

Solicitation Information

BID # 7458279

**TITLE: 2013-DF-035 HURRICANE SANDY REPAIRS TO
POPPASQUASH BRIDGE NO. 293 BRISTOL, RI**

Submission Deadline: 11/19/12 @ 1:00 p.m.

Bidders are advised that, due to the emergency nature of the repairs identified in this solicitation, a general scope of work and description only is provided. The available documents are contained herein, and are the only available specifications that will be provided for this procurement.

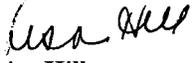
A total lump sum bid proposal is required, and will be the basis for award, however where there are multiple sites identified, a lump sum breakdown is required.

BID PROPOSALS MUST BE DELIVERED TO THE DIVISION OF PURCHASES, ONE CAPITOL HILL, PROVIDENCE, RI AT THE DATE AND TIME NOTED ABOVE, AND MUST INCLUDE THE FOLLOWING:

- BID PROPOSAL FORM WITH TOTAL LUMP SUM PRICE
- BID SURETY
- LUMP SUM BREAKDOWN OF SITE, IF MULTIPLE SITES ARE IDENTIFIED
- THREE-PAGE BIDDER CERTIFICATION COVER FORM
- FEDERAL FORMS, COMPLETED (LOBBYING FORM, DISCLOSURE FORM, ANTI-COLLUSION FORM)
- LATE BIDS SHALL NOT BE ACCEPTED. PROPOSALS MISDIRECTED TO OTHER STATE LOCATIONS OR WHICH ARE OTHERWISE NOT SUBMITTED TO THE DIVISION OF PURCHASES PRIOR TO THE TIME OF THE OPENING FOR ANY CAUSE WILL BE DETERMINED TO BE LATE AND SHALL NOT BE CONSIDERED. THE 'OFFICIAL' TIME CLOCK IS IN THE RECEPTION AREA OF THE DIVISION OF PURCHASES.
- **PUBLIC COPY REQUIREMENT- DUE TO THE ANTICIPATED BID VALUE IN EXCESS OF \$750,000, BIDDERS ARE REQUIRED TO SUBMIT A "PUBLIC COPY" OF BIDS IN ACCORDANCE WITH R.I. GEN. LAWS 37-2-18(j). THIS PUBLIC COPY MAY BE SUBMITTED ON EITHER A READABLE CD OR HARD (PAPER) COPY FOR THIS EMERGENCY PROCUREMENT.**

SURETY REQUIRED: YES
BOND REQUIRED: YES

MANDATORY PRE-BID: 11/15/12 - 1:30 P.M.
LOCATION: RIDOT, 2 CAPITOL HILL, ROOM 117, PROVIDENCE, RI


Lisa Hill
Chief Buyer

Vendors must register on-line at the State Purchasing Website at www.purchasing.ri.gov

Note to Vendors: Offers received without the completed RIVP Generated Bidder Certification Form may result in disqualification.

RHODE ISLAND DIVISION OF PURCHASES
HURRICANE SANDY BID PROPOSAL FORM



PROJECT NO. 2013-DF-035

BID A TOTAL PRICE TO FURNISH ALL LABOR, MATERIALS AND EQUIPMENT, AND INCIDENTALS WITH TRAFFIC CONTROL IN CONFORMANCE MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) REQUIREMENTS TO PERFORM REPAIRS AS DESCRIBED IN THE BID DOCUMENTS.

The breakdown for each Hurricane ID is as follows:

HRS-004 \$ _____

\$ _____
NUMERICAL

\$ _____
WRITTEN WORDS

*NOTE: WORDS AND NUMBERS MUST MATCH. PROPOSALS OFFERING DIFFERENT AMOUNTS WILL BE REJECTED.

BID PROPOSAL MUST BE ACCOMPANIED BY THE ATTACHED BIDDER CERTIFICATION FORM.

SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH AN INSURANCE CERTIFICATE IDENTIFYING THE STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION AS THE ADDITIONAL INSURED.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
HURRICANE SANDY BID PROPOSAL FORM

SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH AN INSURANCE CERTIFICATE IDENTIFYING THE STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORTATION AS THE ADDITIONAL INSURED. LIMITS OF LIABILITY ARE AS IDENTIFIED IN ITEM 31 STATE OF RHODE ISLAND CONDITIONS OF PURCHASE WHICH CAN BE VIEWED AT THE FOLLOWING WEBSITE:

<http://www.purchasing.ri.gov/RIVIP/publicdocuments/ATTA.pdf>

IF THE CONTRACTOR VALUE EXCEEDS \$50,000 THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH A PERFORMANCE AND PAYMENT BOND FOR 100% OF THE CONTRACT VALUE WITHIN THREE (3) DAYS OF REQUEST. FAILURE TO FURNISH SAID BOND WILL RESULT IN DISQUALIFICATION.

ALL WORK PERFORMED IN CONJUNCTION WITH THIS PROJECT SHALL BE COMPLETED IN ACCORDANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, COMPILATIONS OF APPROVED SPECIFICATIONS, REQUIRED CONTRACT PROVISIONS FOR FEDERAL AID CONSTRUCTION CONTRACTS, GENERAL PROVISIONS, RHODE ISLAND STANDARD DETAILS, RHODE ISLAND BRIDGE STANDARD DETAILS, FEDERAL WAGE RATES, CONTRACT SPECIFIC GENERAL PROVISIONS, JOB-SPECIFIC SPECIFICATIONS, DISTRIBUTION OF QUANTITIES, APPENDICES (IF APPLICABLE).

DATE: _____

CONTRACTOR: _____

SIGNATURE: _____

NAME: _____

TITLE: _____

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 - 0348-0046
(see reverse for public burden disclosure)

<p>1. Type of Federal Action:</p> <p><input type="checkbox"/> a. contract</p> <p><input type="checkbox"/> b. grant</p> <p><input type="checkbox"/> c. cooperative agreement</p> <p><input type="checkbox"/> d. loan</p> <p><input type="checkbox"/> e. loan guarantee</p> <p><input type="checkbox"/> f. loan insurance</p>	<p>2. Status of Federal Action:</p> <p><input type="checkbox"/> a. bid/offer/application</p> <p><input type="checkbox"/> b. initial award</p> <p><input type="checkbox"/> c. post-award</p>	<p>3. Report Type:</p> <p><input type="checkbox"/> a. initial filing</p> <p><input type="checkbox"/> b. material change</p> <p>For Material Change Only:</p> <p>year _____ quarter _____</p> <p>date of last report _____</p>
<p>4. Name and Address of Report Entity:</p> <p><input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee</p> <p style="padding-left: 100px;">Tier ____, if known:</p> <p>Congressional District, if known: _____</p>		<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</p> <p>Congressional District, if known: _____</p>
<p>6. Federal Department Agency:</p>	<p>7. Federal Program Name/Description:</p> <p>CFDA Number, if applicable: _____</p>	
<p>8. Federal Action Number, if known:</p>	<p>9. Award Amount, if known:</p> <p>\$ _____</p>	
<p>10. a. Name and Address of Lobbying Entity:</p> <p>(if individual, last name, first name, mi): _____</p>	<p>10. b. Individuals Performing Services (including address if different from No. 10a)</p> <p>(last name, first name, mi): _____</p>	
<p>11. Amount of Payment (check all that apply)</p> <p>\$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned</p>	<p>13. Type of Payment (check all that apply):</p> <p><input type="checkbox"/> a. retainer</p> <p><input type="checkbox"/> b. one-time fee</p> <p><input type="checkbox"/> c. commission</p> <p><input type="checkbox"/> d. contingent fee</p> <p><input type="checkbox"/> e. deferred</p> <p><input type="checkbox"/> f. other; specify: _____</p>	
<p>12. Form of Payment (check all that apply):</p> <p><input type="checkbox"/> a. cash</p> <p><input type="checkbox"/> b. in-kind; specify: nature _____</p> <p style="padding-left: 100px;">value _____</p>		
<p>14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contracted, for Payment indicated in Item 11 (Attach Continuation Sheet(s) SF-LLL-A, if necessary):</p> <p>_____</p>		
<p>15. Continuation Sheet(s) SF-LLL-A attached: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no</p>		
<p>16. Information requested through this form is authorized by title 31 U.S.C. section 1352. this disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.</p>	<p>Signature: _____</p> <p>Print Name: _____</p> <p>Title: _____</p> <p>Telephone No: _____ Date: _____</p>	
<p>For Federal use Only:</p>		<p>Authorized for Local Reproduction Standard Form - LLL-A</p>

