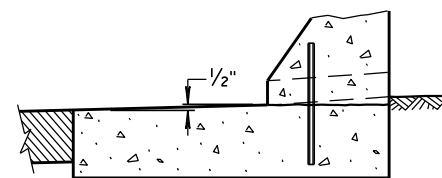


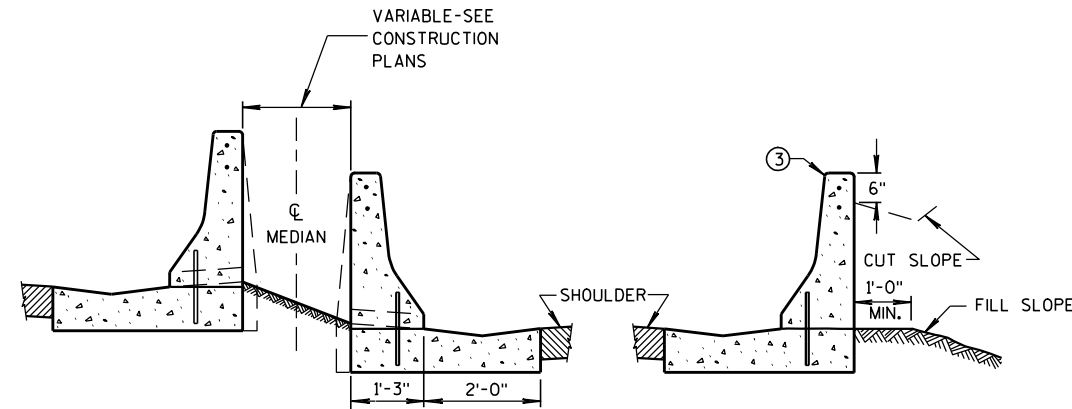
PLAN VIEW
TRANSITION DETAILS OF DOUBLE FACED
TO SINGLE FACED CONCRETE MEDIAN BARRIER
 (FOOTINGS ARE NOT SHOWN)

GENERAL NOTES

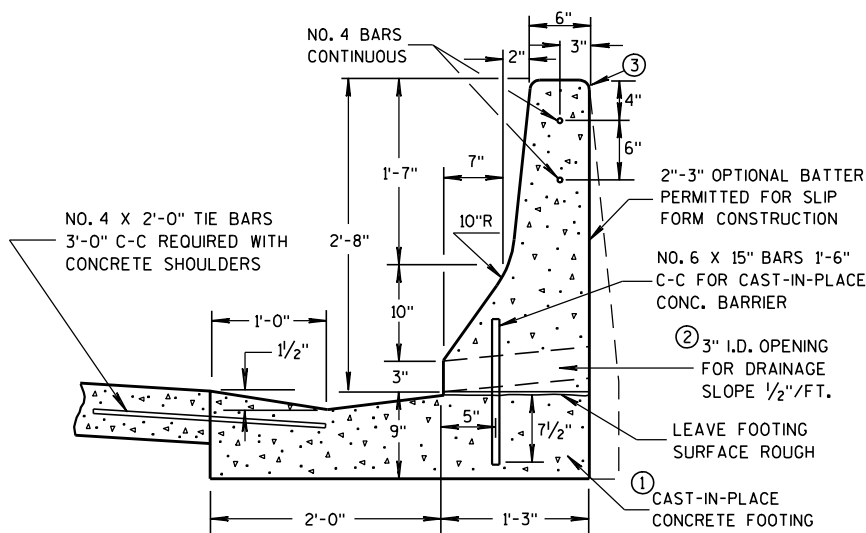
- SPLICES OF LONGITUDINAL BARS SHALL BE MADE WITH BARS LAPPED AT LEAST 18-INCHES AND FIRMLY TIED OR FASTENED TOGETHER.
- ALL BAR STEEL REINFORCEMENT SHALL CONFORM TO REQUIREMENTS OF AASHTO M31, GRADE 60.
- ① BARRIER SHALL BE INSTALLED ON A CONCRETE SHOULDER INSTEAD OF THE CONCRETE FOOTING WHEN SPECIFIED OR SHOWN ELSEWHERE IN CONTRACT.
 - ② OPENINGS FOR DRAINAGE SHALL BE PLACED AT LOW POINTS OF VERTICAL CURVES OR WHERE DIRECTED BY THE ENGINEER.
 - ③ 3/4-INCH BEVEL OR 1-INCH RADIUS (TYPICAL).
 - ④ NO. 4 BARS SHALL BE CONTINUED THROUGH CONSTRUCTION JOINTS.
 - ⑤ EXPANSION JOINTS SHALL BE PLACED AT EXISTING EXPANSION JOINTS IN THE PAVEMENT AND AT STRUCTURES. SEE REINFORCEMENT AT BARRIER END DETAIL.
 - ⑥ SAWED CONTRACTION JOINTS SHALL BE PROVIDED ACROSS THE FULL WIDTH OF THE BARRIER FOOTING, AND IN FRONT, TOP AND BACK FACE OF THE BARRIER AT EXISTING PAVEMENT JOINTS AND AT UNIFORM INTERVALS BETWEEN WITH A MAXIMUM SPACING OF 25 FEET.



