



**Photo 1: Culvert is open to flowing water. Roadway has been reopened to traffic.
(12/14/2017 – Road was reopened on 11/16/2017)**



Photo 2: Guardrail installation has been completed. (11/16/2017)



Project: Lee's Mill Road – 2017 SPLOST

Date: 11/16/2017 & 12/14/2017



Photo 1: The road and residential driveway apron have been paved. (11/13/2017)



Photo 2: Additional fill has been placed and graded on the shoulder along the newly paved road section. The shoulder is prepped for guardrail installation. (11/14/2017)



Project: Lee's Mill Road – 2017 SPLOST

Date: 11/13/2017 & 11/14/2017



Photo 1: Roadway continues to be prepped for future paving. (11/06/2017)



Photo 2: Soil stabilization has been placed along the south side of the road. (11/07/2017)



Project: Lee's Mill Road – 2017 SPLOST

Date: 11/06/2017 & 11/07/2017



Photo 1: Roadway is being prepped for future paving.



Photo 2: Roadway side slopes are graded and complete.



Project: Lee's Mill Road – 2017 SPLOST

Date: 11/03/2017



Photo 1: Backfill, compaction and grading continue at the work site, in preparation for paving. (11/02/17)



Photo 2: Backfill, compaction and grading are in progress. (11/01/2017)



Project: Lee's Mill Road – 2017 SPLOST

Date: 11/01/2017 & 11/02/2017



Photo 1: Back fill has been placed and compacted at the culvert. (10/27/17)



Photo 2: The shoulder area has been graded and prepped for the guardrail pad. (10/26/2017)



Project: Lee's Mill Road – 2017 SPLOST

Date: 10/26/2017 & 10/27/2017



Photo 1: Field measurements are underway for shoulder grading and guardrail locations. (10/25/17)



Photo 2: Heavy rains occurred early in the day. The erosion control team was on site placing hay on all work site disturbed areas. (10/23/2017)



Photo 1: North of culvert: Silt fence has been reinstalled around the excavated soil along the northwest bank of the creek (left side of culvert). (10/20/17)



Photo 2: North of culvert: Grading, filter fabric and rock is in progress. (10/19/2017)



Project: Lee's Mill Road – 2017 SPLOST

Date:10/19/2017 & 10/20/2017



Photo 1: Culvert construction is now 100% complete (north side view).



Photo 2: South of culvert: Filter fabric and rock is complete on both sides of the creek.



Photo 1: 2nd Half of culvert: Rebar and forms have been installed.



Photo 2: South of culvert: Filter fabric and rock have been placed on creek grading.



Photo 1: Concrete forms for the 2nd half of the culvert are being installed. The first half of the culvert is complete.



Photo 2: South of culvert: Grading has been initiated.



Project: Lee's Mill Road – 2017 SPLOST

Date:10/12/2017



Photo 1: Concrete is being poured for the first half of the culvert walls, wings, and top.



Photo 2: A concrete vibrator is being used for compaction in the walls.



Project: Lee's Mill Road – 2017 SPLOST

Date:10/11/2017



Photo 1: Concrete forms and rebar are placed for construction of final section bottom plate and wingwall footers.



Photo 2: Gravel is placed in the apron area of the culvert.



Photo 1: The bottom plate and wingwall footer construction is complete for first half of new culvert. Concrete forms and rebar are being placed for second half of culvert.



Photo 2: The bottom plate and wingwall footer construction is complete for first half of new culvert. Concrete forms and rebar are being placed for second half of culvert.



Project: Lee's Mill Road – 2017 SPLOST

Date: 10/05/2017



Photo 1: Tar Creek has been diverted. The ends of the corrugated metal pipes were exposed and removed on the north side of Lee's Mill Road.



Photo 2: Tar Creek has been diverted and demolition begins on the south side of Lee's Mill Road.



Project: Lee's Mill Road – 2017 SPLOST

Date: 09/29/2017



Photo 1: The asphalt is being cut and removed from the roadway, to allow culvert access.



Photo 2: Both water main valves (#1 pictured above) are installed and require backfill and compaction.



Project: Lee's Mill Road – 2017 SPLOST

Date: 09/28/2017



Photo 1: Excavation in the creek bed on the north side of the culvert.



Photo 2: Culvert replacement design requires water line relocation. New water line (pictured above) is being installed.