DISCLOSURE OF LOBBYING ACTIVITIES

CONTINUATION SHEET

Reporting Entity: _____ Page _____ of _____

CONFLICTS DISCLOSURE POLICY

To ensure that the Rhode Island Department of Transportation (RIDOT) maintains the continued confidence and trust of the people of Rhode Island in carrying out its mission, prospective vendors must disclose any family (or other personal) relationships, associations or connections that the vendor, its affiliates, or employees, may currently have with any RIDOT employee. A Conflicts Disclosure Statement shall be submitted to RIDOT from the following:

- ❖ Owners;
- ❖ Directors;
- ❖ Principals;
- ❖ Officers, board members, or individuals with corporate authority;
- ❖ If the vendor is a partnership, the applicant's partners;
- ❖ If the vendor is a limited liability company, its members and managers;
- ❖ Employees with decision-making authority, including executive directors, managers or individuals in a similar position with corporate authority; and
- ❖ Shareholders with a controlling interest.

CONFLICTS DISCLOSURE STATEMENT

RE: _____

I, _____ hereby certify as follows:

I am employed as a _____ of _____
[TITLE] [COMPANY]

and to the best of my knowledge:

PLEASE CHECK THE APPROPRIATE BOX:

- I have no family or personal relations currently employed either on a full-time or part-time basis at the Rhode Island Department of Transportation.
- I do have family or personal relations currently employed at the Rhode Island Department of Transportation. Please list their name(s), title(s), and RIDOT Division(s) (if known):

NAME	TITLE	RIDOT DIVISION

If necessary, please add any additional names as attachments hereto.

FOR ILLUSTRATIVE PURPOSES, FAMILY RELATIONS SHALL INCLUDE, WHETHER BY BLOOD, ADOPTION OR MARRIAGE, ANY OF THE FOLLOWING RELATIONSHIPS:

Father, Mother, Son, Daughter, Brother, Sister, Grandfather, Grandmother, Grandson, Granddaughter, Father-In-Law, Mother-In-Law, Brother-In-Law, Sister-In-Law, Son-In-Law, Daughter-In-Law, Stepfather, Stepmother, Stepson, Stepdaughter, Stepbrother, Stepsister, Half-Brother Or Half-Sister, Niece, Nephew, And Cousin

❖ *If you are unsure whether a relationship, association, or connection you have may need to be disclosed, please consult with RIDOT's Legal Office at (401) 222-6510.*

SIGNATURE _____

DATE _____

By signing this form you: (1) certify that the information contained in this form is complete and accurate to the best of your knowledge; and (2) acknowledge your continuing obligation to complete and submit a new Disclosure form when there is any change in your family or personal relations during the course of this Contract.

This document is used for internal RIDOT purposes only in order to address and avoid any potential conflicts at the inception of the contract process and to avoid any impropriety or the appearance of impropriety during the contract process. Any disclosures made hereto will not prejudice prospective vendors from selection.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION
AND OTHER RESPONSIBILITY MATTERS
PRIMARY COVERED TRANSACTIONS**

In accordance with the code of Federal Regulations, Part 49 CFR Section 29.510, the prospective primary participant _____ (name of Authorized Agent), _____ (Title), being duly sworn (or under penalty of perjury under the laws of the United States), certifies to the best of his/her knowledge and belief, that its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification;
- d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall list exceptions below.

Exceptions will not necessarily result in denial of award, but, will be considered in determining contractor responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and the dates of the action. Providing false information may result in criminal prosecution or administrative sanctions. If an exception is noted the contractor must contact the Department to discuss the exception prior to award of the contract.

Signature of Authorized Agent

Date

RI Contract No. 2013-DF-035
Hurricane Sandy Repairs to
POPPASQUASH ROAD IN BRISTOL
(HRS-004 attached)

The Contractor shall not use private property to store equipment or materials without written approval of the property owner. All work must be completed from the State Right-of-Way. No areas shall be disturbed outside the limits of work.

RIDOT will pay for police when they are used. The contractor is required to include flaggers in their bid.

All RIDOT Standard Specifications, latest Compilations and Material Testing requirements apply to this contract.

As indicated on the Solicitation Information sheet, a mandatory pre-bid will be held on 11/15/12 at 1:30 p.m. at RIDOT, 2 Capitol Hill, Room 117, Providence, RI. Bids will not be accepted from contractors that do not attend this mandatory pre-bid.

All work associated with HRS-004 must be completed by January 31, 2013.

Payment of Lump Sum items will be based on the percentage of work completed. The State will hold 10% of the Lump Sum item until Final Acceptance. A 3% retainage will not be held.

All Construction Layout and Survey will be incidental to this Contract.

All pavement layer thickness shall as required in the project scope. All areas where pavement is removed must be restored within 3 days or the end of the work week.

All pavement markings will be paint.

Performance Bonds and Insurance are required for all work over \$50,000.

The contractor shall certify with their bid that they have sufficient resources to complete the work without having an effect on any existing emergency repair contracts or other RIDOT contracts.

Latest Federal Wage rates shall apply.

Subcontractor agreements must be submitted and accepted by the Department.

RIDOT Hurricane Sandy Guidelines are also attached for your information.

HURRICANE SANDY DAMAGE GUIDELINES

Hurricane Sandy Damage Proposal Protocol

1. Talk with Engineering to obtain photos or take your own for repair location.
2. Verify scope with engineering and your supervisor.
3. Meet with a minimum of two contractors together at the site to discuss the scope of restoration. Obtain proposal from the two contractors, within 24 hours, and forward to the main office. Proposal for work should be lump sum based on the estimated scope from discussions with you and engineering, and supervisor. The contractor's proposal must include schedule for start and completion for work as well as a bond (for restoration/repair work over \$50,000 only).
4. Contract Administration office will provide a letter of approval to start work and Construction Management Office will authorize RE to start work
5. Construction Management Office to give copies of proposal and projected completion date to Engineering Office to update spreadsheet.
6. Engineering will set up paperwork for FHWA funding
7. Resident Engineer/Inspector to document activity using daily activity reports and photos.
8. Supervisor must be notified of completed work, perform final inspection with Office of Quality Compliance and Review to accept work and authorize payment.

