



North Dakota Department of Transportation

Grant Levi, P.E.
Director

Jack Dalrymple
Governor

December 12, 2016

ADDENDUM 1 – JOB 18

TO: All prospective bidders on project SIM-8-029(134)044, Job No. 18 scheduled for the December 16, 2016 bid opening.

The following plan and request for proposal revisions shall be made:

Plan Revisions:

Add Standard Drawing D-704-34A.

Remove and replace sheet 2-1, 6-1, 8-1, and 100-1 with the enclosed sheets revised 12/12/16.

Sheet 2-1:

Added Standard Drawing D-704-34A to the Table of Contents.

Sheet 6-1:

Note 704-P01 TRAFFIC CONTROL DEVICES has been deleted.

Note 704-P02 MAINTENANCE & PROTECTION OF TRAFFIC FOR CONCRETE PAVEMENT REPAIRS has been deleted.

Note 704-500 TRAFFIC CONTROL FOR CONCRETE PAVEMENT REPAIR has been added.

Sheet 8-1:

Item 704 1000 TRAFFIC CONTROL SIGNS, quantity increased from 1,081 to 1,116 UNIT.

Item 704 1050 TYPE I BARRICADE; quantity increased from 8 to 11 EA.

Item 704 1052 TYUPE III BARRICADE; quantity increased from 10 to 14 EA.

Item 704 1060 DELINEATOR DRUMS; quantity increased from 44 to 58 EA.

Item 704 1067 TUBULAR MARKERS; quantity increased from 186 to 236 EA.

Sheet 100-1:

Sign W1-4-48 has been added.

Quantities for traffic control devices have been revised.

Request for Proposal Revisions:

Remove and replace page 5 of 8 of the Proposal pages located at the beginning of the Request for Proposal, with the enclosed pages revised 12/12/2016.

Page 5 of 8:

Item 704 1000 TRAFFIC CONTROL SIGNS, quantity increased from 1,081 to 1,116 UNIT.

Addendum 1

Job 18, December 16, 2016 Bid Opening

Page 2 of 2

Item 704 1050 TYPE I BARRICADE; quantity increased from 8 to 11 EA.

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Item 704 1060 DELINEATOR DRUMS; quantity increased from 44 to 58 EA.

Item 704 1067 TUBULAR MARKERS; quantity increased from 186 to 236 EA.

This addendum is to be incorporated into the bidder's proposal for this project.

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AASHTOWare Project Bids files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at <http://www.bidx.com/> and load it into the AASHTOWare Project Bids program.



For

CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER

80:dch

Enclosure

BID ITEMS

Project: SIM-8-029(134)044 (PCN-18987)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price | | Amount | |
|----------|----------|----------|--|-------|------------------|------------|-----|----------|----|
| | | | | | | \$\$\$\$ | 000 | \$\$\$\$ | 00 |
| 001 | 103 | 0100 | CONTRACT BOND | L SUM | 1. | | | | |
| 002 | 570 | 0240 | DOWELED CONTRACTION JOINT ASSEMBLY | LF | 187. | | | | |
| 003 | 570 | 0424 | DOWEL BARS | EA | 173. | | | | |
| 004 | 570 | 0700 | CONC PVMT REPAIR-SPOT FULL DEPTH | SF | 131. | | | | |
| 005 | 570 | 0710 | 10IN CONC PVMT REPAIR-FULL DEPTH-DOWELED | SY | 239. | | | | |
| 006 | 570 | 0966 | RANDOM PCC CRACK CLEANING & SEALING | LF | 54. | | | | |
| 007 | 570 | 1512 | SPALL REPAIR-PARTIAL DEPTH | SF | 1,603. | | | | |
| 008 | 702 | 0100 | MOBILIZATION | L SUM | 1. | | | | |
| 009 | 704 | 0100 | FLAGGING | MHR | 200. | | | | |
| 010 | 704 | 1000 | TRAFFIC CONTROL SIGNS | UNIT | 1,116. | | | | |
| 011 | 704 | 1050 | TYPE I BARRICADE | EA | 11. | | | | |
| 012 | 704 | 1052 | TYPE III BARRICADE | EA | 14. | | | | |
| 013 | 704 | 1060 | DELINEATOR DRUMS | EA | 58. | | | | |
| 014 | 704 | 1067 | TUBULAR MARKERS | EA | 236. | | | | |
| 015 | 704 | 1080 | STACKABLE VERTICAL PANELS | EA | 30. | | | | |
| 016 | 704 | 1087 | SEQUENCING ARROW PANEL-TYPE C | EA | 1. | | | | |

