

Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 ONE CAPITOL HILL
 PROVIDENCE RI 02908

CREATION DATE : 23-FEB-11
BID NUMBER: 7448319
TITLE: 2011-CT-014 - STATEWIDE PAVEMENT MARKING
 INSTALLATION AND REMOVAL (MPA #451)
BLANKET START : 01-APR-11
BLANKET END : 30-APR-13
BID CLOSING DATE AND TIME: 16-MAR-2011 10:00:00

BUYER: Gill, Raymond E Jr
PHONE #: 401-574-8466

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DOT ACCOUNTS PAYABLE
TWO CAPITOL HILL, RM 243
SMITH ST
PROVIDENCE, RI 02903
US

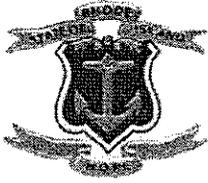
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DOT CONTRACT ADMINISTRATION
TWO CAPITOL HILL, RM 109
SMITH ST
PROVIDENCE, RI 02903
US

Requisition Number:
 Note to Bidders: THERE WILL BE A NON-MANDATORY PRE-BID CONFERENCE
 MARCH 8, 2011 AT 10:00 AM
 DEPARTMENT OF ADMINISTRATION
 CONFERENCE ROOM B
 1 CAPITOL HILL
 PROVIDENCE, RI

OFFICIAL PRICING WILL BE THE PRICING ENTERED ON THE REQUEST FOR QUOTE PAGES 1-4 OFF THE BID

Line	Description	Quantity	Unit	Unit Price	Total
1	FLAGPERSONS	1 100.00	Hour		
2	FLAGPERSON - OVERTIME	600.00	Each		
3	TEMPORARY CONSTRUCTION SIGNS STANDARD 29 1.0 AND 27.1.1	3 000.00	Square Foot		
4	FLUORESCENT TRAFFIC CONES STANDARD 26 1 0	2 250.00	Each		
5	PORTABLE CHANGEABLE MESSAGE SIGN	250.00	Day		
6	TRAFFIC CONTROL TRUCK WITH TRUCK MOUNTED ATTENUATOR AND CHANGEABLE MESSAGE SIGN	360.00	Day		
7	CLEANING AND SWEEPING PAVEMENT FOR STRIPING OPERATIONS	40.00	Day		
8	4 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	2 700.00	Linear Foot		
9	6 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	36,000.00	Linear Foot		
10	8 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	900.00	Linear Foot		
11	12 INCH WHITE FAST - DRYING WATERBORNE	13,500.00	Linear Foot		

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer.



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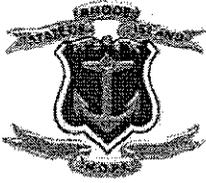
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Line	Description	Quantity	Unit	Unit Price	Total
	PAVEMENT MARKING PAINT				
12	24 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	1,350 00	Linear Foot		
13	4 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	37 800 00	Linear Foot		
14	6 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	4 000 00	Linear Foot		
15	8 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT	900 00	Linear Foot		
16	FAST DRYING WATERBORNE PAVEMENT ARROW - STRAIGHT LEFT RIGHT OR COMBINED STANDARD 20.1.0	90 00	Each		
17	FAST DRYING WATERBORNE PAVEMENT MARKING WORD "ONLY" STANDARD 20 1 0	45 00	Each		
18	4 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	7,200 00	Linear Foot		
19	6 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	117,000 00	Linear Foot		
20	8 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	9 000 00	Linear Foot		
21	12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	36,000 00	Linear Foot		

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Line	Description	Quantity	Unit	Unit Price	Total
22	4 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	117,000 00	Linear Foot		
23	6 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	18 000 00	Linear Foot		
24	8 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	9 000 00	Linear Foot		
25	EPOXY RESIN PAVEMENT ARROW - STRAIGHT LEFT RIGHT OR COMBINED STANDARD 20 1 0	180 00	Each		
26	EPOXY RESIN PAVEMENT MARKING WORD "ONLY" STANDARD 20 1 0	135 00	Each		
27	12 INCH YELLOW FAST DRYING WATERBORNE PAVEMENT MARKING PAINT	1,800 00	Linear Foot		
28	24 INCH YELLOW FAST DRYING WATERBORNE PAVEMENT MARKING PAINT	900 00	Linear Foot		
29	FAST DRYING WATERBORNE PAVEMENT MARKING - YIELD LINE	18 00	Each		
30	24 INCH EPOXY RESIN PAYMENT MARKING WHITE	1,800 00	Linear Foot		
31	12 INCH EPOXY RESIN PAYMENT MARKING YELLOW	10 000 00	Linear Foot		
32	24 INCH EPOXY RESIN PAYMENT MARKING YELLOW	900 00	Linear Foot		

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Line	Description	Quantity	Unit	Unit Price	Total
33	EPOXY RESIN PAVEMENT MARKING - YIELD LINE	90.00	Each		
34	REMOVE 4 INCH PAVEMENT MARKINGS	36,000.00	Linear Foot		
35	REMOVE 6 INCH PAVEMENT MARKINGS	90,000.00	Linear Foot		
36	REMOVE 8 INCH PAVEMENT MARKINGS	9,000.00	Linear Foot		
37	REMOVE 12 INCH PAVEMENT MARKINGS	13,500.00	Linear Foot		
38	REMOVE 24 INCH PAVEMENT MARKINGS	900.00	Linear Foot		
39	REMOVE PAVEMENT MARKING YIELD LINE	18.00	Each		
40	REMOVE PAVEMENT MARKING ARROW - STRAIGHT LEFT, RIGHT OR COMBINED STANDARD 20.1.0	135.00	Each		
41	REMOVE PAVEMENT MARKING WORD "ONLY" STANDARD 20.1.0	63.00	Each		
42	EPOXY RESIN PAVEMENT MARKING - LANE-REDUCTION ARROW	48.00	Each		
43	REMOVE PAVEMENT MARKING LANE - REDUCTION ARROW	16.00	Each		

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Contract Terms and Conditions

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Terms and Conditions

BID STANDARD TERMS AND CONDITIONS

TERMS AND CONDITIONS FOR THIS BID

SURETY REQUIREMENTS

BIDDER IS REQUIRED TO PROVIDE A BID SURETY IN THE FORM OF A BID BOND, OR A CERTIFIED CHECK PAYABLE TO THE STATE OF RHODE ISLAND, IN THE AMOUNT OF A SUM NOT LESS THAN FIVE PERCENT (5%) OF THE BID PRICE. BID SURETY MUST BE ATTACHED TO THE BID FORM. THE SUCCESSFUL BIDDER WILL ALSO BE REQUIRED TO FURNISH PERFORMANCE AND LABOR AND PAYMENT BONDS AT TIME OF TENTATIVE CONTRACT AWARD.

BOND REQUIRED (PERFORMANCE & LABOR/PYT)

NO BID SURETY REQUIRED TO BE SUBMITTED WITH BID. HOWEVER, THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH PERFORMANCE AND LABOR AND PAYMENT BONDS AT TIME OF TENTATIVE CONTRACT AWARD.

INSURANCE REQUIREMENTS

AN INSURANCE CERTIFICATE IN COMPLIANCE WITH PROVISIONS OF ITEM 31 (INSURANCE) OF THE GENERAL CONDITIONS OF PURCHASE IS REQUIRED FOR COMPREHENSIVE GENERAL LIABILITY, AUTOMOBILE LIABILITY, AND WORKERS' COMPENSATION AND MUST BE SUBMITTED BY THE SUCCESSFUL BIDDER(S) TO THE DIVISION OF PURCHASES PRIOR TO AWARD. THE INSURANCE CERTIFICATE MUST NAME THE STATE OF RHODE ISLAND AS CERTIFICATE HOLDER AND AS AN ADDITIONAL INSURED. FAILURE TO COMPLY WITH THESE PROVISIONS MAY RESULT IN REJECTION OF THE OFFEROR'S BID. ANNUAL RENEWAL CERTIFICATES MUST BE SUBMITTED TO THE AGENCY IDENTIFIED ON THE PURCHASE ORDER. FAILURE TO DO SO MAY BE GROUNDS FOR CANCELLATION OF CONTRACT.

NOTE: IF THIS BID COVERS CONSTRUCTION, SCHOOL BUSING, HAZARDOUS WASTE, OR VESSEL OPERATION, APPLICABLE COVERAGES FROM THE FOLLOWING LIST MUST ALSO BE SUBMITTED TO THE DIVISION OF PURCHASES PRIOR TO AWARD: * PROFESSIONAL LIABILITY INSURANCE (AKA ERRORS & OMISSIONS) - \$1 MILLION OR 5% OF ESTIMATED PROJECT COST, WHICHEVER IS GREATER. * BUILDER'S RISK INSURANCE - COVERAGE EQUAL TO FACE AMOUNT OF CONTRACT FOR CONSTRUCTION. * SCHOOL BUSING - AUTO LIABILITY COVERAGE IN THE AMOUNT OF \$5 MILLION. * ENVIRONMENTAL IMPAIRMENT (AKA POLLUTION CONTROL) - \$1 MILLION OR 5% OF FACE AMOUNT OF CONTRACT, WHICHEVER IS GREATER. * VESSEL OPERATION - (MARINE OR AIRCRAFT) - PROTECTION & INDEMNITY COVERAGE REQUIRED IN THE AMOUNT OF \$1 MILLION.

MASTER PRICE AGREEMENT:
STATEWIDE PAVEMENT MARKING INSTALLATION & REMOVAL
ADMINISTRATIVE PROCEDURES / SCOPE OF WORK

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APPENDICES (see next page)

APPENDICES

Appendix A: Example Work Order Package Requests for Bids (WOP-RFB) Distributions of Quantities

- Example "Minor" WOP-RFB
- Example "Moderate" WOP-RFB
- Example "Major" WOP-RFB

Appendix B: Forms

- Work Notification Form (Blank)

Appendix C: RIDOT Contact Person Information

Appendix D: Transportation Management Plan

Appendix E: Typical Details – Pavement Markings

Appendix F: Master Price List

Appendix G: Specifications – Job Specific

**MASTER PRICE AGREEMENT:
STATEWIDE PAVEMENT MARKING INSTALLATION & REMOVAL
ADMINISTRATIVE PROCEDURES / SCOPE OF WORK**

1.0 GENERAL

1.1 Purpose & Description

The purpose of this Master Price Agreement (MPA) is to enable Agencies in the State of Rhode Island to provide for the completion of pavement marking installation and removal work throughout the State on an as-needed basis. Work to be completed may include the furnishing, layout, installation, and/or removal of pavement markings (including edge lines, center lines, lane lines, stop lines, yield lines, line extensions, crosshatch lines, crosswalks, words, symbols, and other types of markings) and other incidentals (including, but not limited to, temporary control of traffic and pavement cleaning and sweeping) necessary to properly complete all pavement marking work as directed by the Agency.

The MPA will be awarded to the Vendor(s) submitting the lowest responsible and responsive Bid Proposal(s) in response to the MPA solicitation. It is expected that the MPA will be awarded to a minimum of two (2) and maximum of five (5) Vendors, however the State, at its sole option, reserves the right to award to more or less, as it deems in its best interest.

As pavement marking work needs develop during the Effective Period of the MPA, Agencies will issue Work Order Package Requests for Bids (WOP-RFBs) to the awarded Vendors on a competitive basis. WOP-RFBs will include one or more Work Orders detailing the location(s), character, dimensions, and details of the desired work, typically including a plan and estimated work item quantities. Work locations will be limited to all paved areas open to public travel (e.g., freeways, expressways, arterial, collector and local roadways, shared-use paths), parking lots, and other paved surfaces within the State of Rhode Island. Vendors must submit a Work Order Package Bid (WOPB) to the Agency in response to each WOP-RFB to be considered for award of the WOP-RFB work. The Agency will review the WOPBs and the Vendor(s) whose WOPB constitutes the lowest responsible and responsive price offer(s) for the items of work included in the WOP-RFB will be issued a Purchase Order to complete the work. All work shall be completed in accordance with the latest Edition of the Manual on Uniform Traffic Control Devices (MUTCD).

The Effective Period of this MPA shall be **TWO (2) YEARS**, with the State reserving the option to extend the MPA up to two (2) additional years.

1.2 Definitions

Master Price Agreement (MPA): The agreement between the State and the Vendor for the performance of work as prescribed in its Administrative Procedures / Scope of Work; The "Contract" as referenced and defined in the Standard Specifications

Engineer: The RIDOT Chief Engineer, acting directly or through his or her duly authorized representatives, who is responsible for engineering and administrative supervision of the Master Price Agreement

Bid Proposal: The proposal submitted by a Vendor in response to the Master Price Agreement solicitation, including, but not limited to, the offer of the Vendor to perform the stated items of work at prices no greater than those specified in the Master Price List

Master Price List (MPL): The list of work items with a high possibility of being called for in Work Orders issued under the Master Price Agreement, complete with the Vendor's specified maximum unit and extended total bid price for each item of work

MUTCD: The Manual on Uniform Traffic Control Devices, latest Edition with all Revisions

RIDOT: The Rhode Island Department of Transportation; The "Department" as referenced and defined in the Standard Specifications

Agency: Any of the State of Rhode Island departments, agencies, institutions of higher education, or other designated public bodies, and other public entities (e.g., cities and towns) authorized to utilize the State of Rhode Island Master Price Agreement contract pricing

Standard Details: The RIDOT Standard Details, latest Edition with all Revisions

Standard Specifications: The RIDOT Standard Specifications for Road and Bridge Construction, latest Edition with all Compilations of Approved Specifications

Work Summary Report: The report, prepared by the Vendor and submitted to the RIDOT, summarizing all work completed by the Vendor under the Master Price Agreement as of the date of the report

Vendor: The individual, partnership, corporation, or any combination thereof, or joint venture contracting with, or proposing to contract with, the State for performance of the prescribed work under the Master Price Agreement; The "Contractor" as referenced and defined in the Standard Specifications

Work Order: The document(s) that show the location(s), character, dimensions, and details of the work to be performed, typically including a plan(s) and estimated

work item quantities; The "Plans" as referenced and defined in the Standard Specifications

Work Order Package Bid (WOPB): The bid proposal submitted by the Vendor in response to a Work Order Package Request for Bids, complete with the Vendor's specified unit and extended bid prices for each item of work

Work Order Package Request for Bids (WOP-RFB): The package, consisting of a cover page(s) and one or more Work Orders (each with a blank proposal listing the items and estimated quantities of work), issued to Vendors during the Effective Period of the Master Price Agreement to solicit Work Order Package Bids

1.3 References

- *Manual on Uniform Traffic Control Devices for Streets and Highways*, Federal Highway Administration <http://mutcd.fhwa.dot.gov/>
- *Standard Specifications for Road and Bridge Construction*, RIDOT <http://www.dot.state.ri.us/>
- *Rhode Island Standard Details*, RIDOT <http://www.dot.state.ri.us/>
- *Standard Highway Signs and Markings*, Federal Highway Administration <http://mutcd.fhwa.dot.gov/>
- *Traffic Design Manual, Pavement Markings Chapter*, RIDOT <http://www.dot.state.ri.us/>

1.4 Enabling Clause

This document is written assuming that the RIDOT is the Agency issuing Work Order Package Requests for Bids (WOP-RFBs), reviewing Work Order Package Bids, and awarding WOP-RFB work to Vendors. In all cases where the RIDOT is not such Agency, the Vendor shall comply with any and all special requirements of the requesting Agency that are in addition to those outlined in this document. Such special requirements may include, but are not limited to, signing a written agreement(s) between the Vendor and the Agency, shorter and/or longer submittal and/or work completion timeframes, coordination with/notification of appropriate Agency representatives, and compliance with special work standards and specifications.

The Vendor shall furnish all items quoted herein to any city, town, or other governmental subdivision at the same price and terms as quoted to the State of Rhode Island. All ordering and billing is to be between the Vendor and the governmental unit involved.

2.0 MASTER PRICE AGREEMENT SOLICITATION & AWARD

2.1 Vendor Requirements/Qualifications

Vendors must submit a Bid Proposal, complete and in conformance with the provisions of this section, in response to the solicitation for this Master Price Agreement (MPA) to be considered by the State as eligible for award of the MPA.

The submitted Bid Proposal shall include, but not be limited to, the following:

- The Master Price List, complete with the Vendor's specified maximum unit and extended total bid price for each item of work (see Section 2.2)
- The Transportation Management Plan, complete with the Vendor's entered TMP Implementation Manager information (see Section 4.3)
- A list of the five (5) most recent government-owned projects the Vendor has completed while working as a pavement marking installation contractor, with phone number, e-mail address, and mailing address noted for each of the contracting public agencies (project owners)
- A copy of a letter(s) from a manufacturer of an epoxy resin pavement marking product that is included on RIDOT's latest Approved Materials List stating that the Vendor and/or the Vendor's individual employees are qualified to install the manufacturer's epoxy resin pavement marking products

RIDOT's latest Approved Materials List is available at:

http://www.dot.ri.gov/engineering/materials_research/Approvals/index.asp

The Vendor, by submission of the Bid Proposal, certifies the following:

- The Vendor has a minimum of three (3) years of experience in completing the same and/or similar items of work included in the Master Price List, all while working as a pavement marking installation contractor on government-owned projects.
- The Vendor owns (or leases in the Vendor's possession) a fleet of vehicles and equipment capable of meeting the minimum pavement marking installation/removal specifications set forth in the Standard Specifications and the Scope of Work.
- The Vendor is in compliance with Section 12.102 – Bidding Requirements of the State of Rhode Island Department of Administration Division of Purchases Procurement Regulations, except for those Subsections and paragraphs including a reference(s) to Quest Lite, which shall not be applicable.

Bid Proposals shall be delivered to the State on or before the date indicated in the MPA solicitation.

2.2 Master Price List

Appendix F includes the blank Master Price List (MPL) for this Master Price Agreement (MPA). The MPL identifies work items with a high possibility of being called for in Work Orders issued under the MPA. **The Vendor shall note that prior to completion of the MPA the actual quantities of work items to be solicited under the MPA are indefinite and may be less or greater than indicated in the MPL. The quantities included in the MPL were selected in an effort to accommodate the extent of work that is anticipated during the Effective Period of the MPA.**

The Vendor shall specify a unit and extended bid price for each work item in the MPL and submit the completed MPL as part of its Bid Proposal. **The unit prices bid by the Vendor in the MPL are the maximum unit prices the Vendor will be allowed to invoice for under the MPA** (the actual completed and accepted quantities of work items will be used with the appropriate price as bid in the Vendor's Work Order Package Bids to determine payments to the Vendor – see Section 3).

