

Department of Transportation

Rapid City Region Office

2300 Eglin Street

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June 24, 2020

ADDENDUM NO. 1

RE: June 30, 2020 Rapid City Region Office Informal Letting
090E-452, Pennington County, PCN i5p4
Asphalt Repair on I90 near Box Elder

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made part of your proposal for the referenced project.

PROPOSAL:

- No change.

PLANS:

- Replace Sheets 4,5 & 9 with attached Sheets 4, 5 & 9. Additional details were added to the plans to define the shape of the median crossovers to construct.

Sincerely,

John Rehorst
Region Design Engineer

| Hwy. | MRM | Type of Repair | Length Ft | Width Ft | SqFt | Cold Milling Asphalt Concrete (SqYd) | Asphalt Concrete Composite (Ton) | Remove Asphalt Concrete Pavement (SqYd) | Unclassified Excavation (CuYd) | Base Course (Ton) | Temporary Pavement Marking (Ft) | Cold Applied Plastic Pavement Marking, 4" (Ft) | Grooving for Cold Applied Plastic Pavement Marking, 4" (Ft) | High Build Waterborne Pavement Marking Paint, 4" White (Ft) | High Build Waterborne Pavement Marking Paint, 4" Yellow (Ft) | Comments |
|--------|-------|-----------------------|--------------------|-----------------|--------------|---|-------------------------------------|--|-----------------------------------|----------------------|------------------------------------|---|--|--|---|--|
| I-90 E | 65.76 | Mill 2" and Overlay | 100 | 28 | 2800 | 311.1 | 35.7 | | | | 230 | 30 | 30 | 100 | 100 | Off End Railroad Bridge |
| | | | Width of Crossover | Width of Median | | | | | | | | | | | | |
| I-90 E | 66.34 | Maintenance Crossover | 64 | 52 | 4948 | | 185.6 | 224 | 183.3 | 173.2 | | | | | | 12" Unclassified Exc., 6" Base Course, 6" AC Composite, See Layout |
| I-90 E | 69.46 | Maintenance Crossover | 32 | 52 | 2500 | | 93.8 | | 92.6 | 87.5 | | | | | | 12" Unclassified Exc., 6" Base Course, 6" AC Composite, Match existing |
| I-90 E | 75.62 | Maintenance Crossover | 30 | 52 | 2100 | | 78.8 | | 77.8 | 73.5 | | | | | | 12" Unclassified Exc., 6" Base Course, 6" AC Composite, Match existing |
| | | | | | Total | 311.1 | 393.9 | 224 | 353.7 | 334.2 | 230 | 30 | 30 | 100 | 100 | |

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

All temporary speed limit signs will have a minimum mounting height of 5 feet in rural locations, even when mounted on portable supports. Portable sign supports will not be located on sidewalks, bicycle facilities, or other areas designated for pedestrian or bicycle traffic.

All construction operations will be conducted in the general direction of traffic movement.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Traffic Control Signs, as shown in the Estimate of Quantities, are estimates. Contractor's operation may require adjustments in quantities, either more or less. Payment will be for those signs actually ordered by the Engineer and used.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract bid items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 4:1 within 30 feet of the traveled way.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment will be repaired at no expense to the Department. The Contractor will furnish, install, maintain, and remove TRUCK CROSSING (W8-6) signs daily. The TRUCK CROSSING signs will be displayed always when haul vehicles are hauling material. When hauling conditions no longer exist, the signs will be covered or removed from view. The exact number and location will be determined during construction. Payment for additional signs will be based on the contract unit price per square foot for "Traffic Control Signs".

Construction vehicles will exit or enter the construction work zone at locations identified by the Engineer. At no time will construction vehicles utilize the maintenance crossovers or the Interstate median to exit or enter Interstate traffic.

GROOVED PAVEMENT (W8-15) signs with MOTORCYCLE (W8-15P) plaques are required in advance of areas that have been cold milled and are not resurfaced the same day. The GROOVED PAVEMENT sign assemblies will be installed a minimum of 1000 feet in advance of cold milled sections and remain in place until the sections have been resurfaced.

A mobile work operation will be allowed provided the rumble strip or rumble stripe grooving, flush sealing, and pavement marking can be completed satisfactorily by a continuously moving work operation. A mobile work operation will require approval by the Engineer.

A Type 3 Barricade will be installed at the end of a lane closure taper as detailed in these plans.

Traffic will only be allowed on a milled surface for a maximum of 14 days.