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| Revised 12/12/2016 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
| | ND | SIM-8-029(134)044 | 2 | 1 |

PLAN SECTIONS

| Section | Page(s) | Description |
|---------|---------|---------------------------|
| 1 | 1 | Title Sheet |
| 2 | 1 | Table of Contents |
| 4 | 1 | Scope of Work |
| 6 | 1 | Notes |
| 8 | 1 | Quantities |
| 10 | 1 | Basis of Estimate |
| 11 | 1-7 | Data Tables |
| 20 | 1-5 | General Details |
| 30 | 1 | Typical Sections |
| 100 | 1 | Work Zone Traffic Control |

LIST OF STANDARD DRAWINGS

| Number | Description |
|-----------------|---|
| D-101-1, 2,3 | NDDOT Abbreviations |
| D-101-10 | NDDOT Utility Company and Organization Abbreviations |
| D-101-20, 21 | Line Styles |
| D-101-30, 31,32 | Symbols |
| D-550-2 | Longitudinal Joint Details |
| D-550-3 | Transverse Contraction Joint Details |
| D-550-4 | Transverse Expansion Joint Detail |
| D-704-5 | Construction Sign Detail |
| D-704-7 | Breakaway Systems for Construction Zone Signs - Perforated Tube |
| D-704-8 | Breakaway Systems for Construction Zone Signs - U-Channel Post |
| D-704-9 | Construction Sign Details - Terminal and Guide Signs |
| D-704-10 | Construction Sign Details - Regulatory Signs |
| D-704-11 | Construction Sign Details - Warning Signs |
| D-704-12 | Shoulder Closure Tapers |
| D-704-13 | Barricade and Channelizing Device Details |
| D-704-14 | Construction Sign Punching and Mounting Details |
| D-704-34A | Traffic Control System Lane Shift Between a Lane Closure and an Opposite Lane Closure |
| D-704-35 | Sign Layout for One Lane Closure - Interstate System |
| D-762-2 | Interstate Pavement Marking 4 Lane Divided Highway |

NOTES

Revised 12/12/16

| | | | |
|-------|-------------------|-------------|-----------|
| STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
| ND | SIM-8-029(134)044 | 6 | 1 |

GENERAL NOTES

570-P01 CONCRETE PAVEMENT REPAIR: An additional 20% has been added to the quantities for CONCRETE PAVEMENT REPAIR – FULL DEPTH – DOWELED, DOWEL BARS, SPALL REPAIR – PARTIAL DEPTH, RANDOM PCC CRACK CLEANING AND SEALING, and CONC PVMT REPAIR-SPOT FULL DEPTH to be used as directed by the engineer.

570-P02 CONCRETE PAVEMENT REPAIRS: Use Salvaged Base Course to repair areas where existing base material is removed with the concrete. Place base course so that the base layer is level and uniform. Restoring the grade, if impacted, will not be paid separately, but will be included in 570 bid items.

704-500 TRAFFIC CONTROL FOR CONCRETE PAVEMENT REPAIR: Provide traffic control consisting of a temporary lane closure and flagging.

The maximum work zone length is six miles. The length of the work zone includes the daily construction area plus the longitudinal buffer space and does not include tapers. Lane closures may be less than six miles in length, dependent upon the overall length of the project.

Two work zones are allowed but must be separated by a three mile gap. The gap is considered the distance between the sign reestablishing the normal speed limit after the first work zone and the reduced speed ahead sign for second lane closure.

Place vertical panels on the roadway centerline adjacent to full depth repair areas. Place panels every 10 feet and use a minimum of two panels at each full depth repair area.

