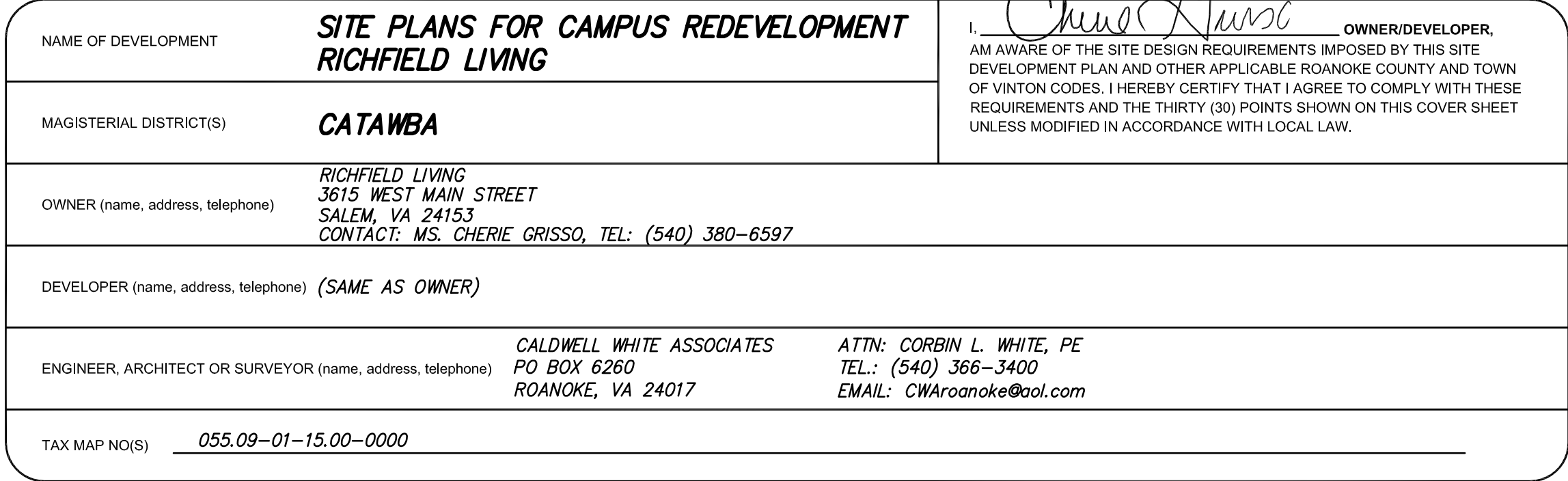


RE-CONSTRUCTION MEETING AND CONSTRUCTION COMMENCEMENT:

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), VSPMP 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 & VSPMP 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 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 all times.
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 such construction.
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.



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 12VAACS-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.

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 12ACV5-590-1150, where lines cross.)

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.

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 be substituted for the code required devices.

The plan view diagram illustrates the proposed infrastructure layout. Key features include:

- Property Line**: Indicated by a solid line at the top.
- Right-of-way**: Indicated by a dashed line below the property line.
- Centerline**: Indicated by a dashed line labeled "CL".
- Minimum Building Line**: Indicated by two solid lines labeled "MBL".
- Existing Storm Sewer**: Indicated by a dashed line labeled "SD".
- Existing Sanitary Sewer**: Indicated by a dashed line labeled "SS" with a circle symbol.
- Existing Water Main**: Indicated by a dashed line labeled "W" with a circle symbol.
- Existing Contour**: Indicated by a dashed line labeled "1045".
- Proposed Contour**: Indicated by a dashed line labeled "1045".
- Proposed Drainage Divide**: Indicated by a thick solid line with arrows pointing away from it.
- Proposed Limits of Clearing**: Indicated by a thick solid line.
- Proposed Storm Sewer**: Indicated by a dashed line labeled "24\" S.D.". Below this line, there are labels for "8\" M.H." (manhole) and "FLOWOUT".
- Proposed Sanitary Sewer**: Indicated by a dashed line.
- Proposed Water Main**: Indicated by a dashed line.