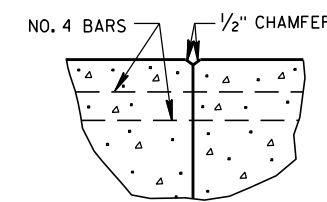
HIGH SIDE
CONCRETE BARRIER DETAIL



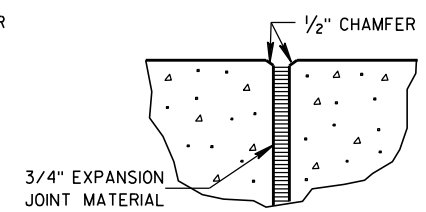
TYPICAL APPLICATIONS



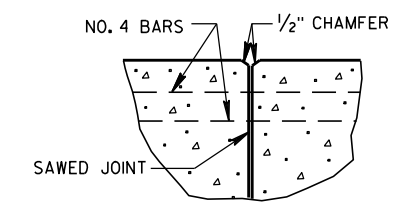
SECTION VIEW



④ **CONSTRUCTION JOINT**



⑤ **EXPANSION JOINT**



⑥ **CONTRACTION JOINT**

JOINT DETAILS

CONCRETE BARRIER
SINGLE-FACED
(WITH ANCHORAGE)

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

Reference:[FDM 11-45-1](#)

AASHTO Roadside Design Guide

Bid items associated with this drawing:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
603.0105	Concrete Barrier Single - Faced 32 Inch	LF
603.0205	Concrete Barrier Double Faced 32-Inch.....	LF
603.0405	Concrete Barrier Transition Section 32 Inch.....	LF

Standardized Special Provisions associated with this drawing:

<u>STSP NUMBER</u>	<u>TITLE</u>
NONE	

Other SDDs associated with this drawing:

SDD 14b11	Concrete Barrier (Double Faced) may be required with this drawing.
SDD 14b22	Concrete Barrier, Single Faced (with Anchorage) sheet "b" is required.

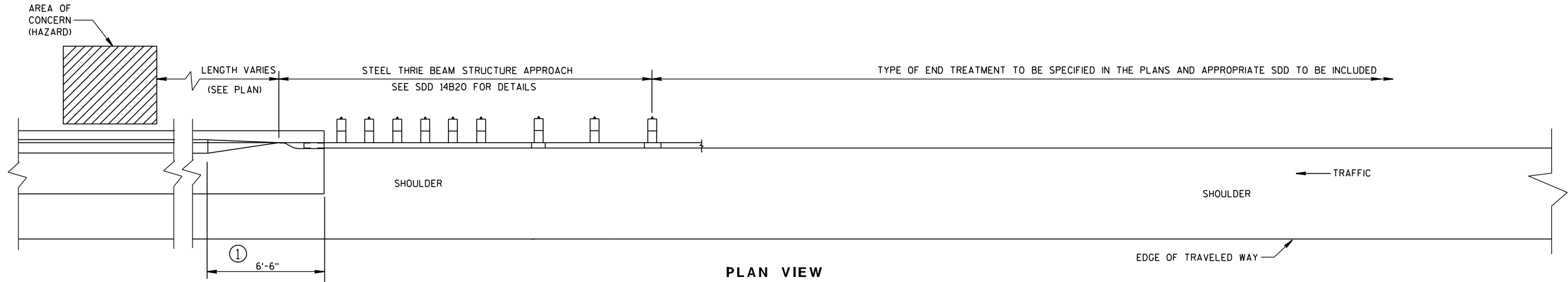
Design Notes:

After August 2011, new installations of concrete barrier are to use single slope barrier. This SDD may be used to retro-fit existing NJ concrete barrier. See [FDM 11-45-2](#) for more information.

