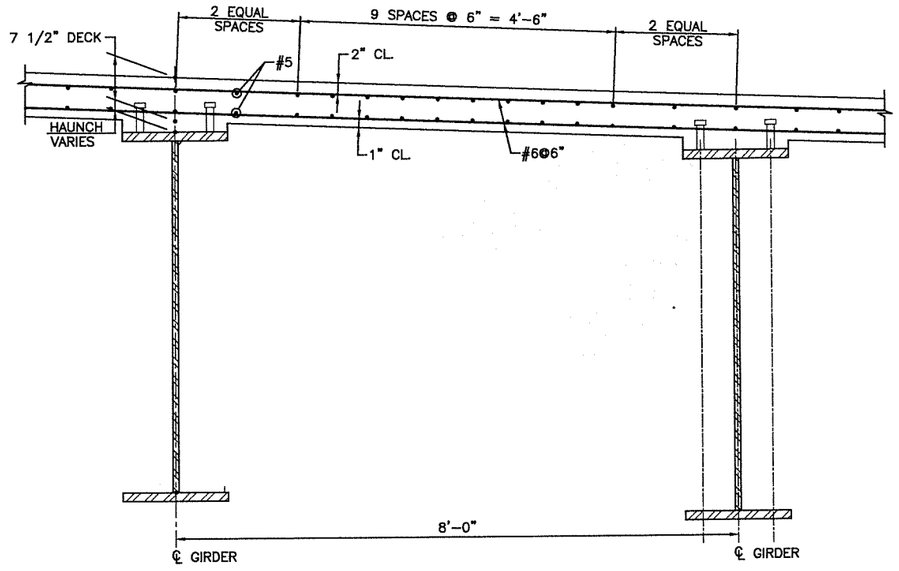
CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

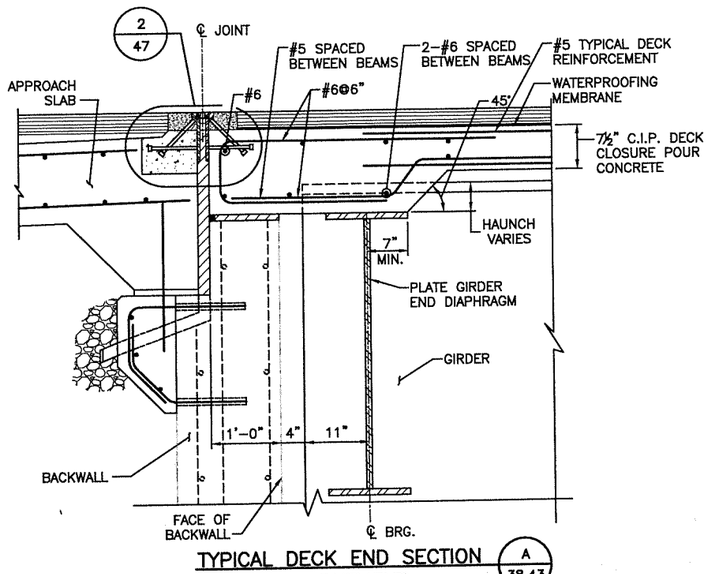
DECK PANEL LAYOUT PLAN.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	40	53



