

*Con Cast Pipe*  
»» *Stormwater Treatment System*



*Clean water  
matters to us.*



**CON CAST PIPE**

# V2B1 STORMWATER TREATMENT SYSTEM



- > NJCAT Verified (New Jersey Corporation for Advanced Technology-Leading Verification Organization)
- > MOE Approval
- > Shallow Sump - Two Manhole Configuration
- > Swirl Separation Technology
- > Locally Manufactured
- > Field Tested and Proven

## » *Information Technology Solutions*

The V2B1 Stormwater Treatment System provides primary treatment of stormwater using a two stage treatment process. In stage one, a tangential inlet pipe produces a vortex within the manhole to utilize centrifugal forces to “spin” the suspended solids out of suspension.

The surface water then travels through the center pipe to the second chamber where the floatable debris and hydrocarbons are trapped. The separation is accomplished using a precast baffle wall which is engineered for each specific application to maximize efficiency.

The V2B1 Stormwater Treatment System is sized to help achieve the EPA goal of 80% TSS and 40% Phosphorus removal efficiency.

In addition to a standard online system, the V2B1 can also be configured with an internal high flow bypass. The system can be configured to bypass the swirl chamber or both the swirl and floatables chambers. This flexibility allows the design engineer to decrease the size of the required V2B1 system, thereby decreasing construction costs.

All V2B1 Stormwater Treatment Systems are manufactured by Con Cast Pipe. We are an approved manufacturer of the V2B1 system with a proven record of quality in the precast concrete market. Our high level quality standard includes the OCPA administered Plant Prequalification Program and CSA A257 Certification.

## » *Partial Project List*

- > UWO Graphics Building  
London, ON
- > 1358 Victoria St.  
Kitchener, ON
- > Romeo Court  
Stratford, ON
- > Mary J Black Library  
Thunder Bay, ON
- > Degroot’s Nursery  
Sarnia, ON
- > Miami Car Wash  
London, ON
- > Oak Park Terrace  
Lakeshore, ON
- > Brooklyn Avenue  
LaSalle, ON
- > Stratford Toyota  
Stratford, ON
- > Truckers Haven  
Drumbo, ON

For a complete list of installations or for answers to any of you questions please do not hesitate to contact us directly

## » Service Features and Maintenance

Every Environment 21 system is designed site specific providing optimal performance for your project. With every system design you will receive a Site Layout, Design Storm Hydrology, Water Quality Hydrology, Back Water Analysis and a System Specific drawing.

In addition, we will provide you with an estimated clean out and inspection interval specific to your site and system. The shallow sump of the V2B1 allows the use of standard vacuum truck for maintenance. The unique vertical insert design of the V2B1 with two access openings per chamber allows for clear access to all areas of the chamber for inspection and maintenance.

By combining continuous field and laboratory testing with ongoing realistic case studies, we are able to provide you the confidence that you are meeting your local, provincial, and national stormwater management requirements. Environment 21 engineers work directly with you to reduce system costs while optimizing treatment efficiency.



## » System Sizing

M1 Diameter (mm)	M1 Diameter (mm)	M2 Diameter (mm)	Minimum Depth Below Invert (mm)	Treatment Rate (LPS)	Maximum Inlet Pipe Diameter (mm)	Sediment Storage Capacity m <sup>3</sup>	Total Surface area (m <sup>2</sup> )
2	1200	1200	1065	43.61	300	0.48	2.26
3	1200	1500	1065	55.78	400	0.55	2.90
4	1500	1500	1375	67.96	500	0.74	3.53
6	1800	1500	1375	82.97	600	0.98	4.31
7	1800	1800	1375	97.98	600	1.07	5.09
8	2100	1800	1375	115.53	750	1.35	6.01
9	2100	1500	1375	100.53	750	1.26	5.23
10	2400	1500	1375	120.91	900	1.58	6.29
11	2400	1800	1375	135.92	900	1.67	7.07
12	2400	2100	1375	153.48	900	1.78	7.99
13	2400	2400	1500	173.87	900	1.90	9.05
14	3000	1500	1500	169.90	1000	2.36	8.84
15	3000	1800	1500	184.91	1000	2.45	9.61
16	3000	2100	1500	202.47	1000	2.56	10.53
17	3000	2400	1500	222.85	1000	2.68	11.59
18	3000	3000	1500	271.84	1000	2.97	14.14
19	3600	1500	1500	229.65	1250	3.31	11.95
20	3600	1800	1500	244.66	1250	3.40	12.72
21	3600	2100	1680	262.22	1250	3.51	13.64
22	3600	3000	1680	331.59	1250	3.92	17.25
25	3600	2400	1680	282.60	1250	3.63	14.70
40	3600	3600	1800	385.11	1250	4.28	20.36
50	4800	3000	1800	679.61	1800	6.34	25.16

### SERVICES AVAILABLE

- > Technical Support
- > Preliminary Designs Configuration
- > Application Support

Above Referenced Sediment Storage Capacity is standard with an estimated clean out interval of 1 year based on 1120 kgs/Ha/year washoff. Additional storage capacity can be designed based on the project requirements. Final determination of maintenance interval is based on quarterly inspections.



## » 24 Hour Preliminary Designs

Using our user friendly online Sizing Request Form, we can complete a preliminary design and have it waiting in your inbox within 24 hours. Registration not required. In addition, our expert sales & engineering staff can assist you with any regulatory approvals. Contact us today to get more details on how we can assist in your project needs.

To find out which Stormwater system is best suited for your job, please contact Con Cast Pipe's Sales and Engineering Department at [1.800.668.PIPE \(7473\)](tel:1800668PIPE) or visit [www.concastpipe.com](http://www.concastpipe.com).

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