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# Anthony Lee Washington III

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HDR ENGINEERING, INC. 120 BRENTWOOD COMMONS WAY SUITE 525 BRENTWOOD, TN 37027 ANTHONY L. WASHINGTON, III, P.E. 119749

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME

SIGNATURE SHEET

ROADWAY-SIGN3

ROADWAY INDEX, STANDARD ROADWAY DRAWINGS AND

STANDARD TRAFFIC DESIGN DRAWINGS

1A

ESTIMATED ROADWAY QUANTITIES

2

I-40 EAST – BELINDA PARKWAY DETOUR PLAN

26

| YEAR | PROJECT NO.    | SHEET NO.       |
|------|----------------|-----------------|
| 2025 | NH-I-40-5(160) | ROADWAY -SIGN 3 |
|      |                |                 |

REV 02-25-25: ADDED SHEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

#### **ROADWAY INDEX**

SIGNATURE SHEETS.....

ROADWAY INDEX, STANDARD ROADWAY DRAWINGS AND

STANDARD TRAFFIC DESIGN DRAWINGS .....

ESTIMATED ROADWAY QUANTITIES ...

PAVEMENT MARKING IMPROVEMENTS...

NUMBERING OF SHEETS.

TITLE SHEET ...... 1

TABULATED QUANTITIES ......2E

I-40 EAST – BELINDA PARKWAY DETOUR PLAN......2G

NO UTILITY SHEETS INCLUDED IN THIS SET OF PLANS.

NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN THE

NO PROJECT COMMENTS SHEETS INCLUDED IN THIS SET OF PLANS

SPECIAL NOTES.....

......2F – 2F3

SHEET NAME

### STANDARD ROADWAY DRAWINGS

**DESCRIPTION** 

## STANDARD TRAFFIC DESIGN DRAWINGS

**DESCRIPTION** 

DELINEATOR AND MILEPOST DETAILS

REV.

06-06-11

DWG.

**SIGNALS** 

T-S-11

| TYPE   | YEAR | PROJECT NO.    | SHEET<br>NO. |
|--------|------|----------------|--------------|
| RESURF | 2025 | NH-I-40-5(160) | 1A           |
|        |      |                |              |
|        |      |                |              |

REV 02-03-25: REVISED SHEET TITLE; ADDED STANDARD TRAFFIC DESIGN DRAWINGS AND DRAWING T-S-11; ADDED ROADWAY SIGN2 TO INDEX, REVISED SHEET TITLE OF SHEET 1A IN INDEX.

REV 02-25-25: ADDED ROADWAY -SIGN3 AND I-40 EAST -BELINDA PARKWAY DETOUR PLAN TO INDEX.

| STANDAR<br>LEGENDS |          | AY TITLE SHEET, ABBREVIATIONS, AND |
|--------------------|----------|------------------------------------|
| RD-A-1             | 02-20-20 | STANDARD ABBREVIATIONS A THROUGH L |

| RD-A-1 | 02-20-20 | STANDARD ABBREVIATIONS A THROUGH L |
|--------|----------|------------------------------------|
| RD-A-2 |          | STANDARD ABBREVIATIONS M THROUGH Z |
| RD-L-1 | 02-20-20 | STANDARD LEGEND                    |

| ROADWAY  | PAVEMENT    | APPURTENANCES,   | AND FENCES   |
|----------|-------------|------------------|--------------|
| NOADWAI, | IVAFIAIFIAI | ALL DIVILIANOLO, | AND I LINGLO |

STANDARD LEGEND

| RP-J-9  | 05-01-20 | CONTRACTION AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT  |
|---------|----------|--|
| RP-J-23 | 01-28-22 | CONCRETE PAVEMENT REPAIR DETAILS                           |
| RP-J-24 | 05-01-20 | CONCRETE PAVEMENT SPALL AND RANDOM CRACK<br>REPAIR DETAILS |
| RP-J-25 | 05-01-20 | CONCRETE PAVEMENT JOINT REPAIR DETAILS                     |

REV.

SHEET NO.

... ROADWAY-SIGN1

... ROADWAY-SIGN2

DWG.

