### **GENERAL NOTES**

### PRE-CONSTRUCTION MEETING AND CONSTRUCTION COMMENCEMENT:

- . 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.
- 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.
- 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.
- 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 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.
- 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).
- All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

See Sheet C-113 for Stormwater Site Statistics Table. See Sheet C-113 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 meeting.

The notes on this sheet shall not be modified.



# COUNTY OF ROANOKE, VA

CLEARING AND GRUBBING

EXCAVATION

EMBANKMENT

CURB INLET DI-3

CURB INLET DI-7

MANHOLE MH-1

-24 IN. HDPE -18 IN HDPE

-10 IN. SDR-35

BOX CULVERT

PAVED SWALE

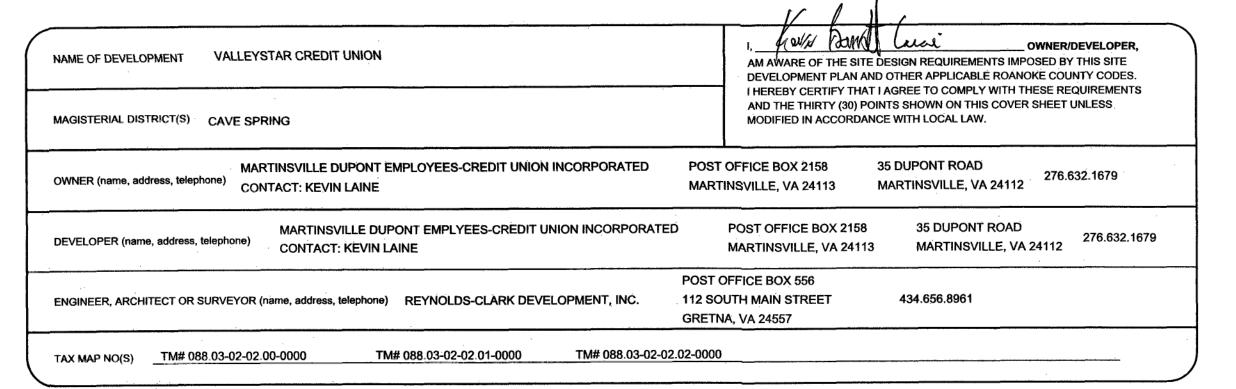
-IN. C.M. CULVERT

-CONCRETE ENCASEMENT

-18 IN. CONCRETE PIPE, CLASS III

-30 IN CONCRETE PIPE, CLASS IV

MANHOLE MH



### 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

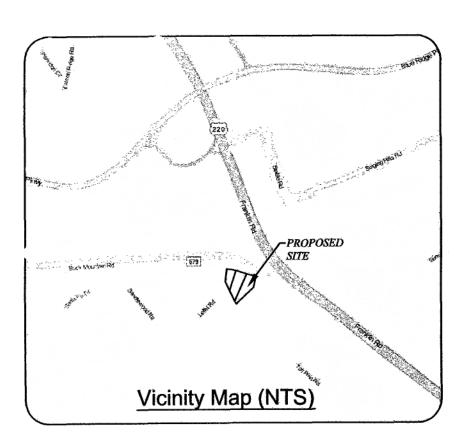
All trenches in existing or future highway right-of-ways shall be compacted according to Virginia Department of Transportation standards.

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: 15-182



### LEGEND

Property Line	<del></del>
Right-of-way	R/W
Easement	
Centerline	<u>q</u>
Minimum Building Line	
Existing Storm Sewer	
<b>Existing Sanitary Sewer</b>	and the second of the second o
Existing Water Main	————WL————WL———
Existing Contour	
Proposed Contour	1045
Proposed Drainage Divide	$\leftarrow$
Proposed Limits of Clearing	L0.C L0.C
Proposed Storm Sewer	
Proposed Sanitary Sewer	
Proposed Water Main	HYDRANT BLOWOFF
Proposed Electric	
Proposed Reverse Spill Gut	ter 💮

### SEWER NOTES

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

Virginia Department of Transportation standards.

### 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.

	Sheet	Description	Sheet	Description
ĺ	T-101	Title Sheet	D-101	Construction Details
	C-101	Existing Conditions	D-102	Construction Details
	C-102	Erosion & Sediment Control Phase !	D-103	Construction Details
	C-103	Erosion & Sediment Control Phase II	D-104	Construction Details
1	C-104	Demo	D-105	Construction Details
	C-105	Construction Logistics Layout	D-106	Construction Details
1	C-106	Grading Plan	D-107	Construction Details
	C-106.1	Erosion & Sediment Control Phase III	D-108	Stormwater Analysis
	C-107	Proposed Site Plan	D-109	Stormwater Analysis
1	C-108	Proposed Stormwater Utilities	D-110	Stormwater Analysis
	C-109	Proposed Storm Sewer Plan & Profile	L-101	Landscape Plan
İ	C-110	Proposed Storm Sewer Plan & Profile	L-102	Landscape Details
	C-110.1	Proposed Storm Sewer Plan & Profile	E-401	Site Lighting Plan
Ì	C-111	Proposed Utility Plan	E-402	Site Lighting Photometrics
	C-112	Proposed Domestic Water & Sanitary Sewer	A-101	Annotation Plan
ļ	C-113	VRRM Area Designation		
	C-113.1	Existing Conditions Soils Map		
	C-113.2	Proposed Conditions Soils Map		
	C-114	Site Summary		
	C-115	Exhibit "A"		
	C-116	Stacked Parking		
	C-117	Overall Onsite Drainage Maps		
	C-118	Drainage Maps for Proposed Site		
	C-119	Time of Concentration for Propose Site		
1	C-120	Offsite Drainage		
	C-120.1	Upstream Drainage From Discharge Points		
	C-121	Drainage Maps For E&S	She	et Index