General Guidelines

1. All work and materials must comply with RI Standards and Specifications.
2. Stay within the original scope of work unless otherwise approved by Construction Management Office.
3. Erosion controls are required, where appropriate
4. All traffic controls must be installed per the MUTCD

Construction Guidelines

1. Repairs are to be kept to a minimum, but restored to original line and grade
2. Materials section must be contacted accordingly for appropriate test as required
3. Paved shoulder repairs/roadways should be leveled, backfilled with appropriate material, compacted, paved and striped
4. All paved shoulder/roadway restoration, cut and match line, should be located on the roadway edge line. If the washout is beyond the edge line the cut and match line should be the center of the travel lane. If greater

than ½ of the travel lane... cut and match at the centerline of the roadway.
DO NOT LOCATE JOINTS IN THE WHEELPATH

Roadway repairs should include, but not be limited to the following. Saw cut pavement, remove pavement, backfill with gravel borrow subbase and restore flexible pavement in-kind.

5. Landscape shoulders must be restored and stabilized with appropriate materials such as jute mesh, fabric or just plantable soil and seed
6. If the roadway/bridge is closed, this will be considered a priority and the contractor should base his proposal on working a minimum of 12 hours per day and work will take place six days per week, Monday thru Saturday.
7. If the roadway/bridge is open to traffic, the contractor proposal should be based on a minimum 8 hours per day and work will take place six days per week, Monday thru Saturday
8. We do not anticipate any overnight work at this time
9. Holiday work is required except on Thanksgiving Day, Christmas Day and New Year's Day

FLOOD DAMAGE INVENTORY

**TOWN OF BRISTOL
NOVEMBER 13, 2012**

POPPASQUASH ROAD

HRS-004

Ocean waves and flooding has damaged Bridge #293 (Culvert 1 on plans) carrying Poppasquash Road and the adjacent seawall (Wall A on plans). The culvert is located approximately 850 feet west of Hope Street and immediately adjacent to a condominium development.

The replacement of Bridge #293 (Culvert 1) and reconstruction of a portion of seawall (Wall A) shall follow the attached plans and will include, but is not limited to:

- Survey the existing culvert
- Preparation of design calculations and shop drawings for culvert and parapets
- Preparation of Temporary Diversion/Water Control Plan
- Installing turbidity curtains as needed and/or directed by the Engineer
- Temporary diversion of channel flow
- Maintenance and protection of all existing utilities
- Dewatering/water protection and floating turbidity curtain
- Excavation
- Coordination with other Contractor's on-site
- Full depth sawcut existing pavement to limits of repair work
- Remove and dispose pavement to limits of repair work
- Removal and disposal of existing culvert
- Remove and dispose existing catch basins and pipes
- Installation of new catch basins and pipes
- Bedding (crushed stone) for proposed culvert
- Rip-rap (RI Standard R-5) channel protection with RI Standard FS-2 bedding and geotextile fabric at inlet and outlet of culvert
- Installation of three (3) 6' x 4' precast concrete box culverts
- All joint sealants, grouting and reinforcement necessary for installation of culverts, toe walls and head walls
- Membrane waterproofing
- Bituminous damp-proofing
- Pervious fill w/ filter fabric
- Form and cast-in-place concrete headwalls/parapets
- Installation of precast concrete wingwall
- Installation of the approach slabs and new pavements
- Installation of CMU bulkhead on each end of one (1) precast concrete box culvert upon completion
- Installation of RIDOT Historic Section approved finish on headwalls
- Restore channel rip rap and disturbed areas as determined by Engineer
- Remove and dispose debris from shoulders
- Stockpile and retain stones from damaged wall portions for re-use in wall reconstruction

- Stockpile and retain existing large angular rocks remaining from the eroded embankments for use as rip rap
- Mortar for Masonry Joints
- Reconstruct stone seawalls within limits of work as needed using existing stones and supplemented by new stones resembling the existing stones and approved by the Engineer
- Wall reconstruction in accordance with Section 939, Stone Walls in Historic, Scenic or Rural Areas
- Rebuild embankments along seawalls
- Traffic Control in coordination with the enclosed TMP and Contract 2013-DF-029
- Armor the roadway embankment with placed rip rap comprised of existing stockpiled stones and supplemented as needed with new rip rap, RI Standard R8
- Bedding for rip rap
- Filter fabric for rip rap bedding, RI Standard FS-3
- All other incidentals necessary to complete work within the limits shown on the attached plans

The limits of work are identified on the plans and total approximately 100 LF.



Failed Portion of Wall "A" – West of Culvert 1 (Bridge #293)



Failed Portion of Wall "A" – West of Culvert 1 (Bridge #293)



Bridge #293 – Southwest Wingwall Condition



Bridge #293 – Existing Pier Column Condition (North Face)



Project Name: **Hurricane Sandy Repair to Poppasquash Bridge 293**
 RI Design Contract No(s): _____
 RI Construction Contract No(s): **2013-DF-035**
 Submission: **ADV** Date: **11/9/2012**

PROJECT INFORMATION

Brief Project Description: This project is located in Poppasquash Road in Bristol County, RI. The project involves replacement of existing culvert and will include but not limited to temporary water diversion, installing erosion controls, excavation, removal of existing culvert, installing new culvert, installing rip rap and geotextile fabric, installing CMU bulkhead, removing and disposing drainage structures, installing new drainage pipes and structures and all other incidentals required to complete the work under this contract.

General Work Limits: The limit of work on Poppasquash is approximately 900 feet west of Hope Street intersection for about 100 feet in length,

WORK ZONE LOCATIONS			
ROADWAY NAME or INTERSECTION	FROM	TO	APPROX. LENGTH
Poppasquash Road			100 feet

General Project Schedule*: This Project Will be advertised in November 2012 and be completed within three months.

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

TRAFFIC-RELATED WORK RESTRICTIONS

General Restrictions: The Contractor will work a minimum of 12 hours per day for 6 days a week from Monday to Saturday with an exception to the following Holiday Restrictions.

Holiday Restrictions: With an exception to proposed detour, following holiday restriction shall apply
No lane and/or shoulder closures allowed after 1:00 pm on the Friday preceding a holiday weekend.
NEW YEAR'S DAY AND 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
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, Friday, Saturday and Sunday

PERFORMANCE MONITORING, CHANGES TO TMP, & CONTINGENCIES

The **Contractor's TMP Implementation Manager (if identified below)** 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.

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 Deputy Chief Engineer, the TMP 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 Deputy Chief Engineer, 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 Deputy Chief Engineer, 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).

Other Requirements:

TMP APPROVALS

All approvals must be obtained prior to start of work

DEPUTY CHIEF ENGINEER		
Signature: Frank Corrao III, P.E.		
Date: _____		
Revision #	Initials	Date

STATE TRAFFIC ENGINEER		
Signature: Robert Rocchio, P.E.		
Date: _____		
Revision #	Initials	Date

CHIEF ENGINEER		
Signature: Kazem Farhoumand, P.E.		
Date: _____		
Revision #	Initials	Date

