

REINFORCING BAR LIST			BRIDGE LENGTH																								BENT BAR DETAILS															
ONE SUPERSTRUCTURE AND TWO ABUTMENTS			46'-8				55'-0				67'-6				80'-0				90'-0				100'-0				110'-0															
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT													
601	SLAB TRANSVERSE, TOP & BOTTOM		95	26'-10	3829	117	26'-10	4716	151	26'-10	6086	185	26'-10	7457	211	26'-10	8505	237	26'-10	9552	265	26'-10	10,681																			
602	SLAB TRANSVERSE END, TOP		36	*	744	36	*	744	36	*	744	36	*	744	36	*	744	36	*	744	36	*	744																			
603	SLAB TRANSVERSE END, BOTTOM		38	**	785	38	**	785	38	**	785	38	**	785	38	**	785	38	**	785	38	**	785																			
5b1	SLAB LONGITUDINAL TOP & BOTTOM		134	25'-11	3623	134	30'-1	4205	134	36'-4	5079	201	29'-1	6098	201	32'-5	6796	201	35'-9	7495	201	39'-1	8194																			
5d2	ABUTMENT DIAPHRAM, LONGITUDINAL		18	7'-2	135	18	6'-11	130	18	6'-11	130	18	6'-11	130	18	7'-1	133	18	7'-1	133	18	7'-1	133																			
5d3	ABUTMENT DIAPHRAM, LONGITUDINAL		6	6'-3	40	6	6'-0	38	6	6'-0	38	6	6'-0	38	6	5'-10	37	6	5'-10	37	6	5'-10	37																			
5d5	ABUTMENT DIAPHRAM, LONGITUDINAL - END		12	5'-0	63	12	5'-0	63	12	5'-0	63	12	5'-0	63	12	5'-0	63	12	5'-0	63	12	5'-0	63																			
5d6	ABUTMENT DIAPHRAM, LONGITUDINAL - B.F.		8	30'-6	255	8	30'-6	255	8	30'-6	255	8	30'-6	255	8	30'-6	255	8	30'-6	255	8	30'-6	255																			
5d7	PAVING NOTCH, LONGITUDINAL		4	26'-3	110	4	26'-3	110	4	26'-3	110	4	30'-11	129	4	30'-11	129	4	30'-11	129	4	30'-11	129																			
5d8	ABUTMENT DIAPH. WING EXT. LONGIT.		-	-	-	-	-	-	-	-	-	-	-	-	48	10'-6	526	48	10'-6	526	48	10'-6	526																			
8f1	ABUTMENT FOOTING LONGITUDINAL - B.F.		8	30'-8	656	8	30'-8	656	8	30'-8	656	8	30'-8	656	8	30'-8	656	8	30'-8	656	8	30'-8	656																			
8f2	ABUTMENT FOOTING LONGITUDINAL - F.F.		10	30'-8	819	10	30'-8	819	10	30'-8	819	10	30'-8	819	10	30'-8	819	10	30'-8	819	10	30'-8	819																			
8f3	ABUTMENT EXTENSION LONGITUDINAL		-	-	-	-	-	-	-	-	-	-	-	-	16	10'-2	435	16	10'-2	435	16	10'-2	435																			
8f4	ABUTMENT EXTENSION LONGITUDINAL		-	-	-	-	-	-	-	-	-	-	-	-	16	9'-6	406	16	9'-6	406	16	9'-6	406																			
8g1	ABUTMENT VERTICAL - B.F.		50	6'-7	879	50	6'-7	879	50	7'-2	957	46	7'-8	942	46	8'-5	1034	46	8'-5	1034	46	8'-5	1034																			
8g2	ABUTMENT VERTICAL - F.F.		42	5'-6	617	42	5'-6	617	42	6'-1	683	42	6'-7	739	42	7'-4	823	42	7'-4	823	42	7'-4	823																			
8g3	ABUTMENT DIAPHRAM VERTICAL - B.F.		38	15'-3	1548	38	15'-3	1548	38	15'-3	1548	38	15'-9	1598	38	15'-9	1598	38	15'-9	1598	38	15'-9	1598																			
8g4	ABUT. DIAPH. WING EXT. VERT.		-	-	-	-	-	-	-	-	-	-	-	-	40	5'-8	341	40	6'-5	386	40	6'-5	386																			
5j1	SLAB TRANSV. TOP AT RAIL		124	6'-3	809	146	6'-3	952	180	6'-3	1174	214	6'-3	1396	240	6'-3	1565	266	6'-3	1734	294	6'-3	1917																			
5h1	ABUT. WING HORIZONTAL		56	6'-8	390	56	6'-8	390	56	6'-8	390	56	6'-8	390	56	6'-8	390	56	6'-8	390	56	6'-8	390																			
5h2	ABUTMENT TO WING ANCHOR		56	4'-0	234	56	4'-0	234	56	4'-0	234	8	4'-0	34	8	4'-0	34	8	4'-0	34	8	4'-0	34																			
5k1	PAVING NOTCH, TRANSVERSE		40	4'-11	206	40	4'-11	206	40	4'-11	206	40	4'-11	206	40	4'-11	206	40	4'-11	206	40	4'-11	206																			
5k2	PAVING NOTCH, TRANSVERSE		40	3'-5	143	40	3'-5	143	40	3'-5	143	40	3'-5	143	40	3'-5	143	40	3'-5	143	40	3'-5	143																			
5p1	ABUTMENT HOOPS		96	10'-6	1052	100	10'-6	1096	96	10'-6	1052	96	10'-6	1052	84	10'-6	920	96	10'-6	1052	96	10'-6	1052																			
5p2	ABUTMENT EXT. HOOPS		-	-	-	-	-	-	-	-	-	-	-	-	24	10'-8	268	24	10'-8	268	24	10'-8	268																			
6p3	ABUT. BOTT. AT PILES		-	-	-	-	-	-	-	-	-	-	-	-	28	6'-8	281	32	6'-8	321	36	6'-8	361																			
5p4	ABUTMENT HOOPS AT ENDS		8	11'-6	96	8	11'-6	96	8	11'-6	96	8	11'-6	96	8	11'-6	96	8	11'-6	96	8	11'-6	96																			
5r1	PAVING BLOCK LIFTING HOOPS		8	2'-10	24	8	2'-10	24	8	2'-10	24	8	2'-10	24	8	2'-10	24	8	2'-10	24	8	2'-10	24																			
5s1	WING, VERTICAL		56	VARIES	263	56	VARIES	263	56	VARIES	263	56	VARIES	263	56	VARIES	263	56	VARIES	263	56	VARIES	263																			
4t1	UNDER BEAMS AT ABUTMENTS		8	4'-11	27	8	4'-11	27	8	4'-11	27	8	4'-11	27	8	5'-1	28	8	5'-1	28	8	5'-1	28																			
	PILE SPIRAL - NO. 2 BAR		10	38'-6	64	12	38'-6	77	14	38'-6	90	18	38'-6	116	20	38'-6	128	22	38'-6	141	22	38'-6	141																			
	SPIRAL SPACER 1/4" x 1/4" x 0.70		20	1'-10	26	24	1'-10	32	28	1'-10	37	36	1'-10	47	40	1'-10	52	44	1'-10	58	44	1'-10	58																			
	REINFORCING STEEL (LBS.)				17,437			19,105			21,689			26,504			28,568			30,674			32,685																			
	SEE BARRIER RAIL DETAILS (LBS.)				3870			4226			4784			5809			6245			6682			7160																			
	SEE OPEN RAIL DETAILS (LBS.)				4215			4734			5444			7095			7691			8240			8752																			
* VARIES FROM 2'-8 TO 24'-9 ** VARIES FROM 2'-0 TO 25'-5																																										

