

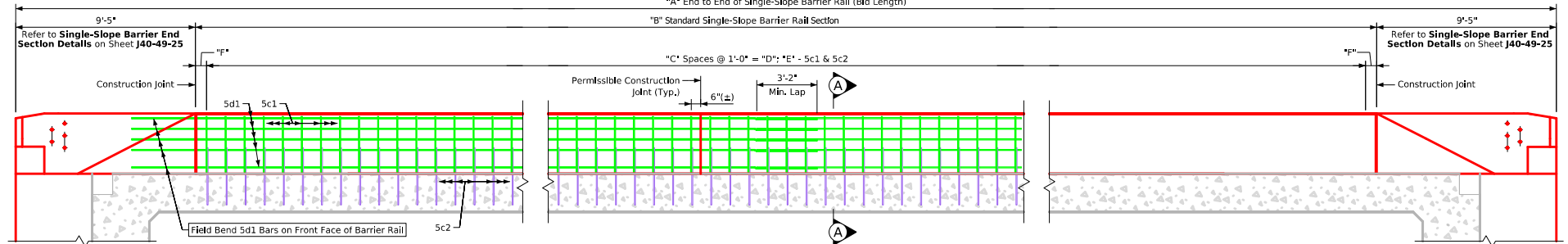
Table of Single-Slope Barrier Rail Dimensions and Numbers

Bridge Length		70'-0				80'-0				90'-0				100'-0				110'-0				120'-0				130'-0				140'-0				150'-0			
Skew (Degrees)		0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45
Dimension or Number	A (ft.-in.)	81'-0	81'-1½	81'-5½	82'-3	91'-0	89'-1½	91'-5½	92'-3	101'-0	101'-1½	81'-5½	102'-3	111'-0	111'-1½	111'-5½	112'-3	121'-0	121'-1½	121'-5½	82'-3	131'-0	131'-1½	131'-5½	132'-3	141'-0	141'-1½	141'-5½	142'-3	151'-0	151'-1½	151'-5½	152'-3	161'-0	161'-1½	161'-5½	162'-3
	B (ft.-in.)	62'-2	62'-3½	62'-7½	63'-5	72'-2	72'-3½	72'-7½	73'-5	82'-2	82'-3½	82'-7½	83'-5	92'-2	92'-3½	92'-7½	93'-5	102'-2	102'-3½	102'-7½	103'-5	112'-2	112'-3½	112'-7½	113'-5	122'-2	122'-3½	122'-7½	123'-5	132'-2	132'-3½	132'-7½	133'-5	142'-2	142'-3½	142'-7½	143'-5
	C	61	61	62	62	71	71	72	72	81	81	82	82	91	91	92	92	101	101	102	102	111	111	112	112	121	121	122	122	131	131	132	132	141	141	142	142
	D (ft.-in.)	61'-0	61'-0	62'-0	62'-0	71'-0	71'-0	72'-0	72'-0	81'-0	81'-0	82'-0	82'-0	91'-0	91'-0	92'-0	92'-0	101'-0	101'-0	102'-0	102'-0	111'-0	111'-0	112'-0	112'-0	121'-0	121'-0	122'-0	122'-0	131'-0	131'-0	132'-0	132'-0	141'-0	141'-0	142'-0	142'-0
	E	62	62	63	63	72	72	73	73	82	82	83	83	92	92	93	93	102	102	103	103	112	112	113	113	122	122	123	123	132	132	133	133	142	142	143	143
	F (ft.-in.)	7	7½	3¾	8½	7	7½	3¾	8½	7	7 5/8	3 3/4	8½	7	7½	3¾	8½	7	7½	3¾	8½	7	7½	3¾	8½	7	7½	3¾	8½	7	7½	3¾	8½	7	7½	3¾	8½

A End to End of Single-Slope Barrier Rail (Bid Length)

"B" Standard Single-Slope Barrier Rail Section

C Spaces @ 1'-0" = *D* *E* - 5c1 & 5c2



Elevation of Single-Sloped Barrier Rail

Single-slope Barrier Rail Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.

The permissible construction joints are to be placed between vertical bars at a minimum spacing of 20 feet. Construction joint contact surfaces are to be coated with an approved bond breaker.

Cost of the joint sealer and bond breaker shall be considered incidental to other construction.

The concrete single-sloped barrier rail is to be bid on a lineal foot basis. The number of lineal feet of barrier rail installed will be paid for at the contract price per lineal foot based on plan quantities. Price bid for **Concrete Barrier Rail** shall be full compensation for furnishing all material, excluding reinforcing steel, and all of the equipment and labor required to erect the rail in accordance with these plans and current specifications.

If conduit is required in this plan the rigid steel conduit, junction boxes and fittings including labor and any additional work to do the installation is considered incidental to the cost of the railing.

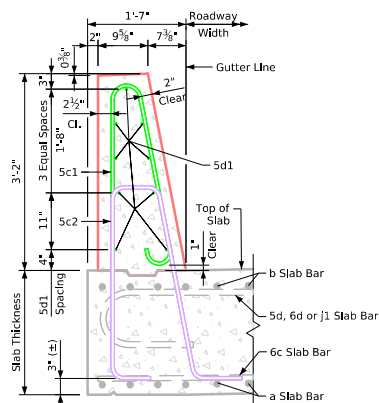
The joint sealer shall be light gray nonsag latex caulking sealer marketed for outdoor use. No testing or certification is required.

Top of the barrier rail is to be parallel to the theoretical centerline grade.

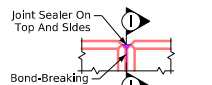
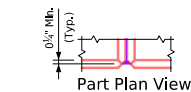
Cross sectional area of the standard section of the barrier rail = 3.5 square feet.

All Single-sloped barrier rail reinforcing steel is to be either epoxy coated or stainless steel as shown or noted. The stainless steel reinforcing steel shall be deformed bar Grade 60 meeting the requirements of **Materials I.M.452**.

Concrete Single-sloped barrier rails placed using the slipform method will require the use of a Class BR concrete in accordance with **Article 2513.03, A, 2, of the Standard Specification**. Cast-in-place barrier rails shall use **Class C mix**. Class D concrete is not permitted for concrete single-sloped barrier rails (cast-in-place or slipformed method).

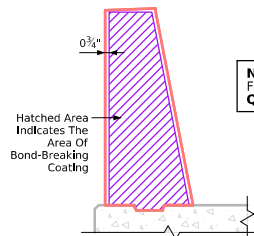


Part Section A-A




Part Elevation View

Barrier Rail Joint Details



Section I-I

Note:
For Rail Single-Slope Barrier -
Quantities on Sheet J40-48-25.

Latest Revision Date	 Approved by Bridge Engineer	IOWA DOT	
		Standard Design-40'-0" Roadway, 3 Span Bridge	
		Continuous Concrete Slab Bridge	
		July, 2025	
Rail Single-Slope Barrier – Details		J40-47-25	