

# Eastern Raw Water Line

## Stakeholder Report - 1st Quarter 2012

*City of Harrisonburg - Department of Public Utilities*

### Project 256.3A Closes in on Completion as the I-81 Bore Sub-project Wraps Up!



January 10, 2012

*Special points of interest:*

- I-81 Bore Wraps Up!
- Another Phase Begins
- Project Updates
- Installation Progress Chart

On a warm morning in July of 2010, the Public Utilities Department broke ground on yet another leg of the Eastern Raw Waterline. The project included 5,426 linear feet of 30" waterline and is the largest project in terms of length within in the City limits. This project will knock out a large part of Public Utilities' goal of constructing the 30" waterline across the City by the end of 2012.

To simplify project 256.3A, the construction was broken into three sections: East, West and the Interstate 81 Bore. To date, the east and west sections have been constructed and finishing touches are taking place on the bore.

Jamie Fultz, PE, the City's project manager for the 256.3A project, worked closely with the local VDOT residence to achieve a design to cross I-81 with the 30" waterline that accommodates any future widening of the interstate,

cost effective crossing methods, and high levels of safety.

The project consisted of the installing approximately 280 feet of 48-inch diameter steel casing under Interstate 81. The casing was installed using both open cut and microtunneling methods. As the name implies, microtunneling is a digging technique used to create tunnels under roads, streams, etc., in which casing or pipe can be placed. Microtunneling can produce a high accuracy of installation, while minimizing the disturbance to the surface above. A major crossing like the one in this project produces a great opportunity to incorporate this technique.

With this project behind them, Public Utilities will only be two projects away from reaching their goal for the end of 2012.



### City Begins Another Phase of the 30" Waterline

Public Utilities was excited to see another phase of the Eastern Raw Waterline break ground in December 2011. With the beginning of project 256.3E, which starts at the Walmart entrance on Erickson Avenue and ends at the West Corporate limits, Public Utilities is one project away from having all projects within the City of Harrisonburg either in some stage of construction or

completed.

The 256.3E phase consists of approximately 2,571 LF of 30" watermain. This is a significant project because it will tie two previously constructed projects together. It is scheduled to be completed by June 2012. At that time, the 30" waterline will run the entire length of Erickson Avenue and cross South High

Street to conclude at the intersection with Pear Street.



## Project Overview & Status

**Part 1** of the project requires coordination with **County residents** and includes 36,394 feet of pipeline. The route of the pipeline crosses the property of twenty-two owners. In addition, the pipeline crosses several secondary roads.

The pipeline across private property is currently under design and stakeholder partnering. The road crossings have been completed through construction. Construction is expected to begin beyond the fall of 2012.

**Part 2A** required coordination with **County residents** and includes 10,150 feet of pipeline and runs from our booster pump station at Goods Mill Road along Port Republic Road to Spaders Church Road.

The Department of Public Utilities has initiated design and stakeholder partnering including the VDOT permitting process for major roadway crossings on Port Republic, Cross Keys and Oak Ridge roads. Construction is expected to begin beyond the fall of 2012.

**Part 2B** requires coordination with **County residents** and includes 16,500 feet of pipeline and travels east from Spaders Church Road to the east corporate limits near the City's Ramblewood Water Tank. The project crosses seventeen landowners and is currently under design.

The Department of Public Utilities has initiated design and stakeholder partnering including the VDOT permitting process for major roadway crossings on Spaders Church, Osceola Springs, Autumn and Ridgedale roads. Construction is expected to begin beyond the fall of 2012.

**Part 3A** begins at the East Corporate Limits near the existing Ramblewood Tank and extends to the intersection of Stonespring Road and Beery Road, including a boring of I/81. Total pipeline length is 5,426 linear feet. This project is currently being coordinated with **City residents** in mind.

The construction of Part 3A West is complete. *The I-81 bore is nearly complete, please see cover story.* Phase 3A east is complete.

**Part 3B** is part of the Erickson Avenue / Stonespring Road Connection project Phase 2. The project includes 1,700 feet of pipeline and begins at the intersection of Beery Road and Stonespring Road and extends to South Main Street. This project required coordination with **City residents and businesses.**

This project is currently complete.

**Part 3C** is also part of the Erickson Avenue / Stonespring Road Connection project. It begins at South Main Street and extends to Pear Street. The project includes 5,158 feet of waterline. This project requires coordination with **City residents and businesses.**

*The design on this project is complete and has recently been bid by the City's Public Works department as part of their roadway project.*



**Part 3D** was part of the Erickson Avenue / Stonespring Road Connection Project Phase 1. Beginning at Pear Street, 1,434 feet of waterline runs west across South High Street, down Erickson Avenue and ends at the Wal-Mart entrance.

This project has been completed.

