

The following are guidelines for what is/may be needed for the various guardrail applications.

YMC 08/2019

TYPE 31 GUARDRAIL						
	DESCRIPTION	PAY ITEM	STANDARD PLANS	STANDARD PLATES	DESIGN DETAILS	COMMENT
AGT	SINGLE SLOPE BARRIER	2554.503 TRAFFIC BARRIER DESIGN TRANS TYPE 31 by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.693 APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 VERTICAL END POST 5-297.694 APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31	8350 THRIE BEAM ANCHORAGE PLATE 8352 THRIE BEAM WEDGE PLATE FOR SINGLE SLOPE BARRIER 8356 W-BEAM TO THRIE-BEAM TRANSITION GUARDRAIL 8357 THRIE-BEAM GUARDRAIL 8360 GUARDRAIL POST LENGTH MARKING 8361 GUARDRAIL STEEL POST 8369 GUARDRAIL BLOCKOUT		
DESIGN SPECIAL (upstream end)	J SHAPE SAFETY RAIL	2554.503 TRAFFIC BARRIER DESIGN SPECIAL by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.618 W-BEAM TRANSITION TO CONCRETE J-SHAPE SAFETY RAIL WITH APPROACH CURB (STEEL POST)	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8338 W-BEAM GUADRAIL & END ANCHORAGES 8360 GUARDRAIL POST LENGTH MARKING	TYPE31TRANSITION28 (25' paid as type 31 Guardrail and noted in the plan)	CHECK WITH THE BRIDGE OFFICE EARLY IN THE DESIGN PROCESS TO MAKE SURE EXISTING RAIL IS UP TO CURRENT STANDARD OR WILL THEY NEED TO SUPPLY A DETAIL FOR THE PLAN.
	F SHAPE SAFETY RAIL	2554.503 TRAFFIC BARRIER DESIGN SPECIAL by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.603 W-BEAM TRANSITION TO CONCRETE F-SHAPE SAFETY RAIL WITH APPROACH CURB (STEEL POST)	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8338 W-BEAM GUARDRAIL & END ANCHORAGES 8360 GUARDRAIL POST	TYPE31TRANSITION28 (25' paid as type 31 Guardrail and noted in the plan)	CHECK WITH THE BRIDGE OFFICE EARLY IN THE DESIGN PROCESS TO MAKE SURE EXISTING RAIL IS UP TO CURRENT STANDARD OR WILL THEY NEED TO SUPPLY A DETAIL FOR THE PLAN.
	FLAT FACE	2554.503 TRAFFIC BARRIER DESIGN SPECIAL by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.619 W-BEAM TRANSITION TO CONCRETE END POST WITH OR WITHOUT APPROACH CURB (STEEL POSTS) 5-297.684 W-BEAM TRANSITION TO PIER COLUMNS	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8338 W-BEAM GUARDRAIL & END ANCHORAGES 8360 GUARDRAIL POST LENGTH MARKING	TYPE31TRANSITION28 (25' paid as type 31 Guardrail and noted in the plan)	CHECK WITH THE BRIDGE OFFICE EARLY IN THE DESIGN PROCESS TO MAKE SURE EXISTING RAIL IS UP TO CURRENT STANDARD OR WILL THEY NEED TO SUPPLY A DETAIL FOR THE PLAN.
CONNECTION (downstream end)	SINGLE SLOPE	2554.503 TRAFFIC BARRIER DESIGN TRANS TYPE 31 by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.693 APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31 VERTICAL END POST 5-297.694 APPROACH GUARDRAIL TRANSITION (AGT) TYPE 31	8350 THRIE BEAM ANCHORAGE PLATE 8352 THRIE BEAM WEDGE PLATE FOR SINGLE SLOPE BARRIER 8356 W-BEAM TO THRIE-BEAM TRANSITION GUARDRAIL 8357 THRIE-BEAM GUARDRAIL 8360 GUARDRAIL POST LENGTH MARKING 8361 GUARDRAIL STEEL POST GUARDRAIL STEEL POST 8369 GUARDRAIL BLOCKOUT		CANNOT CONNECT 8318 TO SINGLE SLOPE SO MUST USE AGT CONNECTION.
