# STATE OF RHODE ISLAND AND PROVIDENCE PLANTATION <br> DEPARTMENT OF ADMINISTRATION <br> DIVISION OF PURCHASES BID NO. 7598561 

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
RHODE ISLAND CONTRACT NO.2019-CB-012
FEDERAL-AID PROJECT NO. FAP Nos: 405-421-946
Immediate Needs Steel Repairs Contract 2

Statewide<br>CITY/TOWN OF Newport, Westerly, Cranston COUNTY OF NEWPORT, WASHINGTON, PROVIDENCE

## NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 1 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. General Provisions - Contract Specific

1. CS-1

Delete page CS-1 in its entirety and replace it with revised page CS-1(R-1) attached to this Addendum No. 1. References to the City of Warwick and Kent County have been added to the Brief Scope of Work. Reference to Volume 2 of 2 has been added. Additional Information Documents wording changed to "... for all 7 bridges."
2. CS-5

Delete page CS-5 in its entirety and replace it with revised page CS-5(R-1) attached to this Addendum No. 1. Bridge Nos. 629 \& 725 have been added to the Shop Drawing List.

## B. Specifications - Job Specific

1. JS-4

Delete page JS-4 in its entirety and replace it with revised page JS-4(R-1) attached to this Addendum No. 1. Bridge Nos. 629 and 725 have been added to the Interim Completion Date.

## C. Distribution of Quantities

1. Index Pages

Delete page Index 1 in its entirety and replace with revised page Index $1(\mathrm{R}-1)$ attached to this Addendum No. 1. Items with changes are indicated in bold type.
2. Page 1

Delete page 1 in its entirety and replace it with revised page $1(\mathrm{R}-1)$ and page la. The quantities for Item Nos. 2 and 3 have changed.

## D. Drawings/Plans - Change/Addition

1. Sheet No. 1-Cover Sheet

Delete Sheet No. 1 in its entirety and replace it with revised Sheet No. 1 (R-1) attached to this Addendum No. 1. References to Bridge Nos. 629 and 725 have been added. The Index of Drawings has been revised. References to the City of Warwick and Kent County have been added.
2. Sheet No. 6 - Bridge General Notes

Revise Sheet No. 6 as shown on Sketch No. 1(R-1) attached to this Addendum No. 1. Steel Repair Note 14 has been added.
3. Sheet No. 12A - West Natick Road (SB) Bridge No. 725 - Bridge General Plan \& Sections

Add Sheet No. 12A attached to this Addendum No. 1. Bridge No. 725 has been added to the Contract.
4. Sheet No. 12B - West Natick Road (SB) Bridge No. 725 - Steel Repair Details

Add Sheet No. 12B attached to this Addendum No. 1. Bridge No. 725 has been added to the Contract.
5. Sheet No. 14 - Old Hopkinton Road Bridge No. 855 - Steel Repair Details - 1

Revise Sheet No. 14 as shown on Sketch No. 2 (R-1) attached to this Addendum No. 1. Additional repair areas have been added and repair lengths have changed.
6. Volume 2 of 2

Add Volume 2 of 2 attached to this Addendum No. 1. Pawtuxet River North Bridge No. 629 has been added to the Contract.

## E. Additional Information Documents

1. Original Construction and Rehabilitation Plans

Original Construction and Rehabilitation Plans for Bridge Nos. 629 and 725 are attached to this Addendum No. 1. These documents are included for informational purposes only. The Contractor shall be responsible for verifying the information shown in these documents.

## F. Other Contract Changes

1. 2019-CB-012

Estimate Description Updated To "Rhode Island Contract No. 2019-CB-012, Federal Aid Project No. 405-421-946, is for Immediate Needs Steel Repairs Contract 2, in the Cities of Cranston, Newport and Warwick and in the Towns of Burrillville and Westerly, Counties of Kent, Newport, Providence and Washington, Rhode Island. The basic work under the contract shall include, but not necessarily be limited to steel girder repairs, cleaning and painting repair areas, cleaning beam seats, maintenance and protection of traffic and all other incidental items of work necessary to complete this contract to the satisfaction of the Engineer.".


Administrator, Division of Project Management

## 1. BRIEF SCOPE OF WORK

Rhode Island Contract No. 2019-CB-012, Federal Aid Project No. 405-421-946, is for Immediate Needs Steel Repairs Contract 2, in the Cities of Cranston, Newport, and Warwick and in the Towns of Burrillville and Westerly, Counties of Kent, Newport, Providence and Washington, Rhode Island. The basic work under the contract shall include, but not necessarily be limited to steel girder repairs, cleaning and painting repair areas, cleaning beam seats, maintenance and protection of traffic and all other incidental items of work necessary to complete this contract to the satisfaction of the Engineer.

## 2. LIST OF CONTRACT DOCUMENTS AND ADDITIONAL INFORMATION DOCUMENTS

There is one Compact Disk (CD) containing the Contract Documents. The contents are as follows:

## Contract Documents

Contract Specifications
RI Department of Administration Division of Purchases Procurement Regulations
Standard Specifications for Road \& Bridge Construction, 2004 Edition Amended March 2018
Compilation of Approved Specifications - September 2018
Required Contract Provisions/Federal-Aid Construction Contracts
Rhode Island Standard Details
Bridge Standard Details
General Provisions
General Provisions - Contract Specific
Specifications - Job Specific
Distribution of Quantities
Federal Wage Rates
Quest Software Information \& Files
Quest Lite User Manual
Quest Lite Installation
Quest Lite Upgrade
Quest Lite Launch (Bid File)
Plans - Volume 1 of 2: Immediate Needs Steel Repairs Contract 2
Volume 2 of 2: Pawtuxet River North Bridge No. 629 Repairs

## Additional Information Documents

The following documents are included on the disk with the Contract Documents, but shall not be considered part of the Contract Documents. These documents are included for informational purposes only. The Contractor shall be responsible for verifying the information shown in these documents.

- Original Construction and any Rehabilitation Plans for all 7 bridges.
e. The Contractor is hereby notified that work zone time and lane restrictions are listed in the Transportation Management Plans. Failure to comply with these requirements will result in the fines listed under Job Specification 937.1000.


## 8. NEWPORT \& NARRAGANSETT BAY RAILROAD COORDINATION

The Contractor shall notify and conduct all necessary coordination with the Newport \& Narragansett Bay Railroad prior to work on Bridge No. 905 (Contact Eric Mossett, 860-8832080). The Contractor shall obtain a schedule of train operations and provide a copy to the Engineer prior to Mobilization. Bridge work shall not be conducted during periods of time when the train is running at this location.

## 9. POLICE COMPENSATION

It will be the responsibility of the Resident Engineer to retain the service of the State and local police with cruiser for traffic control and protection for this project. The Contractor will not be required to bid on, or compensate for, the service of the State and local police.

