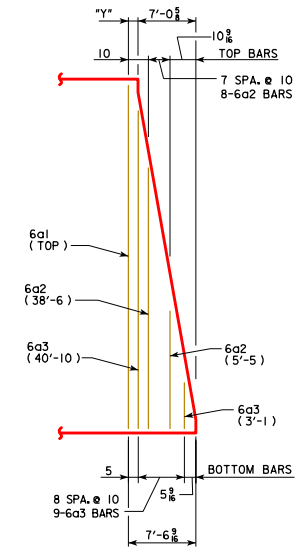
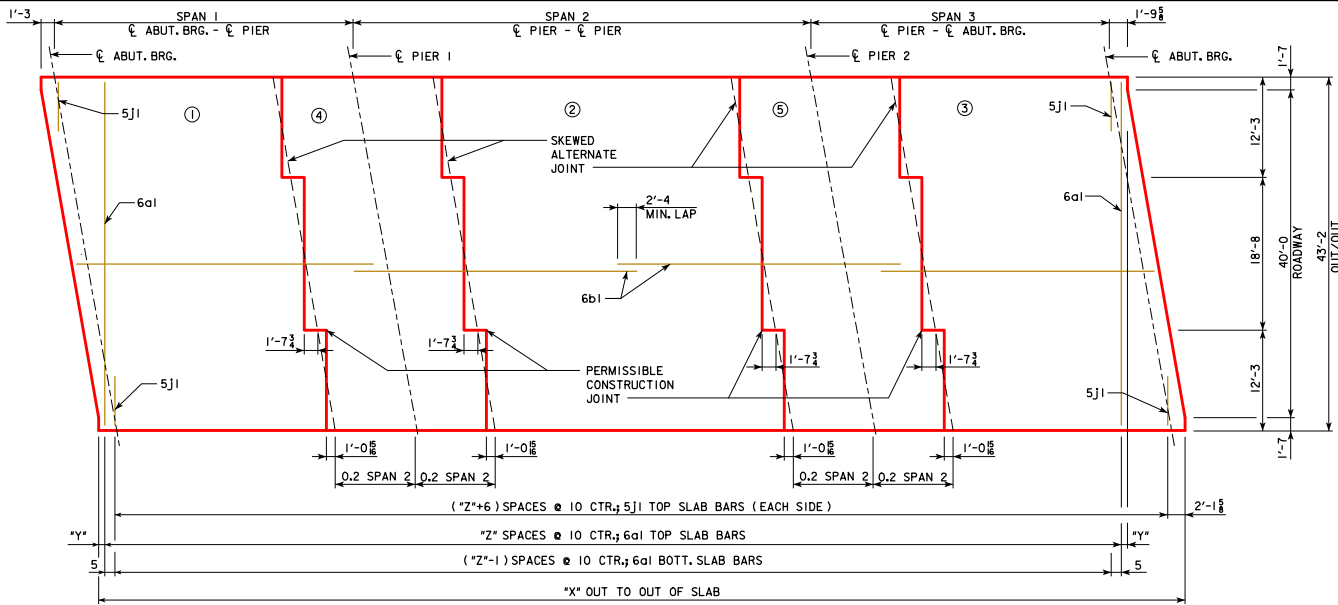


REVISED 07-2015 - CHANGED NOTE 1. CONCRETE PLACEMENT NOTE TO ACCOUNT FOR THE POSSIBLE ADDITION OF A RETARDING ADMIXTURE TO THE CONCRETE.
REVISED 10-2016 - UPDATED ESTIMATED QUANTITY STRUCTURAL STEEL WEIGHT TO INCLUDE SHEAR STUDS AND DIAPHRAGMS FOR ALL BRIDGE LENGTHS.



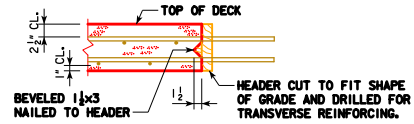
END OF SLAB REINFORCING
(TYPICAL EACH END OF DECK)

REINFORCEMENT DIMENSIONS CL-CL ABUTMENT BEARINGS	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
X (FT.-IN.)	163'-0 3/8"	183'-0 3/8"	203'-0 3/8"	223'-0 3/8"	243'-0 3/8"	263'-0 3/8"	283'-0 3/8"	303'-0 3/8"	323'-0 3/8"	343'-0 3/8"
Y (IN.)	5 5/8"	5 5/8"	5 5/8"	5 5/8"	5 5/8"	5 5/8"	5 5/8"	5 5/8"	5 5/8"	5 5/8"
Z (SPACES)	186	210	234	258	282	306	330	354	378	402

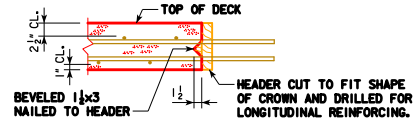
**CONCRETE PLACEMENT DIAGRAM
SHOWING SLAB REINFORCING**
(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)

