

**MIDDLE ISLAND PROPERTY OWNERS ASSOCIATION**  
**REPORT FROM THE INFRASTRUCTURE COMMITTEE CHAIR**

**September 27, 2017**

**Organization of the Committee**

The Committee will begin operation in October, chaired by Rex Cowdry and co-chaired by Fred Craig. There are four major projects planned that will be approached through the appointment of Working Groups that report to the Infrastructure Committee:

- **Cape Creek Dock and Ramp Working Group.** Alan Reyner, Chair; Jeff Alpert, Co-Chair. Cooper Young.
- **Asphalt Paving and Road Dedication Working Group.** Lou Anne Brown, Chair. Fred Craig, Richard Mesaris, Melanie Robbins,
- **Gravel Roads and Chip Seal Working Group.** Rex Cowdry, Chair. Fred Craig, Rich Tarplin (appointment pending), Cooper Young (Arch Hoxton consulting)
- **Reserve Study Working Group.** Geoff Chatas, Rex Cowdry, Fred Craig

**Road Heave on East Beach Drive**

A substantial heave – roughly 10’ diameter and 10” high, half in the road and half on the shoulder, was created by Duke Energy’s subcontractor doing directional boring to replace a power cable damaged by BH Utilities while installing a septic connection. The sub partially repaired the heave, creating two lower humps. Because the heaves pose a risk, particularly to carts and particularly at night, we asked Public Safety to place traffic cones to direct traffic away from the heaves. We arranged, but our opinion and that of Public Works is that the damaged section of roadway needs to be cut out, the base reestablished, and the section paved with hot asphalt.

On Thursday, Duke Energy also inspected the heave and confirmed our impression that subcontractor’s digging under the hump had both failed to repair the problem and had removed most of the road base course, leaving the pavement vulnerable to collapse. Everyone we have consulted (Fred Craig, Duke Energy, Island Contracting, the Village director of Public Works) agrees that this section of the roadway needs to be rebuilt, removing the damaged area, placing and compacting lifts of base course to the required depth, and repaving. We are trying to arrange a commitment to pay for the repair in time for Barnhill to perform this road rebuilding when they are here in October/November doing paving for the Village and others.

**Flooding on East Beach Drive**

(This section of the report largely repeats an email sent to the Board on September 20 regarding this situation.)

Fred Craig and Rex Cowdry looked at the East Beach Drive storm water drainage problem together, trying to identify a solution to the significant pooling of water on East Beach Drive at the Spiveys (12 EBD) and the dramatic runoff through the berm at the Mahers (10 EBD), eroding the road shoulder, undermining their apron and driveway, and spilling aggregate and sand across their driveway.

This is a complicated situation in many ways, including the legal analysis. On the one hand, their berms (built mostly in the Association ROW to benefit their lots) have created the ponding problem and the focal berm erosion. We believe that property owners are responsible for accepting and handling natural flows of water that would come onto their property, absent the berms. On the other hand, the berm has been there for many years and neither the developer nor the Association have taken any action. Ideally, we'd look for a solution that emphasized the owner's role in managing the runoff, but eased the pain by supporting financially the initial solution. It's in our best interest to minimize the amount of ponding and erosion at the roadside, since ponding and erosion reduce the life of the pavement. Looking at each location in turn: We concluded that the problem at the Mahers will be difficult to solve by simply diverting water with a rebuilt berm so it flows along its previous path to the Spivey's – and there are already drainage pipes in place at the Mahers. We are not certain which contractor put the drainage pipes in, and how they terminate, but the proposal is to install a pre-cast 8" concrete trench drain and connect it to the existing semi-permeable drain pipes that run from the road shoulder along the driveway apron and driveway to a low location among some bushes. The berm would be rebuilt and "reinforced" with geotextile fabric. Ideally, planting should be established to help stabilize the berm.

The question is whether the termination of the drain pipes will handle reasonably intense rains. Because the Mahers would be taking on more than their share of the runoff, our recommendation to the Board would be to install the trench drain and connection to the drainage system and to rebuild the berm, reinforced with geotextile until planting can be established. This solution at the Mahers will also reduce the load on the Spiveys. Here too, a trench drain would be installed on the road side of the berm, discharging on the far side of the berm (where it would naturally flow, absent a berm). The Spiveys have not been open to that solution, and want to discharge the water on the far side of their driveway. Our recommendation to the Board would be to pay the full cost of installing the trench drain at the roadside and in addition either the entire cost of drainage into a French drain on their property or two-thirds of the cost of a drainage system to a point near the marsh. If the Spiveys are not agreeable, we would remove a long section of the berm at the Spiveys that is in the Association ROW and replace it with a large French drain.

We would maintain the sections of each solution in our ROW. The Mahers and the Spiveys would be responsible for maintaining the components of the system on their property. **Work would be performed by David Ward, with some assistance to place the heavy trench drain. In addition to his labor, we request approval of a maximum expenditure of \$5000, including materials, equipment, and a CAMA permit, although we expect the out of pocket costs to be lower using David's labor. The work will be paid from the East Beach Drive Reserve Fund, which has a balance of approximately \$22,000. The 2017 reserve fund**

**budget item would be increased from \$1000 to \$5000. If completed in 2017, the budget item would be removed from the 2018 reserve fund budget. The proposed East Beach Drive annual reserve fund contribution has been increased by \$400 to compensate, pending our 2018 Reserve Funds Study.**

### **Road options**

There will be a brief oral update from Rex Cowdry discussing:

- The charge to the two working groups addressing the roads, one on asphalt paving options and road dedication, and the other on gravel road maintenance and chip seal.
- The meeting with Wayne Krahn of Island Contracting about immediate work to improve the gravel road, on-going maintenance, and long-term options.

### **Transition from keys to key cards and from physical locks to magnetic locks**

Continuing problems with the door hardware (including two instances of damage from using the doorknob as a step when climbing over), with poor quality keys leading to access problems, with sand in the keyways from keys at the beach, and with unauthorized key copies suggest that the Board revisit changing to key cards (or smaller fobs) and magnetic locks in order to avoid the above problems. The attached proposal has already been approved by the Board in November 2015 and was included in both the 2016 and the 2017 Reserve Funds Budget.

The 2015 proposal called for installation of a system at the Bald Head Creek Dock first, to test the equipment and assure reliability in our environment. After that trial, the results would be reported back to the Board before installing a similar system at the Beach Access gate. Last Spring, a Director asked that it be put on hold pending another Board discussion about implementation questions such as how key cards would be distributed. We have not yet had that discussion. We will gather updated quotes for discussion at the November Board meeting.

### **Cape Creek Dock and Ramp Working Group**

There will be a brief oral update from Alan Reyner, including a discussion of when a written proposal with specifications, cost estimates, and a procurement strategy will be ready for presentation to the Board.