## 10. SHOP DRAWINGS AND SUBMITTALS

The following list of work for which shop drawings and/or other submittals are required is provided for the convenience of the contractor. This list includes only major items of work; it does not itemize all submittals required by the contract documents. All submittals shall be in accordance with Section 105.02 of the Specifications. The contractor is responsible for timely submission of all shop drawings and other documents required by the contract. No extra payment will be made, nor will any extension be made to the contract completion date for making required submittals.

| Shop Drawing List |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | Bridge Number |  |  |  |  |  |  |
|  | 623 | 629 | 672 | 725 | 855 | 905 | 908 |
| Structural Steel | X | X | X | X | X | X | X |
| Welding Procedures | X | X | X | X | X | X | X |
| Painting Steel | X | X | X | X | X | X | X |
| Steel Surface Prep | X | X | X | X | X | X | X |
| Containment | X | X | X | X | X | X | X |
| Methods/Sequencing/Scheduling | X | X | X | X | X | X | X |
| Staging and Stockpile Areas | X | X | X | X | X | X | X |
| Temporary Shielding | X | X | X | X | X | X | X |

## 11. CONTRACT SUBMITTALS LIST (CSL)

Critical to the commencement of construction is the requirement to make all of the necessary submittals as required by the contract documents.

## CODE 108.1000

## PROSECUTION AND PROGRESS

In accordance with Section 108.08, Failure to Complete on Time, Para. a., Phased and Interim Completion the following defines the Phase and Interim Completion Dates and Associated Liquidated Damages:

Interim Completion: 90 days from Notice to Proceed
All work up to and including the installation of the steel repair plates on Pawtuxet River North Bridge No. 629, West Natick Road (SB) Bridge No. 725, and Joslin Road Bridge No. 672 shall be completed; final painting will not be required by this date.

Liquidated Damages: $\$ 1,200$ per calendar day.
Substantial Completion: November 1, 2019
All work shall be completed.
Liquidated Damages: \$1,200 per calendar day.

Table of Contents - Distribution of Quantities
Project Name - Immediate Needs Steel Repairs Contract 2 Estimate Name - Addendum No. 1
R.I. Contract No. - 2019-CB-012 FAP Nos: 405-421-946

| ItemCode | Description | Page |
| :--- | :--- | :--- |
| 803.9901 | CLEANING BRIDGE BEAM SEATS | 1 |
| $\mathbf{8 2 4 . 9 9 0 1}$ | STEEL REPAIRS | 1 |
| $\mathbf{8 2 5 . 9 9 0 1}$ | PAINTING STRUCTURAL STEEL | 1 |
| 914.5010 | FLAGPERSONS | 1 |
| 914.5020 | FLAGPERSONS - OVERTIME | 1 |
| 922.0100 | TEMPORARY CONSTRUCTION SIGNS STANDARD 29.1.0 AND 27.1.1 | 2 |
| 923.0105 | DRUM BARRICADE STANDARD 26.2.0 | 2 |
| 923.0120 | PLASTIC PIPE BARRICADE STANDARD 26.3.0 | 3 |
| 923.0200 | FLUORESCENT TRAFFIC CONES STANDARD 26.1.0 | 3 |
| 924.0113 | ADVANCE WARNING ARROW PANEL | 4 |
| 925.0112 | PORTABLE CHANGEABLE MESSAGE SIGN | 4 |
| 928.9901 | TRUCK MOUNTED ATTENUATOR WITH TRUCK MOUNTED FLASHING ARROW | 4 |
| 929.0110 | BOARD FIELD OFFICE | 4 |
| 936.0100 | MOBILIZATION AND DEMOBILIZATION | 5 |
| 937.0200 | MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION | 5 |

## Distribution of Quantities

Project Name - Immediate Needs Steel Repairs Contract 2 Estimate Name - Addendum No. 1
R.I. Contract No. - 2019-CB-012 FAP Nos: 405-421-946

| Item No. | Item Code | Description | UM | Qty. | Pay Code | Seq. No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 001 | 803.9901 | CLEANING BRIDGE BEAM SEATS | EACH |  |  |  |
|  |  | BEAM SEATS |  |  |  |  |
|  |  | BRIDGE NO. 623 |  | 1.00 | 0014 | 01 |
|  |  | BRIDGE NO. 672 |  | 1.00 | 0014 | 01 |
|  |  | BRIDGE NO. 855 |  | 1.00 | 0014 | 01 |
|  |  | BRIDGE NO. 905 |  | 1.00 | 0014 | 01 |
|  |  | BRIDGE NO. 908 |  | 1.00 | 0014 | 01 |

            AS DIRECTED BY THE ENGINEER 2,900.00 001401
            BRIDGE NO. 623
            BRIDGE NO. 629
                            ,700.00 001401
                            \(1,235.00001401\)
            BRIDGE NO. 672
                                    9,000.00 001401
            BRIDGE NO. 725
                        500.00001401
                BRIDGE NO. 855 5,300.00 001401
                BRIDGE NO. 905 3,500.00 001401
        BRIDGE NO. \(908 \quad 1,100.00001401\)
    Item 824.9901 Total:
31,235.00
825.9901

PAINTING STRUCTURAL STEEL
SF
PAINTING STRUCTURAL STEEL
AS DIRECTED BY THE ENGINEER
2,000.00 001401
BRIDGE NO. 623
1,700.00 001401
BRIDGE NO. 672 1,900.00 001401
BRIDGE NO. $725 \quad 100.00 \quad 001401$
BRIDGE NO. 855 1,700.00 001401
BRIDGE NO. $905 \quad 500.00001401$
BRIDGE NO. 908
700.00001401

Item 825.9901 Total:
8, 600.00

## Distribution of Quantities

Project Name - Immediate Needs Steel Repairs Contract 2
Estimate Name - Addendum No. 1
R.I. Contract No. - 2019-CB-012

FAP Nos: 405-421-946

| Item <br> No. | Item Code | Description | UM | Qty.Pay <br> Code |
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| $\mathbf{0 0 4}$ | $\mathbf{9 1 4 . 5 0 1 0}$ Cont. | PROJECT WIDE |  |  |
|  | AS DIRECTED BY THE ENGINEER |  |  |  |
|  |  | BRIDGE NO. 623 | 120.00 | 0014 |
|  |  | 01 |  |  |


