- 1. All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County, the Western Virginia Water Authority, and the Virginia Department of Transportation.
- 2. Stormwater Management Agreements with an attached 8 1/2" x 11" or 8 1/2" x 14" plat must be approved and recorded prior to the pre-construction meeting.
- 3. Once all required items are submitted to the County of Roanoke, the developer must contact the Development Review Coordinator to indicate that a pre-construction meeting needs to be scheduled. The pre-construction meeting will be scheduled with the owner/developer two (2) working days later.
- 4. All land disturbing projects that require approval of an erosion and sediment control plan, grading or clearing permit shall require that the applicant provide the name of an individual who will be responsible for land disturbing activities and that this individual hold a Responsible Land Disturber (RLD) Certificate from the Department of Environmental Quality. The Responsible Land Disturber can be anyone from the Project team that is certified by the Commonwealth of Virginia to be in charge of carrying out the land disturbing activity for the project.
- 5. It is the responsibility of the owner/developer to notify the certified Responsible Land Disturber and the Utility Contractor to attend the pre-construction meeting.
- 6. The Development Review Coordinator will schedule the pre-construction meeting with the County Review Engineer, the County Inspector, and the Western Virginia Water Authority and the Town of Vinton Public Works Department if applicable.
- 7. An approved set of plans, Storm Water Pollution Prevention Plan (SWPPP), VSMP coverage letter, and all permits must be available at the construction site at all times.
- 8. 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
- 9. The project engineer will inform the owner/developer verbally and in writing of the County's obligation to perform inspections on site. Everyone in the meeting will be required to sign a pre-construction checklist indicating their knowledge of Roanoke County's obligation to perform inspections on site.
- 10. The Erosion Control Permit or Combined Erosion Control & VSMP Permit is given to the developer at this pre-construction meeting.
- 11. Notify the County of Roanoke prior to beginning installation of ESC measures. The County will inspect initial installations to ensure compliance with approved plan prior to start of grading. The developer SHALL contact the project inspector 24 hours before beginning any grading or construction on the property.
- 12. County inspectors must inspect storm drain / stormwater management / BMP installations during the process of installation. Please contact the site inspector 24 hours in advance.
- 13. All work shall be subject to inspection by Roanoke County, the Western Virginia Water Authority and the Virginia Department of Transportation Inspectors.
- 14. 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 or VA 811.
- 15. The 100 year Floodway shall be staked prior to any construction.
- 16. Grade stakes shall be set for all curb and gutter, culvert, sanitary sewer and storm sewer at all times of construction.
- 17. The Department of Community Development shall be notified when a spring is
- 18. Construction debris shall be containerized in accordance with the Virginia Litter Control Act. No less than one litter receptacle shall be provided on site.
- 19. The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets or rights of ways. It is the contractors responsibility to insure that the streets are in a clean, mud and dust free condition at
- 20. Plan approval in no way relieves the developer or contractors of the responsibilities contained within the erosion and sediment control or stormwater management policies.
- 21. Field construction shall honor proposed drainage divides as shown on plans.
- 22. Field corrections shall be approved by the Roanoke County Engineering Division and/or the Western Virginia Water Authority and the Professional of Record, prior to
- 23. The developer or contractor shall supply the County and the Western Virginia Water Authority with correct As-Built plans before final acceptance.

VIRGINIA DEPARTMENT OF TRANSPORTATION:

- 24. Plan approval by Roanoke County does not guarantee issuance of any permits by the Virginia Department of Transportation.
- 25. A permit must be obtained from the Virginia Department of Transportation, Salem Residency Office prior to construction in the highway right-of-way.
- 26. The preliminary pavement designs should be based on a predicted sub-grade CBR value of 7.0 and with a Resiliency Factor (RF) of 2.0 as shown in Appendix I of the 2000 Virginia Department of Transportation Pavement Design Guide for Subdivision and Secondary Roads. The sub-grade soil is to be tested by an independent laboratory and the results submitted to the Virginia Department of Transportation prior to base construction. Should the sub-grade CBR value and/or the RF value be less than the predicted values, additional base material will be required in accordance with Departmental specifications. Refer to the same manual as the number and locations of the required soil samples to be tested. All pavement designs shall be submitted to the Department for review and approval. The sub-grade shall be approved by the Virginia Department of Transportation prior to placement of the base. Base shall be approved by the Virginia Department of Transportation for depth, template, and compaction before the surface is applied.
- 27. Standard guardrail with safety end sections may be required on fills or in areas where hazards exist as deemed necessary. After completion of rough grading operations, the County Engineer and Virginia Department of Transportation shall be contacted to schedule a field review. Where guard rail is warranted, the standard shoulder width shall be provided and the guard rail shall be installed in accordance with the 2001 VDOT Road and Bridge Standards as part of this development.
- 28. Standard street and traffic control signs shall be erected at each intersection by the developer prior to final street acceptance.
- 29. All traffic devices shall be in accordance with current edition of the "Manual on Uniform Traffic Control Devices" (MUTCD).
- 30. All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

See Sheet C14 for Stormwater Site Statistics Table. See Sheet <u>C14</u> for New BMP Information Table.

