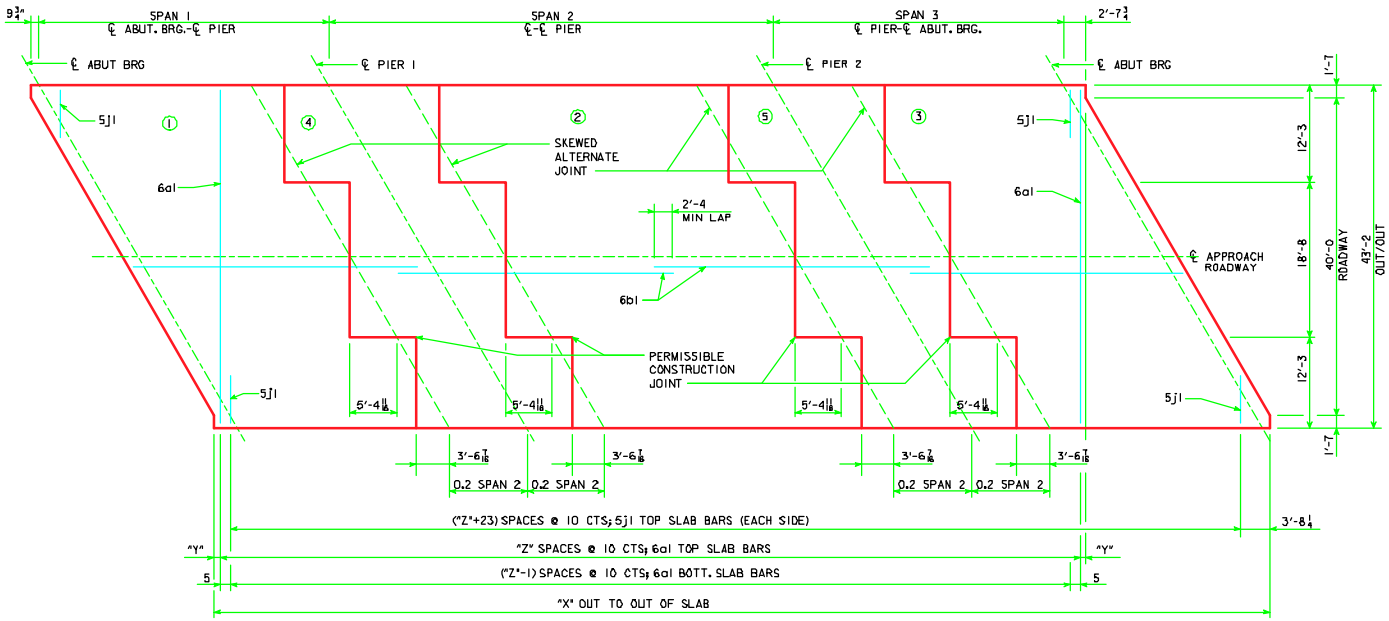
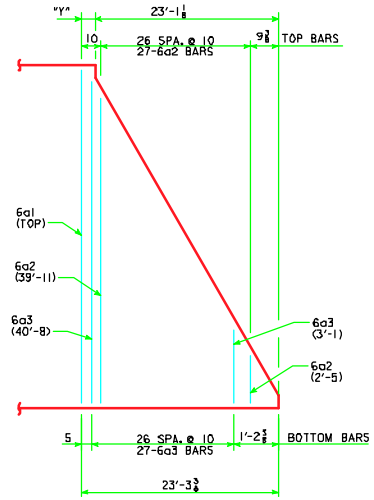
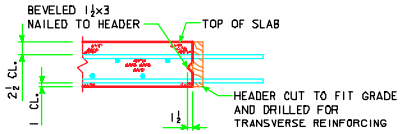




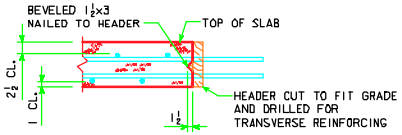
END OF SLAB REINFORCING
(TYPICAL EACH END OF DECK)

REINFORCEMENT DIMENSIONS ℄-℄ ABUTMENT BEARINGS	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
X (FT-IN)	163'-5½	183'-5½	203'-5½	223'-5½	243'-5½	263'-5½	283'-5½	303'-5½
Y (IN)	2¼	2¼	2¼	2¼	2¼	2¼	2¼	2¼
Z (SPACES)	168	192	216	240	264	288	312	336

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	119.3	129.3	141.8	151.7	163.9	176.3	186.0	196.0
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	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4
TOTAL	CY	264.8	287.2	312.0	334.2	358.7	383.4	405.9	428.2

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	16	16	16	16	18	18	18
STRUCTURAL CONCRETE, (BRIDGE)	CY	264.8	287.2	312.0	334.2	358.7	383.4	405.9	428.2
REINFORCING STEEL EPOXY COATED	LB	70,040	77,259	84,861	92,171	99,110	106,905	114,432	121,663
REINFORCING STEEL	LB	3752	3784	3826	3895	3895	3926	3926	3926
BARRIER RAIL (2)	LF	354.9	394.9	434.9	474.9	514.9	554.9	594.9	634.9
STRUCTURAL STEEL	LB	113,359	146,839	178,511	212,855	256,702	308,286	359,017	411,932

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 30° SKEW

RS40-SA4-04