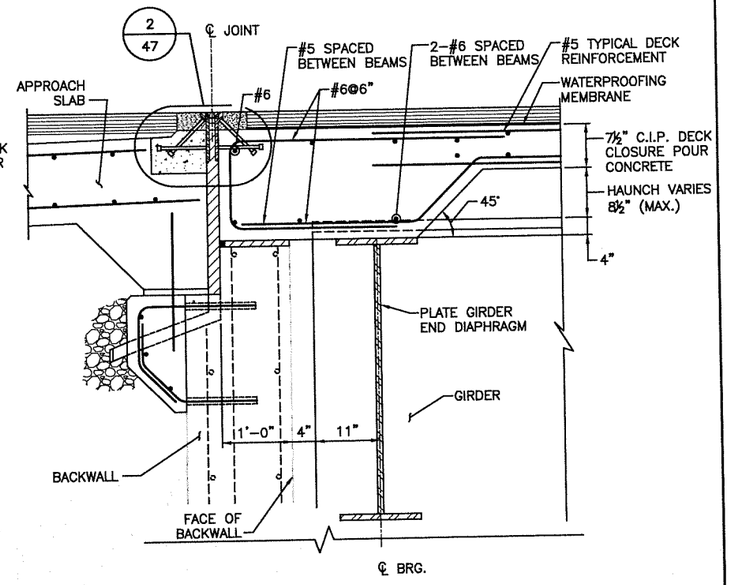
TYPICAL DECK PANEL REINFORCING

SCALE: 1"=1'-0"



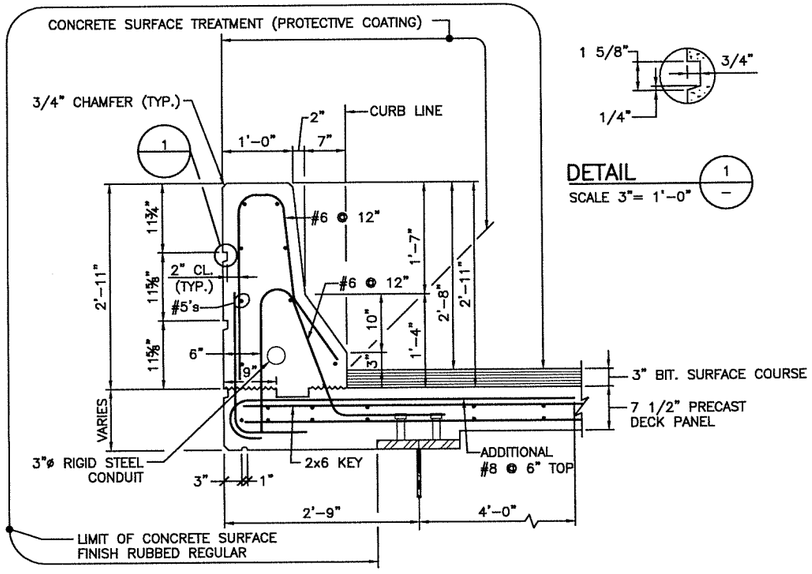
TYPICAL DECK END SECTION AT ABUTMENT (A 38,43)

SCALE: 1"=1'-0"



DECK END SECTION AT ABUTMENT-MAXIMUM HAUNCH

SCALE: 1"=1'-0"



DETAIL 1/—

SCALE 3"= 1'-0"

SECTION THRU SAFETY BARRIER

SCALE: 1"=1'-0"

NOTE:

PROTECTIVE COATING FOR CONCRETE SURFACE TREATMENT SHALL BE A DEPARTMENT APPROVED FILM-FORMER WITH A WHITE TOP COAT.