2.3 Award of MPA to Vendors

The State will review all submitted Bid Proposals. Only Vendors whose Bid Proposal meets the requirements and qualifications set forth in Section 2.1 will be deemed responsive to the solicitation for the Master Price Agreement (MPA). Proposals found to be non-responsive will be rejected and not considered further.

The State reserves the right to correct arithmetic errors in the Bid Proposals prior to comparison of the Bid Proposals. In the event of a discrepancy between unit bid prices and extensions, the unit price shall govern.

The MPA will be awarded to the Vendor(s) submitting the lowest responsible and responsive Bid Proposal(s) in response to the MPA solicitation. It is expected that the MPA will be awarded to a minimum of two (2) and maximum of five (5) Vendors, however the State, at its sole option, reserves the right to award to more or less, as it deems in its best interest.

The State reserves the right, before making award, to initiate investigations as to whether or not the materials, equipment, supplies, qualifications, certifications, and/or facilities offered by the Vendor meet the requirements set forth in Section 2.1 and are ample and sufficient to insure the proper performance of the MPA in the event of award. If upon such examination it is found that the conditions of Section 2.1 are not complied with or that articles or equipment proposed to be furnished do not meet the requirements called for, or that the Vendor's qualifications or facilities are not satisfactory, the State may reject such a Bid Proposal. It is distinctly understood, however, that nothing in the foregoing shall mean or imply that it is obligatory upon the State to make any examinations before awarding the MPA to a

Vendor(s); and it is further understood that if such examination is made, it in no way relieves the Vendor from fulfilling all requirements and conditions of the MPA.

Award of the MPA to a Vendor is not a guarantee that the Vendor will be awarded work during the Effective Period of the MPA. Award of work to Vendors will be based on Agency need, in addition to Vendor bid prices, past performance under the MPA, and/or availability, all as described in Section 3. Historical State spending patterns is no guarantee of future expenditures.

3.0 MASTER PRICE AGREEMENT ADMINISTRATION & PROCEDURES

During the Effective Period of the Master Price Agreement (MPA), Agencies will (1) identify and detail work to be performed by a Vendor on individual Work Orders, (2) prioritize/compile one or more Work Orders for inclusion in Work Order Packages, and (3) issue Work Order Package Requests for Bids (WOP-RFBs) to all Vendors that have been awarded the MPA. To be eligible for award of work included in a WOP-RFB, Vendors must respond to each WOP-RFB by (1) preparing a detailed Work Order Package Bid (WOPB) and (2) submitting the WOPB to the Agency for review. The Agency will review the WOPBs and the Vendor(s) whose WOPB constitutes the lowest responsible and responsive price offer(s) for the items of work included in the WOP-RFB will be issued a Purchase Order to complete the work. Details regarding these administrative procedures are presented in the following sections.

3.1 Work Order Package Requests for Bids

Each Work Order Package Request for Bids (WOP-RFB) consists of a cover page(s) and one or more individual Work Orders. Individual Work Orders show the location(s), character, and details of the work to be performed. Each Work Order includes a blank proposal listing the items and **estimated** quantities of work, and typically includes a plan(s) illustrating the work and work location(s). The location(s) of work included in Work Orders will be limited to all paved areas open to public travel (e.g., freeways, expressways, arterial, collector and local roadways, shared-use paths), parking lots, and other paved surfaces within the State of Rhode Island.

To provide Vendors with an example of the nature/extent of work that may be included in WOP-RFBs, a general description and distribution of quantities for three types of example WOP-RFBs are included in Appendix A. The first example is indicative of a "Minor" WOP-RFB, typically consisting of only one Work Order calling for handwork (e.g., symbol or word pavement marking removal and/or installation) or a limited extent of longitudinal line pavement marking work at only one location. The second example is indicative of a "Moderate" WOP-RFB, which typically consists of one or more Work Orders calling for both longitudinal line pavement marking work and handwork at several locations. The third example is indicative of a "Major" WOP-RFB, typically consisting of several Work Orders calling for a wide range of pavement marking removal and installation work in several municipalities, or one

large Work Order calling for extensive pavement marking replacement work along a roadway corridor.

WOP-RFBs will be issued via mail, fax, and/or e-mail to the Contact Person and Address noted on the Bid Proposal submitted by each Vendor. **The Vendor shall note that WOP-RFBs may be issued at random intervals throughout the Effective Period of the MPA. Agencies reserve the right to issue WOP-RFBs at any time and to prioritize and/or compile individual Work Orders into WOP-RFBs in any manner to best serve their needs.**

The Vendor shall note that all work item quantities appearing in WOP-RFBs are estimates only and are used for comparison of Work Order Package Bids submitted by Vendors. Payments to the Vendor will be made for the actual quantities of work completed and accepted and/or materials furnished in accordance with the MPA. The estimated quantities of work to be completed and/or materials to be furnished as indicated in WOP-RFBs may be increased, decreased, or omitted at any time and as deemed necessary or advisable by the Agency.

The WOP-RFB will stipulate the dates (and, if applicable, times) on and/or before which (1) Work Order Package Bids for the WOP-RFB shall be received by the Agency from the Vendor (See Section 3.2) and (2) the work included in the WOP-RFP shall be completed by the Vendor (see Section 4.2).

3.2 Work Order Package Bids

To be eligible for award of work included in a Work Order Package Request for Bids (WOP-RFB), Vendors must submit to the Agency a detailed Work Order Package Bid (WOPB). Each WOPB submitted by the Vendor shall include the following:

- **The completed proposal(s) showing the Vendor's specified unit and extended bid prices for all of the proposed work items included in the WOP-RFB.** For all work items that are included in the Master Price List (MPL), each unit bid price shall be no greater than the appropriate unit price bid by the Vendor in the MPL.
- **The Vendor's contact information for the WOPB,** including primary contact person name, phone number, fax number, mailing address, and e-mail address.

The Vendor is expected to carefully examine the site(s) of all proposed work included in the WOP-RFB before submitting a WOPB. The submission of a WOPB will be considered conclusive evidence that the Vendor has made such an examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the work as defined in the WOP-RFB and the MPA. No payment will be made to the Vendor for such examination efforts.

WOPBs must be received by the Agency on and/or before the date (and, if noted, time) stipulated on the WOP-RFB. When RIDOT is the Agency issuing the WOP-RFB, the Vendor shall submit the WOPB via mail, fax, e-mail, and/or in person to the RIDOT Traffic Engineering Unit at the address noted on the WOP-RFB.

When RIDOT is the Agency issuing the WOP-RFB, the Vendor will not be required to bid on, and will not be compensated for, the services of the State and/or local police. In such cases it will be the responsibility of the Engineer to retain the services of State and/or local police for temporary traffic control during the work.

3.3 Award of Work to Vendors

The Agency will review all submitted Work Order Package Bids (WOPBs). Only Vendors whose WOPB meets the requirements set forth in Section 3.2 can be deemed responsive to the Work Order Package Request for Bids (WOP-RFB). WOPBs found to be non-responsive will be rejected and not considered further.

The Agency reserves the right to correct arithmetic errors in the WOPBs prior to comparison of the WOPBs. In the event of a discrepancy between unit bid prices and extensions, the unit price shall govern.

The work included in each WOP-RFB will be awarded to the Vendor(s) submitting the lowest responsible and responsive WOPB(s) in response to the WOP-RFB solicitation. It is expected that the work included in each WOP-RFB will be awarded to one (1) Vendor, however the Agency, at its sole option, reserves the right to award to more or less, as it deems in its best interest.

The Agency reserves the right to determine those WOPBs which are responsible and responsive to the WOP-RFB, or which otherwise serve its best interests. The Vendor's qualifications, past performance in completing work under the MPA, and/or availability to complete the work may be considered at the sole option of the Agency. The Agency reserves the right to not award work to a Vendor(s) on the basis of cost alone, to accept or reject any or all WOPBs received, and to award work to a Vendor(s) in its best interest.

The Agency reserves the right, before awarding work to a Vendor(s), to initiate investigations as to whether or not the materials, equipment, supplies, qualifications, and/or facilities offered by the Vendor meet the requirements set forth in the WOP-RFB, and are ample and sufficient to insure the proper performance of the work in the event of award. If upon such examination it is found that the conditions of the WOP-RFB are not complied with or that articles or equipment proposed to be furnished do not meet the requirements called for, or that the Vendor's qualifications or facilities are not satisfactory, the Agency may reject such a WOPB. It is distinctly understood, however, that nothing in the foregoing shall mean or imply that it is obligatory upon the Agency to make any examinations before awarding work to a

Vendor(s); and it is further understood that if such examination is made, it in no way relieves the Vendor from fulfilling all requirements and conditions of the MPA.

3.4 Purchase Orders

A Purchase Order from the Agency will be issued to the Vendor(s) awarded the work after the WOPB review process is completed. The Agency may contact such Vendor(s) by mail, phone, fax, and/or e-mail to communicate and/or discuss the schedule, constructability, or logistics of the work before and/or after the Purchase Order is sent in order to coordinate the work with other ongoing or planned activities.

The Vendor shall not provide services nor begin work unless and until a valid Purchase Order approved by the Agency has been issued and received by Vendor. The Vendor will not be entitled to any payment for any services rendered or work completed outside of this policy.

See Section 4.2 - Prosecution & Progress for requirements regarding the Vendor's commencement of work.

3.5 Work Notification & Reporting Requirements

The requirements of Section 3.5 apply only when RIDOT is the Agency issuing the WOP-RFB / Purchase Order.

Failure of the Vendor to provide any of the required notifications or reports noted below in a timely and professional manner may affect the Vendor's ability to participate in future work opportunities under this MPA.

3.5.1 General Work Notifications

At least FOURTY-EIGHT (48) HOURS prior to beginning the work for each Work Order, the Vendor shall notify all appropriate RIDOT parties as noted on the Work Notification Form (as well as any other parties required by the RIDOT, if/where noted on the WOP-RFB and/or Purchase Order) of intent to complete work via a properly completed Work Notification Form. The Work Notification Form shall be submitted via fax and/or e-mail. A copy of a blank Work Notification Form is included in Appendix B.

3.5.2 Daily Work Notifications

At the beginning of each day that the Vendor is to complete field work under this MPA, the Vendor shall contact the Contact Person from the RIDOT Construction Management Section via phone call and/or e-mail before starting work to inform him/her of the nature and location(s) of the work that will be performed on that day. The phone number and e-mail address for the Contact Person from the RIDOT Construction Management Section is included in Appendix C.

3.5.3 Work Cancellation Notifications

If the Vendor must cancel or modify his scheduled work plan for any reason, he shall notify the Contact Person from the RIDOT Construction Management Section via phone call and/or e-mail as soon as possible, but no later than FOUR (4) HOURS prior to the previously scheduled work start time so that appropriate cancellations can be made by the RIDOT. In addition, the Vendor shall report changes/cancellations of previously scheduled work to all appropriate RIDOT parties as noted on the Work Notification Form (as well as any other parties requested by the RIDOT, if/where noted on the WOP-RFB and/or Purchase Order) as soon as possible, but where feasible no later than 2:00 pm of the business day before the originally scheduled work.

3.5.4 Work Order Completion Notifications

Immediately following the completion of all field work for each Work Order (before departing from the site of each Work Order for the final time), the Vendor shall notify the Contact Person from both the RIDOT Construction Management Section and the RIDOT Traffic Engineering Unit (as well as any other required parties, if/where noted on the WOP-RFB and/or Purchase Order) by phone and/or e-mail that the Work Order has been completed. This notification procedure shall be followed for each individual Work Order so that the RIDOT can track work progress and notify appropriate parties. The phone number and e-mail address for the Contact Persons from the RIDOT Construction Management Section and Traffic Engineering Unit are included in Appendix C.

3.5.5 Work Summary Reports

In conjunction with each invoice submittal (see Section 3.8) the Vendor shall submit a Work Summary Report via e-mail to the Contact Person from the RIDOT Traffic Engineering Unit. Each Work Summary Report shall itemize all Work Orders completed by the Vendor to date under the MPA (including the Work Order(s) included on the present invoice), including a breakdown of the following for each such Work Order:

- Work Order number
- The issuing Agency
- Brief one-sentence description of work
- All work items furnished/installed/completed, with a breakdown(s) of the following for each such work item:
 - Quantity
 - Specific roadway/facility
 - Install/completion date(s)
 - Dollar amount invoiced
- Work Order completion date

The e-mail address for the Contact Person from the RIDOT Traffic Engineering Unit is included in Appendix C.

3.6 Work Inspection & Acceptance

The Engineer and/or other Agency representative(s) may observe and inspect the Vendor's operation during the work. The Engineer will decide all questions related to the quality and acceptability of materials furnished; work performed; and the rate of progress of the work; questions regarding the interpretation of the Work Order(s) and/or any other part of the MPA; and questions as to the acceptable fulfillment of the MPA by the Vendor.

The Engineer will have the authority to suspend the work completely or in part due to the failure of the Vendor to correct conditions unsafe for the workers or the general public; for failure to carry out provisions of the MPA; for failure to carry out orders; for such periods necessary due to unsuitable weather; for failure to correct damages to public or private properties caused by the Vendor and/or its Sub-Vendors, for conditions considered unsuitable for the prosecution of the work, or for any other condition or reason determined to be in the Agency's interest.

Acceptance of work for each Work Order Package Request for Bids (WOP-RFB) will be made by the Engineer only when the Vendor has (1) satisfactorily completed the work as called for in all respects and in full conformance with the Work Order(s) and (2) satisfactorily executed and delivered to the Engineer and the Agency all documents, certificates, and proofs of compliance as required by the MPA.

The Engineer will promptly notify the Vendor, via e-mail, fax, or in writing, of work that is found to be acceptable. Invoices and payment for work completed will not be processed for any work that has not been accepted by the Engineer.

3.7 Measurement & Payment for Work

All work completed by the Vendor under the MPA will be measured by the unit of measure indicated in the Master Price List (MPL) or, for items of work that are not included in the MPL, by the unit of measure indicated in the Work Order Package Request for Bids (WOP-RFB).

Notwithstanding the maximum bid price requirements of Section 2.2, work items that are complete in place and accepted will be paid for at their respective unit prices bid by the Vendor in the Work Order Package Bid (WOPB). Unless otherwise noted in this Section or in the WOP-RFB, such prices shall constitute full compensation for all labor, equipment, tools, materials, and incidentals necessary to complete the work to the satisfaction of the Engineer.

The Vendor shall note the following payment exclusions:

- The Vendor will not be compensated on a time basis, and will not be reimbursed directly for mobilization and/or travel time to, from, and/or between work sites unless specifically itemized in the WOP-RFB. Compensation for downtime relating to equipment failure and/or malfunction will not be allowed. No per diem or travel expenses will be directly compensated.
- All equipment necessary to carry out the work, including but not limited to vehicles, tools, devices, and handcarts, and any and all equipment maintenance that may be necessary, will not be directly reimbursed unless specifically itemized within the Master Price List or the WOP-RFB.
- All warning signs mounted on work vehicles shall be incidental to the work and will not be paid for separately under the Temporary Construction Signs work item. All warning signs mounted on shadow and advance warning vehicles shall be incidental to the Traffic Control Truck with Truck Mounted Attenuator and Changeable Message Sign work item and will not be paid for separately under the Temporary Construction Signs work item.
- The Vendor shall be solely responsible for any charges associated with technical support needed from material suppliers and/or equipment manufacturers.
- All Vendor visits to a work site(s) and investigative efforts that may be needed prior to completion of pavement marking installation/removal work (e.g., to investigate existing conditions in advance of a WOPB submission, or to lay out new pavement markings in advance of actual pavement markings installation) shall be incidental to the other items of work included in the WOP-RFB and will not be paid for separately.
- The costs for all correspondence and coordination, including but not limited to all communications and completing, copying, and submitting reports and forms, will not be paid for separately and are considered incidental to the pavement marking work.
- All work to remove (from original locations), maintain, store, cover and uncover, relocate and re-erect all Temporary Traffic Control (TTC) devices where necessary for conformance to the MUTCD, the TTC Plans, the Transportation Management Plan, and/or when so-directed by the Engineer all in accordance with **Section 937; MAINTENANCE AND MOVEMENT OF TRAFFIC PROTECTIVE DEVICES** of the Standard Specifications is considered incidental to the individual TTC items included in the MPA and will not be paid for separately.
- When RIDOT is the Agency issuing the WOP-RFP, the Vendor will not be compensated for the services of the State and local police. It will be the responsibility of the Engineer to retain the services of State and local police for TTC as part of this MPA.

- All costs for the removal and disposal of pavement marking grindings as part of pavement marking removal operations are considered incidental to the individual pavement marking removal items included in the MPA and will not be paid for separately.

3.8 Invoicing

No later than **SEVEN (7) CALENDAR DAYS** following the acceptance of all work included in each Work Order Package Request for Bids (WOP-RFB), the Vendor shall submit to the Agency an invoice documenting the actual approved work items that the Vendor has furnished and/or installed in accordance with the WOP-RFB. Payments to the Vendor will only be made for actual approved and accepted work items that are itemized using the invoice format approved by the Agency.

The Vendor will obtain "bill to" information from the State as part of the MPA award notification letter.

All submitted invoices shall reference the MPA number, the WOP-RFB number, the individual Work Order number(s), all work item(s) furnished/installed/completed and included in the invoice, the unit price for each work item in the same format as included on the Vendor's Work Order Package Bid (WOPB) for the WOP-RFB, and the extended total price for each work item, calculated based on the actual quantity furnished/installed/accepted. All backup related to the charges included in the invoice shall be provided with the invoice submittal.

Failure to submit the required invoice(s) and/or Work Summary Reports (see Section 3.5) may be grounds to withhold payment to the Vendor.