The Project Engineer shall provide electronic copies of the approved plans to the Development Review Coordinator within 5 working days of the pre-construction

The notes on this sheet shall not be modified.



COUNTY OF ROANOKE, VA

NAME OF DEVELOPMENT CAVERN MARKET DEVELOPMENT PLAN AND OTHER APPLICABLE ROANOKE COUNTY CODES. I HEREBY CERTIFY THAT I AGREE TO COMPLY WITH THESE REQUIREMENTS AND THE THIRTY (30) POINTS SHOWN ON THIS COVER SHEET UNLESS MAGISTERIAL DISTRICT(S) CATAWBA MODIFIED IN ACCORDANCE WITH LOCAL LAW. 5282 HUNTING HILLS SQUARE OWNER (name, address, telephone) ROANOKE, VIRGINIA 24018 JIMMY, INC. DEVELOPER (name, address, telephone) 1338 LEE HIGHWAY ROANOKE, VIRGINIA 24019 BALZER AND ASSOCIATES, INC. ATTN: CHRIS BURNS ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone) 1208 CORPORATE CIRCLE ROANOKE, VA 24018 FAX 540-772-8050 540-772-9580 TAX MAP NO(S) 064.03-02-03.00-0000 & 064.03-02-04.00-0000

WATER NOTES

All water facilities shall be constructed according to the Western Virginia Regional 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 their exact location. The contractor shall comply with the (State Water Works

Regulations, Section 12VAC5-590-1150, where lines cross.

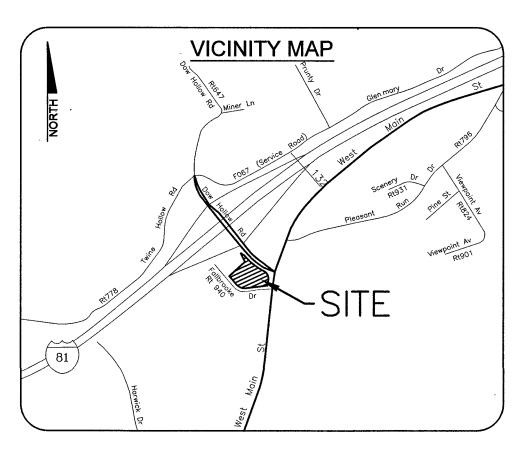
All trenches in existing or future highway right-of-ways shall be compacted according to Virginia Department of Transportation

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 Regional Design and Construction Standards shall be required for all pipe with a working pressure equal to or greater than 100 p.s.i.

Western Virginia Water Authority Availability letter number: ______16-302



LEGEND

Property Line	
Right-of-way	
Centerline	
Minimum Building Line	MBL
Existing Storm Sewer	48"RCP 48"RCP
Existing Sanitary Sewer	management 8" SAN announcement Succession
Existing Water Main	
Existing Contour	1155
Proposed Contour	
Proposed Drainage Divide	
Proposed Limits of Clearing	
Proposed Storm Sewer	
Proposed Sanitary Sewer	8" SS
Proposed Water Main	8* W
To Be Removed	T.B.R.

SEWER NOTES

All sanitary sewer facilities shall be installed according to the Western Virginia Regional 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 in their exact location. The contractor shall comply with (State Water Works Regulations, Section 12VAC5-590-1150, where

All trenches in existing or future rights-of-way shall be compacted according to Virginia Department of Transportation standards. Lines shall be staked prior to construction.

PRIVATE UTILITIES

Underground utilities installed on private property or in private utility easements and building related storm drains shall be designed and installed per the current edition of the Virginia Uniform Statewide Building Code. Design and installation requirements issued by the Western Virginia Water Authority that meet or exceed the USBC requirements are acceptable for private utilities. All private utilities are to be permitted through and inspected by the Roanoke County Inspections Office. Vaults, valves and other devices installed by or under the control of the Western Virginia Water Authority may not substituted for the code required devices.