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

DECK REINFORCEMENT DETAILS

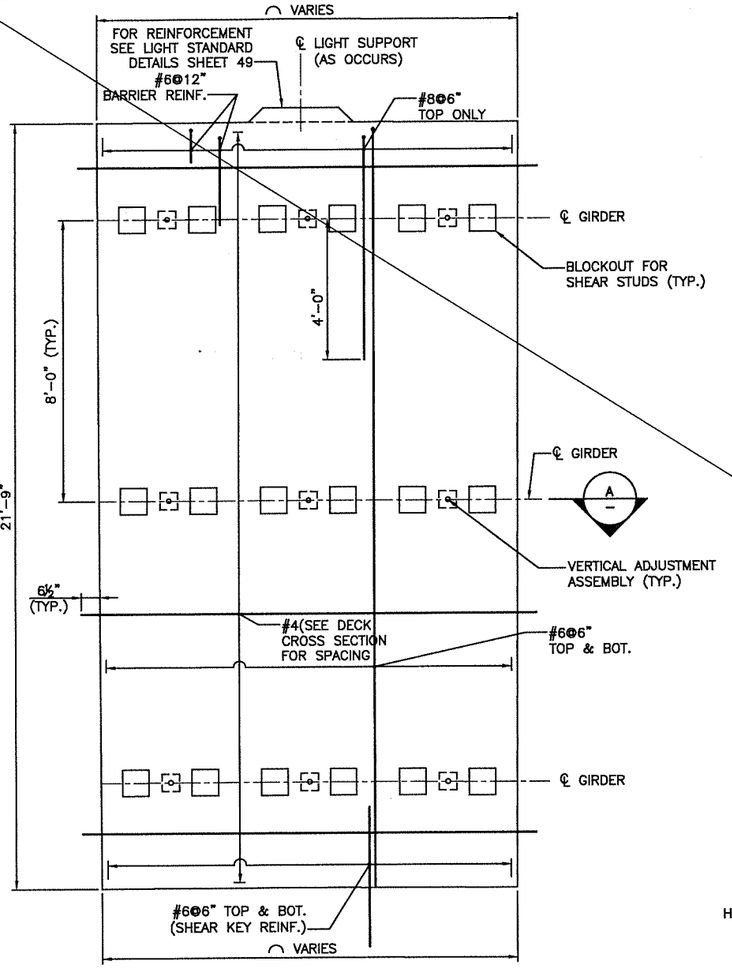
ADDENDUM NO. 2

Louis Berger
166 VALLEY STREET, BUILDING 5
PROVIDENCE, RI 02909
TEL 401 521 5980
WWW.LOUISBERGER.COM

CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

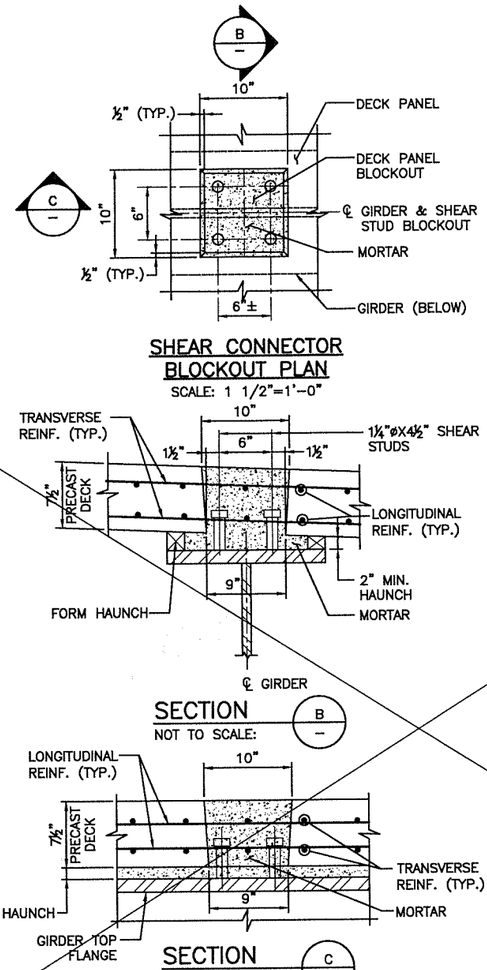
DECK DETAILS.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	41	53



TYPICAL STANDARD DECK PANEL REINFORCEMENT PLAN

SCALE: 1/2"=1'-0"

