



Details: Today's wet site conditions prevented soil testing. Testing will be rescheduled.



Details: Overall site conditions.

| | | |
|-----------------|---------------------|----------------------|
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Details: Deadman blocking completed, valve sleeve placed, and backfilled at both waterline valve locations.



Details: Excavation continues within the existing road area. Soil testing scheduled for the following day.

| | | |
|-----------------|---------------------|----------------------|
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Photo 1: The thrust blocks were placed at the end caps on 11/05/2018. Contractor is constructing forms and placing rebar for the dead man blocking.



Photo 2: Overall site conditions. Work has been intermittent over the last several days and continues through the coming days due to rain. Today, the work noted above was accomplished; however, no other construction tasks were undergone due to expected rain.



Photo 1: The portion of the existing (old) waterline has been removed.



Photo 2: The ends of the existing (old) waterline are capped, after a portion of the pipe was cut and removed. Leak test are in progress. Service is expected to be restored by the end of the day.



Photo 1: The waterline is removed.



Photo 2: Work resumes on the waterline. The site was prepared with equipment to cut the existing (old) waterline, and materials are on site for capping, rodding, restraining cap to pipe, and concrete block construction. The waterline is cut to relieve pressure and to allowing water drainage.



Photo 1: Work was not performed the previous day to allow soil to dry. Site conditions are still wet and halted work today.



Photo 2: AT&T has placed a new communication line (black utility line visible in photo above) in the construction area, but it was not connected or buried today.



Photo 1: The existing (old) waterline continues to be excavated and exposed. The waterline will be cut and capped, and water service is transferred to the new waterline (tentatively on 11/01/2018). A utility line (thin cable above waterline) remains in the way of the contractor. The utility has been notified, but has not arrived to relocate their utility line.



Photo 2: Overall site condition. Temporary detour lane is lined with barrels on the left side of Broom Boulevard. Work will not be performed tomorrow to allow soil to dry.



Photo 1: The area below the asphalt cut and removal is being excavated. The existing (old) waterline is exposed. The waterline will be cut and capped, once the water service is transferred to the new waterline.



Photo 2: The area below the asphalt cut and removal is being excavated. The existing (old) waterline is exposed. The waterline will be cut and capped, once the water service is transferred to the new waterline.



Photo 1: The new waterline passed the pressure test. Gravel is placed in the trench to cover the new waterline. Water service will be shut off in the coming days, to allow transfer of water service from old waterline to new waterline.



Photo 2: The two regular road lanes have been officially closed. The temporary detour road has been lined with barrels and detour signs uncovered. The asphalt has been cut and removed from the roadway.