RD-L-1A

| 0 _0      | 33 33     |  |
|-----------|-----------|--|
| DESIGN -  | TRAFFIC ( | CONTROL  |
| Г-М-5     | 03-01-23  | MARKING DETAIL FOR FREEWAYS  |
| Г-М-6     | 03-01-23  | MARKING DETAIL FOR EXPRESSWAY AND FREEWAY INTERCHANGES   |
| Г-М-7     | 06-28-19  | GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES                                     |
| Г-М-8     | 06-28-19  | MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS   |
| Г-М-9     | 05-01-23  | PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS                                    |
| Г-М-9А    |           | PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS                                    |
| Г-М-9В    |           | PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS                                    |
| Г-М-15    | 06-28-19  | ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES |
| Г-М-18    | 10-29-21  | FLEXIBLE DELINEATOR DETAILS  |
| Γ-WZ-10   | 04-02-12  | ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS   |
| Γ-WZ-11   | 03-04-21  | ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS  |
| Γ-WZ-12   | 03-04-21  | ONE LANE CLOSURE DETAIL FOR BRIDGES ON DIVIDED HIGHWAYS  |
| Γ-WZ-13   | 05-01-20  | TWO-OUTSIDE LANE CLOSURE FOR EXPRESSWAY AND FREEWAYS   |
| Γ-WZ-18   | 07-07-23  | SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS                                      |
| Γ-WZ-60   |           | FREEWAY RESURFACING SIGNING LAYOUT   |
| T-WZ-63   | 1-09-24   | WORK ZONE IN THE VICINITY OF AN ENTRANCE RAMP  |
| T-WZ-64   |           | WORK ZONE IN THE VICINITY OF AN EXIT   |
| Γ-WZ-FAB1 |           | FLASHING YELLOW ARROW BOARD  |

| SEALED BY   |           |
|---|-----------|
| AGRICULTURE  AGRICULTURE  WASH / NO. 119749  O. M. 119749  O. 119749  OF TENNISHMAN | 111       |
| "minimum"   | 2/25/2025 |

