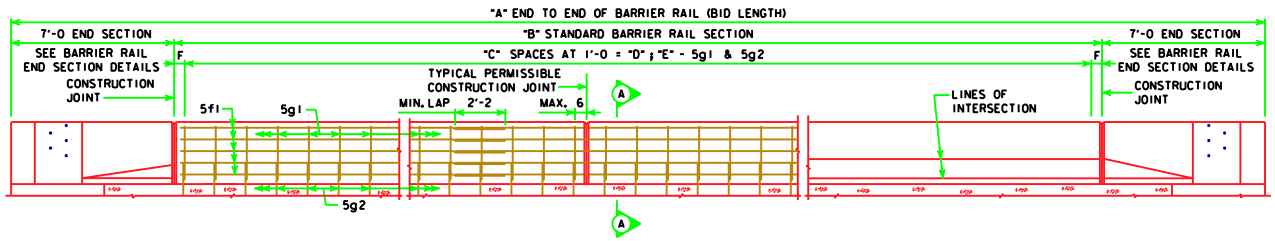
TABLE OF BARRIER RAIL DIMENSIONS AND NUMBERS

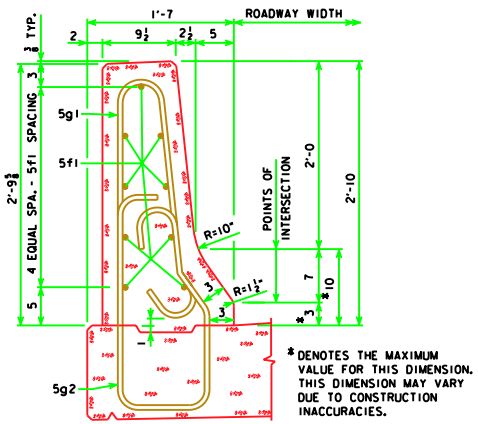
BRIDGE LENGTH		70'-0				80'-0				90'-0			
SKEW		0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°
DIMENSION OR NUMBER	A (FT.-IN.)	81'-0	81'-1¼	81'-5½	82'-3	91'-0	91'-1¼	91'-5½	92'-3	101'-0	101'-1¼	101'-5½	102'-3
	B (FT.-IN.)	67'-0	67'-1¼	67'-5½	68'-3	77'-0	77'-1¼	77'-5½	78'-3	87'-0	87'-1¼	87'-5½	88'-3
	C	66	66	66	67	76	76	76	77	86	86	86	87
	D (FT.-IN.)	66'-0	66'-0	66'-0	67'-0	76'-0	76'-0	76'-0	77'-0	86'-0	86'-0	86'-0	87'-0
	E	67	67	67	68	77	77	77	78	87	87	87	88
	F (IN.)	6	6⅜	8¾	7½	6	6⅜	8¾	7½	6	6⅜	8¾	7½

BRIDGE LENGTH		100'-0				110'-0				120'-0			
SKEW		0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°
DIMENSION OR NUMBER	A (FT.-IN.)	111'-0	111'-1¼	111'-5½	112'-3	121'-0	121'-1¼	121'-5½	122'-3	131'-0	131'-1¼	131'-5½	132'-3
	B (FT.-IN.)	97'-0	97'-1¼	97'-5½	98'-3	107'-0	107'-1¼	107'-5½	108'-3	117'-0	117'-1¼	117'-5½	118'-3
	C	96	96	96	97	106	106	106	107	116	116	116	117
	D (FT.-IN.)	96'-0	96'-0	96'-0	97'-0	106'-0	106'-0	106'-0	107'-0	116'-0	116'-0	116'-0	117'-0
	E	97	97	97	98	107	107	107	108	117	117	117	118
	F (IN.)	6	6⅜	8¾	7½	6	6⅜	8¾	7½	6	6⅜	8¾	7½

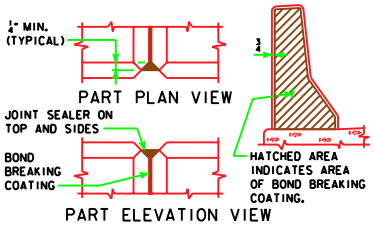
BRIDGE LENGTH		130'-0				140'-0				150'-0			
SKEW		0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°
DIMENSION OR NUMBER	A (FT.-IN.)	141'-0	141'-1¼	141'-5½	142'-3	151'-0	151'-1¼	151'-5½	152'-3	161'-0	161'-1¼	161'-5½	162'-3
	B (FT.-IN.)	127'-0	127'-1¼	127'-5½	128'-3	137'-0	137'-1¼	137'-5½	138'-3	147'-0	147'-1¼	147'-5½	148'-3
	C	126	126	126	127	136	136	136	137	146	146	146	147
	D (FT.-IN.)	126'-0	126'-0	126'-0	127'-0	136'-0	136'-0	136'-0	137'-0	146'-0	146'-0	146'-0	147'-0
	E	127	127	127	128	137	137	137	138	147	147	147	148
	F (IN.)	6	6⅜	8¾	7½	6	6⅜	8¾	7½	6	6⅜	8¾	7½



ELEVATION OF BARRIER RAIL



PART SECTION A-A



BARRIER RAIL JOINT DETAILS

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 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 RAILING" 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.

ALL BARRIER RAIL REINFORCING STEEL IS TO BE INCLUDED WITH THE SUPERSTRUCTURE REINFORCING STEEL.

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 ℄ GRADE.

CROSS SECTIONAL AREA OF THE STANDARD SECTION OF THE BARRIER RAIL = 2.84 SQUARE FEET.

IF PLANS SPECIFY THAT THE REINFORCING STEEL IN THE SLAB BE EPOXY COATED, ALL BARRIER RAIL REINFORCING SHALL ALSO BE EPOXY COATED. OTHERWISE THE BARRIER RAIL REINFORCING SHALL NOT BE EPOXY COATED.

CONCRETE BARRIER RAILS PLACED USING THE SLIPFORM METHOD WILL REQUIRE THE USE OF A CLASS BR CONCRETE IN ACCORDANCE WITH ARTICLE 2513.03B OF THE STANDARD SPECIFICATIONS. CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED FOR CONCRETE BARRIER RAILS (CAST-IN-PLACE OR SLIPFORMED METHOD).

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE SLAB BRIDGES

NOVEMBER, 2006

BARRIER RAIL DETAILS

J30-40-06