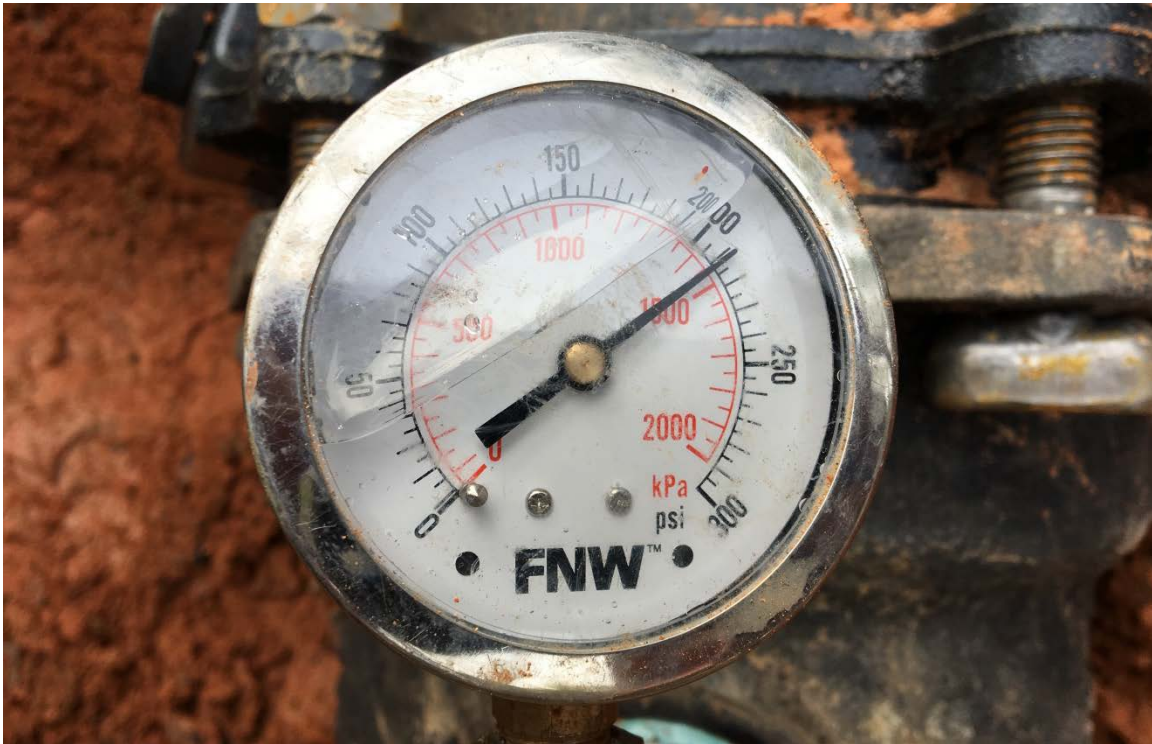


Photo 1: The waterline is undergoing a second pressure test. It's a two hour test overseen by Fayette County Water System.



Photo 2: Overall site conditions.



Photo 1: The new waterline is undergoing pressure testing.



Photo 2: Work crews are tightening fittings where a leak is suspected.



Photo 1: The thrust blocks are measured to verify they meet the County's specs.



Photo 2: Overall site view.



Photo 1: The 8" waterline was flushed and the 8"x2" tapping tee is being installed.



Photo 2: The thrust blocks were placed using a high-strength concrete mix.