CONCRETE PLACEMENT QTY. (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
SLAB, AND ABUT DIAPHRAGM, SECTION 1 & 3	CY 114.4	124.4	136.7	148.5	158.5	170.3	180.3	190.3	200.4	213.1
SLAB, SECTION 2	CY 42.1	47.4	52.7	58.0	63.2	68.7	74.0	79.2	84.5	89.8
SLAB, SECTION 4 & 5	CY 56.1	63.2	70.2	77.3	84.3	91.6	98.6	105.7	112.7	119.8
ABUTMENT WINGS	CY 7.2	7.2	7.2	7.6	7.6	7.6	7.6	7.6	7.6	13.9
ABUTMENT FOOTINGS	CY 35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	43.3
TOTAL	CY 255.3	277.7	302.3	326.9	349.1	373.7	396.0	418.3	440.7	479.9

ESTIMATED QTY. (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"	340'-0"
NO. OF STEEL H-PILES FOR TWO ABUTMENTS (4HP 10 X 57) AND DESIGN BEARING REQUIRED PER PILE	NO.	16	16	16	18	18	18	20	20	24
STRUCTURAL CONCRETE, (BRIDGE)	CY 255.3	277.7	302.3	326.9	349.1	373.7	396.0	418.3	440.7	479.9
REINFORCING STEEL EPOXY COATED	LB 73,973	81,196	88,839	96,125	103,648	110,996	118,789	126,020	133,520	143,791
BARRIER RAILS	LF 354.1	394.1	434.1	474.1	514.1	554.1	594.1	634.1	674.1	734.0
STRUCTURAL STEEL	LB 118,368	155,475	189,926	233,537	293,675	334,667	388,449	469,777	521,206	573,866



**LONGITUDINAL SLAB
CONSTRUCTION JOINT**



**TRANSVERSE SLAB
CONSTRUCTION JOINT**

BRIDGE LENGTH	SPAN LENGTHS		
	SPAN 1	SPAN 2	SPAN 3
160'-0"	48'-0"	64'-0"	48'-0"
180'-0"	54'-0"	72'-0"	54'-0"
200'-0"	60'-0"	80'-0"	60'-0"
220'-0"	66'-0"	88'-0"	66'-0"
240'-0"	72'-0"	96'-0"	72'-0"
260'-0"	78'-0"	104'-0"	78'-0"
280'-0"	84'-0"	112'-0"	84'-0"
300'-0"	90'-0"	120'-0"	90'-0"
320'-0"	96'-0"	128'-0"	96'-0"
340'-0"	102'-0"	136'-0"	102'-0"

NOTES:

1. CONCRETE DECK SHALL BE PLACED IN SECTIONS AND SEQUENCES INDICATED. ALTERNATE PROCEDURES FOR PLACING DECK CONCRETE MAY BE SUBMITTED FOR APPROVAL TOGETHER WITH A STATEMENT OF THE PROPOSED METHOD AND EVIDENCE THAT THE CONTRACTOR POSSESSES THE NECESSARY EQUIPMENT AND FACILITIES TO ACCOMPLISH THE REQUIRED RESULTS. FOR APPROVED ALTERNATE PROCEDURES THE ENGINEER SHALL DETERMINE IF A RETARDING ADMIXTURE IS REQUIRED TO MAINTAIN PLASTICITY OF THE CONCRETE DECK DURING PLACEMENT.
2. WEIGHT OF STRUCTURAL STEEL SHOWN ON THIS SHEET INCLUDES: BEAMS, DIAPHRAGMS, SPLICES, SHEAR STUDS, BEARINGS, WELDS AND BOLT HARDWARE.
3. QUANTITY OF STRUCTURAL STEEL SHOWN ON THIS SHEET IS TABULATED FOR BENT PLATE DIAPHRAGM OPTION. PAYMENT FOR STRUCTURAL STEEL WILL BE BASED ON THE QUANTITIES SHOWN. THE CONTRACTOR MAY CHOOSE TO PROVIDE ROLLED CHANNEL DIAPHRAGMS AT NO ADDITIONAL COST.
4. QUANTITY OF STRUCTURAL STEEL SHOWN ON THIS SHEET IS BASED ON THE USE OF 5" HIGH SHEAR STUDS. CONTRACTOR WILL BE PAID ON AMOUNT SHOWN, BUT IS REQUIRED TO ADJUST HEIGHT OF STUDS AS REQUIRED PER "BEAM PLAN AND ELEVATION" SHEET.

10-2016
LATEST REVISION DATE
Thomas E. McQuinn
APPROVED BY BRIDGE ENGINEER

IOWADOT Highway Division
STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES
ROLLED STEEL BEAM BRIDGES
JUNE, 2010

**SUPERSTRUCTURE
QUANTITIES 10° SKEW** **RS40-032-10**