	ALL OTHER RAIL TYPES	2554.602 T-BARRIER BRIDGE CONN DES 8318 by EACH	See "AGT" and "DESIGN SPECIAL" section above for type of rail, include all listed.	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8360 GUARDRAIL POST LENGTH MARKING	TYPE31TRANSITION28 (25' paid as type 31 Guardrail and noted in the plan)	CANNOT CONNECT 8318 FOR TYPE 31 GUARDRAIL SO MUST USE B8338 CONNECTION.
END TREATMENTS	TANGENT TERMINALS	2554.502 END TREATMENT - TANGENT TERMINAL by EACH	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS	8360 GUARDRAIL POST LENGTH MARKING	SOFTSTOP MSKT	NOTE IN TAB OR SEQ... <b>SHALL BE EITHER SOFTSTOP OR MSKT.</b>
	FLARED TERMINALS	2554.502 END TREATMENT - FLARED TERMINALS by EACH	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS	8360 GUARDRAIL POST LENGTH MARKING	SRT6POST350BHSTEEL and/or SRT8POST350 FLEAT350STEEL_HINGED and/or FLEAT350STEEL_PLUGWELD and/or FLEAT350WOOD TYPE31TRANSITION28 (25' paid as type 31 Guardrail and noted in the plan)	NO FLARED ARE APPROVED FOR TYPE 31 SO NEED TO ATTACH TO A B8338 APPROVED TERMINAL AFTER HEIGHT TRANSITION.....NOTE IN THE TAB OR SEQ... <b>SHALL BE EITHER SRT-350 OR FLEAT-350.</b>
	ANCHORAGE ASSEMBLY	2554.502 ANCHORAGE ASSEMBLY - TYPE 31 by EACH	5-297.692 TRAFFIC BARRIER TYPE 31 END ANCHORAGE	8360 GUARDRAIL POST LENGTH MARKING		
OTHER	CENTER SECTION	2554.503 TRAFFIC BARRIER DESIGN TYPE 31 by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS (modify deflection table if needed) 5-297.690 TRAFFIC BARRIER TYPE 31 5-297.696 TRAFFIC BARRIER TYPE 31 LOW FILL/LONG SPAN OMITTED POST DETAILS (may or may not be needed)	8360 GUARDRAIL POST LENGTH MARKING 8361 GUARDRAIL STEEL POST 8369 GUARDRAIL BLOCKOUT		
	BULLNOSE	2554.503 TRAFFIC BARRIER DESIGN BULLNOSE by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.611 THRIE BEAM BULLNOSE GUARDRAIL FOR MEDIANS (Sheet 1 of 3, modify note 10 to reference Standard plate 8356) 5-297.614 W-BEAM TO THRIE BEAM TRANSITION (cross out top right detail and reference std. plate 8356)	8356 W-BEAM TO THRIE-BEAM TRANSITION GUARDRAIL 8357 THRIE-BEAM GUARDRAIL 8360 GUARDRAIL POST LENGTH MARKING	BULLNOSE_TO_TYPE31 (6'3" section between posts 10 & 11 paid for as part of bullnose pay item). Change note ① to read ... <b>SEE STANDARD PLATE 8356</b>	
	SHORT RADIUS	2554.503 TRAFFIC BARRIER DESIGN B8307 or 2554.503 TRAFFIC BARRIER DESIGN A8307 by LIN FT		8307 W-BEAM GUARDRAIL & END ANCHORAGES (WOOD POSTS) 8338 W-BEAM GUARDRAIL & END ANCHORAGES (STEEL POSTS) 8360 GUARDRAIL POST LENGTH MARKING	SHORTRG ETPLUS_7SYT_1HBA and/or ETPLUS_8HBA SKT350BHSTEEL and/or SKT350PWSTEEL	CAN ONLY USE WOOD POSTS. MAY USE B8307 ON CURVED EDGE INSTEAD OF B8338 OR TYPE 31 IF THE LENGTH ON THE SIDE ROAD IS LESS THAN 25'.