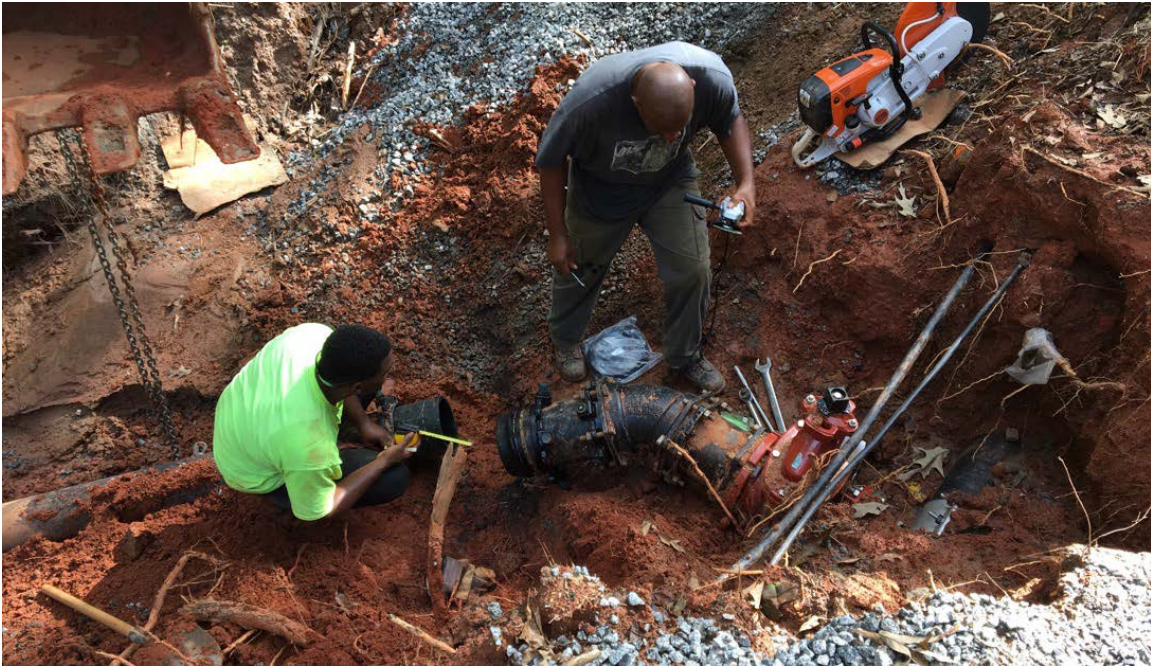


Photo 1: The new waterline is being flushed and the contractor is installing a tapping tee.



Photo 2: Overall site view.



Project: 104 Broom Boulevard – 2017 SPLOST

Date: October 15, 2018



Photo 1: Thrust block constructed at 45 degree fittings.



Photo 2: Overall site view.



Project: 104 Broom Boulevard – 2017 SPLOST

Date: October 12, 2018



Photo 1: Final piece of pipe has been installed. ***Work delayed for two days due to anticipated severe weather related to Hurricane Michael.*



Photo 2: Final piece of pipe has been installed. ***Work delayed for two days due to anticipated severe weather related to Hurricane Michael.*



Photo 1: A pressure tests were completed on the tapping sleeve and wet tap. Fayette County was on location for testing. The waterline is now in service.



Photo 2: A pressure tests were completed on the tapping sleeve and wet tap. Fayette County was on location for testing. The waterline is now in service.



Photo 1: Water began filling the waterline trench on 10/05/2018 and remained in the trench today. Although water was present, work crews were able to install the tapping sleeve.



Photo 2: Water began filling the waterline trench on 10/05/2018 and remained in the trench today. Although water was present, work crews were able to install the tapping sleeve.



Photo 1: Installation of the 45 degree pipe fitting is in progress and will be followed by tapping sleeve and water tap installation in the coming days.



Photo 2: Pipe installation continues and is nearing the tie in location. Approximately 56 feet has been installed.



Photo 1: Excavation resumes again allowing for installation of remaining new pipe.



Photo 2: Excavation resumes again allowing for installation of remaining new pipe.



Photo 1: Approximately 36 feet of the new 8" waterline pipe has been installed.



Photo 2: Approximately 36 feet of the new 8" waterline pipe has been installed.



Photo 1: Excavation for new waterline pipe continues. The site for the new pipe has been prepped with a plastic liner and gravel.



Photo 2: Overall work site.



Photo 1: Excavation began for the 8" waterline installation.



Photo 2: Work had to be delayed due rain.



Photo 1: Overall work site.