 IMMEDIATELY PRIOR TO INSTALLING THE PROPOSED STEEL. AN EPOXY PASTE ADHESIVE SHALL THEN BE APPLIED TO THE EXISTING STEEL, SCREED INTO POSITION TO THE APPROXIMATE ORIGINAL SURFACE PROPOSED STEEL PLATES ARE INSTALLED. THE PROPOSED PLATES SHALL BE INSTALLED WHILE THE EPOXY IS STILL PLASTIC. ALL BOLTS SHALL BE INSTALLED "SNUG-TIGHT" IN ORDER TO BRING THE STEEL PARTS INTO THE POSITION SHOWN IN THE DETAILS AND TO SQUEEZE OUT THE EXCESS EPOXY; FINAL TIGHTENING OF THE BOLTS SHALL BE DONE AFTER THE EPOXY HAS CURED. EXCESS EPOXY SHALL BE CLEANED AWAY PRIOR TO PAINTING.
THE EPOXY PASTE ADHESIVE SHALL HAVE HIGH STRENGTH, NON-SAG, MOISTURE-TOLERANT PROPERTIES AND SHALL BE INCLUDED ON THE RIDOT APPROVED MATERIALS LIST. THE MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
11. THE REQUIRED REMOVAL \& DISPOSAL OF ANY EXISTING STEEL OR CONCRETE SHALL BE IN ACCORDANCE WITH THE RI STANDARD SPECIFICATIONS. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE COST OF THE STEEL REPAIR.
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12. UNLESS OTHERWISE NOTED, ALL WORK AND MATERIALS DESCRIBED WITHIN THESE NOTES SHALL BE INCLUDED IN THE COST OF THE STEEL REPAIR.
13. THE CONTRACTOR SHALL SCHEDULE HIS WORK SUCH THAT NO TWO ADJACENT BEAM/GIRDER ENDS SHALL BE UNDER REPAIR AT THE SAME TIME. THE FINAL TIGHTENING OF THE BOLTS AT ONE LOCATION SHALL BE COMPLETED PRIOR TO BEGINNING ANY REPAIR WORK AT AN ADJACENT BEAM/GIRDER END.
14. REPAIR PLATE SIZES AND REPAIR TYPE LOCATIONS SHOWN ARE THE MINIMUM REQUIRED REPAIRS. THE CONTRACTOR SHALL NOTE THAT THE SIZES OF THE PLATES MAY BE INCREASED AND ADDITIONAL REPAIR LOCATIONS MAY BE ADDED, AS REQUIRED BY THE ENGINEER. CONTRACT UNIT PRICES SHALL BE USED

## RHODE ISLAND




BRIDGE GENERAL PLAN


LONGITUDINAL BRIDGE SECTION
SCALE: $1^{\prime \prime}=20^{\prime}$



| TYPICAL BOLT SPACINGS |  |  |
| :---: | :---: | :---: |
| Location | MIN. |  |
| EDGE DIStance - "E | $1{ }^{1 / 2}$ |  |
| cauge - "G" | $3^{\prime \prime}$ |  |
| BOLT SPACINGS SHALL BE UTILZED INTHE FABRICATION OF THE STEEL REPAIR |  |  |

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## NOTE

REFERENCE ERIDGE GENERAL NOTES
SHEET ORR STEEL REPAIR NOTTSS

## EXIST. PARTIAL FRAMING PLAN <br> SCALE: $y_{8}^{\prime \prime}=1$-' $^{\prime}$




## STEEL BEAM END REPAIRS PAWTUXET RIVER NORTH - BRIDGE NO. 062901

Volume II of II for RICN 2019-CB-012


1. STEEL REPAIR GENERAL NOTES
2. FRAMING PLAN, SECTION \&

REPAIR LOCATIONS
3. STEEL REPAIRS - TYPE A

## LAYOUT PLAN

SCALE: N.T.S

## GENERAL NOTES

1. ALL CONSTRUCTION INDICATED ON THESE PLANS SHALL BE IN accordance with:
THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDAR SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (RI IANDARD SPECIFICATIONS), AMENDED 2010, WITH ALL REVISIONS.

- the american association of State highway and ransportation officials (aASHTO) LRFD Bridge Construction INTERIM REVISIONS.

2. Dimensions, Stations, elevations, and angles of the existing structure have been obtained from plans of the ORIGINAL CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS REQUIRED FOR PROPER PERFORMANCE OF THE WIMENSONS SHOWN ON THESE PLANS THE CONTRACTOR SHAL be solely responsible for fabrication and fit of his work.
3. BOTH federal and state law (RI. General law 39-1.2) REQURE NOTIFICATION IF APPROPRIATE UTILITY COMPANIES BEFORE DIGGING, TRENCHING, BLASTING, DEMOLISHING, BORING, back fllling, grading, landscaping, or other earth MOVING OPERATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES (INCLUDING THROUGH THE "DIG SAFE" PROGRAM) TO ENSURE THAT ALL UTILITIES, BOTH underground and overhead, have been marked before COMMENCEMENT OF SUCH WORK. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE "DIG SAFE" PROGRAM. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FALLING TO CONTACT THE AS DEEMED UPPROPRIATE BY THE STATE ANDOR THE IMPACTED UTILITY COMPANY) AT NO ADDITIONAL COST TO THE STATE.

## DESIGN DATA

1. DESIGN SPECIFICATIONS

- THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, 2014

INCLUDING ALL INTERIM REVISIONS TO DATE

- THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL 2007 Editio ncluding all pevisions to date

2. ALL OTHER APPLICABLE DESIGN SPECIFICATIONS ARE REFERENCED SECTION 1 of the rhode isLand LRFD bridge design manual DATED 2007.

## DESIGN DATA (CONTINUED)

- THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (RI STANDARD SPECIFICATIONS), AMENDED 2010, WITH ALL REVISIONS.

3. IN CASE OF CONFLICT, THE AASHTO LRFD BRIDGE DESIGN MANUAL, CURRENT EDITION, AND ALL INTERIMS TO DATE SHALL GOVERN

## MATERIALS

STRUCTURAL STEEL
AASHTO DESIGNATION M 270, GR. 50

## STRUCTURAL STEEL NOTES BRIDGE 062901

. For location of structural steel repairs, refer to the bridge 062901 - GENERAL PLAN
2. THE CONTRACTOR PERFORMING THE WORK SHALL BE, AT MINIMUM CERTIFIED AS A "CERTIFIED STEEL ERECTOR (CSE)" IN ACCORDANCE WITH THE AISC QUALITY CERTIFICATION PROGRAM. THE CERTIFIED CONTRACTOR SHALL BE REQURED TO SUBMIT PROOF OF CURRENT CERTIFICATION, AS REQUIRED
3. All structural steel repair components shall be grade 50 (GRADE 36 IS AN ACCEPTABLE SUBSTITUTE) . THE STEEL USED SHALL SATISFY ALL REQUIREMENTS AS DESCRIBED IN SECTION 824 OF THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION wITH ALL interims.
4. ALL STEEL REPAIRS FOR BRIDGE 062901 SHALL be performed after the existing structural steel at the locations specified in these plans have been surface prepped.
5. SURFACE PREPARATION OF EXISTING STRUCUTRAL STEEL FOR BRIDG 062901 SHALL CONSIST OF WIRE-BRUSHING EXISTING WEBS \& FLANGES In CONTACT WITH PROPOSED REPAR COMPONENTS, INCLUDING FILLER plates and repair angles.
6. all structural steel repair plates for bridge 062901 Shall RECEIVE A SHOP-APPLIED COAT OF ZINC-RICH PRIMER IN ACCORDANCE WITH SECTION 825 OF RI STANDARD SPECIFICAIIONS, LATEST EDITION SHOP-APLIIED ZINC RICH PRIMER DURING TRANSPORTATION OR ERECTION SHALL BE TOUCHED UP BY THE CONTRACTOR WITH A SUITABLE ZINC-RICH PRIMER TO THE SATISFACTION OF THE ENGINEER at No cost to the state.
7. ALL bolt holes for structural steel repairs plates shall be SHOP DRILLED, $15 / 6$ " DIAMETER
8. ALL BOLT HOLES IN EXISTING STRUCTURAL STEEL MEMBERS SHALL BE FIELD DRILLED, $15 / 6^{10}$ DIAMETER.
9. 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.

