OUNTITY I COST ESTIMATE

	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
	* *				
	1	•	·		· · · · · · · · · · · · · · · · · · ·
	<u> </u>				
CURB INLET DI-3C, L=10'	1	EACH	\$1,400.00	\$1,400.00	\$1,400.00
CURB INLET DI-3C, L=6'	1	EACH	\$1,200.00	\$1,200.00	\$1,200.00
CURB INLET DI-3CC, L=10'	1	EACH	\$1,800.00	\$1,800.00	\$1,800.00
DROP INLET, DI-7	1	EACH	\$1,100.00	\$1,100.00	\$1,100.00
18" CMP END-SECTION	2	EACH	\$750.00	\$1,500.00	\$1,500.00
				 	
36" CMP END-SECTION	2	EACH	\$1,400.00	\$2,800.00	\$2,800.00
END-WALL ES-1	1	EACH	\$1,200.00	\$1,200.00	\$1,200.00
ENERGY DISSIPATOR	1 1	EACH	\$800.00	\$800.00	\$800.00
15" HIGH DENSITY POLYETHYLENE PIPE	95	LIN. FT.	\$15.00	\$1,425.00	\$ 1,425.00
18" HIGH DENSITY POLYETHYLENE PIPE	501	LIN. FT.	\$18.00	\$9,018.00	\$9,018.00
18" CMP	105	LIN. FT.	\$22.00	\$2,310.00	\$2,310.00
36" CMP	295	LIN. FT.	\$35.00	\$10,325.00	\$10,325.00
		-	, .		
takan mengantah mengangkan pengangkan pengangkan pengangkan pengangkan pengangkan pengangkan pengangkan pengan Pengangkan pengangkan pengangkan pengangkan pengangkan pengangkan pengangkan pengangkan pengangkan pengangkan	2.7	-		•	——————————————————————————————————————
CURB & GUTTER, CG-6	1,128	LIN. FT.	\$15.00	\$16,920.00	\$16,920.00
CONC. CURB, CG-2	4	LIN. FT.	\$12.00		\$43,752.00
CONO. COND. CG-Z	3,646	LIIV. FI.	\$12.00	\$43,752.00	\$43,732.00
-IN. BIT. CONC. SURFACE COURSE TYPE SM-9.5 AI			***	*********	A 407.004.00
5-IN. AGGREGATE BASE MATERIAL TYPE 1, SIZE 21-A	11,976	S.Y.	\$14.00	\$167,664.00	\$167,664.00
	<u> </u>		<u> </u>		· .
			<u> </u>		
6" PVC	20	LIN. FT.	\$19.00	\$380.00	\$380.00
SAMPLING MANHOLE/ ST'D 4' DIAMETER MH	1	EACH	\$1,500.00	\$1,500.00	\$1,500.00
	 				
ON-SITE WATER SERVICE					
3" PVC	870	LIN. FT.	\$14.00	\$12,180.00	\$12,180.00
6" PVC		~~~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	 		
	730	LIN. FT.	\$19.00	\$13,870.00	
FIRE HYDRANT ASSEMBLY	1	EACH	\$1,500.00	\$1,500.00	\$1,500.00
METER VAULT W/ METERS	1 1	EACH	\$3,000.00	\$3,000.00	· · · · · · · · · · · · · · · · · · ·
8"x8"x6" TEE AND VALVE	1 1	EACH	\$1,800.00	\$1,800.00	\$1,800.00
OFF-SITE WATERLINE EXTENSION					
B" PVC s	1,006	LIN. FT.	\$22.00	\$22,132.00	\$22,132.00
FIRE HYDRANT ASSEMBLY	2	EACH	\$1,500.00	\$3,000.00	\$3,000.00
B" GATE VALVE W/VAULT, FRAME & COVER	1	EACH	\$1,500.00	\$1,500.00	\$1,500.00
B" TEMP. BLOWOFF VALVE W/VAULT, FRAME & COVER		EACH	\$2,500.00	\$2,500.00	\$2,500.00
B TEMP. BLOWOFF VALVE W/ VAULT, FRAME & COVER	-	EACH	\$2,500.00	\$2,500.00	\$2,000.00
<u> </u>	 				
				· · · · · · · · · · · · · · · · · · ·	
			A 100.00	A 44.400.00	.
LARGE DECIDUOUS TREES	62	" EACH	\$180.00	\$11,160.00	
SMALL EVERGREEN TREE	70	EACH	\$110.00	\$7,700.00	\$7,700.00
LARGE DECIDUOUS SHRUB	62	EACH	\$50.00	\$3,100.00	\$3,100.00
	70		1	440000	\$1,400.00
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	\$7,100.00
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	V ,,100.00
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	V , 100.00
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	V , 100.00
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	7,,100.00
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	
	70	EACH	\$20.00	\$1,400.00	
SMALL EVERGREEN SHRUB	70	EACH	\$20.00	\$1,400.00	
		EACH	\$20.00	\$1,400.00	
		EACH	\$20.00	\$1,400.00	
		EACH	\$20.00	\$1,400.00	
		EACH	\$20.00	\$1,400.00	
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		EACH	\$20.00	\$1,400.00	
		EACH	\$20.00	\$1,400.00	
		EACH	\$20.00	\$1,400.00	
		EACH	\$20.00	\$1,400.00	
SUB-TOTAL		EACH	\$20.00	\$1,400.00	\$ 349,936.00
		EACH	\$20.00	\$1,400.00	\$ 349,936.00
SUB-TOTAL		EACH	\$20.00	\$1,400.00	