ITEMIZED LIST OF TRAFFIC CONTROL DEVICES

| SIGN CODE | SIGN DESCRIPTION | EXPRESSWAY / INTERSTATE | | | |
|-----------|----------------------------------|---|-----------|---------------|--------------|
| | | NUMBER | SIGN SIZE | SQFT PER SIGN | SQFT |
| R2-1 | SPEED LIMIT 45 | 2 | 36" x 48" | 12.0 | 24.0 |
| R2-1 | SPEED LIMIT 55 | 4 | 36" x 48" | 12.0 | 48.0 |
| R2-1 | SPEED LIMIT 65 | 2 | 36" x 48" | 12.0 | 24.0 |
| R2-6aP | FINES DOUBLE (plaque) | 2 | 36" x 24" | 6.0 | 12.0 |
| W3-5 | SPEED REDUCTION AHEAD (45 MPH) | 2 | 48" x 48" | 16.0 | 32.0 |
| W3-5 | SPEED REDUCTION AHEAD (65 MPH) | 4 | 48" x 48" | 16.0 | 64.0 |
| W4-2 | LEFT or RIGHT LANE ENDS (symbol) | 4 | 48" x 48" | 16.0 | 64.0 |
| W8-6 | TRUCK CROSSING | 4 | 48" x 48" | 16.0 | 64.0 |
| W8-11 | UNEVEN LANES | 4 | 48" x 48" | 16.0 | 64.0 |
| W20-1 | ROAD WORK AHEAD | 4 | 48" x 48" | 16.0 | 64.0 |
| W20-5 | LEFT or RIGHT LANE CLOSED AHEAD | 4 | 48" x 48" | 16.0 | 64.0 |
| W20-7 | FLAGGER (symbol) | 2 | 48" x 48" | 16.0 | 32.0 |
| G20-2 | END ROAD WORK | 2 | 48" x 24" | 8.0 | 16.0 |
| | | EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT | | | 572.0 |

| | | | |
|-----------------------------|-----------|-------|-----------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | 090 E-452 | 5 | 11 |

Revised 6/18/20 GDS

TEMPORARY PAVEMENT MARKING

Temporary flexible vertical markers (tabs) will be used to mark dashed centerline, No Passing Zones, and applicable lane lines. Paint will not be allowed for temporary pavement marking on the asphalt concrete wear course or after application of the flush seal.

Covers on the tabs will be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers will be properly disposed of. The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

PERMANENT PAVEMENT MARKING

Cold Applied Pavement Marking, where provided, is to be used for centerline striping.

The Contractor will be required to repaint all existing pavement markings including centerline, edge line, and lane lines. This list is approximate. The cost to duplicate the existing marking locations will be incidental to the contract unit prices for the various contract bid items.

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

All materials will be applied as per manufacturer's recommendations.

This material will consist of a durable high build, low VOC, fast drying, waterborne traffic paint with a 100% acrylic polymer (Arkema DT-400, Dow HD-21A, or equivalent). The Contractor will provide certification that the material is one of the following products or an equivalent as approved by the Operations Traffic Engineer:

Diamond Vogel's Waterborne High Build Polymer Marking Paint
Ennis-Flint's High Build Polymer Marking Paint

No further testing of this material will be required. Reflective media will consist of glass beads.

High Build Waterborne Pavement Marking Paint applied after October 15 must be formulated as cold-weather waterborne paint. Cold weather waterborne paint will meet the requirements of Section 980.1 B.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4" line = 22.5 Gals/Mile
Glass Beads = 8 Lbs/Gal.

All cost for materials, labor and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

