ARB PLAN FOR

Wawa

1215 SEMINOLE TRAIL
RIO MAGISTERIAL DISTRICT
ALBEMARLE, VA 22901
DATE: 09/14/2021

SDP202100027

PROJECT CONTACT LIST

APPLICANT/DEVELOPER

RENAUD CONSULTING
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VIENNA, VA 22182
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EMAIL: MFONTAINE@RENAUDCONSULTING.NET

OWNER
CHARLOTTESVILLE REALTY CORPORATION
PO BOX 6340
CHARLOTTESVILLE, VA 22906

CIVIL ENGINEER

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DRIVE, SUITE 200
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ARCHITECT

CUHACI & PETERSON
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SURVEYOR

JENNING STEPHENSON P.C.
LAND SURVEYORS & PLANNERS

JENNING STEPHENSON, P.C.
10160 STAPLES MILL ROAD SUITE 103
GLEN ALLEN, VA 23060
TEL: (804) 545-6235
CONTACT: KENNETH R. BLAYLOCK JR.

WAWA CONTACT INFORMATION

Wawa

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WAWA, PA 19063
TEL: (267) 273-3575
CONTACT: JEB BELL
EMAIL: JEB.BELL@WAWA.COM

PLANNING/ZONING

PLANNING COMMISSION
401 MCINTIRE ROAD
CHARLOTTESVILLE, VA 22902
TEL: (804) 677-0463
CONTACT: COREY CLAYBORNE

STORMWATER

FACILITIES AND ENVIRONMENTAL SERVICES
401 MCINTIRE ROAD 4TH FLOOR
CHARLOTTESVILLE, VA 22902
TEL: (434) 296-5816

PUBLIC UTILITIES

PUBLIC WORKS
401 MCINTIRE ROAD 4TH FLOOR
CHARLOTTESVILLE, VA 22902
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FIRE MARSHAL

DEPARTMENT OF FIRE RESCUE
460 STAGECOACH ROAD
CHARLOTTESVILLE, VA 22902
TEL: (434) 296-5833
CONTACT: SHAWN MADDOX

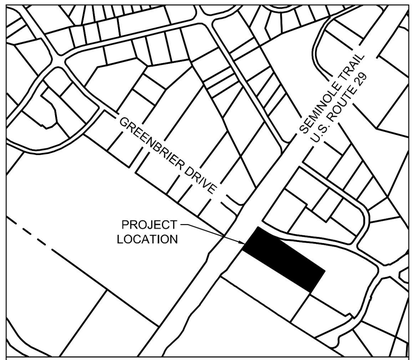
MISS UTILITY OF VIRGINIA

CALL BEFORE YOU DIG
811

ONLY THE COMPLETE AND APPROVED PAPER COPY OF THE PLAN SET INCLUDING ALL SUBSEQUENT REVISIONS WILL SERVE AS THE OFFICIAL CONSTRUCTION PLANS.

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

VICINITY MAP



VICINITY MAP
SCALE: 1" = 500'

SHEET INDEX

SHEET NUMBER	SHEET TITLE
CA-100	COVER SHEET
CA-101	GENERAL NOTES
CA-102	SPECIAL USE PERMIT AND ACCESS MANAGEMENT EXCEPTION
CV-101	EXISTING CONDITIONS
CE-101	DEMOLITION, PHASE I E&SC PLAN, AND PPP EXHIBIT
CE-102	PHASE II E&SC PLAN
CE-501	E&SC NOTES & DETAILS
CE-502	E&SC NOTES & DETAILS
CS-101	SITE PLAN
CS-201	SIGHT DISTANCE PLAN & PROFILE
CS-501	SITE DETAILS
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CG-101	GRADING PLAN
CG-201	STORMWATER QUANTITY
CG-202	STORMWATER QUALITY
CG-501	STORMWATER PROFILES & DETAILS
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CU-101	UTILITY PLAN
CU-501	UTILITY PROFILES & DETAILS
CU-502	UTILITY DETAILS
CL-101	LIGHTING PLAN
CL-501	LIGHTING DETAILS
CL-502	LIGHTING DETAILS
CP-101	PLANTING PLAN
CP-501	PLANTING DETAILS

TOTAL NUMBER OF SHEETS: 26

WAWA INFORMATION

BUILDING AREA:	6,049 SF
BUILDING TYPE:	W50 FB I VA
CANOPY CONFIGURATION	TRIPLE STACKED
CANOPY TYPE:	FLAT
# OF MPD'S:	9
TYPE OF MPD'S:	(9) 4+1
S.F. OF ASPHALT:	74,923 S.F.
S.F. OF LAWN AREA:	20,380 S.F.
S.F. OF MULCH AREA:	9,930 S.F.

PROJECT DATA

SITE STATISTICS

PARCEL ID: 061W0-02-0A-00100
SITE ADDRESS: 1215 SEMINOLE TRAIL, CHARLOTTESVILLE, VA 22901
ZONED: C-1, COMMERCIAL
MAGISTERIAL DISTRICT: RIO
APPLICABLE OVERLAY DISTRICTS: ENTRANCE CORRIDOR
AIRPORT IMPACT AREA
STEEP SLOPES - MANAGED
SPECIAL USE PERMIT: SP1991-00069
EXISTING USE: SERVICE REPAIR GARAGE
PROPOSED USE: CONVENIENCE FOOD STORE WITH SERVICE STATION
BUILDING SIZE: 6,049 SF
BUILDING HEIGHT: 33 FT ±
TOTAL SITE AREA: 2.26 AC.
TOTAL DISTURBED AREA: 2.62 AC.
TOTAL IMPERVIOUS COVER: 1.74 AC. ± (77%)
OPEN SPACE: 0.52 AC. ± (23%)
STEEP SLOPES: DISTURBED
FLOOD ZONE: THIS PROPERTY APPEARS TO LIE IN FLOOD ZONE "X" AS SHOWN ON THE FLOOD INSURANCE RATE MAP, MAP COMMUNITY - PANEL NUMBER 51003C0278D EFFECTIVE DATE: FEBRUARY 4, 2005
WATER: ACSA - MECHUNK CREEK-RIVANNA RIVER WATER SUPPLY WATERSHED
SEWER: ACSA
SOURCE OF TOPOGRAPHY: TOPOGRAPHIC SURVEY WAS PERFORMED BY JENNING STEPHENSON, P.C. ON NOVEMBER 13, 2020
DATUM: HORIZONTAL CONTROL BASED UPON VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983 THE VERTICAL DATUM SHOWN HEREON IS BASED ON NAVD 1988
LATITUDE: 38°04'11"N
LONGITUDE: 78°29'03"W
RECEIVING WATER(S): RIVANNA RIVER - MEADOW CREEK
VAHU6 CODE: JR14

BUILDING SETBACKS

FRONT (SEMINOLE TRAIL): 10' MIN., NO MAX.
FRONT (GREENBRIER DRIVE): 10' MIN., NO MAX.
SIDE: NONE
BACK: NONE

PARKING SCHEDULE

PARKING REQUIRED: 1 SPACE PER 100 SQUARE FEET OF RETAIL SALES AREA FOR THE FIRST 5,000 SF (RETAIL SALES AREA IS 80% OF GFA)
PARKING CALCULATION: (6,049 SF x 0.80)/100 SF = 48 SPACES
WAWA PARKING PROVIDED: 48 SPACES
HANDICAP SPACES PROVIDED: 2 SPACES
REAR PARKING LOT TO BENEFIT
061W0-02-00-002B0 20 SPACES
061W0-02-00-002B0 EXISTING PARKING 56 SPACES
061W0-02-00-002B0 MAX. PARKING 78 SPACES
061W0-02-00-002B0 PROPOSED PARKING 56 SPACES + 20 SPACES = 76 SPACES

TRAFFIC DATA

AM PEAK HOUR TRIP (ENTER/EXIT) 252/251
PM PEAK HOUR TRIP (ENTER/EXIT) 210/209
VEHICLE TRIPS PER WEEKDAY 5,068

APPROVALS	DATE
DEPARTMENT OF COMMUNITY DEVELOPMENT	
PLANNER/ZONING	
ENGINEER	
INSPECTIONS	
ARB	
DEPARTMENT OF FIRE RESCUE	
ALBEMARLE COUNTY SERVICE AUTHORITY	
VIRGINIA DEPARMENT OF TRANSPORTATION	
HEALTH DEPARTMENT	

No.	REVISIONS	DATE	BY

Kimley»Horn

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

COVER SHEET

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CA-100

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CA_100 COVER SHEET September 13, 2021 09:26:40pm K:\RIC_civil\113358 - renaud\07 - route 29 and greenbrier\CAD\sheetsets\CA-100 COVER SHEET.dwg
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CONSTRUCTION STANDARDS

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THESE DRAWINGS, PROJECT SPECIFICATIONS, WITH ALL CURRENT APPLICABLE CODES, AND, UNLESS OTHERWISE SPECIFIED, WITH THE LATEST REVISIONS OF THE FOLLOWING REFERENCE DOCUMENTS:

   A. ALBEMARLE COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS
   B. ACSA GENERAL WATER AND SEWER CONSTRUCTION SPECIFICATIONS
   C. VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD & BRIDGE SPECIFICATIONS
   D. VDOT ROAD AND BRIDGE STANDARDS
   E. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
   F. VIRGINIA WORK AREA PROTECTION MANUAL.
   G. VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH)
   H. VIRGINIA DEPARTMENT OF HEALTH (VDH) SPECIFICATIONS

CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH APPLICABLE STATE (INCLUDING VDOT) AND LOCAL CONSTRUCTION STANDARDS AS IDENTIFIED IN THESE PLANS. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND LICENSES AND MAINTAIN COPIES OF THEM ON-SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN A SET OF CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ON-SITE AT ALL TIMES DURING CONSTRUCTION.

2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.

3. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

4. ALL PAINT STRIPING, PAVEMENT MARKINGS, AND SIGNAGE SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," MOST CURRENT REVISION OR AS OTHERWISE SPECIFIED. ALL REFERENCED SIGN STANDARDS ARE TAKEN FROM THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". ALL NEW SIGNS SHALL BE MOUNTED ON GALVANIZED POSTS AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

5. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES ASSOCIATED WITH THE PROJECT WORK SCOPE DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" OF VIRGINIA @ 811 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.

6. ANY DAMAGE OCCURRING TO THE EXISTING SITE INFRASTRUCTURE ON THIS OR THE ADJACENT SITE DURING THE CONSTRUCTION OPERATIONS AND/OR MOBILIZATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL EXISTING DAMAGED ITEMS INCLUDING CONCRETE AND/OR PAVEMENT SECTIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS PRIOR TO PROJECT COMPLETION AT THE EXPENSE OF THE CONTRACTOR.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAYS, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION INSIDE AND OUTSIDE OF THE LIMITS OF CONSTRUCTION.

8. ANY AND ALL UTILITIES AND/OR OBSTRUCTIONS (POWER POLES, TELEPHONE PEDESTALS, GUY WIRES, WATER METERS, ETC.) THAT ARE REQUIRED TO BE RELOCATED OR ADJUSTED DUE TO CONSTRUCTION SHALL BE DONE SO AT THE OWNERS/DEVELOPERS EXPENSE.

9. SLOPES WITHIN THE LIMITS OF THE HANDICAPPED PARKING AREAS SHALL NOT EXCEED 1.5% IN ANY DIRECTION. CROSSWALKS AND SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 1.5% AND A MAXIMUM LONGITUDINAL SLOPE OF 5% IN DIRECTION OF TRAVEL. SLOPES IN HANDICAP RAMPS SHALL BE BUILT IN CONFORMANCE WITH ILATEST ADA CRITERIA AND LOCAL DESIGN STANDARDS.

10. THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL THE REMOVED/DEMOLISHED MATERIAL FROM THE PROJECT SITE AND DISPOSE OF SAME IN A LEGAL MANNER.

11. TYING TO EXISTING PAVEMENT: EXISTING PAVEMENT SHALL BE NEATLY SAW CUT TO A STRAIGHT LINE AND ALL PAVING ON THE NEW PAVEMENT SIDE OF THE CUT SHALL BE COMPLETELY REMOVED AND REPLACED WITH SPECIFIED MATERIALS. THE CUT LINE SHALL BE FULL-DEPTH AND COATED WITH A TACK COAT TO FURNISH A BOND BETWEEN THE EXISTING SURFACE COURSE AND THE NEW SURFACE COURSE.

12. TYING TO EXISTING CURB/GUTTER: THE EXISTING PAVEMENT SHALL BE NEATLY SAW CUT AND REMOVED FOR A DISTANCE OF 2'0" FROM FACE OF THE CURB AND 2'0" FROM THE EDGE OF CURB AND GUTTER AND THE SUBGRADE, BASE COURSE, AND PAVING REPLACED WITH NEW PRODUCTS.

13. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO KIMLEY-HORN & ASSOCIATES, INC. AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY KIMLEY-HORN & ASSOCIATES, INC. IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.

14. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.

15. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

16. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY LOCATIONS.

17. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

18. BRACING OF UTILITY POLES MAY BE REQUIRED BY UTILITY COMPANIES WHEN TRENCHING OR EXCAVATION IS IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE VARIOUS PAY ITEMS FOR INSTALLATION OF PIPE.

19. ALL EXISTING TRAFFIC AND STREET SIGNS DISTURBED SHALL BE REINSTALLED WHERE APPLICABLE BY THE CONTRACTOR.

20. UNLESS THE PLANS SPECIFICALLY DICTATE TO THE CONTRARY, ON-SITE AND OTHER DIRECTIONAL SIGNS SHALL BE LOCATED OUT OF THE PEDESTRIAN AND AUTOMOBILE ROUTES AND SHALL BE LOCATED BETWEEN THREE TO FIVE FEET BEHIND THE NEAREST BACK OF CURB. SIGN HEIGHT, LOCATION, AND STRUCTURE SHALL BE SUCH THAT THE SIGNS POSE NO THREAT TO PUBLIC SAFETY.

DEMOLITION / LAND DISTURBANCE NOTES

1. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:
   A. ENSURING THAT COPIES OF ALL APPLICABLE PERMITS AND APPROVALS ARE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW.
   B. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL AND/OR TREE PROTECTION MEASURES PRIOR TO SITE DISTURBANCE.
   C. LOCATING (VERTICALLY AND HORIZONTALLY) ALL UTILITIES AND SERVICES, INCLUDING, BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
   D. FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
   E. COORDINATION WITH UTILITY COMPANIES & ADJACENT LANDOWNERS/BUSINESSES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REOUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.

2. NEITHER KIMLEY-HORN & ASSOCIATES, INC. NOR THE OWNER IS RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLLOWING ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.

3. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES.

4. IN THE ABSENCE OF SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.

5. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH: THE "MANUAL ON UNIFORM TRAFFIC CONTROL," AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS – OF – WAY.

6. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.

7. USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.

8. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.

9. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.

10. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.

DRAINAGE / STORMWATER NOTES

1. ALL STORM SEWER PIPES, MANHOLES, AND CURB INLETS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS AT THE LAST STAGES OF CONSTRUCTION.

2. STORM DRAIN PIPE AND FLARED END SECTIONS ARE TO BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SECTION 302 OF VDOT ROAD AND BRIDGE SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C-76 FOR REINFORCED CONCRETE CULVERT AND STORM DRAIN PIPE. ALL PIPE FOR STORM DRAINS SHALL BE REINFORCED CONCRETE CLASS III UNLESS INDICATED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL USE A PREFORMED FLEXIBLE PLASTIC SEALING COMPOUND OF BUTYL MASTIC ROPE SEALER – 1" SIZE, "EZ STICK" AS MANUFACTURED BY CONCRETE PRODUCTS SUPPLY OR AN APPROVED EQUAL FOR SEALING WATER-TIGHT JOINTS. VERTICAL CLEARANCE OF 12" BETWEEN STORM AND OTHER UTILITIES IS REQUIRED UNLESS OTHERWISE NOTED.

3. ALL EXISTING STORM SEWER PIPES, DROP INLETS, AND CURB INLETS BEING UTILIZED BY A PART OF THE DRAINAGE SYSTEM SHALL BE CLEANED OF ERODED MATERIAL AT ALL STAGES OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER. THE COST INCIDENTAL TO THIS IS TO BE INCLUDED IN THE CONTRACT PRICE FOR THE OTHER DRAINAGE ITEMS.

4. STORM SEWER PIPES AS SHOWN ON THE PLANS ARE MEASURED FROM THE CENTERLINE OF EACH STRUCTURE AND INVERT ELEVATIONS ARE ESTABLISHED BASED ON THIS CENTER LINE DISTANCE. LENGTH CALL OUTS FOR PIPES WITH FLARED END SECTIONS WILL BE MEASURED TO THE JOINT. CONTRACTOR SHALL LOCATE ALL END SECTIONS TO MATCH THE BANK SLOPE AND THE PIPE SLOPE SHALL BE ADJUSTED AS NECESSARY.

5. BOOT CONNECTIONS SHALL BE PROVIDED FOR ALL PLASTIC PIPES THAT TIE INTO A CONCRETE STRUCTURE.

6. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START. SEE EXISTING CONDITIONS SHEET FOR UTILITY CONTACT INFORMATION.

7. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVED BY APPLICABLE AUTHORITY.

8. ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED AND LOCATED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.

9. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO NEW OR EXISTING DRAINAGE INLETS OR SHEET FLOW OVERLAND.

10. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL V.S.M.P. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

11. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.

12. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.

13. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORM RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.

UTILITY NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES OR UTILITIES BY OTHERS AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

2. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.

3. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE.

4. THE CONTRACTOR SHALL PERFORM WHATEVER TEST EXCAVATION OR OTHER INVESTIGATION IS NECESSARY TO VERIFY TIE-IN INVERTS, LOCATIONS AND CLEARANCES, AND SHALL REPORT IMMEDIATELY ANY DISCREPANCIES TO KIMLEY- HORN AND ASSOCIATES, INC. AT (804) 673-3882.

5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.

6. MAINTAIN A MINIMUM OF 18" OF VERTICAL CLEARANCE BETWEEN STORM, SANITARY, AND ALL UTILITIES (UNLESS OTHERWISE NOTED).

7. CROSS CONNECTION CONTROL AND BACK FLOW PREVENTION SHALL BE IN ACCORDANCE WITH THE UNIFORM STATEWIDE BUILDING CODE.

8. CONTRACTOR SHALL COORDINATE WITH THE FIRE MARSHAL BEFORE INSTALLING FIRE LANE SIGNS AND MARKINGS.

9. ALL CLEANOUTS WITHIN VEHICULAR AREAS SHALL BE TRAFFIC BEARING.

10. CONTRACTOR SHALL SAW CUT, REMOVE, AND REPLACE ASPHALT PAVEMENT AS NECESSARY TO INSTALL UNDERGROUND ELECTRIC, TELEPHONE, SANITARY SEWER, WATER, AND COMMUNICATION CONDUITS.

11. 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.

12. PROPOSED CROSSINGS WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

13. THE RIM ELEVATIONS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.

TRAFFIC CONTROL NOTES

1. WHENEVER CONSTRUCTION OPERATIONS ENCROACH ON THE RIGHT-OF WAY OF ADJACENT ROADWAYS, TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH LOCAL AND STATE STANDARDS.

2. NO MATERIALS OR EQUIPMENT SHALL BE STORED OR STOCKPILED WITHIN THE RIGHT-OF-WAY OF ADJACENT ROADWAYS.

3. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR COMPLETING AND IMPLEMENTING TRAFFIC CONTROL PLAN.

BUILDING INSPECTION NOTES:

1. ACCESSIBLE PARKING SPACES, ACCESS ISLES, AND ACCESSIBLE ROUTE SHALL BE INSTALLED IN ACCORDANCE WITH ICC ANSI A117.1-09 AND THE 2015 VIRGINIA CONSTRUCTION CODE.

