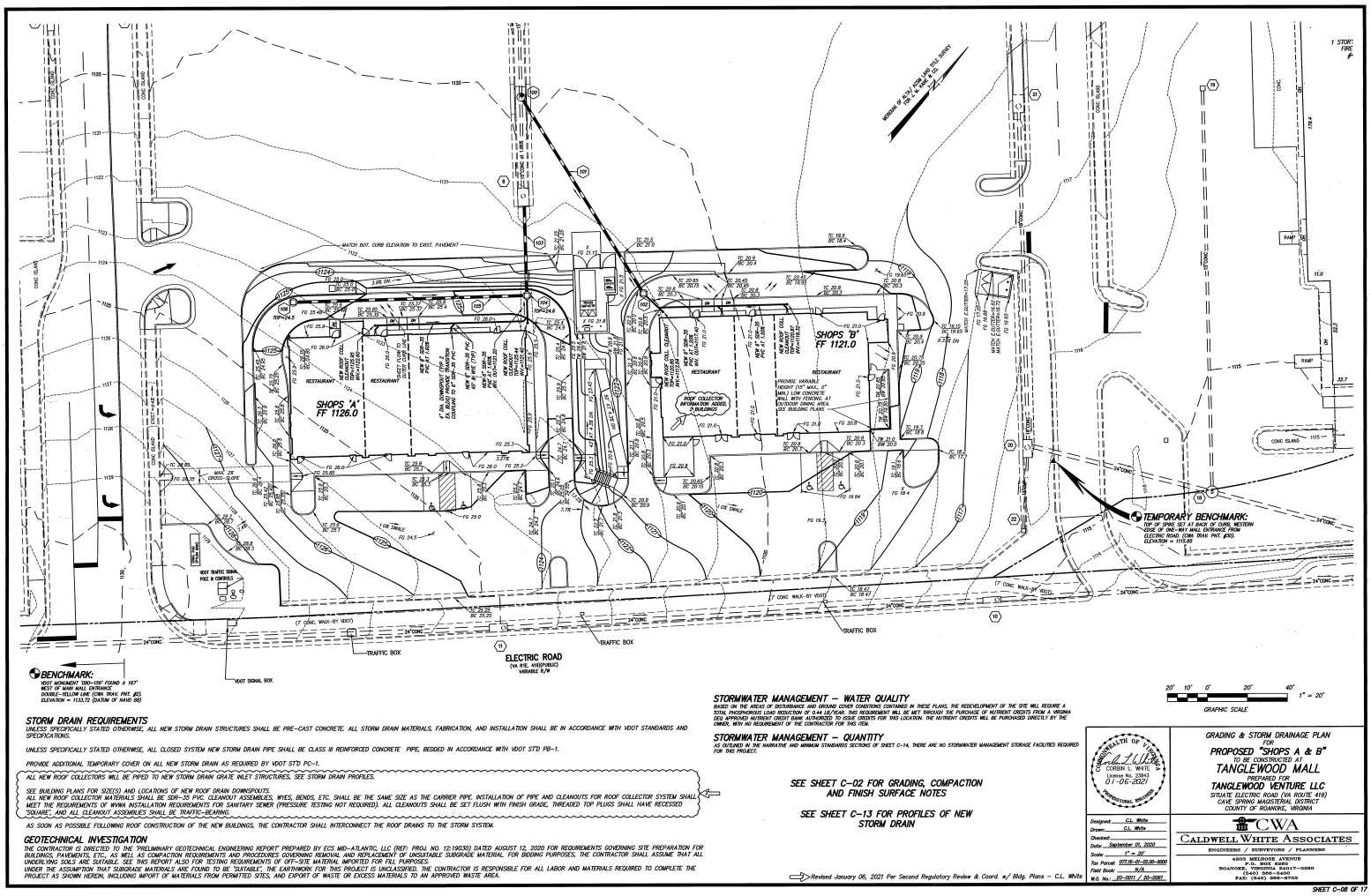

STORM DRAIN REQUIREMENTS

UNLESS SPECIFICALLY STATED OTHERWISE, ALL NEW STORM DRAIN STRUCTURES SHALL BE PRE-CAST CONCRETE. ALL STORM DRAIN MATERIALS, FABRICATION, AND INSTALLATION SHALL BE IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS.

UNLESS SPECIFICALLY STATED OTHERWISE, ALL CLOSED SYSTEM NEW STORM DRAIN PIPE SHALL BE CLASS III REINFORCED CONCRETE PIPE, BEDDED IN ACCORDANCE WITH VDOT STD PB-1.

PROVIDE ADDITIONAL TEMPORARY COVER ON ALL NEW STORM DRAIN AS REQUIRED BY VDOT STD PC-1.

ALL NEW ROOF COLLECTORS WILL BE PIPED TO NEW STORM DRAIN GRATE INLET STRUCTURES, SEE STORM DRAIN PROFILES.

