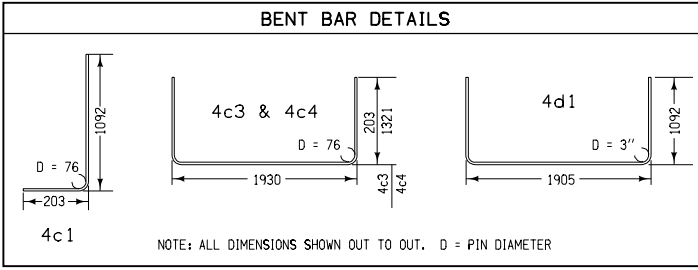


VARIABLE DIMENSIONS AND QUANTITIES FOR 1 GRATE INTAKE

Dimensions				Bar List																Quantities								
"H" (m) ①	"A" (mm) ②	"E" (mm)	"F" (mm)	4c1		4c2		4c3 ③		4c4 ③		4d1		4d2		Concrete - m³				Steel ④								
				No.	L(m)	No.	L(m)	No. of Spaces		No.	L(m)	No. of Spaces		No.	L(m)	SP (mm)	"K"	No.	L(m)		SP (mm)	"N"	No.	L(m)	Base	Lid	Walls	Total
								"B"	"C"			"B"	"C"															
0.914	152	76	191	20	1.295	---	---	2	---	16	2.337	2	---	8	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	1.682	4.817	309
1.219	152	76	191	20	1.295	44	1.168	3	---	20	2.337	3	---	10	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	2.217	5.352	379
1.524	152	76	191	20	1.295	44	1.473	4	---	24	2.337	4	---	12	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	2.752	5.887	411
1.829	152	76	191	20	1.295	44	1.778	5	---	28	2.337	5	---	14	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	3.288	6.422	430
2.134	152	76	191	20	1.295	44	2.083	6	---	32	2.337	6	---	16	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	3.823	6.957	474
2.438	152	76	191	20	1.295	44	2.387	7	---	36	2.337	7	---	18	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	4.434	7.569	505
2.743	152	76	191	20	1.295	44	2.692	8	---	40	2.337	8	---	20	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	4.970	8.104	538
3.048	152	76	191	20	1.295	44	2.997	9	---	44	2.337	9	---	22	4.572	229	6	14	4.09	229	5	16	2.083	1.453	1.682	5.505	8.639	569
3.353	152	51	152	20	1.295	44	3.302	10	---	48	2.337	10	---	24	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	6.040	9.175	613
3.658	152	51	152	20	1.295	44	3.607	11	---	52	2.337	11	---	26	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	6.575	9.710	645
3.962	152	51	152	20	1.295	44	3.911	12	---	56	2.337	12	---	28	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	7.187	10.321	677
4.267	152	51	152	20	1.295	44	4.216	13	---	60	2.337	13	---	30	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	7.722	10.857	709
4.572	229	51	152	20	1.295	44	4.521	13	1	64	2.337	13	1	32	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	8.257	11.392	740
4.877	305	51	152	20	1.295	44	4.826	13	2	68	2.337	13	2	34	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	8.792	11.927	772
5.182	152	51	152	20	1.295	44	5.131	13	4	76	2.337	13	4	38	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	9.328	12.462	822
5.486	229	51	152	20	1.295	44	5.435	13	5	80	2.337	13	5	40	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	9.939	13.074	854
5.791	305	51	152	20	1.295	44	5.740	13	6	84	2.337	13	6	42	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	10.474	13.609	885
6.096	152	51	152	20	1.295	44	6.045	13	8	92	2.337	13	8	46	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	11.010	14.144	935
6.401	229	51	152	20	1.295	44	6.350	13	9	96	2.337	13	9	48	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	11.545	14.679	967
6.706	305	51	152	20	1.295	44	6.655	13	10	100	2.337	13	10	50	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	12.080	15.215	999
7.010	152	51	152	20	1.295	44	6.959	13	12	108	2.337	13	12	54	4.572	203	7	16	4.09	203	6	18	2.083	1.453	1.682	12.692	15.826	1049
7.315	229	51	140	20	1.295	44	7.264	13	13	112	2.337	13	13	56	4.572	178	8	18	4.09	178	7	20	2.083	1.453	1.682	13.227	16.361	1093
7.620	305	51	140	20	1.295	44	7.569	13	14	116	2.337	13	14	58	4.572	178	8	18	4.09	178	7	20	2.083	1.453	1.682	13.762	16.897	1124
7.925	152	51	140	20	1.295	44	7.874	13	16	124	2.337	13	16	62	4.572	178	8	18	4.09	178	7	20	2.083	1.453	1.682	14.297	17.432	1174
8.230	229	51	140	20	1.295	44	8.179	13	17	128	2.337	13	17	64	4.572	178	8	18	4.09	178	7	20	2.083	1.453	1.682	14.832	17.967	1207
8.534	305	51	140	20	1.295	44	8.483	13	18	132	2.337	13	18	66	4.572	178	8	18	4.09	178	7	20	2.083	1.453	1.682	15.444	18.579	1238

The clear distance from face of concrete to near edge or end of reinforcing bar to be 50 unless otherwise noted.

- ① H = Wall height = form grade elevation (minus) bottom well elevation (minus) 406 mm, rounded up.
- ② A = First bar spacing at top of wall. Minimum spacing = 75 mm. Maximum spacing = 300 mm. Adjust as necessary.
- ③ See Section A-A on sheet 2 for spacing.
- ④ Quantity includes 142 kg. for lid.



All dimensions given in millimeters unless noted.

<b>METRIC VERSION</b>	<b>M</b>	Iowa Department of Transportation Highway Division
	<b>STANDARD ROAD PLAN RA-48A(4)</b>	
	REVISION: NEW.	REVISION NO. NEW
	 APPROVED BY DESIGN METHODS ENGINEER	
SINGLE GRATE BARRIER INTAKE ( Sheet 4 of 4 )		
		REVISION DATE 04-18-06