2. ALL WATER, SEWER LINES, AND FIRE LINES FROM THE MAIN TO THE STRUCTURE LOCATED ON PRIVATE PROPERTY MUST HAVE A VISUAL INSPECTION PERFORMED BY THE BUILDING DEPARTMENT.

3. BUILDINGS OR STRUCTURES BUILT BEFORE JANUARY 1, 1985 MUST HAVE AN ASBESTOS SURVEY PERFORMED IN ORDER TO APPLY FOR A DEMOLITION PERMIT. ASBESTOS REMOVAL PERMITS ARE REQUIRED IF POSITIVE FOR SUCH FROM ALBEMARLE COUNTY AND VDOLI. CONTACT VDOLI FOR THEIR ADDITIONAL REQUIREMENTS AND PERMITS FOR DEMOLITION PROJECTS AT 540-562-3580 X131.

VDOT GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION WITHIN THE PUBLIC RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S ROAD AND BRIDGE SPECIFICATIONS, ROAD AND BRIDGE STANDARDS AND VIRGINIA WORK AREA PROTECTION MANUAL.
2. LAND USE PERMITS (LUP) SHALL BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO BEGINNING ANY CONSTRUCTION WITHIN THE EXISTING STATE MAINTAINED RIGHT-OF-WAY (INCLUDING ACCESS).
3. VDOT REQUIRES NOTIFICATION 48 HOURS PRIOR TO COMMENCING WITH INITIAL CONSTRUCTION ACTIVITIES. PLEASE CONTACT THE APPROPRIATE PERMIT OFFICE IN WHICH YOUR PROPOSED ACTIVITIES ARE TO OCCUR.
4. APPROVAL OF A DETAILED CONSTRUCTION SEQUENCING AND MAINTENANCE OF TRAFFIC PLAN FOR THE WORK ZONE IS A PREREQUISITE FOR ISSUANCE OF A LAND USE PERMIT. THE PLAN SHALL ACCOMMODATE ACCESS TO AND CONSTRUCTION WITHIN VDOT MAINTAINED RIGHT-OF-WAY.
5. WORK ZONES – THE DEPARTMENT SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY ANTICIPATED LANE/SHOULDER CLOSURES ON ROADWAYS CLASSIFIED AS COLLECTOR ROADS OR HIGHER. YOU DO NOT NEED TO CALL TO ACTIVATE YOUR WORK ZONE UNTIL YOU PLACE THE FIRST CONE OR SIGN IN YOUR WORK ZONE. REQUESTS FOR THE IMPLEMENTATION OF TEMPORARY LANE AND SHOULDER CLOSURES MUST BE ENTERED INTO THE VDOT LANE CLOSURE ADVISORY MANAGEMENT SYSTEM (LCAMS) AND VATRAFFIC A MINIMUM OF ONE WEEK PRIOR TO THE PLANNED EXECUTION OF LANE OR SHOULDER CLOSURE ACTIVITIES ON STATE MAINTAINED ROADWAYS. THE PERMITTEE OR THEIR CONTRACTOR MAY ENTER THEIR REQUESTS DIRECTLY OR PROVIDE WRITTEN REQUESTS TO THE CENTRAL REGION TRAFFIC OPERATIONS CENTER (TOC), 804-796-4520, APRIL DABNEY, LANE CLOSURE COORDINATOR, OR MAILTO: APRIL.DABNEY@VDOT.VIRGINIA.GOV WITH "LANE CLOSURE REQUEST" IN THE SUBJECT LINE.
6. PERMITTEE MUST NOTIFY VIRGINIA DEPARTMENT OF TRANSPORTATION TOC WHEN THERE IS A CRASH IN A WORK ZONE AT 804-796-4520.
7. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL CONSULT THE DEVELOPER'S ENGINEERING CONSULTANT AND VERIFY THE APPROVAL OF THE PLANS BY ALL APPLICABLE FEDERAL, STATE AND LOCAL AGENCIES.
8. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT THE DEVELOPER'S ENGINEERING CONSULTANT IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON PLAN. IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THIS PLAN, CALL "MISS UTILITY" AT 811. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITY WITHIN EXISTING AND PROPOSED RIGHT OF WAY REQUIRED BY THE DEVELOPMENT.
9. THE PERMITTEE OR THEIR AGENT MUST CONTACT THE VDOT CUSTOMER SERVICE CENTER AT 1-800-367-7623 A MINIMUM OF 48 HOURS PRIOR TO INITIATING ANY PLANNED EXCAVATION WITHIN 1,000 FEET OF A SIGNALIZED INTERSECTION AND/OR NEAR VDOT ITS INFRASTRUCTURE. EXCAVATION MAY PROCEED ONLY AFTER THE VDOT REGIONAL UTILITY LOCATION AGENT HAS NOTIFIED THE PERMITTEE THAT THE UTILITY MARKING HAS BEEN COMPLETED. ADDITIONAL INFORMATION CAN BE FOUND AT: HTTP://WWW.VIRGINIADOT.ORG/BUSINESS/RESOURCES/IIM/TE-383_REQUEST_FOR_MARKING_VDOT_UTILITY_LOCATION.PDF "MISS UTILITY" DOES NOT LOCATE VDOT UTILITIES.
10. THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF ALL POINTS OF CONNECTION OR PROPOSED WORK TO EXISTING CURBS, SANITARY LINES, WATER LINES, ETC., PRIOR TO CONSTRUCTION.
11. DESIGN CHANGES, SPECIFIED MATERIALS CHANGES AND FIELD CHANGES FROM THE APPROVED PLANS SHALL BE RE-SUBMITTED TO VDOT FOR APPROVAL PRIOR TO PROCEEDING WITH THE WORK. A LETTER OF EXPLANATION SHALL ACCOMPANY THE PROPOSED REVISION ALONG WITH DRAINAGE CALCULATIONS WHEN APPROPRIATE.
12. VDOT APPROVAL OF CONSTRUCTION PLANS DOES NOT PRECLUDE THE RIGHT TO REQUIRE ADDITIONAL FACILITIES AS DEEMED NECESSARY FOR ACCEPTANCE OF THE ROADS INTO THE VDOT SECONDARY ROAD SYSTEM BASED ON FIELD CONDITIONS OR UNAPPROVED PLAN CHANGES.
13. VDOT APPROVAL OF THESE PLANS WILL EXPIRE FIVE (5) YEARS FROM THE DATE OF APPROVAL FOR SITE PLANS AND SUBDIVISION PLANS IF CONSTRUCTION HAS NOT STARTED.
14. PRELIMINARY DESIGN OF THE PAVEMENT STRUCTURE FOR ALL SUBDIVISION STREETS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA. THE COMPLETED DESIGN WORKSHEET APPENDIX IV SHALL BE INCLUDED WITH THE INITIAL PLAN SUBMITTAL FOR EACH PROPOSED PAVEMENT SECTION UTILIZING THE PREDICTED SOIL SUPPORT VALUE SHOWN IN APPENDIX I OF THE PAVEMENT DESIGN GUIDE OR AS REPORTED IN A GEOTECHNICAL ANALYSIS OF THE ON-SITE SOILS.
15. A COPY OF THE COMPLETE CBR REPORT SHALL BE SUBMITTED TO VDOT IN CONJUNCTION WITH FINAL PAVEMENT DESIGNS. ALL PAVEMENT DESIGN RECOMMENDATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA.
16. ALL VEGETATION AND ORGANIC MATERIAL SHALL BE REMOVED FROM THE RIGHT OF WAY LIMITS PRIOR TO CONDITIONING OF THE SUBGRADE.
17. UPON DISCOVERY OF SOILS THAT ARE UNSUITABLE FOR FOUNDATIONS, SUBGRADES, OR OTHER ROADWAY CONSTRUCTION PURPOSES, THE DEVELOPER OR HIS DESIGNEE, WHICH MAY BE THE CONTRACTOR, SHALL IMMEDIATELY ENGAGE A GEOTECHNICAL ENGINEER AND NOTIFY VDOT. THESE AREAS SHALL BE EXCAVATED BELOW PLAN GRADE AS DIRECTED BY THE GEOTECHNICAL ENGINEER, BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED IN ACCORDANCE WITH CURRENT VDOT SPECIFICATIONS.
18. THE NECESSITY AND LOCATIONS FOR ADDITIONAL VDOT STANDARD UNDERDRAINS SHALL BE DETERMINED AT TIME OF SUBGRADE INSPECTION. VIDEO INSPECTION OF ACCESSIBLE OUTLET LOCATIONS, MAINLINE LONGITUDINAL CONNECTIONS, AND LONGITUDINAL PIPE FOR ALL PAVEMENT UNDERDRAINS, CROSS DRAINS, EDGEDRAINS AND PREFABRICATED GEOCOMPOSITE PANEL DRAINS SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 501 OF THE ROAD AND BRIDGE SPECIFICATIONS AND VIRGINIA TEST METHOD 108 – POST INSTALLATION INSPECTION OF UNDERDRAINS, CROSSDRAINS, AND EDGEDRAINS.
19. VDOT SHALL HAVE PERFORMED THE REQUIRED FIELD INSPECTION (PROOF ROLL) PRIOR TO PLACEMENT OF THE AGGREGATE BASE COURSE(S). CONTACT VDOT FOR SUBGRADE INSPECTION 48 HOURS PRIOR TO SCHEDULING PLACEMENT OF AGGREGATE BASE COURSE(S).
20. THE SCHEDULING OF AGGREGATE BASE INSTALLATION AND SUBSEQUENT PAVING ACTIVITIES SHALL ACCOMMODATE FORECASTED WEATHER CONDITIONS PER SECTION 315 OF THE ROAD AND BRIDGE SPECIFICATIONS.
21. VDOT SHALL HAVE APPROVED THE AGGREGATE BASE COURSE(S) FOR DEPTH, TEMPLATE AND PERFORMED THE REQUIRED FIELD INSPECTION (PROOF ROLL) PRIOR TO PLACEMENT OF ANY ASPHALT CONCRETE SURFACE COURSE(S). CONTACT VDOT FOR INSPECTION OF THE AGGREGATE BASE COURSE(S) 48 HOURS PRIOR TO APPLICATION OF THE SURFACE COURSE(S).
22. A LICENSED GEOTECHNICAL ENGINEER OR HIS DESIGNEE SHALL ASCERTAIN CAUSE AND CERTIFY RECOMMENDED METHOD OF REPAIR FOR ALL PAVEMENT STRUCTURAL FAILURES PRIOR TO STATE ACCEPTANCE.
23. VDOT SHALL BE PROVIDED DOCUMENTATION BY A LICENSED GEOTECHNICAL ENGINEER, CERTIFYING THAT ALL IN-PLACE PAVEMENTS MEET OR EXCEED THE APPROVED PAVEMENT DESIGN THICKNESS PRIOR TO STATE ACCEPTANCE OF THE STREET. CORES ARE TO BE OBTAINED VERIFYING PAVEMENT THICKNESS UNLESS OTHERWISE DIRECTED BY VDOT. THE PERMIT'S INSPECTOR SHALL BE CONTACTED 24 HOURS PRIOR TO THE CORE SAMPLES BEING TAKEN.
24. ALL STORM SEWER DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH LATEST VDOT DRAINAGE MANUAL, ROAD AND BRIDGE STANDARDS, AND IIMS.
25. ALL PRE-CAST UNITS SHALL BE VDOT APPROVED. CERTIFICATION AND VDOT STAMP IS REQUIRED ON ALL UNITS.
26. ALL CONCRETE SHALL BE CLASS A3-AE (AIR ENTRAINED 3,000 PSI) UNLESS OTHERWISE SPECIFIED.
27. ALL ROADSIDE DITCHES SHOWN AS PAVED ON PLANS ARE TO BE PAVED IN ACCORDANCE WITH THE STANDARD TYPICAL SECTION AS SHOWN ON THE PLANS. ANY ADDITIONAL PAVING OF THE DITCHES, OTHER THAN THOSE SHOWN ON THE ROAD PLANS WILL BE DETERMINED PRIOR TO ACCEPTANCE OF THE ROADS INTO THE VDOT SECONDARY ROAD SYSTEM.
28. ROAD & BRIDGE SPECIFICATIONS SECTION 302, DRAINAGE STRUCTURES ADDRESSES POST INSTALLATION VISUAL/VIDEO CAMERA INSPECTION OF STORM SEWER PIPES AND PIPE CULVERTS. INSPECTION FREQUENCY SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR AS NECESSITATED BY THE ENGINEER. VIDEO INSPECTION SHALL BE CONDUCTED IN ACCORDANCE WITH VIRGINIA TEST METHOD (VTM) 123, POST INSTALLATION INSPECTION OF BURIED STORM SEWER PIPE AND PIPE CULVERTS.
29. A CONSTRUCTION ENTRANCE SHALL BE INSTALLED ON EACH INDIVIDUAL LOT PRIOR TO ANY LOT GRADING OR HOME CONSTRUCTION ACTIVITIES AND SHALL BE ADEQUATELY MAINTAINED UNTIL ALL CONSTRUCTION TRAFFIC AREAS WITHIN THE LOT HAVE BEEN STABILIZED.
30. ALL ENTRANCES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CURRENT VDOT STANDARDS. RESIDENTIAL LOT ACCESS SHALL BE PROVIDED PER THE FOLLOWING CRITERIA:
 - ALL DRIVEWAY ENTRANCES AND ENTRANCE CULVERTS SHALL CONFORM TO PE-1 PRIVATE ENTRANCE STANDARDS UNLESS OTHERWISE APPROVED BY VDOT. NO ENTRANCE CULVERTS ARE TO BE INSTALLED WITHIN FIVE (5) FEET OF A PROPERTY CORNER.
 - VDOT STANDARD CG-9D ENTRANCES SHALL BE USED WHEN AN ENTRANCE IS REQUIRED IN CURB AND GUTTER NEIGHBORHOODS UNLESS OTHERWISE APPROVED BY VDOT.
31. DRY GUTTER IS NOT ALLOWED IN VDOT RIGHT OF WAY EXCEPT AS SHOWN ON VDOT'S ENTRANCE STANDARD DETAILS.
32. THE DEVELOPER SHALL FURNISH AND INSTALL STOP SIGNS AND STOP BARS AT STREET INTERSECTIONS AND ALL REGULATORY SIGNAGE PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ALL SIGNS MUST BE INSTALLED ON VDOT STANDARD STP-1 SIGN POSTS.
33. INSTALLATION, MAINTENANCE AND OPERATION OF STREET LIGHTING SHALL BE PROVIDED BY AND AT THE SOLE EXPENSE OF OTHERS. VDOT WILL ALLOW LIGHTING WITHIN THE RIGHT OF WAY BY LUP ONLY. LIGHTING ON CURB SECTIONS SHALL BE PLACED BEHIND THE CURB AND PREFERABLY BEHIND THE SIDEWALK. FOR SHOULDER SECTIONS, THE POLE SHALL BE PLACED A MINIMUM OF 10' FROM EDGE OF PAVEMENT AND BEHIND THE DITCH LINE. ALL LIGHTING PROPOSED WITHIN THE RIGHT OF WAY MUST BE DESIGNED IN ACCORDANCE WITH THE AASHTO GUIDE FOR ROADWAY LIGHTING AND SHALL MEET THE CURRENT ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) STANDARDS.
34. TRAFFIC SIGNALS REQUIRE AN INDIVIDUAL LAND USE PERMIT. THE APPLICANT SHALL BE RESPONSIBLE FOR THE DESIGN COSTS OF ANY TRAFFIC SIGNAL INSTALLATION OR MODIFICATION OF EXISTING SIGNALS. DESIGN PLANS MUST BE PREPARED AND SUBMITTED TO VDOT BY A LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL. THIS INCLUDES THE FOUNDATION DESIGN AND ANY EQUIPMENT ASSOCIATED WITH THE COMPLETED TRAFFIC SIGNAL. ALL EQUIPMENT MUST BE APPROVED BY VDOT. SHOP DRAWINGS MUST BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATING ANY SIGNAL STRUCTURAL COMPONENTS.
35. SOIL STABILIZATION IS REQUIRED WITHIN 7 DAYS FOR ALL AREAS WHERE CLEARING, GRADING, EXCAVATION OR OTHER LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WHERE LAND DISTURBANCE ACTIVITIES HAVE BEEN TEMPORARILY SUSPENDED FOR AN ANTICIPATED DURATION OF GREATER THAN 7 DAYS, OR UPON COMPLETION OF GRADING OPERATIONS FOR A SPECIFIED AREA. SOIL STABILIZATION SHALL BEGIN AS SOON AS PRACTICABLE, BUT NOT LATER THAN THE SEVEN DAYS FOLLOWING THE DAY WHEN LAND DISTURBING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASED.
36. NO STRUCTURE SHALL BE CONSTRUCTED ON STATE MAINTAINED RIGHTS OF WAY, OR ON RIGHT OF WAYS INTENDED TO BE MAINTAINED BY VDOT UNLESS SAID STRUCTURES ARE SHOWN ON CONSTRUCTION PLANS APPROVED BY VDOT OR SUCH STRUCTURES ARE COVERED BY A VDOT LAND USE PERMIT (OR BY A LETTER OF INTENT FROM THE RESIDENT ADMINISTRATOR/RESIDENT ENGINEER TO ISSUE SAID PERMIT AT THE TIME OF STATE ACCEPTANCE).

ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THESE DRAWINGS, PROJECT SPECIFICATIONS, STANDARDS WITH ALL CURRENT APPLICABLE CODES, AND, UNLESS OTHERWISE SPECIFIED, WITH THE CURRENT EDITIONS AND LATEST REVISIONS OF THE FOLLOWING REFERENCE DOCUMENTS:

- VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD & BRIDGE SPECIFICATIONS
- VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD & BRIDGE STANDARDS
- MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- VIRGINIA SUPPLEMENT TO THE MUTCD
- INSTRUCTIONAL AND INFORMATIONAL MEMORANDA (IIM)
- VIRGINIA WORK AREA PROTECTION MANUAL

SPECIFIC STANDARDS AND DETAILS FROM THE CURRENT AND OR REVISED VERSION OF THE 2016 VDOT ROAD AND BRIDGE STANDARDS INCLUDE:

– WP-2 (ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC)
– CG-11 (METHOD OF TREATMENT – CONNECTION FOR STREET INTERSECTIONS AND COMMERCIAL ENTRANCES)
– CG-12 (DETECTABLE WARNING SURFACE – TYPE B (PARALLEL) APPLICATION)
– CG-6 (COMBINATION 6" CURB AND GUTTER)
– MH-1 (STANDARD MANHOLE FRAME AND COVER)
– MH-1 (MANHOLE FOR 12"-48" PIPE CULVERTS)
– IS-1 (STANDARD METHOD OF SHAPING MANHOLE & INLET INVERTS)
– DI-3A, 3B, 3C (STANDARD CURB DROP INLET – 12"-30" PIPE: MAXIMUM DEPTH (H)=8')
– DI-1 (STANDARD DROP INLET – 12"-24" PIPE: MAXIMUM DEPTH (H)=10')
– PB-1 (INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL – METHOD "A")
– ST-1 (STANDARD STEP)
– DI-2A, 2B, 2C (STANDARD CURB DROP INLET – 12"-24" PIPE: MAXIMUM DEPTH (H)=9')
– GR-2, 2A (STANDARD BLOCKED-OUT W-BEAM GUARDRAIL (STRONG POST SYSTEM))
– GR-2, 2A (STANDARD BLOCKED-OUT W-BEAM GUARDRAIL (STRONG POST SYSTEM, POST AND BLOCKOUT DETAILS))

No.	REVISIONS	DATE	BY

Kimley»Horn

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1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

GENERAL NOTES

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CA-101

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CA-101 GENERAL NOTES September 13, 2021 08:42:31pm K:\RIC_CIV\113358 - renaud\001 - route 29 and greenbrier\CAD\plansheets\CA-101 GENERAL NOTES.dwg
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VDOT Virginia Department of Transportation

