

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.
- Stormwater Management Agreements with an attached 8" x 12" or 8" x 12" x 14" pad must be approved and recorded prior to the pre-construction meeting.
- Once all required items are submitted to Roanoke County, 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 Disturbance (RLD) Certificate from the Department of Environmental Quality. The Responsible Land Disturbance 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.
- It is the responsibility of the owner/developer to notify the certified Responsible Land Disturbance and the Utility Contractor to attend the pre-construction meeting.
- 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 Wilson Public Works Department if applicable.
- An approved set of plans, Storm Water Pollution Prevention Plan (SWPPP), VSPM coverage letter, and all permits must be available at the construction site at all times.
- 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.
- 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.
- The Erosion Control Permit or Combined Erosion Control & VSPM Permit is given to the developer at this pre-construction meeting.
- Notify Roanoke County prior to beginning installation of ESC measures. The County will inspect initial installations to ensure compliance with approved plans prior to start of grading. The developer SHALL contact the project inspector 24 hours before beginning any grading or construction on the property.
- County inspectors must inspect storm drain / stormwater management / BMP installations during the course of installation. Please contact the inspector 24 hours in advance.
- All work shall be subject to inspection by Roanoke County, the Western Virginia Water Authority and the Virginia Department of Transportation.
- 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 detailed 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.
- Roanoke County shall be notified when a spring is encountered during construction.
- Construction debris shall be contained 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 clearing mud from trucks and/or other equipment prior to entering public streets or rights of ways. It is the contractor's responsibility to insure that the streets are in a clean, mud and dust free condition at all times.
- Plans approval in no way releases the developer or contractors of the responsibilities contained within the erosion and sediment control or stormwater management policies.
- Field construction shall honor proposed drainage divides as shown on plans.
- Field corrections shall be approved by the Roanoke County and/or the Western Virginia Water Authority and the Professional of Record, prior to each construction.
- 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

- Plan approval by Roanoke County does not guarantee issuance of any permits by the Virginia Department of Transportation.
- A permit must be obtained from the Virginia Department of Transportation, Salem Residency Office prior to construction in the highway right-of-way.
- 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 the current edition of the 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 location 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 current edition of the VDOT Road and Bridge Standards as part of this development.
- Standard street and traffic control signs shall be erected at each intersection by the developer prior to final street acceptance.
- All traffic devices shall be in accordance with current edition of the "Manual on Uniform Traffic Control Devices" (MUTCD).
- Any unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

See Sheet 4 for Stormwater Site Statistics Table.

See Sheet 4 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.



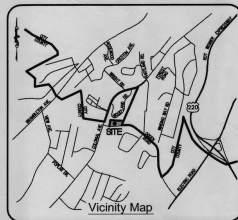
COUNTY OF ROANOKE, VA

NAME OF DEVELOPMENT: OGDEN ROAD PROFESSIONAL OFFICE PARK		OWNER/DEVELOPER: CWC LLC, Attn: Dr. Chheany Ung (540) 777-0090		5216 PEGORINE CREST CIR. ROANOKE, VA 24018	
MAJESTERIAL DISTRICT: CAVE SPRING MAJESTERIAL DISTRICT		DEVELOPER (name, address, telephone): CWC LLC, Attn: Dr. Chheany Ung (540) 777-0090		5216 PEGORINE CREST CIR. ROANOKE, VA 24018	
ENGINEER, ARCHITECT OR SURVEYOR (name, address, telephone): LUMSDEN ASSOCIATES, P.C. (540) 774-4411		4064 BRAMBLETON AVENUE ROANOKE, VA 24018			
TAX MAP NOS: 077-11-01-58.00					

WATER AND SEWER NOTES

- All construction methods and materials shall conform to the latest edition of the Design and Construction Standards and Specifications of the Western Virginia Water Authority (WVWA) available at www.westernwater.org or by contacting the authority at 540-853-5700. The project shall also comply with the governing jurisdiction's standards and other agency standards (e.g. VDOT, DEQ, DCR, VDH, etc.) where applicable.
- A minimum cover of three (3) feet is required on all WVWA water and sewer lines.
- All existing utilities may not be shown in their exact locations. The contractor shall notify Miss Utility and shall verify location and elevation of all underground utilities in the areas of construction prior to starting work.
- Please show all WVWA water and sewer utilities on any development plan.
- The location of existing utilities across or along the line of proposed work are not necessarily shown on the plans and where shown are only approximately correct. The contractor shall on his own initiative and at no extra cost, locate all underground lines and structures and provide as necessary. The contractor shall be responsible for any damage to underground structures. All damage incurred to existing utilities during construction shall be repaired at the contractor's expense.
- Plans approved by the WVWA do not remove the contractor's responsibility to remove or relocate any existing conflicts found during construction.
- The contractor shall maintain a minimum of 18" clearance vertically and two (2) feet minimum horizontally from the outside of pipe to outside of pipe with all other underground utilities. Where this cannot be achieved, additional measures in accordance with the WVWA standards shall be followed.
- All utility grade adjustments shall be in accordance with WVWA standards and are the responsibility of the contractor.
- Field changes shall be submitted by the engineer of record to the locality and approved by the WVWA.

