

QUANTITY + COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
CLEARING AND GRUBBING	0.5	ACRES	\$1,000.00	\$1,000.00	
EXCAVATION		C.Y.			
EMBANKMENT	250	C.Y.	\$2,000.00	\$2,000.00	
CURB INLET DI-	5	EACH	\$3,000.00	\$15,000.00	
CURB INLET DI-		EACH			
MANHOLE MH-		EACH			
MANHOLE MH-		EACH			
-IN. CONCRETE PIPE, CLASS III	400	LIN. FT.	\$40.00	\$16,000.00	
-IN. CONCRETE PIPE, CLASS IV		LIN. FT.			
- 180 LF PVC ROOF DRAIN	180		\$20.00	\$3,600.00	
-IN. C.M. CULVERT		LIN. FT.			
-IN. C.M. CULVERT		LIN. FT.			
BOX CULVERT		LUMP SUM			
PAVED DITCH		LIN. FT.			
RIPRAP - CLASS	2	S.F.	\$75.00	\$150.00	
SODDED SWALE	1000	S.Y.	\$5.00	\$5,000.00	
-IN. CONCRETE ENDWALL EW-		EACH			
-IN. END SECTION ES-		EACH			
HEADER CURB & GUTTER CG-		LIN. FT.			
CURB & GUTTER CG-	1000	LIN. FT.	\$12.00	\$12,000.00	
VALLEY GUTTER		EACH			
GRAVEL BASE		S.Y.			
GRAVEL SHOULDER	200	S.Y.	\$15.00	\$3,000.00	
SURFACE TREATMENT	2,000	S.Y.	\$7.00	\$14,000.00	
-IN. BIT. CONC.: TYPE B-		S.Y.			
-IN. BIT. CONC.: TYPE S-		S.Y.			
-IN. BASE MATERIAL	2,000	C.Y.	\$7.00	\$14,000.00	
-IN. SUBBASE MATERIAL	2,000	C.Y.	\$5.00	\$10,000.00	
TRAFFIC BARRICADE		EACH			
8" WATER LINE	25	LIN. FT.	\$20.00	\$500.00	
6" WATER LINE		LIN. FT.			
FIRE HYDRANT ASSEMBLIES	1	EACH	\$1,000.00	\$1,000.00	
BLOW OFFS W/VAULT, FRAME & COVER		EACH			
-IN. GATE VALVES, W/VAULT, FRAME & COVER		EACH			
-IN. GATE VALVES, W/VAULT, FRAME & COVER		EACH			
WATER VAULT	1	EACH	\$14,700.00	\$14,700.00	
8" SANITARY SEWER	300	LIN. FT.	\$20.00	\$6,000.00	
CONNECTION	1	EACH	\$2,250.00	\$2,250.00	
STANDARD MANHOLE W/FRAME & COVER		EACH			
SAMPLING MANHOLE/PORT	1	EACH	\$3,000.00	\$3,000.00	
AS-BUILT PLANS	2,000	LUMP SUM		\$2,000.00	
STORMWATER MANAGEMENT	1	LUMP SUM	\$30,000.00	\$30,000.00	
SITE LANDSCAPING				\$25,000.00	
10% CONTINGENCY				\$18,410.00	
ESTIMATED TOTAL				\$184,100.00	

I HEREBY CERTIFY THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT.
SIGNED: DATE:

GENERAL NOTES

All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County and/or the Western Virginia Water Authority and Department of Transportation.

The contractor or developer is required to notify the Roanoke County Engineering Division in writing at least three (3) days prior to any construction, including, but not limited to the following:

A. Installation of approved erosion control devices
B. Clearing and grubbing
C. Subgrade excavation
D. Installing storm sewers or culverts
E. Setting curb and gutter forms
F. Placing curb and gutter
G. Placing other concrete
H. Placing gravel base
I. Placing any roadway surface
J. Installing water lines
K. Installing sanitary sewer lines

A pre-construction conference should be scheduled with the Roanoke County Engineering Division, to be held at least one (1) day prior to any construction.

Measures to control erosion and siltation must be provided prior to plan approval. Plan approval in no way relieves the developer or contractor of the responsibilities contained within the erosion and siltation control policies.

A permit must be obtained from the V.D.O.T. Residency Office, Roanoke County, prior to construction in the highway right-of-way.

Plan approval does not guarantee issuance of any permits by V.D.O.T.

An approved set of plans and all permits must be available at the construction site.

Field construction shall honor proposed drainage divides as shown on plans.

All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

Pavement sections on approved plans are based on a minimum CBR of 10. CBR tests are to be performed by the engineer and submitted to V.D.O.T. and to the Roanoke County Engineering Division prior to placement. CBR values < 10 will require revised pavement sections.