SEE BUILDING PLANS FOR SIZE(S) AND LOCATIONS OF NEW ROOF DRAIN DOWNSPOUTS.
ALL NEW ROOF COLLECTOR MATERIALS SHALL BE SDR-35 PVC. CLEANOUT ASSEMBLIES, WYES, BENDS, ETC. SHALL BE THE SAME SIZE AS THE CARRIER PIPE. INSTALLATION OF PIPE AND CLEANOUTS FOR ROOF COLLECTOR SYSTEM SHALL MEET THE REQUIREMENTS OF VPMA INSTALLATION REQUIREMENTS FOR SANITARY SEWER (PRESSURE TESTING NOT REQUIRED). ALL CLEANOUTS SHALL BE SET FLUSH WITH FINISH GRADE, THREADED TOP PLUGS SHALL HAVE RECESSED "SQUARE", AND ALL CLEANOUT ASSEMBLIES SHALL BE TRAFFIC-BEARING.

AS SOON AS POSSIBLE FOLLOWING ROOF CONSTRUCTION OF THE NEW BUILDINGS, THE CONTRACTOR SHALL INTERCONNECT THE ROOF DRAINS TO THE STORM SYSTEM.

GEOTECHNICAL INVESTIGATION

THE CONTRACTOR IS DIRECTED TO THE "PRELIMINARY GEOTECHNICAL ENGINEERING REPORT" PREPARED BY ECS MID-ATLANTIC, LLC (REF: PROJ. NO. 12:19030) DATED AUGUST 12, 2020 FOR REQUIREMENTS GOVERNING SITE PREPARATION FOR BUILDINGS, PAVEMENTS, ETC., AS WELL AS COMPACTION REQUIREMENTS AND PROCEDURES GOVERNING REMOVAL AND REPLACEMENT OF UNSUITABLE SUBGRADE MATERIAL FOR BIDDING PURPOSES, THE CONTRACTOR SHALL ASSUME THAT ALL UNDERLYING SOILS ARE SUITABLE. SEE THIS REPORT ALSO FOR TESTING REQUIREMENTS OF OFF-SITE MATERIAL IMPORTED FOR FILL PURPOSES.
UNDER THE ASSUMPTION THAT SUBGRADE MATERIALS ARE FOUND TO BE "SUITABLE", THE EARTHWORK FOR THIS PROJECT IS UNCLASSIFIED. THE CONTRACTOR IS RESPONSIBLE FOR ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THE PROJECT AS SHOWN HEREIN, INCLUDING IMPORT OF MATERIALS FROM PERMITTED SITES, AND EXPORT OF WASTE OR EXCESS MATERIALS TO AN APPROVED WASTE AREA.

STORMWATER MANAGEMENT – WATER QUALITY

BASED ON THE AREAS OF DISTURBANCE AND GROUND COVER CONDITIONS CONTAINED IN THESE PLANS, THE REDEVELOPMENT OF THE SITE WILL REQUIRE A TOTAL PHOSPHORUS LOAD REDUCTION OF 0.44 LB/YEAR. THIS REQUIREMENT WILL BE MET THROUGH THE PURCHASE OF NUTRIENT CREDITS FROM A VIRGINIA DEQ APPROVED NUTRIENT CREDIT BANK AUTHORIZED TO ISSUE CREDITS FOR THIS LOCATION. THE NUTRIENT CREDITS WILL BE PURCHASED DIRECTLY BY THE OWNER, WITH NO REQUIREMENT OF THE CONTRACTOR FOR THIS ITEM.

STORMWATER MANAGEMENT – QUANTITY

AS OUTLINED IN THE NARRATIVE AND MINIMUM STANDARDS SECTIONS OF SHEET C-1A, THERE ARE NO STORMWATER MANAGEMENT STORAGE FACILITIES REQUIRED FOR THIS PROJECT.

SEE SHEET C-02 FOR GRADING, COMPACTION AND FINISH SURFACE NOTES

SEE SHEET C-13 FOR PROFILES OF NEW STORM DRAIN

Revised January 06, 2021 Per Second Regulatory Review & Coord. w/ Bldg. Plans – C.L. White

20' 10' 0' 20' 40'
GRAPHIC SCALE
1" = 20'

COMMONWEALTH OF VIRGINIA
CORBIN L. WHITE
License No. 23943
01-06-2021
PROFESSIONAL ENGINEER

GRADING & STORM DRAINAGE PLAN
FOR
PROPOSED "SHOPS A & B"
TO BE CONSTRUCTED AT
TANGLEWOOD MALL
PREPARED FOR
TANGLEWOOD VENTURE LLC
SITUATE ELECTRIC ROAD (VA ROUTE 419)
CAVE SPRING MAGISTERIAL DISTRICT
COUNTY OF ROANOKE, VIRGINIA

Designed	C.L. White
Drawn	C.L. White
Checked	
Date	September 01, 2020
Scale	1" = 20'
Tax Parcel	077.16-01-03.00-0000
Field Book	N/A
W.O. No.	20-0011 / 20-0061

CWA
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SHEET C-08 OF 17

APPROVED, 2/22/2021