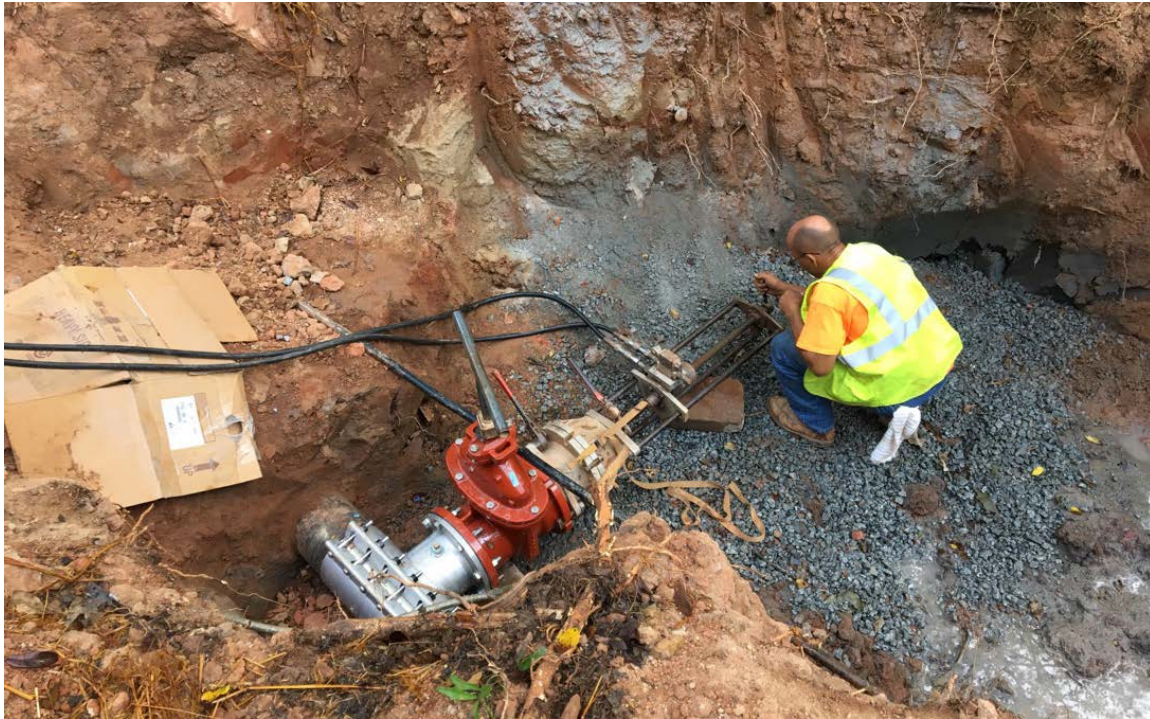


Photo 2: The water tap installation at location 1 is complete. Pipe installation is scheduled to begin today and continue throughout tomorrow.



Photo 1: Installation of 8" x 8" tapping sleeve with valve has been completed.



Photo 2: The wet tap is scheduled for the following day.



Photo 1: Work site overview.



Photo 2: Excavation continues within the waterline pipe installation area.



Photo 1: Rock debris is being removed from the construction area.



Photo 2: With the large rock removed, waterline relocation activities will resume next week.



Photo 1: Progress is visible as demo continues on the large rock.



Photo 2: Progress is visible as demo continues on the large rock.



Photo 1: The rock debris will be removed from the site, once the demo is complete.



Photo 2: Larger rock breaking equipment arrived on site, and crews began breaking up the rock.



Photo 1: The contractor was not successful using the equipment to demo the rock. Larger rock breaking equipment will be delivered tomorrow.



Photo 2: The contractor was not successful using the equipment to demo the rock. Larger rock breaking equipment will be delivered tomorrow.



Photo 1: Today, work begins on breaking up the rock.



Photo 2: Special equipment arrives at the work site, to assist with breaking up the rock.



Photo 1: Excavation is complete at both water valve locations (noted above). Excavation for the pipe continues. Installation of pipe and wet taps will begin next week.



Photo 2: Excavation is complete at both water valve locations (noted above). Excavation for the pipe continues. Installation of pipe and wet taps will begin next week.



Photo 1: Excavation continues for upcoming waterline relocation. Crews are working around the rock, until it can be removed.



Photo 2: Overall site.