Sheet Index

COVER SHEET

C2	EXIST. CONDITIONS & DEMO PLAN
C3	LAYOUT & UTILITY PLAN REVISED
C4	GRADING PLAN REUSED
C5	PHASE 1 ESC PLAN
C6	PHASE 2 ESC PLAN REVISED
C7	ESC NOTES
C8	ESC DETAILS
C9	ROAD PROFILE
C10	STORM PROFILES
C11	LANDSCAPE PLAN REVISED
C12	SITE DETAILS 1
C13	SITE DETAILS 2
C14	SITE DETAILS 3
C15	GENERAL NOTES
C16	WESTERN VIRGINIA REGIONAL DETAILS REVISED

SURVEY INFORMATION

C17 STRIPING & TRAFFIC CONTROL PLAN

	e referenced to the National Geodetic Vertical Datum of 1929 or 1988 t be referenced to the North American Datum of 1927 or 1983.
Horizontal Datum: NAD83	Vertical Datum: NGVD88
Source of topographic mappi	ng is dated 2016
Boundary was performed by	BALZER AND ASSOCIATES, INC. dated: 2016
Benchmark Information:1	TOP OF MONUMENT
1	ELEV.=1208.87

NOTE: THIS COST ESTIMATE TABLE IS PROVIDED FOR BONDING PURPOSES ONLY. VERIFICATION OF ALL QUANTITIES AND PRICES FOR BIDDING PURPOSES SHALL BE THE RESPONSIBILITY OF THE BIDDER.

QUANTITY & COST ESTIMATE BONDABLE QUANTITY UNIT UNIT PRICE COST \$2,400.00 2.40 **ACRES** \$1,000.00 CLEARING AND GRUBBING \$7,500.00 C.Y. \$3.00 EARTHWORK VDOT STD. DI-3 SERIES INLET \$1,500.00 \$7,500.00 EACH \$1,200.00 \$2,400.00 VDOT STD. DI-1 INLET 2 \$1,200.00 \$3,600.00 EACH VDOT STD. MH-2 MANHOLE \$500.00 EACH \$500.00 STORM CLEANOUT LIN. FT. \$20.00 \$2,620.00 SLOTTED TRENCH DRAIN 131 \$20.00 \$720.00 12" STORM PIPE 15" STORM PIPE \$19,950.00 LIN. FT. \$30.00 665 \$4,320.00 24" STORM PIPE 108 LIN. FT. \$40.00 \$500.00 24" END SECTION \$500.00 EA. \$1,500.00 DITCH LINING L.F. LUMP SUM **BOX CULVERT** PAVED DITCH LIN. FT. S.F. RIPRAP - CLASS SODDED SWALE -IN. CONCRETE ENDWALL EW-EACH \$12,040.00 CURB CG-2 (ON-SITE) \$9,120.00 CURB & GUTTER CG-6 (ON-SITE) 570 \$16.00 LIN. FT. GRAVEL SHOULDER S.Y. SURFACE TREATMENT S.Y. S.Y. -IN. BIT. CONC.: TYPE B--IN. BIT. CONC.: TYPE S-S.Y. C.Y. -IN. BASE MATERIAL -IN. SUBBASE MATERIAL C.Y. \$1,500.00 \$1,500.00 COMMERCIAL WATER METER (1") & Lateral EACH EACH \$3,500.00 \$3,500.00 FIRE HYDRANT ASSEMBLIES EACH EACH BLOW OFFS W/VAULT, FRAME & COVER 8 -IN. GATE VALVE, W/VAULT, FRAME & COVER EACH -IN. GATE VALVE, W/VAULT, FRAME & COVER EACH \$3,000.00 \$3,000.00 SANITARY SEWER MANHOLE EACH 8" PVC SANITARY SEWER MAIN LIN. FT. **6" SANITARY SEWER LATERAL & CLEANOUTS** EACH \$1,500.00 \$3,500.00 \$3,500.00 E-ONE PUMP SYSTEM EACH LANDSCAPING (SEE SHEET C-08) \$14,255.00 \$1,000.00 AS-BUILT PLANS - STORM SEWER LUMP SUM SUB-TOTAL \$102,925.00 10% CONTINGENCY \$10,292.00 **ESTIMATED TOTAL** \$113,217.0

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



REFLECTING TOMORROW www.balzer.cc PLANNERS • ARCHITECTS **ENGINEERS** • SURVEYORS

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1561 Commerce Road Suite 401 Verona, Virginia 24482 Phone: 540/248-3220 FAX: 540/248-3221

128 W. Market Street Suite 301 Harrisonburg, Virginia 22801 Phone: 540/433-1908

REVISIONS:

DRAWN BY: DESIGNED BY: CHECKED BY: 12/14/2016

> 3/4/2017 3/20/2017

CPB

BTC

DRIVE

BROOKE

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SHEET No .:

JOB No.: 04160069.00