



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
NASHVILLE, TENNESSEE 37243-0348

INSTRUCTIONAL BULLETIN NO. 08-06

Regarding new standard drawings Single Slope Barrier Wall

Effective immediately, the new standard drawings S-SSMB-1 and S-SSMB-2 should be used for Concrete Median Barrier Wall. The existing Jersey Shape Concrete Barrier Wall standards will be available if needed.

Until the drawings are added to the standard drawings, they are to be printed with the plans. The drawings shall be identified on the lower left side of the index sheet **“To be printed with plans”**.

Copies of the new standard drawings are attached. The Metric version of the subject Standard Drawings may be obtained by calling the Quality Assurance and Standards Office at (615)741-2806.

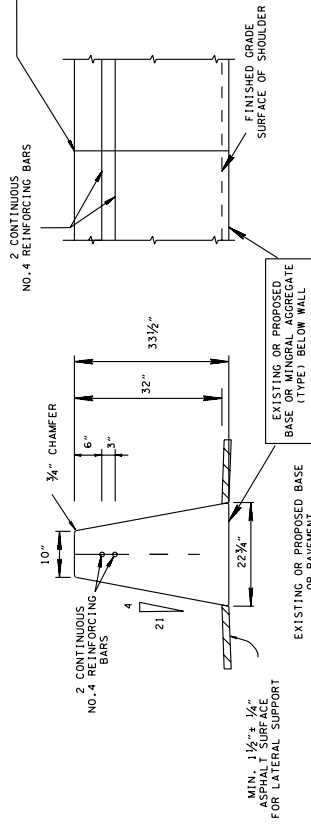
ROADWAY STANDARD DRAWINGS

<u>Drawing Number</u>	<u>Current Revision Date</u>	<u>Drawing Title</u>
S-SSMB-1		32" Single Slope Concrete Barrier Wall
S-SSMB-2		51" Single Slope Concrete Barrier Wall

Original signed by Jeff C. Jones
Jeff C. Jones, Civil Engineering Director
Design Division