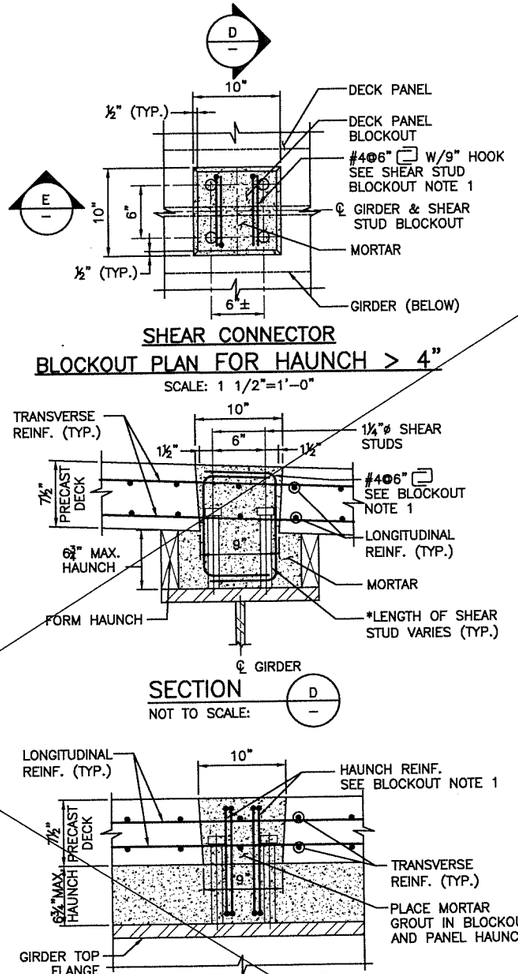


SHEAR CONNECTOR BLOCKOUT PLAN

SCALE: 1 1/2"=1'-0"

SECTION B NOT TO SCALE:

SECTION C NOT TO SCALE:

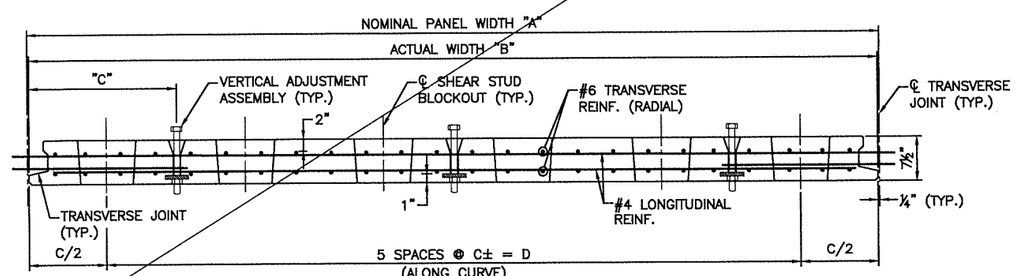


SHEAR CONNECTOR BLOCKOUT PLAN FOR HAUNCH > 4"

SCALE: 1 1/2"=1'-0"

SECTION D NOT TO SCALE:

SECTION E NOT TO SCALE:



SECTION A SCALE 1"= 1'-0"

CONSTRUCTION SEQUENCE NOTES:

1. ADJUST PRECAST PANELS TO GRADE USING VERTICAL ADJUSTMENT ASSEMBLIES. TORQUE ALL LEVELING BOLTS TO WITHIN 15% OF EACH OTHER
2. PLACE MORTAR IN TRANSVERSE JOINTS ONLY.
3. GROUT SHEAR STUD BLOCKOUTS AND HAUNCH WITH MORTAR.
4. REMOVE LEVELING BOLTS AND GROUT BOLT RECESS WITH MORTAR.
5. PLACE CLOSURE POURS.

PRECAST PANEL NOTES:

1. FOR PRECAST CONCRETE DECK PANELS SEE SHEET 39.
2. LONGITUDINAL REINFORCEMENT SHALL BE PLACED PARALLEL TO THE ℄ OF CONSTRUCTION. TRANSVERSE (PRIMARY) REINFORCEMENT SHALL BE PLACED PERPENDICULAR TO ℄ OF CONSTRUCTION.
3. ALL REINFORCEMENT SHALL BE GALVANIZED.
4. THE FINISHED SURFACE OF PRECAST CONCRETE DECK PANELS SHALL BE SMOOTH AND WITHOUT ANY PROJECTIONS THAT COULD PUNCTURE THE MEMBRANE WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER.

SHEAR STUD BLOCKOUT NOTES:

1. HAUNCH MUST BE REINFORCED WHERE DEPTH EXCEEDS 4". AT THESE LOCATIONS, USE THE REINFORCING LAYOUT SHOWN. NO REINFORCING IS REQUIRED BETWEEN BLOCKOUTS.
2. * INDICATES LENGTH OF SHEAR STUD VARIES. EXTEND 2" MIN. TO 5½" MAX. INTO DECK.
3. METHOD OF FORMING HAUNCH TO BE DETERMINED BY THE CONTRACTOR. REMOVE FORMS AFTER 24 HOURS.