The following are guidelines for what is/may be needed for the various guardrail applications.

**B8338 GUARDRAIL**

YMC 08/2019

	DESCRIPTION	PAY ITEM	STANDARD PLANS	STANDARD PLATES	DESIGN DETAILS	COMMENT
DESIGN SPECIAL (upstream end)	SINGLE SLOPE BARRIER					CAN'T ATTACH B8338 TO THIS
	J SHAPE SAFETY RAIL	2554.503 TRAFFIC BARRIER DESIGN SPECIAL by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.618 W-BEAM TRANSITION TO CONCRETE J-SHAPE SAFETY RAIL WITH APPROACH CURB (STEEL POST)	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8338 W-BEAM GUADRAIL & END ANCHORAGES 8360 GUARDRAIL POST LENGTH MARKING		CHECK WITH THE BRIDGE OFFICE EARLY IN THE DESIGN PROCESS TO MAKE SURE EXISTING RAIL IS UP TO CURRENT STANDARD OR WILL THEY NEED TO SUPPLY A DETAIL FOR THE PLAN.
	F SHAPE SAFETY RAIL	2554.503 TRAFFIC BARRIER DESIGN SPECIAL by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.603 W-BEAM TRANSITION TO CONCRETE F-SHAPE SAFETY RAIL WITH APPROACH CURB (STEEL POST)	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8338 W-BEAM GUADRAIL & END ANCHORAGES 8360 GUARDRAIL POST LENGTH MARKING		CHECK WITH THE BRIDGE OFFICE EARLY IN THE DESIGN PROCESS TO MAKE SURE EXISTING RAIL IS UP TO CURRENT STANDARD OR WILL THEY NEED TO SUPPLY A DETAIL FOR THE PLAN.
	FLAT FACE	2554.503 TRAFFIC BARRIER DESIGN SPECIAL by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.619 W-BEAM TRANSITION TO CONCRETE END POST (WITH OR WITHOUT APPROACH CURB 5-297.684 W-BEAM TRANSITION TO PIER COLUMNS	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8338 W-BEAM GUADRAIL & END ANCHORAGES 8360 GUARDRAIL POST LENGTH MARKING		CHECK WITH THE BRIDGE OFFICE EARLY IN THE DESIGN PROCESS TO MAKE SURE EXISTING RAIL IS UP TO CURRENT STANDARD OR WILL THEY NEED TO SUPPLY A DETAIL FOR THE PLAN.
CONNECTION (downstream)	SINGLE SLOPE BARRIER					CANNOT CONNECT 8318 TO SINGLE SLOPE SO MUST USE AGT CONNECTION, SEE TYPE 31.
	ALL OTHER RAIL TYPES	2554.602 T-BARRIER BRIDGE CONN DES 8318 by EACH	See "DESIGN SPECIAL" section above for type of rail, include all listed there.	8318 GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S 8360 GUARDRAIL POST LENGTH MARKING		
END TREATMENTS	TANGENT TERMINALS	2554.502 END TREATMENT - TANGENT TERMINAL by EACH	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS	8360 GUARDRAIL POST LENGTH MARKING	ETPLUS_7SYT_1HBA and/or ETPLUS_8HBA SKT350BHSTEEL and/or SKT350PWSTEEL	NOTE IN TAB OR SEQ... <b>SHALL BE EITHER ET-PLUS OR SKT-350.</b>
	FLARED TERMINALS	2554.502 END TREATMENT - FLARED TERMINALS by EACH	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS	8360 GUARDRAIL POST LENGTH MARKING	SRT6POST350BHSTEEL and/or SRT8POST350 FLEAT350STEEL_HINGED and/or FLEAT350STEEL_PLUGWELD and/or FLEAT350WOOD	NOTE IN THE TAB OR SEQ.... <b>SHALL BE EITHER SRT-350 OR FLEAT-350.</b>
	ANCHORAGE ASSEMBLY	2554.502 ANCHORAGE ASSEMBLY - PLATE BEAM by EACH		8338 W-BEAM GUADRAIL & END ANCHORAGES 8360 GUARDRAIL POST LENGTH MARKING		
OTHER	CENTER SECTION	2554.503 TRAFFIC BARRIER DESIGN B8338 by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS	8338 W-BEAM GUADRAIL & END ANCHORAGES 8360 GUARDRAIL POST LENGTH MARKING		
	BULLNOSE	2554.503 TRAFFIC BARRIER DESIGN BULLNOSE by LIN FT	5-297.601 GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS 5-297.611 THRIE BEAM BULLNOSE GUARDRAIL FOR MEDIANS (Sheet 1 of 3, modify note 10 to reference Standard plate 8356) 5-297.614 W-BEAM TO THRIE BEAM TRANSITION	8356 W-BEAM TO THRIE-BEAM TRANSITION GUARDRAIL 8357 THRIE-BEAM GUARDRAIL 8360 GUARDRAIL POST LENGTH MARKING		
	SHORT RADIUS	2554.503 TRAFFIC BARRIER DESIGN B8307 or 2554.503 TRAFFIC BARRIER DESIGN A8307 by LIN FT		8307 W-BEAM GUARDRAIL & END ANCHORAGES (WOOD POSTS) 8360 GUARDRAIL POST LENGTH MARKING	SHORTRG ETPLUS_7SYT_1HBA and/or ETPLUS_8HBA SKT350BHSTEEL and/or SKT350PWSTEEL	CAN ONLY USE WOOD POSTS. MAY USE B8307 ON CURVED EDGE INSTEAD OF B8338 OR TYPE 31 IF THE LENGTH ON THE SIDE ROAD IS LESS THAN 25'.