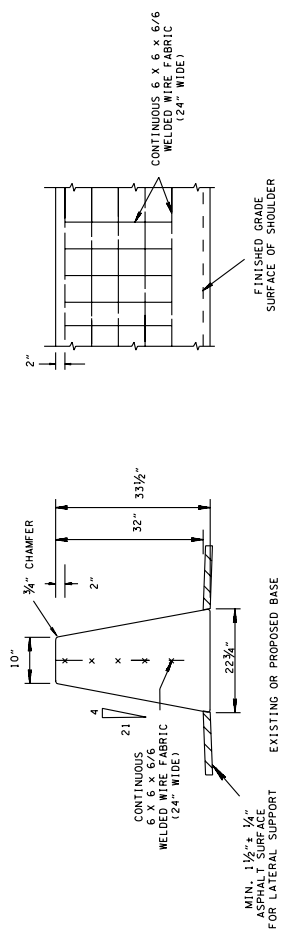
May 5, 2008
JCJ:arh
Attachment

32" HEIGHT WALL



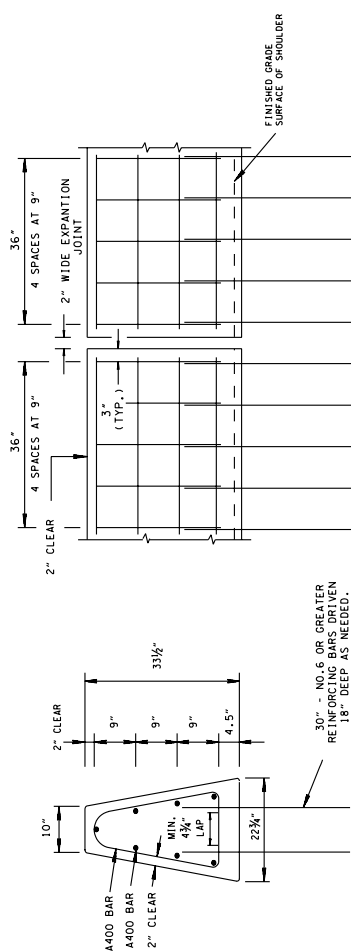
SECTION VIEW

32" HEIGHT WALL WITH ALTERNATE REINFORCING

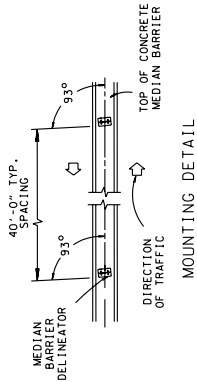


SECTION VIEW

DETAILS OF ADDITIONAL REINFORCING AT THE WALL ENDS OR AT EXPANTION JOINT



ELEVATION VIEW



MOUNTING DETAIL

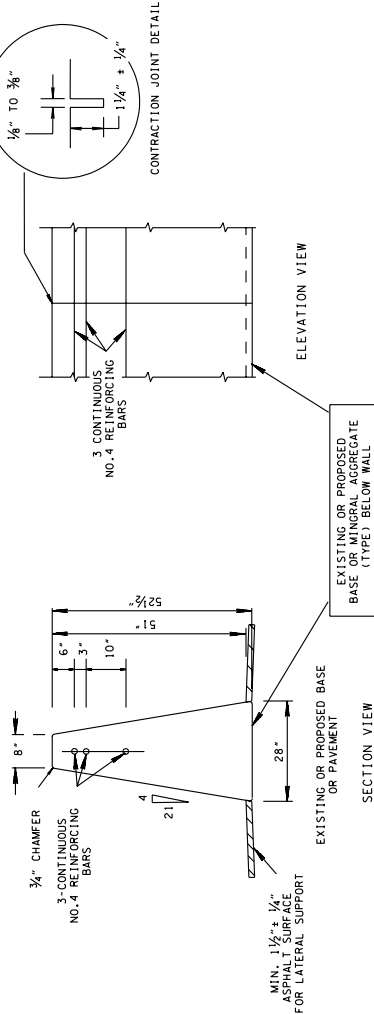
DELINEATOR NOTES

- 1 MEDIAN BARRIER DELINEATOR REFLECTIVE SHEETING SHALL MEET ASTM M-280. THE REFLECTIVE SHEETING SHALL BE USED FOR PRODUCTS THINER THAN 4" X 3" MAY BE USED IF THE PRODUCT IS ON THE APPROVED PRODUCTS LIST. THE VARIATIONS IN DELINEATOR DIMENSION SHOULD NOT EXCEED ± 10%. DIFFERENT SIZE OR MANUFACTURED MEDIAN BARRIER DELINEATORS SHOULD NOT BE MIXED IN THE SAME LINE.
- 2 MEDIAN BARRIER DELINEATORS SHALL BE HIGH IMPACT, UV-STABILIZED, ENGINEERED THERMOPLASTIC OR POLYCARBONATE SUBSTRATE. SEE TDDT APPROVED QUALIFIED PRODUCT LISTS FOR ACCEPTABLE PRODUCTS.
- 3 MEDIAN BARRIER DELINEATORS WILL NOT BE REQUIRED IN AREAS WHERE ROADWAY IS LIGHTED.
- 4 SINGLE WHITE REFLECTIVE SHEETING WILL BE SUBSTITUTED FOR THE DOUBLE YELLOW REFLECTIVE SHEETING WHEN TRAFFIC ON EACH SIDE OF THE BARRIER IS GOING IN THE SAME DIRECTION.
- 5 THE COST OF FURNISHING AND INSTALLING MEDIAN BARRIER DELINEATORS, INCLUDING ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION, SHALL BE INCLUDED IN BID PRICE FOR CONCRETE MEDIAN BARRIER.
- 6 MEDIAN BARRIER DELINEATORS SHALL BE MOUNTED TO THE CONCRETE MEDIAN BARRIER WITH A COMPROMAT ADHESIVE RECOMMENDED BY THE MANUFACTURER. THEY SHALL BE INSTALLED NO EARLIER THAN THREE WEEKS AFTER THE TEXTURE COATING HAS BEEN APPLIED.

