ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
		BOX															
1																	
2																	
3	17	8	4'-0"	B801	STR▲												
4																	
5																	
6	257	7	16'-3"	B701	STR												
7	126	7	5'-6"	B702	STR												
8	1	7	4'-0"	B705	STR▲												
9																	
10	64	5	22'-3"	B501	STR												
11	64	5	20'-3"	B502	STR												
12	64	5	14'-9"	B503	STR												
13	64	5	16'-9"	B504	STR												
14	16	5	5'-9"	B507	STR												
15	8	5	3'-0"	B512	STR												
16	68	5	3'-6"	B511	STR												
17																	
18	252	7	6'-9"	B704	17		3'-9"	3'-0"									
19	252	7	6'-6"	B703	17		3'-6"	3'-0"									
20																	
21																	
22	24	5	3'-3"	B505	19		1'-3"	2'-0"					0'-7½"		1'-1"		3'-1"
23	32	5	7'-3"	B506	55	2'-0"	1'-6"	0'-9"	1'-0"			2'-0"					
24	12	5	3'-3"	B508	19		1'-3"	2'-0"					1'-1"		0'-7½"		2'-7½"
25	12	5	3'-3"	B509	19		1'-3"	2'-0"					0'-11½"		0'-9½"		2'-9½"
26	8	5	6'-0"	B510	17		3'-0"	3'-0"									
27																	
28																	
29																	
30		INLET	APRON														
31																	
32	1	5	4'-0"	IA501	STR✱												
33	14	5	3'-0"	IA502	STR												
34	6	5	VARIES	—	STR		IA503 TO IA505 (2EA) VARIES 4'-6" TO 2'-6" (INC 2")										
35	6	5	VARIES	—	STR		IA506 TO IA508 (2EA) VARIES 3'-6" TO 1'-0" (INC 15")										
36	34	5	4'-6"	IA509	STR												
37	10	5	VARIES		STR		IA510 TO IA514 (2EA) VARIES 24'-0" 31'-3" (INC 14¼")										
38	8	5	24'-0"	IA515	STR												
39	23	5	11'-3"	IA516	55	2'-0"	3'-6"	0'-9"	3'-0"			2'-0"					
40	14	5	6'-3"	IA517	17		4'-0"	2'-3"									
41																	
42																	
43																	
44		OUTLET	APRON														
45																	
46																	
47	21	5	3'-0"	OA501	STR												
48	16	5	VARIES	—	TR		OA502 TO OA509 (2EA) VARIES 20'-0" TO 32'-3" (INC 21")										
49	10	5	VARIES	—	STR		OA510 TO OA516 (2EA) VARIES 2'-6" TO 8'-6" (INC 12")										
50	34	5	VARIES	—	STR		OA522 TO OA538 (2EA) VARIES 8'-2" TO 4'-6" (INC 2¾")										
51	6	5	VARIES	—	STR		OA539 TO OA541 (2EA) VARIES 4'-6" TO 2'-6" (INC 12")										
52	8	5	24'-0"	OA542	STR												
53	28	5	11'-3"	OA543	55	2'-0"	3'-6"	0'-9"	3'-0"			2'-0"					
54	21	5	6'-3"	OA544	17		4'-0"	2'-3"									
55																	
56																	
57																	
58		WINGWALL	#1														
59																	
60																	
61	15	5	VARIES	—	STR		IW501 TO IW515		VARIES 4'-9" TO 2'-5" (INC. 2")								
62	15	5	VARIES	—	STR		IW516 TO IW530		VARIES 4'-9" TO 2'-5" (INC 2")								
63	2	5	14'-3"	IW531	STR												
64	2	5	10'-9"	IW532	STR												
65	8	5	14'-0"	IW533	STR												
66																	
67																	
68																	
69		WINGWALL	#2														
70																	
71																	
72	6	5	VARIES	—	STR		2W501 TO 2W506		VARIES 4'-9" TO 2'-5½" (INC. 5½")								
73	6	5	VARIES	—	STR		2W507 TO 2W512		VARIES 4'-9" TO 2'-5½" (INC 5½")								
74	2	5	2'-3"	2W513	STR												
75	8	5	4'-6"	2W514	STR												
76	2	5	5'-0"	2W515	STR												
77																	
78																	
79																	
80																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
81		WINGWALL	#3														
82																	
83	6	5	VARIES	—	STR		3W501 TO 3W506		VARIES 5'-0" TO 2'-8½" (INC 5½")								
84	6	5	VARIES	—	STR		3W507 TO 3W512		VARIES 5'-0" TO 2'-8½" (INC. 5½")								
85	8	5	5'-0"	3W513	STR												
86	2	5	5'-6"	3W514	STR												
87	2	5	2'-6"	3W515	STR												
88																	
89																	
90																	
91		WINGWALL	#4														
92																	
93																	
94	8	5	VARIES	—	STR		4W501 TO 4W508		VARIES 5'-0" TO 2'-8" (INC. 4")								
95	8	5	VARIES	—	STR		4W509 TO 4W516		VARIES 5'-0" TO 2'-8" (INC. 4")								
96	8	5	7'-0"	4W517	STR												
97	2	5	4'-6"	4W518	STR												
98	2	5	7'-3"	4W519	STR												
99																	
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103																	
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ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
161																	
162																	
163																	
164																	
165																	
166																	
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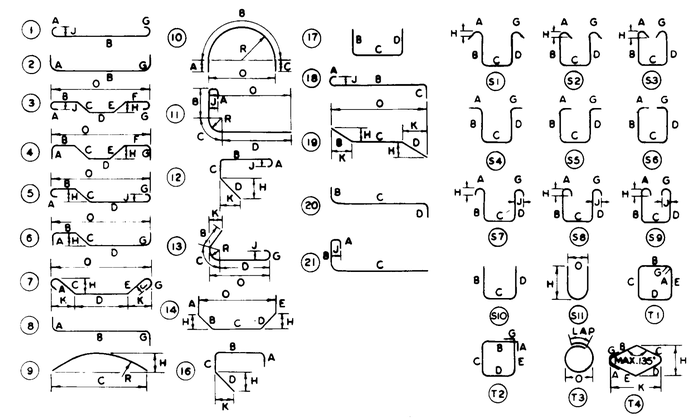
ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



PARE ENGINEERING CORPORATION
Engineers — Planners — Landscape Architects
8 Blackstone Valley Place, Lincoln, RI 02865
401/334/4100

NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615-S1). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

▲ DENOTES BARS TO BE CUT IN FIELD.
✱ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
△ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF POWNAL	BRIDGE NO. 4
	LOG STA.
HIGHWAY NO. ROUTE 346	SURV. STA. 117+37

REINFORCING STEEL SCHEDULE

DESIGNED BY G. F.	DRAWN BY
CHECKED BY P. D. M. DATE 2-10-87	BRIDGE DESIGN SUPERVISOR DATE
PROJECT POWNAL	PROJECT NO. RS0107 (7)

BRIDGE SHEET NO. BR 404 SHEET 121 OF 319