SIGNED:

GENERAL NOTES

All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County and/or the Virginia 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

Field construction shall honor proposed drainage divides as shown

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.

required at the field inspection. Location of guard rails shall be determined at a joint field inspection

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

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 with correct As-Built plans before final acceptance.

All work shall be subject to inspection by Roanoke County and/or V.D.O.T. inspectors.

Field corrections shall be approved by the Roanoke County Engineering Division prior to such construction. 100 year floodway and floodplain information shall be shown where

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

SEWER NOTES

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.

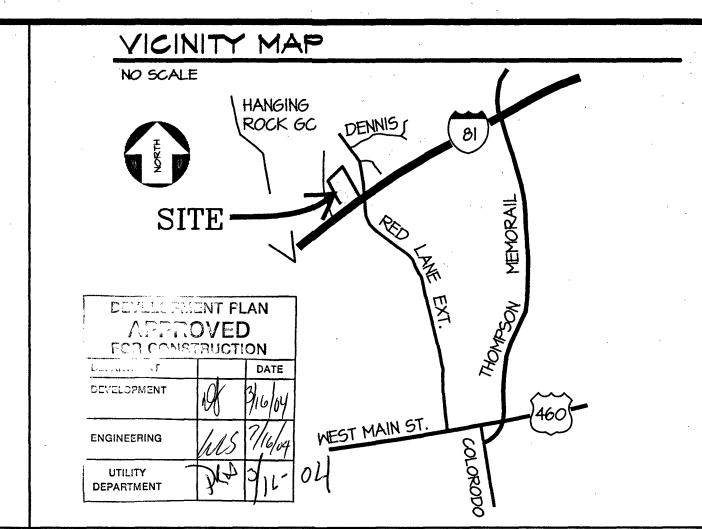
All existing utilities may not be shown or may not be shown in the exact location. The contractor shall comply with State Water Works Regulations, Section 12.05.03, where lines cross.

House connections are to be made with 4" pipe installed at a minimum grade of 1/4 inch to 1 foot in R/W.

Laterals from manholes shall be PVC or Ductile Iron of sufficient length to provide two (2) feet of bearing on natural ground. The transition from ductile iron to asbestos cement or concrete pipe shall be made with an adapter coupling in R/W.

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

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 or 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 52 Ductile Iron in accordance to AWWA C151 or DR-14 PVC in accordance with AWWA C-900.