3.9 Sub-Vendors

The Agency must approve of any and all Sub-Vendors utilized by the Vendor prior to any such Sub-Vendor commencing any work. Vendors acknowledge by the act of submitting a Bid Proposal that all work provided under this MPA is work conducted on behalf of the Agency and that the Agency or its designee may communicate directly with any Sub-Vendor as the Agency deems to be necessary or appropriate. The Vendor shall be responsible for all payment of fees charged by the Sub-Vendor(s). A performance evaluation of any Sub-Vendor shall be provided by the Vendor to the Agency upon request. The State reserves the right to approve or reject the use of any Sub-Vendors.

4.0 WORK REQUIREMENTS & SPECIFICATIONS

4.1 General Requirements

Except where otherwise noted or where not applicable to the work, the following sections of the *State of Rhode Island Department of Administration Division of Purchases Procurement Regulations* shall apply for the completion of all work:

- Section 12.104 – Scope of Work
- Section 12.105 – Control of Work
- Section 12.106 – Control of Material
- Section 12.107 – Legal Relations and Responsibility to Public

It is the responsibility of the Vendor to arrange for appropriate access to all work sites. All Vendor visits to a work site(s) and investigative efforts that may be needed prior to completion of work will not be paid for separately (see Section 3.7).

4.2 Prosecution & Progress

The Vendor shall not begin any work until (1) a duly executed Purchase Order Release document has been received by the Vendor and (2) the Vendor has made the proper advance notifications for the specific work to be completed (see Section 3.5).

Unless (1) the Vendor is instructed otherwise in the Work Order Package Request for Bids (WOP-RFB) and/or Purchase Order or (2) otherwise directed/permitted by the Agency, the Vendor shall begin work within SEVEN (7) CALENDAR DAYS from the date of the Purchase Order. The Vendor may request approval, in writing, from the Agency to begin work at a later date if weather or availability of equipment prohibits the timely commencement of the work.

The Vendor shall complete all work in a timely and professional manner.

The Vendor shall employ sufficient labor, supervision, and equipment for prosecuting the work to full completion in the manner and time required by the MPA.

Once the Vendor has begun work associated with an individual Work Order, all work for that Work Order shall be completed before beginning the work associated with a different Work Order, unless permission to deviate from this requirement is granted by the Engineer.

The Vendor shall conduct all work to assure the least interference with traffic.

The Agency will specify in the WOP-RFB and/or Purchase Order the date on or before which the work for each Work Order is required to be completed. The Agency may specify other work schedule/milestone dates (e.g., a required completion date for a specific item, location, or aspect of the work) in the WOP-RFB.

Failure of the Vendor to comply with any of the specified work start/milestone/completion dates may affect the Vendor's ability to participate in future work opportunities under the MPA and may result in cancellation of MPA award. Failures to comply with the work start/milestone/completion dates that are caused by conditions beyond the Vendor's control, and without the fault of the Vendor, may be taken into consideration by the Agency, at its discretion.

The Agency reserves the right to schedule all work to its own priorities. At any time after a duly executed Purchase Order Release document is issued to the Vendor, the Engineer may notify the Vendor (via verbal, electronic, and/or written communication) of a change to the desired work schedule.

4.3 Work Zone Safety & Mobility

The Transportation Management Plan (TMP) included in Appendix D lays out the set of coordinated transportation management strategies that will be used to manage the work zone safety and mobility impacts of the work completed under this MPA. The Vendor is responsible for complying with the requirements indicated in the TMP, including the preparation and submittal of Work Notification Forms (see Section 3.5). **The Vendor shall designate its TMP Implementation Manager on the TMP and submit the TMP as part of its Bid Proposal.**

The Vendor's TMP Implementation Manager and all other Vendor/Sub-Vendor personnel responsible for the setup, operation, maintenance, inspection, movement, and/or breakdown of temporary traffic control devices shall be trained in accordance with the RIDOT Training Guidelines for Personnel Responsible for Work Zone Safety & Mobility (available online under the "Training" section at <http://www.dot.ri.gov/humanresources/index.asp>) and shall possess a certificate of satisfactory completion of such training. Training shall be at a level appropriate to the individual's job responsibilities and to the job decisions the individual is required to make and shall be completed prior to the commencement of work.

4.4 Standards & Specifications

All pavement marking materials furnished and installed shall conform to **Section M.17; PAVEMENT MARKINGS** of the Standard Specifications, except where otherwise noted in an individual Work Order Package Request for Bids (WOP-RFB).

All pavement marking work shall be performed in accordance with **Section T.20.03; PAVEMENT MARKINGS - CONSTRUCTION METHODS** of the Standard

Specifications with the additions, revisions, and exceptions as noted in Sections 4.4.1 through 4.4.4 and the Specifications – Job Specific (Appendix G), except where otherwise noted in an individual WOP-RFB.

All other items of work shall be furnished, installed, and/or performed in conformance to the appropriate Section of the Standard Specifications for each individual item with the additions, revisions, and exceptions as noted in Sections 4.4.1 through 4.4.4 and the Specifications – Job Specific (Appendix G), except where otherwise noted in an individual WOP-RFB.

4.4.1 Temporary Traffic Control Devices

The Vendor is required to install, maintain, and ultimately remove temporary traffic control devices at each work location. All traffic control devices, setups, and activities shall conform to the MUTCD and the Temporary Traffic Control (TTC) Plans included in the Transportation Management Plan (TMP). Additional requirements for TTC devices and setups are as follows:

- All shadow and advance warning vehicles (traffic control trucks) shall include a truck mounted attenuator and a truck mounted changeable message sign that is capable of displaying either a word message or a flashing arrow display. See Job Specific Specification "Traffic Control Truck with Truck Mounted Attenuator (TMA) and Changeable Message Sign (TMCMS)" for details.
- When installing a broken lane line, traffic cones shall be positioned on the line at a spacing of no greater than every other skip line segment in an effort to discourage road users from crossing the lane line before the markings have thoroughly set.
- It is the Vendor's responsibility to supplement the TTC devices shown on the approved TTC Plans if necessary to adequately control, warn, and/or guide traffic. All appropriate TTC devices shall be in place prior to starting any work.
- In case of an emergency, the Vendor shall temporarily move TTC devices and setups and other work equipment if necessary to allow the passage of emergency vehicles and/or other road users.
- The Vendor is responsible for removing (from original locations), maintaining, storing, covering and uncovering, relocating and re-erecting all TTC devices where necessary for conformance to the MUTCD, the TTC Plans, the TMP, and/or when so-directed by the Engineer, all in accordance with **Section 937; MAINTENANCE AND MOVEMENT OF TRAFFIC PROTECTIVE DEVICES** of the Standard Specifications. This work shall be incidental to the individual TTC items included in the MPA and will not be paid for separately.

4.4.2 Cleaning and Sweeping Pavement

An item for the cleaning and sweeping of pavement is included in this MPA to account for the likelihood that some sites will need to be cleaned and swept by the Vendor **before** the start of pavement marking work operations. The Vendor shall only perform such advance cleaning and sweeping operations on the roadways and in the areas identified by the Engineer. See Job Specific Specification "Cleaning and Sweeping Pavement for Striping Operations" for details.

4.4.3 Pavement Marking Removal

Unless otherwise directed by the Engineer or noted in a Work Order Package Request for Bids (WOP-RFB), all existing pavement markings called for removal by the Vendor under this MPA shall be removed by grinding method in accordance with the Construction Methods section of the Job Specific Specification "Remove Pavement Markings".

Unless otherwise specified in a WOP-RFB, removal of existing pavement markings will be paid for separately from the work items for pavement marking furnishing and installation.

4.4.4 Equipment

All equipment (including equipment and vehicles used for temporary traffic control) shall be the responsibility of the Vendor unless otherwise directed by the Agency. Expenses from misuse or neglect of equipment will not be reimbursed to the Vendor.

The Vendor's pavement marking installation equipment used to complete the work shall include truck-mounted footage counters for each type of line applied and truck-mounted sensors for the determination of pavement surface and ambient air temperatures during marking application.

It is the responsibility of the Vendor to arrange for any special tools and/or equipment necessary to complete all pavement marking work in parking lots, on shared-use paths, and other non-roadway paved surfaces. The Vendor shall furnish, at no extra cost to the Agency, any special tools or equipment necessary to properly complete the pavement marking work.

Appendix A: Example Work Order Package Requests for Bids (WOP-RFBs) Distributions of Quantities

Distributions of Quantities for three (3) example Work Order Package Requests for Bids (WOP-RFBs) are provided in this Appendix. The examples illustrate hypothetical WOP-RFBs that may be similar to those actually issued to Vendors during the term of this Master Price Agreement. The examples are only intended to provide the Vendor with a general indication of the scope of work that may be included in WOP-RFBs.

The example WOP-RFBs are broken down into three (3) categories (types) of WOP-RFBs, and a general description and detailed list of work items and quantities for each is presented.

The first example is indicative of a "Minor" WOP-RFB, typically consisting of only one Work Order calling for handwork (e.g., transverse, symbol, or word pavement marking removal and/or installation) or a limited extent of longitudinal line pavement marking work at only one location. The second example is indicative of a "Moderate" WOP-RFB, which typically consists of one or more Work Orders calling for both longitudinal line pavement marking work and handwork at several locations. The third example is indicative of a "Major" WOP-RFB, typically consisting of several Work Orders calling for a wide range of pavement marking removal and installation work in several municipalities, or one large Work Order calling for extensive pavement marking replacement work along a roadway corridor.

Example "MINOR" Work Order Package Request for Bids (WOP-RFB)

DISTRIBUTION OF QUANTITIES

Master Price Agreement: Statewide Pavement Marking Installation & Removal

General Work Description:	Replace marked crosswalk on two-lane roadway in North Providence	No. of Work Orders:	1
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Item Code	Description	Unit of Measure	Quantity
914.5010	FLAGPERSONS	MHRS	8
922.0100	TEMPORARY CONSTRUCTION SIGNS STANDARD 29.1.0 AND 27.1.1	SF	66
923.0200	FLUORESCENT TRAFFIC CONES STANDARD 26.1.0	EACH	20
T20.2012	12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	LF	320
T20.9912	REMOVE 4 INCH PAVEMENT MARKINGS	LF	20
T20.9913	REMOVE 6 INCH PAVEMENT MARKINGS	LF	20
T20.9915	REMOVE 12 INCH PAVEMENT MARKINGS	LF	200

Example "MODERATE" Work Order Package Request for Bids (WOP-RFB)

DISTRIBUTION OF QUANTITIES

Master Price Agreement: Statewide Pavement Marking Installation & Removal

General Work
Description:

**Install new (1) right turn lane on a four-lane roadway in each of
Westerly & South Kingstown and (2) left turn lane on a two-lane
roadway in Charlestown**

No. of
Work
Orders:

3

Item Code	Description	Unit of Measure	Quantity
914.5010	FLAGPERSONS	MHRS	32
922.0100	TEMPORARY CONSTRUCTION SIGNS STANDARD 29.1.0 AND 27.1.1	SF	64
923.0200	FLUORESCENT TRAFFIC CONES STANDARD 26.1.0	EACH	45
928.9901	TRAFFIC CONTROL TRUCK WITH TRUCK MOUNTED ATTENUATOR AND CHANGEABLE MESSAGE SIGN	PDAY	6
T20.2006	6 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	LF	1,360
T20.2012	12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	LF	60
T20.2014	4 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	LF	1,400
T20.9907	12 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	LF	150
T20.2020	EPOXY RESIN PAVEMENT ARROW - STRAIGHT, LEFT, RIGHT, OR COMBINED STD 20.1.0	EACH	7
T20.2022	EPOXY RESIN PAVEMENT MARKING WORD "ONLY" STANDARD 20.1.0	EACH	4
T20.9912	REMOVE 4 INCH PAVEMENT MARKINGS	LF	900
T20.9913	REMOVE 6 INCH PAVEMENT MARKINGS	LF	1,200
T20.9915	REMOVE 12 INCH PAVEMENT MARKINGS	LF	40

Example "MAJOR" Work Order Package Request for Bids (WOP-RFB)

DISTRIBUTION OF QUANTITIES

Master Price Agreement: Statewide Pavement Marking Installation & Removal

General Work
Description:

**Convert one-mile segment of four-lane roadway to two-lane
roadway with turn lanes in Portsmouth**

No. of
Work
Orders:

1

Item Code	Description	Unit of Measure	Quantity
914.5010	FLAGPERSONS	MHRS	112
914.5020	FLAGPERSONS - OVERTIME	MHRS	24
922.0100	TEMPORARY CONSTRUCTION SIGNS STANDARD 29.1.0 AND 27.1.1	SF	194
923.0200	FLUORESCENT TRAFFIC CONES STANDARD 26.1.0	EACH	120
925.0112	PORTABLE CHANGEABLE MESSAGE SIGN	PDAY	42
928.9901	TRAFFIC CONTROL TRUCK WITH TRUCK MOUNTED ATTENUATOR AND CHANGEABLE MESSAGE SIGN	PDAY	44
931.9901	CLEANING AND SWEEPING PAVEMENT FOR STRIPING OPERATIONS	PDAY	4
T20.2004	4 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	LF	845
T20.2006	6 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	LF	10,500
T20.2012	12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE	LF	2,090
T20.2014	4 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	LF	11,200
T20.2016	6 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	LF	50
T20.9907	12 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW	LF	600
T20.2020	EPOXY RESIN PAVEMENT ARROW - STRAIGHT, LEFT, RIGHT, OR COMBINED STD 20.1.0	EACH	15
T20.2022	EPOXY RESIN PAVEMENT MARKING WORD "ONLY" STANDARD 20.1.0	EACH	9
T20.9924	EPOXY RESIN PAVEMENT MARKING WORD "SCHOOL"	EACH	4
T20.9911	EPOXY RESIN PAVEMENT MARKING - YIELD LINE	EACH	6
T20.9912	REMOVE 4 INCH PAVEMENT MARKINGS	LF	2,700
T20.9913	REMOVE 6 INCH PAVEMENT MARKINGS	LF	12,500
T20.9915	REMOVE 12 INCH PAVEMENT MARKINGS	LF	1,400
T20.9920	REMOVE PAVEMENT MARKING ARROW - STRAIGHT, LEFT, RIGHT, OR COMBINED STD 20.1.0	EACH	16
T20.9921	REMOVE PAVEMENT MARKING WORD "ONLY" STANDARD 20.1.0	EACH	8

Appendix B: Forms

This appendix includes forms to be used by Vendors during the work, all in accordance with the Scope of Work.

- a. Work Notification Form (Blank)**

RHODE ISLAND DEPARTMENT OF TRANSPORTATION WORK NOTIFICATION FORM

FAX TO:	
Construction Management Section-----	(401) 222-4953
Communications Office-----	(401) 222-3905
Customer Service Office-----	(401) 222-5648
Transportation Management Center (TMC)-----	(401) 222-4225
Health & Safety Office-----	(401) 734-4808
Highway & Bridge Maintenance Division-----	(401) 736-0191

ALTERNATE CONTACT:
 Phone: (401) 222-2468
 E-Mail: webmaster@dot.ri.gov
 E-Mail: CustomerService@dot.ri.gov
 E-Mail: tmc_operations@dot.ri.gov
 Phone: (401) 222-6557
 Phone: (401) 222-2378

- This form **must** be filled out and faxed or e-mailed to each of the above offices a **minimum of 48 hours in advance of proposed work.**
- Changes/cancellations must be reported to each of the above offices as soon as possible, but where feasible no later than 2:00 pm of the business day before scheduled work. Changes/cancellations on weekends should be reported to the Alternate Contacts listed above.

NOTE: *If this information is delivered by e-mail instead of by fax, all the information requested below must be included in the e-mail.*

OPERATION: (briefly describe the work activities taking place)

ROADWAY:

(circle all that apply)

Interstate Route #:		Direction:	NB	SB	EB	WB
US Route #:		Direction:	NB	SB	EB	WB
RI Route #:		Direction:	NB	SB	EB	WB
Other Roadway:		Direction:	NB	SB	EB	WB

WORK LOCATION:

City or Town:	
Bridge # / Bridge Name: (if applicable)	
Limits of Work/Restriction: <small>(indicate "From" and "To") (use road names or exit numbers where feasible)</small>	

RESTRICTION(S) REQUIRED: (select all that apply)

Right Lane Closed		Right Exit Ramp Closed	
Left Lane Closed		Left Exit Ramp Closed	
Right Shoulder Closed		On-Ramp Closed	
Left Shoulder Closed		Center Lane Closed/Traffic Split	
Mobile Lane Closure		Road Closed with Detour	
Other (describe)			

DATES & TIMES OF RESTRICTION: (indicate dates in MM/DD/YY format)

Start Day & Date:		End Day & Date:	
Start Time:		End Time:	

If restriction is recurring (e.g., removed and reset next day), indicate specific dates & times of restrictions below:

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

**SENDER'S
NAME:**

**SENDER'S
PHONE #:**

Appendix C: RIDOT Contact Person Information

Appendix C: RIDOT Contact Person Information

RIDOT Traffic Engineering Unit

Primary Contact: **Russell Holt, P.E.**
Senior Civil Engineer
PHONE: (401) 222-2694 (x4046)
E-MAIL: rholt@dot.ri.gov

Secondary Contact: **Robert Rocchio, P.E.**
Managing Engineer
PHONE: (401) 222-2694 (x4026)
E-MAIL: brocchio@dot.ri.gov

RIDOT Construction Management Section

James DeLeo
Resident Engineer
PHONE: (401) 265-8352
E-MAIL: jdeleo@dot.ri.gov

RIDOT Contracts & Specifications Section

Lisa Hill
PHONE: (401) 222-3260 (x4401)
E-MAIL: lhill@dot.ri.gov

RIDOT Financial Management Section

Dawn Cruz
Chief PreAudit Supervisor
PHONE: (401) 222-6590 (x4651)
E-MAIL: dcruz@dot.ri.gov

Appendix D: Transportation Management Plan (TMP)



Master Price Agreement (MPA) 451: Statewide Pavement

Project Name: Marking Installation & Removal

RI Design Contract No(s): N/A

RI Construction Contract No(s): ~~NA~~ 2011-CT-014

Rev.#1-RBH 1/29/11

Submission: ADV

Date: 08/17/2010

PROJECT INFORMATION

Brief Project Description:

This project allows for the completion of pavement marking installation and removal work throughout the State on an as-needed basis. Pavement marking installation and grinding trucks, hand carts, pavement sweeping and debris collection vehicles, shadow and advance warning vehicles, and other work trucks will be positioned within roadway limits to complete the work.