STATE OF TENNESSEE **DEPARTMENT OF TRANSPORTATION** 

**ROADWAY INDEX** STANDARD ROADWAY **DRAWINGS AND** STANDARD TRAFFIC **DESIGN DRAWINGS** 

|            |           | ESTIMATED ROADWAY QUANTITIES   |      |                           |  |  |  |  |  |
|------------|-----------|--|------|---------------------------|--|--|--|--|--|
|            | ITEM NO.  | DESCRIPTION  | UNIT | QUANTITY<br>951040-F8-013 |  |  |  |  |  |
| (1)(2)     | 208-01.05 | BROOMING & DEGRASSING SHOULDERS  | L.M. | 18                        |  |  |  |  |  |
| (1)        | 303-01    | MINIEDAL ACCRECATE TYPE A DAGE CRADING D   | TON  | 1189                      |  |  |  |  |  |
| (1)<br>(3) | 307-03.08 | MINERAL AGGREGATE, TYPE A BASE, GRADING D  ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING B-M2 | TON  | 1253                      |  |  |  |  |  |
| (0)        | 307-03.00 | 701 117 ET CONTETE MIX (1 C70 ZZ) (BI MB 1 IM) CIVIDINO B MZ                                     | 1011 | 1200                      |  |  |  |  |  |
| (14)       | 403-01    | BITUMINOUS MATERIAL FOR TACK COAT (TC)   | TON  | 169                       |  |  |  |  |  |
| (4)        | 411-01.21 | LONGITUDINAL JOINT SEALANT   | L.M. | 44.7                      |  |  |  |  |  |
| (5)        | 411-03.10 | ACS MIX(PG76-22) GRADING D   | TON  | 25807                     |  |  |  |  |  |
| , ,        | 411-12.01 | SCORING SHOULDERS (CONTINUOUS) (16IN WIDTH)  | L.M. | 18                        |  |  |  |  |  |
| (6)        | 415-01.01 | COLD PLANING BITUMINOUS PAVEMENT   | TON  | 26725                     |  |  |  |  |  |
| (7)        | 502-03.25 | FULL DEPTH PCC PAVEMENT REPAIR HIGH EARLY  | C.Y. | 5                         |  |  |  |  |  |
|            |           |  |      |                           |  |  |  |  |  |
| (7)        | 502-04.01 | SAWING CONCRETE PAVEMENT (FULL DEPTH)  | L.F. | 60                        |  |  |  |  |  |
| (8)        | 712-01    | TRAFFIC CONTROL  | LS   | 1                         |  |  |  |  |  |
| (0)        | 712-01    | FLEXIBLE DRUMS (CHANNELIZING)  | EACH | 400                       |  |  |  |  |  |
|            | 712-04.01 | WARNING LIGHTS (TYPE A)  | EACH | 4                         |  |  |  |  |  |
|            | 712-05.03 | WARNING LIGHTS (TYPE C)  | EACH | 100                       |  |  |  |  |  |
| (9)        | 712-06    | SIGNS (CONSTRUCTION)   | S.F. | 2783                      |  |  |  |  |  |
| (10)       | 712-06.16 | SIGNS (CONSTRUCTION)(REDUCED SPEED WARNING)  | EACH | 4                         |  |  |  |  |  |
| (1)        | 712-07.03 | TEMPORARY BARRICADES (TYPE III)  | L.F. |                           |  |  |  |  |  |
| (')        | 712-08.03 | ARROW BOARD (TYPE C)   | EACH | 2                         |  |  |  |  |  |
|            | 712-08.08 | SPEED FEEDBACK SIGN ASSEMBLY   | EACH | 2                         |  |  |  |  |  |
|            | 712-08.09 | DIGITAL SPEED LIMIT SIGN ASSEMBLY  | EACH | 10                        |  |  |  |  |  |
|            | 712-08.12 | QUEUE PROTECTION TRUCK   | DAY  | 120                       |  |  |  |  |  |
| (15)       | 713-02.14 | FLEXIBLE DELINEATOR (WHITE)  | EACH | 100                       |  |  |  |  |  |
| (1)        | 713-16.01 | CHANGEABLE MESSAGE SIGN UNIT   | EACH | 4                         |  |  |  |  |  |
| ( )        | 713-16.20 | SIGNS (R5-1A)  | EACH | 2                         |  |  |  |  |  |
|            | 716-01.22 | SNOWPLOWABLE RAISED PAVMENT MARKERS (MONO-DIR)(1 COLOR)  | EACH | 70                        |  |  |  |  |  |
|            | 716-01.23 | SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR)(2 COLOR)   | EACH | 3172                      |  |  |  |  |  |
|            | 716-01.30 | REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER  | EACH | 3172                      |  |  |  |  |  |
| 11)(12)    | 716-02.04 | PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)  | S.Y. | 75                        |  |  |  |  |  |
| 11)(12)    | 716-02.06 | PLASTIC PAVEMENT MARKING (TURN LANE ARROW)   | EACH | 6                         |  |  |  |  |  |
| 11)(12)    | 716-02.07 | PLASTIC PAVEMENT MARKING (24" BARRIER LINE)  | L.F. | 600                       |  |  |  |  |  |
| 11)(12)    | 716-04.01 | PLASTIC PAVEMENT MARKING (STRAIGHT-TURN ARROW)   | EACH | 3                         |  |  |  |  |  |
| 11)(12)    | 716-04.06 | PLASTIC PAVEMENT MARKING (WRONG WAY ARROW)   | EACH | 1                         |  |  |  |  |  |
| 11)(12)    | 716-04.07 | PLASTIC PAVEMENT MARKING (EXIT ONLY ARROW)   | EACH | 1                         |  |  |  |  |  |
| 11)(12)    | 716-04.09 | PLASTIC PAVEMENT MARKING (H.O.V. DIAMOND)  | EACH | 39                        |  |  |  |  |  |
| 11)(12)    | 716-04.14 | PLASTIC PAVEMENT MARKING (LANE REDUCTION ARROW)  | EACH | 3                         |  |  |  |  |  |
| (13)       | 716-05.20 | PAINTED PAVEMENT MARKING (6" LINE)   | L.M. | 48.8                      |  |  |  |  |  |
| (11)       | 716-12.02 | ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)   | L.M. | 24.5                      |  |  |  |  |  |
| (11)       | 716-12.03 | ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE)   | L.F. | 2801                      |  |  |  |  |  |
| (11)       | 716-12.05 | ENHANCED FLATLINE THERMO PVMT MRKNG (6IN DOTTED LINE)  | L.F. | 2670                      |  |  |  |  |  |
| (11)       | 716-12.08 | ENHANCED FLAT LINE THERMO (12IN BARRIER LINE)  | L.F. | 1197                      |  |  |  |  |  |
| (11)       | 716-12.10 | ENHANCED FLAT LINE THERMO (12IN DOTTED)  | L.F. | 25965                     |  |  |  |  |  |
|            | 717-01    | MOBILIZATION   | LS   | 1                         |  |  |  |  |  |