Project: 104 Broom Boulevard – 2017 SPLOST

Date: September 13, 2018

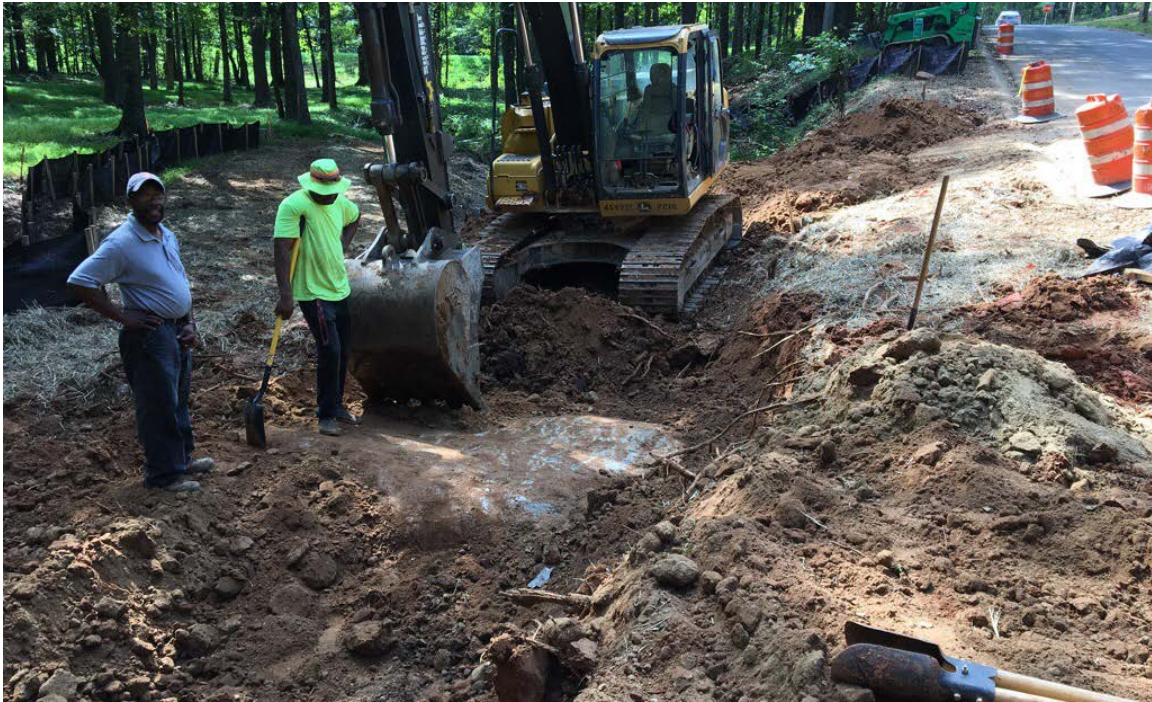


Photo 1: Rock was located during excavation within the area of the proposed waterline and new culvert system. Contractor will examine the area to determine the extent of rock.



Photo 2: Excavation began today for the waterline relocation.



Photo 1: Temporary detour road signs have been installed. They will remain covered until road demolition begins. Waterline relocation is scheduled to begin soon.



Photo 2: Overall site view.



Project: 104 Broom Boulevard – 2017 SPLOST

Date: September 10, 2018



Photo 1: Disturbed areas near the existing culvert outlet have been stabilized with grass seed and hay.



Photo 2: Disturbed areas near the existing culvert outlet have been stabilized with grass seed and hay.



Photo 1: Construction of the temporary detour road is complete.



Photo 2: Construction of the temporary detour road is complete.



Photo 1: Construction of the temporary detour road continues. Asphalt paving is underway and contractor expects it to be complete by the end of the day.



Photo 2: Construction of the temporary detour road continues. Asphalt paving is underway and contractor expects it to be complete by the end of the day.



Photo 1: Construction of the temporary detour road continues. Additional GAB has been delivered and installed. Asphalt will be placed soon.



Photo 2: Construction of the temporary detour road continues. Additional GAB has been delivered and installed. Asphalt will be placed soon.



Photo 1: Construction of the temporary detour road continues. Subgrade has been compacted, first layer of GAB placed, and riprap placed between detour road and creek.



Photo 2: Overall site view. Additional GAB will be delivered for the temporary detour road and asphalt placement will follow.



Photo 1: Construction of the temporary detour road is in progress. (August 24, 2018)



Photo 2: The temporary diversion pipe construction is complete. (August 23, 2018)



Photo 1: Diversion pipe installation.



Photo 2: The diversion pipe is installed and the joint is currently being grouted at the existing culvert outlet.