See SDD 14b22, sheet "b" for End Treatments.

Contact Person:

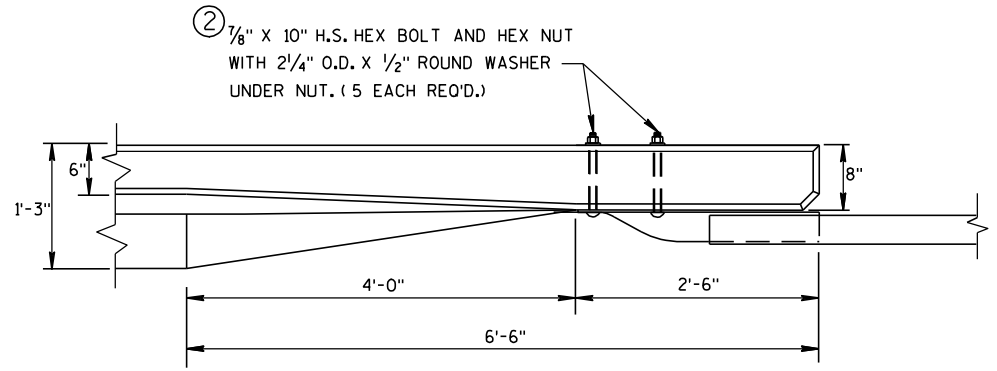
Erik Emerson (608) 266-2842



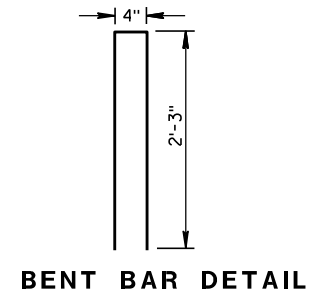
PLAN VIEW
TRANSITION TO STEEL PLATE BEAM GUARD
AND END TERMINAL

GENERAL NOTES

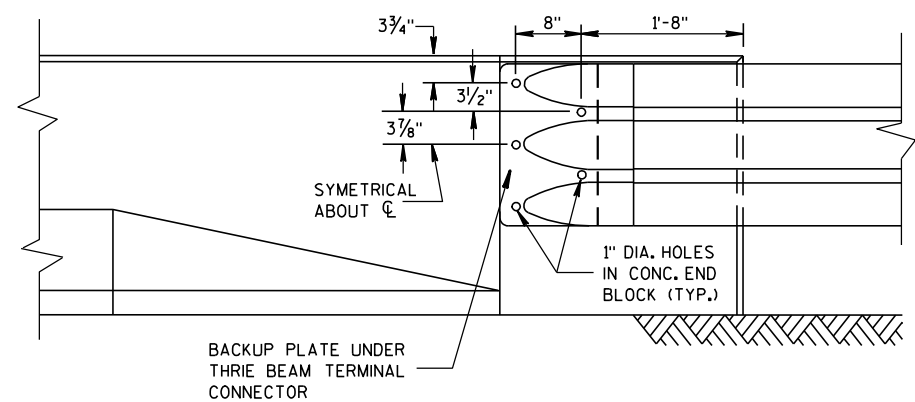
- ① A SPECIAL END IS REQUIRED ON THE CONCRETE BARRIER TO TRANSITION TO A CONNECTION WITH THE STEEL THRIE BEAM STRUCTURE APPROACH. SEE THE DETAILS ON THIS SHEET.
 - ② HIGH STRENGTH BOLTS SHALL MEET REQUIREMENTS OF ASTM A325.
 - ③ REINFORCEMENT REQUIRED AT EXPANSION JOINTS AND WHERE CONCRETE BARRIER IS TERMINATED.
 - ④ PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE BOLT HOLES IN THE THRIE BEAM TERMINAL CONNECTOR.
- DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



