



DEPARTMENT OF DEVELOPMENT  
John F. Stibal

414/302-8460  
414/302-8401 (Fax)

City Hall  
7525 West Greenfield Avenue  
West Allis, Wisconsin 53214

[www.westalliswi.gov](http://www.westalliswi.gov)  
[jstibal@westalliswi.gov](mailto:jstibal@westalliswi.gov)

October 2, 2012

Mayor Dan Devine and  
Members of the Common Council  
City Hall  
West Allis, WI 53214

Dear Honorable Mayor and Members of the Common Council:

The West Allis Plan Commission at their regular meeting on September 26, 2012, reviewed the plans for the public parking lot south of the Farmers Market located on the southeast corner of 66th St & W. Lapham St. At this meeting, the Plan Commission denied the site and landscaping plan and recommended the Common Council consider a porous surface parking lot.

Even though porous parking lots may be an excellent idea, the Common Council has already awarded the construction contract and construction has already begun. It would be economically and contractually infeasible to amend the contract to provide for a porous parking at this location.

However, in the future, the City may wish to explore both the pros and cons of porous parking services.

Unfortunately, this parking lot would probably not have been a good opportunity to try a porous parking service. ARCADIS considered a change in the design of the Farmer's Market public parking lot from standard asphalt to a porous asphalt pavement. The purpose of a porous pavement is to allow storm water to drain into soil beneath the parking lot rather than be routed directly to the storm sewers located in the adjoining streets. There are additional costs (in addition to the special material and construction requirements for porous pavement) that would be required with this design. Specifically, the soil on this site consists of lower permeability silt and clay. Therefore, to address the storm water storage, excavation of the silt and clay soil and replacement with imported permeable stone to hold the storm water would be required.

The city has bid the project out and the current price is approximately \$80,400. The additional cost of a porous pavement construction material and storm water storage and costs are estimated to add an additional \$44,200 to \$56,300 to the project budget.

Generally in a parking lot of this size, the additional costs for porous pavement outweigh the benefit of the small volume of storm water stored. In fact, the Milwaukee Metropolitan Sewerage District (MMSD) does not require storm water storage on these small projects. Typically, a large portion of the economics that justify the added expense of a porous parking lot is the reduction in the amount of cost to comply with MMSD storm water storage requirements. Since this site is too small to require any storm water quantity or quality detention requirements the cost to provide for a porous parking lot are considerably higher than normal.

Though it is important to note that porous pavement is a better option to consider with large projects such as "big-box" retail stores where there is a large volume of storm water that is required to be detained and especially if there are more permeable underlying soils.

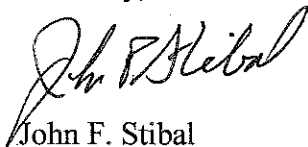
Porous pavement is a green infrastructure measure that provides water infiltration and storage measures that limit flooding both within our local community and the entire region. Additionally, porous pavement reduces nonpoint source pollution and surface run-off, which is largely responsible for water quality problems, increased pollutants and bacteria contaminants in our waterways. Combined together, the benefits of green infrastructure, such as porous pavement, increases public health and cost-effectively protects the value of our existing natural and built environments.

In a cost-benefit analysis of storm water storage solutions undertaken by MMSD, porous pavement proved to be considerably less expensive than storage within the Deep Tunnel (\$.35/gallon vs. \$2.42 gallon). The only more cost-effective green infrastructure solutions were wetlands (\$.06/gallon) and native landscaping (\$.07/gallon), which are land-consumptive and infeasible in a built-out urban environment. While more expensive than traditional pavement in the short term; in the long run, green infrastructure reduces the need for further investment in costly capital infrastructure and protects our existing investments.

Porous surface parking lots may have a future in the city of West Allis; however, this location is not ideally suited for this green application.

Please let me know if you have any questions.

Sincerely,



John F. Stibal  
Director of Development

JS/gmj