Fire Hydrants Along the Way

Dry Hydrant Repair
New Windsor, Maryland

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Facts & Figures…

- Once again, the winter months played havoc on dry fire hydrants not protected by bollards.
- This dry fire hydrant located in New Windsor, Maryland, was a victim of some type of vehicle damage – not sure if it was a snow plow or some other vehicle.
- The dry hydrant is located at a local quarry and is a critical water supply site on that “end of town.”
- Fortunately, the damage was limited to the suction head area only. So many times, the pipe is sheared farther away from the head because of the force of a snow plow or front-end loader strike.
- Once approval and funding were made available, this repair was a quick one.

The Problem

A missing suction head – damaged by a vehicle.

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The Repair

The plan – install a new coupling and then put the new suction head on using a short length of pipe. The problem is two-fold. The existing pipe is painted and some earth will have to be moved to make room for the coupling.

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The Repair

Looking at the pipe and the broken head (not shown) – it became evident that the head was glued on OVER the painted pipe. We doubt that made a tight fit – but the FD also never reported a problem using the DFH. However, the repair required the existing paint to me removed. Several solvents were tried without success and old-fashioned sand paper was used – BUT with caution so as not to reduce the diameter of the pipe. A tight fit was needed with the new coupling to ensure a good glue bond.

The Repair

The new head was assembled and installed without incident. The bollards at this site OBVIOUSLY didn't protect the head from the vehicle strike – but replacement bollards were not funded.

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The Repair

Protecting the PVC pipe from UV rays is important. Once again, we used a spray paint specially formulated for use on plastic components.

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The Repair

The final step of the painting process was the addition of blue reflective tape at the top of the bollards.

The Flow Test

New Windsor's Engine 101 (2,000 gpm) pumper was used to flow test the repaired dry hydrant.

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The Flow Test

One issue when using plastic pipe is that when making connections, fittings should be just tight enough to minimize air leakage. The is no need to beat on the connection with a big hammer “just to be sure” it is tight.

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The Flow Test

With the connections all made – the flow test was conducted. The photo on the left shows the water source – a large pond fed by outflow from a huge quarry. The best thing about the site is that lift is less than 10 feet – more like 5 feet.

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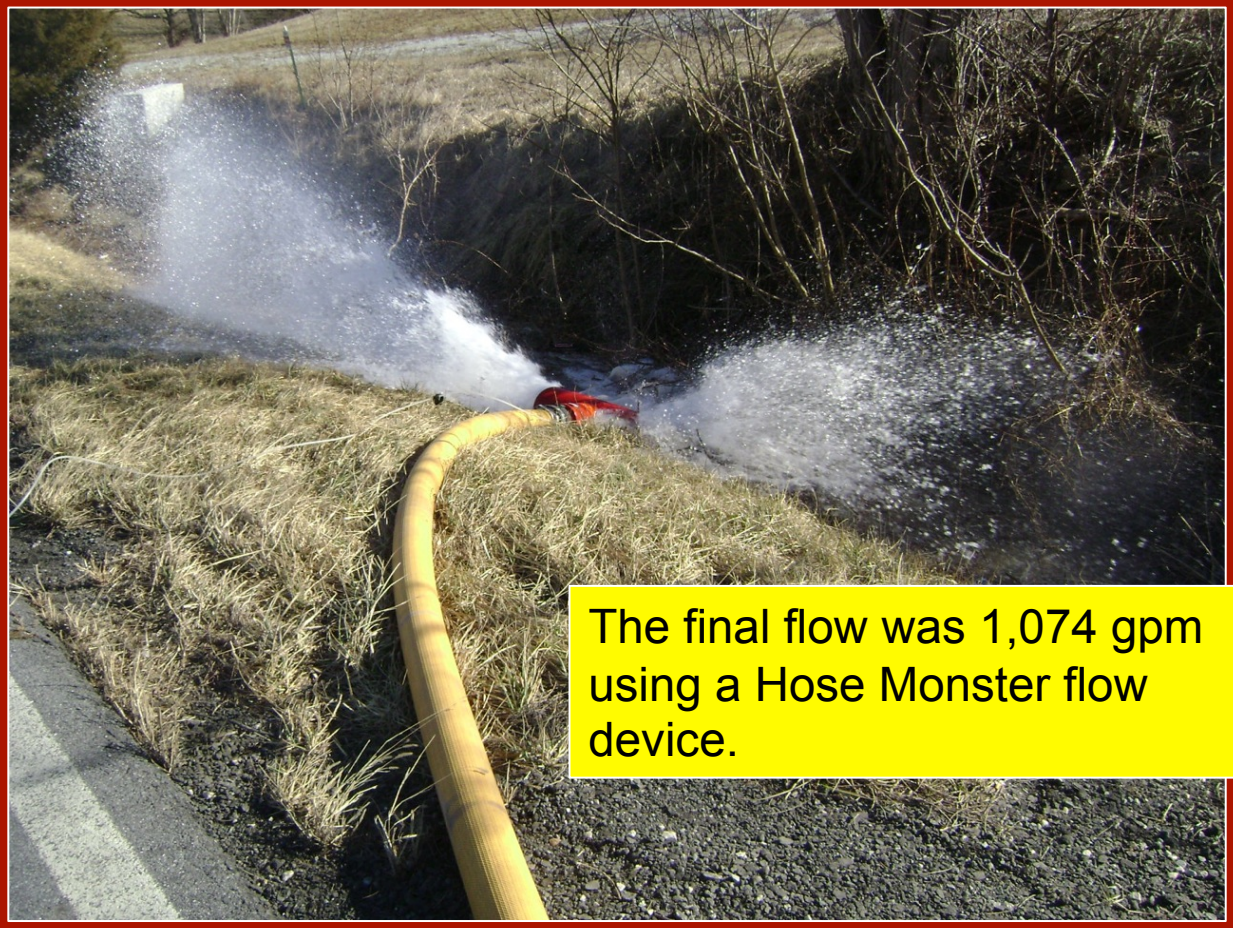
The Flow Test



The final flow was 1,074 gpm using a Hose Monster flow device.

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This program was developed by
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