#### **FOOTNOTES**

- TO BE USED AS DIRECTED BY THE ENGINEER.
- (2) NO DIRT OR DEBRIS TO BE LEFT ON SHOULDER INCLUDING UNDER AND AROUND GUARDRAIL THIS WORK TO BE PERFORMED BEFORE ALL OTHER OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING COLD PLANNING AND ASPHALT DEBRIS DOES NOT ENTER THE DRAINS AND WILL BE RESPONSIBLE FOR CLEAN OUTS.
- INCLUDES 500 TONS FOR SPOT REPAIR AREAS AND 753 TONS FOR RAMP REPAIR AT I-40 WB TRUCK STOP.
- TO BE USED FOR SEALING OF ALL SURFACE LAYER CONSTRUCTION JOINTS ALONG THE TRAVEL LANES AND SHOULDERS AS DIRECTED BY THE ENGINEER. USE CRAFCO PAVEMENT JOINT ADHESIVE #34524. PAVON JOINT ADHESIVE BY PAVON CORPORATION OR DENSO TAPE BY DENSO.
- INCLUDES 474 TONS FOR RAMPS AND EMERGENCY PULL OFF AREAS ALONG MAINLINE.
- INCLUDES 1631 TONS FOR RAMP REPAIR AND SPOT REPAIR.
- TO BE USED FOR RAMP REPAIR WORK ON AT EXIT 226C PROVIDENCE PKWY. ALL MATERIALS, LABOR, AND EQUIPMENT TO BE INCLUDED IN THE PRICE BID OF THIS WORK, INCLUDING DOWEL BARS, TIE BARS AND SEALING OF JOINTS.
- THE CONTRACTOR SHALL COMPLY WITH SECTION 712 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION REGARDING TEMPORARY TRAFFIC CONTROL AND THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STAKING OF CONSTRUCTION SIGNS. IN THE EVENT THAT A CONSTRUCTION AND/OR REGULATORY SIGN IS TEMPORARILY DESIGNATED NOT IN USE DURING THE CONSTRUCTION PHASE OF A PROJECT, THE CONTRACTOR SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 712-06 SIGNS (CONSTRUCTION) SEE SHEETS 2E AND 2G FOR TABULATIONS.
- (10) ITEM TO BE USED ONLY WHEN A REDUCED SPEED LIMIT IS ESTABLISHED WITHIN THE PROJECT CONSTRUCTION WORK ZONE LIMITS. ITEM INCLUDES SIGN FACE, SUPPORTS, AND TWO TYPE "B" FLASHERS PER THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TURNING ON THE TYPE "B" FLASHERS WHEN WORKERS ARE IN THE CONSTRUCTION WORK ZONE AND TURNING THEM OFF WHEN WORKERS ARE NO LONGER IN THE CONSTRUCTION WORK ZONE.
- (1) ITEM TO BE USED AS PERMANENT MARKING ONLY.
- 2) THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC.
  PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
- (13) ITEM TO BE USED AS TEMPORARY PAVEMENT MARKING ONLY.

  (14) INCLUDES 3.2 TONS FOR RAMPS AND EMERGENCY PULL OFF AREAS ALONG MAINLINE
- (15) TO REPLACE MISSING AND DAMAGED DELINEATORS AS DIRECTED BY THE ENGINEER, SEE STD.

  DWG. T-S-11 FOR LOCATION INFORMATION

THERE ARE NO PROJECT COMMITMENTS ON THIS PROJECT

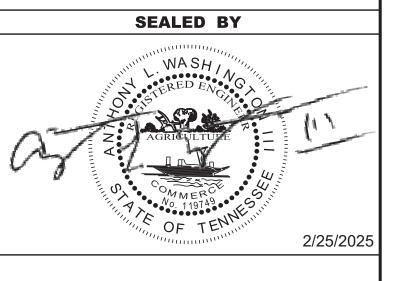
THERE ARE NO UTILITY ADJUSTMENTS ON THIS PROJECT

THERE IS NO GUARDRAIL WORK ON THIS PROJECT

| TYPE   | YEAR | PROJECT NO.    | SHEET<br>NO. |
|--------|------|----------------|--------------|
| RESURF | 2025 | NH-I-40-5(160) | 2            |
|        |      |                |              |
|        |      |                |              |

REV 02-03-25: REVISED QUANTITIES FOR ITEMS 208-01.05 303-01, 307-03.08, 403-01, 411-01.21, 411-03.10, 411-12.01 & 415-01.01; REMOVED ITEM 713-02.34, ADDED ITEM 713-02.14 WITH FOOTNOTE 15; ADDED FOOTNOTES 14 & 15, ADDED FOOTNOTE 14 TO ITEM 403-01.

