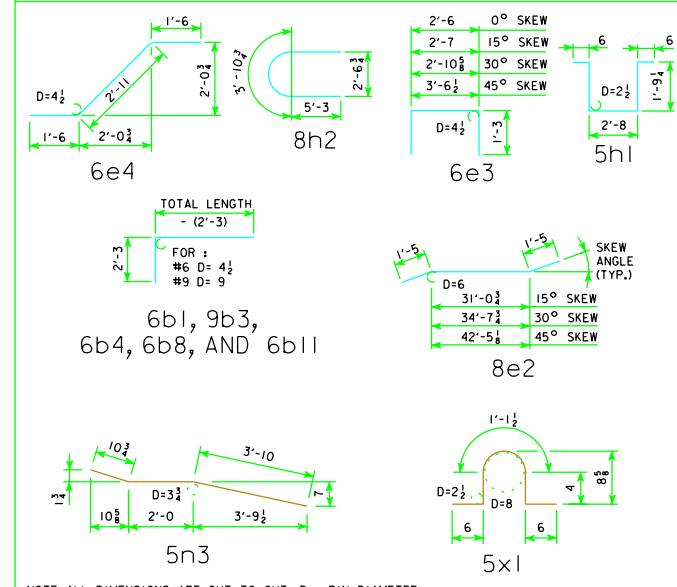


BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 90' BRIDGE

LOCATION	SKEW	SHAPE	0°		15°		30°		45°		
			BAR NO.	LENGTH WEIGHT	BAR NO.	LENGTH WEIGHT	BAR NO.	LENGTH WEIGHT	BAR NO.	LENGTH WEIGHT	
SLAB LONGITUDINAL BOTTOM			8a1	39 19'-0 1979	39 19'-0 1979	39 19'-0 1979	39 19'-0 1979	39 19'-0 1979	39 19'-0 1979	39 19'-0 1979	
SLAB LONGITUDINAL BOTTOM			8a2	39 28'-3 2942	39 28'-3 2942	39 28'-3 2942	39 28'-3 2942	39 28'-3 2942	39 28'-3 2942	39 28'-3 2942	
SLAB LONGITUDINAL BOTTOM			8a3	39 26'-6 2760	39 26'-6 2760	39 26'-6 2760	39 26'-6 2760	39 26'-6 2760	39 26'-6 2760	39 26'-6 2760	
SLAB LONGITUDINAL BOTTOM			8a4	40 24'-6 2617	40 24'-6 2617	40 24'-6 2617	40 24'-6 2617	40 24'-6 2617	40 24'-6 2617	40 24'-6 2617	
SLAB LONGITUDINAL BOTTOM			8a5	20 27'-0 1442	20 27'-0 1442	20 27'-0 1442	20 27'-0 1442	20 27'-0 1442	20 27'-0 1442	20 27'-0 1442	
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a6	8 32'-3 689	8 32'-3 689	8 32'-3 689	8 32'-3 689	8 32'-3 689	8 32'-3 689	8 32'-3 689	
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a7	4 31'-8 339	4 31'-8 339	4 31'-8 339	4 31'-8 339	4 31'-8 339	4 31'-8 339	4 31'-8 339	
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a8	8 21'-9 465	8 21'-9 465	8 21'-9 465	8 21'-9 465	8 21'-9 465	8 21'-9 465	8 21'-9 465	
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	4 19'-0 203	4 19'-0 203	4 19'-0 203	4 19'-0 203	4 19'-0 203	4 19'-0 203	4 19'-0 203	
SLAB LONGITUDINAL TOP			6b1	39 7'-9 454	39 7'-9 454	39 7'-9 454	39 7'-9 454	39 7'-9 454	39 7'-9 454	39 7'-9 454	
SLAB LONGITUDINAL TOP			9b2	39 21'-3 2818	39 21'-3 2818	39 21'-3 2818	39 21'-3 2818	39 21'-3 2818	39 21'-3 2818	39 21'-3 2818	
SLAB LONGITUDINAL TOP			9b3	39 34'-3 4542	39 34'-3 4542	39 34'-3 4542	39 34'-3 4542	39 34'-3 4542	39 34'-3 4542	39 34'-3 4542	
SLAB LONGITUDINAL TOP			6b4	40 12'-9 767	40 12'-9 767	40 12'-9 767	40 12'-9 767	40 12'-9 767	40 12'-9 767	40 12'-9 767	
SLAB LONGITUDINAL TOP			9b5	40 26'-0 3536	40 26'-0 3536	40 26'-0 3536	40 26'-0 3536	40 26'-0 3536	40 26'-0 3536	40 26'-0 3536	
SLAB LONGITUDINAL TOP			6b6	20 17'-6 526	20 17'-6 526	20 17'-6 526	20 17'-6 526	20 17'-6 526	20 17'-6 526	20 17'-6 526	
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8 26'-2 315	8 26'-2 315	8 26'-2 315	8 26'-2 315	8 26'-2 315	8 26'-2 315	8 26'-2 315	
SLAB LONGITUDINAL TOP, AT RAIL			9b9	8 18'-0 490	8 18'-0 490	8 18'-0 490	8 18'-0 490	8 18'-0 490	8 18'-0 490	8 18'-0 490	
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4 18'-4 111	4 18'-4 111	4 18'-4 111	4 18'-4 111	4 18'-4 111	4 18'-4 111	4 18'-4 111	
SLAB LONGITUDINAL TOP, AT RAIL			6b11	8 28'-8 345	8 28'-8 345	8 28'-8 345	8 28'-8 345	8 28'-8 345	8 28'-8 345	8 28'-8 345	
SLAB LONGITUDINAL TOP, AT RAIL			10b12	8 11'-9 405	8 11'-9 405	8 11'-9 405	8 11'-9 405	8 11'-9 405	8 11'-9 405	8 11'-9 405	
