GENERAL NOTES

PRE-CONSTRUCTION MEETING AND CONSTRUCTION COMMENCEMENT

- 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
- 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 encountered during construction.
- 18. Construction debris shall be containerized in accordance with the Virginia Litter
- 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.
- 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

21. Field construction shall honor proposed drainage divides as shown on plans.

23. The developer or contractor shall supply the County and the Western Virginia Water Authority with correct As-Built plans before final acceptance.

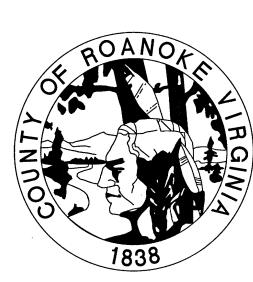
VIRGINIA DEPARTMENT OF TRANSPORTATION:

- 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.

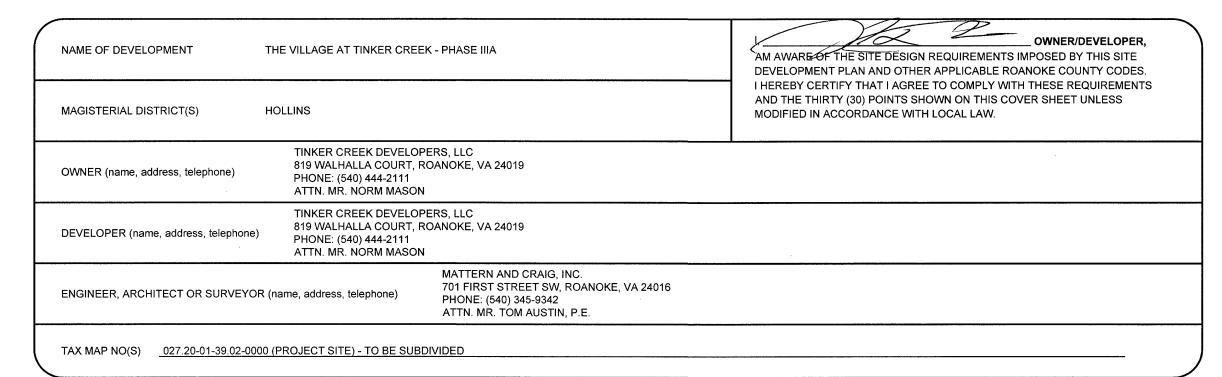
See Sheet C-9 for Stormwater Site Statistics Table. See Sheet C-9 for New BMP Information Table.

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



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

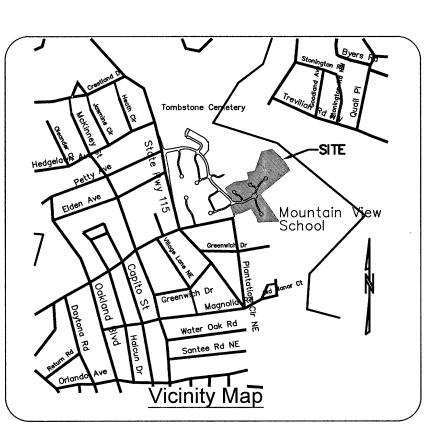
Lines shall be staked prior to construction.

standards.

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: 15-156



LECEND

	LEG	END		
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ght-of-way			_R/W	
nterline	·		CL	-
nimum Building Line		— мвь—		MBL
isting Storm Sewer		SD		—SD ———
isting Sanitary Sewer		ss		—SS ———
isting Water Main		w		— w ———
isting Contour			 1045 -	
posed Contour			—1045	
posed Drainage Divide		\leftarrow		
posed Limits of Clearing				
oposed Storm Sewer			24" S.D.	
oposed Sanitary Sewer			8" M.H.	
pposed Water Main	HYDRANT	VAL	VE	BLOWOFF

SEWER NOTES

All sanitary sewer facilities shall be installed according to the Western Virginia

Contractor shall be responsible for locating and uncovering all manholes after

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

Virginia Department of Transportation standards.

Lines shall be staked prior to construction.

PRIVATE UTILITIES

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.

- C-4 LAYOUT, WATER, & SANITARY SEWER PLAN
- C-9 GRADING AND STORM DRAINAGE PLAN

- D-2 POST-DEVELOPMENT DRAINAGE DIVIDES (PHASE IIIA) & LOT

Horizontal and vertical control surveys were performed in year: 2014

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:

M&C, INC. dated: AUG. 2014 Boundary was performed by

SEE SHEET C-4 FOR LOCATION AND BENCHMARK TABLE.

Regional Design and Construction Standards. (Latest Edition).

A minimum cover of three (3) feet is required over proposed lines.

All trenches in existing or future rights-of-way shall be compacted according to

Sheet Index

- C-3 PHASING PLAN
- C-5 PROFILES ROADS, WATER, & SANITARY SEWER
- C-11 DETAILS & SECTIONS
- EC-7 EROSION & SEDIMENT CONTROL DETAILS
- D-1 PRE-DEVELOPMENT DRAINAGE DIVIDES (PHASE IIIA)
- D-3 POST-DEVELOPMENT DRAINAGE DIVIDES (FUTURE PHASE)

By: MATTERN AND CRAIG, INC. 701 FIRST STREET SW, ROANOKE, VA 24016

Benchmark Information: PI/PK NAIL IN STUMP, EL.=1079.88,

* Based on Virginia State Plane Coordinate System

paving. Manhole tops shall be adjusted to grade if necessary.

