

HIGH STRENGTH 3/4" DIA. HEX HEAD BOLT AND NUTS SHALL BE USED TO CONNECT GUARDRAIL TO BRIDGE RAILINGS WITH ROUND WASHERS ON FRONT AND SQUARE WASHERS ON BACK. (SEE CHART BELOW FOR LENGTHS AND NUMBER REQUIRED.) WASHER DETAILS ARE SHOWN ON SHEET 6 OF 7.

SECTIONS AT BRIDGE RAILINGS

GUARDRAIL POST SECTIONS FOR GUARDRAIL ANCHORAGE, BRIDGE

NOTE: POST AND BLOCK SECTIONS FOR THE 2 TUBE, 4 TUBE, AND AESTHETIC PARAPET TUBE BRIDGE RAILINGS SHALL BE THE SAME AS THAT SHOWN ON POST 6. POST SPACING SHALL BE AS SHOWN IN ELEVATION VIEWS.

BRIDGE RAILING	BOLT LENGTH	MINIMUM THREAD LENGTH	NUMBER REQUIRED
TYPE 4	12'-2"	4"	5
TYPE 5	11'-2"	4"	4
2 TUBE	WALL THICKNESS + 2"	2"	5
4 TUBE	WALL THICKNESS + 2"	2"	5
AESTHETIC PARAPET	WALL THICKNESS + 2"	2"	5
** FILLER WALL	WALL THICKNESS + 2"	2"	5

SHORTER BOLT LENGTHS MAY BE USED PROVIDED THE BOLT EXTENDS 1/2" BEYOND THE NUT WHEN TIGHTENED.

** THE USE OF 1/2" DIA. ADHESIVE ANCHORED BOLTS EMBEDDED 8" TO ATTACH GUARDRAIL TO FILLER WALLS WILL BE ALLOWED, INSTEAD OF BOLTING THROUGH THE FILLER WALL, IN THE FOLLOWING LOCATIONS:

- AT OR NEAR THE JOINT LINE WHEN A FILLER WALL IS A DIFFERENT THICKNESS THAN THE FILLER WALL EXTENSION.
- IN EXISTING FILLER WALLS THICKER THAN 1'-6".
- WHEN CONDITIONS PROHIBIT THE USE OF BOLTS.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR
GUARDRAIL ANCHORAGE, BRIDGE, DETAILS

F.H.S.A. APPROVAL: 8-9-2017 PLAN DATE: R-67-G SHEET 5 OF 7

THRIE BEAM EXPANSION SECTION

THRIE BEAM TERMINAL CONNECTOR

SPECIAL END SHOE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR
GUARDRAIL ANCHORAGE, BRIDGE, DETAILS

F.H.S.A. APPROVAL: 8-9-2017 PLAN DATE: R-67-G SHEET 6 OF 7

AS-LET PLAN REVISIONS				MDOT		DATE		CS:		DRAWING SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION	DATE	CS:	DRAWING	SHEET

EXISTING

FOR INFORMATION ONLY

DO NOT WORK FROM THIS SHEET. THE INFORMATION SHOWN HERE IS FOR REFERENCE ONLY. NO PAY ITEMS ARE SHOWN.

PLAN	BY	CHECKED BY	APPROVED:	CITY OF DETROIT CITY ENGINEERING DIVISION - D.P.W. BUREAUS OF STREETS AND HIGHWAYS FOR	WEST PARKWAY CULVERT OVER ASHCROFT - SHERWOOD DRAIN	SHEET 24 OF 39 SHEETS
GRADE						CONTRACT NO. PW-6987
ESTIMATE						ASSIGNMENT NO.
DESCRIPTION	DR	CHK	APP	DATE	01/24/2018	
REVISIONS						

ROAD - DETAILS