February 2015

ACCESS MANAGEMENT EXCEPTION REQUEST: AM-E

ACCESS MANAGEMENT REGULATIONS 24 VAC 30-73

SECTION 120

Submitted by: David M. Capparuccini, P.E. PTOE, Kimley-Horn		**Date:** 6/2/21
Email Address: david.capparuccini@kimley-horn.com		**Phone:** (804)-672-4715
Address: 1700 Willow Lawn Drive, Suite 200, Richmond, VA 23230		
Project Name: US Route 29 Wawa TIA	**Rte #** 29	**Locality:** Albermarle
Description of Project: A Wawa is being proposed on the southeast corner of US Route 29 and Greenbrier Drive. This proposed Wawa development will replace the existing service station. There are currently two entrances/exits on this property, and as part of the re-development the two entrances/exits will be consolidated to one right-turn in/right-turn out entrance/exit. See attached exhibits demonstrating that access along northbound US Route 29 has not changed since 2007. Updated March 2021: VDOT requested that the adjacent property owner be contacted to discuss a shared access drive. After multiple attempts to contact		
VDOT District: Culpepper	**Area Land Use Engineer:** Adam Moore	

NOTES:
(1). Submit this form and any attachments to one of the District's Area Land Use Engineers.
(2). See Section 120 of the Regulations for details on the requirements, exceptions, and exception request review process.
(3). Attach additional information as necessary to justify the exception request(s).
(4). If a traffic engineering study is required, the decision on the request will be based on VDOT engineering judgment.
(5). Use the LD-440 Design Exception or the LD-448 Design Waiver forms for *design and engineering standards*, e.g. radius, grade, sight distance. See IIM-LD-227 on VDOT web site for additional instructions.

Select the Exception(s) Being Requested

☐ **Exception to the shared commercial entrance requirement.** (Access M. Regulations Section 120 C.2)
Reason for exception:
☐ **A. An agreement to share the entrance could not be reached with adjoining property owner.**
☐ **Attached:** Written evidence that adjoining property owner will not share the entrance.
☐ **B. Physical constraints: topography, adjacent hazardous land use, stream, wetland, other.**
☐ **Specify constraint:** _____
☐ **Attached:** Documentation of constraint such as aerial photo or topographic map.

☐ **Exception to the vehicular connection to adjoining undeveloped property requirement.** (Section 120 C.4)
Reason for exception:
☐ **A. Physical constraints: topography, adjacent hazardous land use, stream, wetland, other.**
☐ **Specify constraint:** _____
☐ **Attached:** Documentation of constraint such as aerial photo or topographic map.
☐ **B. Other reason:** _____

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☐ **E. The development's 2nd (or additional) entrance does not meet the spacing standards but is necessary for the streets to be accepted into the secondary system.** (Section 120 C.3.e)
☐ **Attached:** Information on the development that identifies the location of entrances.

☐ **F. To be located within the limits of a VDOT and locality approved access management corridor plan.**
☐ **Attached:** Aerial photo of corridor identifying proposed entrance/intersection location. (Sect 120 C.3.b)

FOR VDOT USE ONLY

Recommendation on Exception Request: Approve ☑ **Deny** ☐	**Date:** 6/23/21
Area Land Use Engineer or: _____ **Name** Adam J. Moore, P.E.	
Remarks: The Residency recommends approval based on the following factors: 1. The proposed full access entrance location is pushed as far from the Route 29 signal as possible. 2. Traffic Engineering reviewed and concurred with the design and had no comments about impacts to signal operations. 3. The included letter demonstrates sufficient effort was expended in an attempt to share a commercial entrance on Route 29 with the property to the south. 4. The intended time of day signs directing traffic entering Greenbrier to the right will encourage traffic to not wait for the queue to clear during peak hours. Concurrence from Carrie Shepheard, P.E. via phone 6/21/21	

Exception Request Action: Approved ☑ **Denied** ☐	**Date:** 7/1/2021
District Administrator or Designee: Michelle A Shropshire 2021.07.01 10:38:40-04'00'	
Name (and position if Designee) _____	
Remarks: Concur with Residency remarks. Approval requires time of day signs directing traffic entering Greenbrier to the right from 7 AM-9AM and from 5 PM-6PM (based on peak hours in traffic analysis). Times for left turn restriction will be monitored and may need to be adjusted based on field conditions/safety concerns.	

District Staff: Please email copy to Bradley.Shelton@VDOT.Virginia.gov

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☑ **Exception to the commercial entrance shall not be located within the functional area of an intersection requirement.** (See Regulation Section 120 C. 1; Appendix F, Rd Design Manual)
☑ **Attached:** A traffic engineering study documenting that the operation of the intersection and public safety will not be adversely impacted.

☐ **EXCEPTION TO THE SPACING STANDARDS FOR:**
- **Commercial entrances; intersections/median crossovers (Table 2-2);**
- **Commercial entrances/intersections near interchange ramps (Tables 2-3, 2-4);** or
- **Corner clearance (Figure 4-4).** Appendix F, Road Design Manual

Information on the Exception Request

☑ **ON A STATE HIGHWAY**
Functional classification: Principal Arterial: ☑ Minor Arterial: ☐ Collector: ☐ Local: ☐
Posted speed limit: 45 mph
☐ **NEAR AN INTERCHANGE RAMP** (Submittal of a traffic engineering study required)
☐ **CORNER CLEARANCE** (Submittal of a traffic engineering study required)
Type of intersection/entrance: Signalized ☐ Unsignalized ☐ Full Access ☐ Partial Access ☐
Required spacing distance _____**ft**
Proposed spacing distance _____**ft**
Requested exception: Reduction in required spacing _____**ft**

REASON FOR EXCEPTION:

☑ **A. To be located on an older, established business corridor along a highway where existing spacing did not meet the standards prior to 7/1/08 or 10/14/09.** (Regulation Section 120 C.3.c)
☑ **Attached:** Dated aerial photo of corridor identifying proposed entrance/intersection location.

☐ **B. Not enough property frontage to meet spacing standard, but the applicant does not want a partial access right-in/right-out entrance.** (Section 120 C.3.f)
☐ **Attached:** A traffic engineering study documenting that left turn movements at the entrance will not have a negative impact on highway operation or safety.

☐ **C. To be located within a new urbanism mixed use type development.** (Section 120 C.3.d)
☐ **Attached:** The design of the development and compliance with intersection sight distance.

☐ **D. The proposed entrance meets the signal warrants but does not meet the signalized intersection spacing standard. The applicant requests an exception to the spacing standard.**
☐ **Attached:** A traffic engineering study that (i) evaluates the location's suitability for a roundabout and (ii) provides documentation that the proposed signal will not impact safety and traffic flow. (Section 120 C.5)

COUNTY OF ALBEMARLE
Dept. of Planning & Community Development
401 McIntire Road
Charlottesville, Virginia 22901-4596
(804) 296-5823

February 29, 1992

Crenshaw's Auto Service, Inc
1215 Seminole Trail
Charlottesville, VA 22901

RE: SP-91-69 Crenshaw's Auto Service
Tax Map 61W, Section 2, Block A, Parcel 1

Dear Mr. Crenshaw:

The Albemarle County Board of Supervisors, at its meeting on February 19, 1992, approved the above-noted request to locate motor vehicle sales and rental on 2.26 acres zoned C-1, Commercial and EC, Entrance Corridor (existing service station is to remain). Please note that this approval is subject to the following conditions:

1. Use shall not commence until a Certificate of Appropriateness is issued by the Architectural Review Board; and
2. Storage areas shall be limited to those shown on a plat titled "Physical Survey of Lot 1, Block A, Section Two, Westfield" and initialed 2/5/92 WDF and the total number of vehicles available for sale or rental shall not exceed sixty-four (64) at any one time.

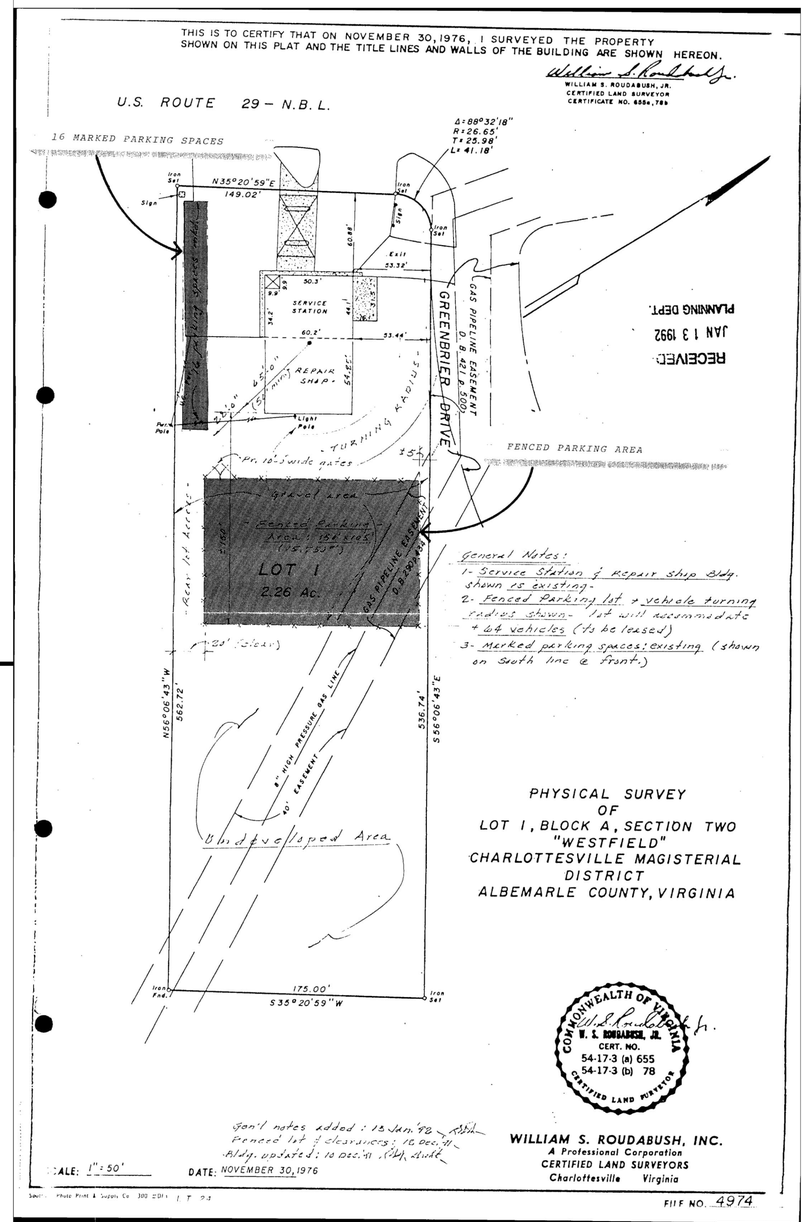
If you should have any questions or comments regarding the above noted action, please do not hesitate to contact me.