All roadside ditches or grades of more than 5 percent shall be paved with cement concrete to the limits as indicated on the plans and as required at the field inspection.

Location of guard rails shall be determined at a joint field inspection by the County and V.D.O.T.

All springs shall be capped and piped to the nearest storm sewer or natural watercourse. The pipe shall be 6 inch minimum diameter and conform to V.D.O.T. Standard SB-1.

Standard street and traffic control signs shall be erected at each intersection by the developer prior to final street acceptance.

Construction debris shall be containerized in accordance with the Virginia Litter Control Act. No less than one litter receptacle shall be provided on site.

The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets. It is the contractors responsibility to insure that the streets are in a clean, mud and dust free condition at all times.

The developer and/or contractor shall supply all utility companies with copies of approved plans, advising them that all grading and installation shall conform to approved plans.

Contractors shall notify utilities of proposed construction at least two (2), but not more than ten (10) working days in advance. Area public utilities may be notified thru "Miss Utility": 1-800-552-7001.

The developer or contractor shall supply the County and the Western Virginia Water Authority with correct As-Built plans before final acceptance.

All work shall be subject to inspection by Roanoke County, the Western Virginia Water Authority and V.D.O.T. inspectors.

Field corrections shall be approved by the Roanoke County Engineering Division and/or the Western Virginia Water Authority prior to such construction.

100 year floodway and floodplain information shall be shown where applicable.

Grade stakes shall be set for all curb and gutter, culvert, sanitary sewer and storm sewer.

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SHEET NO.	DESCRIPTION	SHEET NO.	DESCRIPTION
CS	COVER SHEET	C10	CONSTRUCTION DETAILS
CS2	ROANOKE COVER SHEET	C11	E&S NOTES & DETAILS
C1	EXISTING CONDITIONS	C12	DRAINAGE AREAS
C2	PHASE I E&S PLAN	C13	STORM WATER DETAILS
C3	DEMOLITION	R1	ROADWAY DESIGN
C4	SITE PLAN	R2	TYPICAL SECTIONS
C5	GRADING AND DRAINAGE	R3	SUGGESTED MAINTENANCE OF TRAFFIC PLAN
C6	UTILITY PLAN		
C7	PAVING PLAN	R4	ROADWAY DETAILS
C8	GENERAL NOTES	L1.1	LANDSCAPE PLAN
C9	UTILITY DETAILS	L1.2	LANDSCAPE PLAN
C9A	UTILITY DETAILS		

SEWER NOTES

All sanitary sewer facilities shall be installed according to the Western Virginia Water Authority Design and Construction Standards. (Latest Edition).

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering all manholes after paving. Manhole tops shall be adjusted to grade if necessary.

All existing utilities may not be shown or may not be shown in their exact location. The contractor shall comply with (State Water Works Regulations, Section 12.05.03, where lines cross.)

All trenches in existing or future rights-of-way shall be compacted according to V.D.O.T. standards.

Lines shall be staked prior to construction.

WATER NOTES

All water facilities shall be installed according to the Western Virginia Water Authority Design and Construction Standards/ (Latest Edition).

A minimum cover of three (3) feet is required over proposed lines.

Contractor shall be responsible for locating and uncovering valve vaults after paving and adjustment to final grade if necessary.

All existing utilities may not be shown in the exact location. The contractor shall comply with the State Water Works Regulations, Section 12.05.03, where lines cross.

All trenches in existing or future highway right-of-ways shall be compacted according to V.D.O.T. standards.

Lines shall be staked prior to construction.