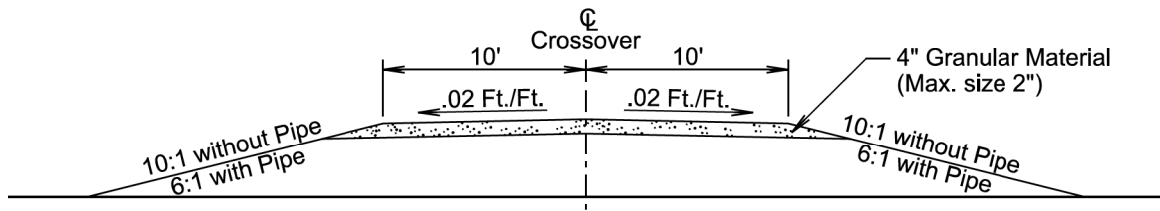
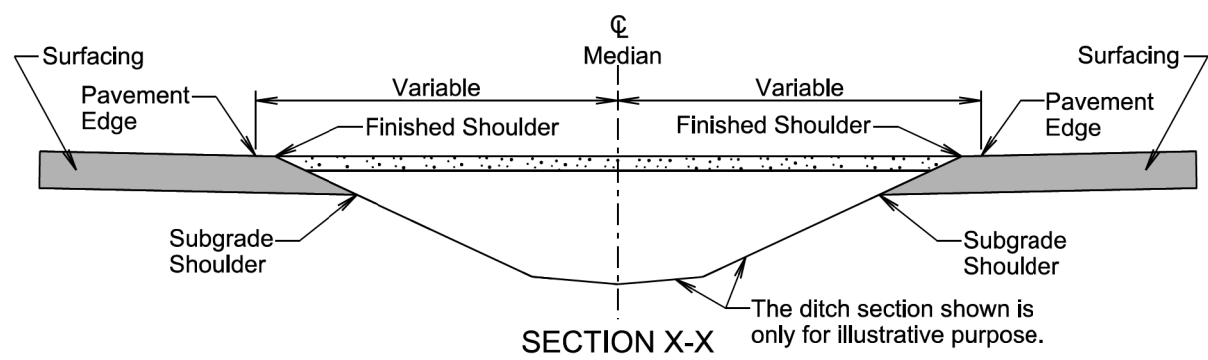
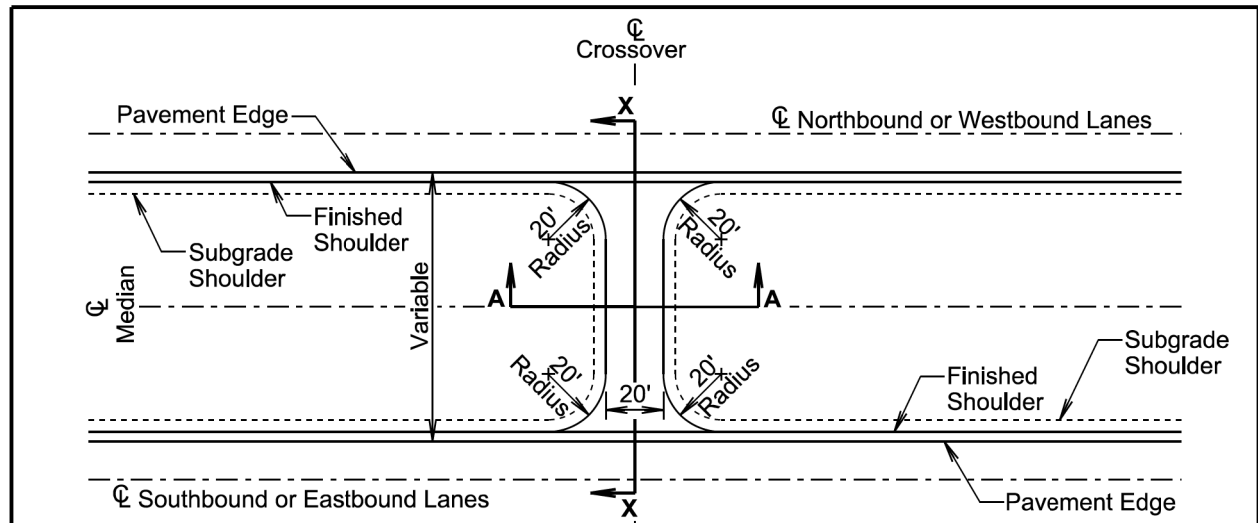
RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 2 days and within 30 days of the line application using either a portable or mobile retroreflectometer that conforms to 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values will be 275 mc/m²/lux for white and 170 mc/m²/lux for yellow.