	DECK PANEL CROSS SECTION DIMENSIONS	
LOCATION	A	B
EAST STRIP - MAX.	12'-0"	11'-11 1/2"
EAST STRIP - MIN.	11'-9 7/16"	11'-8 15/16"
WEST STRIP - MAX.	11'-9 3/16"	11'-8 11/16"
WEST STRIP - MIN.	11'-6 5/8"	11'-6 1/8"

	DECK PANEL CROSS SECTION DIMENSIONS	
GIRDER NO.	C	D
GIRDER G1	1'-11 15/16"	9'-11 3/4"
GIRDER G2	1'-11 13/16"	9'-10 15/16"
GIRDER G3	1'-11 5/8"	9'-10 3/16"
GIRDER G4	1'-11 1/2"	9'-9 3/8"
GIRDER G5	1'-11 5/16"	9'-8 5/8"
GIRDER G6	1'-11 3/16"	9'-7 13/16"

SHEET DELETED BY ADDENDUM NO. 2

ADDENDUM NO. 2

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REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

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ABC BRIDGE NO. 472 OVER I-195
SUPERSTRUCTURE REPLACEMENT
EAST PROVIDENCE, RHODE ISLAND

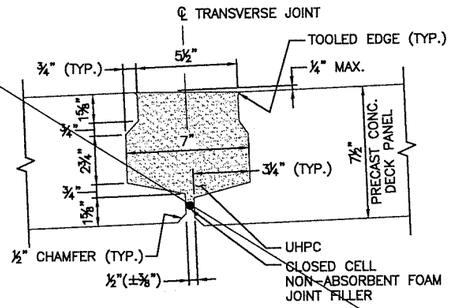
DECK PANEL DETAILS

SHEET 1 OF 2

CHECKED BY PNF DATE 9/22/17 SCALE AS NOTED

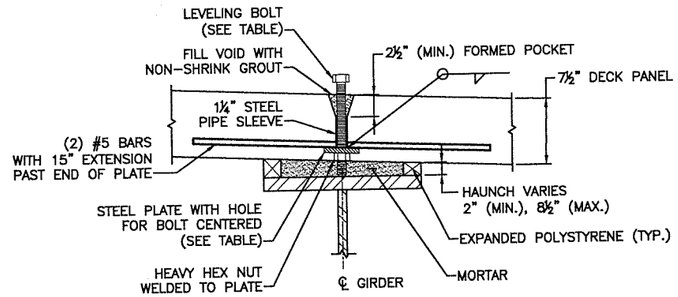
DECK PANEL DETAILS.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)	2017	42	53



TYPICAL TRANSVERSE CLOSURE POUR DETAIL

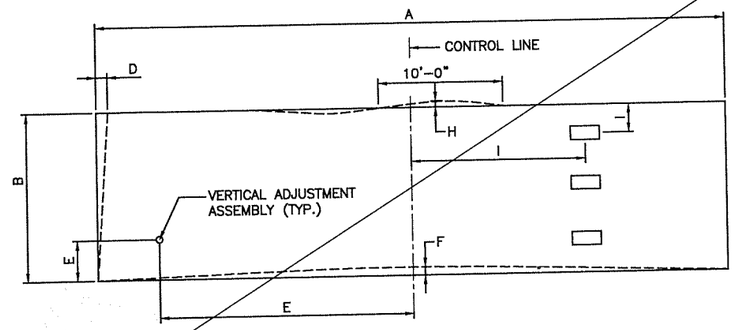
DIMENSIONS
SCALE: 3"=1'-0"



VERTICAL ADJUSTMENT DETAIL

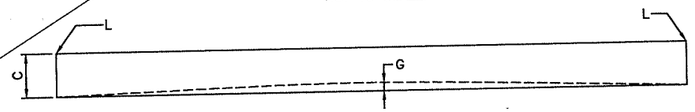
SCALE: 1 1/2"=1'-0"

