

Corrugated Steel Pipe

Stormwater Detention Systems

OWNER

Cascadia Developments Ltd.

CONSULTANT

H.Y. Engineering Ltd.

CONTRACTOR

Alnor Services Ltd.

LOCATION

Surrey, B.C.



Installation Details:

This on-site stormwater detention tank was designed to attenuate stormwater flows associated with a 73 unit townhouse site covering an area of about 2.25 hectares. The storage volume required to accommodate runoff from the proposed residential development was calculated to be 451 cubic metres. An underground tank was selected over a detention pond because it maximizes land use and improves the aesthetic value of the property.

The stormwater detention tank is a 120 m long, 2200 mm diameter galvanized corrugated steel pipe complete with corrugated couplers and neoprene gaskets.

It is enclosed at both ends with pre-fabricated reinforced bulkhead plates. Access to the tank is provided by three pre-fabricated 1800 mm diameter corrugated steel pipe manholes. The man-hole containing the flow control structure arrived at the jobsite fully assembled, complete with an Armtec model 10C flap gate, an orifice plate and ladder rungs.

The 2200 mm diameter pipe was supplied in 10 m lengths, weighing only about 1300 kg per piece. This increased the speed of installation by allowing the contractor to use standard lifting equipment, such as the excavator shown in the photo.

**CASE
HISTORY**
**CSP Storm Water
Detention Tanks
saved 50% in
material and
installation costs
over concrete
box culverts**



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