- 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 approved plans.
- 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
- 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.
- The 100 year Floodway shall be staked prior to any construction.
- 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 encountered during construction.
- 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 2014 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.
- 7. 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 2016 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 C-8 for Stormwater Site Statistics Table. See Sheet C-8 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

LEARING & GRUBBING

THE VILLAGE AT TINKER CREEK - PHASE IIIB		OWNER/DEVELOPER, AM AWARE OF THE SITE DESIGN REQUIREMENTS IMPOSED BY THIS SITE 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 MODIFIED IN ACCORDANCE WITH LOCAL LAW.
MAGISTERIAL DISTRICT(S) HOLLINS		
	· ·	
TINKER CREEK DEVELOPERS, LLC 819 WALHALLA COURT, ROANOKE, VA 24019 PHONE: (540) 444-2111 ATTN. MR. NORM MASON		
ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone)		
1 8 F /	TINKER CREEK DEVELOPE 819 WALHALLA COURT, RO PHONE: (540) 444-2111 ATTN. MR. NORM MASON TINKER CREEK DEVELOPE 819 WALHALLA COURT, RO PHONE: (540) 444-2111 ATTN. MR. NORM MASON	TINKER CREEK DEVELOPERS, LLC 819 WALHALLA COURT, ROANOKE, VA 24019 PHONE: (540) 444-2111 ATTN. MR. NORM MASON TINKER CREEK DEVELOPERS, LLC 819 WALHALLA COURT, ROANOKE, VA 24019 PHONE: (540) 444-2111 ATTN. MR. NORM MASON  MATTERN AND CRAIG, INC. 701 FIRST STREET SW. ROANOKE, VA 24016

#### 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

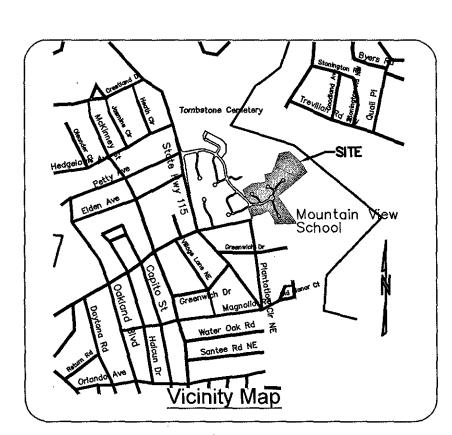
Lines shall be staked prior to construction.

Water main shall be minimum Class 350 Ductile fron 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

All water connections to existing lines shall be coordinated with and performed by the Western Virginia Water Authority.

Western Virginia Water Authority Availability letter number: <u>15-156</u>



#### Property Line Right-of-way Centerline Minimum Building Line Existing Storm Sewer **Existing Sanitary Sewer** Existing Water Main \_\_\_\_\_ w \_\_\_\_ w \_\_\_\_ Existing Contour Proposed Contour Proposed Drainage Divide \_\_\_\_\_ Proposed Limits of Clearing Proposed Storm Sewer Proposed Sanitary Sewer Proposed Water Main

LEGEND

### **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.

All sanitary sewer connections to existing lines shall be coordinated with and performed by the Western Virginia Water Authority.

# 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 C-1 COVER SHEET C-2 OVERALL LAYOUT & OPEN SPACE PLAN C-3 PHASING PLAN C-4 LAYOUT, WATER, & SANITARY SEWER PLAN C-5 PROFILES - ROADS, WATER, & SANITARY SEWER C-6 UTILITY DETAILS - WVWA WATER C-7 UTILITY DETAILS - WVWA WATER & SEWER C-8 GRADING AND STORM DRAINAGE PLAN C-9 PROFILES - STORM DRAINAGE C-10 DETAILS & SECTIONS EC-1 EROSION & SEDIMENT CONTROL PLAN - STAGE I EC-2 EROSION & SEDIMENT CONTROL PLAN - STAGE II EC-3 EROSION & SEDIMENT CONTROL NARRATIVE EC-4 EROSION & SEDIMENT CONTROL STATEMENT OF COMPLIANCE EC-5 EROSION & SEDIMENT CONTROL DETAILS EC-6 EROSION & SEDIMENT CONTROL DETAILS EC-7 EROSION & SEDIMENT CONTROL DETAILS

# SURVEY INFORMATION

Horizontal and vertical control surveys were performed in year: 2014 By: MATTERN AND CRAIG, INC. 701 FIRST STREET SW, ROANOKE, VA 24016 All vertical elevations must be referenced to the National Geodetic Vertical Datum of 1929 or 1988. All horizontal elevations must be referenced to the North American Datum of 1927 or 1983. Horizontal Datum: PER PLAT INST. Vertical Datum: Source of topographic mapping is dated AUG. 2014 Boundary was performed by \_\_\_\_\_M&C, INC. dated: AUG. 2014 Benchmark Information: PI/PK NAIL IN STUMP, EL.=1079.88, SEE SHEET C-4 FOR LOCATION AND BENCHMARK TABLE.

