

Pervious Concrete – All the environmental benefits, and cost effective!

It is hard to deny the environmental benefits gained when using Pervious Concrete. Unfortunately in many cases, there is a cost increase associated with a product or system with such benefits. We want to show that this is not the case with Pervious Concrete. In fact there are cost savings over 15% when comparing Pervious Concrete to a commonly specified system comprised of an underground detention system using storm chambers.

For our cost comparison, we chose a relatively simple project that was completed in North Central Pennsylvania in Mid 2010. The project was 15,775 square feet. It was designed with an underground detention system and asphalt paving. The project had one catch basin and one water quality unit. The detention system was constructed of plastic storm chambers. We compared the costs associated with this system to 6" of Pervious Concrete with a 12" gravel storage base.

Costs associated with impervious system:

Detention system costs

1. (1) 2'x2' Catch basin and grate	777.08
2. (1) Water Quality Unit	11,618.40
3. (1) 4' diameter Manhole & cover	1,084.44
4. (1) 5' diameter Manhole & cover	1,578.26
5. Storm chambers/Piping/Fabric	17,874.00
6. 320 ton #57 gravel in place	7,200.00
7. Form and pour weir in 5' manhole	1,962.81
8. Excavate and export 422 cubic yards	5,000.00
9. Labor to install chambers/pipes/structures	9,000.00
Total	56,094.99

Asphalt Paving costs

1. Provide and Install geotextile fabric	2,3000.00
2. Provide and Install 6" limestone subbase	17,500.00
3. Place and compact 2.5" asphalt binder	21,950.00
4. Place and compact 1.5" asphalt top	15,600.00
Total	57,350.00

Total of system 113,444.99