Photo 1: The disturbed areas on the east shoulder of Broom Boulevard are covered with mulch/hay/grass.



Photo 2: The disturbed areas on the west shoulder of Broom Boulevard are covered with mulch/hay/grass.



Photo 1: The last silt fence was installed. (August 15, 2018)

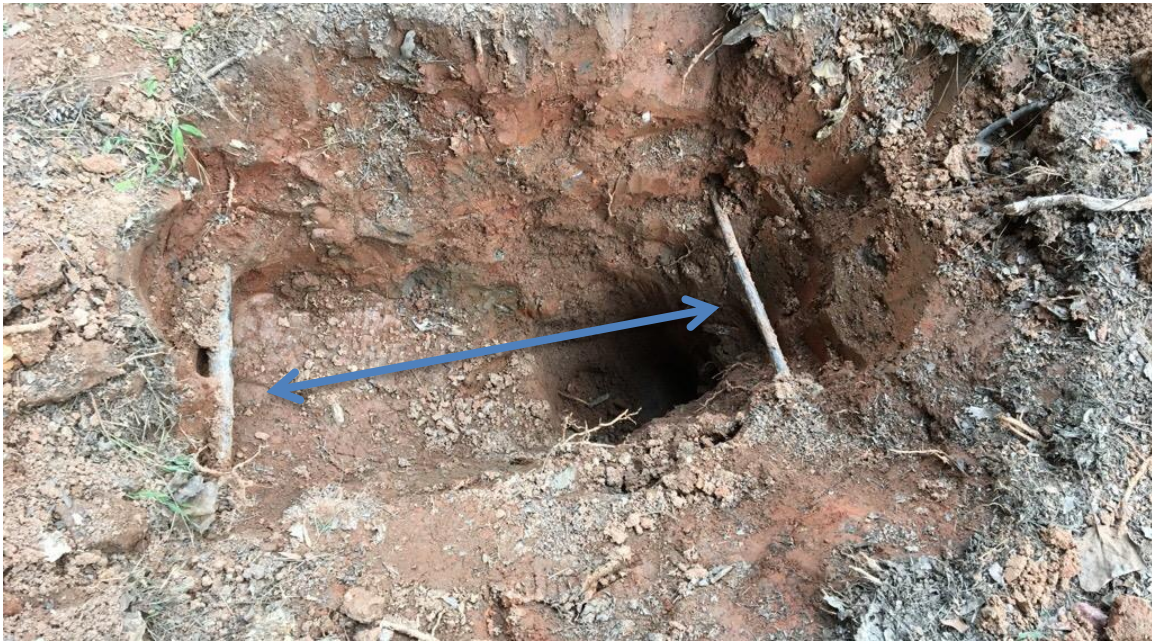


Photo 2: The utility lines were located and identified. The lines will be relocated during project construction. (August 14, 2018)



Photo 1: Silt fence is being installed around the construction site. (Monday, August 13, 2018)



Photo 2: The construction site for this project is large and involves some tree removal. The noted trees are being removed to prepare for construction. (Friday, August 9, 2018)