General Work Limits:

The project work limits are indefinite until project completion; however, work locations will be limited to all paved areas open to public travel (e.g., freeways, expressways, arterial, collector and local roadways, shared-use paths), parking lots, and other paved surfaces within the State of Rhode Island. Short-duration lane closures will be implemented, via either mobile operations (for long line installation/removal) or stationary operations (for word, symbol, stop line, etc. installation/removal).

WORK ZONE LOCATIONS

ROADWAY NAME or INTERSECTION	FROM	TO	APPROX. LENGTH
<u>The project work zone locations/limits are indefinite until project completion (see General Work Limits above)</u>			

General Project Schedule*:

Overall work schedule is indefinite at project start, as work limits and extents are indefinite until project completion. Work may begin as early as October 2010, and the Effective Period of the MPA is TWO (2) YEARS, with the State reserving the option to extend the MPA up to two (2) additional years.

*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: Unless otherwise noted on a Work Order Package Request for Bids and directed by the Engineer, the Contractor shall comply with the following restrictions: Rev. #1 - RBH 1/28/11

WORK ON FREEWAYS AND ASSOCIATED RAMPS

- No lane closures allowed between the hours of 6:00 AM and 9:00 PM on any day of the week
- No shoulder closures allowed between 6:00 AM and 9:00 AM and between 3:00 PM and 6:00 PM, Monday thru Friday
- No work of any kind allowed on Friday and/or Saturday nights, between 7:00 PM and 6:00 AM the next morning

WORK ON ALL OTHER ROADWAYS AND FACILITIES

- No lane closures allowed between the hours of 6:00 AM and 9:00 AM and between 3:00 PM and 6:00 PM, Monday thru Friday
- No work of any kind allowed on Friday and/or Saturday nights, between 7:00 PM and 6:00 AM the next morning

Holiday Restrictions: No work allowed after 1:00 PM on the Friday preceding a holiday weekend

EASTER SUNDAY

- No work allowed on Saturday and/or Sunday

NEW YEAR'S DAY, INDEPENDENCE DAY, VETERANS DAY, & CHRISTMAS DAY

- No work allowed after 1:00 PM on the day before the holiday
- No work allowed on the holiday

DR. MARTIN LUTHER KING JR. DAY, MEMORIAL DAY, VICTORY DAY, LABOR DAY, & COLUMBUS DAY

- No work allowed on Saturday, Sunday, and/or Monday

THANKSGIVING DAY

- No work allowed after 1:00 PM on the Wednesday preceding Thanksgiving Day
- No work allowed on Thursday
- No lane closures allowed on Friday, Saturday, and/or Sunday

TEMPORARY TRAFFIC CONTROL PLANS

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

RIDOT TYPICAL TTC PLANS		Included in:	
		TMP	Plan Set
<input type="checkbox"/> Mobile Operation			
<input type="checkbox"/> Work Beyond the Shoulder			
<input checked="" type="checkbox"/> Shoulder Closure - Two Lane Road		X	
<input type="checkbox"/> Shoulder Closure - Limited Access			
<input checked="" type="checkbox"/> 1-Side Lane Shift - Two Lane Road		X	
<input type="checkbox"/> 2-Side Lane Shift - Two Lane Road			
<input type="checkbox"/> Lane Shift - Limited Access			
<input checked="" type="checkbox"/> Lane Closure - Two Lane Road		X	
<input type="checkbox"/> Lane Closure - Four Lane Road			
<input type="checkbox"/> Lane Closure - Limited Access			
<input type="checkbox"/> Double Lane Closure - Limited Access			

DESIGNER-DEVELOPED TTC PLANS		Included in:	
		TMP	Plan Set
Sign Detail (STRIPING CREW / WET PAINT)		X	
Mobile Operation on Shoulder of Multi-Lane Hwy		X	
Mobile Striping Op. on Ext. Lane of Multi-Lane Hwy (Sht.1)		X	
Mobile Striping Op. on Ext. Lane of Multi-Lane Hwy (Sht.2)		X	
Mobile Striping Op. on Int. Lane of Multi-Lane Hwy (Sht.1)		X	
Mobile Striping Op. on Int. Lane of Multi-Lane Hwy (Sht.2)		X	
Short-Duration Striping Operation in Hwy Turn Lane		X	
Short-Duration Striping Op. in Thru Ln of Multi-Ln Hwy		X	
Mobile Striping Op. on Two-Lane Two-Way Hwy		X	

PUBLIC INFORMATION PLAN

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

SELECTED STRATEGIES

- RIDOT travel advisories news releases**
- RIDOT travel advisories web site**
- RIDOT 511 traveler information system**
- Changeable message signs (CMS)**

RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

Contractor's TMP Imp. Mngr. to send Work Notification Form to Communications min. 48 hrs. in advance of restriction.

Contractor's TMP Imp. Mngr. to send Work Notification Form to Communications min. 48 hrs. in advance of restriction.

Contractor's TMP Imp. Mngr. to send Work Notification Form to RIDOT TMC min. 48 hrs. in advance of restrictions.

Truck-mounted CMS to be used where called for on Temporary Traffic Control Plans.

TRANSPORTATION OPERATIONS PLAN

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

SELECTED STRATEGIES

- Crash attenuators**

RESPONSIBILITIES / REQUIREMENTS / SPECIAL CONSIDERATIONS

Truck-mounted attenuators to be used on all shadow and advance warning vehicles.

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 Traffic Management Chief, 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 Traffic Management Chief, the State Traffic Engineer, and the Chief Engineer must approve of the revised TMP prior to their implementation.

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

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

Other Requirements:

TMP APPROVALS

All approvals must be obtained prior to start of work

TRAFFIC MANAGEMENT CHIEF		
Signature:		
	Joseph Bucci, P.E.	
Date:	8/17/10	

STATE TRAFFIC ENGINEER		
Signature:		
	Robert Rocchio, P.E.	
Date:	8/17/10	

CHIEF ENGINEER		
Signature:		
	Kazem Farahmand, P.E.	
Date:	8/19/10	

Revision #	Initials	Date
1		1/28/11

Revision #	Initials	Date
1	RR	1/28/11

Revision #	Initials	Date
1	KF	1/28/11

TMP IMPLEMENTATION MANAGERS

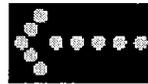
Project managers with the primary responsibility & authority for implementation of this TMP

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

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

**TYPICAL DETAILS –
TEMPORARY TRAFFIC CONTROL**

TABLE 1: *Meaning of Symbols on Typical Application Diagrams*



Arrow panel display



Arrow panel support
(shown facing down)



Truck-Mounted Changeable message sign



R.I. Standard 26.1.0 Fluorescent Traffic Cone



Flagger



Truck mounted attenuator



Work space



Work vehicle

TABLE 2: Meaning of Letter Codes on Typical Application Diagrams

Road Type	Distance Between Signs**		
	A	B	C
Urban (< 35 MPH)*	30 (100)	30 (100)	30 (100)
Urban (≥ 35 MPH)*	100 (350)	100 (350)	100 (350)
Rural	150 (500)	150 (500)	150 (500)
Expressway / Freeway	300 (1,000)	450 (1,500)	800 (2,640)

*: Posted or Statutory Speed Limit

** Distances are shown in meters (feet). The column headings A, B, and C are the dimensions shown on the Typical Application Diagrams. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The third sign is the first one in a three-sign series encountered by a driver approaching a TTC zone.)

TABLE 3: Formulas for Determining Taper Lengths

Speed Limit (S)	Taper Length (L) Meters	Speed Limit (S)	Taper Length (L) Feet
60 km/h or less	$L = \frac{WS^2}{155}$	40 mph or less	$L = \frac{WS^2}{60}$
70 km/h or more	$L = \frac{WS}{1.6}$	45 mph or more	$L = WS$

Where: L = taper length in meters (feet)

W = width of offset in meters (feet)

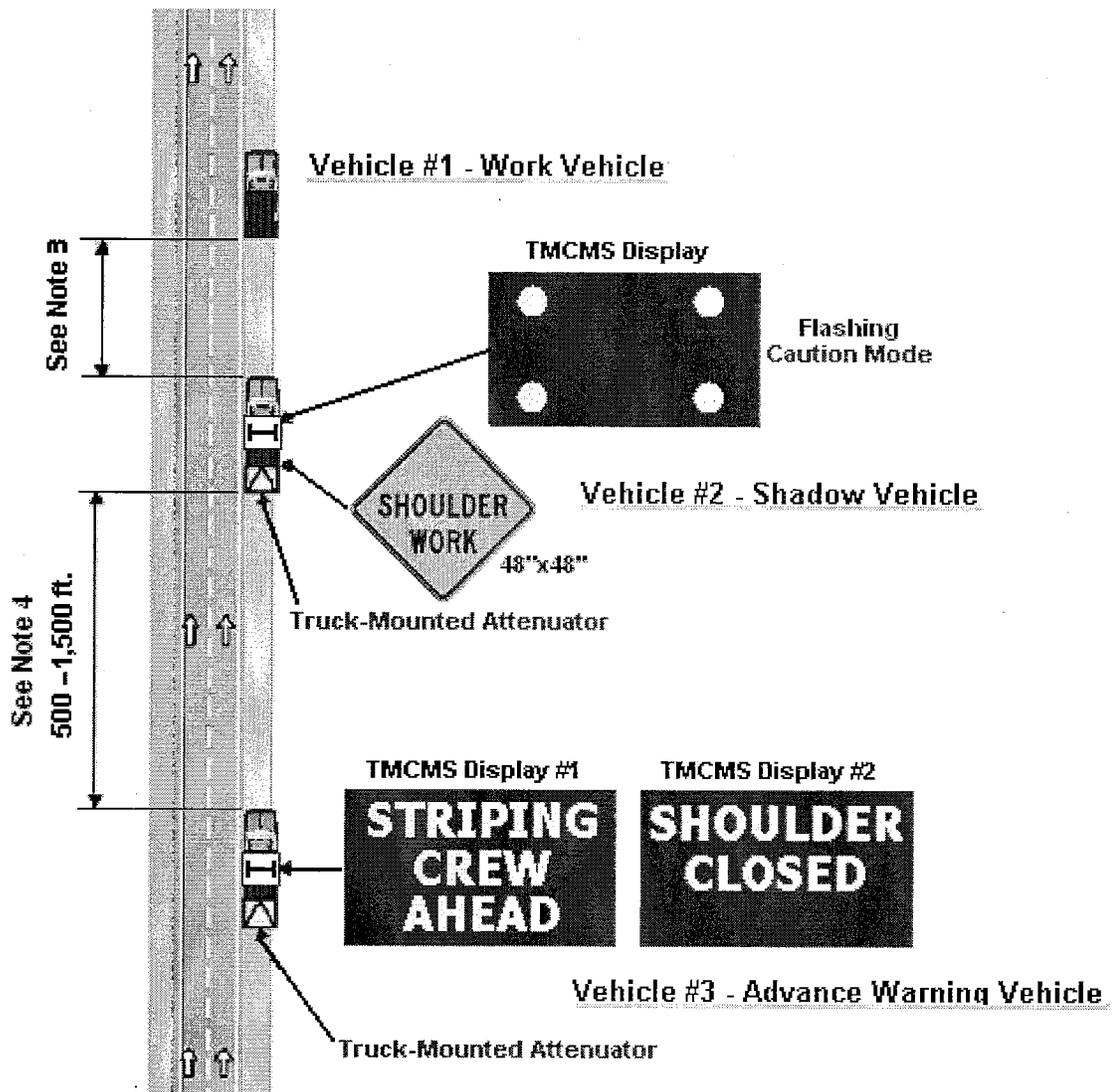
S = posted or statutory speed limit, in km/h (mph)

Notes for Typical Application 1

Mobile Operation on Shoulder of Multi-Lane Highway

1. The messages displayed on the advance warning vehicle truck-mounted changeable message sign shall be modified as necessary to correspond with the actual work activities taking place.
2. Messages displayed on truck-mounted changeable message signs shall consist of no more than two phases.
3. The distance between the shadow vehicle and the work vehicle shall be based on the conditions existing at the time of work, using the guidelines provided in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) *Roadside Design Guide*, latest edition.
4. The distance between the advance warning vehicle and the shadow vehicle shall be varied as the work operation proceeds so that approaching motorists are given adequate advance warning of the work activity ahead.
5. The warning signs shown on vehicles are examples and may be replaced with other types, sizes, and/or shapes of warning signs or omitted where advance permission is granted by the Engineer.
6. All vehicles used for these operations shall be equipped with high intensity rotating, flashing, oscillating, or strobe warning lights with 360 degree visibility. These warning lights shall be activated during the work.

TYPICAL APPLICATION 1
Mobile Operation on Shoulder of Multi-Lane Highway



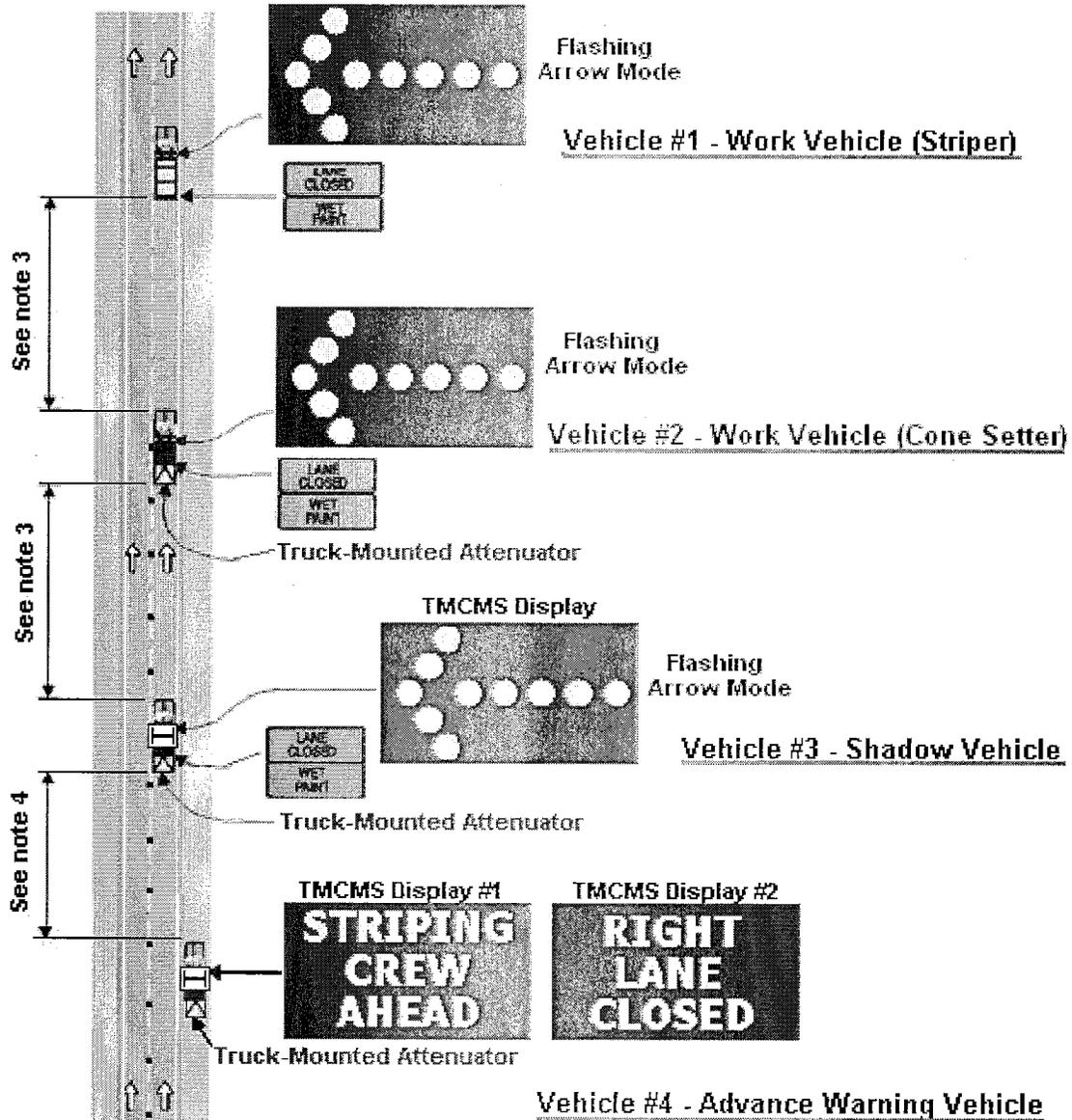
NOT TO SCALE

Notes for Typical Applications 2 & 3

Mobile Striping Operation on Exterior Lane of Multi-Lane Highway

1. These plans are appropriate for placement of pavement marking materials on exterior lanes of multi-lane highways, where coning is required to protect the fresh line from tracking.
2. All vehicles used for these operations shall be equipped with high intensity rotating, flashing, oscillating, or strobe warning lights with 360 degree visibility. These warning lights shall be activated during the work.
3. The distances between the shadow vehicle and the cone setter / cone retriever work vehicle and between the cone setter work vehicle and the striper work vehicle shall be based on the conditions existing at the time and location of work, using the guidelines provided in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) *Roadside Design Guide*, latest edition.
4. The distance between the advance warning vehicle and the shadow vehicle shall be varied as the work operation proceeds so that approaching motorists are given adequate advance warning of the work activity ahead.
5. Cones should generally be placed at every other broken lane line marking. Closer spacing may be used if needed to discourage motorists from crossing wet markings.
6. For work in the left-most lane of a multi-lane highway, a set-up similar to that shown shall be used, with the truck-mounted changeable message sign and flashing arrow panel displays revised to indicate the left lane closure and, on undivided multi-lane highways, additional advance warning traffic control devices added to alert traffic approaching the work operation from the opposite direction.
7. The warning signs shown on vehicles are examples and may be replaced with other types, sizes, and/or shapes of warning signs or omitted where advance permission is granted by the Engineer.
8. For pavement marking removal and/or sweeping operations, a set-up similar to that shown for striping operations (Typical Application 2) shall be used, with the cones omitted, the marking removal (grinding) work vehicle serving as Vehicle #1, the sweeper/debris-collection work vehicle(s) serving as Vehicle #2, the warning signs on vehicles appropriately modified and/or removed, and the advance warning vehicle truck-mounted changeable message sign displays appropriately modified to correspond with the work taking place.