Sincerely,

V. Wayne Cilimberg
Director of Planning & Community Development

VWC/jcw

cc: Amelia Patterson Jo Higgins
James E. Crenshaw Charlottesville Realty Company



Plotted By:McCray, Stephen Sheet Set:Kha Layout:CA-102 SPECIAL USE PERMIT AND ACCESS MANAGEMENT EXCEPTION September 13, 2021 08:42:41pm K:\RIC_CVA\113358 — renpa\VDOT — route 29 and greenbrier\CAD\plansheets\CA-102 SPECIAL USE PERMIT AND ACCESS MANAGEMENT EXCEPTION.dwg
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No.	REVISIONS	DATE	BY

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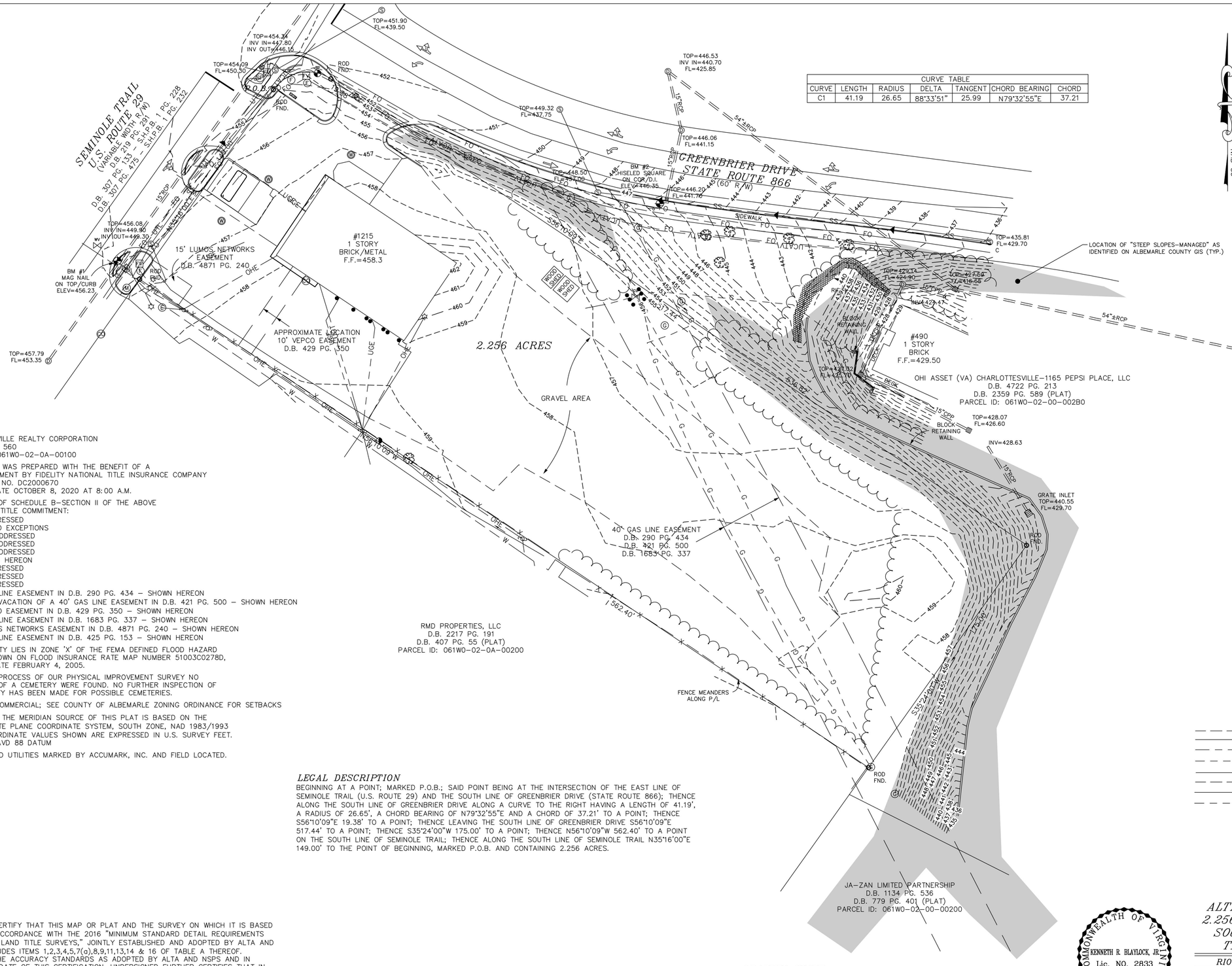
KHA PROJECT	113358001
DATE	09/14/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

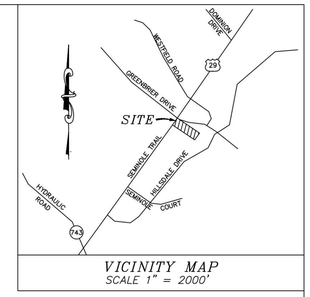
SPECIAL USE PERMIT AND ACCESS MANAGEMENT EXCEPTION

WAWA
ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CA-102





VICINITY MAP
SCALE 1" = 2000'

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD
C1	41.19	26.65	88°33'51"	25.99	N79°32'55"E	37.21

NOTES

1. OWNERSHIP:
   CHARLOTTESVILLE REALTY CORPORATION
   D.B. 696 PG. 560
   PARCEL ID: 061W0-02-0A-00100
2. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A TITLE COMMITMENT BY FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. DC2000670 EFFECTIVE DATE OCTOBER 8, 2020 AT 8:00 A.M.
3. EXCEPTIONS OF SCHEDULE B-SECTION II OF THE ABOVE REFERENCED TITLE COMMITMENT:
   1.) NOT ADDRESSED
   2.) STANDARD EXCEPTIONS
   A. NOT ADDRESSED
   B. NOT ADDRESSED
   C. NOT ADDRESSED
   D. SHOWN HEREON
   3.) NOT ADDRESSED
   4.) NOT ADDRESSED
   5.) NOT ADDRESSED
   6.) 40' GAS LINE EASEMENT IN D.B. 290 PG. 434 - SHOWN HEREON
   7.) PARTIAL VACATION OF A 40' GAS LINE EASEMENT IN D.B. 421 PG. 500 - SHOWN HEREON
   8.) 10' VEPCO EASEMENT IN D.B. 429 PG. 350 - SHOWN HEREON
   9.) 40' GAS LINE EASEMENT IN D.B. 1683 PG. 337 - SHOWN HEREON
   10.) 15' LUMOS NETWORKS EASEMENT IN D.B. 4871 PG. 240 - SHOWN HEREON
   11.) 40' GAS LINE EASEMENT IN D.B. 425 PG. 153 - SHOWN HEREON
4. THIS PROPERTY LIES IN ZONE 'X' OF THE FEMA DEFINED FLOOD HAZARD AREA AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 51003C0278D, EFFECTIVE DATE FEBRUARY 4, 2005.
5. DURING THE PROCESS OF OUR PHYSICAL IMPROVEMENT SURVEY NO INDICATIONS OF A CEMETERY WERE FOUND. NO FURTHER INSPECTION OF THE PROPERTY HAS BEEN MADE FOR POSSIBLE CEMETERIES.
6. ZONED: C1 COMMERCIAL; SEE COUNTY OF ALBEMARLE ZONING ORDINANCE FOR SETBACKS
7. HORIZONTAL: THE MERIDIAN SOURCE OF THIS PLAT IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983/1993 (HARN). COORDINATE VALUES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET. VERTICAL: NAVD 88 DATUM
8. UNDERGROUND UTILITIES MARKED BY ACCUMARK, INC. AND FIELD LOCATED.

LEGAL DESCRIPTION

BEGINNING AT A POINT; MARKED P.O.B.; SAID POINT BEING AT THE INTERSECTION OF THE EAST LINE OF SEMINOLE TRAIL (U.S. ROUTE 29) AND THE SOUTH LINE OF GREENBRIER DRIVE (STATE ROUTE 866); THENCE ALONG THE SOUTH LINE OF GREENBRIER DRIVE ALONG A CURVE TO THE RIGHT HAVING A LENGTH OF 41.19', A RADIUS OF 26.65', A CHORD BEARING OF N79°32'55"E AND A CHORD OF 37.21' TO A POINT; THENCE S56°10'09"E 19.38' TO A POINT; THENCE LEAVING THE SOUTH LINE OF GREENBRIER DRIVE S56°10'09"E 517.44' TO A POINT; THENCE S35°24'00"W 175.00' TO A POINT; THENCE N56°10'09"W 562.40' TO A POINT ON THE SOUTH LINE OF SEMINOLE TRAIL; THENCE ALONG THE SOUTH LINE OF SEMINOLE TRAIL N35°16'00"E 149.00' TO THE POINT OF BEGINNING, MARKED P.O.B. AND CONTAINING 2.256 ACRES.