			MARON 4 0045
Horizontal a		urveys were performed in	
By:	ARMSTR	ONG LAND SURVEYING	)
			Geodetic Vertical Datum of 1929 or 1988 American Datum of 1927 or 1983.
Horizontal D	atum: NAD83	Vertical Da	atum: NAVD88 GEOID 12A
Source of to	pographic mapping	is dated <u>MARCH 1. 20</u>	015
Boundary wa	as performed by <u>LU</u>	MSDEN ASSOCIATES d	dated: OCTOBER 20, 2011
Benchmark	Information: IRON	PIN WITH CAP LOCATE	D ON SITE. SET ELEVATION=1168.94

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

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

Lines shall be staked prior to construction

	C-104	Demo	D-105	Construction Details	
	C-105	Construction Logistics Layout	D-106	Construction Details	
	C-106	Grading Plan	D-107	Construction Details	
	C-106.1	Erosion & Sediment Control Phase III	D-108	Stormwater Analysis	- 1
	C-107	Proposed Site Plan	D-109	Stormwater Analysis	
	C-108	Proposed Stormwater Utilities	D-110	Stormwater Analysis	
	C-109	Proposed Storm Sewer Plan & Profile	L-101	Landscape Plan	
	C-110	Proposed Storm Sewer Plan & Profile	L-102	Landscape Details	
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	C-115	Exhibit "A"			
	C-116	Stacked Parking			
	C-117	Overall Onsite Drainage Maps			- 1
	C-118	Drainage Maps for Proposed Site			1
	C-119	Time of Concentration for Propose Site			
	C-120	Offsite Drainage			
	C-120.1	Upstream Drainage From Discharge Points	01	4 los al as s	
	C-121	Drainage Maps For E&S	Sheet Index		
					/
	<u> </u>	SURVEY INFORMATION	<u>NC</u>		
and ve		ol surveys were performed in year: _sTRONG LAND SURVEYING	MARCH 1	, 2015	
		pe referenced to the National Geodet at be referenced to the North America			

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

Underground utilities installed on private property or in private utility easements

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
RIPRAP - CLASS A-I		SF
PERMANENT GRASS SWALE		LF
-IN. CONCRETE ENDWALL EW-		EA
-IN. END SECTION ES-		ÉA
HEADER CURB & GUTTER CG-		.LF
CURB & GUTTER CG-12	2,350	LF
VALLEY GUTTER		EA
GRAVEL BASE	660	SY
GRAVEL SHOULDER		SY
SURFACE TREATMENT		SY
-IN. BIT. CONC.: TYPE B-		SY
-2 IN. BIT. CONC.: TYPE B-		SY
-8 IN. BASE MATERIAL		SY
-N. SUBBASE MATERIAL		C.Y.
-IIV. GUDDAGE IMATERIAL		<u> </u>
TRAFFIC BARRICADE		ĖA
INTERIO DARRIGADE		EA
8" WATER LINE		LF
6" WATER LINE		LF
O WATER LINE	· · · · ·	<u>.</u>
FIRE HYDRANT ASSEMBLIES		EA
BLOW OFFS W/ VAULT, FRAME & COVER	<u> </u>	EA
-IN. GATE VALVES, W/ VAULT, FRAME & COVER		EA
-IN. GATE VALVES, W/ VAULT, FRAME & COVER		EA
IN. GATE VALVES, W. VAGET, FRANKE & COVER		
6" SANITARY SEWER SDR-26	200	ĹĔ
S S. WITTER ODITED		<u> </u>
STANDARD MANHOLE W/FRAME & COVER		EA
SAMPLING MANHOLE/PORT		<del> </del>
- an end manifest on		EA
LANDSCAPING	1	LS
AMENITIES (INCLUDING BUT NOT LIMITED TO TRAILS, ETC)	1	LS
AMENTIES (INCLUDING BUT NOT LIMITED TO TRAILS, ETC)	1	LS
AS-BUILT PLANS (STORM SEWER SYSTEMS)	1	LS
AS-BUILT PLANS (STORMWATER MANAGEMENT)	1	LS
SUB-TOTAL SUB-TOTAL		
10% CONTINGENCY		
ESTIMATED TOTAL		
EGINALED TOTAL		<u> </u>

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

QUANTITY & COST ESTIMATE

UNIT

C.Y.

C.Y.

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\$3,400.00

\$20,000.00

\$2,000.00

\$216,382.00

\$21,638,00

\$238,020.00

\$11,220.00

BONDABLE

QUANTITY

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70



# TIMOTHY C. REYNOLDS Lic. No. 032371 10/21/2016



cility

SHEET