Western Virginia Water Authority
Availability letter number: 19-101



LEGEND

Property Line	R
Right-of-way	R/W
Centerline	CL
Minimum Building Line	
Existing Storm Sewer	—
Existing Sanitary Sewer	—
Existing Water Main	—
Existing Culvert	—
Proposed Culvert	—
Proposed Drainage Divide	—
Proposed Limits of Clearing	—
Proposed Storm Sewer	—
Proposed Sanitary Sewer	—
Proposed Water Main	—
	HYDRANT VALVE BLOWOFF

PRIVATE UTILITIES

Underground utilities installed on private property in private utility easements and building related storm drains shall be designed and installed per the current edition of the Virginia Uniform Standards Building Code (including amendments). 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.

PR #: NOTES:

- SEE PLAN REVISION TABLE ON SHEET NO. 2
- SANITARY SEWER CROSSING OGDEN RD. NOW OPEN CUT

Revision Table

SHEET No.	DESCRIPTION
1	COVER SHEET
2	NOTES
3	UTILITIES & UTILITY RELOCATION PLAN
4	DIMENSIONAL LAYOUT
5	GRADING PLAN
6	STORM DRAIN, SANITARY SEWER & WATER PROFILES
7	RETAINING WALL PLAN & PROFILES
8	PHASE 1 EROSION AND SEDIMENT CONTROL PLAN
9	PHASE 1 EROSION AND SEDIMENT CONTROL PLAN
10	EROSION & SEDIMENT CONTROL NARRATIVE NOTES & DETAILS
11	MAINTENANCE OF TRAFFIC PLAN
11A	MAINTENANCE OF TRAFFIC PLAN
12	LANDSCAPE PLAN
13	WVWA DETAILS

Sheet Index

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in year: 2019
by: Lumsden Associates, P.C.

All vertical elevations must be referenced to the National Geodetic Vertical Datum of 1928 or 1988. All horizontal elevations must be referenced to the North American Datum of 1927 or 1983.

Source of topographic mapping is dated: 2019

Boundary was performed by: Lumsden Associates, P.C., dated: 2019

Benchmark information: Sanitary Sewer Rim, Elevation = 1096.12'