Property Line

Right-of-way

Centerline

Minimum Building Line

Existing Storm Sewer

Existing Sanitary Sewer

Existing Water Main

Existing Contour

Proposed Contour

Proposed Drainage Divide

Proposed Limits of Clearing

Proposed Storm Sewer

Proposed Sanitary Sewer

Proposed Water Main

HYDRANT

VALVE

BLOWOFF

1045

1045

24' S.D.

8" M.H.

R/W

CL

MBL

SD

SS

W

Horizontal and vertical control surveys were performed in year: 2018
By: FIELD—RUN SURVEY BY CALDWELL WHITE ASSOCIATES

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: LOCAL COORD. SYSTEM Vertical Datum: NAVD 1988

Source of topographic mapping is dated 2011 AERIAL MAPPING – FIELD ANNOTATED BY CWA 2018

Boundary was performed by CWA dated: 2018

Benchmark Information: GPS DISK LOCATED ON THE EASTERN SIDE OF ALLEGHANY DRIVE,
DIRECTLY OPPOSITE EXISTING ARCC ENTRANCE.
ELEVATION = 1122.36

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

ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
CLEARING AND GRUBBING		ACRES			
EXCAVATION (ON-SITE CUT & FILL)	19,702	C.Y.	\$ 2.75	\$ 54,181	\$ 54,181
EXCAVATION (IMPORT)	9,050	C.Y.	\$ 20.00	\$ 181,000	\$ 181,000
EMBANKMENT		C.Y.			
GRATE INLET DI-1	11	EACH	\$ 2,200.00	\$ 24,200	\$ 24,200
GRATE INLET DI-7	1	EACH	\$ 2,600.00	\$ 2,600	\$ 2,600
CURB INLET DI-3	11	EACH	\$ 3,100.00	\$ 34,100	\$ 34,100
CONC. STORM MANHOLE	9	EACH	\$ 1,800.00	\$ 16,200	\$ 16,200
12 -IN. DBL. WALL HDPE PIPE (STORM)	164	LIN. FT.	\$ 24.50	\$ 4,508	\$ 4,508
12 -IN. C.M. PIPE (STORM)	27	LIN. FT.	\$ 24.50	\$ 662	\$ 662
15 -IN. DBL. WALL HDPE PIPE (STORM)	1,027	LIN. FT.	\$ 28.00	\$ 28,756	\$ 28,756
18 -IN. DBL. WALL HDPE PIPE (STORM)	528	LIN. FT.	\$ 36.00	\$ 19,008	\$ 19,008
18 -IN. DUCTILE IRON PIPE (STORM)	145	LIN. FT.	\$ 52.00	\$ 7,540	\$ 7,540
24 -IN. DBL. WALL HDPE PIPE (STORM)	614	LIN. FT.	\$ 52.00	\$ 31,928	\$ 31,928
42 -IN. CLASS III CONCRETE PIPE (STORM)	33	LIN. FT.	\$ 90.00	\$ 2,970	\$ 2,970
60 -IN. CLASS III CONCRETE PIPE (STORM)	120	LIN. FT.	\$ 165.00	\$ 19,800	\$ 19,800
12 -IN. ES-2 FLARED END SECTION	2	EA	\$ 300.00	\$ 600	\$ 600
15 -IN. HDPE FLARED END SECTION	1	EA	\$ 350.00	\$ 350	\$ 350
24 -IN. HDPE FLARED END SECTION	1	EA	\$ 500.00	\$ 500	\$ 500
DBL. 60 -IN. CONCRETE ENDWALL EW-7	2	EACH	\$ 9,500.00	\$ 19,000	\$ 19,000
42 -IN. CONCRETE ENDWALL EW-2	1	EACH	\$ 6,000.00	\$ 6,000	\$ 6,000
BOX CULVERT		LUMP SUM			
12' WIDE CL. III RIPRAP CHANNEL CP		LIN. FT.			
RIPRAP - CLASS		S.F.			
PERMANENT GRASS SWALE	92	S.Y.	\$ 16.00	\$ 1,472	\$ 1,472
