

[illegible][illegible]

TABLE OF OPEN RAIL DIMENSIONS AND NUMBERS																									
ℰ-ℰ ABUT. BRG		201'-4				213'-10				226'-4				243'-0				ℰ-ℰ ABUT. BRG							
SKEW		0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	SKEW							
DIMENSION OR NUMBER	L (FT., IN.)	228'-4	228'-4	228'-4	228'-4	248'-4	240'-10	240'-10	240'-10	253'-4	253'-4	253'-4	253'-4	270'-0	270'-0	270'-0	270'-0	L (FT., IN.)							
	S (FT., IN.)	204'-4	204'-5	204'-9	205'-6	216'-10	216'-11	217'-3	218'-0	229'-4	229'-5	229'-9	230'-6	246'-0	246'-1	246'-5	247'-2	S (FT., IN.)							
	B	26	26	26	26	27	27	27	27	29	29	29	29	31	31	31	31	B							
	C (FT., IN.)	7'-8	7'-8	7'-8	7'-9	7'-10	7'-10	7'-11	7'-11	7'-9	7'-9	7'-9	7'-9	7'-9	7'-9	7'-9	7'-10	C (FT., IN.)							
	D (FT., IN.)	200'-4	200'-5	200'-9	201'-6	212'-10	212'-11	213'-3	214'-0	225'-4	225'-5	225'-9	226'-6	242'-0	242'-1	242'-5	243'-2	D (FT., IN.)							
	E	25	25	25	25	26	26	26	26	28	28	28	28	30	30	30	30	E							
F (FT., IN.)	5'-0	4'-11	4'-9	4'-5	5'-0	4'-11	4'-9	4'-4	5'-0	4'-11	4'-9	4'-4	5'-0	4'-11	4'-9	4'-4	F (FT., IN.)								

Ĉ-Ĉ ABUT. BRG		201°-4				213°-10				226°-4				243°-0				Ĉ-Ĉ ABUT. BRG	
SKEW		0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	0°	15°	30°	45°	SKEW	
DIMENSIONS OR NUMBER	L (FT., IN.)	228°-4	228°-4	228°-4	228°-4	240°-10	240°-10	240°-10	240°-10	253°-4	253°-4	253°-4	253°-4	270°-0	270°-0	270°-0	270°-0	L (FT., IN.)	
	S (FT., IN.)	204°-4	204°-5	204°-5	205°-6	216°-10	216°-11	217°-3	218°-0	229°-4	229°-5	229°-9	230°-6	246°-0	246°-1	246°-5	247°-2	S (FT., IN.)	
	B	26	26	26	26	27	27	27	27	29	29	29	29	31	31	31	31	B	
	C (FT., IN.)	7°-8	7°-8	7°-8	7°-9	7°-10	7°-10	7°-10	7°-11	7°-9	7°-9	7°-9	7°-9	7°-9	7°-9	7°-9	7°-10	C (FT., IN.)	
	D (FT., IN.)	200°-4	200°-5	200°-9	201°-6	212°-10	212°-11	213°-3	214°-0	225°-4	225°-5	225°-9	226°-6	242°-0	242°-1	242°-5	243°-2	D (FT., IN.)	
	E	25	25	25	25	26	26	26	26	28	28	28	28	30	30	30	30	E	
DIMENSIONS OR NUMBER	F (FT., IN.)	5°-0	4°-11	4°-9	4°-4	5°-0	4°-11	4°-9	4°-4	5°-0	4°-11	4°-9	4°-4	5°-0	4°-11	4°-9	4°-4	F (FT., IN.)	

CONSTRUCTION JOINT BETWEEN TOP OF WING AND RAIL IS ROUGHENED CONCRETE.

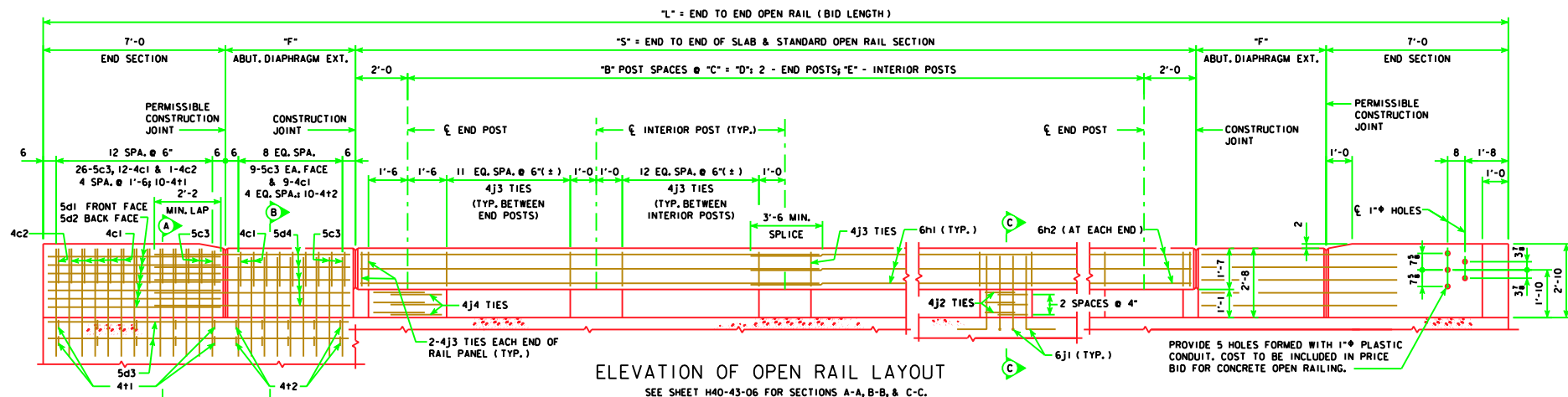
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE CONCRETE OPEN RAIL IS TO BE BID ON A LINEAL FOOT BASIS MEASURED FROM END TO END OF RAIL. THE NUMBER OF LINEAL FEET OF OPEN RAIL INSTALLED WILL BE PAID FOR AT THE CONTRACT PRICE PER LINEAL FOOT. PRICE BID FOR "CONCRETE OPEN RAILING, TL-4" SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, EXCLUDING REINFORCING STEEL, AND ALL OF THE EQUIPMENT AND LABOR REQUIRED TO CONSTRUCT THE RAIL IN ACCORDANCE WITH THESE PLANS AND CURRENT SPECIFICATIONS.

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

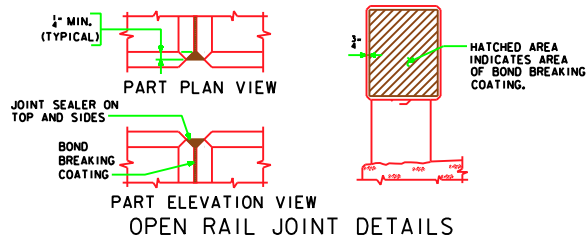
THE CAST-IN-PLACE OPEN RAIL SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED.

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.



ELEVATION OF OPEN RAIL LAYOUT

SEE SHEET H40-43-06 FOR SECTIONS A-A, B-B, & C-C.



LATEST REVISION DATE

Monica L. McQuill
APPROVED BY GEIANCE ENGINEER



Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGES

HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE

OPEN RAIL, TL-4 DETAILS
SHEET 1 OF 2

H40-42-06