REV 02-25-25: REMOVED ITEMS 501-01.03, 502-01 AND 716-15.10; ADDED ITEM 501-03.25 AND 712-05.01; REVISED QUANTITY FOR ITEMS 415-01.01, 712-06, 712-07.03 AND 713-16.01; REVISED FOOTNOTES 6, 7 AND 9, ADDED FOOTNOTE 1 TO ITEMS 712-07.03 & 713-16.01.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

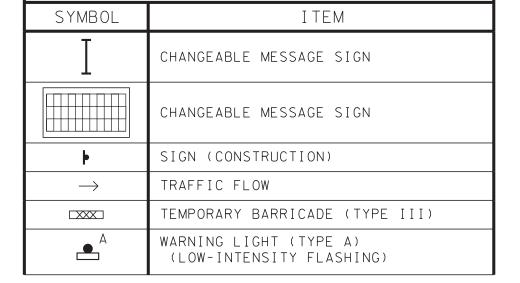
ESTIMATED ROADWAY QUANTITIES

|                        | DETOUR SIGNS CONSTRUCTION 712-06           |    |                              |    |    |                             |                            |  |
|------------------------|--|----|------------------------------|----|----|-----------------------------|----------------------------|--|
| M.U.T.C.D.<br>SIGN NO. | I FGEND \ DESCRIPTION I                    |    | SIZE<br>(IN INCHES)<br>L X W |    |    | TOTAL<br>NUMBER<br>REQUIRED | ITEM NO.<br>712-06<br>S.F. |  |
| E5-2A                  | EXIT CLOSED                                | 48 | $\frac{\lambda}{\lambda}$    | 36 | 12 | 1                           | 12                         |  |
| M4-8                   | DETOUR                                     | 30 | X                            | 15 | 3  | 2                           | 6                          |  |
| M4-8A                  | END DETOUR                                 | 24 | Х                            | 18 | 3  | 1                           | 3                          |  |
| M6-1L                  | DIRECTIONAL ARROW LT                       | 21 | Х                            | 15 | 2  | 1                           | 2                          |  |
| M6-2                   | DIRECTIONAL ARROW EXIT RT                  | 21 | Х                            | 15 | 2  | 1                           | 2                          |  |
| R11-2                  | RAMP CLOSED                                | 48 | Х                            | 30 | 10 | 1                           | 10                         |  |
| W16-6P                 | SUPPLEMENTAL WARNING PLAQUE "226C"         | 24 | Х                            | 8  | 1  | 1                           | 1                          |  |
| W16-8P                 | SUPPLEMENTAL WARNING PLAQUE "BELINDA PKWY" | 24 | Х                            | 8  | 1  | 2                           | 3                          |  |
|                        |  |    |                              |    |    |                             |                            |  |
|                        |  |    | <u> </u>                     |    |    | TOTAL                       | 40                         |  |