LEGEND

- DECIDUOUS TREE
- BENCHMARK
- BOLLARD
- SIGN
- HANDICAP RAMP
- CV CABLE VAULT
- FV FIBER-OPTIC VAULT
- (F) FIBER-OPTIC MARKER
- TP TELEPHONE PEDESTAL
- GV GAS VALVE
- (G) GAS MARKER
- WV WATER VALVE
- (M) WATER METER
- (W) MONITORING WELL
- (E) ELECTRIC METER
- (SP) TRAFFIC SIGNAL POLE
- EV ELECTRIC VAULT
- LIGHT POLE
- GUY WIRE
- POWER POLE
- (D) DRAINAGE MANHOLE
- (CO) CLEANOUT
- (S) SANITARY SEWER
- OHE — OVERHEAD ELECTRIC
- UNDERGROUND WATER
- G — UNDERGROUND GAS
- UGE — UNDERGROUND ELECTRIC
- UNDERGROUND FIBER-OPTIC
- UTL — UNDERGROUND TRAFFIC
- UNDERGROUND CABLE TV
- UGT — UNDERGROUND TELEPHONE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,3,4,5,7(a),8,9,11,13,14 & 16 OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE COMMONWEALTH OF VIRGINIA, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN. THE FIELD WORK WAS COMPLETED ON NOVEMBER 13, 2020.

KENNETH R. BLAYLOCK, JR., L.S.
LIC. NO. 2833

DATE

COMMONWEALTH OF VIRGINIA
KENNETH R. BLAYLOCK, JR.
Lic. NO. 2833
LAND SURVEYOR

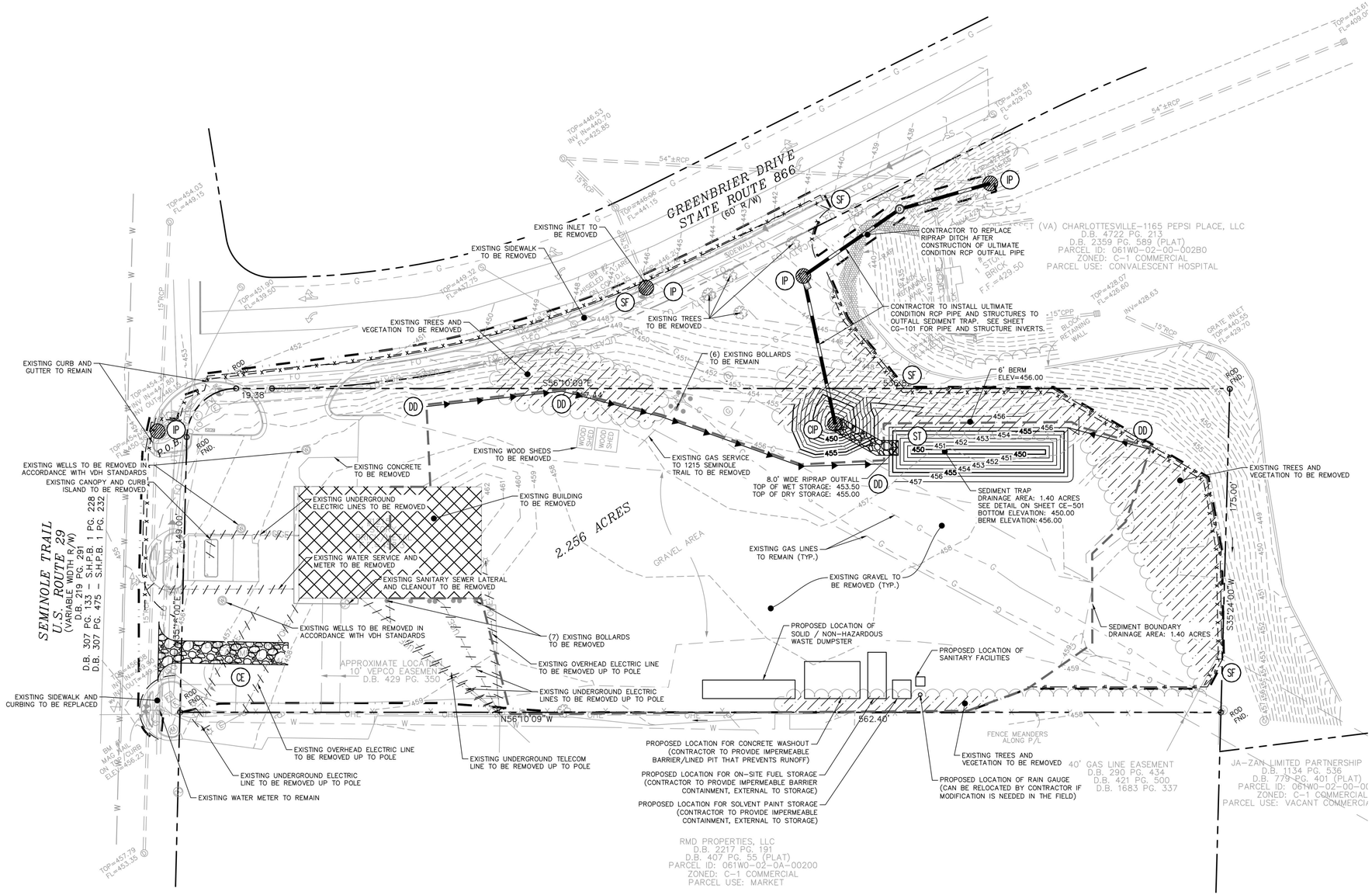
ALTA/NSPS LAND TITLE SURVEY OF 2.256 ACRES OF LAND LYING ON THE SOUTHEAST CORNER OF SEMINOLE TRAIL AND GREENBRIER DRIVE

RIO DISTRICT * ALBEMARLE COUNTY, VIRGINIA

DATE: NOVEMBER 13, 2020 SCALE: 1" = 30'

JENNINGS STEPHENSON P.C.
LAND SURVEYORS & PLANNERS
10160 STAPLES MILL ROAD
SUITE 103
GLEN ALLEN, VA 23060
PHONE - 804-545-6235
FAX - 804-545-6259
J.N. 20-681

Plotted By:McCroy, Stephen Sheet Set:Kha Layout:CE-101 DEMOLITION, PHASE I E&SC PLAN AND PPP EXHIBIT September 13, 2021 08:43:03pm K:\RIC_civil\13358 - renoud\101 - route 29 and greenbrier\CAD\plansheets\CE-101 DEMOLITION DEMOLITION & PHASE I E&SC PLAN.dwg
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DEMOLITION LEGEND

	LIMITS OF DISTURBANCE
	EXISTING BUILDING TO BE REMOVED
	EXISTING TREES TO BE REMOVED
	EXISTING UTILITIES TO BE REMOVED OR RELOCATED

DEMOLITION NOTES

1. THIS DEMOLITION/EROSION CONTROL PLAN IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION AND FOR THE DEMOLITION, REMOVAL, OR RELOCATION OF ITEMS IN CONFLICT WITH THE PROPOSED CONSTRUCTION.
2. THE CONTRACTOR SHALL KEEP ALL ADJACENT ENTRANCES AND PARKING AREAS FREE FROM DIRT, DUST, AND AGGREGATE CAUSED BY VEHICLE TRACKING. THESE AREAS SHALL BE SWEPT AS OFTEN AS NECESSARY TO KEEP AREAS CLEAN AT A MINIMUM ONCE PER DAY.
3. ALL VALVES, VAULTS, MANHOLES, ETC. THAT ARE TO REMAIN SHALL BE ADJUSTED TO PROPOSED GRADE.
4. CONTRACTOR TO CONFIRM ALL EXISTING STORM STRUCTURE INVERTS PRIOR TO PROPOSED STORM SYSTEM INSTALLATION.
5. CONTRACTOR TO CONFIRM ALL EXISTING SANITARY SEWER INVERTS PRIOR TO PROPOSED SEWER INSTALLATION.
6. DEMOLITION OF BUILDING TO INCLUDE REMOVAL OF FOUNDATIONS, UNDERGROUND STRUCTURES, AND BUILDING UTILITIES.
7. ALL EXISTING UTILITIES WILL MAINTAIN MINIMUM COVER DURING CONSTRUCTION AND VALVES WILL BE FLUSHED TO GRADE.
8. ALL EXISTING PAVEMENT AND CURB AND GUTTER WITHIN LIMITS OF DISTURBANCE IS TO BE REMOVED.
9. SEE SHEET CP-501 FOR PLANTING BED AND SODDING DETAILS.

VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL

STD. & SPEC.	MEASURE	CALLOUT	SYMBOL	QUANTITY
3.02	CONSTRUCTION ENTRANCE	CE		1 EA.
3.05	SILT FENCE	SF	X X X	950 LF
3.07	INLET PROTECTION	IP		4 EA.
3.08	CULVERT INLET PROTECTION	CIP		1 EA.
3.09	DIVERSION DIKE	DD		300 LF
3.13	SEDIMENT TRAP	ST	ST	1 EA.
3.31	TEMPORARY SEEDING	TS	TS	2.62 AC.
3.32	PERMANENT SEEDING	PS	PS	±1.0 AC.
3.38	TREE PROTECTION	TP	TP TP	450 LF
	SEDIMENT TRAP DRAINAGE BOUNDARY			
	LIMITS OF DISTURBANCE			2.62 AC.

PHASE I PROBABLE CONSTRUCTION SEQUENCE

1. SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING. THE OWNER MUST GIVE THE COUNTY INSPECTOR AT LEAST 48 HOURS NOTIFICATION TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING FOR THE ISSUANCE OF A LAND DISTURBANCE PERMIT. THE CERTIFIED REGISTERED LAND DISTURBER (CRLD) MUST ATTEND THE MEETING.
2. THE VSMP CONSTRUCTION ACTIVITY OPERATOR AND THE COUNTRY ENVIRONMENTAL INSPECTOR MUST ATTEND THE PRE-CONSTRUCTION MEETING.
3. INSTALL PERIMETER SILT FENCE, INLET PROTECTION, DIVERSION DIKES AND SEDIMENT TRAP AS SHOWN ON PLAN. DIVERSION DIKES AND SEDIMENT TRAPS MUST BE SEEDED AND MULCHED IMMEDIATELY UPON CONSTRUCTION.
4. INSTALL CONSTRUCTION ENTRANCE AT EXISTING ENTRANCE ON SEMINOLE TRAIL. CONTRACTOR TO KEEP EXISTING ROADS FREE OF MUD AND DEBRIS AT ALL TIMES.
5. BEGIN SITE DEMOLITION ACTIVITIES. MAINTAIN POSITIVE DRAINAGE TO EROSION CONTROL MEASURES AT ALL TIMES. CONTRACTOR TO SEED/MULCH AREAS IMMEDIATELY AS DISTURBANCE CONTINUES THROUGHOUT CONSTRUCTION.
6. ONCE DEMOLITION IS COMPLETE AND ALL PHASE I EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE, CONTRACTOR MAY BEGIN PHASE II CONSTRUCTION ACTIVITIES. REFER TO SHEET CE-102 FOR PHASE II SEQUENCE OF CONSTRUCTION.

