**Porous Pavement Question**

Response of Kari Rehrauer

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A question came in at the League of Women Voters presentation regarding porous pavement.  Our Public Works director shared quite a bit of information (below) with me regarding this type of pavement. The main points to note are that there is ongoing debate and studies being done around this technology and it is designed specific to the project.  It is currently used when there is a need due to limited storm sewer systems and/or there is high groundwater and/or it's near a sensitive area. It requires additional maintenance and specialized equipment which means additional cost.  I know this council is not interested in additional cost, so I don't see this moving forward until it becomes more common and/or is necessary for a specific space.

Porous pavement is similar to typical impervious paving options and can be comprised of asphalt, concrete, or pavers - they are used primarily for storm water purposes.  The pavers are typically impervious in nature, with the spaces between acting as infiltration area.  Concrete and asphalt are made up of more uniform aggregate; eliminating the smaller sizes to provide spaces for water to pass through.  There is also an underdrain system (base construction) allowing infiltration directly into the underlying soils, or possibly into a drain tile system.  There’s a lot of debate and study around this technology, and it needs to be designed specifically for each site/location.  Typically site development uses this technology to minimize the need for traditional storm sewer systems & to preserve land for development - parking lots (or portions thereof), pedestrian ways, trails, etc.

Several factors influence the design from a maintenance standpoint – high groundwater, contours/grades, environmentally sensitive areas, significant volumes of traffic and/or tracking from vehicles, snow removal & salt applications.  You actually have to vacuum the pavement to prevent clogging, which may require a specialized piece of equipment.

The jury is still out on plowing and freeze/thaw conditions – the uniform (larger) size of aggregate may be easier to catch an edge and pop out, leading to degradation.  Some might say the porous nature can withstand freeze/thaw better because there are voids for the water to expand, but I’m not sure that would be the case on a large scale.  We don’t have any in the City I am aware of, but I know a few cities have experimented in select locations and some developers use to address tight sites & storm water rules.  They are more expensive to install and maintain, but that may be offset by the storm water benefit.