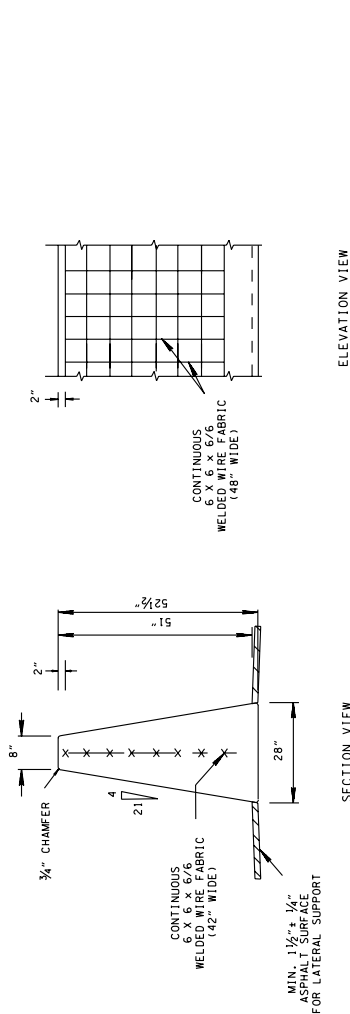
GENERAL NOTES

- A CONCRETE BARRIER WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 711 AND/OR CURRENT SPECIAL PROVISIONS.
- B IF SAWED CONTRACTION JOINTS ARE USED, THE JOINTS MUST BE SAWED WITHIN FOUR (4) HOURS AFTER THE CONCRETE IS PLACED.
- C THE CONTRACTION JOINTS ARE TO BE SPACED AT 20 TO 35 FOOT INTERVALS WHEN CONSTRUCTED ON ASPHALT PAVEMENT. WHEN THE CONCRETE BARRIER WALL IS ATTACHED TO CONCRETE PAVEMENT THE CONTRACTION JOINTS WILL CORRESPOND TO THE JOINTS IN THE CONCRETE PAVEMENT. THE COST OF MATERIAL AND LABOR FOR CONTRACTION JOINTS SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE MEDIAN BARRIER.
- D THE CONCRETE BARRIER WALL SHALL BE GIVEN AN APPLIED TEXTURE FINISH. THE COST OF MATERIALS AND LABOR FOR THE TEXTURE FINISH SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE MEDIAN BARRIER.
- E THE TWO (2) INCH OPEN EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM SPACING NOT TO EXCEED 300 FEET. IF FIXED OBJECTS SUCH AS BRIDGE PIERS, BRIDGE ENDS, OVERHEAD SIGN SUPPORTS, OR OTHER FEATURES PROJECTING INTO THE ROADWAY ARE ENCOUNTERED, THE SPACING BETWEEN EXPANSION JOINTS SHALL BE REDUCED IN ORDER TO ALLOW AN EQUAL DISTANCE BETWEEN JOINTS THAT IS LESS THAN 300 FEET. ALL ADDITIONAL STEEL REQUIRED AT EXPANSION JOINTS TO BE INSTALLED SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE MEDIAN BARRIER.
- F CHAMFER TOP AND END EDGES 3/4 INCH.
- G BAR SPLICES FOR ROADWAY BARRIER SHALL BE A MINIMUM OF 24 TIMES THE NOMINAL DIAMETER OF THE BAR.
- H ANY METHOD DEvised BY THE CONTRACTOR AND APPROVED BY THE ENGINEER THAT WILL ASSURE THE LONGITUDINAL ROADWAY REINFORCING STEEL WILL BE FIXED TO THE TRANSVERSE ROADWAY REINFORCING STEEL WILL BE SATISFACTORY.
- I PAVEMENT WILL BE MADE UNDER ITEM NO. 711-05.70. SINGLE SLOPE CONCRETE MEDIAN BARRIER WALL PER LINEAR FOOT.
- J MIN. SAFETY PERFORMANCE OF 32" SINGLE SLOPE WALL IS ACCEPTABLE ACCORDING TO THE I-15 EVALUATION CRITERIA SPECIFIED IN NCHRP REPORT 350.

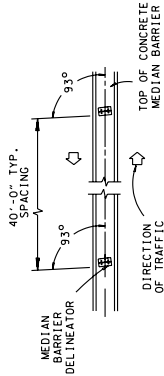
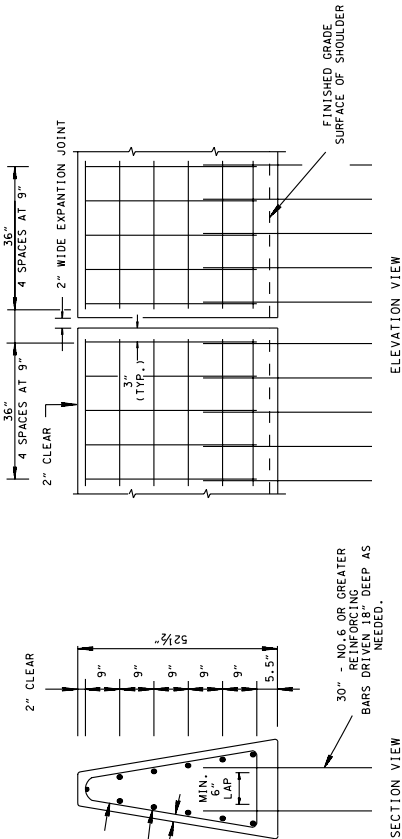
51" HEIGHT WALL