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

\* Based on Virginia State Plane Coordinate System

#### EXCAVATION \$21,250 \$21,250 8,500 CY 2.50 EMBANKMENT \$21,250 \$21,260 8.500 CY 2.50 TOPSOILSTRIPPING \$2,100 \$2/100 700 CY 3.00 CURB INLET OI-3C, L=6 **/**\$2,400 2,400 \$2,400 EA CURB INLET DI 3B, L=12' \$2,400 EA 2,400 \$2,400 CURB INLET DI-38, L=14' \$2,400 EΑ MANHOLE (MH-1) & DIA / 4-6' Deep EΑ MANHOLE (MH-1) 5' D(A / 4-6' Deep 18- IN. CONCRETE PIPE, CLASS III \$1.968 48.00 LF 15-IN. CONCRETE PIPE, CLASS III 45.00 \$5**/**490 \$5,490 122 LΕ XX-IN. CM CULVERT \$0.00 \$0 \$0.00 \$0 XX-IN. CM CULVERT ĹF BOX CULVERT \$0 PAVED SWALE LF \$0.00 \$0 \$0 RIPRAP - CLASS \$0.00 ERMANENT GRASS SWALE \$0.00 \$0 24-IN. CONCRETE ENDWALL EW-1 -IN. END SECTION ES-1 SEA / 18-IN. END SECTION ES-1 HEADER CURB & GUTTER CG-2 \$0 CURB & GUTTER CG-6 (PUBLIC STREET) \$8,380 \$8,380 VALLEY GUTTER (PRIVATE STREET) 20.00 \$15,340 \$15,340 \$0 SY \$0 GRAVEL BASE GRAVEL SHOULDER SURFACE TREATMENT \$0 \$0 SY 3-IN, BIT, CONC. BASE COURSE: TYPE BM-25 2-IN, BIT, CONC. SURFACE COURSE; TYPE SM-9.5A SY 6.75 \$5,643 \$5,643 \$5,930 \$5,930 1,5-IN. BIT. CONC. SURFACE COURSE: TYPE SM-9,5A \$12,276 5-IN, AGGREGATE BASE MATERIAL 18.00 \$12,276 TN XX-IN. SUBBASE MATERIAL \$0 TRAFFIC BARRICADE \$0.00 \$0 \$27,920 8" WATER LINE LF\ \$27,920 40.00 5" WATER LINE \$0 LF \$0 DOMESTIC SERVICES ĒΑ 1,500 \$25,500 \$25,500 FIRE HYDRANT ASSEMBLIES 3,500 \$7,000 EΑ \$7,000 BLOW OFFS W/ 8-IN VAULT, FRAME & COVERN 1,400 \$2,800 \$2,800 EΑ 8-IN. GATE VALVES W/ VAULT, FRAME & WER 1,200 \$4,800 EΑ \$4,800 6-IN. GATE VALVES W/ VAULT, FRAME & COVER FITTINGS (TEES, BENDS, ETC.) \$4,800 EΑ AIR RELEASE VALVE EΑ 8" SANITARY SEWER l.F 1,500 \$25,500 4-INCH SEWER LATERALS WITH CLEAN-OUT \$25,500 EΑ STANDARD 4-FOOT DIA. MANHOLE W/ FRAME & COVER 3,000 \$12,000 \$12,000 EΑ STANDARD 5-FOOT DIA MANHOLE W/ FRAME & COVER SAMPLING MANHOLE PORT LANDSCAPING AMENITIES (INCLUDING/BUT NOT LIMITED TO TRAILS, ETC...) \$0.00 \$0 LS STORMWATER MANAGEMENT (WATER QUALITY) AS-BUILT PLANS (STORM SEWER SYSTEMS) 2,000 LS \$2,000 \$2,000 AS-BUILT PLANS (STORMWATER MANAGEMENT) SUBTO/TAL: 10% CONTINGENCY:

QUANTITY & COST ESTIMATE (FOR BONDING PURPOSE)

UNIT

AC

UNIT PRICE

2,000

COST

\$5,260

BONDABLE

\$5,260

QUANTITY



7 0

TINKER (

SHEET

STIMATED TOTAL:

BY SEALING THE PLANS, THE DESIGN PROFESSIONAL HEREBY CERTIFIES THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT IMPROVEMENT COSTS OF THIS PROJECT.

\$284,699