Place Type I barricades in front of each full depth removal area. Position barricades so that they do not encroach into the traffic lane.

The traffic control device list is based on one 6 mile lane closure and the following list:

1. Standard D-704-34A; and
2. Standard D-704-35.

Quantities of Type I barricades and vertical panels are based on 11 full depth repair locations and 2 vertical panels per location. The Department will pay for additional barricades and panels at the contract unit price for the devices.

Remove or shorten lane closures after new concrete has reached the required strength for opening to traffic specified in Section 570.04 A.1.b, "Full Depth Repairs".

The Department will pay for all necessary deployed devices, regardless of the number and length of the lane closures.

704-P01 CONSTRUCTION TRAFFIC: The contractor's construction traffic required for concrete pavement repair will be limited to access at interchanges only. Construction traffic will not be

permitted to operate in the median nor will access from one roadway to the other roadway, through the median, be permitted.

762-P01 PERMANENT STRIPING: All permanent striping will be along the same alignment and offset as the existing striping to ensure all existing striping is obliterated. Any existing striping remaining after the grooving operation for permanent striping has been completed will be obliterated at the contractor's expense. All labor, materials, and equipment used to install new centerline striping in this manner will be included in the unit bid price for "PREFORMED PATTERNED PVMT MK 4IN LINE – GROOVED."

| |
|---|
| <p>This document was originally issued and sealed by Joe Peyerl, Registration Number PE-4689, on 12/12/16 and the original document is stored at the North Dakota Department of Transportation.</p> |
|---|

ESTIMATE OF QUANTITIES

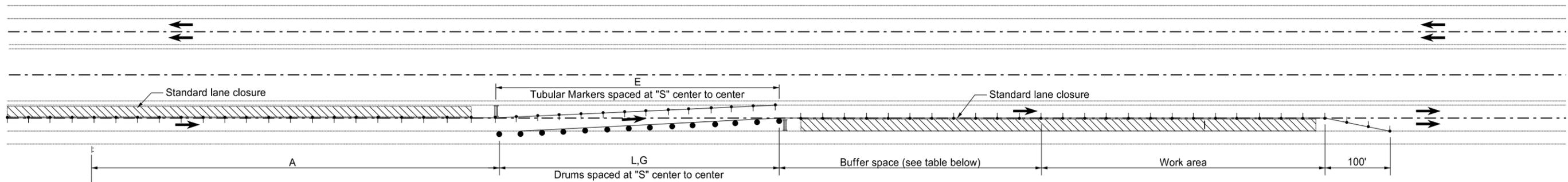
| | | | |
|-----------|-------------------|-------------|-----------|
| STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
| ND | SIM-8-029(134)044 | 8 | 1 |

REVISED 12/12/2016

| SPEC CODE | ITEM DESCRIPTION | UNIT | MAINLINE | TOTAL |
|-----------|---|-------|----------|---------|
| ----- | ----- | ----- | ----- | ----- |
| 103 | 0100 CONTRACT BOND | L SUM | 1 | 1 |
| 570 | 0240 DOWELED CONTRACTION JOINT ASSEMBLY | LF | 187 | 187 |
| 570 | 0424 DOWEL BARS | EA | 173 | 173 |
| 570 | 0700 CONC PVMT REPAIR-SPOT FULL DEPTH | SF | 131 | 131 |
| 570 | 0710 10IN CONC PVMT REPAIR-FULL DEPTH-DOWELED | SY | 239 | 239 |
| 570 | 0966 RANDOM PCC CRACK CLEANING & SEALING | LF | 54 | 54 |
| 570 | 1512 SPALL REPAIR-PARTIAL DEPTH | SF | 1,603 | 1,603 |
| 702 | 0100 MOBILIZATION | L SUM | 1 | 1 |
| 704 | 0100 FLAGGING | MHR | 200 | 200 |
| 704 | 1000 TRAFFIC CONTROL SIGNS | UNIT | 1,116 | 1,116 |
| 704 | 1050 TYPE I BARRICADE | EA | 11 | 11 |
| 704 | 1052 TYPE III BARRICADE | EA | 14 | 14 |
| 704 | 1060 DELINEATOR DRUMS | EA | 58 | 58 |
| 704 | 1067 TUBULAR MARKERS | EA | 236 | 236 |
| 704 | 1080 STACKABLE VERTICAL PANELS | EA | 30 | 30 |
| 704 | 1087 SEQUENCING ARROW PANEL-TYPE C | EA | 1 | 1 |
| 762 | 1104 PVMT MK PAINTED 4IN LINE | LF | 103,172 | 103,172 |
| 762 | 1305 PREFORMED PATTERNED PVMT MK 4IN LINE-GROOVED | LF | 12,897 | 12,897 |