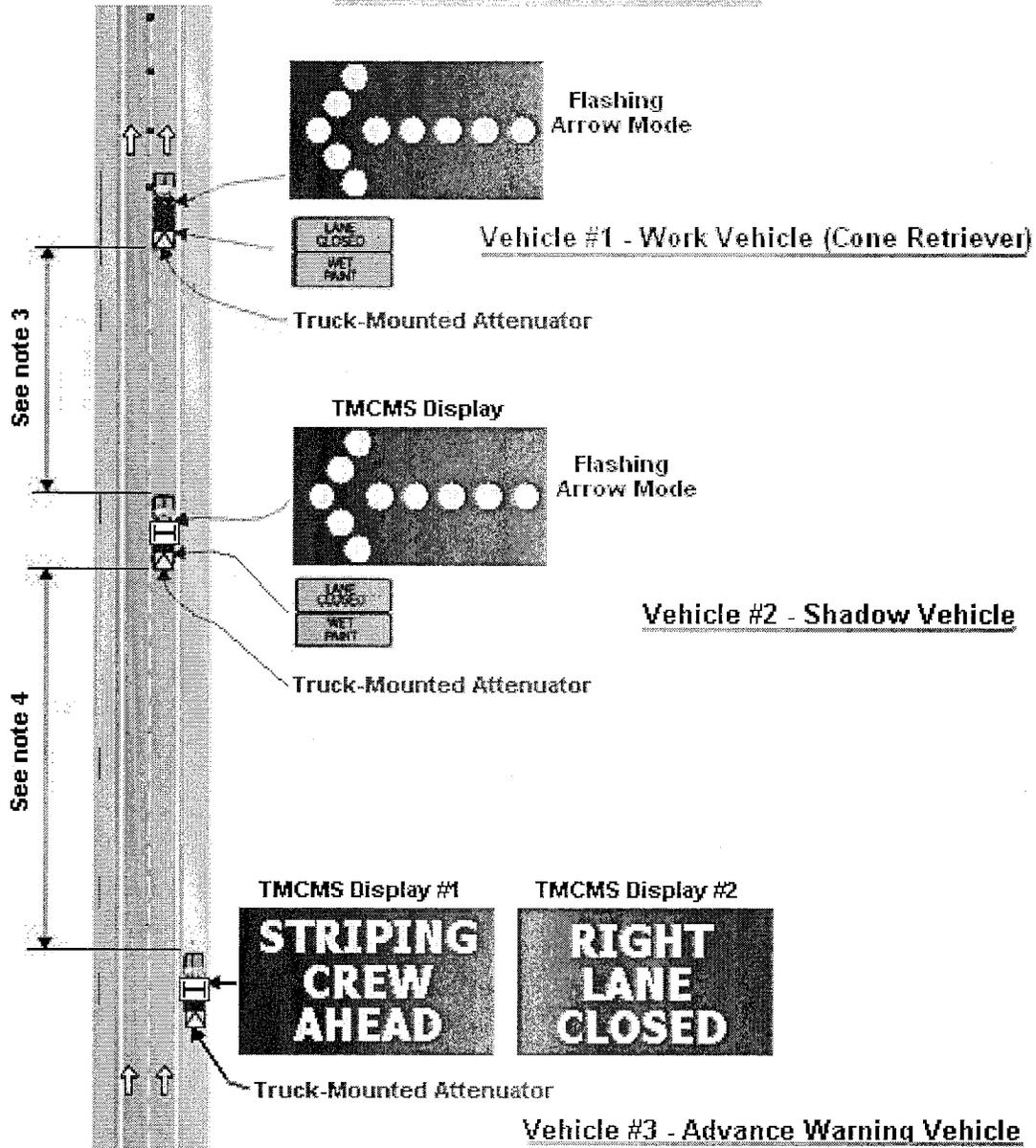
TYPICAL APPLICATION 2
**Mobile Striping Operation on Exterior Lane
of Multi-Lane Highway**
Striping Operation



NOT TO SCALE

TYPICAL APPLICATION 3
Mobile Striping Operation on Exterior Lane
of Multi-Lane Highway

Cone Retrieval Operation



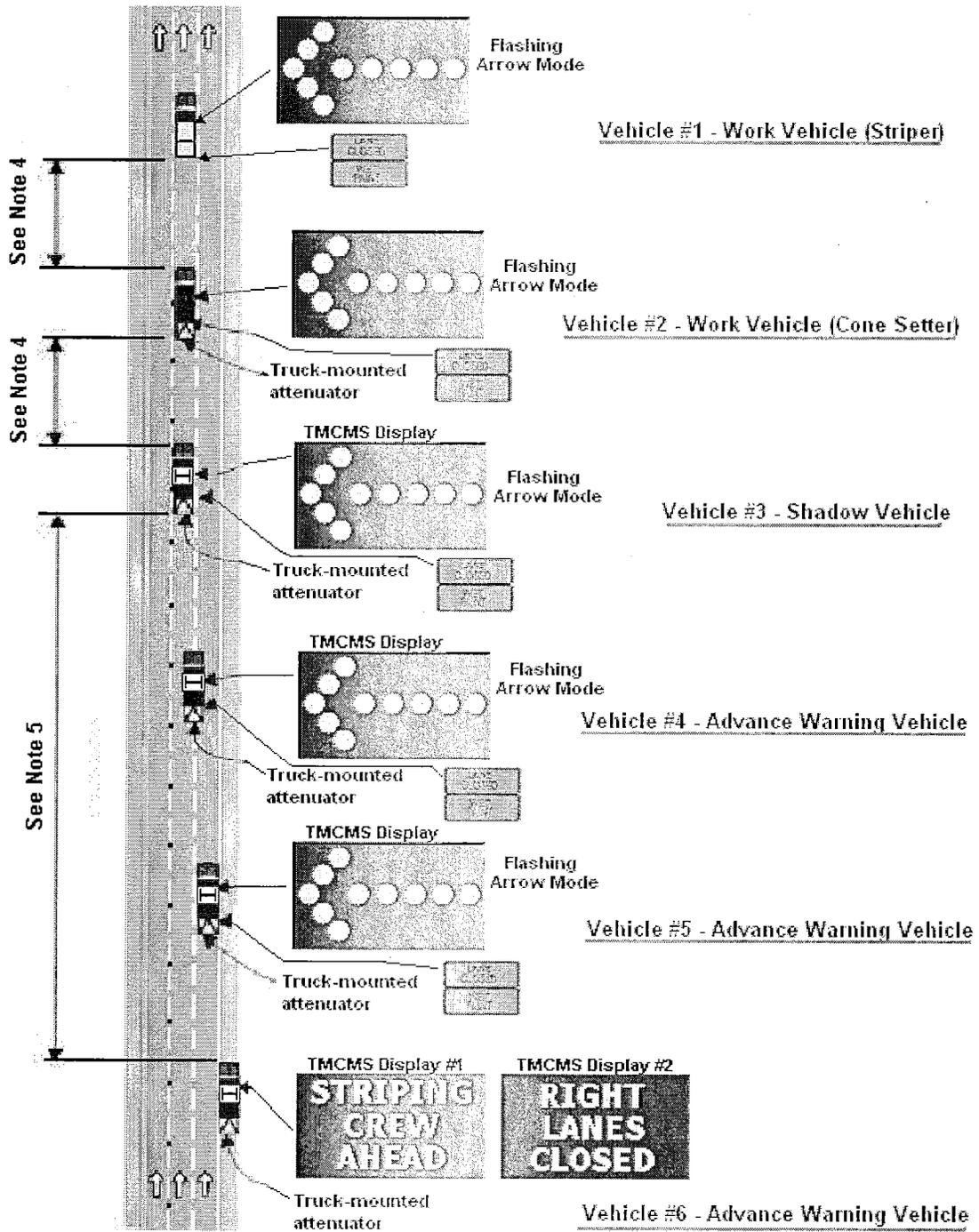
NOT TO SCALE

Notes for Typical Applications 4 & 5

Mobile Striping Operation on Interior Lane of Multi-Lane Highway

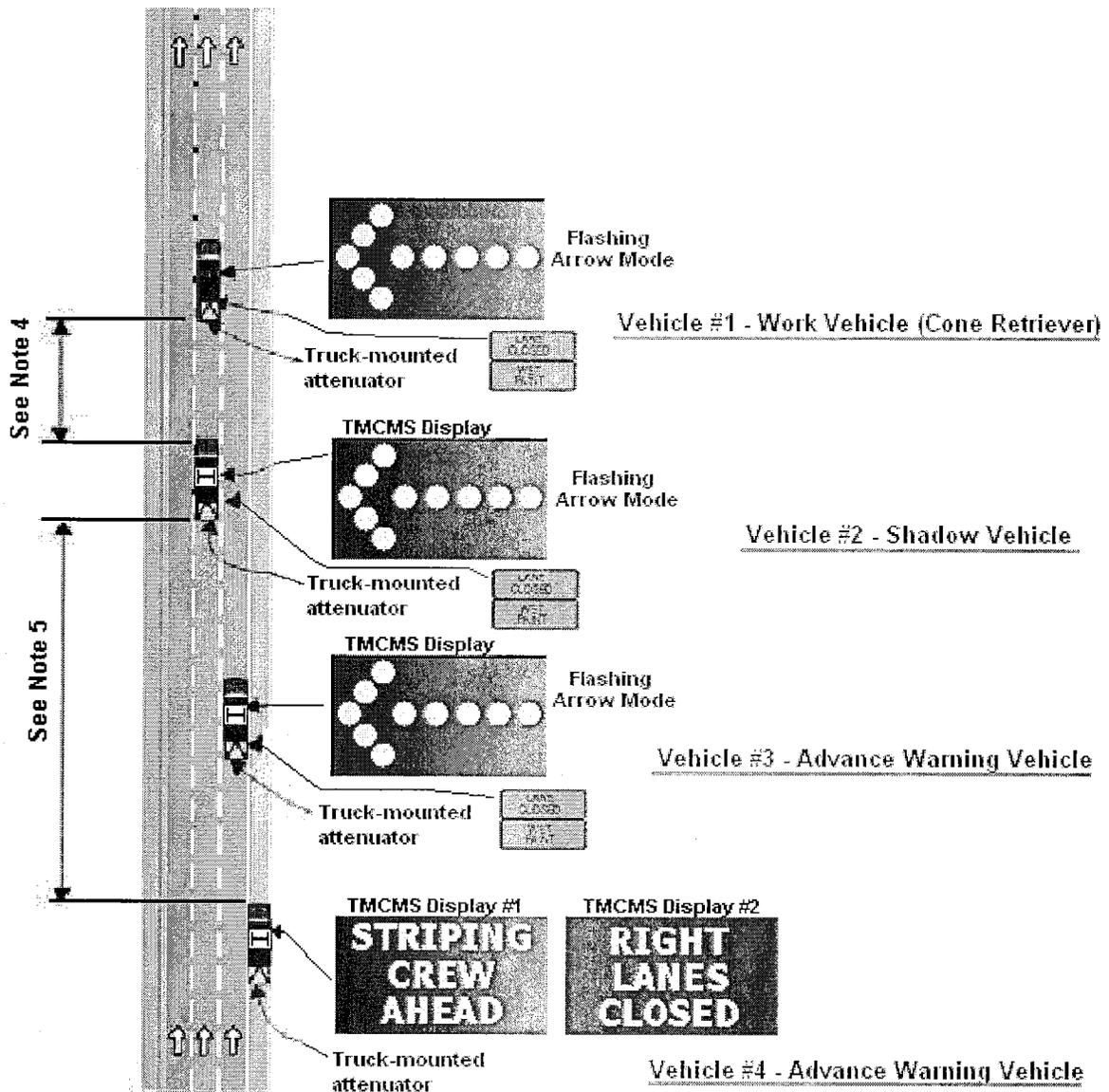
1. These plans are appropriate for placement of pavement marking materials on interior lanes of multi-lane highways, where coning is required to protect the fresh line from tracking.
2. All vehicles used for these operations shall be equipped with high intensity rotating, flashing, oscillating, or strobe warning lights with 360 degree visibility. These warning lights shall be activated during the work.
3. The warning signs shown on vehicles are examples and may be replaced with other types, sizes, and/or shapes of warning signs or omitted where advance permission is granted by the Engineer.
4. The distances between the shadow vehicle and the cone setter / cone retriever work vehicle and between the cone setter work vehicle and the striping work vehicle shall be based on the conditions existing at the time and location of work, using the guidelines provided in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) *Roadside Design Guide*, latest edition.
5. The lengths of the tapers formed by the moving vehicles shall be based on guidance provided in Part 6 of the MUTCD, latest edition. Advance warning vehicles shall at all times be positioned so that approaching motorists are given adequate advance warning of the lane closures and work activities ahead.
6. Cones should generally be placed at every other broken lane line marking. Closer spacing may be used if needed to discourage motorists from crossing wet markings.
7. Based on the traffic conditions existing at the time and location of work, the Engineer may require that additional advance warning vehicles be used and/or may allow specific advance warning vehicles to be eliminated from the set-up.
8. Where required by the Engineer, mobile work operations on an interior lane of a multi-lane highway shall be completed via closing the left and center lanes of the highway, rather than the right and center lanes as shown on these plans. In such cases, a set-up similar to that shown shall be used, with the truck-mounted changeable message sign and flashing arrow panel displays revised to indicate the left lane closures.
9. For pavement marking removal and/or sweeping operations, a set-up similar to that shown for striping operations (Typical Application 4) shall be used, with the cones omitted, the marking removal (grinding) work vehicle serving as Vehicle #1, the sweeper/debris-collection work vehicle(s) serving as Vehicle #2, the warning signs on vehicles appropriately modified and/or removed, and the advance warning vehicle truck-mounted changeable message sign displays appropriately modified to correspond with the work taking place.

TYPICAL APPLICATION 4
Mobile Striping Operation on Interior Lane of Multi-Lane Highway
Striping Operation



NOT TO SCALE

TYPICAL APPLICATION 5
Mobile Striping Operation on Interior Lane of Multi-Lane Highway
Cone Retrieval Operation



NOT TO SCALE

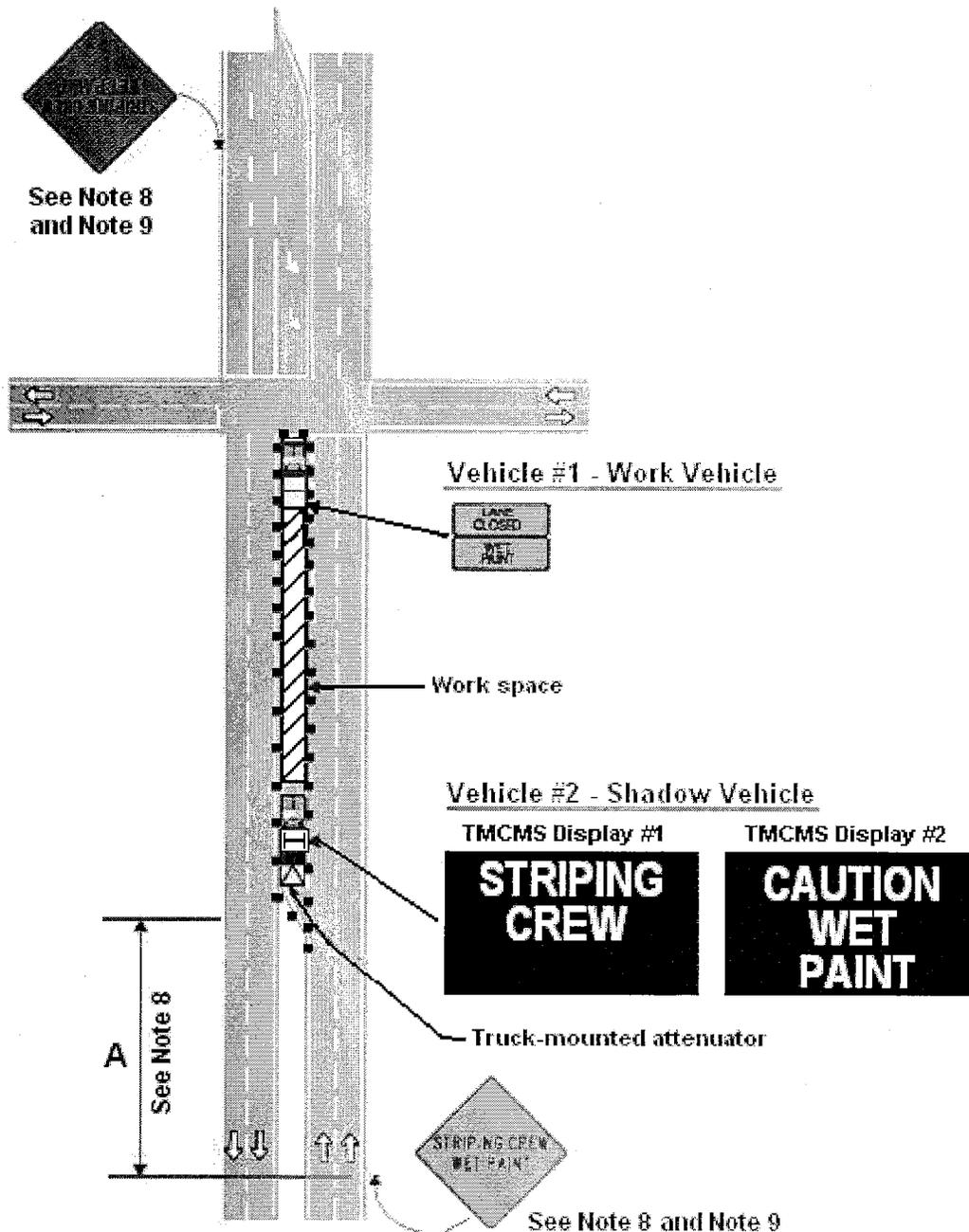
Notes for Typical Application 6

Short-Duration Striping Operation in Highway Turn Lane

1. This plan is appropriate for work operations that require occupation of the work space for only a short duration (up to one hour).
2. All vehicles used for these operations shall be equipped with high intensity rotating, flashing, oscillating, or strobe warning lights with 360 degree visibility. These warning lights shall be activated during the work.
3. The warning signs shown on vehicles are examples and may be replaced with other types, sizes, and/or shapes of warning signs or omitted where advance permission is granted by the Engineer.
4. The messages displayed on the shadow vehicle truck-mounted changeable message sign shall be modified as necessary to correspond with the actual work activities taking place.
5. The distance between the shadow vehicle and the workers on foot shall be based on the conditions existing at the time and location of work, using the guidelines provided in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) *Roadside Design Guide*, latest edition.
6. The position of the work vehicle shall be adjusted as necessary to provide adequate access for workers to perform the work. If work is performed in front (downstream) of the work vehicle, a spotter(s) should be used to warn workers of approaching traffic.
7. Cones spaced at no greater than 20 feet on center shall be placed on all sides of the work space adjacent to open travel lanes to reduce the risk of intrusions and to define the work space for workers. Closer cone spacing may be used if needed to discourage motorists from crossing wet markings.
8. A 48"x48" STRIPING CREW WET PAINT warning sign shall be installed at a minimum distance of "A" (see Table 2) upstream of the beginning of the turn lane. Where the work space is adjacent to a travel lane open to traffic traveling in the opposite direction, an additional 48"x48" STRIPING CREW WET PAINT sign shall be installed in the opposite direction of the highway upon which the work is taking place, at a minimum distance of "A" upstream of the work space. These signs shall not be removed until all markings are dry and all cones are retrieved.
9. Where multiple short-duration striping operations are needed within a single highway corridor over a distance of one mile or less, one 48"x48" STRIPING CREW WET PAINT sign may be installed to warn of multiple downstream work locations. In such cases, the signs shall be installed in accordance with Note 8 and the Contractor shall install an additional STRIPING CREW WET PAINT sign approximately 100-feet downstream of each intersection with a numbered highway route(s) as the work operations proceed downstream.
10. If motorists will experience difficulty turning at the intersection due to the closed turn lane, a Trafficperson(s) shall be used to guide and control traffic at the intersection during the work.
11. For short-duration work operations in a two-way left-turn lane, an additional shadow vehicle shall be positioned at the other end of the work space, with its attenuator and changeable message sign facing motorists approaching from the opposite direction.
12. For non-striping work operations, MUTCD Code W20-1 48"x48" ROAD WORK AHEAD warning signs shall be installed in place of the STRIPING CREW WET PAINT warning signs.