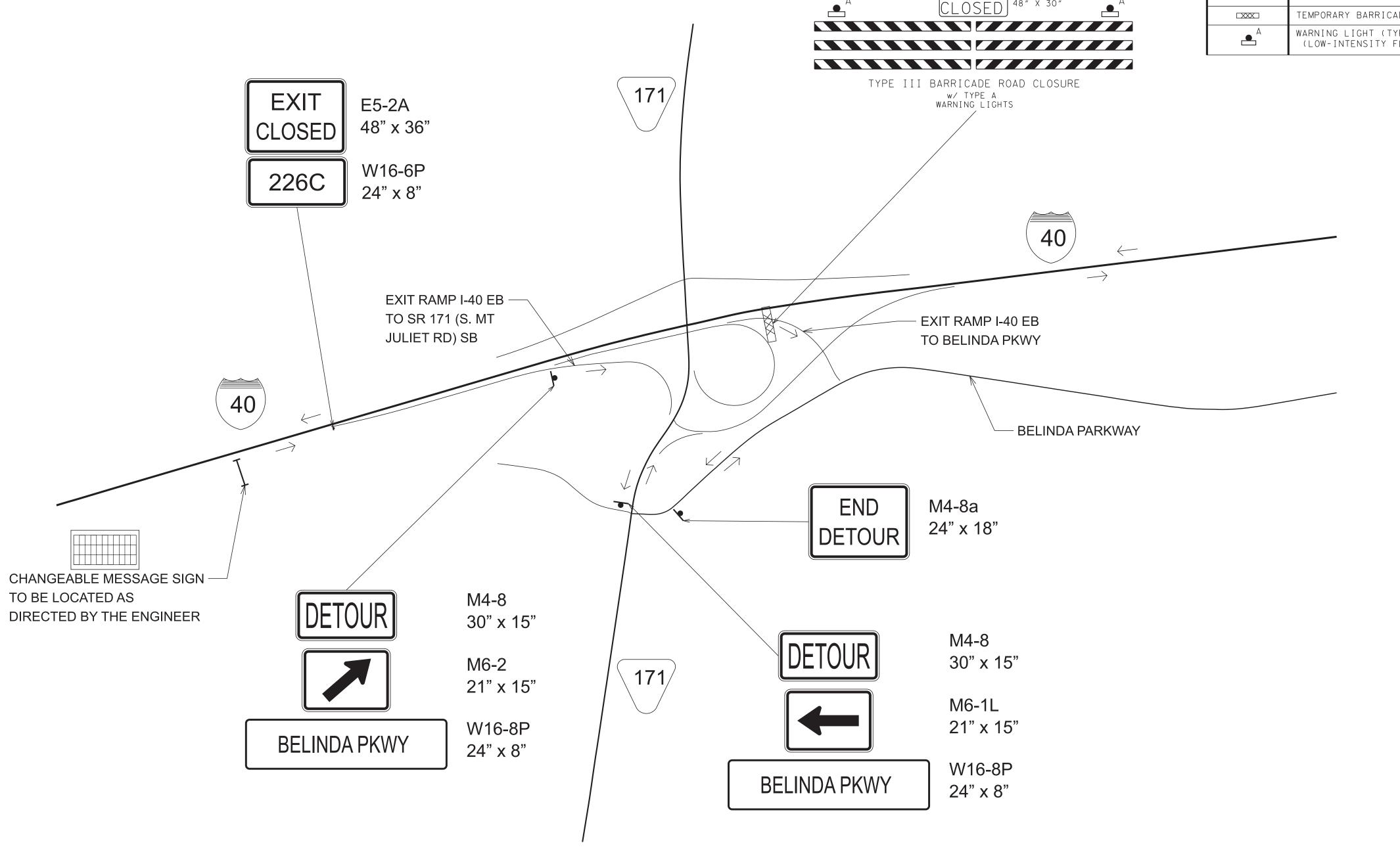
| TABULATED DETOUR TRAFFIC CONTROL QUANTITIES |                                 |      |          |  |  |  |
|---|---------------------------------|------|----------|--|--|--|
| ITEM NO.                                    | DESCRIPTION                     | UNIT | QUANTITY |  |  |  |
| 712-05.01                                   | WARNING LIGHTS (TYPE A)         | EACH | 4        |  |  |  |
| 712-06                                      | SIGNS (CONSTRUCTION)            | S.F. | 40       |  |  |  |
| 712-07.03                                   | TEMPORARY BARRICADES (TYPE III) | L.F. | 48       |  |  |  |
| 713-16.01                                   | CHANGEABLE MESSAGE SIGN UNIT    | EACH | 2        |  |  |  |

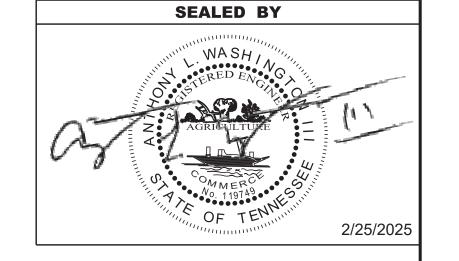
| TYPE   | YEAR | PROJECT NO.    | SHEET<br>NO. |
|--------|------|----------------|--------------|
| RESURF | 2025 | NH-I-40-5(160) | 2G           |
|        |      |                |              |
|        |      |                |              |

REV 02-25-25: ADDED SHEET



TRAFFIC CONTROL LEGEND





STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I-40 EAST - BELINDA PARKWAY DETOUR PLAN