## STRUCTURAL STEEL NOTES BRIDGE 062901 (CONTINUED)

10. WASHERS MEETING AASHTO DESIGNATION m 293 ARE TO USED OVER all holes that are more than $1 / 6^{\prime \prime}$ in diameter greater than he bolt diameter and under all parts turned during ASSEMBLY.
11. THE EXACT LOCATION OF FIELD DRILLED bolt holes to BE determined in the field.
12. Where bolt locations coincide with heavily deteriorated PORTIONS OF THE WEB, (MATERIAL LOSS GREATER THAN $1 / 8^{\prime \prime}$ ) THE bolts shall have double nuts. the first nut shall be seated SNUG-TIGHT AGAINST THE SURFACE AND THEN HELD IN PLACE wITH A WRENCH WHILE TIGHTENING A SECOND NUT AGAINST IT.
13. IF THE CONTRACTOR ANTICIPATES CLEARANCE AND/OR ENTRY ISSUES FOR INSTALLATION OF REPAIR PLATES DUE TO BOLT SPACING, HE MAY SUBMIT A REVISED BOLTING SCHEMATIC(S), SUBJECT TO APPROVAL OF the engineer
14. IF THE CONTRACTOR ANTICIPATES FIT-UP AND/OR INSTALLATION issues resulting from repair areas with section loss, holes, voids and surface irregularities, the contractor is permitted TO FILL SAID DEFECTS WITH A STRUCTURAL EPOXY RESIN PASTE PRIOR TO INSTALLING THE REPAIR COMPONENTS.
15. WELDING OF ATTACHMENTS TO GIRDER FLANGES OR WEBS FOR CONSTRUCTION PURPOSES IS NOT PERMITTED EXCEPT WHEN APPROVED by the engineer.
16. Prior to shop coating as Specified in section 825 of the rl 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 PRO
17. ALL ACCESS FOR STEEL REPAIRS WILL BE FROM BELOW, NO TRAFFIC INTERRUPTION WILL BE PERMITTED.
18. STEEL REPAIRS FOR BRIDGE 062901 SHALL BE PAID FOR UNDER ITEM CODE 824.9901.

$\frac{\text { FRAMING PLAN }}{\text { NT.S. }}$



REPAIR TYPE A - PLAN VIEW


REPAIR TYPE A - SECTION
(DIAPHRAGM \& CONNECTIONS NOT SHOWN FOR -


RHODE ISLAND OF TRANSPORTATION REPAIRS PAWTUXET RIVER NORTH BRIDGE NO 062901































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SECTION AND DETAIL MARKINGS



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## INDEX



R1. STANOARO SPECIFICATIONS ANO STANOARD DEEALIS



# STATE OF RHODE ISLAND  <br> DEPARTMENT OF TRANSPORTATION <br> PLAN, PROFILE AND SECTIONS OF PROPOSED <br> <br> STATE HIGHWAY 

 <br> <br> STATE HIGHWAY}

BRIDGE \#062901-GIRDER REPAIRS

## PROJECT LIMITS

CITIES OF CRANSTON AND WARWICK
COUNTIES OF PROVIDENCE AND KENT
R.I. CONTRACT NO. 2015-CB-082 F.A. PROJECT NO. BHO-629 (001) PROJECT LENGTH $=0.04$ MILES


LAYOUT PLAN
urricane evacuation route
Iis propect includes work on desisinated


FINAL SUBMISSION OCTOBER, 2015

| R.I. DEPARTMENT OF TRANSPORTATION <br> APPROVED |  |
| :---: | :---: |
|  |  |
| OMSIOU ADMMSTRATOR | DATE |



## GENERAL NOTES


















12. THE Coorg nate system, If shown, is The rhode Is lan state plane

















## DRAINAGE AND EROSION CONTROL NOTES:


















a. SEEDMG TPE 1 . $\qquad$


 AUHHORZATO
. ALL ORANGE AND UTUTY STRUCTURES WHIN THE PANED ROADWAY SHALL 1


OR AS DiRECTED BY THE ENOLIEER.
12. Provisions for clearing io faces outfall during te cleaning and
a. ANY vegetate clearing shall be limited to brush and trees






## RHODE ISLAND

DEPARTMENT OF TRANSPORTATIO
BRIDGE \#06290 1-GIRDER REPAIRS CONTRACT No. 2015-CB-082 RI 37 WB OVER PAWTUXET RIVER

## DRAINAGE AND EROSION CONTROL NOTES (CONTINUED)







 Sill





## UTILITY NOTES:





all existing outhits to be abandoned shall be capped.
4. ExITING WATER SERYCES SHALL BE RECONNECTED TO THE NEW WATER MANS.

 8. all utulir pole related work shall be by others. (

## 最

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## LANDSCAPE NOTES:











STRUCTURAL NOTES FOR HIGHWAY SIGNS,
UINARES AND TRAFFIC SIGNALS.


construction drawings and detalls








TRAFFIC SIGNAL NOTES

2. Back putts shall. bec mstalle on all traffic samul heods.

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atown.










## MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:







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 Sill
10.





## LIST OF ABBREVIATIONS




| R |  |
| :---: | :---: |
| RADIUS RALLROAD REINFORCING REHABLITATION REMOVE \& DISPOSE |  |
| S |  |
| SECTION | = SECT. |
| SCHEMATIC | ) ${ }^{=}$SCCH |
| SHEET <br> SPACES | = sh. |
| STATION | e $=$ STA |
| SYMMETRICAL |  |
| Stay In PLACE | = s. |
| I |  |
| Top | $\stackrel{\top}{ }{ }^{\top}$ |
| $\underline{V}$ |  |
|  |  |
| Vertical curve VERIICAL | $\begin{aligned} & =\text { V.C.C. } \\ & =\text { VERET } \end{aligned}$ |
| w |  |
| WELDED WRE FAbric | = w.w.F. |
| ${ }_{\text {WITH }}^{\text {WITE }}$ Flange | $=$ $=W$ $=$ $=$ |
| WORKING POINT | $\stackrel{\text { en }}{=} \mathrm{W} . \mathrm{P}$. |

- SECTION LETTER

SECTION MARK


SECTION \& DETAIL DESIGNATIONS

|  | Rensions | RHODE ISLAND |
| :---: | :---: | :---: |
|  |  | DEPARTMENT OF TRANSPORTATION |
|  |  | BRIDGE \#062901-GIRDER REPAIRS |
|  |  | CONTRACT No. 2015-CB-082 |
|  |  | RI 37 WB OVER PAWTUXET RIVER |
|  |  | CRANSTON, RHODE ISLAND |
|  |  |  |
|  |  | LIST OF ABBREVIATIONS |
|  |  |  |
|  |  | CHECKED By _ date scale |

## GENERAL NOTE

ortes pans shau ar naccorbance with

 - the secifications accompantng these plans
-R BRIDE Design standard detals

- ral lrfo brioge design manual





5. ALL ABuTMENTS ANO WALLL ARE DRAWN LOOKNG AT THE EXPosED FACES.







## DESIGN DATA







## MATERIALS

structural steel:
O Dessiation m 270, grade 50 (gane 36 Is av Acceprable subsstution
STRUCTURAL STEEL NOTES







