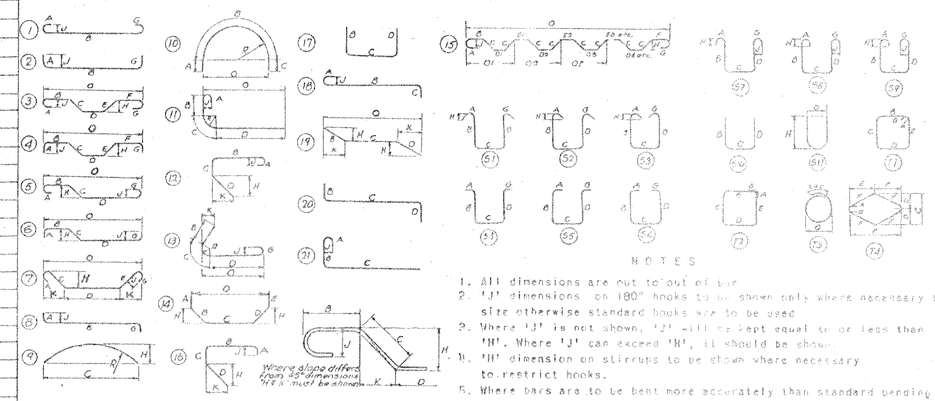
Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
				Pier No. 7													
1	*43	4	4-2	7P417	Str												
2	45	4	13-6	404													
3	15	4	16-6	403B													
4	15	4	30-0	403A													
5	40	4	35-0	406													
6	*15	6	16-7	602B													
7	14	6	30-0	602A													
8	18	8	15-0	815													
9	82	8	18-3	805B													
10	10	8	30-0	816A													
11	*19	10	13-6	1011													
12	8	10	19-3	1011A													
13	63	11	34-10	1109B	Str												
14	40	4	11-1	407	10	2-0	7-1	2-0								2-3	4-6
15	12	4	15-6	414	T1	0-5	4-2	3-2	4-2	3-2		0-5					
16	80	4	20-2	408	T1	0-5	5-2	4-6	5-2	4-6		0-5					
17	22	6	10-6	613	T1	0-7	1-6	3-2	1-6	3-2		0-7					
18	*23	6	15-10	612	T1	0-7	4-2	3-2	4-2	3-2		0-7					
19	*83	8	8-2	805A	1	1-1	7-1										
20	64	8	15-8	801	1	1-1	13-6					1-1					
21	10	8	22-9	816B	20		3-0	19-9									
22	*64	11	9-6	7P1109A	1	1-7	7-11										
23																	
24		Spiral			Core	Pitch	Turns	Spacers									
25	3	5	32-8	7PS510	3-6	0-3½	112	4									
26																	
27																	
28																	
29																	
30				Pier No. 8													
31	42	4	4-2	8P417	Str												
32	45	4	13-6	404													
33	15	4	16-6	403B													
34	15	4	30-0	403A													
35	40	4	35-0	406													
36	14	6	16-7	602B													
37	14	6	30-0	602A													
38	18	8	15-0	815													
39	82	8	18-9	805B													
40	10	8	30-0	816A													
41	18	10	13-6	1011													
42	8	10	19-3	1011A													
43	63	11	34-4	1109B	Str												
44	40	4	11-1	407	10	2-0	7-1	2-0								2-3	4-6
45	12	4	15-6	414	T1	0-5	4-2	3-2	4-2	3-2		0-5					
46	80	4	20-2	408	T1	0-5	5-2	4-6	5-2	4-6		0-5					
47	22	6	10-6	613	T1	0-7	1-6	3-2	1-6	3-2		0-7					
48	22	6	15-10	612	T1	0-7	4-2	3-2	4-2	3-2		0-7					
49	82	8	8-2	805A	1	1-1	7-1										
50	64	8	15-8	801	1	1-1	13-6					1-1					
51	10	8	22-9	816B	20		3-0	19-9									
52	63	11	9-6	8P1109A	1	1-7	7-11										
53																	
54		Spiral			Core	Pitch	Turns	Spacers									
55	3	5	32-1	8PS510	3-6	0-3½	110	4									
56																	
57																	
58																	
59				Pier No. 9													
60	*43	4	4-2	9P413	Str												
61	44	4	8-6	403													
62	*45	7	8-6	702													
63	*19	8	15-0	811													
64	10	8	30-0	812A													
65	*19	10	13-6	1007													
66	18	10	16-9	1001B													
67	18	10	16-9	1004B													
68	8	10	19-3	1007A													
69	18	10	30-0	1001A													
70	18	10	30-0	1004A													
71	63	11	36-0	1105B	Str												
72	12	4	15-6	410	T1	0-5	4-2	3-2	4-2	3-2		0-5					
73	22	6	10-6	609	T1	0-7	1-6	3-2	1-6	3-2		0-7					
74	*23	6	15-10	608	T1	0-7	4-2	3-2	4-2	3-2		0-7					
75	10	8	22-9	812B	20		3-0	19-9									
76	*64	11	10-1	9P1105A	1	1-7	8-6										
77																	
78		Spiral			Core	Pitch	Turns	Spacers									
79	3	5	33-10	9PS506	3-6	0-3½	116	4									
80																	
81																	

