

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	NO.	LENGTH	WEIGHT		
60i	SLAB TRANSVERSE, TOP & BOTTOM		131	26'-10	5280	153	26'-10	6167	187	26'-10	7537	221	26'-10	8908	247	26'-10	9956	273	26'-10	11,003	301	26'-10	12,132											
50i	SLAB LONGITUDINAL TOP & BOTTOM		134	25'-9	3599	134	29'-10	4170	134	36'-1	5044	201	28'-11	6063	201	32'-3	6761	201	35'-7	7460	201	38'-11	8159											
5d2	ABUTMENT DIAPHRAM, LONGITUDINAL		18	6'-2	116	18	5'-11	112	18	5'-11	112	18	5'-11	112	18	6'-1	115	18	6'-1	115	18	6'-1	115											
5d3	ABUTMENT DIAPHRAM, LONGITUDINAL		6	5'-3	33	6	5'-0	32	6	5'-0	32	6	5'-0	32	6	4'-10	31	6	4'-10	31	6	4'-10	31											
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	26'-9	224	8	26'-9	224	8	26'-9	224	8	26'-9	224	8	26'-9	224	8	26'-9	224	8	26'-9	224											
5d7	PAVING NOTCH, LONGITUDINAL		4	22'-6	94	4	22'-6	94	4	22'-6	94	4	22'-6	94	4	26'-8	112	4	26'-8	112	4	26'-8	112											
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	26'-11	575	8	26'-11	575	8	26'-11	575	8	26'-11	575	8	26'-11	575	8	26'-11	575	8	26'-11	575											
8f2	ABUTMENT FOOTING LONGITUDINAL - F.F.		10	26'-11	719	10	26'-11	719	10	26'-11	719	10	26'-11	719	10	26'-11	719	10	26'-11	719	10	26'-11	719											
8f3	ABUTMENT EXTENSION LONGITUDINAL		-	-	-	-	-	-	-	-	-	-	-	-	16	10'-2	435	16	10'-2	435	16	10'-2	435											
8f4	ABUTMENT EXTENSION LONGITUDINAL		-	-	-	-	-	-	-	-	-	-	-	-	16	8'-8	371	16	8'-8	371	16	8'-8	371											
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											
6g4	ABUT. DIAPH. WING EXT. VERT.		-	-	-	-	-	-	-	-	-	-	-	-	40	5'-8	341	40	6'-5	386	40	6'-5	386											
5j1	SLAB TRANSV. TOP AT RAIL		130	6'-3	848	152	6'-3	991	186	6'-3	1213	220	6'-3	1435	246	6'-3	1604	272	6'-3	1774	300	6'-3	1956											
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		42	4'-11	216	42	4'-11	216	42	4'-11	216	42	4'-11	216	42	4'-11	216	42	4'-11	216	42	4'-11	216											
5k2	PAVING NOTCH, TRANSVERSE		42	3'-5	150	42	3'-5	150	42	3'-5	150	42	3'-5	150	42	3'-5	150	42	3'-5	150	42	3'-5	150											
5p1	ABUTMENT HOOPS		88	10'-6	964	88	10'-6	964	80	10'-6	877	80	10'-6	877	92	10'-6	1008	92	10'-6	1008	72	10'-6	789											
5p2	ABUT. 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	32	6'-8	321											
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	VARIABLE	263	56	VARIABLE	263	56	VARIABLE	263	56	VARIABLE	263	56	VARIABLE	263	56	VARIABLE	263	56	VARIABLE	263											
4t1	UNDER BEAMS AT ABUTMENTS		8	4'-8	25	8	4'-8	25	8	4'-8	25	8	4'-8	25	8	4'-8	25	8	4'-8	25	8	4'-8	25											
	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	20	38'-6	128	22	38'-6	141											
	SPIRAL SPACER L ₁ x L ₂ x L ₃ x 0.70		20	1'-10	26	24	1'-10	32	28	1'-10	37	36	1'-10	47	40	1'-10	52	40	1'-10	52	44	1'-10	58											
	REINFORCING STEEL (LBS.)				16,951			18,566			21,107			25,886			28,213			30,129			31,979											
	SEE BARRIER RAIL DETAILS (LBS.)				3870			4226			4784			5809			6245			6682			7160											
	SEE OPEN RAIL DETAILS (LBS.)				4215			4734			5444			7095			7691			8240			8752											

CONCRETE PLACEMENT QUANTITIES
(SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)

46'-8

55'-0

67'-6

80'-0

90'-0

100'-0

110'-0

SLAB, AND

ABUT. DIAPHRAM

PAVING BLOCKS

ABUTMENT WINGS

ABUTMENT FOOTINGS

WITH BARRIER RAIL

WITH OPEN RAIL

CU.YD.

CU.YD.

CU.YD.

CU.YD.

CU.YD.

55.1

60.8

72.5

89.7

102.4

109.7

116.9

56.7

62.6

74.7

92.3

105.3

113.0

120.5

1.2

1.2

1.2

1.2

1.2

1.2

1.2

6.9

6.9

6.9

6.9

6.9

6.9

6.9

21.7

21.7

21.7

29.5

29.5

29.5

29.5

ESTIMATED QUANTITIES
(SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)

46'-8

55'-0

67'-6

80'-0

90'-0

100'-0

110'-0

NO. OF STEEL H-PILES FOR TWO ABUTMENTS (HP10X42)

NO.

NO.

NO.

NO.

NO.

NO.

STRUCTURAL CONCRETE,
(BRIDGE)

CU.YD.

CU.YD.

CU.YD.

CU.YD.

CU.YD.

CU.YD.

CONCRETE RAIL (BARRIER OR OPEN)

L.F.

L.F.

L.F.

L.F.

L.F.

L.F.

REINFORCING STEEL

LBS.

LBS.

LBS.

LBS.

LBS.

LBS.

STRUCTURAL STEEL

LBS.

LBS.

LBS.

LBS.

LBS.

LBS.

10

12

14

18

20

20

22

84.9

90.6

102.3

127.3

140.0

147.3

154.5

86.5

92.4

104.5

129.9

142.9

150.6

158.1

127.3

144.0

169.0

214.0

234.0

254.0

274.0

20,821

22,792

25,891

31,695

34,458

36,811

39,139

21,166

23,300

26,551

32,981

35,904

38,369

40,731

1186

1180

1224

1264

1344

1344

1344

902

896

896

896

920

920

920

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

5d5

8f3 & 8f4

8g3

5k1

5k2

5p1 & 5p2

6p3

5r1

4t1

LATEST REVISION DATE :

APPROVED BY

STANDARD DESIGN - 24' ROADWAY, SINGLE SPAN BRIDGE

PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGES

JANUARY, 2005

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DECK & ABUTMENT REINF. 0° SKEW

H24SI-08-05