OLIVAITITY TO COCT ECTIVATE

| ITEM | QUANTITY | UNIT | UNIT PRICE | COST | BONDABLE |
|--|----------|--------------|------------|----------|--|
| | | | | | |
| | | | | | |
| | | | | | |
| CURR INITED TO | | EACH | 1500 | 7,000 | 7 000 |
| CURB INLET DI- 3C | 2 | EACH | 1500 | 3,000 | 3,000 |
| CURB INLET DI- 3B | 2 | FACH | 1500 | 3,000 | 3,000 |
| | | | | | |
| | <u></u> | | | | <u> </u> |
| 15 -IN. HDPE | 353 | LIN. FT. | 18 | 6,354 | 6,354 |
| 24 -IN. CONCRETE PIPE, CLASS IV | 52 | LIN. FT. | 28.50 | 1,482.00 | 1,482.00 |
| | | <u> </u> | | | |
| | | | | | |
| 15 -IN. END SECTION ES-1 | | EACH | 300 | 300 | 300 |
| 24 -IN. END SECTION ES-1 | 1 | EACH | 450 | 450 | 450 |
| | | | | | |
| RIPRAP - CLASS IA | 150 | S.F. | 5 | 750 | 750 |
| | | | | | |
| | | | | | |
| CG-12 | 2 | EA | 250 | 500 | 500 |
| SIDEWALK | 4150 | S.F. | 6 | 24,900 | 24,90 |
| CURB & GUTTER CG- 6 | 980 | LIN. FT. | 12 | 11,760 | 11,76 |
| | | | | | |
| | | | | | |
| 2 -IN. BIT. CONC.: TYPE S- | 1870 | S.Y. | 12 | 22,440 | 22,44 |
| 8 -IN. BASE MATERIAL | 420 | C.Y. | 8 | 3,360 | 3,360 |
| | | | | | |
| 8" WATER LINE | 500 | LIN. FT. | 18 | 9,000 | 9,000 |
| FIRE HYDRANT ASSEMBLIES | 1 | EACH | 1500 | 1.500 | |
| | | Dion | 1500 | 1,500 | 1,500 |
| BLOW OFFS W/VAULT, FRAME & COVER | 1 | EACH | 250 | 250 | 250 |
| 8 -IN. GATE VALVES, W/VAULT, FRAME & COVER | 1 | EACH | 750 | 750 | 750 |
| 5/8" METER | 16 | | 150 | 2,400 | 2,40 |
| | | | | | |
| | | | | | |
| 8" SANITARY SEWER | 800 | LIN. FT. | 21 | 16,800 | 16.80 |
| STANDARD MANHOLE W/FRAME & COVER | 5 | EACH | 1500 | 7,500 | 7,500 |
| CLEANOUTS | 16 | | 100 | 1,600 | 1,600 |
| | | | | | |
| | | | 0500 | 2 1500 | |
| AS-BUILT PLANS | 1 | LUMP SUM | 2500 | 2,500 | 2,500 |
| STORMWATER MANAGEMENT | 1 | LUMP SUM | 7,500 | 7,500 | 7,500 |
| | <u> </u> | | | 128,096 | 128,09 |
| | | | | - | <u>. </u> |
| 10% CONTINGENCY | | | | 12,809 | 12,80 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| ESTIMATED TOTAL | | | | 140,905 | 140,90 |

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 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.

INDEX

- COVER SHEET
- LAYOUT AND UTILITY
- GRADING AND EROSION CONTROL PLAN
- PROFILE SHEET
- EROSION CONTROL DETAILS
- GENERAL NOTES

1-12-04 - PER ROANOKE COUNTY COMMENTS 12-18-03 - PER ROANOKE COUNTY COMMENTS 11-17-03 - PER ROANOKE COUNTY COMMENTS REVISED 05-29-03 - PER ROANOKE COUNTY/VDOT COMMENTS REVISED 04-11-03 - PER ROANOKE COUNTY COMMENTS REVISED 03-12-04 - ADJUST SAN. SEWER, STORM SEWER PROFILES

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 arade

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 arade 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.