| General Information | | Map | |
|---|--|--------------------------------------|---|
| Project ID | | | |
| Street Name | Broome Blvd. | | |
| Site Visit Date | 5/21/13 | | |
| Road Classification | Minor road | | |
| Project Notes | | | |
| Rural Typical Section | | | |
| Field Notes | | | |
| Design (Existing Site Features) | | | |
| Existing Road Laneage | 2 - 12' | | |
| Existing Shld Width (paved and grass) (feet) | 2 | | |
| Existing Side Slopes | flat | | |
| Existing Guardrail | None | | |
| Depth fm Pavement to Top of Culvert (ft): | 4 | | |
| Pipe Type and Size | 3.5x2.5 egg CMP | | |
| Pipe Condition (1-5) (1 is new) | 5 | | |
| Condition Notes: crushed headwall and pipe entrance | | | |
| Pavement Type/Condition | Asphalt/Poor | | |
| Environmental Features | | Stage Construction Options | |
| Wetlands | | Close Location to Traffic | |
| Ditches | | Maintain One Lane - No Temp Pavement | |
| | | Maintain One Lane - Temp Road | X |
| Utilities (Visual Inspection) | | Stage Construction Notes: | |
| Electric | Aerial | | |
| Cable | Aerial | | |
| Phone | Aerial | | |
| Gas | | | |
| Water | Buried | | |
| Sewer | | | |
| Other | | | |
| Proposed Design | | | |
| Roadway Section | Typical. For costing purposes, temporary road consists of 8" gravel fill | | |
| Culvert Size & Material | dbl 8' x 5' box, concrete, 70' length. Cost of removing 2.5' x 2.5' elliptical CMP assumed equal to 36" round CMP. Cost of removing headwalls assumed equal to removal of entire length of pipe. | | |
| Utility Relocations | Cable, telephone, water | | |
| Guardrail Replacement | | | |
| Miscellaneous Features | Upstream bend in stream adjacent to roadway may need additional bank stabilization | | |
| Planning Cost Estimate | | | |
| Type | Notes | Total | |
| Design | Includes 10% Construction Cost and surveying needs | \$38,940 | |
| Right of Way Cost | Assuming project extends 12,000 sf beyond ROW | \$48,000 | |
| Utility Relocation Cost | Buried and aerial utilities | \$25,300 | |
| Construction Cost | 5 acre clearing and grubbing, additional stabilization/diversi | \$264,404 | |
| Environmental Permits and Engineer of Record Admin | Assuming minimal environmental permitting required | \$11,236 | |
| Total Planning Estimate | | \$387,880 | |



Photo 1:



Photo 2:

Broome Blvd

Photo Date:

1/05/2016

Taken By:

Public Works

Page:

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Roadway Construction, Utility Relocation and ROW Quantity Calculations

| Roadway Construction | Removal Unit Cost | Installation Unit Cost | Amount | Total Cost |
|----------------------|-------------------|------------------------|--------|--------------|
| Pavement (SF) | \$ 0.73 | \$ 4.87 | 432.00 | \$ 2,421.50 |
| Curb and Gutter (LF) | \$ 28.56 | \$ 30.60 | 0.00 | \$ - |
| Drain Inlet (EA) | | \$ 3,000.00 | 0.00 | \$ - |
| 4" Sidewalk (SY) | \$ 13.56 | \$ 36.90 | 0.00 | \$ - |
| Guardrail (LF) | \$ 4.88 | \$ 49.09 | 625.00 | \$ 33,735.00 |
| End Anchorage (EA) | | \$ 1,380.00 | 2.00 | \$ 2,760.00 |
| Subtotal | | | | \$ 38,916.50 |

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 9,676.63

Roadway Total \$ 49,963.13

| Drainage | Removal Unit Cost | Installation Unit Cost | Amount | Total Cost |
|------------------------|-------------------|------------------------|-----------|---------------|
| Trench Excavation (CY) | | \$ 10.38 | 373.33 | \$ 3,875.20 |
| 36" CMP (LF) | \$ 19.62 | | 140.00 | \$ 8,240.40 |
| 36" RCP | | \$ 134.40 | 0.00 | \$ - |
| Class A Conc (CY) | | \$ 892.19 | 132.51 | \$ 118,223.83 |
| Steel (lb) | | \$ 1.42 | 13,383.00 | \$ 18,950.33 |
| Pipe Bedding (CY) | | \$ 48.60 | 48.00 | \$ 2,332.80 |
| Trench Backfill (CY) | | \$ 2.99 | 370.67 | \$ 1,107.55 |
| Trench Compaction (CY) | | \$ 6.36 | 296.53 | \$ 1,885.95 |

Drainage Total \$154,616.06

| Signing and Marking | Installation Unit Cost | Amount | Total Cost |
|-------------------------|------------------------|--------|------------|
| Permanent Striping (LF) | \$ 0.71 | 72.00 | \$ 50.98 |