CONCRETE PLACEMENT QUANTS. (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)										ESTIMATED QUANTITIES (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)																															
		46'-8	55'-0	67'-6	80'-0	90'-0	100'-0	110'-0				46'-8	55'-0	67'-6	80'-0	90'-0	100'-0	110'-0				46'-8	55'-0	67'-6	80'-0	90'-0	100'-0	110'-0													
SLAB, AND ABUT. DIAPHRAM	WITH BARRIER RAIL	CU.YD.	58.9	64.6	76.9	94.5	107.9	115.2	122.4	NO. OF STEEL H-PILES FOR TWO ABUT. (HP10x42)	NO.	10	12	14	18	20	22	22				CU.YD.	92.2	97.9	110.2	135.6	149.0	156.3	163.5												
PAVING BLOCKS	WITH OPEN RAIL	CU.YD.	1.3	1.3	1.3	1.4	1.4	1.4	1.4	STRUCTURAL CONCRETE, (BRIDGE)	CU.YD.	93.8	99.7	112.4	138.2	152.0	159.6	167.1				L.F.	128.3	144.9	169.9	214.9	234.9	254.9	274.9												
ABUTMENT WINGS		CU.YD.	6.9	6.9	6.9	6.9	6.9	6.9	6.9	CONCRETE RAIL (BARRIER OR OPEN)	LBS.	21,307	23,331	26,473	32,313	34,813	37,356	39,845				LBS.	21,652	23,839	27,133	33,599	36,259	38,914	41,437												
ABUTMENT FOOTINGS		CU.YD.	25.1	25.1	25.1	32.8	32.8	32.8	32.8	REINFORCING STEEL	WITH BARRIER RAIL	LBS.	21,307	23,331	26,473	32,313	34,813	37,356	39,845				WITH OPEN RAIL	LBS.	21,652	23,839	27,133	33,599	36,259	38,914	41,437										
										STRUCTURAL STEEL	WITH BARRIER RAIL	LBS.	1221	1217	1261	1301	1380	1380				WITH OPEN RAIL	LBS.	937	933	933	933	956	956												

LATEST REVISION DATE :

APPROVED BY

Hansen & McQuinn

STANDARD DESIGN - 24' ROADWAY, SINGLE SPAN BRIDGE
PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGES
JANUARY, 2005
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DECK & ABUTMENT REINF.
30° SKEW

H24S1-20-05
HS20-44 LOADING

NOTE: ALL DIMENSIONS ARE OUT TO OUT. D= PIN DIAMETER

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