TMP IMPLEMENTATION MANAGERS

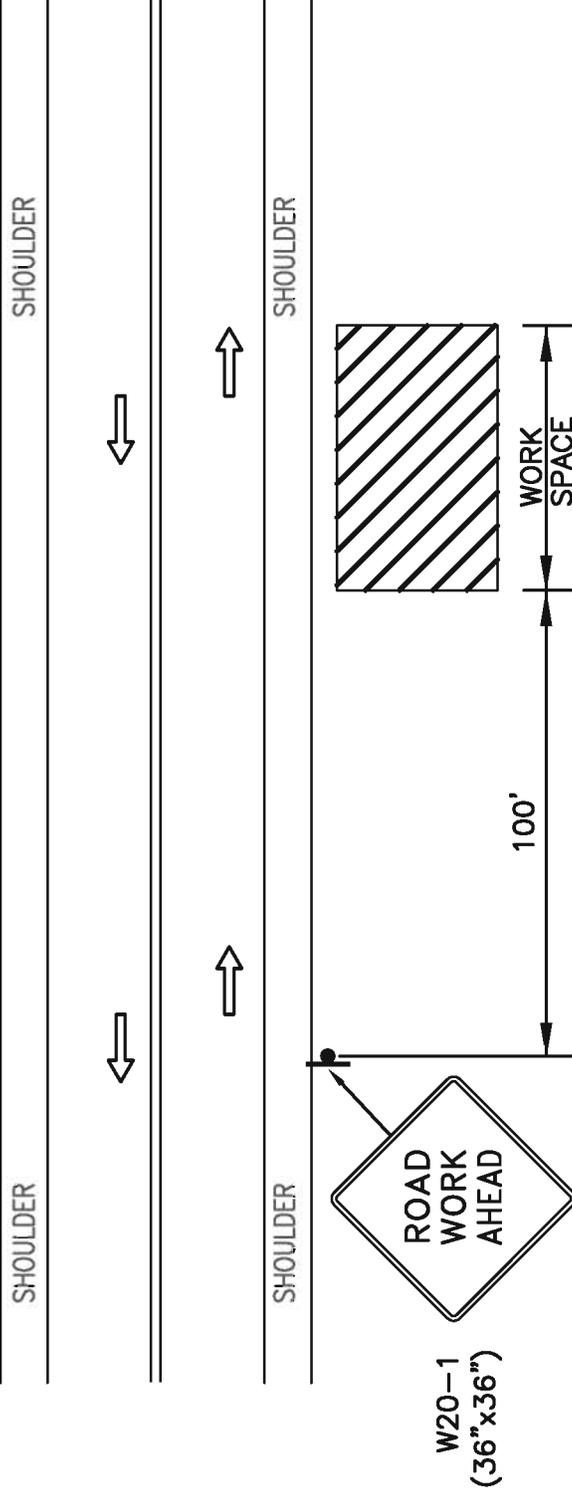
Project managers with the primary responsibility & authority for implementation of this TMP

RIDOT	
Name:	
Title:	
Unit:	
Office Phone:	
Mobile Phone:	
E-Mail:	

CONTRACTOR (if contract work)	
Name:	
Title:	
Company/Unit:	
Office Phone:	
Mobile Phone:	
E-Mail:	

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. TEMPORARY CONSTRUCTION SIGNS SHALL BE PLACED SO THEY DO NOT ENCROACH ON OPEN LANES OF TRAFFIC.
4. CONSTRUCTION VEHICLES SHALL NOT ENCROACH UPON OPEN LANES OF TRAFFIC EXCEPT WHEN ENTERING AND EXITING THE WORK ZONE.
5. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.



TYPICAL TRAFFIC CONTROL PLAN FOR

WORK BEYOND THE SHOULDER

NOT TO SCALE

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.

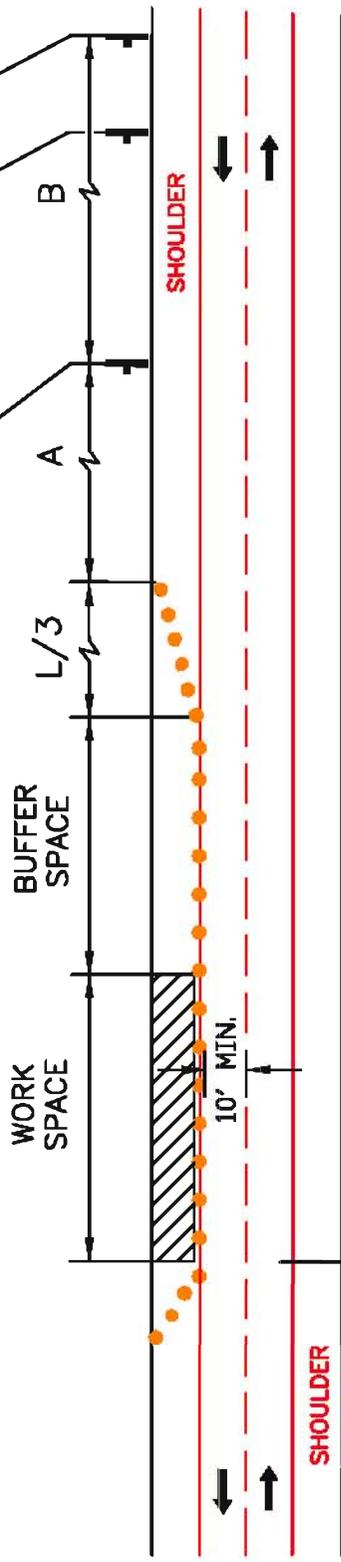
5. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
6. MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.
7. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
8. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.

R.I. Std. 27.1.1
(SEE STD. FOR SIZES
AND INSTALL LOCATION)

WORK ZONE
TRAFFIC
FINES
DOUBLED

SHOULDER
WORK
W21-5

ROAD
WORK
AHEAD
W20-1



TAPER AND BUFFER LENGTHS

Speed Limit	Taper Length* Feet	Buffer Space** Feet
25 MPH	125	55
30 MPH	180	85
35 MPH	245	120
40 MPH	320	170
45 MPH	540	220
50 MPH	600	280

* Required
** Suggested

MINIMUM ADVANCE WARNING SIGN SPACING

Posted Speed Limit & Location	Distance Between Signs (FEET)		
	A	B	C
30 MPH OR LESS In URBAN OR RURAL AREA	100	100	100
35 MPH OR HIGHER In URBAN AREA	350	350	350
35 MPH OR HIGHER In RURAL AREA	500	500	500



RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
TEMPORARY
TRAFFIC CONTROL PLAN