The following are guidelines for what is/may be needed for the various guardrail applications.

YMC 05/2019

CABLE GUARDRAIL						
	DESCRIPTION	PAY ITEM	STANDARD PLANS	STANDARD PLATES	DESIGN DETAILS	COMMENT
3-CABLE	ANCHORAGE ASSEMBLY	2554.502 ANCHORAGE ASSEMBLY - CABLE by EACH		8333 3-CABLE GUARDRAIL ANCHOR 8339 3-CABLE (STEEL POSTS) TO W BEAM (WOOD POSTS) GUARDRAIL TRANSITION 8340 3-CABLE (STEEL POSTS) TO W BEAM (STEEL POSTS) GUARDRAIL TRANSITION		
	CENTER SECTION (STEEL POSTS)	2554.503 TRAFFIC BARRIER DESIGN 8331 by LIN FT		8331 3-CABLE GUARDRAIL with steel posts		
	CENTER SECTION (WOOD POSTS)	2554.503 TRAFFIC BARRIER DESIGN 8330 by LIN FT		8330 3-CABLE GUARDRAIL with wood posts		
HIGH TENSION CABLE	ANCHORAGE ASSEMBLY	2554.502 ANCHORAGE ASSEMBLY - TENSION CABLE by EACH			HTCB_ANCHOR	
	CENTER SECTION	2554.603 TENSION CABLE GUARDRAIL by LIN FT	5-297.688 HIGH TENSION CABLE BARRIER (HTCB)	8342 HIGH-TENSION CABLE BARRIER LINE POST FOUNDATION (CONCRETE DESIGN) or 8343 HIGH-TENSION CABLE BARRIER LINE POST FOUNDATION (STEEL DESIGN)		MAKE SURE THE HTCB WELD IS SHOWN PROPERLY IN THE PLAN. SEE DESIGN SCENE CHAPTER 14, PAGE 6 FOR MORE INFORMATION.