 TOUCHENES REOUIREMEN



STRUCTURAL STEEL NOTES CONTINUED



 1. STRuCTUAL STEEL SHALL SE PREPARED ANO PANTED IN ACCORDANCE WTH THE RI


14. welong of antachens to groer flage or wes for conspucton
15. No shop fillet welo shall be Less than w"


REPAINTING OF EXISTING STRUCTURAL STEEL





5. ANY COMPONENT Not desinated to be repante shal be Aoeouatly

PAINTING OF NEW STRUCTURAL STEEL



## GENERAL NOTES REGARDING TEMPORARY CONSTRUCTION

 CONDITIONS:| heght above grund | wino pressure (PsF) |
| :---: | :---: |
| UP To 17' | 33 |
| OVER $17{ }^{\prime}$ AND UP TO $33^{\prime}$ | 37 |
| OVER $33^{\prime}$ AND UP to 50' | 41 |
| OVER 50'And UP To 75 | 44 |
| OVER 75' AND UP To 100 | 47 |

## 

GENERAL NOTES REGARDING TEMPORARY CONSTRUCTION ONDITIONS CONTINUED: TABEL NOTES

 - EEMPORARYY SHILLDNG.



 ERECTon of bride convonens:
for the erecton of structures, the followng shall Apply










SITE RESTORATION:




UTILITIES:


## SEQUENCE OF CONSTRUCTION NOTES:

 Raffic MPACTS to RI 37 Westround:
A. NTh Time operaton with temoraray lane closures for structural. traffic Impacts to l-95 southbound ramp to rl 37 WEstrouno:
A. NGGH TME Opergaton wth temporary Lane cloosures for structual

 <br> \title{

} <br> \title{

}



SQUARE - LONGITUDINAL SECTION - LOOKING NORTH

= denotes limits of girder repali

SCALE $1 / 4^{\prime \prime}=1-1^{-0}$
SCALE $1 / 4^{\prime \prime}=1 \cdot 0^{-0}$

|  |  | Revsions | RHODE ISLANDDEPARTMENT OF TRANSPORTATION |
| :---: | :---: | :---: | :---: |
|  |  | CAIE BY |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  | TRANSVERSE AND LONGITUDINAL SECTIONS |
| Michael Baker |  |  |  |
| UNTERNATIONAL |  |  | CHECKED BY _ DATE SCALE |





[^0]

REPAIR NOTES:

1. REFER to steel girder repair notes on sheet 12. 2. FOR LOCATION OF STRUCTURAL STEEL REPAIRS REFER

KEY
$=$ denotes new steel components.

|  | Reviso |  |  |  | RHODE ISLAND |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | DATE |  |  | EPARTM |  | DEPARTMENT OF TRANSPORTATION

CONTRACT No. 2015-CB-082 CONTRACT No. 2015-CB-082


DETAIL GR2.1
Michael Baker
STEEL GIRDER REPAIR

1. UNLESS OTHERWISE APPROVED BY THE ENGINEER, ALL BOLT HOLES IN NEW STRUCTURAL
STEEL COMPONENTS SHALL BE SHOP DRILED, 13 , ${ }^{\prime}$, DIAMETER HOLES.
2. ALL bolt holes in existing structural steel members shall be field drlled $13 / 6$ "
3. the exact location of filed bolt holes to be determined in the field.
4. where bolt locations coincide with heavly deteriorated portions of the web or FLANGE (MATERAL LOSS GREATER Y"), THE BOLTS SHALL HAVE DOUBLE NUTS. THE FRRST
NUT SHAL BE SEATED SNUG TICHT AGANST THE SURFACE AND THEN HELD IN PACE WITH A W SAECH WHLLE TIGHTENNG A SECOND NUT AGANST TT. IF AND WHERE THERE ARE INTERERENCES
SUBSTTUTED.
5. Limit of repainting exising structural steel shall include all steel within $4^{\prime}$ of
6. ALL STEEL REPARS SHALL EE PERRORMED AFTER THE EXISTING STEEL GIRERS AAVE EBEEN
7. IN AREAS OF TIIGT FIT TO BOTTOM FLANGES, Bottom Flanges should be ground
SMOOTH TO PROVIDE A UNIFRM TIGHT FIT.

8. CONTTACTOR SHALL FIELD VERIIY EXISTING CONOITIONS AND PROPOSED REPAIR


9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OVERALL FIT OF ALL FELD BOLTED



10. BOLTED CONNECTIONS SHALL BE MADE WTH FRICTION-TTPE ASTM A325 BOLTS, HOT DIP GALVANIED IN ACCORDNCE WITH AASHTO M232 (ASTM A153).
USED FOR ALL CONNECTONS TO EXSTING STRUCTUAL STEEL.
11. PROVIDE EPDXY RESIN PASTE BETWEEN REPAR PLATES AND EEISTING GIRDER WEB AND NEATLY TRIMMED BACK TO A MINMUM STEEL THCKNESS OF \%" AND FILL PLATE(S) PLACED
12. CONTRACTOR SHALL INSTALL TEMPORARY TMMBER SHORING / BRACING TO STEEL GIRDERS AS
 ADDITINAL SHORNG/ BRACING AS REOURED TO ENSURE THE STABLITY OF ALL
STRUCTURAL MEMBERS DURING ALL STAGES OF CONSTRUCTON. THE CONTRACTOR SHAL
 ACTVTIES. INSTALLATON, MANTENA
UNOER LUMP SUM TTM 806.9901 .

SEE DETALL " "R2.1"
ON SHEET
REPAIR NOTES:

1. For location of structural steel repalis refer to framing
plan on brioge general plan and framing plan" (sheet 7 ). KEY
$\square=$ DENotes new steel components
of bottom flange



** note: for girder g, span 3, at pier 2, see detal "gr1. 2 " on sheet 10 DIAPHRAGM REPAIR TYPE "D2"

|  | Revsions | RHODE ISLAND |
| :---: | :---: | :---: |
|  | DATE BY | DEPARTMENT OF TRANSPORTATION |
|  |  | BRIDGE \#062901-GIRDER REPAIRS |
|  |  | CONTRACT No. 2015-CB-082 |
|  |  | RI 37 WB OVER PAWTUXET RIVER |
|  |  | CRANSTON, RHODE ISLAND |
|  |  | STEEL GIRDER REPAIR |
|  |  | DETAILS - 4 |
|  |  | CHECKED BY_ DATE SCALE |