**TYPICAL SHOULDER CLOSURE
ON
TWO-LANE ROADWAY**

NOT TO SCALE

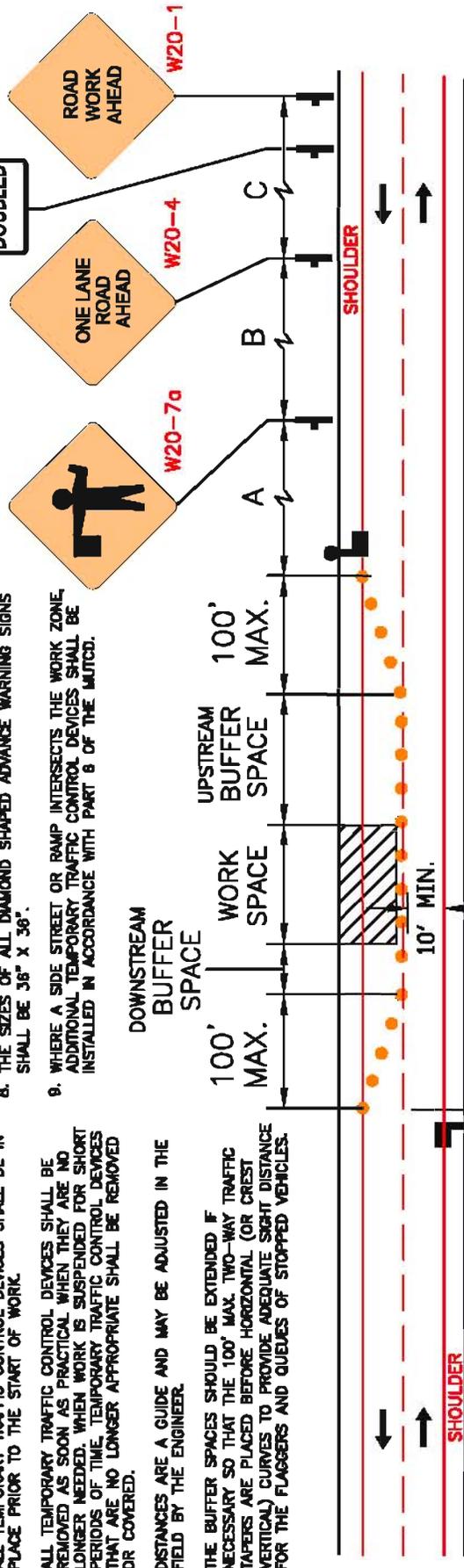
DATE: 12-23-08

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
5. THE BUFFER SPACES SHOULD BE EXTENDED IF NECESSARY SO THAT THE 100' MAX. TWO-WAY TRAFFIC TAPERS ARE PLACED BEFORE HORIZONTAL (OR CREST VERTICAL) CURVES TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND QUEUES OF STOPPED VEHICLES.

6. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN THE 100' MAX. TWO-WAY TRAFFIC TAPERS IS 25 FEET. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
7. MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
9. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 8 OF THE MUTCD.

WORK ZONE
TRAFFIC FINES DOUBLED
 R.I.Std. 27.1.1
 (SEE STD. FOR SIZES AND INSTALL LOCATION)



BUFFER LENGTHS

Speed Limit	Upstream Buffer Space* (Feet)
25 MPH	55
30 MPH	85
35 MPH	120
40 MPH	170
45 MPH	220
50 MPH	280

* Suggested

MINIMUM ADVANCE WARNING SIGN SPACING

Posted Speed Limit & Location	Distances Between Signs (Feet)		
	A	B	C
30 MPH OR LESS In URBAN OR RURAL AREA	100	100	100
35 MPH OR GREATER In URBAN AREA	350	350	350
35 MPH OR GREATER In RURAL AREA	500	500	500

R.I.Std. 27.1.1

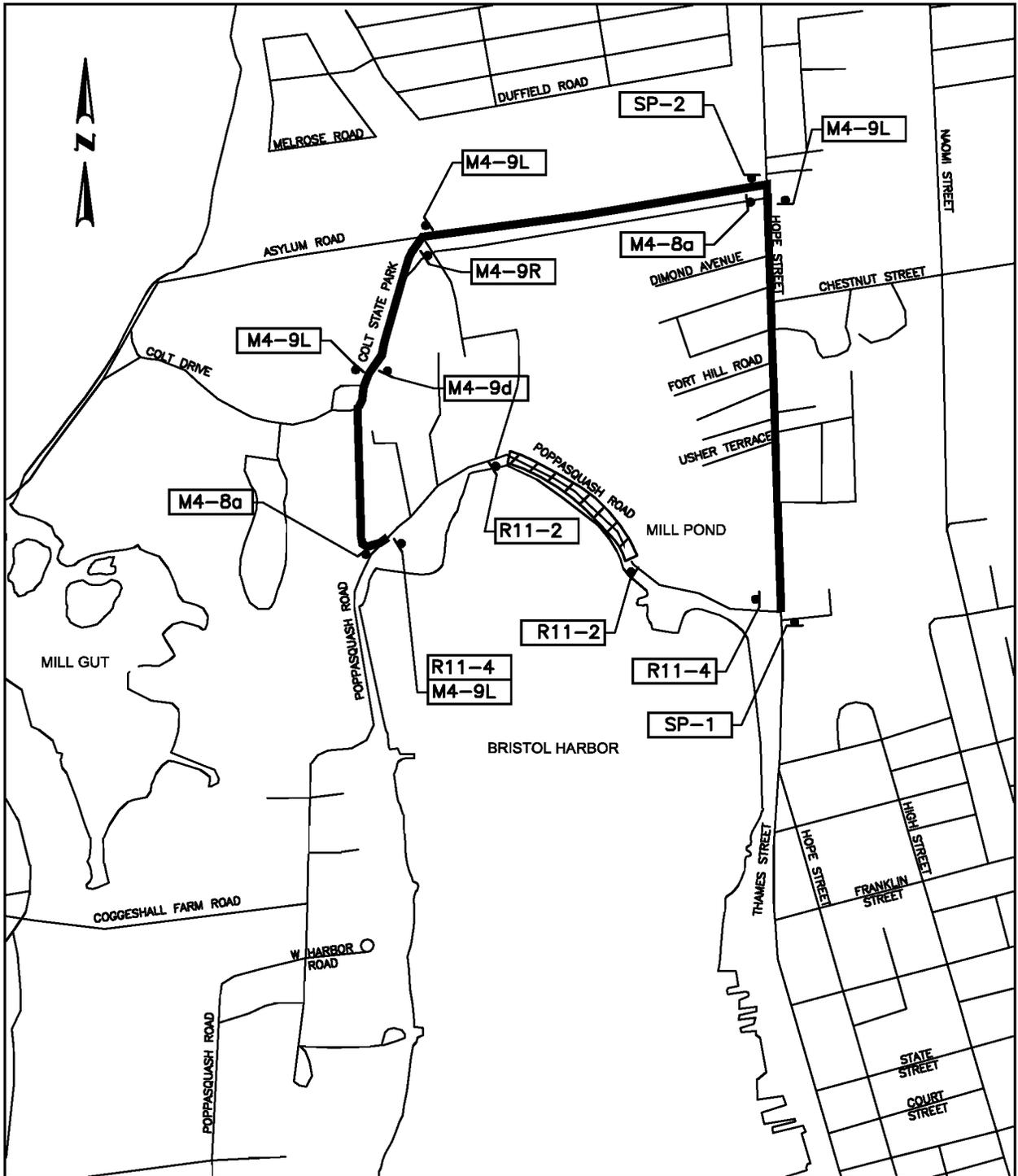


RHODE ISLAND
 DEPARTMENT OF TRANSPORTATION
 TEMPORARY
 TRAFFIC CONTROL PLAN

**TYPICAL LANE CLOSURE
 ON
 TWO-LANE ROADWAY**

NOT TO SCALE

DATE: 12-23-08



LEGEND

- ↑ SIGN
 - ┌ PORTABLE CHANGEABLE MESSAGE SIGN (PCMS-A/B)
 - DIRECTION OF TRAVEL
 - DETOUR PATH
 - ▨ CLOSED ROADWAY
- | | | | | |
|--------------|--------------|--------------|--------------|--------------|
| <p>M4-9d</p> | <p>M4-9R</p> | <p>M4-9L</p> | <p>M4-8a</p> | <p>R11-2</p> |
|--------------|--------------|--------------|--------------|--------------|

DETOUR PLAN

FOR CLOSURE OF POPPASQUASH ROAD

BRISTOL, RI

NOT TO SCALE

- | | | |
|--------------|-------------|-------------|
| <p>R11-4</p> | <p>SP-1</p> | <p>SP-2</p> |
|--------------|-------------|-------------|

NOTE:
FINAL LOCATION OF SIGNS SHALL BE
DETERMINED IN THE FIELD BY THE ENGINEER.

MEMORANDUM

To: Eric Atkins, P.E. / Green International Affiliates
Michael A. Cruz, P.E./Green International Affiliates

From: Douglas J. Aghjayan, P.E.

