B814
Concrete End Diaphragm (27M, 30MH, 35MH, 36M, 40MH, MN45 – MN63, 82MW & 96MW Prestressed Concrete Beams) (Parapet Abutment)

Approved, and signed, September 22, 2011. Last date revised: December 20, 2018

**Revised 12-20-2018**
At sheet Title Block:
- Changed sheet title from “Concrete End Diaphragm (27M & 36M, MN45 – MN63, 82MW & 96MW Prestressed Concrete Beams) (Parapet Abutment)” to “Concrete End Diaphragm (27M, 30MH, 35MH, 36M, 40MH, MN45 – MN63, 82MW & 96MW Prestressed Concrete Beams) (Parapet Abutment)”

At SD__05E:
- Changed slope designation from 1:1 to 12:12.

At Section A-A:
- Added 30MH, 35MH and 40MH to several locations in the detail to provide diaphragm dimensions for the new shape.

At circled note ②:
- Added 30MH, 35MH and 40MH to provide diaphragm dimensions for the new shape.

At circled note ③:
- Added 30MH, 35MH and 40MH to provide diaphragm dimensions for the new shape.

**Revised 11-06-2013**
Removed note: “* Check Length Over Fascia Beam” and the asterisk at the 4’-0” dimension at bar bends SD506E and SD5__05E.

Changed numbered note ③ to read: “Add SD507E and SD508E only if No. of bars and lengths are included in bill of reinforcement. Space SD508E at 1'-6” max. for entire length of diaphragm. Refer to “Part Transverse Section” above.”

Added the Designer Note to the detail.

**Revised 04-17-2013**
This B-detail was updated to convert reinforcing bar marks from metric to U.S. customary bar designations.

**Re-Approved 09-22-2011**
Updated the detail to include MW shape prestressed beams.

Rearranged reinforcement bar bend details on the detail due to available space.

At SHEET TITLE: changed the sub title from: (27M - 54M, MN45 - MN63 Prestressed Concrete Beams)(Parapet Abutment). to: (27M & 36M, MN45 - MN63, 82MW & 96MW Prestressed Concrete Beams)(Parapet Abutment).

At the SD1301E bar bend detail: Replaced the 1'-0” dimension with the “_ _ _ _” (to be filled in symbol).

At the PART TRANSVERSE SECTION: changed the note at the beam shape from “MN Shape PCB” to “MW or MN Shape PCB”
- Lengthened the legs of the SD_05E bars to better represent the actual length.
- Changed the height of the “M” shape beam to better represent the actual height.
• Added SD1608E bars throughout the section.
• Added note “Place additional SD1608E at end of beam as shown per note ⑤ (typ.)” with dimension lines pointing to the reinforcement at the end of the beam.
• Changed the reinforcement dimension label to read: “SD1301E and SD1608E ⑤”

At SECTION A-A:
• Changed the dimension label from the top of beam to the front edge of the diaphragm to read:
  10” MIN. for 27M & 36M
  1’-1” MIN. for MN45 – MN63
  1’-2” MIN. for 82MW & 96MW
• Changed the dimension label from the top of beam to the threaded rods to read:
  4” (27M & 36M)
  2” (MN45 – MN63)
  1 ¾” (82MW & 96MW)
• Changed the 1’-8” dimension label for the depth of diaphragm to read: 36M & MN45
• Changed the 2’-0” dimension label for the depth of diaphragm to read: MN54 & MN63
• Added the 2’-8” dimension for the depth of diaphragm for the 82MW & 96MW beams.
• Separated the 1’-4” and 2”Min. dimensions by moving the 2” dimension and changing it to read “2” MIN. ALONG WEB FACE” for better clarification.
• Changed the reinforcement label from SD1607E ④ to SD1607E entire length of diaphragm ⑤.

Under NOTES:
• Removed the text “SEE PLANS FOR DIMENSION.” From numbered note ②.
• Changed numbered notes ② to read: 1’-11” (27M); 2’-1” (36M AND MN45); 2’-5” (MN54 AND MN63); 3’-1” (82MW AND 96MW). Based on 3” stool and 9” deck.
• Changed numbered note ③ to read: 1’-10” (27M); 2’-0” (36M AND MN45); 2’-4” (MN54 AND MN63); 3’0” (82MW AND 96MW). Based on note ②.
• Changed numbered note ④ to read: Add SD1607E and SD1608E if dimension ② exceeds 1’-8”. Space SD1608E at 1’-6” max. for entire length of diaphragm. Refer to “Part Transverse Section” above.