CONCRETE SIDEWALK (PUBLIC)		S.Y.			
CONCRETE ENTRANCE APRON CG-9D		LUMPS UM			
CONCRETE CURB & GUTTER CG-6		LIN. FT.			
CONCRETE CURBING CG-2	3,835	LIN. FT.	\$ 28.50	\$ 112,148	\$ 112,148
VALLEY GUTTER		EACH			
GRAVEL BASE		S.Y.			
2 -IN. BIT. CONC.: TYPE BM25.0	3,126	S.Y.	\$ 10.50	\$ 32,823	\$ 32,823
2 -IN. BIT. CONC.: TYPE SM9.5A	6,421	S.Y.	\$ 10.50	\$ 67,421	\$ 67,421
1 -IN. BIT. CONC.: TYPE SM9.5A	3,126	S.Y.	\$ 6.00	\$ 18,756	\$ 18,756
8 -IN. BASE MATERIAL, TYPE 21B	2,122	C.Y.	\$ 28.00	\$ 59,416	\$ 59,416
TRAFFIC CONTROL	1	LS	\$ 12,000	\$ 12,000	\$ 12,000
2-1/2" WATER LINE	700	LIN. FT.	\$ 25.00	\$ 17,500	\$ 17,500
4" WATER LINE	729	LIN. FT.	\$ 36.00	\$ 26,244	\$ 26,244
6" WATER LINE	1,339	LIN. FT.	\$ 42.00	\$ 56,238	\$ 56,238
8" WATER LINE	1,387	LIN. FT.	\$ 48.00	\$ 66,576	\$ 66,576
WATERLINE SPECIALTY VALVE (PIV, SIAMESE FDC)	6	EACH	\$ 1,500.00	\$ 9,000	\$ 9,000
FIRE HYDRANT ASSEMBLIES (w/ VALVE & BOX)	7	EACH	\$ 2,250.00	\$ 15,750	\$ 15,750
AIR RELEASE VALVES W/VAULT, FRAME & COVER	2	EACH	\$ 1,600.00	\$ 3,200	\$ 3,200
4 -IN. GATE VALVES, W/VAULT, FRAME & COVER	2	EACH	\$ 680.00	\$ 1,360	\$ 1,360
6 -IN. GATE VALVES, W/VAULT, FRAME & COVER	3	EACH	\$ 900.00	\$ 2,700	\$ 2,700
8 -IN. GATE VALVES, W/VAULT, FRAME & COVER	2	EACH	\$ 1,300.00	\$ 2,600	\$ 2,600
8" SDR-35 PVC SANITARY SEWER	747	LIN. FT.	\$ 45.00	\$ 33,615	\$ 33,615
8" DUCTILE IRON SANITARY SEWER	35	LIN. FT.	\$ 48.00	\$ 1,680	\$ 1,680
STANDARD MANHOLE W/FRAME & COVER	11	EACH	\$ 1,800.00	\$ 19,800	\$ 19,800
SAMPLING MANHOLE / PORT	1	EACH	\$ 1,800.00	\$ 1,800	\$ 1,800
GREASE INTERCEPTOR	1	EACH	\$ 3,500.00	\$ 3,500	\$ 3,500
LANDSCAPING	1	LUMP SUM	\$ 58,800.00	\$ 58,800.00	\$ 58,800.00
AMENITIES (INCLUDING BUT NOT LIMITED TO TRAILS, ETC...)		LUMP SUM			
STORMWATER MANAGEMENT FACILITY (COMPLETE)	1	LUMP SUM	\$ 20,500	\$ 20,500	\$ 20,500
AS-BUILT PLANS (STORM SEWER SYSTEMS)	1	LUMP SUM	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
AS-BUILT PLANS (STORMWATER MANAGEMENT)	1	LUMP SUM	\$ 1,800.00	\$ 1,8	

COMMONWEALTH OF VIRGINIA
Corbin L. White
 CORBIN L. WHITE
 License No. 23843
 04-02-19
 PROFESSIONAL ENGINEER

7. IMPORTANCE

Approval Stamp

SITE PLANS FOR CAMPUS REDEVELOPMENT - PART 2
FOR
RICHFIELD LIVING
3615 West Main Street
Roanoke County Tax Parcel: TAX NO. 055.09-01-15.00-0000
Catawba Magisterial District
County of Roanoke, Virginia

Designed: C.L. White
 Drawn: C.L. White
 Checked: _____
 Date: October 15, 2018
 Field Book: Richfield
 W.O. No.: 18-0044 / 0043

SHEET
C0.1
OF
32