Availability number 02-68

LEGEND

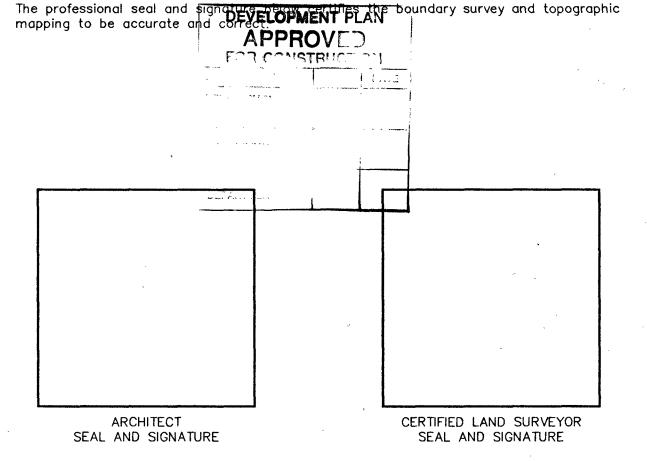
Property Line	
Right-of-way	· · · R/W · · ·
Centerline	
Minimum Building Line	
Existing Storm Sewer	18" S.D18" S.D
Existing Sanitary Sewer	8" SAN. 8" SAN.
Existing Water Main	
Existing Contour	
Proposed Contour	1045
Proposed Drainage Divide	
Proposed Limits of Clearing	
Proposed Storm Sewer	24" S.D.
Proposed Sanitary Sewer	8* M.H.
Proposed Water Main	HYDRANT BLOWOFF BLOWOFF

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in (year)_ All elevations must be referenced to the National Geodetic Vertical Datum of 1929.

Source of topographic mapping is ROANOKE COUNTY G.I.S.

Boundary was performed by_



COUNTY OF ROANOKE

INDEX

SHEET SP-I ROANOKE COUNTY COVER & NOTES

SHEET SP-2 SITE LAYOUT PLAN

SHEET SP-3 GRADING & DRAINAGE PLAN

SHEET SP-4 EROSION & SEDIMENT CONTROL PLAN

SHEET SP-5 DETENTION POND SECTION W DETALS AND E&S NARRATIVE

SHEET SP-6 LANDSCAPE PLAN

SHEET SP-7 WATER SERVICE & SANITARY SEWER PLAN

SHEET SP-8 WATER SERVICE & SANITARY SEWER PROFILES

SHEET SP-9 OFF-SITE WATERLINE PLAN & PROFILE

SHEET SP-10 ROANOKE COUNTY EROSION & SEDIMENT CONTROL DETAILS

NAME OF DEVELOPMENT

TAX MAP NO(S)

NEW FACILITY FOR FELLOWSHIP COMMUNITY CHURCH

FELLOWSHIP COMMUNITY CHURCH

MAGISTERIAL DISTRICT(S) CATAMBA

P.O. BOX 1725 OWNER (name, address, telephone) SALEM, VIRGINIA 24153 TEL. 387-3200 FELLOWSHIP COMMUNITY CHURCH

P.O. BOX 1725 DEVELOPER (name, address, telephone) SALEM, VIRGINIA 24153 TEL. 387-3200

CONTACT: SHELDON HENDERSON (540) 387-5059 TEL.

CONTACT: SHELDON HENDERSON

(540) 387-5059 TEL.

HUGHES ASSOCIATES ARCHITECTS 656 ELM AVENUE, S.W. ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone)

P.O. BOX 1034 ROANOKE, VIRGINIA 24005 45.02-01-15

CONTACT: MIKE WOOLWINE (540) 342-4002 TEL. (540) 342-2060 FAX

BLOCK NO(S) PARCEL NO(S)

OWNER/DEVELOPER, AM AWARE

OF THE SITE DESIGN REQUIREMENTS IMPOSED BY THIS SITE DEVELOPMENT PLAN AND OTHER APP-

LICABLE COUNTY CODES. I HEREBY CERTIFY THAT

I AGREE TO COMPLY WITH THESE REQUIREMENTS.

UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW.

SHEET OF

SHEET SP-I COPYRIGHT 2003
HUGHES ASSOCIATES ARCHITECTS
A PROFESSIONAL CORPORATION

COMMISSION No. 02005

ROANOKE COUNTY

COVER & NOTES

DATE: MARCH 20, 2003

MAY 02, 2003 O A OCT. 14, 2003 () A NOV. 3, 2003

A DEC. 10, 2003

(Y /4) DEC. 31, 2003

ARCHITECTS

Architecture Planning Consulting

656 ELM AVENUE, S.W.

TEL (540) 342-4002

FAX (540) 342-2060

ROANOKE, VIRGINIA 24005-1034

P.O. BOX 1034