

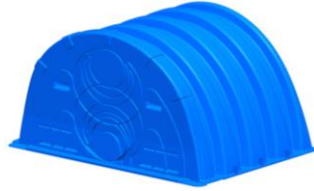


CULTEC Stormwater Design Calculator

Date:	April 08, 2019
Project Information:	
Sample Project 123 Elms Drive Any town KY USA	

Project Number:	19-0000.00
Calculations Performed By:	
John Doe Cultec 878 Federal Rd Brookfield CT 06804 USA 203-775-4416 Jdoe@cultec.com	

RECHARGER 902HD



Recharger 902HD Chamber Specifications		
Height	48.0	inches
Width	78.0	inches
Length	4.10	feet
Installed Length	3.67	feet
Bare Chamber Volume	63.47	cu. feet
Installed Chamber Volume	99.22	cu. feet

Breakdown of Storage Provided by Recharger 902HD Stormwater System		
Within Chambers	6,126.24	cu. feet
Within Feed Connectors	6.85	cu. feet
Within Stone	3,894.01	cu. feet
Total Storage Provided	10,027.1	cu. feet
Total Storage Required	10000.00	cu. feet

Materials List

Recharger 902HD		
Total Number of Chambers Required	96	pieces
Chamber Units	96	pieces
End Caps	12	pieces
HVLV FC-48 Feed Connectors	10	pieces
CULTEC No. 410 Non-Woven Geotextile	937	sq. yards
CULTEC No. 4800 Woven Geotextile	90	feet
Stone	361	cu. yards

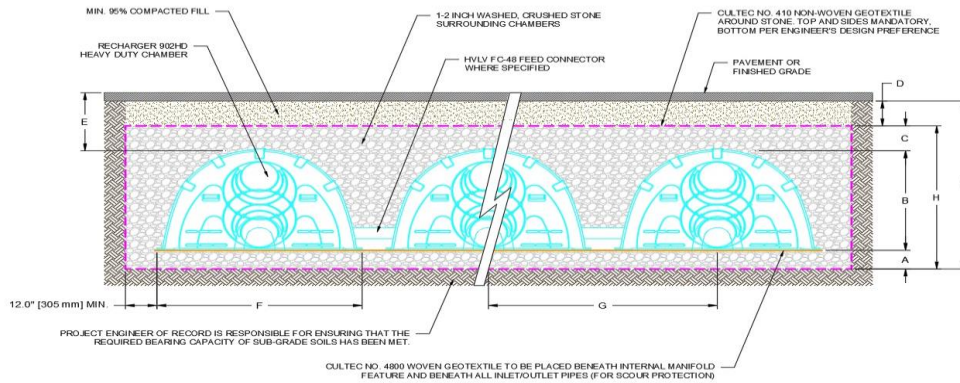
Based on 2 Internal Manifolds

Bed Detail



Bed Layout Information		
Number of Rows Wide	6	pieces
Number of Chambers Long	16	pieces
Chamber Row Width	42.75	feet
Chamber Row Length	59.67	feet
Bed Width	44.75	feet
Bed Length	61.67	feet
Bed Area Required	2759.67	sq. feet
Length of Separator Row	N/A	feet

Bed detail for reference only. Not project specific. Not to scale.



Conceptual graphic only. Not job specific.

Cross Section Table Reference		
A	Depth of Stone Base	9.0 inches
B	Chamber Height	48.0 inches
C	Depth of Stone Above Units	12.0 inches
D	Depth of 95% Compacted Fill	12.0 inches
E	Max. Depth Allowed Above the Chamber	8.33 feet
F	Chamber Width	78.0 inches
G	Center to Center Spacing	7.25 feet
H	Effective Depth	5.75 feet
I	Bed Depth	6.75 feet



CULTEC Stage-Storage Calculations

Date: April 8, 2019

Project Information:
 Sample Project
 123 Elms Drive
 Any town
 KY 06111
 USA

Project Number:
 19-0000.00

Chamber Model - **Recharger 902HD**
 Number of Rows- 6 units
 Total Number of Chambers - 96 units
 HVLV FC-48 Feed Connectors- 10 units
 Stone Void - 40 %
 Stone Base - 9 inches
 Stone Above Units - 12 inches
 Area - 2759.67 ft²
 Base of Stone Elevation - 0.00