VERTICAL ADJUSTMENT SCHEDULE		
SERVICE LOAD	BOLT DIA.	STEEL PLATE WITH HOLE FOR BOLT CENTERED
10 K	1"	4"x4"x⅜"
20 K	1¼"	4"x4"x⅞"



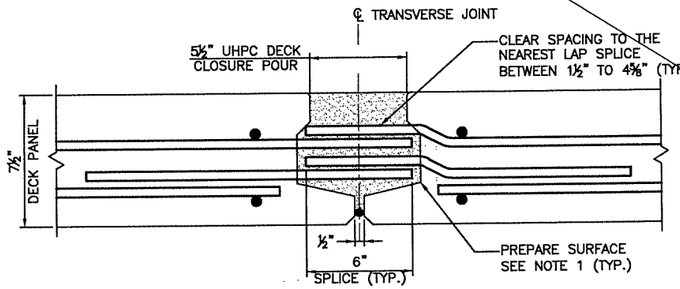
PLAN

NOT TO SCALE:



ELEVATION

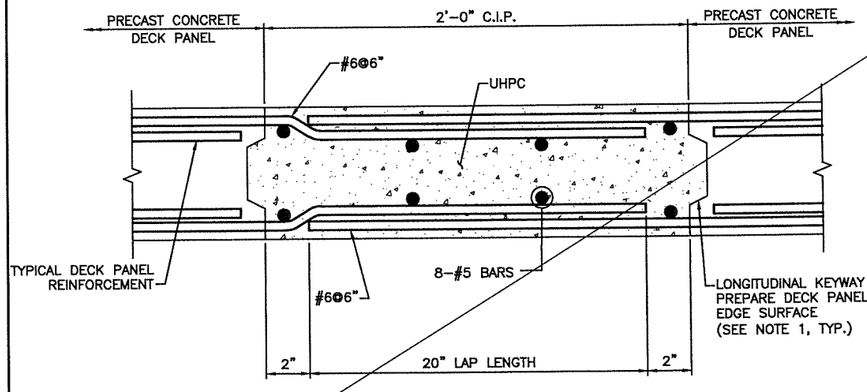
NOT TO SCALE:



TYPICAL TRANSVERSE CLOSURE POUR DETAIL

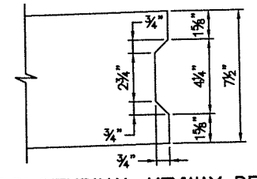
REINFORCEMENT
SCALE: 3"=1'-0"

DECK PANEL TOLERANCES		
A	LENGTH (OVERALL)	±½"
B	WIDTH (OVERALL)	±½"
C	DEPTH (OVERALL)	±½"
D	VARIATION FROM SPECIFIED PLAN END SQUARENESS OR SKEW	±½"
E	LOCATION OF VERTICAL ADJUSTMENT ASSEMBLY	1"
F	SWEEP OVER MEMBER LENGTH:	±⅜"
G	CAMBER VARIATION FROM DESIGN CAMBER	±½"
H	LOCAL SMOOTHNESS OF ANY SURFACE	±¼" IN 10'
I	LOCATION OF BLOCKOUT FOR SHEAR CONNECTORS	±½"
L	DEVIATION FROM SPECIFIED ELEVATION	±⅛"



TYPICAL LONGITUDINAL CLOSURE POUR DETAIL

SCALE: 3"=1'-0"



LONGITUDINAL KEYWAY DETAIL

SCALE: 3"=1'-0"

CLOSURE POUR NOTE:

1. ROUGHENED TO PROVIDE AN EXPOSED AGGREGATE SURFACE. PRECAST SURFACE SHALL BE WETTED TO A SATURATED SURFACE DRY CONDITION IMMEDIATELY PRIOR TO UHPC PLACEMENT.

