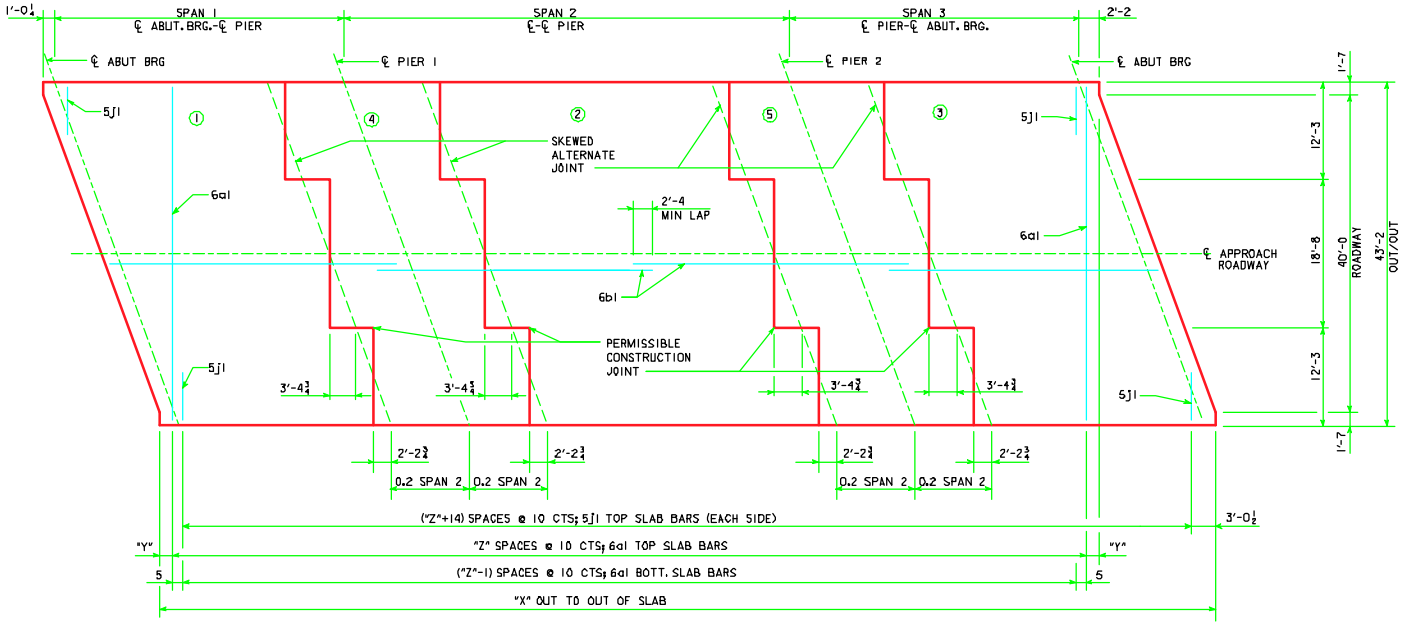
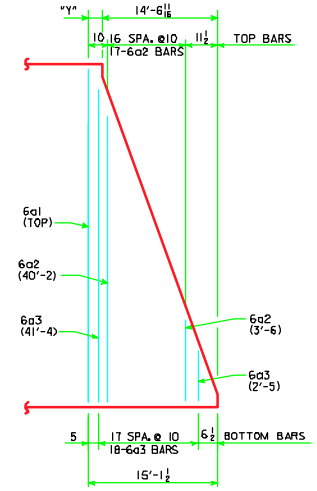
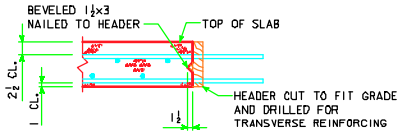




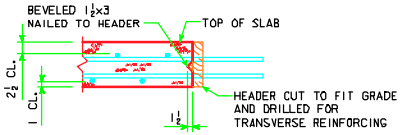
END OF SLAB REINFORCING
(TYPICAL EACH END OF DECK)

REINFORCEMENT DIMENSIONS ℄-℄ ABUTMENT BEARINGS	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
X (FT-IN)	163'-2 1/4	183'-2 1/4	203'-2 1/4	223'-2 1/4	243'-2 1/4	263'-2 1/4	283'-2 1/4	303'-2 1/4
Y (IN)	6 5/16	6 5/16	6 5/16	6 5/16	6 5/16	6 5/16	6 5/16	6 5/16
Z (SPACES)	177	201	225	249	273	297	321	345

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



LONGITUDINAL SLAB CONSTRUCTION JOINT



TRANSVERSE SLAB CONSTRUCTION JOINT

NOTES:

1. ROADWAY SLAB SHALL BE PLACED IN SECTIONS AND SEQUENCES INDICATED. ALTERNATE PROCEDURES FOR PLACING SLAB 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.
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.

CONCRETE PLACEMENT QUANTITIES (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)		160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
SLAB, AND ABUT DIAPHRAGM, SECTION 1 & 3	CY	116.0	125.9	138.3	148.2	160.1	172.3	182.0	192.0
SLAB, SECTION 2	CY	42.1	47.4	52.7	57.9	63.2	68.5	74.0	79.2
SLAB, SECTION 4 & 5	CY	56.1	63.2	70.2	77.3	84.3	91.3	98.6	105.7
ABUTMENT WINGS	CY	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
ABUTMENT FOOTINGS	CY	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2
TOTAL	CY	258.3	280.6	305.3	327.5	351.7	376.2	398.7	421.0

ESTIMATED QUANTITIES (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)		160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
NO. OF STEEL H-PILES FOR TWO ABUTMENTS (HP 10 X 42)	NO.	14	14	16	16	16	18	18	18
STRUCTURAL CONCRETE, (BRIDGE)	CY	258.3	280.6	305.3	327.5	351.7	376.2	398.7	421.0
REINFORCING STEEL EPOXY COATED	LB	69,816	77,099	84,697	92,007	99,546	106,656	114,171	121,401
REINFORCING STEEL	LB	3624	3638	3698	3767	3767	3798	3798	3798
BARRIER RAIL (2)	LF	354.4	394.4	434.4	474.4	514.4	554.4	594.4	634.4
STRUCTURAL STEEL	LB	113,019	146,500	178,171	212,515	256,338	307,922	358,653	411,568

SPAN LENGTHS			
BRIDGE LENGTH	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

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

FEBRUARY, 2004

SUPERSTRUCTURE QUANTITIES 20° SKEW

RS40-SA3-04