TYPICAL APPLICATION 6

Short-Duration Striping Operation in Highway Turn Lane



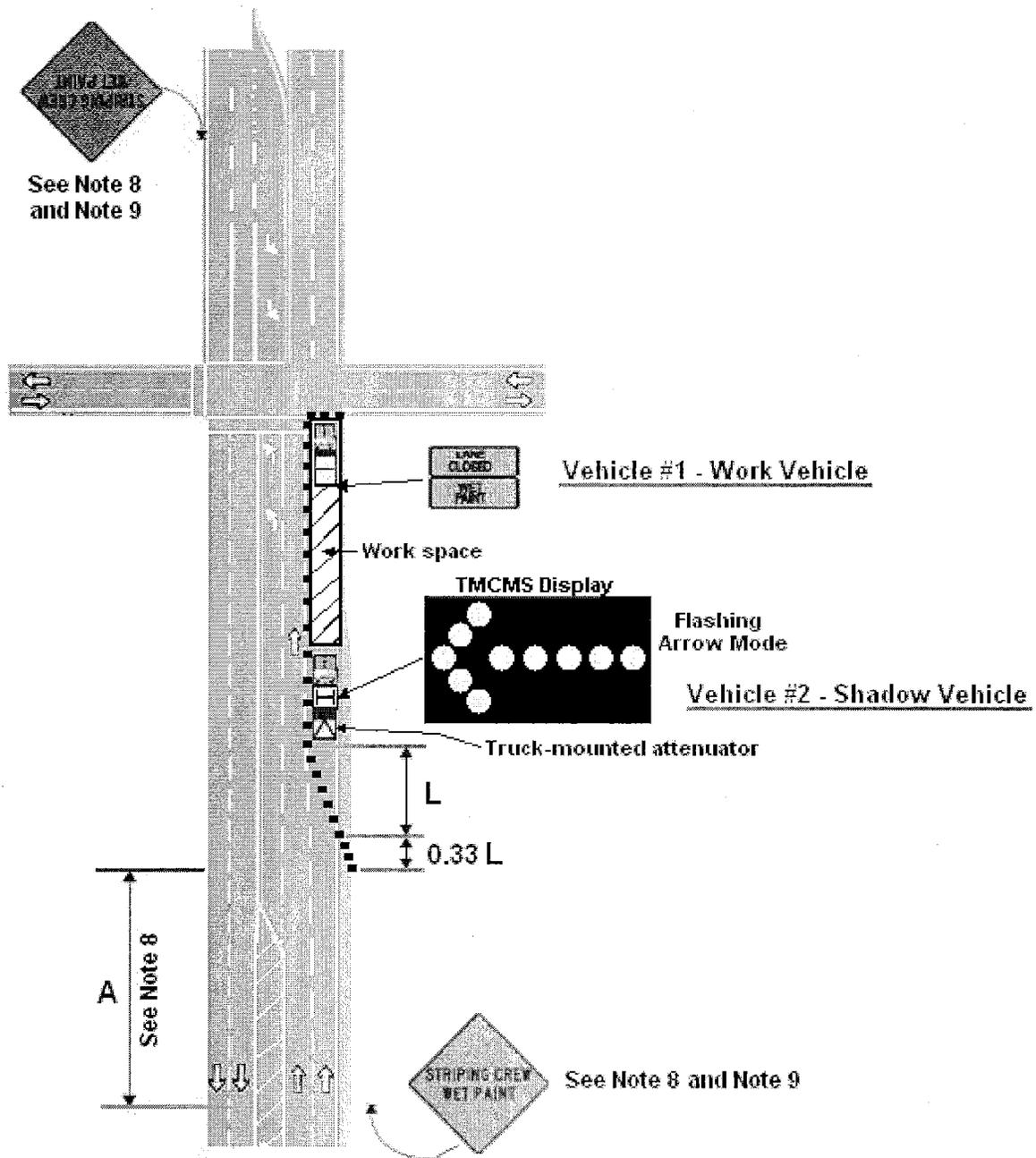
NOT TO SCALE

Notes for Typical Application 7

Short-Duration Striping Operation in Thru Lane of Multi-Lane Highway

1. This plan is appropriate for work operations that require occupation of the work space for only a short duration (up to one hour).
2. All vehicles used for these operations shall be equipped with high intensity rotating, flashing, oscillating, or strobe warning lights with 360 degree visibility. These warning lights shall be activated during the work.
3. The warning signs shown on vehicles are examples and may be replaced with other types, sizes, and/or shapes of warning signs or omitted where advance permission is granted by the Engineer.
4. The distance between the shadow vehicle and the workers on foot shall be based on the conditions existing at the time and location of work, using the guidelines provided in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) *Roadside Design Guide*, latest edition.
5. The position of the work vehicle shall be adjusted as necessary to provide adequate access for workers to perform the work. If work is performed in front (downstream) of the work vehicle, a spotter(s) should be used to warn workers of approaching traffic.
6. Cones spaced at no greater than 20 feet on center shall be placed on all sides of the work space adjacent to open travel lanes to reduce the risk of intrusions and to define the work space for workers. Closer cone spacing may be used if needed to discourage motorists from crossing wet markings.
7. If motorists will experience difficulty turning at the intersection due to the closed turn lane, a Trafficperson(s) shall be used to guide and control traffic at the intersection during the work.
8. A 48"x48" STRIPING CREW WET PAINT warning sign shall be installed at a minimum distance of "A" (see Table 2) upstream of the beginning of the lane closure merge taper. Where the work space is adjacent to a travel lane open to traffic traveling in the opposite direction, an additional 48"x48" STRIPING CREW WET PAINT sign shall be installed in the opposite direction of the highway upon which the work is taking place, at a minimum distance of "A" upstream of the work space. These signs shall not be removed until all markings are dry and all cones are retrieved.
9. Where multiple short-duration striping operations are needed within a single highway corridor over a distance of one mile or less, one 48"x48" STRIPING CREW WET PAINT sign may be installed to warn of multiple downstream work locations. In such cases, the signs shall be installed in accordance with Note 8 and the Contractor shall install an additional STRIPING CREW WET PAINT sign approximately 100-feet downstream of each intersection with a numbered highway route(s) as the work operations proceed downstream.
10. For non-striping work operations, MUTCD Code W20-1 48"x48" ROAD WORK AHEAD warning signs shall be installed in place of the STRIPING CREW WET PAINT warning signs.

TYPICAL APPLICATION 7
**Short-Duration Striping Operation
in Thru Lane of Multi-Lane Highway**



NOT TO SCALE

Notes for Typical Application 8

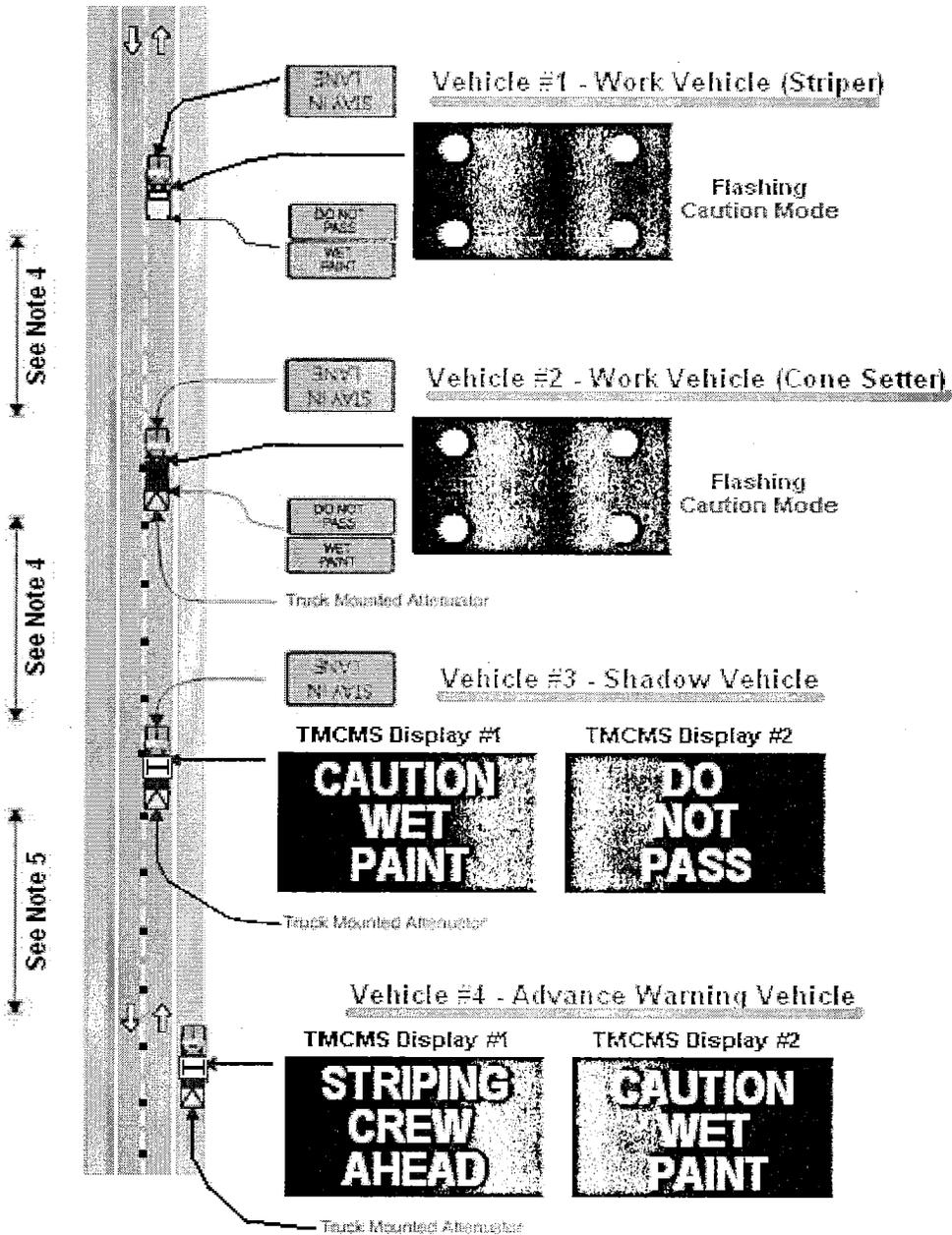
Mobile Striping Operation on Two-Lane Two-Way Highway

1. This plan is appropriate for placement of pavement marking materials that require coning to protect the fresh line from tracking.
2. The messages displayed on the truck-mounted changeable message signs shall be modified as necessary to correspond with the actual work activities taking place.
3. All vehicles used for these operations shall be equipped with high intensity rotating, flashing, oscillating, or strobe warning lights with 360 degree visibility. These warning lights shall be activated during the work.
4. The distances between Vehicle #3 (the shadow vehicle) and Vehicle #2 (the cone setter / cone retriever work vehicle) and between Vehicle #2 (the cone setter vehicle) and Vehicle #1 (the striper work vehicle) shall be based on the conditions existing at the time and location of work, using the guidelines provided in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) *Roadside Design Guide*, latest edition.
5. The distance between the advance warning vehicle and the shadow vehicle shall be varied as the work operation proceeds so that approaching motorists are given adequate advance warning of the work activity ahead.
6. Where practical and when needed, the work and shadow vehicles should pull over periodically to allow vehicular traffic to pass.
7. Cones should generally be placed at every other broken lane line marking. Closer spacing may be used if needed to discourage motorists from crossing wet markings.
8. The shadow vehicle or the advance warning vehicle may be omitted only where traffic speeds are low, sight distance is good, and where advance permission is granted by the Engineer.
9. The warning signs shown on vehicles are examples and may be replaced with other types, sizes, and/or shapes of warning signs or omitted where advance permission is granted by the Engineer.
10. For cone retrieval operations, a set-up similar to that shown for striping operations shall be used, with a separate three vehicle train consisting of only Vehicles #2, #3, and #4, the "STAY IN LANE" sign removed from the front of Vehicle #3, and the truck-mounted changeable message sign displays modified appropriately to correspond with the work.
11. For marking removal operations, a set-up similar to that shown for striping operations shall be used, with the cones omitted, the grinding work vehicle serving as Vehicle #1, the sweeper/debris-collection work vehicle(s) serving as Vehicle #2, the warning signs on vehicles appropriately modified and/or removed, and the truck-mounted changeable message sign displays appropriately modified to correspond with the marking removal work.

TYPICAL APPLICATION 8

Mobile Striping Operation on Two-Lane Two-Way Highway

See Note 10 for cone retrieval operation.
 See Note 11 for marking removal operation.

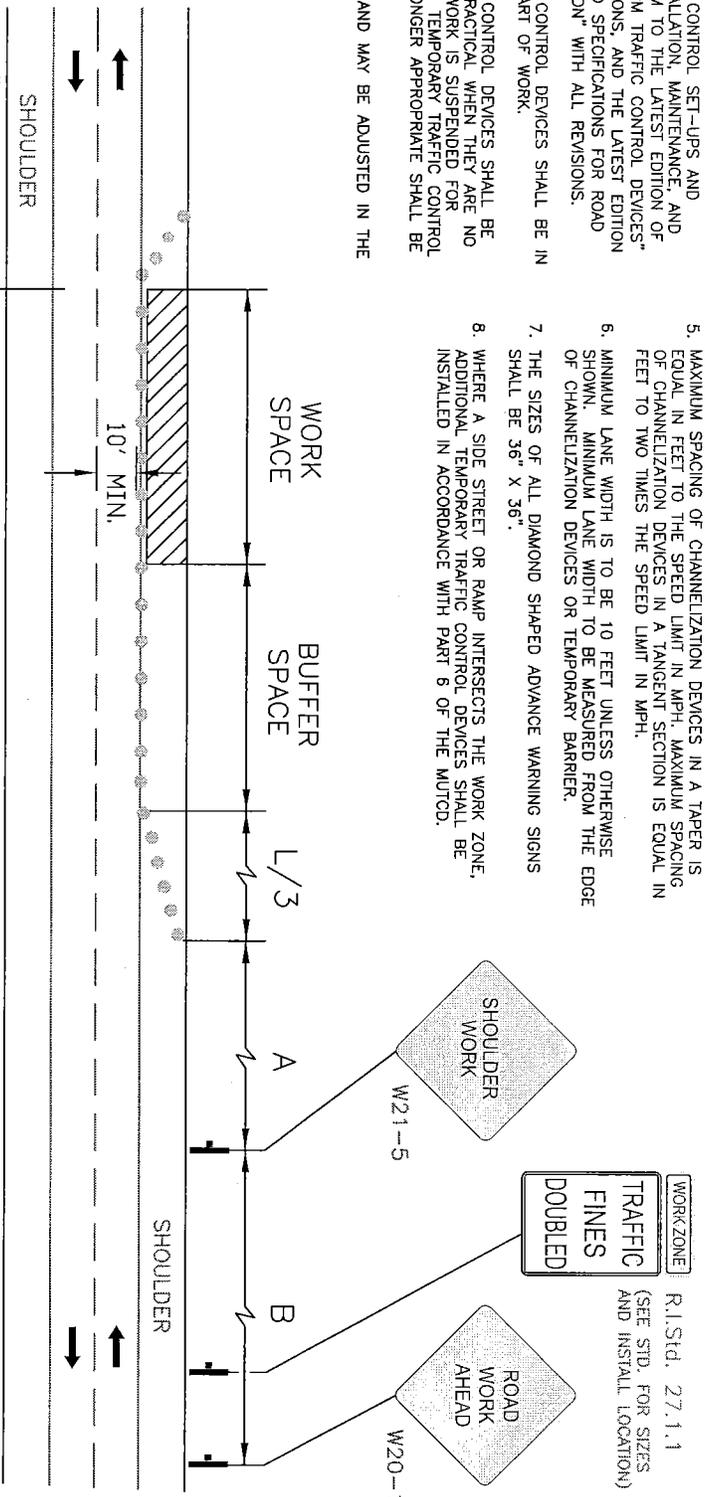


NOT TO SCALE

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 8 OF THE MUTCD.