Date: November 12, 2012

Project: Emergency Culvert Repairs for Poppasquash Road
Bristol, Rhode Island
GEI Project 13004-0

Re: Subsurface Conditions and Geotechnical Culvert Support Recommendations

Copy:

This memorandum presents the results of our subsurface explorations and geotechnical recommendations for the emergency repairs to Culvert Nos. 1 and 2 located on Poppasquash Road in Bristol, Rhode Island. Our work for this project was authorized by Green International Affiliates.

Site Description

The site is located along Poppasquash Road in Bristol, Rhode Island. The site begins about 200 feet west of the intersection of Hope Street and Poppasquash Road, and extends a distance of about 3,900 feet along the road. The site is bordered on the south by Bristol Harbor and on the north by Mill Pond, Colt State Park, and private property.

Culvert No. 1 is a multi-cell culvert located about 850 feet west of Hope Street that passes beneath Poppasquash Road. The culvert allows tidal flow to pass between Bristol Harbor and Mill Pond. A small portion of the north (Mill Pond) side of the culvert is constructed from reinforced concrete. The remaining culvert is constructed from unmortared stone. A mortared stone wingwall that rests on unmortared stone is located on the south side of the culvert. The northern portion of the culvert is in poor condition. Concrete columns that support the northern side of the culvert have undergone significant deterioration.

Culvert No. 2 is a single-cell culvert located about 700 feet southwest of the entrance to Colt State Park that also passes beneath the road. Culvert No. 2 allows flow between the harbor and a wetland area. The culvert is constructed from unmortared stone. Culvert wingwalls consist of crudely placed concrete blocks and stone.

Subsurface Explorations

GEI engaged Geologic-Earth Explorations of Norfolk, Massachusetts to drill two borings (B1 and B2) at the site on November 8 and 9, 2012. B1 was located near Culvert No. 1 and B2 was located near Culvert No. 2. Both borings were drilled using rotary-wash methods. Standard Penetration Tests were performed in the borings beginning near the ground surface and at five-foot intervals thereafter. Both borings were terminated due to refusal in rock at a depth of 27 feet. The borings were backfilled with soil cuttings upon completion and topped off with asphalt cold patch. The boring logs are attached.

Subsurface Conditions

The major soil layers encountered in the borings are described below, starting from the ground surface and proceeding downward. The soil conditions are known only at the exploration locations. Subsurface conditions between these locations may vary significantly from those described below.

Asphalt: An approximately 4-inch-thick layer of asphalt was encountered at the ground surface in B1 and B2.

Fill: An approximately 4 to 5-foot-thick layer of fill was encountered beneath the asphalt. The fill consisted mostly of dark gray fine to coarse sand with varying amounts of silt.

Sand and Silt: An approximately 8- to 13-foot-thick layer of silt and sand was encountered beneath the fill. The upper portion of the sand and silt layer consisted mostly of non- to low plasticity fines with varying amounts of fine sand, with possible organics. The layer graded to mostly fine sand with non-plastic fines with depth. SPT N-values in the sand and silt layer ranged from 2 to 41, indicating that the silt and sand is loose to dense. The upper portion of this layer may be topsoil/tidal mud that was buried when the road was constructed.

Weathered Shale: Dark gray to black severely to completely weathered shale was encountered beneath the sand and silt layer. Samples of the weathered shale contained material that had completely decomposed into soil to small intact moderately hard pieces up to about ½-inch in size.

Groundwater levels were not measured in the borings. However, given the close proximity of both borings to Bristol Harbor, it is reasonable to assume that the groundwater is roughly at the same elevation as the harbor water and that groundwater levels fluctuate with the harbor tide.

Geotechnical Recommendations

Based on discussions with Green, we understand that both existing culverts will be replaced with new precast concrete culverts. Culvert No. 1 is planned to be replaced with a three-cell culvert. Culvert No. 2 is planned to be replaced with a two-cell culvert. We have assumed that the inverts of the new culverts will be the same as the existing culverts.

We expect that the new culverts can bear directly on the existing natural sand and silt, or a 6- to 12-inch thick layer of compacted gravel bedding layer that extends down to the natural sand and silt. The gravel bedding layer should conform to RIDOT M.01.04 Table I Column II. A geotextile satisfying US 205NW criteria (such as Carthage Mills FX-80HS or equivalent) may be placed between the natural soil and gravel bedding if desired.

BORING INFORMATION
 LOCATION: See Plan
 GROUND SURFACE EL. (ft): NM
 VERTICAL DATUM:
 TOTAL DEPTH (ft): 27.0
 LOGGED BY: E. Fazlic
 DATE START/END: 11/8/2012 - 11/8/2012
 DRILLING COMPANY: Geologic, Inc.
 DRILLER NAME: J. Stokes
 RIG TYPE: Acker Soil Scout

BORING
B1
PAGE 1 of 2

DRILLING INFORMATION
 HAMMER TYPE: Donut Hammer - rope and cathead
 AUGER I.D./O.D.: NA / NA
 DRILLING METHOD: Driven casing and washed with rotary tooling.
 WATER LEVEL DEPTHS (ft): Not measured
 CASING I.D./O.D.: 4 inch/ 4.5 inch
 DRILL ROD O.D.: 3.5
 CORE BARREL TYPE: NA
 CORE BARREL I.D./O.D.: NA / NA

ABBREVIATIONS: Pen = Penetration Length
 Rec = Recovery Length
 RQD = Rock Quality Designation
 = Length of Sound Cores > 4 in / Pen., %
 WOR = Weight of Rods
 WOH = Weight of Hammer
 S = Split Spoon Sample
 C = Core Sample
 U = Undisturbed Sample
 SC = Sonic Core
 DP = Direct Push Sample
 HSA = Hollow-Stem Auger
 Qp = Pocket Penetrometer Strength
 Sv = Pocket Torvane Shear Strength
 LL = Liquid Limit
 PI = Plasticity Index
 PID = Photoionization Detector
 I.D./O.D. = Inside Diameter/Outside Diameter
 NA, NM = Not Applicable, Not Measured
 Blows per 6 in.: 140-lb hammer falling
 30 inches to drive a 2-inch-O.D.
 split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
		S1	0.5 to 2.5	24/16	118-34-34-11	ASPHALT	ASPHALT S1: SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, ~35% non-plastic fines, ~15% fine gravel. Dark gray. [FILL]	
	5	S2	4 to 6	24/0	9-4-4-8	FILL	S2: No Recovery.	
	10	S3	9 to 10	12/8	31-26-40/0"	SAND AND SILT	S3 (0-4 in): ORGANIC SOIL (OL); 100% low plasticity fines, possibly decomposed wood. Black. S3 (4-8 in): SANDY SILT WITH GRAVEL (ML); ~50% non-plastic fines, ~25% mostly fine sand, ~25% fine to coarse gravel up to 3/4 in. Brownish gray.	
	15	S4	14 to 16	24/24	32-73-77-85	WEATHERED ROCK	S4: SHALE; Severely weathered, decomposed to soil and small (<1/2 in) slaty pieces. Black.	
	20	S5	19 to 21	24/24	30-56-62-111		S5: SHALE; Similar to S4	

NOTES:

PROJECT NAME: Poppasquash Rd. Culvert Repairs
 CITY/STATE: Bristol, RI
 GEI PROJECT NUMBER: 13004-0



GEI WOBURN STD 1-LOCATION-LAYER NAME 13004-0 BORING LOGS.GPJ GEI DATA TEMPLATE 2011.GDT 11/12/12

LOCATION: See Plan

GROUND SURFACE EL. (ft): NM

VERTICAL DATUM:

DATE START/END: 11/8/2012 - 11/8/2012

DRILLING COMPANY: Geologic, Inc.