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

PLAN REVISION NO. 1 QUANTITY & COST ESTIMATE					
ITEM	QUANTITY	UNIT	UNIT PRICE	COST	BONDABLE
CLEARINGS AND GRUBBING	0	ACRES	\$1,500.00	\$4,000.00	\$4,000.00
EARTHWORK	13,000	C.Y.	\$4.31	\$55,963.00	\$55,963.00
CURB INLET D-3	0	EACH	\$2,000.00	\$18,000.00	\$18,000.00
GRATE INLET D-1	0	EACH	\$1,200.00	\$0.00	\$0.00
GRATE INLET D-2	1	EACH	\$1,500.00	\$1,500.00	\$1,500.00
STORM DRAIN MANHOLE	0	EACH	\$1,200.00	\$0.00	\$0.00
8 IN. SD	57	L.F.	\$30.00	\$1,710.00	\$1,710.00
18 IN. SD	489	L.F.	\$23.00	\$11,178.00	\$11,178.00
18 IN. SD	23	L.F.	\$39.00	\$909.00	\$909.00
24 IN. SD	124	L.F.	\$60.00	\$8,040.00	\$8,040.00
30 IN. SD	89	L.F.	\$65.00	\$5,785.00	\$5,785.00
12 IN. ENDWALL D-1	0	EACH	\$700.00	\$0.00	\$0.00
12 IN. ENDWALL D-1	0	EACH	\$900.00	\$0.00	\$0.00
18 IN. ENDWALL D-1	0	EACH	\$1,000.00	\$0.00	\$0.00
24 IN. ENDWALL D-1	1	EACH	\$1,200.00	\$1,200.00	\$1,200.00
30 IN. ENDWALL D-1	0	EACH	\$1,800.00	\$0.00	\$0.00
36 IN. ENDWALL D-2	0	EACH	\$2,000.00	\$0.00	\$0.00
18 IN. END SECTION ES-4	0	EACH	\$900.00	\$0.00	\$0.00
18 IN. END SECTION ES-1	0	EACH	\$700.00	\$0.00	\$0.00
24 IN. END SECTION ES-1	0	EACH	\$900.00	\$0.00	\$0.00
30 IN. END SECTION ES-1	0	EACH	\$1,000.00	\$0.00	\$0.00
36 IN. END SECTION ES-1	0	EACH	\$1,800.00	\$0.00	\$0.00
CURB C-2	1,863	L.F.	\$12.00	\$22,356.00	\$22,356.00
CURB & GUTTER C-24	1,140	L.F.	\$16.00	\$18,240.00	\$18,240.00
8 IN. AGGREGATE BASE 21-8	5,525	S.Y.	\$9.00	\$49,605.00	\$49,605.00
2 IN. ASPHALT PAVEMENT 20-5-4	4,239	S.Y.	\$6.00	\$25,434.00	\$25,434.00
3 IN. ASPHALT PAVEMENT 20-5	1,286	S.Y.	\$5.00	\$7,830.00	\$7,830.00
8 IN. WATER LINE	116	L.F.	\$40.00	\$4,640.00	\$4,640.00
8 IN. SANITARY SEWER	795	L.F.	\$90.00	\$71,550.00	\$71,550.00
8 IN. SANITARY SEWER	255	L.F.	\$60.00	\$15,300.00	\$15,300.00
EXTENDED MANHOLE INFRAME & COVER	0	EACH	\$1,000.00	\$18,000.00	\$18,000.00
SANITARY SEWER CLEANOUT	6	EACH	\$700.00	\$4,200.00	\$4,200.00
SANITARY SEWER DUG-IN NO. OPEN/CUT	1	LUMP SUM	\$10,000.00	\$10,000.00	\$10,000.00
SITE LANDSCAPING	1	LUMP SUM	\$14,000.00	\$14,000.00	\$14,000.00
RETAINING WALL	1	LUMP SUM	\$145,000.00	\$145,000.00	\$145,000.00
CONCRETE SIDEWALKS	1,670	S.F.	\$5.00	\$8,350.00	\$8,350.00
CONCRETE DUMPSTER PADS	880	S.F.	\$6.00	\$7,040.00	\$7,040.00
CG-AD ENTRANCE	1,400	S.F.	\$8.00	\$11,200.00	\$11,200.00
CONCRETE DETENT	280	S.F.	\$9.00	\$2,520.00	\$2,520.00
STORMWATER MANAGEMENT	1	LUMP SUM	\$89,500.00	\$89,500.00	\$89,500.00
AS-BUILT PLANS (STORM SEWER SYSTEM)	1	LUMP SUM	\$2,000.00	\$2,000.00	\$2,000.00
AS-BUILT PLANS (STORMWATER MANAGEMENT)	1	LUMP SUM	\$2,000.00	\$2,000.00	\$2,000.00
BURETAL				\$982,700.00	\$982,700.00
10% CONTINGENCY				\$98,270.00	\$98,270.00
ESTIMATED TOTAL				\$940,970.00	\$940,970.00

BY SEALING THE PLANS, THE DESIGN PROFESSIONAL HEREBY CERTIFIES THAT THE FOREGOING ESTIMATE REFLECTS THE CURRENT DISCREPANCY BETWEEN THE DESIGN AND THE PROJECT.

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WWW.LUMSDENPC.COM

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ROANOKE, VIRGINIA 24018

LUMSDEN ASSOCIATES, P.C.
COMMISSION NUMBER:

2018-262

Lumsden Associates, P.C.
ENGINEERS | SURVEYORS | PLANNERS



PLAN DATE:
APPROVED
SEPTEMBER 18, 2019
PLAN REVISION NO. 2
APRIL 20, 2021



OGDEN ROAD
PROFESSIONAL OFFICE PARK
PREPARED FOR:
CRAIGHEAD & ASSOCIATES
CRAIGHEAD & ASSOCIATES
CRAIGHEAD & ASSOCIATES
ROANOKE COUNTY, VIRGINIA

SHEET
1
OF
13

RoCo # SP-1900940

As built 7-18-2022

Inspector:
Bruce Peters
Contractor:
Southwest
Etc.