**Part 3E** begins on Erickson Avenue at the Wal-Mart entrance and extends to the City's West Corporate Limits.

*The 2,571 feet of waterline is currently under construction and is scheduled to be completed by June 2012. See cover story.*

**Part 4** involves 6,673 feet of waterline running from the City's West Corporate Limits along Erickson Avenue to Route 33. This project requires coordination with numerous **City residents.**

*The 30" pipeline installation is currently over 96% complete and was halted just prior to reaching the casing.*

## Project Overview and Status Continued...

**Part 4 continued...** *Public Utilities is currently working on reevaluating the components of a vault that will be installed as part of this project. The vault design is currently being studied to accurately evaluate how it will integrate with the operations of our existing water system. Once that has been determined, the project will reconvene and the remaining pipe and vault will be installed. This will most likely happen after the completion of project 256.3E.*

**Part 5** is the Route 33 corridor from Erickson Avenue to the City's Water Treatment Plant. 3,598 feet of pipe was involved with this project.

This project has been completed.

**Shenandoah Intake and Pump** provides intake, pumping and housing to comply with water withdrawal permit for 8.0 MGD.

The pump structure is 100% The next phase will be to complete the mechanical, electrical and instrumentation as the final step of the project.

**Booster Pump Station** works in coordination with pumps at Shenandoah Intake.

The pump structure is 100% complete. The final phase will be to complete the mechanical, electrical and instrumentation features to the pump station.

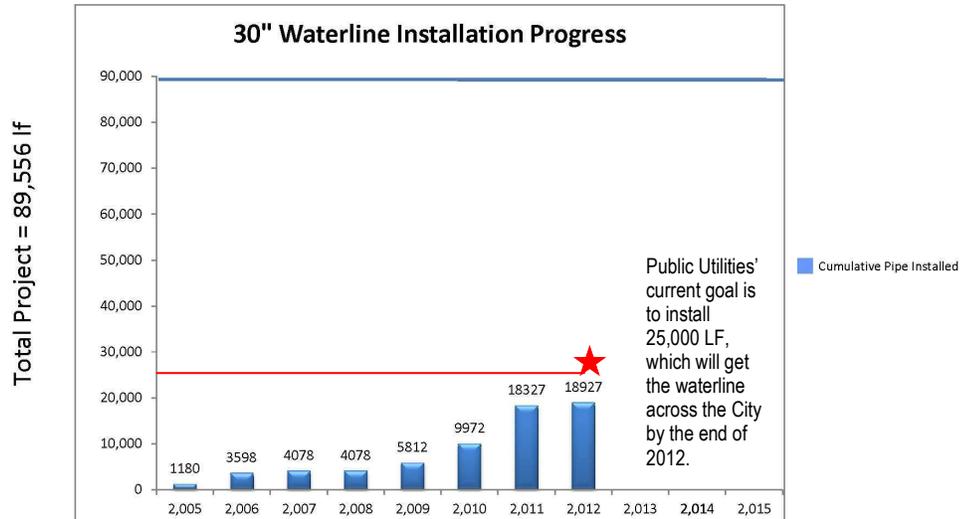
## EASTERN RAW WATERLINE CONSTRUCTION PHOTOS



## Track the City's 30" Waterline Installation Progress Over the Project's Seven Year History

"Public Utilities decided to attack one of the most difficult phases of this waterline project by constructing the 30" main across the City first. In order to complete this phase, contractors are battling a tangled web of asphalt, utilities, and closely stacked dwellings".

- Mike Collins, Director of Public Utilities



	2005	2006	2007	2008	2009	2010	2011	2012
Prior Pipe Installed	0	1180	3598	4078	4078	5812	9972	18327
Yearly Pipe Installed	1180	2418	480	0	1734	4160	8355	600
Cumulative Pipe Installed	1180	3598	4078	4078	5812	9972	18327	18927

### Department of Public Utilities

2155 Beery Road  
Harrisonburg, VA 22801

Phone: 540.434.9959  
Fax: 540.434.9769  
E-mail:  
meranda.lokey@harrisonburgva.gov



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If you would like to receive future newsletters via email please contact Meranda Lokey at 540.434.9959 or email [meranda.lokey@harrisonburgva.gov](mailto:meranda.lokey@harrisonburgva.gov)



## What Can Property Owners Expect?

As this complex project moves forward, the Department of Public Utilities would like to express our gratitude to each of the property owners affected by the construction and remind each of you that we are here to answer any questions you may have. We will uphold all agreements we have to date and will continue to make contact with all property owners as the sub-projects progress. We are aggressively moving forward with the design of all sub-projects and anticipate design completion to be in Fall 2012. Once the design is complete, we will contact property owners to provide a better explanation of the actual disturbances to the land. At that time we will be in a position to discuss:

- Projected Construction Schedule
- City and Contractor Property Access
- Design Features
- Forested Land Removal
- Entrance and Driveway Disturbances
- Material Stockpiling
- Potential Crop Damage
- Livestock Protection