All water and sanitary sewer facilities are to be installed according to the Roanoke County Water and Sanitary Sewer Design and Construction

DISTURBER". I SHALL BE RESPONSIBLE TON OF. THE EROSION AND SEDIMENT CONTROL PLAN AS SHEWN. For Steve Rossi PRINTED NAME DAN DREWRY GERTIFICATE DATE 7-21-01 TELEPHONE NO. 342-6660 1410 1674St SE 24014 Rosvoke, VA VICINITY MAP N.T.S.

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 01-188B

All water and sanitary sewer facilities are to be installed according to the Roanoke County Water and Sanitary Sewer Design and Construction

LEGEND

| Property Line | |
|-----------------------------|------|
| Right-of-way | |
| Centerline | |
| Minimum Building Line | |
| Existing Storm Sewer | |
| Existing Sanitary Sewer | |
| Existing Water Main | |
| Existing Contour | |
| Proposed Contour | 1155 |
| Proposed Drainage Divide | |
| Proposed Limits of Clearing | |
| Proposed Storm Sewer | |
| Proposed Sanitary Sewer | |
| Proposed Water Main | |
| | |

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in (year) 2003 by BALZER AND ASSOCIATES, INC.

All elevations must be referenced to the National Geodetic Vertical Datum of 1929.

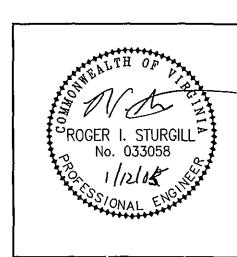
Source of topographic mapping is BALZER AND ASSOCIATES, INC. dated JANUARY 2003

Boundary was performed by BALZER AND ASSOCIATES, INC. dated_JANUARY_2003__

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

IRON PIN SET AT NORTHERN CORNER ELEV = 118.50

| DEVELOPMENT PLAN APPROVED FOR CONSTRUCTION BY ROANOKE COUNTY | | | | | |
|--|-----|----------|--|--|--|
| Department | | Date | | | |
| Development Revious | 198 | 20/05 | | | |
| Engineering | MP | 1/13/05 | | | |
| Water & Sawer | RRB | 02/09/05 | | | |
| Planning & Zoning | M | 2/9/04 | | | |



PROFESSIONAL ENGINEER SEAL AND SIGNATURE

COUNTY OF ROANOKE

| NAME OF DEVELOPMENT | GLEN HAVEN SUBDIVISION | I, Barry Compute OWNER/DEVELOPER, AM AWA OF THE SITE DESIGN REQUIREMENTS IMPOSED E THIS SITE DEVELOPMENT PLAN AND OTHER APP- |
|-------------------------|------------------------|--|
| | | LICABLE COUNTY CODES. I HEREBY CERTIFY THA |
| MAGISTERIAL DISTRICT(S) | CATAWBA | I AGREE TO COMPLY WITH THESE REQUIREMENTS |

MAGISTERIAL UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW CORCOM LLC PHONE: 562-1225 BARRY COMPTON OWNER (name, address, telephone) 2982 EMISSARY DR.

ROANOKE, VA 24019 CORCOM LLC PHONE: 562-1225 BARRY COMPTON DEVELOPER (name, address, telephone) 2982 EMISSARY DR.

ROANOKE, VA 24019

TAX MAP NO(S) _____36.20

AS - BUILT 2/28/

BALZER AND ASSOCIATES, INC. 1208 CORPORATE CIRCLE ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone) ROANOKE, VA 24018

BLOCK NO(S) _

Contractor-S.C. Rossi + Co. Inc. PHONE: 772-9580 FAX 772-8050

WVWA ID# 6HZGNM SHEET |

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