QUANTITY & COST ESTIMATE

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BOND
SITE PREPARATION					
CLEARING AND GRUBBING	29	ACRES	3,348.00	97,092	
TOPSOIL STRIPPING & STOCKPILING	2,000	CY	4.36	8,720	
SITE EXCAVATION	583,000	CY	1.75	1,020,250	
FINE GRADING FOR PAVEMENT	59,900	SY	0.58	34,220	
FINE GRADING FOR FIELDS	40,000	SY	0.54	21,600	
EROSION CONTROL	55	ACRES	1,120.00	61,600	
ROCK CONTINGENCY	500	CY	55.00	27,500	
			SUBTOTAL	1,270,982	
		······································			
SITE UTILITIES					17,7,7,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
8" SANITARY SEWER	800	LF	15.00	12,000	
MANHOLES	7	EA	1,650.00	11,550	
TRENCHING AND BACKFILLING	200	CY	16.00	3,200	
8" STORM DRAIN	164	LF	16.00	2,624	
15" STORM DRAIN	710	LF	21.00	14,910	· · · · · · · · · · · · · · · · · · ·
18" STORM DRAIN	1,482	LF	27.00	40,014	
21" STORM DRAIN	704	LF	32.00	22,528	
24" STORM DRAIN	224	LF	39.00	8,736	·
30" STORM DRAIN	623	LF	48.00	29,904	
STORM DRAIN STRUCTURES	32	EA	1,450.00	46,400	
6" ROOF DRAIN PIPE	1,275	LF	15.60	19,890	•••
TRENCHING AND BACKFILLING	2,100	CY	16.00	33,600	
12-1/2' DIAMETER STR. PLATE CULVERTS	225	LF	500.00	112,500	
PAVED DITCH	610	LF	18.00	10,980	····
STORMWATER MANAGEMENT SYSTEM	1	LS	75,000.00	75,000	- \
6" PVC WATERLINE	1,170	LF	13.20	15,444	
10" PVC WATERLINE	1,850	LF	18.80	34,780	···
10" DUCTILE IRON WATERLINE	320	LF	30.00	9,600	
VALVES AND ACCESSORIES	1	LS	8,120.00	8,120	
FIRE HYDRANT	4	EA	1,100.00	4,400	·
WATER METER AND VAULT	1	ΕA	11,470.00	11,470	
IRRIGATION SYSTEMS	325,000	SF	0.10	32,500	
TRENCHING AND BACKFILLING	1,120	CY	16.00	17,920	
43x68 ELLIP. R.C.P. CULVERT	52	LF	175.00	9,100.00	
EW-2APC ENDWALLS	2	EA	1,500.00	3,000.00	
	<u> </u>		SUBTOTAL	590,170	
SITE IMPROVEMENTS		- · - · · · · · · · · · · · · · · · · ·			
LIGHT DUTY ASPHALT	13,779	SY	7,40	101,965	· · · · · · · · · · · · · · · · · · ·
MEDIUM DUTY ASPHALT	20,798	SY	14.85	308,850	
HEAVY DUTY ASPHALT	12,703	s SY	16.05	203,883	
ARTHUR THURMAN ROAD ASPHALT	4,800	SY	16.05	77,040	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
CONCRETE CURB AND GUTTER (CG-6)	2,700	LF	11.00	29,700	,,
CONCRETE CURB (CG-2)	7,000	LF	10.00		
CONCRETE WALKS	26,000	SF	3.30	70,000	
COLORED CONCRETE ENTRY PAVEMENT	19,000	SF		85,800	
ASPHALT TRAILS	2,860	SY	3.90	74,100	
TRACK SECTION (RESOLITE)	4,611		7.40	21,164	
TENNIS COURT SECTION	3,200	SY	15.00	69,165	
VERSA-LOK RETAINING WALLS		SY	11.10	35,520	
BRICK AND CONCRETE RETAINING WALLS	1,610	SF	13.50	21,735	·············
GABION BASKET RETAINING WALLS	780	SF	28.00	21,840	
	4,030	SF	14.00	56,420	
PERIMETER FENCING (VINYL CLAD CHAIN LINK) TENNIS COURT FENCING	3,175	<u>LF</u>	12.50	39,688	
	900	<u>LF</u>	14.50	13,050	
TOPSOIL AND SEEDING PLAY FIELDS GENERAL SEEDING	40,000	SY	1.50	60,000	
GENERAL SEEDING	62,500	SY	0.50	31,250	
LANDSCAPING	1	LS	150,000.00	150,000	
HARDSCAPING	1	LS	25,000.00	25,000	
	W		SUBTOTAL	1,496,170	
	1		1		
ESTIMATED TOTAL	T-1000 All 1000 All 1			\$3,357,322	
	}		1	1	

I HEREBY CERTIFY THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT. SIGNED: DATE: APRIL 2000

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 . Setting curb and gutter forms F. Placing curb and gutter

G. Placing other concrete H. Placing gravel base 1. 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, Rognoke 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

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 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, culver, sanitary sewer and storm sewer.