SHEET DELETED BY ADDENDUM NO. 2

ADDENDUM NO. 2

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

IMPROVEMENTS TO I-195
ABC BRIDGE NO. 472 OVER I-195
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EAST PROVIDENCE, RHODE ISLAND

DECK PANEL DETAILS
SHEET 2 OF 2

Louis Berger
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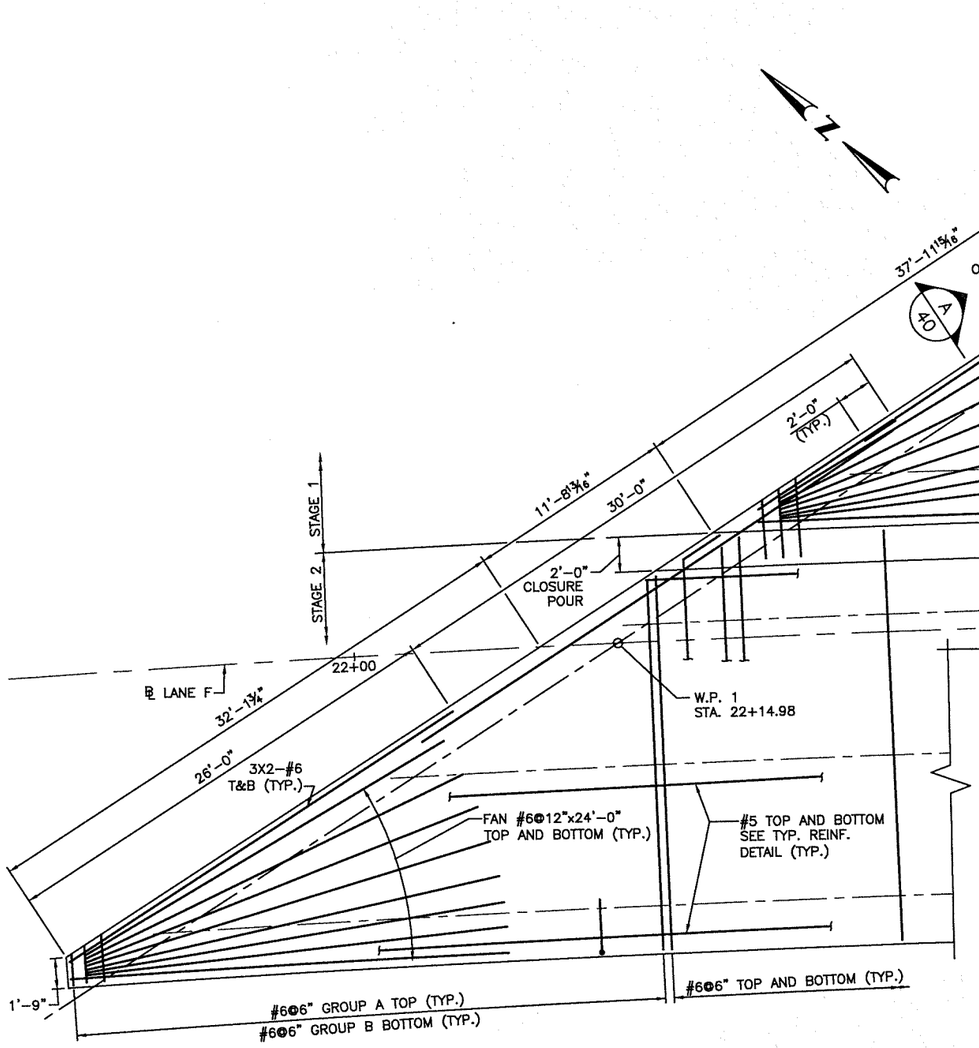
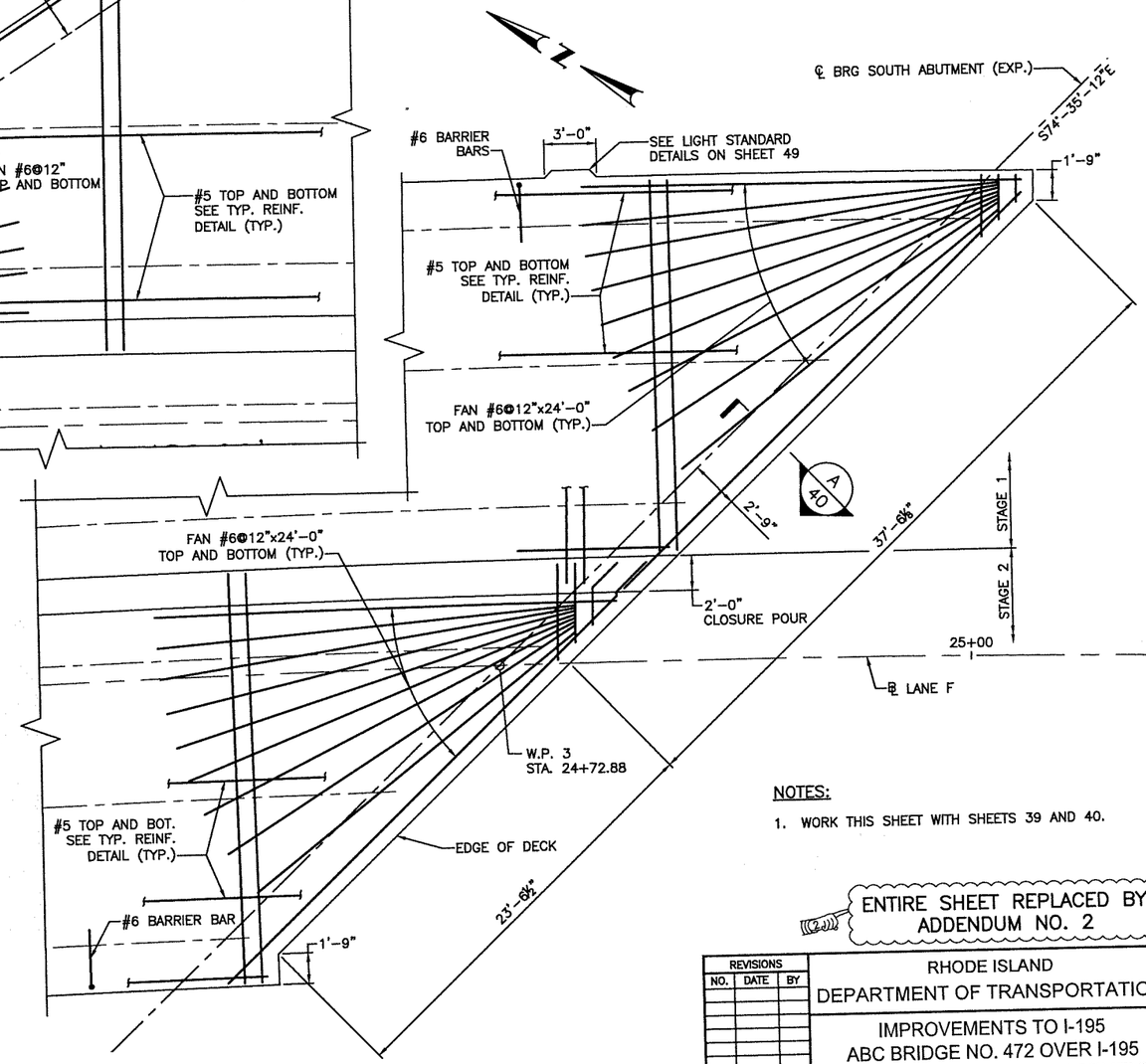
DECK PANEL DETAILS.DWG

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	BRO-0472(001)		43	53



NORTH ABUTMENT



SOUTH ABUTMENT

REINFORCING DETAILS AT SKEWED ENDS

SCALE: 1/4"=1'-0"

NOTES:

1. WORK THIS SHEET WITH SHEETS 39 AND 40.

ENTIRE SHEET REPLACED BY ADDENDUM NO. 2

ADDENDUM NO. 2

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REINFORCING DETAILS

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CLOSURE POUR REINF PLAN.DWG