Recharger 902HD Incremental Storage Volumes

Height of System		Chamber Volume		HVLV Feed Connector Volume		Stone Volume		Cumulative Storage Volume		Total Cumulative Storage Volume		Elevation	
in	mm	ft ³	m ³	ft ³	m ³	ft ³	m ³	ft ³	m ³	ft ³	m ³	ft	m
69.0	1753	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	10026.49	283.92	5.750	1.75
68.0	1727	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9934.50	281.31	5.670	1.73
67.0	1702	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9842.51	278.71	5.580	1.70
66.0	1676	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9750.52	276.10	5.500	1.68
65.0	1651	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9658.53	273.50	5.420	1.65
64.0	1626	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9566.54	270.89	5.330	1.63
63.0	1600	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9474.55	268.29	5.250	1.60
62.0	1575	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9382.56	265.68	5.170	1.57
61.0	1549	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9290.57	263.08	5.080	1.55
60.0	1524	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9198.58	260.47	5.000	1.52
59.0	1499	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9106.59	257.87	4.920	1.50
58.0	1473	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	9014.60	255.26	4.830	1.47
57.0	1448	7.3	0.2	0.0	0.0	89.1	2.5	96.353	2.7	8922.62	252.66	4.750	1.45
56.0	1422	17.9	0.5	0.0	0.0	84.8	2.4	102.758	2.9	8826.26	249.93	4.670	1.42
55.0	1397	25.0	0.7	0.0	0.0	82.0	2.3	106.982	3.0	8723.50	247.02	4.580	1.40
54.0	1372	42.7	1.2	0.0	0.0	74.9	2.1	117.612	3.3	8616.52	243.99	4.500	1.37
53.0	1346	56.9	1.6	0.0	0.0	69.2	2.0	126.130	3.6	8498.91	240.66	4.420	1.35
52.0	1321	70.9	2.0	0.0	0.0	63.6	1.8	134.508	3.8	8372.78	237.09	4.330	1.32
51.0	1295	78.0	2.2	0.0	0.0	60.8	1.7	138.802	3.9	8238.27	233.28	4.250	1.30
50.0	1270	85.1	2.4	0.0	0.0	58.0	1.6	143.026	4.1	8099.47	229.35	4.170	1.27
49.0	1245	95.6	2.7	0.0	0.0	53.7	1.5	149.362	4.2	7956.44	225.30	4.080	1.24
48.0	1219	95.6	2.7	0.0	0.0	53.7	1.5	149.362	4.2	7807.08	221.07	4.000	1.22
47.0	1194	102.7	2.9	0.0	0.0	50.9	1.4	153.586	4.3	7657.72	216.84	3.920	1.19
46.0	1168	106.3	3.0	0.0	0.0	49.5	1.4	155.768	4.4	7504.13	212.49	3.830	1.17
45.0	1143	109.7	3.1	0.0	0.0	48.1	1.4	157.810	4.5	7348.37	208.08	3.750	1.14
44.0	1118	116.7	3.3	0.0	0.0	45.3	1.3	162.034	4.6	7190.56	203.61	3.670	1.12
43.0	1092	120.4	3.4	0.0	0.0	43.8	1.2	164.216	4.7	7028.52	199.03	3.580	1.09
42.0	1067	123.8	3.5	0.0	0.0	42.5	1.2	166.258	4.7	6864.31	194.38	3.500	1.07
41.0	1041	123.8	3.5	0.0	0.0	42.5	1.2	166.258	4.7	6698.05	189.67	3.420	1.04
40.0	1016	127.4	3.6	0.0	0.0	41.0	1.2	168.440	4.8	6531.79	184.96	3.330	1.02
39.0	991	130.8	3.7	0.0	0.0	39.7	1.1	170.482	4.8	6363.35	180.19	3.250	0.99
38.0	965	134.6	3.8	0.0	0.0	38.2	1.1	172.733	4.9	6192.87	175.36	3.170	0.97
37.0	940	137.9	3.9	0.0	0.0	36.8	1.0	174.706	4.9	6020.14	170.47	3.080	0.94