51" HEIGHT WALL WITH ALTERNATE REINFORCING



DETAILS OF ADDITIONAL REINFORCING AT THE WALL ENDS OR AT EXPANSION JOINT



MOUNTING DETAIL

DELINEATOR NOTES

- 1 MEDIAN BARRIER DELINEATOR REFLECTIVE SHEETING SHALL MEET ASTM D4956, TYPE V SPECIFICATIONS. DELINEATORS WITH DIMENSIONS OTHER THAN 4" x 3" MAY BE USED IF THE PRODUCT IS ON THE APPROVED PRODUCTS LIST. DELINEATORS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE L-102. DIFFERENT SIZE OR MANUFACTURED MEDIAN BARRIER DELINEATORS SHOULD NOT BE MIXED IN THE SAME LINE.
- 2 MEDIAN BARRIER DELINEATORS SHALL BE HIGH IMPACT, UV-STABILIZED, ENGINEERED THERMOPLASTIC OR POLYCARBONATE SUBSTRATE. SEE FOOTNOTED APPROVED QUALIFIED PRODUCT LISTS FOR ACCEPTABLE PRODUCTS.
- 3 MEDIAN BARRIER DELINEATORS WILL NOT BE REQUIRED IN AREAS WHERE ROADWAY IS LIGHTED.
- 4 SINGLE WHITE REFLECTIVE SHEETING WILL BE SUBSTITUTED FOR THE DOUBLE WHITE REFLECTIVE SHEETING FOR TRAFFIC ON EACH SIDE OF THE BARRIER IS GOING IN THE SAME DIRECTION.
- 5 THE COST OF FURNISHING AND INSTALLING MEDIAN BARRIER DELINEATORS, INCLUDING ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION, SHALL BE INCLUDED IN BID PRICE FOR CONCRETE MEDIAN BARRIER.
- 6 MEDIAN BARRIER DELINEATORS SHALL BE MOUNTED TO THE CONCRETE MEDIAN BARRIER WITH A ONE COMPONENT ADHESIVE AS RECOMMENDED BY THE MANUFACTURER. THEY SHALL BE INSTALLED NO EARLIER THAN THREE WEEKS AFTER THE TEXTURE COATING HAS BEEN APPLIED.

GENERAL NOTES

- A CONCRETE BARRIER WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 711 AND/OR CURRENT SPECIAL PROVISIONS.
- B IF SAWED CONTRACTION JOINTS ARE USED, THE JOINTS MUST BE SAWED WITHIN FOUR (4) HOURS AFTER THE CONCRETE IS PLACED.
- C THE CONTRACTION JOINTS ARE TO BE SPACED AT 20 TO 25 FOOT INTERVALS WHEN ATTACHED TO CONCRETE PAVEMENT. WHEN THE CONCRETE BARRIER WALL IS THE JOINTS IN THE CONCRETE PAVEMENT, THE COST OF MATERIAL AND LABOR FOR THE CONCRETE BARRIER SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE MEDIAN BARRIER.
- D THE CONCRETE BARRIER WALL SHALL BE GIVEN AN APPLIED TEXTURE FINISH. THE COLOR OF THE FINISH SHALL BE WHAT FEDERAL SPECIFICATION NO. 37886. THE COST OF MATERIALS AND LABOR FOR THE TEXTURE FINISH SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE MEDIAN BARRIER.
- E THE TWO (2) INCH OPEN EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM SPACING NOT TO EXCEED 300 FEET. IF FIXED OBJECTS SUCH AS BRIDGE PIERS, THROUGH ENDS OR MEANS TO THE BARRIER BY THE ROADWAY THROUGH EXPANSION JOINTS, THEN THE DISTANCE BETWEEN THE EXPANSION JOINTS IS TO BE REDUCED IN ORDER TO ALLOW AN EQUAL DISTANCE BETWEEN JOINTS THAT IS LESS THAN 300 FEET. THE COST OF MATERIAL AND LABOR FOR THE EPOXY COATED REINFORCING STEEL SHALL BE INCLUDED IN THE BID PRICE FOR THE JOINT INSTALLATION. THE COST OF MATERIAL AND LABOR FOR THE CONCRETE MEDIAN BARRIER SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE MEDIAN BARRIER.
- F CHAMFER TOP AND END EDGES 3/4 INCH.
- G BAR SPLICES FOR ROADWAY BARRIER SHALL BE A MINIMUM OF 24 TIMES THE NOMINAL DIAMETER OF THE BAR.
- H ANY METHOD DEvised BY THE CONTRACTOR AND APPROVED BY THE ENGINEER THAT WILL ASSURE THE LONGITUDINAL ROADWAY REINFORCING STEEL WILL BE FIXED TO THE TRANSVERSE ROADWAY REINFORCING STEEL WILL BE SATISFACTORY.
- I PAVEMENT WILL BE MADE UNDER ITEM NO. 711-05.70, SINGLE SLOPE CONCRETE MEDIAN BARRIER WALL PER LINEAR FOOT.
- J MIN. SAFETY PERFORMANCE OF 51" SINGLE SLOPE WALL IS ACCEPTABLE ACCORDING TO THE IL-3 EVALUATION CRITERIA SPECIFIED IN NCHRP REPORT 350.