SHEET INDEX

ROANOKE COUNTY COVER SHEET OVERALL DRAWING GENERAL NOTES SHEET grading Plan grading plan grading plan grading Plan grading Plan EROSION AND SEDIMENT CONTROL CIO EROSION AND SEDIMENT CONTROL

STANDARD EROSION CONTROL DETAILS

CI2 ARTHUR THURMAN DRIVE PLAN & PROFILE

CIS ARTHUR THURMAN DRIVE PLAN & PROFILE

CI4 SITE DIMENSIONAL AND UTILITY PLAN

CIS SITE DIMENSIONAL AND UTILITY PLAN

CIG SITE DIMENSIONAL AND UTILITY PLAN CIT SITE DIMENSIONAL AND UTILITY PLAN CIS SITE DIMENSIONAL AND UTILITY PLAN CIS STORM DRAIN PROFILES C20 STORM DRAIN PROFILES C2 SANITARY SEMER PROFILES C22 STANDARD SANITARY SEWER DETAILS C23 WATER PROFILES

C24 WATER PROFILES C25 STANDARD WATER DETAILS C26 MISCELLANEOUS DETAILS C27 MISCELLANEOUS DETAILS C28 SEDIMENT BASIN DETAILS C29 RECREATIONAL FIELD DETAILS C30 VERSA-LOK RETAINING WALL DETAILS

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.

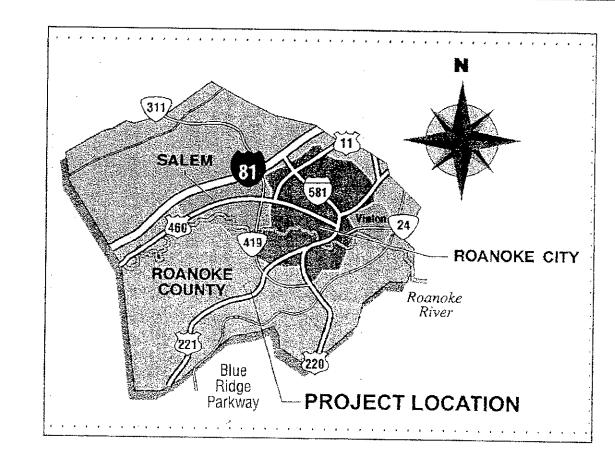
All existing utilities may not be shown or may not be shown in the exact location. The contractor shall comply with State Water Works Regulations, Section 12.05.03, where lines cross.

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 00-48

LEGEND

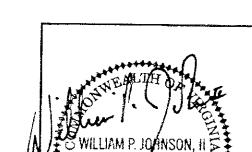
Property Line Right-of-way Centerline Minimum Building Line Existing Storm Sewer _____18" S.D.______18" S.D._____ Existing Sanitary Sewer 8" SAN. ______8" SAN. _____ Existing Water Main Existing Contour ------Proposed Contour Proposed Drainage Divide Proposed Limits of Clearing — . ____ . ____ . ____ Proposed Storm Sewer Proposed Sanitary Sewer Proposed Water Main HYDRANT VALVE / BLOWOFF-

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in (year) 1998 by BALZER AND ASSOCIATES

Source of topographic mapping is BALZER AND ASSOCIATES dated NOVEMBER 6, 1998

Boundary was performed by BALZER AND ASSOCIATES dated NOVEMBER 6, 1998



No. 024328

5-17-00

PROFESSIONAL ENGINEER SEAL AND SIGNATURE

COUNTY OF ROANOKE

NAME OF DEVELOPMENT

OWNER (name, address, telephone)

SOUTH COUNTY HIGH SCHOOL

ROANOKE COUNTY SCHOOL BOARD

WINDSOR HILLS MAGISTERIAL DISTRICT(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.

5937 COVE ROAD ROANOKE, VA 24019 540.562.3801 ROANOKE COUNTY SCHOOL BOARD DEVELOPER (name, address, telephone) 5937 COVE ROAD

ROANOKE, VIRGINIA 24019

540.562.3801 ENGINEERING CONCEPTS, INC., 20 S. ROANOKE STREET ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone) FINCASTLE, VA 24090 (540)473-1253

TAX MAP NO(S) 86.07-1-1/86.08-4-33/76.20-6-16 BLOCK NO(S) _____ PARCEL NO(S) ____

ATTN: GEORGE ASSAID

SHEET OF

ZONING TABULATION AREA OF DEVELOPMENT CURRENT ZONING PROPOSED ZONING

69.618 ACRES (TOTAL ACREAGE ALL PARCELS) TAX PARCELS # 76.20-6-16 & 86.07-1-1 ZONED R-1 TAX PARCEL # 86.08-4-33 ZONED R-3 R-1 AND R-3 WITH SPECIAL EXCEPTION (SECONDARY SCHOOL)

CURRENT USE RESIDENTIAL PROPOSED USE SENIOR HIGH SCHOOL NOTE: THERE WILL BE NO BUILDINGS CONSTRUCTED

WITHIN R-3 DISTRICT (TAX PARCEL # 86.08-4-33) MINIMUM REQUIREMENTS MINIMUM LOT AREA

<u>K-1</u> 7,200 S.F. 61.542 ACRES (2,680,770 SF) 60 FT.