Revised 04-02-2009
At the PART TRANSVERSE SECTION:
• Changed the dimension from 4” to 4½” CLR at the top of roadway slab to diaphragm reinforcement location.
• Added 9” TYP. Dimension from the beam web to the bottom horizontal diaphragm bars.
• Removed the 3” dimension showing the clearance from the bottom of diaphragm to the reinforcement.
• Changed the beam of the right side of the detail from an M shape to an MN shape. Added leader lines depicting M shape and MN shape.

At SECTION A-A:
• Added a ” 2” MIN” dimension to the bottom of diaphragm to end of beam location.
• Added bar designations to the bottom three bars in the end diaphragm.
• Added 10” MIN. dimension from the top of beam to the front edge of the diaphragm for M shapes and 1’-1” MIN dimension for MN shapes.
• Changed the dimension from 4” to 4½” CLR at the top of roadway slab to diaphragm reinforcement location.
• Added bars SD1607E, SD1608E with note ⑤.
• Modified the dimension line indicating the distance from the end of the deck to the CL of the end diaphragm.
• Added “(M SHAPE PCB SHOWN)” under section A-A title.

CHANGES TO REINFORCEMENT:
• Added bar bend for SD1608E with note ⑤.
• Changed height of bar SD1301E. (see note ③)
• Changed height of bar SD1606E and partial length dimension of bar SD__05E. (see note ▲)
• Added bars SD1607E and SD1608E if the end of diaphragm dimension exceeds 1'-8". (see note ▲)

CHANGES TO THE "NOTES:"
• Reduced the height of bar SD1301E by changing note ▲ from " 2'-0" (27M); 2'-2" (36M, 45M and MN 45); 2'-6" (54M, MN54 and MN63). Based on 3" stool and 9" deck" to " 1'-11" (27M); 2'-1" (36M, 45M and MN 45); 2'-5" (54M, MN54 and MN63). Based on 3" stool and 9" deck".
• Changed the dimensions on bars SD__05E and SD1606E by adding note ▲ " 1'-10" (27M); 2'-0" (36M, 45M and MN 45); 2'-4" (54M, MN54 and MN63). Based on note ▲.
• Modified the concrete mix design for the end diaphragms to; "Concrete for end diaphragms shall be the same mix as used in deck", per SSRC meeting 12/01/08.
• Added note ▲ "Add if dimension ▲ exceeds 1'-8" "

Revised 06-14-2006
Changed B-Detail subtitle (27M – 54M, MN45 And MN54 Prestressed Concrete Beams) (Parapet Abutment) to (27M – 54M, MN45 – MN63 Prestressed Concrete Beams) (Parapet Abutment)

At SECTION A-A:
• changed 2" (MN45 & MN54) to 2" (MN45 – MN63)
• changed 54M & MN54 to 54M, MN54 & MN63

Under NOTES:
• changed DIAPHRAGM CONCRETE TO BE MIX NO. 3Y43. to END DIAPHRAGM SHALL BE CONC. MIX NO. 3Y43.
• changed ALL DIAPHRAGM CONCRETE AND REINFORCEMENT BARS SHOWN ON THIS DETAIL TO BE INCLUDED IN PAYMENT FOR SUPERSTRUCTURE QUANTITIES. to QUANTITIES FOR END DIAPHRAGM CONCRETE AND REINFORCEMENT SHOWN ON THIS DETAIL SHALL BE LISTED IN SUPERSTRUCTURE QUANTITIES.
• changed THREADED RODS ARE INCLUDED IN PAYMENT FOR PRESTRESSED CONCRETE BEAMS. to THREADED RODS ARE INCIDENTAL TO PRESTRESSED CONCRETE BEAMS.
• changed ▲ … 2'-6" (54M AND MN54). BASED … to ▲ … 2'-6" (54M, MN54 AND MN63). BASED …

Re-Approved 10-26-2005
Changed B-Detail subtitle (27M – 54M Prestressed Concrete Beams) (Parapet Abutment) to (27M – 54M, MN45 And MN54 Prestressed Concrete Beams) (Parapet Abutment)

At PART TRANSVERSE SECTION: Called out EDGE OF TOP FLANGE

At SECTION A-A:
• Specified 4" dimension for top threaded rods for 27M – 54M PCB and added 2" dimension for top threaded rods for MN45 and MN54 PCB
• Specified distance from top of beam to bottom of diaphragm for MN45 and MN54 PCB

Under NOTES: Changed ▲ 2'-0" (27M), 2'-2" (36M AND 45M), 2'-6" (54M) … to ▲ 2'-0" (27M); 2'-2" (36M, 45M AND MN45); 2'-6" (54M AND MN54). …

Approved, and signed, November 22, 2002