Underground utilities installed on private property or in private utility easements

- EC-1 EROSION & SEDIMENT CONTROL PLAN STAGE I EC-2 EROSION & SEDIMENT CONTROL PLAN - STAGE II
- LG-1 LOT GRADING PLAN

SURVEY INFORMATION

be accurate and correct.

- C-1 COVER SHEET
- C-2 OVERALL LAYOUT & OPEN SPACE PLAN
- C-6 UTILITY DETAILS WVWA WATER
- C-7 UTILITY DETAILS WVWA SEWER C-8 UTILITY DETAILS - WVWA WATER & SEWER
- C-10 PROFILES STORM DRAINAGE C-10A PROFILES - STORM DRAINAGE
- C-12 DETAILS & SECTIONS C-12A DETAILS & SECTIONS
- 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

Source of topographic mapping is dated AUG. 2014

The professional seal and signature certifies the boundary survey and topographic mapping to

0% CONTINGENCY:

ESTIMATED TOTAL:

XX-IN. CM CULVERT BOX CULVERT PAVED SWALE RIPRAP - CLASS PERMANENT GRASS SWALE 24-IN. CONCRETE ENDWALL EW-1 24-IN. END SECTION ES-1 18-IN. END SECTION ES-1 **HEADER CURB & GUTTER CG-2** CURB & GUTTER CG-6 (PUBLIC STREET) VALLEY GUTTER (PRIVATE STREET) GRAVEL BASE GRAVEL SHOULDER IRFACE TREATMENT 3-IN. BIT. CONC. BASE COURSE: TYPE BM-25 2-IN. BIT. CONC. SURFACE COURSE: TYPE SM-9.5A 1.5-IN. BIT. CONC. SURFACE COURSE: TYPE SM-9.5A 6-IN. AGGREGATE BASE MATERIAL

CLEARING & GRUBBING

EXCAVATION

MBANKMENT

CURB INLET DI-7

OPSOIL STRIPPING

CURB INLET DI-3C, L=6'

MANHOLE (MH-1) 4' DIA / 4-6' Deep

MANHOLE (MH-1) 5' DIA / 4-6' Deep

18- IN. CONCRETE PIPE, CLASS III

24-IN. CONCRETE PIPE, CLASS III

XX-IN. CM CULVERT

18.00 \$8,280 \$8,280 460 TN XX-IN. SUBBASE MATERIAL TRAFFIC BARRICADE \$0.00 " WATER LINE \$16,000 \$16,000 400 LF 40.00 " WATER LINE LF \$19,500 \$19,500 DOMESTIC SERVICES EΑ 1.500 \$3,500 FIRE HYDRANT ASSEMBLIES EΑ BLOW OFFS W/ 8-IN VAULT, FRAME & COVER 1.400 \$1,400 \$1,400 EA 8-IN. GATE VALVES W/ VAULT, FRAME & COVER EA \$2,400 \$2,400 6-IN. GATE VALVES W/ VAULT, FRAME & COVER \$0 \$0 EA FITTINGS (TEES, BENDS, ETC.) \$3,000 EΑ \$3,000 1,200 AIR RELEASE VALVE EA \$1,200 \$1,200 \$24,500 8" SANITARY SEWER LF 50 1,500 \$19,500 \$19,500 4-INCH SEWER LATERALS WITH CLEAN-OUT 13 EΑ STANDARD 4-FOOT DIA. MANHOLE W/ FRAME & COVER EΑ 3,000 \$9,000 \$9,000 STANDARD 5-FOOT DIA. MANHOLE W/ FRAME & COVER 3,500 \$3,500 \$3,500 EA SAMPLING MANHOLE / PORT EΑ \$0 \$0 ANDSCAPING \$0.00 \$0

QUANTITY & COST ESTIMATE (FOR BONDING PURPOSE)

0.25

7,500

7,500

750

68

822

1

360

760

590

760

UNIT

AC

CY

CY

CY

EΑ

EΑ

EA

LF

LF

LF

LF

LS

LF

SF

1 F

EΑ

EA

LF

LF

EA

SY

SY

SY

SY

UNIT PRICE

2,000

2.50

2.50

3.00

2.400

2,200

3,200

48.00

62.00

2,800

2,200

20.00

10.00

6.75

5.00

COST

\$500

\$18,750

\$18,750

\$2,250

\$2,400

\$2,200

\$3,200

\$3,264

\$50.964

\$0.00

\$0.00

\$0.00

\$0.00

\$0.00

\$0.00

\$2,800

\$5.600

\$2,200

\$0

\$7,200

\$9,500

\$0

\$7,600

\$3,983

\$3,800

BONDABLE

\$500

\$18,750

\$18,750

\$2,250

\$2,400

\$2,200

\$16,800

\$3,200

\$3,264

\$50,964

\$0

\$0

\$0

\$0

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\$2,800

\$5.600

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\$9,500

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\$3,800

\$0

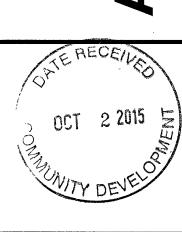
\$404,405

AMENITIES (INCLUDING BUT NOT LIMITED TO TRAILS, ETC...) LS \$0.00 TORMWATER MANAGEMENT (WATER QUALITY) 92,500 \$92,500 \$92,500 1 LS AS-BUILT PLANS (STORM SEWER SYSTEMS) LS 1.000 \$1,000 \$1,000 AS-BUILT PLANS (STORMWATER MANAGEMENT) LS \$367,641

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



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