

**B920**

**Temporary Portable Precast Concrete Barrier Anchorage (Temporary Usage In Limited Barrier Displacement Areas)**

Approved, and signed, December 21, 2011. Last date revised: May, 24 2012

**Revised 05-24-2012**

Changed: “MnDOT” to “SPEC.” at multiple locations on the detail and in the notes.

At ANCHORAGE DETAILS, OPTION 1 and OPTION 2: Added the wearing coarse to the details on the traffic side of the barrier.

At SIDE VIEW: Added “TORQUE ANCHOR BOLTS TO 80 FT. LBS.” to the end of the existing note.

UNDER NOTES:

- Changed the 3<sup>rd</sup> note *From*: “Cost of anchorages, anchor removal .... *To*: Cost of anchorage system, anchor removal.....
- Changed 4<sup>th</sup> note *From*: “Pin barriers together per MnDOT standard plate 8337.” *To*: “Pin barriers together per standard plate 8337.”
- Removed the 9<sup>th</sup> note: “Fill anchorage holes with.....”
- Changed 10<sup>th</sup> note *From*: “See special provisions for barrier removal requirements.” *To*: “See special provisions for barrier installation and removal requirements.”

**Re-Approved 12-21-2011**

At SHEET TITLE: changed the title *from*: “Portable Precast Barrier Anchorage” *to*: Temporary Portable Precast Concrete Barrier Anchorage”.

Removed the “ANCHOR BRACKET FOR OPTION 1” detail from the sheet.

Added a bubbled “DESIGNER NOTE” to the sheet. Note reads: Refer to MnDOT LRFD Manual “Memo to Designers (2011-03)” For Guidance on Edge Distance.

UNDER NOTES:

- Changed the 1<sup>st</sup> note to read: “All hardware to be galvanized per MnDOT 3392.”
- Changed the 2<sup>nd</sup> note to read: “All structural steel to be MnDOT 3306 unless otherwise noted.”
- Changed the 3<sup>rd</sup> note to read: “Cost of anchorages, anchor removal and grouting of hole are incidental to the cost of placing the temporary portable precast barrier.”
- Added 4<sup>th</sup> note: “Pin barriers together per MnDOT standard plate 8337.”
- Added 5<sup>th</sup> note: “Through bolt anchors must be used if the deck is penetrated during drilling process.”
- Added 6<sup>th</sup> note: “Do not use on bridges or approach panels with a bituminous overlay.”
- Added 7<sup>th</sup> note: “Refer to traffic control plans for deployment length and barrier termination requirements.”
- Added 8<sup>th</sup> note: “Anchor on traffic side of barrier only.”
- Added 10<sup>th</sup> note: “See special provisions for barrier removal requirements.”
- Added numbered note “② 1 ½” minimum to prevent bottom of slab from spalling or fracturing during drilling.”
- Added numbered note “③ 5 ½” minimum and 6” maximum for bridge decks with top mat reinforcement and sound concrete. 9” minimum and 10 ½” maximum for sound concrete approach panels.”

At ANCHORAGE DETAILS: (Option 1 and Option 2)

- Updated the shape of the barriers.
- Removed the dimension and anchorage bracket between the anchor rods and removed the outside anchor rod.
- Moved the See section “A” circle to the traffic side of the barrier.

- Added a dimension with bubbled “See Designer Note” between the edge of barrier and the edge of deck.
- Added the leader line showing the “Edge of Deck”.
- Added the underlined designation showing the “Traffic Side” of the barrier.
- Added note “Reinforced Concrete Bridge Deck or Approach Panel” with leader line to both options.
- Changed the note *from*: “See Standard Plate 8337B.....*to*: :”See Standard Plate 8337 for Barrier Details”

(at Option 1)

- Changed the look of the anchorage by adding the plate washer to the top of the anchorage and adding the plate washer and jam nuts to the bottom with updated note: “2-Heavy Hex Jam Nuts, ½” Plate Washer”.

(at Option 2)

- Added the “ 1½” Min. Ⓣ” dimension between the bottom of the deck and the bottom of the anchorage.
- Changed the note pointing to the anchorage to read: 3 – 1 1/8” Dia. MnDOT 3385 Type A Anchor Rods Per Barrier Segment.
- Changed the note showing the dimension from the top of the deck to the bottom of the anchorage to read: “Anchorage Embedment Depth Ⓣ”
- Changed the note for ultimate pullout strength *from*: 16 KIPS *to*: 14 KIPS

At OPTION 1 ANCHOR:

- Added sub title “(3 PER BARRIER SEGMENT)” to the detail.
- Rotated the view and added Top and Bottom for clarification.
- Changed the dimension *from*: 1’-1” + Slab Thickness *to*: 9” + Slab Thickness.
- Added to the detail: 2-heavy hex jam nuts and 5”x5” plate washer (bottom), and 3”x3” plate washer (top).
- Changed note to read: “Heavy Hex Nut, Lock Washer and ½” Plate Washer. Check Plan for Number Required”.
- Changed note to read: “1 1/8” Dia. MnDOT 3385 Type A Anchor Rod”
- Changed note to read: “2-Heavy Hex Jam Nuts, ½” Plate Washer. Check Plan for Number Required”.

At PLATE WASHER:

- Changed the detail title *to*: “TOP PLATE WASHER”
- Changed the look to better represent the actual shape and removed the side view of the plate washer.
- Added: ½” x 3” x 3” Plate Washer note to the detail.

Added: “BOTTOM PLATE WASHER” detail to the sheet with plate dimensions, hole location and size.

At the SIDE VIEW:

- Changed the dimension for the block out in the barrier *from*: 5” *to*: 4”
- Removed the 4 ½” vertical dimension for the block out in the barrier.
- Changed the note *from*: ½” Plate Washer with Heavy Hex Nut and Lock Washer *to*: Heavy Hex Nut, Lock Washer and ½” Plate Washer.
- Changed the look of the nut, lock washer and plate washer to better represent the actual size.

At DETAIL “A”:

- Mirrored the detail to match the traffic side of the barrier on the sheet.
- Changed the shape of the barrier to better represent the actual shape.
- Changed the look of the nut, lock washer and plate washer to better represent the actual size.
- Removed the 3” and 1 ½” dimensions showing the depth of block out and anchor location.
- Added a 3” dimension from the edge of the barrier to the anchorage.

**07-28-03**

At ANCHORAGE DETAILS: Changed SEE STANDARD PLATE 8337A ... to SEE STANDARD PLATE 8337B ...