36.0	914	138.0	3.9	0.0	0.0	36.8	1.0	174.776	4.9	5845.43	165.52	3.000	0.91
35.0	889	141.5	4.0	0.0	0.0	35.4	1.0	176.888	5.0	5670.65	160.57	2.920	0.89
34.0	864	141.4	4.0	0.0	0.0	35.4	1.0	176.818	5.0	5493.77	155.57	2.830	0.86
33.0	838	145.0	4.1	0.0	0.0	34.0	1.0	179.000	5.1	5316.95	150.56	2.750	0.84
32.0	813	145.0	4.1	0.0	0.0	34.0	1.0	179.000	5.1	5137.95	145.49	2.670	0.81
31.0	787	145.1	4.1	0.0	0.0	33.9	1.0	179.069	5.1	4958.95	140.42	2.580	0.79
30.0	762	148.5	4.2	0.0	0.0	32.6	0.9	181.112	5.1	4779.88	135.35	2.500	0.76
29.0	737	148.5	4.2	0.0	0.0	32.6	0.9	181.112	5.1	4598.77	130.22	2.420	0.74
28.0	711	148.5	4.2	0.0	0.0	32.6	0.9	181.112	5.1	4417.66	125.09	2.330	0.71
27.0	686	152.1	4.3	0.0	0.0	31.2	0.9	183.224	5.2	4236.54	119.97	2.250	0.69
26.0	660	152.1	4.3	0.0	0.0	31.2	0.9	183.224	5.2	4053.32	114.78	2.170	0.66
25.0	635	155.7	4.4	0.0	0.0	29.7	0.8	185.405	5.3	3870.10	109.59	2.080	0.64
24.0	610	155.6	4.4	0.0	0.0	29.8	0.8	185.336	5.2	3684.69	104.34	2.000	0.61
23.0	584	159.1	4.5	0.0	0.0	28.4	0.8	187.448	5.3	3499.36	99.09	1.920	0.58
22.0	559	159.1	4.5	0.0	0.0	28.4	0.8	187.448	5.3	3311.91	93.78	1.830	0.56
21.0	533	159.2	4.5	0.0	0.0	28.3	0.8	187.535	5.3	3124.46	88.47	1.750	0.53
20.0	508	159.1	4.5	0.2	0.0	28.3	0.8	187.587	5.3	2936.92	83.16	1.670	0.51
19.0	483	162.7	4.6	0.5	0.0	26.7	0.8	189.899	5.4	2749.34	77.85	1.580	0.48
18.0	457	162.7	4.6	0.5	0.0	26.7	0.8	189.958	5.4	2559.44	72.48	1.500	0.46
17.0	432	162.7	4.6	0.6	0.0	26.7	0.8	189.994	5.4	2369.48	67.10	1.420	0.43
16.0	406	162.7	4.6	0.6	0.0	26.6	0.8	190.012	5.4	2179.49	61.72	1.330	0.41
15.0	381	166.1	4.7	0.7	0.0	25.3	0.7	192.072	5.4	1989.47	56.34	1.250	0.38
14.0	356	166.3	4.7	0.7	0.0	25.2	0.7	192.160	5.4	1797.40	50.90	1.170	0.36
13.0	330	169.8	4.8	0.7	0.0	23.8	0.7	194.281	5.5	1605.24	45.46	1.080	0.33
12.0	305	169.9	4.8	0.7	0.0	23.7	0.7	194.360	5.5	1410.96	39.95	1.000	0.30
11.0	279	169.8	4.8	0.7	0.0	23.8	0.7	194.299	5.5	1216.60	34.45	0.920	0.28
10.0	254	169.9	4.8	0.8	0.0	23.7	0.7	194.400	5.5	1022.30	28.95	0.830	0.25
9.0	229	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	827.90	23.44	0.750	0.23
8.0	203	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	735.91	20.84	0.670	0.20
7.0	178	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	643.92	18.23	0.580	0.18
6.0	152	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	551.93	15.63	0.500	0.15
5.0	127	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	459.95	13.02	0.420	0.13
4.0	102	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	367.96	10.42	0.330	0.10
3.0	76	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	275.97	7.81	0.250	0.08
2.0	51	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	183.98	5.21	0.170	0.05
1.0	25	0.0	0.0	0.0	0.0	92.0	2.6	91.989	2.6	91.99	2.60	0.080	0.03
0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.000	0.0	0.00	0.00	0.000	0.00
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