BORING

B1

PAGE 2 of 2

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
	25	S6	24 to 24.3	3/3	120/3"	Encountered hard bedrock at 27 ft.	S6: SHALE; Similar to S4.	
							Bottom of borehole at 27 ft. Backfilled with cuttings and patched with asphalt.	
	30							
	35							
	40							
	45							
	50							

GEI WOBURN STD 1-LOCATION-LAYER NAME 13004-0 BORING LOGS.GPJ GEI DATA TEMPLATE 2011 GDT 11/12/12

NOTES:

PROJECT NAME: Poppasquash Rd. Culvert Repairs

CITY/STATE: Bristol, RI

GEI PROJECT NUMBER: 13004-0



BORING INFORMATION

LOCATION: See Plan
 GROUND SURFACE EL. (ft): NM DATE START/END: 11/9/2012 - 11/9/2012
 VERTICAL DATUM: _____ DRILLING COMPANY: Geologic, Inc.
 TOTAL DEPTH (ft): 27.0 DRILLER NAME: J. Stokes
 LOGGED BY: E. Fazlic RIG TYPE: Acker Soil Scout

BORING
B2
PAGE 1 of 2

DRILLING INFORMATION

HAMMER TYPE: Donut Hammer - rope and cathead CASING I.D./O.D.: 4 inch/ 4.5 inch CORE BARREL TYPE: NA
 AUGER I.D./O.D.: NA / NA DRILL ROD O.D.: 3.5 CORE BARREL I.D./O.D.: NA / NA
 DRILLING METHOD: Driven casing and washed with rotary tooling.
 WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS: Pen. = Penetration Length S = Split Spoon Sample Qp = Pocket Penetrometer Strength NA, NM = Not Applicable, Not Measured
 Rec = Recovery Length C = Core Sample Sv = Pocket Torvane Shear Strength Blows per 6 in.: 140-lb hammer falling
 RQD = Rock Quality Designation U = Undisturbed Sample LL = Liquid Limit 30 inches to drive a 2-inch-O.D.
 = Length of Sound Cores > 4 in / Pen. % SC = Sonic Core PI = Plasticity Index split spoon sampler.
 WOR = Weight of Rods DP = Direct Push Sample PID = Photoionization Detector
 WOH = Weight of Hammer HSA = Hollow-Stem Auger I D / O D = Inside Diameter/Outside Diameter

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
		S1	0.5 to 2.5	24/13	30-26-40-29	ASPHALT	ASPHALT S1: SILTY SAND WITH GRAVEL (SM); ~60% fine to coarse sand, ~20% fine gravel, ~20% non-plastic fines. Dark brown. [FILL]	
	5	S2	4 to 6	24/10	16-12-10-10	FILL	S2: SILTY SAND WITH GRAVEL (SM); ~50% fine to coarse sand, ~35% fine to coarse gravel up to 3/4 in, ~15% non-plastic fines. Dark gray.	
	10	S3	9 to 11	24/6	5-1-1-1	SAND AND SILT	S3: SILT WITH SAND (ML); ~75% low plasticity fines, ~25% fine sand with traces of roots. Dark gray to black. Slight organic-like odor.	
	15	S4	14 to 16	24/20	11-18-23-24		S4: SILTY SAND (SM); ~60% fine to medium sand, ~40% non-plastic fines. Dark gray, brown.	
	20	S5	19 to 21	24/18	29-21-35-44	WEATHERED ROCK	S5: SHALE; Severely weathered, decomposed to soil and small (<1/2 in) slaty pieces. Dark gray.	

NOTES:

PROJECT NAME: Poppasquash Rd. Culvert Repairs
 CITY/STATE: Bristol, RI
 GEI PROJECT NUMBER: 13004-0



GEI WOBURN STD. 1-LOCATION-LAYER NAME 13004-0 BORING LOGS.GPJ_GEI DATA TEMPLATE 2011.GDT 11/12/12

LOCATION: See Plan

GROUND SURFACE EL. (ft): NM

VERTICAL DATUM:

DATE START/END: 11/9/2012 - 11/9/2012

DRILLING COMPANY: Geologic, Inc.

BORING

B2

PAGE 2 of 2

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
	25	S6	24 to 25.4	17/12	54-57-120/5"	Encountered hard bedrock at 27 ft.	WEATHERED ROCK	S6: SHALE; Similar to S5.
								Bottom of borehole at 27 ft. Backfilled with cuttings and patched with asphalt.
	30							
	35							
	40							
	45							
	50							

NOTES:

PROJECT NAME: Poppasquash Rd. Culvert Repairs

CITY/STATE: Bristol, RI

GEI PROJECT NUMBER: 13004-0



FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.		2013	3	8

LANDSCAPE NOTES:

- ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY (A RECOGNIZED GROWER OF PLANT MATERIAL) IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION. ALL PLANT MATERIAL MUST BE NURSERY GROWN; NO PLANTATION GROWN PLANT MATERIAL WILL BE ACCEPTED.
- ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATION MUST BE APPROVED IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY A REPRESENTATIVE FROM THE R.I.D.O.T. LANDSCAPE ARCHITECTURE UNIT.
- A R.I.D.O.T. LANDSCAPE REPRESENTATIVE MUST BE ON SITE TO APPROVE ALL TRIMMING AND CLEARING NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.
- ANY TOPSOIL USED AS PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS, AND SHALL CONFORM TO SECTION M.18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- ALL TREES AND SHRUBS SHALL BE MULCHED WITH PINE BARK MULCH IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- ALL TREES AND/OR SHRUBS THAT ARE PLANTED AS A BED SHALL BE MULCHED AS A BED.
- PROVIDE A MINIMUM 6'-8" BRANCHING STANDARD ON ALL TREES INSTALLED ADJACENT TO SIDEWALKS AND/OR PEDESTRIAN ACCESS AREAS.

STRUCTURAL NOTES FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS:

GENERAL

- ALL SUPPORT DESIGNS AND ASSOCIATED SHOP DRAWING REVIEWS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION, OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (THE "SPECIFICATIONS"), INCLUDING THE LATEST INTERIM SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN.

CONSTRUCTION DRAWINGS AND DETAILS

- THE FOLLOWING NOTES SHALL BE INCLUDED ON ALL PLANS AND/OR SHOP DRAWINGS IN REFERENCE TO ANCHOR BOLTS:
 - "PRETENSIONING OF ALL ANCHOR NUTS IS REQUIRED, AND SHALL BE ACCOMPLISHED BY TIGHTENING TO 1/6TH TURN BEYOND THE SNUG-TIGHT POSITION."
 - "THE MAXIMUM CLEARANCE BETWEEN THE BOTTOM OF THE LEVELING NUTS AND THE TOP OF THE CONCRETE IS CRITICAL AND SHALL NOT EXCEED THE AMOUNT SPECIFIED ON THIS DRAWING."
- THE USE OF GROUT UNDER BASE PLATES SHALL GENERALLY NOT BE PERMITTED. IF SPECIFIC CONDITIONS WARRANT ITS USE, THE GROUT SHALL NOT BE CONSIDERED LOAD CARRYING; LOADS SHALL BE DIRECTLY SUPPORTED BY THE ANCHOR BOLTS. ADEQUATE DRAINAGE SHALL BE PROVIDED.
- THE DAMPENING EFFECTS OF VIBRATION MITIGATION DEVICES SHALL NOT BE CONSIDERED IN THE DESIGN OF STRUCTURAL SUPPORTS FOR SIGNS AND TRAFFIC SIGNALS. IF THE CONTRACTOR CHOOSES TO USE THESE DEVICES FOR WARRANTY PURPOSES, THE TYPE OF DEVICES PROPOSED SHALL BE APPROVED BY THE DEPARTMENT PRIOR TO FABRICATION OF SUPPORTS.