Plotting Date: 06/17/2020
Revised 6/17/20 GDS



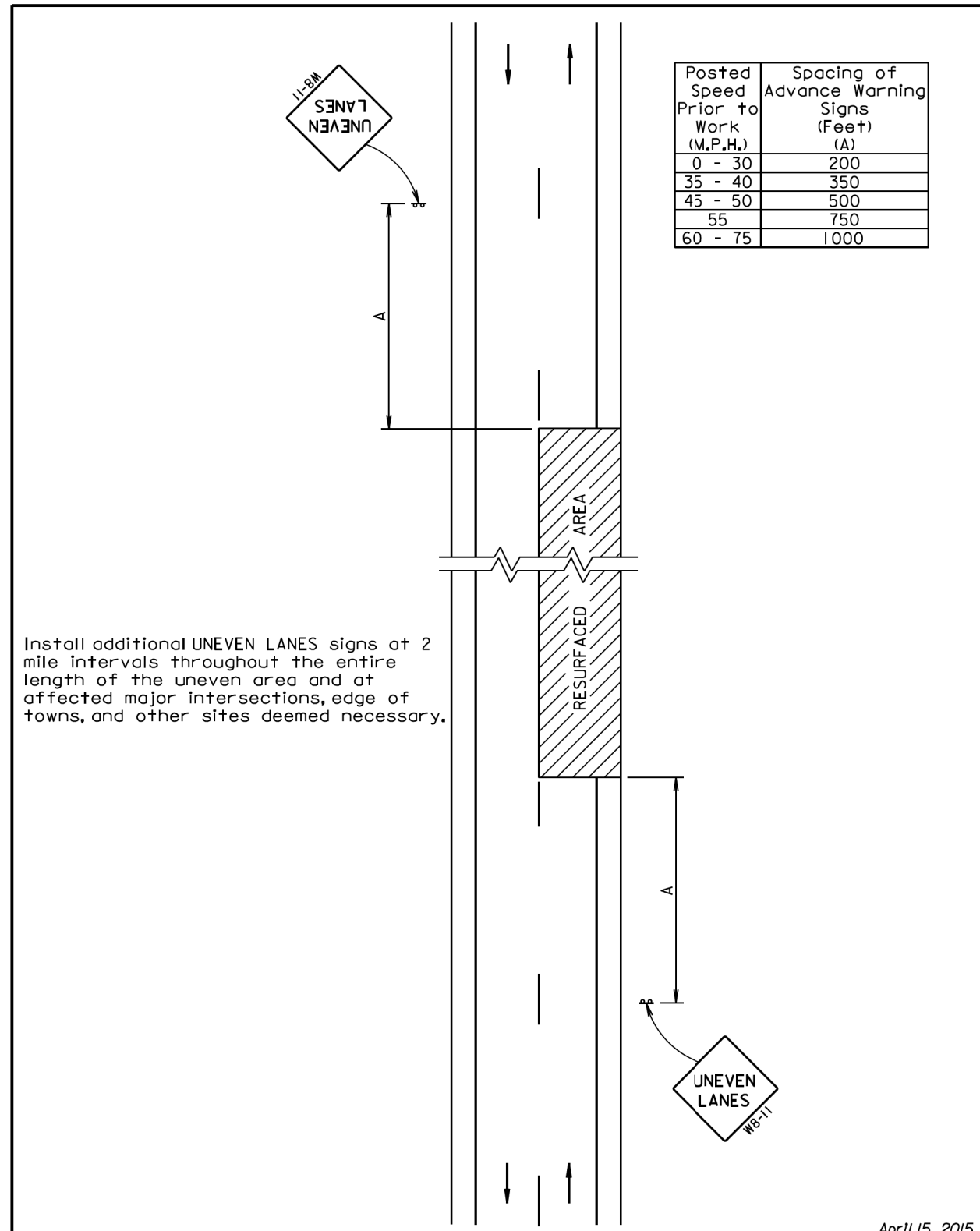
GENERAL NOTES:

The inslopes of the maintenance crossovers will be 6:1 when there is a pipe, 10:1 without pipe, or as specified in the plans.

The quantities of materials necessary for construction of the maintenance crossovers are as provided in the plans and will be paid for at their respective contract unit prices for the various materials used.

September 14, 2018

| | | |
|----------------------------------|---|-------------------------------|
| S D D O T | STANDARD MAINTENANCE CROSSOVER FOR INTERSTATE HIGHWAYS | PLATE NUMBER 120.04 |
| | <i>Published Date: 2nd Qtr. 2020</i> | Sheet 1 of 1 |



Install additional UNEVEN LANES signs at 2 mile intervals throughout the entire length of the uneven area and at affected major intersections, edge of towns, and other sites deemed necessary.

April 15, 2015

| | | |
|----------------------------------|---|-------------------------------|
| S D D O T | GUIDES FOR TRAFFIC CONTROL DEVICES UNEVEN ROAD SURFACE | PLATE NUMBER 634.22 |
| | <i>Published Date: 2nd Qtr. 2020</i> | Sheet 1 of 1 |

Plot Scale - 1:200

- Plotted From - trcs12608

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