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

TAPER AND BUFFER LENGTHS

Speed Limit	Taper Length* (L) Feet	Buffer Spacing** 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

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
TEMPORARY
TRAFFIC CONTROL PLAN



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

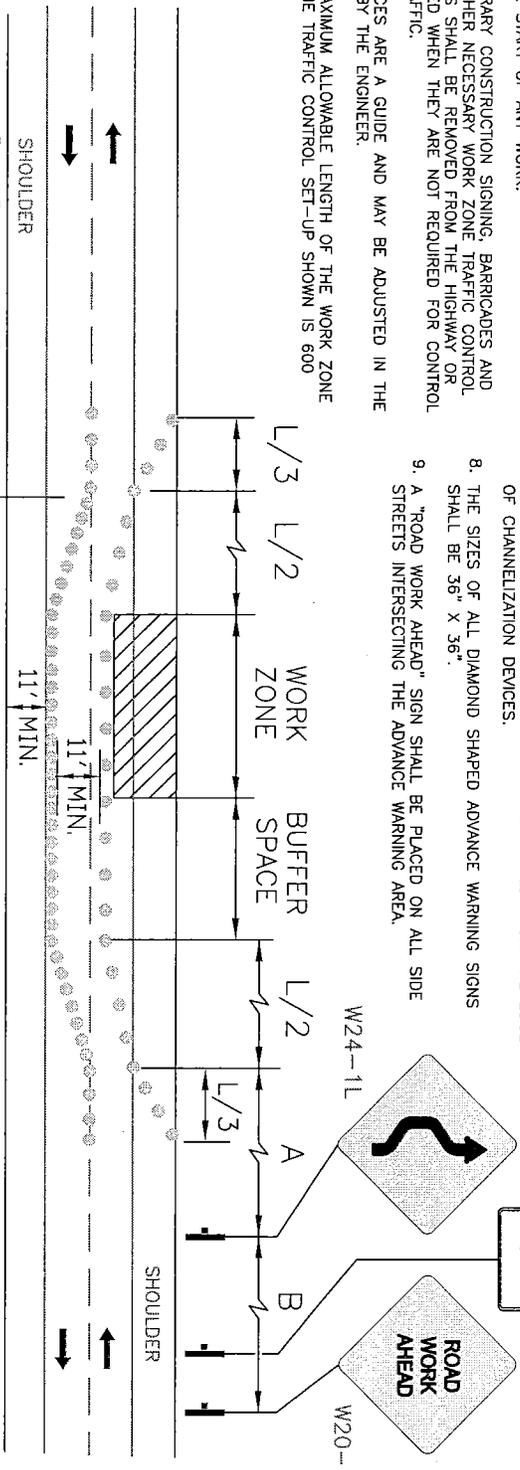
NOT TO SCALE

DATE: 12-23-08

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL WORK, SIGN LEGENDS AND BORDERS, AND MOUNTINGS SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION WITH ALL REVISIONS.
2. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
3. TEMPORARY CONSTRUCTION SIGNING, BARRICADES AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
4. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
5. THE MAXIMUM ALLOWABLE LENGTH OF THE WORK ZONE FOR THE TRAFFIC CONTROL SET-UP SHOWN IS 600 FEET.

6. CHANNELIZATION DEVICES (DRUMS OR CONES) SERVING AS A BARRIER BETWEEN TRAFFIC TRAVELING IN OPPOSITE DIRECTIONS SHALL BE SPACED AT NO GREATER THAN 5 FEET WITHIN TAPERS AND AREAS ADJACENT TO THE WORK ZONE AND BUFFER SPACE. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN OTHER AREAS SHALL BE AS FOLLOWS: [1] ON TAPERS, EQUAL IN FEET TO THE SPEED LIMIT IN MPH; [2] IN A TANGENT SECTION, EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
7. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES.
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36" X 36".
9. A "ROAD WORK AHEAD" SIGN SHALL BE PLACED ON ALL SIDE STREETS INTERSECTING THE ADVANCE WARNING AREA.



MINIMUM ADVANCE WARNING SIGN SPACING

Posted Speed Limit & Roadway Location	Distance Between Signs (Feet)		
	A	B	C
25 MPH OR LESS IN URBAN OR RURAL AREA	100	100	100
30 MPH OR GREATER IN URBAN AREA	350	350	350
30 MPH OR GREATER IN RURAL AREA	500	500	500

TAPER AND BUFFER LENGTHS

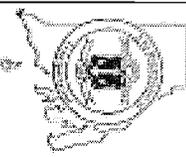
Speed Limit	Taper Length* (Feet)	Buffer Space** (Feet)
25 MPH	125	55
30 MPH	180	85
35 MPH	245	120
40 MPH	320	170
45 MPH	540	220
50 MPH	600	280

* Required
** Suggested

R.I. Std. 27.1.1

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

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN
FOR
SHORT-TERM WORK



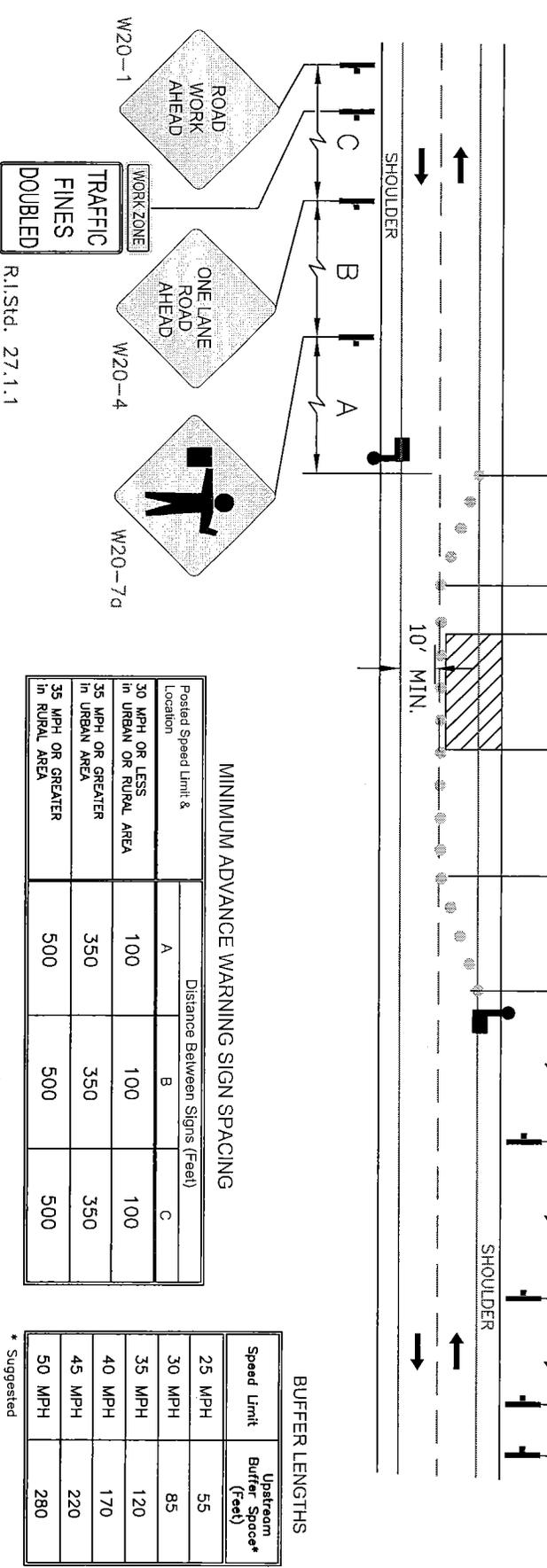
TYPICAL LANE SHIFT
ON
TWO-LANE ROADWAY

NOT TO SCALE

DATE: 10-11-05

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 "ROAD 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 6 OF THE MUTCD.



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 GREATER IN URBAN AREA	350	350	350
35 MPH OR GREATER IN RURAL AREA	500	500	500

BUFFER LENGTHS

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

* Suggested

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
TEMPORARY
TRAFFIC CONTROL PLAN



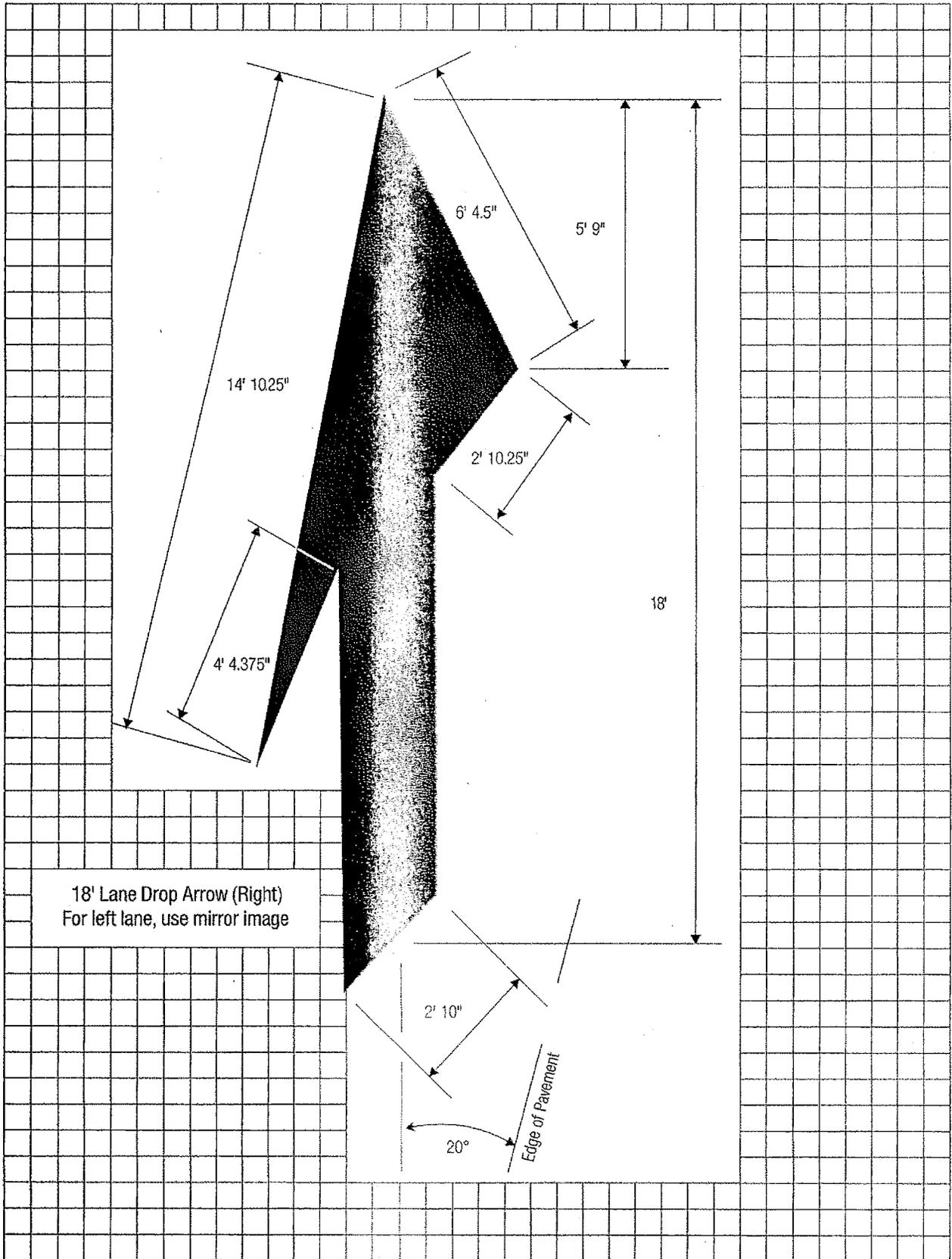
TYPICAL LANE CLOSURE
ON
TWO-LANE ROADWAY

NOT TO SCALE

DATE: 12-23-08

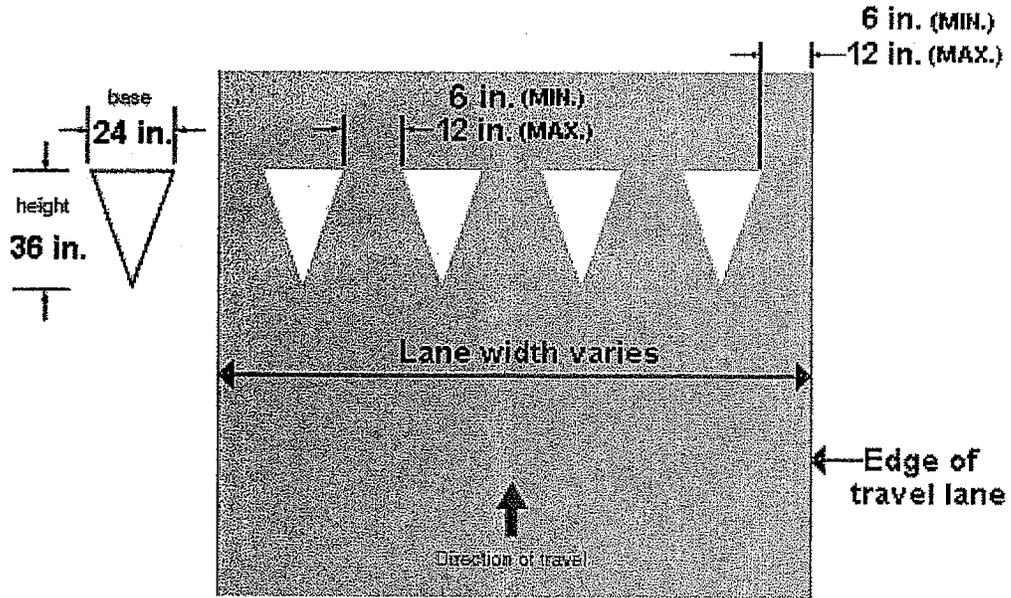
Appendix E: Typical Details – Pavement Markings

**TYPICAL DETAILS –
PAVEMENT MARKINGS**



LANE-REDUCTION ARROW

Typical Yield Line Layout



Appendix F: Master Price List

SPECIAL NOTICE

PROPOSAL

**Project Name - Master Price Agreement (MPA) 451: Statewide
Pavement Marking Installation & Removal**

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

All items in the Proposal must have a unit bid price in words and figures. All unit bid prices must be extended. Bids will not be accepted if they contain no unit price for an item or if they contain zero in words and figures as the unit price bid.

The minimum acceptable bid price for:

Code 914.5010, FLAGPERSONS is Thirty Five Dollars And Five Cents (\$35.05) per MHRS

Code 914.5020, FLAGPERSONS - OVERTIME is Forty Four Dollars And Thirty Five Cents (\$44.35) per MHRS

Code 928.9901, TRAFFIC CONTROL TRUCK WITH TRUCK MOUNTED ATTENUATOR AND CHANGEABLE MESSAGE SIGN is Four Hundred Dollars And No Cents (\$400.00) per PDAY

The only acceptable bid price for:

Items preceded with the letter "S" in the proposal are Specialty Items.

Proposal Items

Project Name - Master Price Agreement (MPA) 451: Statewide Pavement Marking Installation & Removal

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

 Note: The UNIT PRICE for each Item must be written in words and figures.

No.	Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
001	914.5010	1,100.00	FLAGPERSONS			
	AT			MHRS		
002	914.5020	600.00	FLAGPERSONS - OVERTIME			
	AT			MHRS		
003	922.0100	3,000.00	TEMPORARY CONSTRUCTION SIGNS STANDARD 29.1.0 AND 27.1.1			
	AT			SF		
004	923.0200	2,250.00	FLUORESCENT TRAFFIC CONES STANDARD 26.1.0			
	AT			EACH		
005	925.0112	250.00	PORTABLE CHANGEABLE MESSAGE SIGN			
	AT			PDAY		
006	928.9901	360.00	TRAFFIC CONTROL TRUCK WITH TRUCK MOUNTED ATTENUATOR AND CHANGEABLE MESSAGE SIGN			
	AT			PDAY		
007	931.9901	40.00	CLEANING AND SWEEPING PAVEMENT FOR STRIPING OPERATIONS			
	AT			PDAY		

Proposal Items

Project Name - Master Price Agreement (MPA) 451: Statewide Pavement Marking Installation & Removal

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

 Note: The UNIT PRICE for each Item must be written in words and figures.

No.	Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
008	T20.0004	2,700.00	4 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
009	T20.0006	36,000.00	6 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
010	T20.0008	900.00	8 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
011	T20.0012	13,500.00	12 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
012	T20.0024	1,350.00	24 INCH WHITE FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
013	T20.0104	37,800.00	4 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
014	T20.0106	4,000.00	6 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		

Proposal Items

Project Name - Master Price Agreement (MPA) 451: Statewide Pavement Marking Installation & Removal

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

 Note: The UNIT PRICE for each Item must be written in words and figures.

No.	Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
015	T20.0108	900.00	8 INCH YELLOW FAST - DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
016	T20.0820	90.00	FAST DRYING WATERBONE PAVEMENT ARROW - STRAIGHT, LEFT, RIGHT, OR COMBINED STANDARD 20.1.0			
AT				EACH		
017	T20.0822	45.00	FAST DRYING WATERBONE PAVEMENT MARKING WORD "ONLY" STANDARD 20.1.0			
AT				EACH		
018	T20.2004	7,200.00	4 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE			
AT				LF		
019	T20.2006	117,000.00	6 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE			
AT				LF		
020	T20.2008	9,000.00	8 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE			
AT				LF		
021	T20.2012	36,000.00	12 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE			
AT				LF		

Proposal Items

Project Name - Master Price Agreement (MPA) 451: Statewide Pavement Marking Installation & Removal

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

 Note: The UNIT PRICE for each Item must be written in words and figures.

No.	Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
022	T20.2014	117,000.00	4 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW			
AT				LF		
023	T20.2016	18,000.00	6 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW			
AT				LF		
024	T20.2018	9,000.00	8 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW			
AT				LF		
025	T20.2020	180.00	EPOXY RESIN PAVEMENT ARROW - STRAIGHT, LEFT, RIGHT, OR COMBINED STANDARD 20.1.0			
AT				EACH		
026	T20.2022	135.00	EPOXY RESIN PAVEMENT MARKING WORD "ONLY" STANDARD 20.1.0			
AT				EACH		
027	T20.9901	1,800.00	12 INCH YELLOW FAST-DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		
028	T20.9902	900.00	24 INCH YELLOW FAST-DRYING WATERBORNE PAVEMENT MARKING PAINT			
AT				LF		

Proposal Items

Project Name - Master Price Agreement (MPA) 451: Statewide Pavement Marking Installation & Removal

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

 Note: The UNIT PRICE for each Item must be written in words and figures.