Signing and Marking Total \$ 50.98

| Staging | Installation Unit Cost | Amount | Total Cost |
|---------------------------------------|------------------------|--------|--------------|
| Clearing and Grubbing (Acre) | \$ 10,260.00 | 0.20 | \$ 2,052.00 |
| Temporary Gravel Road (SY) | \$ 15.42 | 977.78 | \$ 15,077.33 |
| Temporary Drainage (Stream Diversion) | \$ 4,428.00 | 2.00 | \$ 8,856.00 |

Staging Total \$ 26,087.29

| Erosion Control | Installation Unit Cost | Amount | Total Cost |
|----------------------------------|------------------------|--------|-------------|
| Fine Grading and Seeding (SY) | \$ 4.39 | 92.00 | \$ 404.06 |
| Temporary Grassing (AC) | \$ 855.60 | 0.00 | \$ - |
| Type C Silt Fence (LF) | \$ 4.24 | 560.00 | \$ 2,372.16 |
| Check Dam Type C Silt Fence (LF) | \$ 6.79 | 560.00 | \$ 3,803.52 |
| Erosion Control Mats (SY) | \$ 1.87 | 560.00 | \$ 1,048.32 |
| Landscape Mulch (SY) | \$ 3.58 | 560.00 | \$ 2,002.56 |
| Perm Grassing (AC) | \$ 1,402.20 | 0.00 | \$ - |
| Rip Rap Type 3 12" (SY) | \$ 60.98 | 48.00 | \$ 2,927.23 |
| Plastic Filter Fabric (SY) | \$ 5.72 | 48.00 | \$ 274.75 |
| 4" Ditch Paving (SY) | \$ 54.65 | 0.00 | \$ - |

Erosion Control Total \$ 12,832.61

Construction Cost Total \$243,550.07

Traffic Control (8% of Construction Total \$) \$ 19,484.01

County Emergency Roadway Work \$ 1,370.00

Construction Cost Grand Total \$264,404.07

| Utility Relocation | Removal Unit Cost | Installation Unit Cost | Amount | Total Cost |
|----------------------------|-------------------|------------------------|--------|--------------|
| Electric | | | | |
| Aerial | \$ 11.00 | \$ 55.00 | | \$ - |
| Buried | \$ 16.50 | \$ 82.50 | 0.00 | \$ - |
| Wooden Pole | \$ 82.50 | \$ 605.00 | | \$ - |
| Phone | | | | |
| Aerial | \$ 11.00 | \$ 27.50 | | \$ - |
| Buried | \$ 16.50 | \$ 55.00 | 100.00 | \$ 7,150.00 |
| Wooden Pole | \$ 82.50 | \$ 605.00 | | \$ - |
| Cable | | | | |
| Aerial | \$ 11.00 | \$ 27.50 | | \$ - |
| Buried | \$ 16.50 | \$ 55.00 | 100.00 | \$ 7,150.00 |
| Wooden Pole | \$ 82.50 | \$ 605.00 | | \$ - |
| Gas | | | | |
| 4" main | \$ 16.50 | \$ 66.00 | | \$ - |
| Water | | | | |
| 8" main | \$ 16.50 | \$ 93.50 | 100.00 | \$ 11,000.00 |
| Relocate Fire Hydrant (EA) | | \$ 2,609.22 | | \$ - |
| Sewer | | | 0.00 | \$ - |
| 12" main | \$ 16.50 | \$ 82.50 | 0.00 | \$ - |
| Utility Relocation Total | | | | \$ 25,300.00 |

| Right of Way (Sq Ft) | Cost/ Sq Ft | Sq Ft | Total Cost |
|----------------------|-------------|-----------|---------------------|
| Permanent Easement | \$ 4.00 | 12,000.00 | \$ 48,000.00 |
| ROW Total | | | \$ 48,000.00 |