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
				Pier No. 10													
82	42	4	4-2	10P413	Str												
83	44	4	8-6	403													
84	44	7	8-6	702													
85	18	8	15-0	811													
86	10	8	30-0	812A													
87	18	10	13-6	1007													
88	18	10	16-9	1001B													
89	18	10	16-9	1004B													
90	8	10	19-3	1007A													
91	18	10	30-0	1004A													
92	18	10	30-0	1001A													
93	63	11	31-0	1105B	Str												
94	12	4	15-6	410	T1	0-5	4-2	3-2	4-2	3-2		0-5					
95	22	6	10-6	609	T1	0-7	1-6	3-2	1-6	3-2		0-7					
96	22	6	15-10	608	T1	0-7	4-2	3-2	4-2	3-2		0-7					
97	10	8	22-9	812B	20		3-0	19-9									
98	63	11	10-1	10P1105A	1	1-7	8-6										
99																	
100		Spiral			Core	Pitch	Turns	Spacers									
101	3	5	28-10½	10PS506	3-6	0-3½	99	4									
102																	
103																	
104				Superstructure - S.B.													
105				Pour S1 (Spans 1 & 6)													
106	*1	4	4-0	S1S406	Str.												
107	*561	5	29-10	S1S502	Str.												
108	888	5	35-0	S1S501	Str												
109	*81	6	30-3	S1S603	Str												
110	48	6	30-3	S1S605	Str												
111	296	4	5-4	S1S404	S3	0-5	1-4	1-10	1-4			0-5					
112																	
113				Pour S2 (Spans 2 & 5)													
114	420	5	29-3	S2S502	Str												
115	640	5	35-0	S2S501	Str												
116	60	6	29-10	S2S603	Str												
117	36	6	29-10	S2S605	Str												
118	216	4	5-4	S2S404	S3	0-5	1-4	1-10	1-4			0-5					
119																	
120				Pour S3 (Spans 3 & 4)													
121	*1	4	4-0	S3S406	Str												
122	*561	5	28-10	S3S502	Str												
123	844	5	35-0	S3S501	Str												
124	*81	6	29-5	S3S603	Str												
125	48	6	29-5	S3S605	Str												
126	284	4	5-4	S3S404	S3	0-5	1-4	1-10	1-4			0-5					
127																	
128				Pour S4 (Over Piers 1 & 9)													
129	420	5	30-2	S4S502	Str												
130	696	5	35-0	S4S501	Str												
131	60	6	30-5	S4S603	Str												
132	36	6	30-5	S4S605	Str												
133	232	4	5-4	S4S404	S3	0-5	1-4	1-10	1-4			0-5					
134																	
135				Pour S5 (Over Piers 3 & 7)													
136	*1	4	4-0	S5S406	Str												
137	*421	5	32-2	S5S502	Str												
138	744	5	35-0	S5S501	Str												
139	*61	6	32-5	S5S603	Str												
140	36	6	32-5	S5S605	Str												
141	248	4	5-4	S5S404	S3	0-5	1-4	1-10	1-4			0-5					
142																	
143				Pour S6 (Over Pier 5)													
144	280	5	27-0	S6S502	Str												
145	410	5	35-0	S6S501	Str												
146	40	6	27-4	S6S603	Str												
147	24	6	27-4	S6S605	Str												
148	138	4	5-4	S6S404	S3	0-5	1-4	1-10	1-4			0-5					
149																	
150																	
151				Superstructure - N.B.													
152				Pour N1 (Spans 1 & 6)													
153				Same as S1 except Mark N1----													
154																	
155				Pour N2 (Spans 2 & 5)													
156				Same as S2 except Mark N2----													
157																	
158				Pour N3 (Spans 3 & 4)													
159				Same as S3 except Mark N3----													
160																	
161																	
162																	