No.	Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
029	T20.9905	18.00	FAST DRYING WATERBORNE PAVEMENT MARKING - YIELD LINE			
	AT			EACH		
030	T20.9906	1,800.00	24 INCH EPOXY RESIN PAVEMENT MARKINGS WHITE			
	AT			LF		
031	T20.9907	10,000.00	12 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW			
	AT			LF		
032	T20.9908	900.00	24 INCH EPOXY RESIN PAVEMENT MARKINGS YELLOW			
	AT			LF		
033	T20.9911	90.00	EPOXY RESIN PAVEMENT MARKING - YIELD LINE			
	AT			EACH		
034	T20.9912	36,000.00	REMOVE 4 INCH PAVEMENT MARKINGS			
	AT			LF		
035	T20.9913	90,000.00	REMOVE 6 INCH PAVEMENT MARKINGS			
	AT			LF		

Proposal Items

Project Name - Master Price Agreement (MPA) 451: Statewide Pavement Marking Installation & Removal

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

 Note: The UNIT PRICE for each Item must be written in words and figures.

No.	Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
036	T20.9914	9,000.00	REMOVE 8 INCH PAVEMENT MARKINGS			
	AT			LF		
037	T20.9915	13,500.00	REMOVE 12 INCH PAVEMENT MARKINGS			
	AT			LF		
038	T20.9916	900.00	REMOVE 24 INCH PAVEMENT MARKINGS			
	AT			LF		
039	T20.9919	18.00	REMOVE PAVEMENT MARKING YIELD LINE			
	AT			EACH		
040	T20.9920	135.00	REMOVE PAVEMENT MARKING ARROW - STRAIGHT, LEFT, RIGHT, OR COMBINED STANDARD 20.1.0			
	AT			EACH		
041	T20.9921	63.00	REMOVE PAVEMENT MARKING WORD "ONLY" STANDARD 20.1.0			
	AT			EACH		
042	T20.9922	48.00	EPOXY RESIN PAVEMENT MARKING - LANE-REDUCTION ARROW			
	AT			EACH		

Proposal Items

Project Name - Master Price Agreement (MPA) 451: Statewide Pavement Marking Installation & Removal

Estimate Name - Master Price List

R.I. Contract No. - 2011-CT-014

FAP Nos - STPG-4444(077)

 Note: The UNIT PRICE for each Item must be written in words and figures.

No.	Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
043	T20.9923	16.00	REMOVE PAVEMENT MARKING LANE-REDUCTION ARROW			
				AT	EACH	

FINAL TOTAL IS:

Appendix G: Specifications – Job Specific

INDEX

SPECIFICATIONS – JOB SPECIFIC

<u>CODE</u>	<u>TITLE</u>	<u>PAGE</u>
928.9901	Traffic Control Truck with Truck Mounted Attenuator and Changeable Message Sign	JS-1
931.9901	Cleaning and Sweeping Pavement for Striping Operations	JS-4
T20.9901, T20.9902, T20.9905	Fast-Drying Waterborne Pavement Markings	JS-5
T20.9906, T20.9907, T20.9908, T20.9911, T20.9922	Epoxy Resin Pavement Markings	JS-6
T20.9912, T20.9913, T20.9914, T20.9915, T20.9916, T20.9919, T20.9920, T20.9921, T20.9923	Remove Pavement Markings	JS-8

JOB SPECIFIC

**CODE 928.9901 – TRAFFIC CONTROL TRUCK WITH TRUCK MOUNTED
ATTENUATOR (TMA) AND CHANGEABLE MESSAGE SIGN (TMCMS)**

DESCRIPTION: This work consists of furnishing, operating, and maintaining a shadow or advance warning vehicle (traffic control truck) with a truck mounted energy absorbing impact attenuator and changeable message sign, at the locations indicated on the Plans or as directed by the Engineer. The changeable message sign is a high intensity device supplemental to existing traffic control devices to be installed and used as designated by these Specifications, the MUTCD, the Plans, and the Engineer.

MATERIALS:

Traffic Control Truck and Truck Mounted Attenuator. The traffic control truck and truck mounted attenuator (TMA) shall conform to Section 928 of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition.

Truck Mounted Changeable Message Sign. Attached to the traffic control truck, as described herein, shall be an illuminated truck mounted changeable message sign (TMCMS). Affixing a trailer-mounted changeable message sign to the truck is prohibited.

The TMCMS shall consist of either a lamp matrix or full-matrix LED system capable of displaying a variety of user-programmed messages. The message displayed from the unit shall be visible from a distance of one-half mile and have an average legibility distance of 850 feet under conditions of normal sunlight. The front face of the sign shall be covered with a protective material, and the color of TMCMS elements shall be yellow or orange on a black background.

The front face of the TMCMS shall be a minimum of four (4) feet high by eight (8) feet wide. The sign shall be capable of displaying three lines of text, with eight characters per line. The sign shall also be capable of displaying the flashing arrow and flashing caution modes illustrated in Figure 6F-6 of the MUTCD. Each character/module shall be a minimum of 18 inches high and shall be configured in at least a 7 by 5 pixel matrix. All characters/modules within a message line shall be equally spaced, both horizontally and vertically. All TMCMS matrix characters/modules are to be interchangeable.

The TMCMS controller shall be an all solid state unit housed in a weatherproof, rust resistant box, with a keyed lock and a light for night operation. A keyboard entry system shall be provided to allow an operator to generate a number of messages on the TMCMS. The keyboard shall be equipped with a security lockout feature to prevent unauthorized use of the controller. The controller will contain a non-volatile memory to hold the keyboard created messages in memory during a non-power period. This unit shall also have an LCD display screen that will allow the operator to review all messages prior to display of the messages on the sign.

The controller will have a local message display panel to show the message either being displayed on the sign or being created on the keyboard. In addition, this display panel will be capable of giving the operator all programming instructions. The operator shall have the ability to program the controller to display multiple messages in sequence.

The TMCMS shall operate at an optimal voltage of 12 VDC. The sign shall obtain the electrical power necessary for operation from either the vehicle's alternator / battery system, a 12 VDC power source supplied by solar power, or an adaptable 110 VAC or 120 VAC power source. If a DC power source is used, the sign shall be equipped with an automatic lamp intensity regulator that maintains a constant output with a varying battery voltage. If a 110 or 120 VAC power source is used, the sign shall be equipped with ground fault interrupting circuit breakers, and all AC power adaptations shall be accomplished with UL approved equipment and methods.

Utilizing a portable generator for a power source is prohibited. The sign shall be equipped with a backup battery system to provide continuous operation when failure of the primary power source occurs. The brightness of the TMCMS display shall be automatically adjusted under varying light conditions.

CONSTRUCTION METHODS:

Traffic Control Truck and Truck Mounted Attenuator. Construction methods for the traffic control truck and truck mounted attenuator (TMA) shall conform to Section 928 of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition.

Truck Mounted Changeable Message Sign. The TMCMS shall be available for use throughout the duration of the Contract. It shall be sited and aligned to provide maximum visibility to motorists, and positioned and repositioned in accordance with these Specifications, the latest edition of the MUTCD, the Plans, and at the direction of the Engineer.

The mounting of the TMCMS shall be such that the bottom of the message sign panel shall be a minimum of seven (7) feet above the roadway when it is in the operating mode.

Each phase of the message shall be displayed for at least three (3) seconds, and the display rate per phase shall be adjusted so the entire message can be read at least twice by passing motorists traveling at the posted speed limit. The text of messages shall not scroll or travel horizontally or vertically across the face of the sign. Any message to be displayed on the TMCMS that differs from the messages shown on the Plans must be approved in advance by the Engineer. No message requiring more than two phases for display on the TMCMS shall be allowed at any time.

The Contractor shall properly maintain the TMCMS throughout the Contract period as recommended by the manufacturer, as required to keep the unit operating properly. Said maintenance shall include the periodic cleaning of the unit.

The unit shall be kept in good repair at all times. If there is a failure, malfunction, or damage to the unit for any reason, the Contractor will expedite the repair and furnish adequate flaggers or other approved means to provide a safe means for control of traffic until the unit is put back into service. Failure of the controller, such as a power loss and total shut down of the sign, shall require removal of the sign from the roadway.

METHOD OF MEASUREMENT: "Traffic Control Truck with Truck Mounted Attenuator and Changeable Message Sign" will be measured by the number of days each such assembly is actually employed in the work or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantity of "Traffic Control Truck with Truck Mounted Attenuator and Changeable Message Sign" will be paid for at the contract unit price per day as listed in the Work Order Package Bid. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including the first placement of the truck and continuous repositioning thereof, steel backup, TMA support frame, hydraulic pumps, wheel jacks, the first replacement TMA cartridge, the TMCMS, TMCMS support frame for attachment to the truck, power and battery backup, warning signs mounted to the truck, temporary storage, maintenance, and all other incidentals required to finish the work, complete and accepted by the Engineer.

JOB SPECIFIC

**CODE 931.9901 – CLEANING AND SWEEPING PAVEMENT FOR
STRIPING OPERATIONS**

DESCRIPTION: This work consists of cleaning and sweeping limited areas of bituminous concrete pavement and cement concrete pavement as directed by the Engineer to remove materials deposited on said pavements that are detrimental to a bond between the pavement surface and pavement markings, all in accordance with these Specifications. The work shall be completed in advance of the striping operation for the sole purpose of preparing said pavement to receive pavement markings. All cleaning and sweeping operations will be performed at the discretion of the Engineer.

MATERIALS: Not applicable.

CONSTRUCTION METHODS: Shall be in accordance with Section 931.03 of the Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction, 2004 Edition, and the additional requirements listed below.

The Engineer will determine which, if any, pavement areas shall be cleaned and swept by the Contractor using this work item. The Contractor shall only perform cleaning and sweeping operations on those pavement areas identified by the Engineer. Such areas may include roadways, parking lots, or other paved surfaces where markings are to be installed.

Where sands or other debris are too thick to be removed properly using a sweeper, the Contractor shall use another approved manual method (or combination thereof) to sufficiently remove all such materials from the designated areas to the complete satisfaction of the Engineer.

METHOD OF MEASUREMENT: "Cleaning and Sweeping Pavement for Striping Operations" will be measured by the number of days the sweeper or other approved method is actually employed in construction work in the areas designated by the Engineer. The minimum width of pavement to be cleaned and swept under this item shall be six (6) feet.

BASIS OF PAYMENT: The accepted quantity of "Cleaning and Sweeping Pavement for Striping Operations" will be paid for at the contract unit price per day as listed in the Work Order Package Bid. The price so-stated constitutes full and complete compensation for all labor, equipment, and materials, including legal disposal of all debris and sweepings, and all other incidentals required to finish the work, complete and accepted by the Engineer.

JOB SPECIFIC

CODES T20.9901, T20.9902, T20.9905

FAST-DRYING WATERBORNE PAVEMENT MARKINGS

DESCRIPTION: This work consists of furnishing and applying waterborne pavement marking material on pavement surfaces at the locations indicated on the Plans, all in accordance with these Specifications.

MATERIALS: Materials shall conform to Section M.17.01 Glass Beads – Dual Gradation and Section M.17.02 Waterborne Pavement Markings of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition with latest revisions.

CONSTRUCTION METHODS: Construction Methods shall conform to Section T.20.03.1 Cleaning Pavement, Section T.20.03.2 Defective Work, and Section T.20.03.3 Waterborne Pavement Markings of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition with latest revisions.

METHOD OF MEASUREMENT: "Fast-Drying Waterborne Pavement Markings" will be measured by one of the following units, each as actually placed in accordance with the Plans and/or as directed by the Engineer:

- a.) "Linear Feet" (LF): For each of the following types and widths of markings:
 - 12" – Yellow
 - 24" – Yellow

- b.) "Each": For each of the following types of marking items:
 - Yield Line (inclusive of multiple yield line triangles placed side by side at one location)

BASIS OF PAYMENT: "Fast-Drying Waterborne Pavement Markings" will be paid for at their respective contract unit prices per Linear Feet (LF) or for each (EACH) for each type or types, as listed in the Work Order Package Bid. The prices so-stated shall constitute full and complete compensation for movement of the Contractor's personnel and work equipment to and from the work sites, furnishing, layout, and application of the marking material, cleaning of pavement, completion and submission of Work Summary Reports, and for all labor, equipment, tools, materials, and other incidentals required to finish the work, complete in place and accepted by the Engineer.

JOB SPECIFIC

CODES T20.9906, T20.9907, T20.9908, T20.9911, T20.9922

EPOXY RESIN PAVEMENT MARKINGS

DESCRIPTION: This work consists of furnishing and applying reflectorized, two-component, hot-spray applied epoxy resin pavement marking material on pavement surfaces at the locations indicated on the Plans, all in accordance with these Specifications.

MATERIALS: Materials shall conform to Section M.17.01 Glass Beads – Dual Gradation and Section M.17.04 Epoxy Resin Pavement Markings of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition with latest revisions.

CONSTRUCTION METHODS: Construction Methods shall conform to Section T.20.03.1 Cleaning Pavement, Section T.20.03.2 Defective Work, and Section T.20.03.6 Epoxy Resin Pavement Markings of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition with latest revisions, with the following exceptions:

Add the following to Subsection T.20.03.6 a. Equipment:

Broom trucks shall not be used to clean the road surface prior to the application of pavement markings.

Delete Subsection T.20.03.6 d. Procedures on pages T-45 and T-46 of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition in its entirety and **replace it with the following:**

T.20.03.06 d. Procedures. The road surface shall be cleaned and free from all dirt, oil, grease and other foreign material, including curing compound on new Portland cement concrete, immediately prior to the striping operation. New epoxy markings may be applied over worn, well-bonded epoxy if approved by the Engineer; all others, such as (but not limited to) thermoplastic, tape, and newly-striped paint shall be removed in accordance with the specifications for the appropriate marking removal pay item.

Pavement cleaning shall consist of at least a brushing with a rotary, non-metallic broom and additionally as may be recommended by the material manufacturer, all to the satisfaction of the Engineer. New Portland cement concrete shall be cleaned by sandblasting to remove any surface treatments and/or laitance. Surface cleaning and preparation work shall be performed only in the area of the epoxy markings applications. The pavement surface shall be air-blasted to remove dirt and residues just prior to the application of the markings.

METHOD OF MEASUREMENT: "Epoxy Resin Pavement Markings" will be measured by one of the following units, each as actually placed in accordance with the Plans and/or as directed by the Engineer:

a.) "Linear Feet" (LF): For each of the following types and widths of markings:

- 12" – Yellow
- 24" – White
- 24" – Yellow

b.) "Each": For each of the following types of marking items:

- Yield Line (inclusive of multiple yield line triangles placed side by side at one location)
- Lane-Reduction Arrow

BASIS OF PAYMENT: "Epoxy Resin Pavement Markings" will be paid for at their respective contract unit prices per Linear Feet (LF) or for each (EACH) for each type or types as listed in the Work Order Package Bid, with consideration of the minimum retroreflection compensation criteria provided below. The prices so-stated shall constitute full and complete compensation for movement of the Contractor's personnel and work equipment to and from the work sites, furnishing, layout, and application of the marking material, cleaning of pavement, completion and submission of Work Summary Reports, and for all labor, equipment, tools, materials, and other incidentals required to finish the work, complete in place and accepted by the Engineer.

Retroreflection Values:

Minimum 350 / 225 (white / yellow) -----	100 % contract unit price
Minimum 330 / 205 (white / yellow) -----	90 % contract unit price
Minimum 310 / 185 (white / yellow) -----	80 % contract unit price
Minimum 300 / 175 (white / yellow) -----	75 % contract unit price
Below 300 / 175 (white / yellow) -----	0 % contract unit price

JOB SPECIFIC

**CODES T20.9912, T20.9913, T20.9914, T20.9915,
T20.9916, T20.9919, T20.9920, T20.9921, T20.9923**

REMOVE PAVEMENT MARKINGS

DESCRIPTION: This work consists of removing existing pavement markings by grinding at the locations indicated on the Plans, all in accordance with these Specifications.

MATERIALS: Not applicable.

CONSTRUCTION METHODS: All existing pavement marking material (including binder and beads) situated above the level plane of the top surface course pavement binder shall be removed by grinding method. Existing marking material that is embedded in pavement cavities below the level plane of the top surface course pavement binder shall not be removed by the grinding operation unless otherwise directed by the Engineer. The method shall not damage the surface in any way and have no more than a moderate color and/or texture change. The grinding truck must be capable of removing 80,000 linear feet of 6-inch line per day; and must be equipped with a vacuum and dust collector that is 99.99 percent efficient in removing particles no bigger than 0.5 microns. A sweeper shall be used simultaneously with the removal operation to pick up and collect grindings left behind by the grinding truck.

Where the Plans call for installation of new pavement markings in the place of and following removal of the existing markings, such new pavement markings shall be installed as soon as possible, but no later than twenty-four (24) hours, following the removal operation.

METHOD OF MEASUREMENT: "Remove Pavement Markings" will be measured by one of the following units, each as actually placed in accordance with the Plans and/or as directed by the Engineer:

a.) "Linear Feet" (LF): For each of the following types and widths of markings:

- 4"
- 6"
- 8"
- 12"
- 24"

b.) "Each": For each of the following types of marking items:

- Yield Line (inclusive of multiple yield line triangles placed side by side at one location)

- Arrow – Straight, Left, Right, or Combined Standard 20.1.0
- Word “ONLY” Standard 20.1.0
- Lane-Reduction Arrow

BASIS OF PAYMENT: The accepted quantities of “Remove Pavement Markings” will be paid for at their respective contract unit prices per Linear Feet (LF) or for each (EACH) for each type or types, as listed in the Work Order Package Bid. The prices so-stated shall constitute full and complete compensation for all labor, equipment, tools, and materials required to complete the work, including all costs for the removal, hauling, and disposal of pavement marking grindings and all other incidentals required to finish the work, complete and accepted by the Engineer.