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Sualist ge dakimus
\M2,
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\:-1,
M, SM,
8-19
STATE OF RHODE ISLAND
DEPARTMENT OF PUBLIC WORKS DIVISION OF ROADS AND BRIDGES
```









Plan, Profile and Sections of Proposed
STATE HIGHWAY

## INTERSTATE ROUTE 295

warwick, CRANSTON a west warwick, r.I.
destia jata




ФE ER NOTS



 the norrest one sixtentht of on inct
3. All elevat ins ore referenceo to
to
4. Angles ore shom te the nerr sts seciond.





BRIDGE NO. 725
WEST NATICK ROAD BRIDGE
FEDERAL AID PROJECT NO. EACI-295-5 (15) 28 contract four





NOTES




ANCHOR BOLT LOCATION




NORTHEAST END POST

## NOTE

Note
For Tupical section thru
abutment sectsht $B-1 B$


OTING REINFORCING PLAN






SOUTHWESI


NORTHWEST

WINGWALLS LANE B






ERAMING PLAN


## DECK GRADE PLAN

DECK GRADE NOTES


## FRAMING NOTES


 dIVISION OF ROADS AND BRIDGES
INTERSTATE ROUTE 295 THE NATICK BRIDGES WEST NATICK ROAD BRIDGE LANE A
DECK GRADES \& FRAMING PLAN









725,020







## DEPARTMENT OF TRANSPORTATION



PLANS FOR
INTERSTATE ROUTE 295 SAFETY IMPROVEMENTS CONTRACT 1 - B
FROM INTERSTATE ROUTE 95 TO SOUTH OF WILBUR AVENUE
WARWICK, WEST WARWICK AND CRANSTON

- RHODE ISLAND

RI. CONTRACT NO. 2002-CH-031.
R.1. FEDERAL AID CONTRACT NO. IM-2955(085)
2.7 MILES IMG-2955(087) BHO-2955(086)
RI. STANDARD SPECIFiCATIONS
VOLUME II OF II


LOCATION PLAN
NOT TO SCALE

## DESIGN DESIGNATIONS

I-95 TO RHODE ISLAND ROUTE 37 $\begin{array}{ll}\text { AADT (1999) } & 43,400 \text { V.P.D. } \\ \text { AADT (2010) } & 51,200 \text { V.P.D. }\end{array}$ \begin{tabular}{ll}
K \& $\left.\begin{array}{ll}9.1 \% \\
\mathrm{D} & \\
50 \%\end{array}\right)$ <br>
\hline

 

D (PEAK HOUR) \& $50 \%$ <br>
DEE \& \multicolumn{1}{l}{$5 \%$} <br>
DESIGN SPEED \& 70 M.P.P.H.
\end{tabular}



INDEX OF DRAWINGS SHEET NO





$\frac{\text { LaYout }}{T=\text { Ho co }}$
Rev PSHE G/02 wo modena ${ }^{4}$
BASE OF LEVELS

M.S.L.


## GENERAL NOTES

all CONstruction inoicated on these plans shall ee in accordance with：



THE SPECIFICATIONS ACCOMPANYING THESE PLANS．
IN CASE OF CONFLLCT，THE SPECIAL PROVISIONS OF THE SPECIFICATIONS ACCOMPaNYing
THESE PLANS SHALL GOVERN．
DIMENSIONS，STATIONS AND ELEVGTIONS ARE SHOWN TO THE NEAREST ONE－HUNDREDTH OF A
FOOT OR OLEEIIHHH OF AN NC EXCEPT STRUCTURAL STEEL OIMENSIONS WHCH ARE SHOWN
TO FOOT OR ONE－EIICHTH OF AN NCH EXCEPT STR
TO THE NEAREST ONE－SIKTEENTH OF AN INCH．
angles are shown to the nearest second．
all agutments，plers and walls are drawn looking at the exposed faces．


## DESIGN DATA

SPECIFICATIONS：
 AMERICAN ASSOCICTION OF STATE HICHWAY AN TRANS：
DATED 1996．NCLLUONG LATEST NTERIM SPECFIFCATONS．
THE Latest revision of and modifications to the state of rhooe island stanoard
specifictions for road ano bricge construction

## DESIGN MANUAL

THE Latest eotion of the state of rhod island department of transportation bridge
DESigN manual incluing all DESIGN LOADING：
aAshto hi 20 loading（original design load
－pedestrian live load－bs psf
－SEISMC Loads：A o 0．16，seismic performance category c

## GATERIALS

STRUCTURAL STEEL：
－AASHTO designation m 270 （AStm designation a 709）grade 36
REINFORCING STEEL：
aAShto designation m 31 （astm designation a 615）grade 60 ．
CONCRETE
Class XX（AE）fe e 4,000 psi
Class X（AE）fic $=5,000$ psi

## CONCRETE NOTES

1．CLASS OF CONCRETE SHALL BE XXCAE），AS DESCRBED IN THE LATEST REVIION OF TALLES（1）\＆（2） FOR ROAD AND bRIDGE CONSTRUCTION AND THE SPECCIAL PROVISIONS OF THE SPECIFICGTIONS SEE NDVVIDUAL BRDGE SHEETS FOR CLASSES OF CONCRETE USED．THE CONCRETE USED FOR THE PARTIAL
OR FULL DEPTH DECK REPAR SHALL CONTAN A CORROSION NHHITOR CER SEECIICATION GOS
 －he shmol he followno he class of concrete．
3．REINFORCING STEEL SHALL CONFORM TO AASHTO DESIGMATION M 3 （ ASTM DESIINATION A G15）GRADE 60

 OESIGNATIN D O PO63）．END CUTS OR AERASIONS IN THE COATING SHALL EE PANTED WTH AN
APPROVED EPOKY PANT．
5．UnLless otherwise stown on the plans，all rinforcing shall ee laped according to the
following chart．Leng ins in parentheses are for epoxy coated reniorcing．
Minmum reinforaing Laps

| gar size | class of Concrete |  |
| :---: | :---: | :---: |
|  | xx（AE） | $\times$（AE） |
| ${ }^{\circ} 4$ | $12^{\prime \prime}\left(12^{\prime \prime}\right)$ | $12_{12}\left(11^{\prime \prime}\right)$ |
| －5 | 12 （12＂） | 12＂（12＂） |
| ${ }^{9}$ | 14＂（15＂） | 12＂（14＂） |

NOTE：

6．all reinforcing bars shall have the following minmum cover：
MNMMM COVER
Concrete cast aganst and permanently
EXPOSED to earth footings，abutuent and
EXPOSED TO EARTH（FOOTIC
$3^{3 \prime}$
stireups，ties and spirals
dеск
тор
воттом
all other bars
7．horzontal construction joints other than those shown on plans wll not be permited unless otherwise noted on the plans，all exposed new concrete surfaces visibe in


9．AlL exposed edges and reentrant corners not otherwise detaled on the plans shall have
A minmum ${ }_{4}$＂Chamfer．
10．ALL JONT SEALANT SHALL 日E POLYURETHANE EASE UNLESS OTHERWISE DESIINATED ON THE PLANS．