TRAFFIC SIGNAL NOTES:

- ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE R.I.D.O.T. MAINTENANCE HEADQUARTERS, 360 LINCOLN AVENUE, WARWICK, RHODE ISLAND, 02888.
- BACK PLATES SHALL BE INSTALLED ON ALL TRAFFIC SIGNAL HEADS.
- THE CONTRACTOR SHALL SUPPLY AND INSTALL ON THE UPPER LEFT HAND CORNER OF THE BACK OF THE CONTROLLER CABINET DOOR A LAMINATED INTERSECTION GRAPHIC AND TABLE DEPICTING THE TRAFFIC DETECTOR RELAY CHANNEL ASSIGNMENTS. THE DIAGRAM SHALL BE A GRAPHIC OF THE INDIVIDUAL INTERSECTION ORIENTED SIMILAR TO THE PLANS SHOWING THE LOCATIONS OF EACH OF THE LOOP DETECTORS. THE DIAGRAM SHALL, AT A MINIMUM, INCLUDE DETECTOR NUMBERS, STREET NAME LABELS, NORTH ARROW, AND CONTROLLER CABINET LOCATION. THE ASSIGNMENT INFORMATION SHALL BE INCLUDED IN A TABLE WHICH SHALL INCLUDE, AT A MINIMUM, THE APPROACH NAME, DETECTOR NUMBER, TERMINAL NUMBER, DETECTOR RACK SLOT NUMBER, RELAY NUMBER, RELAY CHANNEL NUMBER, AND PHASE ASSOCIATED WITH EACH DETECTOR.
- TRAFFIC CONTROLLER CABINETS, UNLESS OTHERWISE NOTED, SHALL BE NEMA TS2 TYPE 1 CABINET SIZE 6 ("P" TYPE) WITH NOMINAL DIMENSIONS OF 52"x44"Wx24"D.
- ALL DELAY AND EXTENSION TIMES, AS CALLED FOR ON THE PLANS, FOR PROPOSED LOOP DETECTORS SHALL BE PROGRAMMED IN THE TRAFFIC SIGNAL CONTROLLER AND NOT THE DETECTOR RELAY.
- A BARE GROUND WIRE SHALL BE PLACED IN ALL PVC CONDUITS AND SHALL BE BONDED TO GROUND RODS IN ACCORDANCE WITH SECTION T.03 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- THE FINAL POSITION OF SIGNAL HEADS, PEDESTRIAN PUSHBUTTONS, DETECTORS, AND STOP LINE AND CROSSWALK PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD ACCORDING TO ACTUAL INTERSECTION CHARACTERISTICS.
- A 2' MINIMUM BUFFER SHALL BE PROVIDED BETWEEN THE CURB AND ALL LATERAL OBSTRUCTIONS (INCLUDING ALL SIGNAL POLES AND TRAFFIC/PEDESTRIAN SIGNAL HEADS) TO PROVIDE ADEQUATE CLEARANCE FOR TURNING VEHICLES.
- ALL FOUNDATIONS MUST HAVE CONES OR BARRELS BOLTED TO FOUNDATION BASES UNTIL ACTUAL POLE IS INSTALLED.
- WHEN PLACING TRAFFIC SIGNAL HANDHOLES OR CONDUIT IN EXISTING PORTLAND CEMENT CONCRETE SIDEWALKS, THE ENTIRE SIDEWALK SQUARE OF CONCRETE SHALL BE REPLACED IN ACCORDANCE WITH R.I. STD. 43.1.0. NO PATCHES WILL BE ALLOWED.
- ALL PEDESTRIAN PUSHBUTTONS SHALL BE COMPLIANT WITH "THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES" (ADAAG) AND SHALL INCLUDE A PRESSURE-ACTIVATED (NON-MOVING) BUTTON. SIGNS APPLICABLE TO PUSHBUTTON ACTUATION SHALL BE INSTALLED SUCH THAT THE CROSSING ASSIGNED TO EACH BUTTON IS CLEARLY INDICATED. IF SITE CONDITIONS DO NOT ALLOW PEDESTRIAN PUSHBUTTONS TO BE INSTALLED WHERE CALLED FOR ON THE PLANS, THE R.I.D.O.T. TRAFFIC ENGINEERING UNIT SHALL BE CONSULTED WITH THROUGH AN R.F.I. PRIOR TO INSTALLING THE PUSHBUTTONS. THE FINAL PLACEMENT OF ALL PEDESTRIAN PUSHBUTTONS SHALL BE IN ACCORDANCE WITH ADAAG AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- ALL LOOP DETECTORS SHALL BE CENTERED WITHIN EACH LANE AS DELINEATED, UNLESS OTHERWISE DIMENSIONED ON PLANS.
- ALL LOOP DETECTORS SHALL BE CUT INTO THE FINAL PAVEMENT SURFACE COURSE.
- TRAFFIC SIGNAL CONTROLLERS SHALL BE WIRED SO THAT ANY FIRE PRE-EMPTION SHALL OVERRIDE MANUAL (PUSH BUTTON) OPERATION.
- THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE TRAFFIC SIGNAL OPERATION TO ITS INTENDED PURPOSE WHEN REPLACING THE TRAFFIC SIGNAL EQUIPMENT. A POLICE DETAIL IS REQUIRED TO DIRECT TRAFFIC AT THE INTERSECTION AT ALL TIMES WHEN THE TRAFFIC SIGNAL IS INOPERATIVE. AT NO TIME SHALL THE CONTRACTOR LEAVE THE SITE BEFORE RESTORING FULL TRAFFIC OPERATIONS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

- ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
- ADVANCE FLAGPERSON SIGNS (W20-7A) SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A FLAGPERSON OR A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
- POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT SIGNALIZED INTERSECTIONS AND LIMITED ACCESS HIGHWAYS.
- POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
- ARROW PANELS SHALL BE SET IN THE FLASHING FOUR CORNERS CAUTION MODE UNLESS UTILIZED FOR A MERGING TAPER. ARROW PANELS SET IN THE FLASHING ARROW MODE SHALL NOT BE UTILIZED FOR LANE SHIFTS.
- TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
- THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS. THEY MAY BE PARKED WITHIN THE STATE RIGHT-OF-WAY ONLY IN AREAS 30' BEYOND THE OUTSIDE EDGE OF THE TRAVEL LANES AND/OR IN AREAS APPROVED BY THE ENGINEER.
- TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
- THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES. WATERBORNE PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE THE END OF THE WORK SHIFT ON ALL COLD-PLANED AND NEW ROADWAY SURFACES THAT WILL BE OPENED TO TRAFFIC AT THE END OF THE SHIFT.

THIS PLAN SHALL NOT BE ALTERED

HRS-004

REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION
NO.	DATE	BY	
			HURRICANE SANDY REPAIRS TO POPPASQUASH BRIDGE 293
			BRISTOL, RHODE ISLAND
			STANDARD NOTES - 2
			CHECKED BY <u> K.I. </u> DATE <u> </u> SCALE <u>NO SCALE</u>

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