Project: Lee's Mill Road – 2017 SPLOST

Date: 09/27/2017

General Information		Map	
Project ID			
Street Name	Lees Mill Rd		
Site Visit Date	1/20/2016		
Road Classification	Rural		
Project Notes			
Culvert replacement alternatives to provide flow capacity for the 100 year storm peak runoff.			
Field Notes			
Design (Existing Site Features)			
Existing Road Laneage	2-12'		
Existing Shld Width (paved and grass) (feet)			
Existing Side Slopes			
Existing Guardrail	No		
Depth fm Pavement to Top of Culvert (ft):	(+/-) 5.2'		
Pipe Type and Size	3 - 72" CMP		
Pipe Condition (1-5) (1 is new)	5		
Condition Notes: Existing culverts do not provide service for the 100 yr storm event.			
Pavement Type/Condition	Asphalt/Good		
Environmental Features			
Wetlands	TBD		
Ditches	YES		
State Waters	YES		
Utilities (Visual Inspection)			
Electric	Aerial		
Cable	Unknown		
Phone	Unknown		
Gas	Underground		
Water	Underground		
Sewer	Underground		
Other			
Proposed Design		Stage Construction Options	
Roadway Section	Typical	Close Location to Traffic	X
Culvert Size & Material	2-8'X7' Concrete Box Culvert with associated wing walls and rip-rap.	Maintain One Lane - No Temp Pavement	
Utility Relocations	16" Waterline	Maintain One Lane - Temp Pavement	
Guardrail Replacement		Stage Construction Notes: Assumed road closure	
Miscellaneous Features			
Planning Cost Estimate			
Type	Notes	Total	
Design	Actual Cost including Environmental Permitting and Eng of Record Administrative Fee	\$51,470	
Right of Way Cost	Assuming UPS/DWS ends extends past ROW 1/20 acre	\$17,424	
Utility Relocation Cost		\$132,521	
Construction Cost	Includes 1/8 acre clearing and grubbing, guardrail installation	\$310,434	
Total Planning Estimate		\$511,849	



Photo 1:



Photo 2:

Lees Mill Road

Photo Date:

1/05/2016

Taken By:

Tony Hicks

Page:

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Photo 3:



Photo 4:

Lees Mill Road

Photo Date:

12/24/2015

Taken By:

Homeowner

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	1200.00	\$ 6,726.40
Curb and Gutter (LF)	-	\$ 18.42	0.00	\$ -
4" Sidewalk (SY)	\$ -	\$ 36.90	0.00	0
Guardrail (LF)	\$ -	\$ 49.09	110.00	5400.12
End Anchorage (EA)		\$ 1,380.00	4.00	5520
Subtotal				\$ 17,646.52
Grading Complete (5% of Rwy Items & Dmg Total \$)				\$ 10,792.91
Roadway Total				\$ 28,439.43

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	554.65	\$ 5,757.30
72" CMP (LF)	\$ 54.00		180.00	\$ 9,720.00
2-8'X7' Box Culvert (CY)		\$ 892.19	154.98	\$ 138,271.61
Box Culvert Wingwalls, Parapetes (CY)		\$ 892.19	20.82	\$ 18,575.40
Steel (lb)		\$ 1.42	15023.40	\$ 21,333.23
Culvert Bedding (CY)		\$ 48.60	32.60	\$ 1,584.36
Trench Backfill (CY)		\$ 2.99	367.73	\$ 1,098.77
Trench Compaction (CY)		\$ 6.36	294.18	\$ 1,870.99
Drainage Total				\$ 198,211.64

Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	50	\$ 35.40

Signing and Marking Total			\$ 35.40
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Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.13	\$ 1,282.50
Temporary Pavement		0.00	0
Temporary Drainage (Stream Pump Around)	\$ 30,000.00	1.00	\$ 30,000.00
Staging Total			\$ 31,317.90

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	100.00	\$ 439.20
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	168.00	\$ 711.65
Check Dam Type C Silt Fence (LF)	\$ 6.79	0.00	\$ -
Erosion Control Mats (SY)	\$ 1.87	0.00	\$ -
Landscape Mulch (SY)	\$ 3.58	0.00	\$ -
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	340.00	\$ 20,734.56
Plastic Filter Fabric (SY)	\$ 5.72	340.00	\$ 1,946.16
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -
Ditch Adjustment/Grading (LS)	\$ 5,000.00	1.00	\$ 5,000.00
Erosion Control Total			\$ 28,831.57

Construction Cost Total			\$ 286,835.94
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Traffic Control (8% of Construction Total \$)			\$ 22,946.88
Public Works Costs			651
Construction Cost Grand Total			\$ 310,433.81

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00	0.00	\$ -
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50	0.00	\$ -
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50	0.00	\$ -
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Gas				
4" main	\$ 16.50	\$ 66.00	0.00	\$ -
Water				
Cap and Remove (EA)		\$ 3,045.00	1.00	\$ 3,045.00
16" Watermain (LF)		\$ 203.73	200.00	\$ 40,746.00
16" Gate Valve (EA)		\$ 7,885.00	2.00	\$ 15,770.00
20" Steel Casing (LF)		\$ 162.00	120.00	\$ 19,440.00
16" Jack and Bore (EA)		\$ 396.00	120.00	\$ 47,520.00
16" 45 degree MJ Bend (EA)		\$ 1,500.00	4.00	\$ 6,000.00
Utility Relocation Total				\$ 132,521.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	4356.00	\$ 17,424.00
ROW Total			\$ 17,424.00