TRAFFIC CONTROL SYSTEM LANE SHIFT BETWEEN A LANE CLOSURE AND AN OPPOSITE LANE CLOSURE

D-704-34A



| QUANTITIES | |
|----------------------------------|---------|
| TYPE III BARRICADES | 2 Each |
| DELINEATOR DRUMS | 14 Each |
| TUBULAR MARKERS | 14 Each |
| RAISED PAVEMENT MARKERS (White) | Varies |
| OBLITERATION OF PAVEMENT MARKING | Varies |

| KEY | | | |
|-----|--------------------|--|-----------------|
| | Work area | | Delineator drum |
| | Type III barricade | | Tubular markers |
| | Traffic Direction | | Sign |

| LEGEND | |
|--------|--|
| E | Obliteration of pavement marking (10' line, 30' skip centerline) |
| G | Raised pavement markers (white) 5' ctrs. |

Notes

- Variables
 - S = Numerical value of posted speed limit, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.
 - W = Width of offset in feet.
 - L = Taper length in feet. Speeds 40 mph or less $L = WS^2 / 60$. Speeds 45 mph or greater $L = WS$.
- Signs and barricade shown to be placed on roadway shall be placed on moveable assemblies.
- Existing speed limit signs within a reduced speed zone shall be covered.
- Obliterated or covered pavement marking shall be paid for as Obliteration of Pavement Marking. The covering shall be approved by the Engineer.
- The contractor has the option of using portable sign supports in lieu of post mounted sign as shown on the standard drawings in accordance with NDDOT Standard Specifications.
- When placing traffic control devices, speed reductions will be necessary. The "Minimum Fee \$80" sign shall be placed below these speed limit signs.
- Obliteration of pavement marking (10' line, 30' skip, centerline) and raised pavement markers are not necessary when the work is 14 days or less.

| Longitudinal Buffer Space | |
|---------------------------|-------------------|
| *Speed (mph) | Length Min (feet) |
| 20 | 115 |
| 25 | 155 |
| 30 | 200 |
| 35 | 250 |
| 40 | 305 |
| 45 | 360 |
| 50 | 425 |
| 55 | 495 |
| 60 | 570 |
| 65 | 645 |
| 70 | 730 |
| 75 | 820 |

* Posted speed, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

| ADVANCE WARNING SIGN SPACING | | | |
|---|----------------------------------|------|------|
| Road Type | Distance Between Signs Min. (ft) | | |
| | A | B | C |
| Urban - Low Speed (30 mph or less) | 150 | 150 | 150 |
| Urban - Low Speed (over 30 to 40 mph) | 280 | 280 | 280 |
| Urban - High Speed (over 40 mph to 50 mph) | 360 | 360 | 360 |
| Rural - High Speed (over 50 mph to 65 mph) | 720 | 720 | 720 |
| Urban Expressway and Freeway (55 mph to 60 mph) | 850 | 1350 | 2200 |
| Rural Expressway and Freeway (70 mph to 75 mph) | 1000 | 1500 | 2640 |
| Interstate/4-Lane Divided (Maintenance and Surveying) | 750 | 1000 | 1500 |

| NORTH DAKOTA DEPARTMENT OF TRANSPORTATION | |
|--|--------|
| 10-26-2012 | |
| REVISIONS | |
| DATE | CHANGE |
| | |

This document was originally issued and sealed by
 Roger Weigel,
 Registration Number
 PE- 2930,
 on 10/26/12 and the original document is stored at the
 North Dakota Department
 of Transportation