SLAB TRANSVERSE, BOTTOM			6c1	87 32'-10 4291	87 34'-0 4443	74 32'-10 3650	60 32'-10 2959				
SLAB TRANSVERSE ENDS, BOTTOM			6c2	- - -	- - -	30 VARIES 797	56 VARIES 1486				
SLAB TRANSVERSE, TOP			5d1	87 32'-10 2980	87 34'-0 3086	74 32'-10 2535	60 32'-10 2055				
SLAB TRANSVERSE ENDS, TOP			5d2	- - -	- - -	30 VARIES 553	56 VARIES 1032				
SLAB, TRANSVERSE AT ABUTMENT			8e1	18 32'-10 1578	- - -	- - -	- - -				
SLAB, TRANSVERSE AT ABUTMENT			8e2	- - -	18 33'-11 1631	18 37'-6 1803	18 45'-4 2179				
SLAB, HAIRPINS, AT ABUTMENT			6e3	72 5'-0 541	72 5'-1 550	72 5'-5 586	72 6'-1 658				
SLAB, DIAGONALS, AT ABUTMENT			6e4	72 5'-11 640	72 5'-11 640	72 5'-11 640	72 5'-11 640				
PIER CAP HOOPS			5h1	56 7'-3 424	56 7'-3 424	56 7'-3 424	70 7'-3 530				
PIER CAP ENDS			8h2	4 14'-5 154	4 14'-5 154	4 14'-5 154	4 14'-5 154				
PIER CAP, BOTTOM LONGITUDINAL			8h3	8 29'-10 638	8 30'-11 661	8 34'-5 736	8 42'-2 901				
PIER CAP, TOP LONGITUDINAL			8h4	4 32'-10 351	4 34'-0 364	4 37'-11 405	4 46'-6 497				
TOP OF SLAB, TRANSVERSE, AT RAIL			5j1	172 8'-6 1525	172 8'-6 1525	172 8'-6 1525	170 8'-6 1508				
WING, VERTICAL			5m1	40 4'-5 185	40 4'-5 185	40 4'-5 185	40 4'-5 185				
WING, HORIZONTAL BACK FACE			5n1	24 6'-8 167	24 6'-8 167	24 6'-8 167	24 6'-8 167				
WING, HORIZONTAL TRAFFIC FACE			5n3	24 6'-9 169	24 6'-9 169	24 6'-9 169	24 6'-9 169				
PAVING BLOCK LIFTING HOOPS			5x1	10 2'-10 30	10 2'-10 30	10 2'-10 30	10 2'-10 30				
SUB TOTAL - LBS.					41,418		41,774		42,104		42,895
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06							5950		5950		5950
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					6330		6330		6330		6330
TOTAL - LBS.					47,368		47,724		48,054		48,845
WITH MONOLITHIC PIER CAP							47,748		48,434		49,225
TOTAL - LBS.					45,801		46,121		46,335		46,763
WITH NON-MONOLITHIC PIER CAP							46,181		46,715		47,143
SAME AS ABOVE EXCEPT ALL "H" BARS DELETED							46,501		46,715		47,143

BENT BAR DETAILS



ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 90' BRIDGE

ITEM	SKEW	WITH MONOLITHIC PIER CAP				WITH NON-MONOLITHIC PIER CAP			
		0°	15°	30°	45°	0°	15°	30°	45°
WITH *STRUCTURAL CONCRETE (BRIDGE)	C.Y.	176.5	177.3	180.1	186.1	171.9	172.5	174.9	179.7
BARRIER RAIL REINFORCING STEEL	LBS.	47,368	47,724	48,054	48,845	45,801	46,121	46,335	46,763
CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	202.0	202.2	202.9	204.5	202.0	202.2	202.9	204.5
WITH *STRUCTURAL CONCRETE (BRIDGE)	C.Y.	176.3	177.1	180.0	185.9	171.7	172.4	174.7	179.5
OPEN RAIL REINFORCING STEEL	LBS.	47,748	48,104	48,434	49,225	46,181	46,501	46,715	47,143

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH AND 2 TEMPORARY PAVING BLOCKS; EXCLUDES RAIL CONCRETE.

07-09 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
		SUPERSTRUCTURE DETAILS 90'-0 BRIDGE
NON-EPOXY COATED REINFORCING		

REVISED 07-09 - OPEN RAIL REINF. QTY'S. CHANGED WHICH CHANGED TOTAL REINF. QTY'S.