PLATTED LOT AREA MINIMUM FRONTAGE PLATTED FRONTAGE PARCEL MEETS MINIMUM FRONTAGE AND AREA REQUIREMENTS.

MINIMUM SETBACK REQ. 30 FT. MINIMUM REAR YARD 25 FT. MINIMUM SIDE YARD 10 FT. ALL YARD REQUIREMENTS MET THIS SITE.

PRINCIPAL STRUCTURES ACCESSORY STRUCTURES

30% TOTAL LOT AREA ACCESSORY BUILDINGS 10% TOTAL LOT AREA LOT COVERAGE 50% TOTAL LOT AREA

SHALL MEET OR EXCEED THE REQUIREMENTS OF THE ROANOKE COUNTY ZONING ORDINANCE. WHERE ANY OUTDOOR ACTIVITY AREA, BALL FIELD OR COURT, OR STADIUM ADJOINS A RESIDENTIAL USE TYPE, ONE ROW OF SMALL EVERGREEN TREES SHALL BE LANDSCAPED ALONG THE PROPERTY LINE ADJOINING THE RESIDENTIAL USE TYPE. WHERE NIGHTTIME LIGHTING OF SUCH AREAS IS PROPOSED LARGE EVERGREEN TREES SHALL BE REQUIRED.

SHALL MEET OR EXCEED THE REQUIREMENTS OF THE ROANOKE COUNTY ZONING ORDINANCE.

SHALL MEET THE REQUIREMENTS OF THE ROANOKE COUNTY ZONING

LIGHTING
EXTERIOR LIGHTING WHERE PROPOSED SHALL BE DESIGNED, LOCATED AND ARRANGED NOT TO DIRECT GLARE ON ADJOINING STREETS OR PROPERTIES. THE LIGHTING INTENSITY AT ADJOINING RESIDENTIAL PROPERTIES SHALL NOT EXCEED 0.5 FOOT CANDLES

<u>UTILITIES</u>
THIS SITE WILL BE SERVED BY PUBLIC SEWER AND WATER.

REQUIRED EMPLOYEE - 1 SPACE/EMPLOYEE (MAJOR SHIFT) 100 EMPLOYEES = 100 SPACES

STUDENT - 1 SPACE/ 4 STUDENTS IN 11TH AND 12TH GRADE 1 SPACE/4 STUDENTS x 450 STUDENTS (ESTIMATED) = 113 SPACES LOADING SPACES - 1 SPACE/100,000 S.F. OF BUILDING AREA

2 LOADING SPACES REQUIRED. LOADING / SERVICE AREA PROVIDED. HANDICAPPED - 2% TOTAL SPACES

±175,000 S.F. BUILDING (CONCEPTUAL)

PROVIDED: EMPLOYEE/VISITOR - 175 SPACES STUDENT - 400 SPACES RECREATIONAL AREA - 104 SPACES SUBTOTAL = 679 SPACES HANDICAPPED = 2% x SUBTOTAL = 14 SPACES (16 PROVIDED) 2 LOADING SPACES 17 BUS SPACES

KEY CONTACTS SFCS (540.344.6664)

DALE LEIDICH

ENGINEERING CONCEPTS (540.473.1253) JACK ELLINWOOD BOBBY WAMPLER

ROANOKE COUNTY SCHOOLS (540.562.3801) GEORGE ASSAID RICHARD FLORA

ROANOKE COUNTY ENGINEERING (540.772.2080) GEORGE SIMPSON, P.E.

VDOT (540,387,5488)

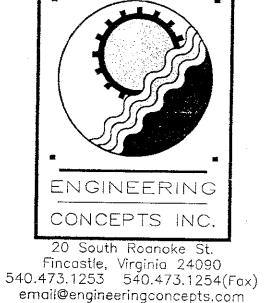
JEFF ECHOLS - SALEM RESIDENT ENGINEER ELECTRIC (540.982.7438)

BARBARA CARTER - AEP GAS (540,777,3851) DON JONES - ROANOKE GAS

PHONE (540.954.6888) MIKE DAVIS - BELL ATLANTIC

GEORGE BOWER - COX CABLE

CABLE (540,776,3848)



EARLY SITE PACKAGE MAY 17, 2000

SOUTH COUNTY HIGH SCHOOL



ROANOKE COUNTY, VIRGINIA

Architecture Engineering Plannina nteriors

305 S. Jefferson St., Rognoke, VA 2401 Phone 540 344-6664 540 343-6925 sfcs.com

PROJECT DESIGNER PROJECT ARCHITECT : SFC5 PROJECT ENGINEER : ECI DRAWN BY : ECI CHECKED BY : ECI PPROVED BY : ECI

REVISION DESCRIPTION

ROANOKE COUNTY STANDARD COVER SHEET

COMM. NO. 99001 DRAWING

SHEET

DATE

MAY 17, 2000

CADD VERSION

MENU

ACADR-13 PLOT SCALE

DRAWING NO.