THE COLOR OF THE JOINT SEALANT，WHERE EXPOSED SHAL BE NEUTRAL THE COLOR OF THE JOINT SEAAAT，WHERE EXPOSED．SHALL BE NEUTRAL ILIGHT GRAY OR TAN）．
COLOR OF THE SELANT WHERE NOT EXPOSED，WIL EE AT THE DISCRETION OF THE CONTRACTOR．
 OURI CONCRETE STANS OR DISCOLORATIONS OCCUPRING PRROR TO ACCEPTANCE OF THE SURFACE SHALL EE REMOVED BY THE CONTRACTOR AT HIS OWN EXPENSE．

12．UNLESS OTHERWISE NOTED ON THE PLANS JONT FLLLER IS TO EE PREFORMED，NON－EXPANSIVE

NON－EXTRUDING TYPE $\mathbb{N}$ ACCORDANCE WITH SECTION N．O2．1．1 OF THE RHOOE ISLAND STATE STANDARD
SPECIICATIONS．

13．PLACEMENT，FNISHING AND CURING OF BRIDGE DECK CONCRETE SHALL EE IN ACCORDANCE WITH
14．IN ACCORDANCE WITH THE RHODE ISLAND STANDARD SPECIFICATIONS，ALL METAL TIES OR ANCHORAGES



 SATISFACTION OF THE ENGINEER．
15．UNLESS NOTED OTHERWISE，ALL DECK FORMS SHAL EE OF THE REMOVEABLE TYPE THAT WIL PRODUCE
THE DMENSIONS SHOWN ON THE PLANS．STAY－N－PLACE FORMS ARE NOT ALLOWED WITHOUT PERPMISSION THE DMMENSIONS SH．
OF THE ENGINEER．

17．WELDED WIRE FABRIC FOR REINFORCING SHALL CONFORM TO AASHTO DESIIGNATION M55（ASTM
DESIGNATION AAB5）GRADE
18．ALL ANCHOR BOLTS，NUTS AND WASHERS SHALL BE ASTM DESIGNATION A 307，AND SHALL 日E GALVANIZED
 APPROVED SY THE ENGMER．SUCH APPROVAL DOES NOT RELIEVE TH
RESPONSBLITYY TO RREVENT CONRETE STANS OR DISCOLORATONS．
19．HaND held vigrators shall be equpped with rubeer tipped heads when used to consoliate
around epoxy coated reineorement．

STATE OF RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
SAFETV MPPROVEMENTS TO，
INTERSTATE ROUTE 295 －CONTRACT 1－b
．


## general notes（CONT．）

## STRUCTURAL STEEL NOTES

1．FRaming dimenions are given along centerlines of girders and along centerlines
Of bearings on abutments and piers．
2．structural steel shapes and plates shall conform to the latest provisions of aashto

 only．

4．SHOP DRAWNSS FOR ALL FABICATED STEEL，EXPANSION JINTS，AND FALSEWOR | SHALL |
| :--- |
| CHECKIN． |

5．aAshto m 270 （astm designation a 709），crade 36 steel used in girder reparis （EXCLUDNG，STIFENERS．CONNECTION PLATES．AND DIAPHRAGM MEMEERS）SHALL
MET THE ZONE 2 LNGGTTOONAL CHARPY $V$－NOTCH TEST OF 15 FT．LLSS．AT $40^{\circ}$ F AS SPECIF IN TABLE SI＂TOUGHESSS REQUREMENTS＂AS PER AASHTO DESIGNATITN M $183 /$ MBIB3
（ASTM DESIGNATION AB6／A3GM）OF THE AASHTO STADARD SPECIFICATIONS FOR LASTM DESIINATION A36／ABSM OF THE AASHTO STANDARD SPECCIFIATIONS FOR
TRANSPORTATION MATERALS AND METHOOS OF SAMPLING AND TESTING．SAMPLING AND TESTING PROCEDURES SHALL BE $\mathbb{N}$ ACCORDANCE WTH AASHTO T 243 （ASTM

6．VISUAL INSPECTION OF wellos ano weling operations shall be in accordance WTTH THE RHODE ILLAND STANDARD SPECIFICATIONS．

7．STRuctural steel repars shall ee prepared and primed in accordance with
The special provisins of the spcifications．

8．WELDNG SHALL BE IN ACCORDANCE WIT THE LATEST STRUCTURAL WELONG SUPPLEMENTAL AWS PUELICGTIONS．ALL SHOP CONNEGTIONS AND SPICES SHAL


| MATERIAL THICKNESS OF THICKER PART JOINED （INCHES） | MINMMM SIZE OF FILET WEL NCHES |
| :---: | :---: |
| T0 $3 / 4 \mathrm{NCLUSIVE}$ | 1／4 |
| OVER $3 / 4$ | 5／6 |

9．NO Shop filet weld shall be less than \％／r＂．
10．all shear stud connectors shall be welded by the automatic timed electric
arc process．

11．PRIOR TO FABRICATION，ALL MATERILLS SHALL BE BLAST－CLEANED TO AT LEAST SSPC－SPG TO
REMOVE ALL OIL，DRT，GREASE，MILL SCALE ANO OTHER DELETERIOUS MATERIALS FROM THE REMOVE ALL OLL，DIRT，GREASE，MLLL SCALE AB
SURFACES OF THE STEEL TO BE FAGRRCATED．

12．Prior to shop coating as specified in the special provisions，all corners and edges
 GRRDING OR BL
PRIMER SYSTEM．

## VERIFICATION OF EXISTING CONDITIONS

－DIMENSIONS AND DETALS SHOWN ON THE PLANS WERE DEVELOPED USING THE ORIGINAL DESIIN ORAWNGS．THE CONTRACTOR SHALL VERFY ALL DIMENSINS SHOWN ON THE PLANS，ANO MAKE
ANY ADOITIONAL MEASUREMENTS AND SURVEYS NECESSARY TO PREPARE COMPLETE SHOP DRAWI
 FOR THE IMPROVEMENT WORK．SHOP DRAWINS SHALL CLEARLY SHOW ALL REQURED FELD
MEASURMENTS TAKEN IN OROER TO PROPERLY FABRICATE THE REQURED MMPROVEMENT DETAL THE CONTRACTOR IS SOLELY RESPONSBLE FOR THE FIT OF THE NEW COMPONENTS．

## TEMPORARY PROTECTION ADJACENT TO AND ABOVE THE ROADWAY

DURING WORK ABOVE ROAOWAYS，THE CONTRACTOR SHALL ERECT AND MANTAN TEMPORARY PROTECTIV
SHELES IN THE AREA WHERE ROADWAY AND PEDESTRAN TRAFFIC COULD BI MPACTEO BY FALLING EQUPMENT，MATERALS AND DEBRIS．THE CONTRACTOR SHALL SU日MT SHOP DRAWNGS STAMPED BY A REGISTREED PROFESSIONAL ENGIEER DETALING THE TEMPORARYY PROTECTVE SHIELDNG FOR REVEW
AND APPROVAL．THE MINMUM DESGGN LOADING SHAL BE 100 POUNOS PER SOUARE FOOT AT LOCATIONS AND APPROVA．THE MINMMM DESIGN LOADING SHAL EE 100 POUNDS PER SOUARE FOOT，AT LOCATIONS
WHERE THE EXISTNG DECK SLAE IS EENG REMOVED AND REBUIT AND AREAS OF FUIT DETH DEC PROTECTVE SHIELDING MUST GE INSTALLED FOR THE ENTRE WIOTH OF THE BRIDGE，AND SHALL EXTEND 10＇． from the centerline of bearngs．

## UTHITIES

1．LOCATION OF EXISTING UTLITIES SHOWN ARE APPROXMATE．THE CONTRACTOR SHALL VERFY LOCATIONS ALSO EE FOLLOWED．ANY DAMAGE TO EXISTNG UTLITIES SHOWN ON THE PLANS OR LOCAIED BY OIC SAEE Shall be the contractor＇s responiblity．cost of damage to these utlities shall be borne by the contractor
