

Ponding

ELIMINATING A NUISANCE AND A DANGER



ou're driving down the road in an area that you aren't familiar with. It's been raining off and on all day, and traffic has been a nightmare! Up ahead, you see a large puddle that has ponded along the side of the road. Traffic is steady in both directions, so driving around it isn't an option. Driving through it could be okay... maybe. There is the slight chance of flooding out your vehicle, hitting an unseen pothole, or worse—hydroplaning out of control into oncoming traffic!



Ponding or puddling is something we Floridians have grown accustomed to, especially during our rainy season! We refer to ponding as an area that holds water on roadways and parking lots, and it can become quite the nuisance to not only those travelling on the roadways but for those maintaining these areas as well. Not only is ponding dangerous for car travel, but it also causes other issues that you might not be fully aware of. For example, since water is heavier than oil, any area of pavement that holds water or is exposed to water on a regular basis will break down faster than any other area on the property. This is why you always see a lot of loose stone lying around your parking lots and roadways near areas that have ponding.

Once the water penetrates the asphalt cap, it has the ability to cause damage to your sub-base. Once this occurs, deterioration can happen quite rapidly. A ponded area that has a pothole in it will fall apart as fast as the water is pulling out the base material beneath the asphalt surrounding the hole. Over time and added traffic damage, a small, six-inch hole can become a five foot crater in no time. Does this mean you can just go in and fix it and be done with it? Not exactly.

Ponding happens for many reasons. The most common cause originates from what I call a "birth defect" of a community. What I mean by this term is that the defect has been present since the community was constructed, and it is not a simple fix. These areas of standing water typically are just the lowest points of the defect, and most of the time, the actual size of correction can be up to 10 times the size of the puddle, depending on the pitch and grade of the area. Attempting to correct these areas over and over again can not only be futile but a drain on a community's maintenance budget.

Having recently attended a paving course by the Asphalt Institute, I learned that when a paving depth issue is discovered during the actual paving project, it can take up to 10-plus feet for the correction to reflect in the paving equipment! That means when the supervisor discovers that the paving machine is off, the operator adjusts the depth and no matter what, the distance between the start of the issue and the discovery of it is already completed and the pond is born.

These types of issues are best addressed when a community completes a milling and paving project. A good paving contractor can reshoot the grades and install a leveling lift to correct the area, in most cases 100 percent. Asking a maintenance contractor to come out and repair the ponded area will most likely result in the standing water moving to the right or left of the original location, or the puddle will become shallower for faster evaporation.

Other types of ponding are easily correctible if you know what to look for. I have a client whose residents were complaining about a large ponded area in their clubhouse parking lot. Many of the resident's drove cars that sat closer to the ground and were complaining about water seeping into their vehicles when they drove through the puddle to the clubhouse.

When I evaluated the area, I noticed that the water was ponding at the drain to the retention pond. Upon closer inspection, it was noticed that the gravel and dirt from the roadways and thatch buildup had created a blockage and prevented the water from draining. The board had their maintenance personnel dig out the grass in the area of the flume. The water now drains properly, and the residents are happy.



Another type of issue that I see in older communities with mounded roadways and no curbing or guttering is the large buildup of the thatch along their grass line. Remember, the roads are pitched to drain the

water to the edges of the roadways where the grass line used to be flush with the pavement. Over the years of mowing and edging, the thatch of the lawn has built up and prevents the water draining off the edges and creates a small river along their roadways.

A simple but labor-intensive correction to this type of issue is to pull back the sod in the areas that are ponding about five feet. Remove about two to three feet of the dirt to loosen it up, and incorporate some large river rock for drainage. Once the rock is installed, replace the dirt and sod to be flush with the pavement. This will now allow the water to drain where it's supposed to and not flow along the roadways creating dangerous conditions for



those driving. Please make sure to check with your local underground utility company to have them come out and mark the utilities prior to digging anywhere on your property. This is a free service and will prevent many headaches later on!

If a ponded area has cracking similar to an alligator's back, that is a sign that water has already penetrated the asphalt cap and caused damage to the sub-base. In these cases, the damage beneath the asphalt cap is typically much worse than what is visible on the surface. Make sure that your asphalt maintenance contractor extends the repair area at least one foot from the edge of each side of the defect to ensure that they are encompassing the entire repair. They must saw cut and remove the asphalt and stabilize the base material before adding new asphalt.

Failing to encompass the entire area of repair can result in what I call the "patch family" of repairs. This is where a community constantly addresses the same issue over and over again without understanding that the contractor is making money off of them each visit. If he would have corrected it right the first time, there would have been no need for the return visits or fees!

Ponding around drain basins is quite common as the asphalt compacts around them and prevents the water from draining. Drain basins are installed in concrete, and the asphalt is paved up to them. The pavement compacts under the constant traffic, and eventually, the asphalt becomes lower than the basin and ponding occurs. In some cases, we have cut into the drain basin to install a small flume to allow for the water to drain freely. It doesn't drain as fast as it used to, but eventually it does drain thus removing the standing water, the chance of accelerated deterioration, and the potential traffic hazard. Attempting to repair these areas with asphalt can sometimes result in pushing the water backwards and thereby creating a larger ponded area than what was there to begin with!

Ponding in a depression near a manhole or drain basin can have a whole different meaning than just standing water. These types of situations can be a sign that there is some type of break in the underground infrastructure that could be pulling in the sub-base from the surrounding



Change Point.® The next generation in laundry payment. Only from Mac-Gray.

Change Point® is a revolutionary Internet–enabled payment and monitoring system that offers benefits for both residents and property management.

For residents:

- Payment flexibility (Use of credit card, debit card or coins)
- Online access to machine availability with LaundryView®
- Text message when cycle is done



For property managers:

- Affordable alternative to "coin only" and laundry card systems
- Access to comprehensive service and financial reporting
- Self-diagnostic machines
- Increased resident satisfaction

To see a short video on the many benefits of Change Point® visit www.macgray.com/changepoint





Change Point.®
To scan with your smartphone, download a free Barcode Scanner.

Proudly Serving Florida Since 1998.



pipes and basin. Over time and through constant water intrusion, voids are created, and these depressions can open up a world of problems if not addressed quickly.

There are many different reasons for water to pond on a property, and addressing each situation early on can help save a community a lot of money. Knowing that hydroplaning can occur in small amounts of standing water, any serious issues on a property should be addressed if the area is in the drive lane or in an area that could be hazardous to the traffic passing through. Understanding different types of ponding may help you save your community a lot of money as well as give them peace of mind when travelling on their roadways.

Connie Lorenz is President of Asphalt Restoration Technology Systems, Inc. in Orlando, Florida. For more information, call (800) 254-4732 or visit www.asphalt news.com.