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163				(Superstructure - N.B. Cont.)													
164				Pour N4 (Over Piers 2 & 10)													
165				Same as S4 except Mark N4----													
166																	
167				Pour N5 (Over Piers 4 & 8)													
168				Same as S5 except Mark N5----													
169																	
170				Pour N6 (Over Piers 6)													
171				Same as S6 except Mark N6----													
172																	
173																	
174																	
175				Approach Slab No. 1													
176	*9	5	22-0	1AS504	Str												
177	35	5	29-5	1AS503	Str												
178	30	10	18-0	1AS1002	Str												
179	1	10	7-3	1AS1002A	Str												
180				thru	1 each, vary in 26 increments of 1-0												
181	1	10	33-3	1AS1002CC	Str												
182	*37	10	7-5	1AS1001	1	1-5	6-0										
183																	
184																	
185				Approach Slab No. 2 thru 4													
186				Same as No. 1 except Mark 2AS---, 3AS--, 4AS--- and													
187				no test bars.													
188																	
189																	
190																	

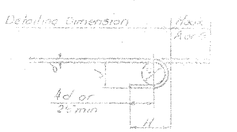
TYPICAL BAR BENDS



ENLARGED VIEW SHOWING BAR BENDING DETAILS

NOTES

1. All dimensions are out to out of bar.
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict size otherwise standard hooks are to be used.
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indic.
6. Figures in circles show types.
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present Number	Weight per ft.
¼"	2	.167
⅜"	3	.376
½"	4	.668
⅝"	5	1.043
¾"	6	1.502
⅞"	7	2.044
1"	8	2.670
1"	9	3.400
1⅛"	10	4.303
1⅜"	11	5.313
1⅝"	14.5	7.650
2"	18.5	13.600

GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M-174-60 or its latest revision.

(3) * Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

(4) (continued)

(5) See note (6), Br 123 of 124.

ESTIMATED QUANTITIES

LOCATION	PLAN (LBS)	FINAL (LBS)
Pier #7	36,440	
Pier #8	36,140	
Pier #9	32,820	
Pier #10	30,360	
Superstructure-S.B.	269,150	
Superstructure-N.B.	269,150	
Approach Slab #1	7140	
Approach Slab #2	7090	
Approach Slab #3	7090	
Approach Slab #4	7090	
Total this sheet	702,470	
Total Br. 122	56,660	
Total Br. 123	397,400	
Bridge Total	1,156,530	

Br. 124 of 128

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF Hartford

I 89 over White River, Vt. #14, & CVRR
Reinforcing for Piers No. 7 thru 10,
Superstructure & Approach Slabs

DRAWN BY WBT CHECKED BY AGC
PROJECT I NO. 89-1(6)
SHEET 32 OF 59 SHEET 74 OF 101

IR 089-1(13)
This sheet for information only
BR 11 N & S