2．IT Shall be the contractor＇s responsiblity to contact the apropriate ralroad agencies
To verify the location of all affecteo utlitile within the ralroal rightoleway blue gooh says
CONCRETE REPAIR NOTES
Blue Bowh says
 SHOWN ON THE DRAWNGS．
THE CONCRETE TO REMAN．

reinforcing and the surrounding concrete as shown on the detals will be required．
3．AFter removal has been completed，all bond inhibing materials such as loosely bonded
aggreates．dirt，or grease，shall be removed from the surface by sanbelasting．
4．If the corroded renforcing has lost more than $25 \%$ of its cross section，the reinforcing steel SHALL BE SUPPLEMENTED WITH NEW REMFORCIN BY PLACING TE NEW EAR PARALLEL TO TTE EXISTING

 MATCH THE EXIITTNG REINFORCING．
5．ALL HeAvy oxides and scales shall be removed from affected renforcing by sanoblasting in
ORDER to promote Maximum bond of the new concrete．
6．newly placed concrete shall meet and match the exitting surface．
7．Pier cap repars shall be seguenced as shown in the standard detalls when directed by the
8．REFARS 16 S．F．OR LESS SHALL BE PERFORMED USING PATCHING MORTAR．REPARS GREATER THAN 16 S．F． WOULD Be PERFORMED with PNELMATIC MORTAR OR CAST－IN－PLACE CONCRETE，
9．ALL work shall ee performed in accordance with traffic control plan for the ALL WORK SHALL
日RIIGE WORK．
10．all repar dimensions shown on drawngs are approximate ano were deterwined using
 ALL DIMENSIONS SHOWN AND MAKE ANY ADDTIIONA
ACTUAL REPAR DIMENSIONS AT EACH LOCATION．

## SEQUENCE OF CONSTRUCTION NOTES

－all work shal ee performed in accordance with the mantenance and protection
2．pavement transition at the afproaches shall ee as detalleo on roadway drawings TO THE DRECTION OF TRAFFIC，ON THE BRIOGE SUPERSTRUCTURE．
3．Underside when performed before topside

## TEMPORARY JACKING AND SHORING NOTES

at locations inoicated on the drawing for bridge no．071901，072201， 07250 072221 AND 072521 OR WHEN SPECIFICALLY DIRECTED BY THE ENGINEER，STEEL EEAMS ARE To be Jacked and temporarly shored to perform proposed eearing replacement
Steel repars and pler repar work the eeams are to ee jacked to relive the STEEL REFARS AND PIER REPAR WORK．THE BEAMS ARE TO，日E JACKED TO RELEVE THE
DEAD LOAD AND LIVE LOAD．REEER TO SPECIAL PROVVISONS ITEM COOE B24．9904＂TEMPORARY

2．it is assumed that work shall be coordnated such that the girders will be jacked and shored only once to perform all of the above work．jacking and SHoring shall em measured and paid for once per girod to perform all of the ABOVE WORK．THERE SHALL DE NO ADOTIONAL PAYMENT MADE TO JACK ANV SHORE A GIRDER
TWICE AS A RESULT OF THE CONTRACTOR＇S SEOUENCE OF CONSTRUCTIOND

REFER TO SPECIAL PROVIIIONS ITEM CODE 824．9904，＂TEMPORARY JACKING AND
3．ALL WORK SHALL EE PERFORMED $N$ ACCORDANCE WTH THE MANTENANCE AND PROTECTION
SHOP DRAWING／CONTRACTOR SUBMITTAL
Shop drawings or contractor submital are reoured for the followng items：
2．TEMPORARY Jacking and shoring
3．STRIP SEAL EXPANSION JOINT ASSEMELIES
4．ISOLATION AND DISC bearings
5．SEISMC BEARING RESTRANERS

## \author{ STATE OF RHODE ISLAND 

 <br> DEPARTMENT OF TRANSPORTATIO} SAFETY MPPROVEMENTS To INTERSTATE ROUTE 295 －CONTRACT 1－B






gepair to structural steel - Type $\frac{\text { (WEB REPLACEMENT }}{(\text { TTEM CODE } 824.9901)}$


SteEl repar notes

1. SURFACES OF OLD MATERALL WHICH ARE TO BE COVERED BY REPAR

2. REMOVAL OF EXISTNG STEEL PARTS SHALL BE DONE IN SUCH A WAY THAT
 No ADOIIONAL COST to THE STATE.
3. ALL cut surfaces to reman shall be grouno smoote
4. THE PORTIONS OF SURFACES THAT ARE TO RECEIVE WELDS SHALL BE CLEANED

HHOROUGHLY OF ALL FOREGN MATERAAS INCLUING PANF FLM
OF 2 INCHES FROM EACH SIDE OF THE OUTSIDE LINES OF WELDS
5. AT LOcations where the patch plate niereeres wit the existing
6. all steel repars shall be prime coated in accordance with the specifications.


REPAIR TO STRUCTURAL STEEL - TYPE 3
(TEM CODE 824.9903)


TYPICAL REPAIR BEHIND BEARING STIFFENER
USING PATCH PLATES






SOUTHBOUND BRIDGE
NORTHBOUND BRIDGE
$\frac{\text { CONCRETE REPAIRS - ABUTMENTS }}{\text { SCALE: } 1 / 0^{-10-1-0 . " ~}}$


ABUTMENTS


CENTER PIER

NOTES:

1. For substructure repar detals, see sheet a
2. for concrete refar notes, see sheet 3 .
3. FOR backwall modification detals, see sheet 4
4. For bearing pad modification detals, see sheets 9 and 10 .
5. ALL REPAR DIMENSIDNS SHOWN ARE APPROXIMTE AND WERE

FELED NSPECCIIO


|  | ${ }^{\text {Unows }}$ | STATE OF RHODE ISLAND |
| :---: | :---: | :---: |
|  |  | DEPARTMENT OF TRANSPORTATION |
|  |  | SAFET IMPRovements To |
|  |  | INTERSTATE ROUTE 295-CONTRACT 1-B |
|  |  | IM MTERSTATE ROUTE 95 TO SOUTH OF WILUUR |
|  |  | WARWCK, WEST WARWCK, AND CRANSTON RHODE ISLAND |
|  |  | WEST NATICK RD. BRIDGE |
|  |  | BR. Nos. 072501 (NB) \& 072521 (SB) |
|  |  | CONCRETE REPAIRS - ABUTMENTS |
|  |  | WPB OATE O8/01 - Scat AS MOT- |



Drawingsl725_pier01B(rev1).dgn 08/11/2005 04:04:29 PM

.1725_pier01C(rev1 prelim).dgn 08/11/2005 10:34:39 AM



[^0]:    *note: for girders b and
    F. SEE RETALL "GR2.1" To
    F. SEE OET
    THE RIGHT