PLAN VIEW

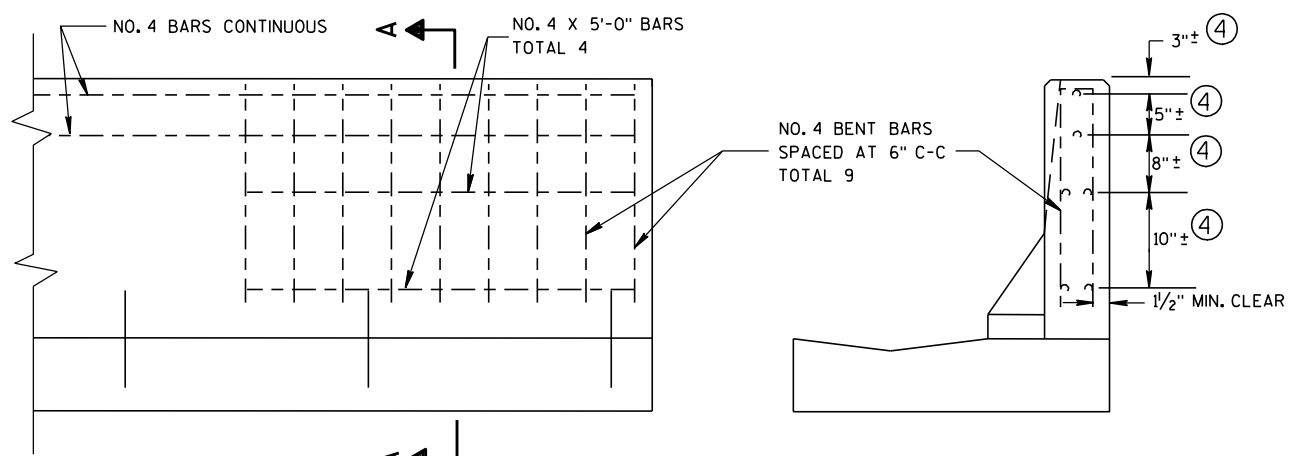


BENT BAR DETAIL



FRONT VIEW

CONCRETE BARRIER TRANSITION TO THRIE BEAM



FRONT VIEW

SECTION A-A

③ REINFORCEMENT AT BARRIER END

CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4/12/10 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

6

6

S.D.D. 14 B 22-5b

S.D.D. 14 B 22-5b

Concrete Barrier, Single Faced (with Anchorage)

References:

FDM 11-45-1

AASHTO Roadside Design Guide

Bid items associated with this drawing:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S	Removing Concrete Barrier, Item 204.9090.S.....	LF
614.0150	Anchor Assemblies for Steel Plate Beam Guard.....	EACH
614.0200	Steel Thrie Beam Structure Approach.....	LF
614.0305	Steel Plate Beam Guard Class A.....	LF
614.0370	Steel Plate Beam Guard Energy Absorbing Terminal.....	EACH

See SDD14b22, sheet "a" for other items

Standardized Special Provisions associated with this drawing:

STSP NUMBER	TITLE
204-025	Removing (Concrete Barrier) Item 204.9090.S(LF)

STSP204-025 is to be used on projects that require thrie beam to be added to existing concrete barrier or concrete sloped end sections are being removed.

Other SDDs associated with this drawing:

SDDs 14b20 and 14b22 sheet "a" are required when this drawing is called for in the plans.

End Treatment	SDDs Required
Down turned end	14b15, 14b18
Class A Beam Guard*	14b15, 14b18
Energy Absorbing Terminal	14b24

* Class A beam guard will require either a down turned end or Energy Absorbing Terminal.

Design Notes:

After August 2011, new installations of concrete barrier are to use single slope barrier. This SDD may be used to retro-fit existing NJ concrete barrier. See FDM 11-45-2 for more information.

Concrete barrier should be terminated with a Steel Thrie Beam Structure Approach, a crash cushion, or impact attenuator. Crash cushions and impact attenuators will require construction details and cross sections.

Remove all concrete sloped end sections on high-speed facilities. Consider removal of concrete sloped end sections on all other facilities. Remove W-beam connections to concrete barriers and other fixed objects and replace with this detail. Contact Design Standards and Method Section to retrofit transition section to existing barrier.

Avoid short transitions sections of Class A Beam Guard between runs of Concrete Single-Face Barrier.

A Down Turned End is not the preferred end treatment (See FDM 11-45-1). Replace Down Turned Ends with Energy Absorbing Terminals on high-speed facilities. Consider replacement of Down Turned Ends on all other facilities.

Contact Person:

Erik Emerson (608) 266 – 2842