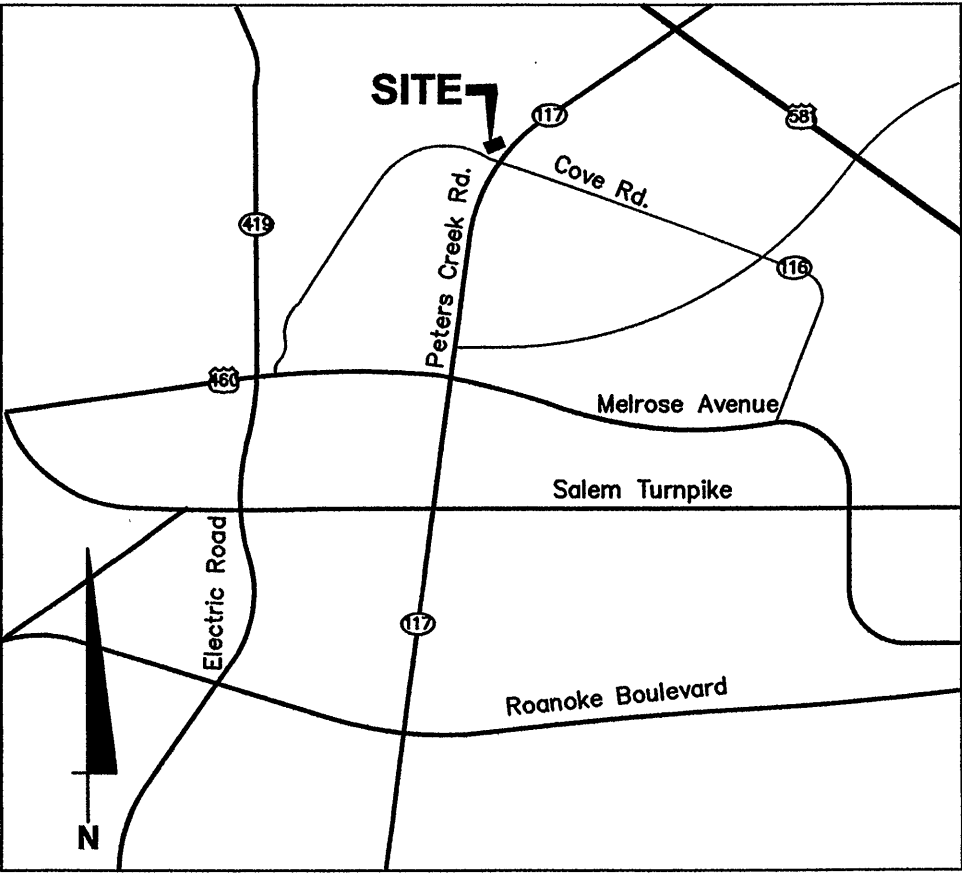
Water main shall be minimum Class 350 Ductile Iron in accordance to AWWA C151 or DR-14 PVC in accordance with AWWA C-900.

Ductile Iron Pipe in accordance with the Western Virginia Water Authority Design and Construction Standards shall be required for all pipe with a working pressure equal to or greater than 100 p.s.i.

Availability letter number 05-206

LEGEND

Property Line	---
Right-of-way	---R/W---
Centerline	---C---
Minimum Building Line	---M.B.L.---
Existing Storm Sewer	==18" S.D.== 18" S.D.==
Existing Sanitary Sewer	==8" SAN.== 8" SAN.==
Existing Water Main	---4" W--- 4" W---
Existing Contour	---1045---
Proposed Contour	---1045---
Proposed Drainage Divide	<----->
Proposed Limits of Clearing	-----
Proposed Storm Sewer	==24" S.D.==
Proposed Sanitary Sewer	==8" M.H.==
Proposed Water Main	---HYDRANT--- VALVE --- BLOWOFF---



VICINITY MAP

SURVEY INFORMATION

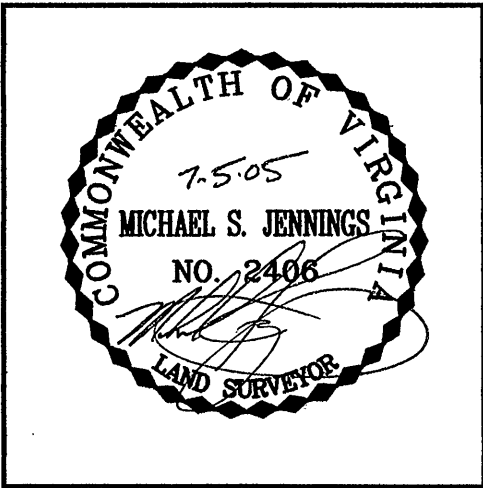
Horizontal and vertical control surveys were performed in (year) 2005 by JENNING STEPHENSON, P.C.

All elevations must be referenced to the National Geodetic Vertical Datum of 1988.

Source of topographic mapping is dated

Boundary was performed by JENNING STEPHENSON, P.C. dated JULY 5, 2005

The professional seal and signature below certifies the boundary survey and topographic mapping to be accurate and correct.



PROFESSIONAL ENGINEER SEAL AND SIGNATURE

COUNTY OF ROANOKE

NAME OF DEVELOPMENT

CVS/PHARMACY

MAGISTERIAL DISTRICT(S)

CATAWBA MAGISTERIAL DISTRICT

OWNER (name, address, telephone)

ROB HARGETT, 1020 BON AIR RD. RICHMOND, VA (804) 560-0500

DEVELOPER (name, address, telephone)

THE REBKEE COMPANY, 1020 BON AIR RD. RICHMOND, VA (804) 560-0500

ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone)

KIMLEY-HORN AND ASSOCIATES, 1500 FOREST AVENUE. RICHMOND, VA (804) 673-3882

TAX MAP NO(S) 37.17-1-4, 37.17-1-5, 3717-1-3

BLOCK NO(S)

PARCEL NO(S)