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60
1" = 30'

No.	REVISIONS	DATE	BY

Kimley»Horn

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

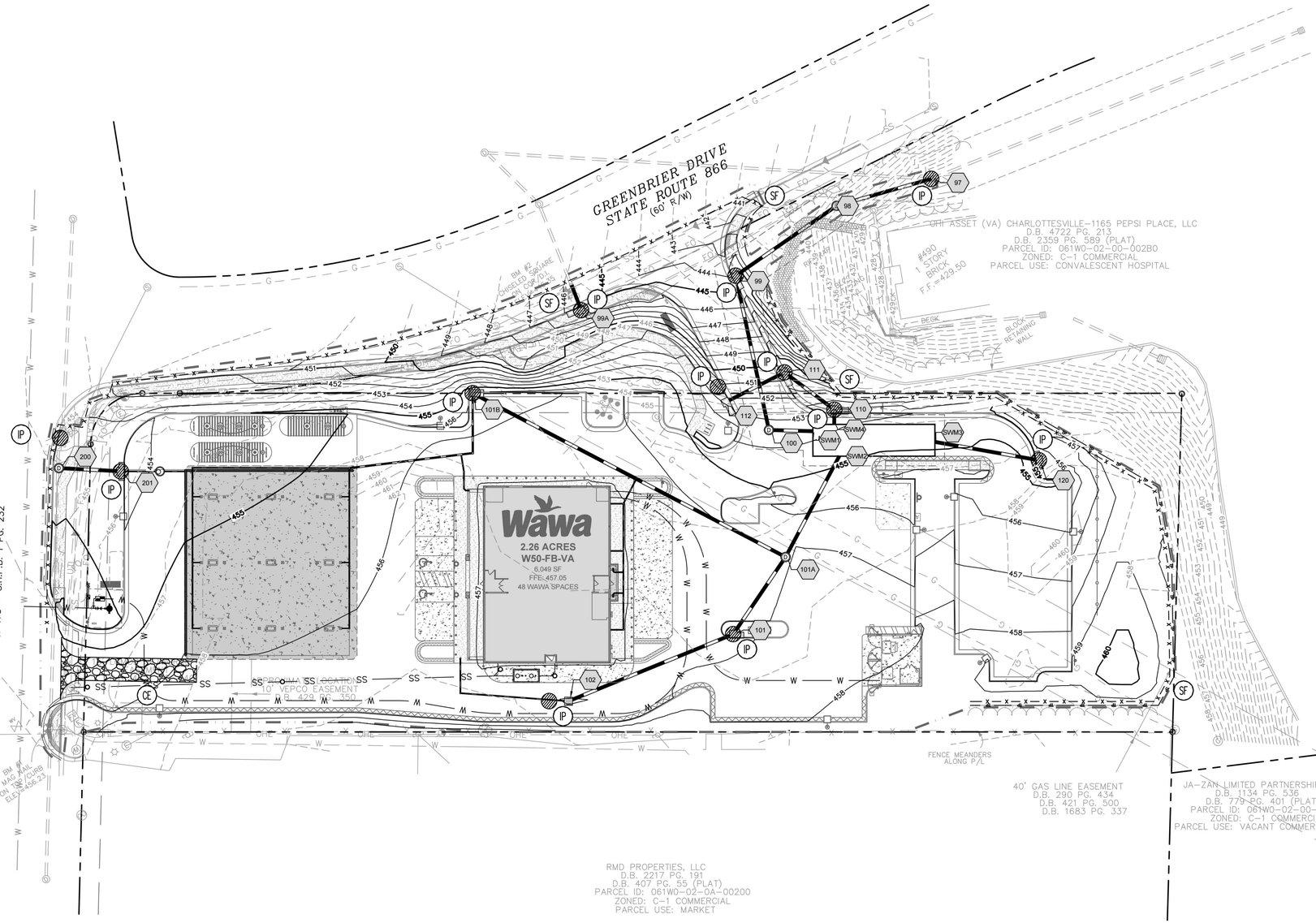
KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CRB
DRAWN BY STM
CHECKED BY RRP

DEMOLITION, PHASE I E&SC PLAN, AND PPP EXHIBIT

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CE-101



PHASE II PROBABLE CONSTRUCTION SEQUENCE

1. CONTRACTOR TO INSPECT AND MAINTAIN ALL EROSION & SEDIMENT CONTROL MEASURES AND MAKE ANY NECESSARY REPAIRS/ADDITIONS BEFORE BEGINNING PROPOSED IMPROVEMENTS.
2. BEGIN SITE GRADING TO PROPOSED FINISHED GRADES MAINTAINING POSITIVE DRAINAGE TO EXISTING INLETS. INLET PROTECTION IS TO REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION.
3. INSTALL STORM SEWER AND INLET PROTECTION AND BEGIN INSTALLATION OF UTILITIES.
4. BEGIN CONSTRUCTION OF INTERNAL PARKING, CURB AND GUTTER, AND DRIVE AISLES. INSTALL STONE BASE TO ALL PARKING AREAS TO SERVE AS TEMPORARY STABILIZATION AND INSTALL TEMPORARY SEEDING IN NEWLY GRADED AREAS.
5. CONSTRUCT PROPOSED WAWA BUILDING AND CANOPY.
6. PAVE PARKING AREAS, INSTALL PAVEMENT STRIPING, AND FULLY STABILIZE ON-SITE IMPROVEMENTS.
7. REMOVE EROSION CONTROLS UPON FULL STABILIZATION OF ALL SITE IMPROVEMENTS. NO EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED WITHOUT APPROVAL OF THE ENVIRONMENTAL INSPECTOR FOR THE SITE.
8. INSTALL FINAL LANDSCAPING AND PLANTINGS.
9. SITE CLEANUP/DEMOBILIZATION.

NOTES

1. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED AT THE DIRECTION OF THE COUNTY EROSION CONTROL INSPECTOR.
2. IT IS ANTICIPATED THAT APPROXIMATELY 4200 CY OF CUT MATERIAL WILL NEED TO BE EXPORTED TO A PERMITTED SITE AND WILL NEED TO BE REPORTED TO COUNTY INSPECTOR AND INCLUDED IN THE SWPPP.

VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL

STD. & SPEC.	MEASURE	CALLOUT	SYMBOL	QUANTITY
3.02	CONSTRUCTION ENTRANCE	CE		1 EA.
3.05	SILT FENCE	SF	— X — X — X —	1025 LF
3.07	INLET PROTECTION	IP		12 EA.
3.32	PERMANENT SEEDING	PS	— PS —	±1.0 AC.
3.38	TREE PROTECTION	TP	— TP — TP —	450 LF
	LIMITS OF DISTURBANCE			2.62 AC.

GRAPHIC SCALE IN FEET
0 15 30 60
1" = 30'

NORTH

No.	REVISIONS	DATE	BY

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PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

PHASE II E&SC PLAN

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CE-102

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CE-102 PHASE II E&SC PLAN September 13, 2021 08:43:17pm K:\RIC_CIV\113358 - renaud\V01 - route 29 and greenbrier\CAD\plotsheets\CE-102 PHASE II E&SC PLAN.dwg
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PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF IMPROVEMENTS ASSOCIATED WITH A NEW WAWA TO BE LOCATED AT 1215 SEMINOLE TRAIL IN ALBEMARLE COUNTY, VA. THE SITE AREA IS 2.26 ACRES, AND THE DISTURBED AREA IS 2.62 ACRES.

PROPOSED IMPROVEMENTS INCLUDE A NEW 6,049 SQUARE-FOOT BUILDING, FUEL CANOPY, UNDERGROUND FUEL TANKS, ASSOCIATED DRIVE AISLES, PARKING AREAS, CURBING, WATER AND SEWER SYSTEMS, AND STORM DRAINAGE SYSTEMS. SITE WORK INCLUDES DEMOLITION OF PORTIONS OF THE EXISTING BUILDING, PORTIONS OF THE EXISTING DRAINAGE NETWORK, CLEARING AND GRADING, UTILITY INSTALLATIONS, PAVING, AND LANDSCAPING.

ACCESS WILL BE PROVIDED FROM A PROPOSED ENTRANCE FROM SEMINOLE TRAIL AND ANOTHER PROPOSED ENTRANCE FROM GREENBRIER DRIVE.

EXISTING SITE CONDITIONS

CURRENTLY, THE SITE IS A STORE WITH PARKING, UTILITIES, AND LANDSCAPING REMAINING.

THE EXISTING ELEVATIONS RANGE FROM APPROXIMATELY 428 FEET TO 462 FEET WITH RELATIVELY FLAT SLOPES THROUGHOUT THE CENTER OF THE PROPERTY AND EXISTING PARKING LOTS AND DRIVE AISLES. THE EXISTING SITE IS APPROXIMATELY 75% IMPERVIOUS WITH TYPE B AND D SOILS. CURRENTLY, THE MAJORITY OF THE SITE DRAINS TOWARDS GREENBRIER DRIVE WHERE THE STORM DRAINAGE IS PICKED UP BY INLETS ALONG THE ROAD. PART OF THE SITE DRAINS TOWARDS SEMINOLE TRAIL WHERE THE STORM DRAINAGE IS PICKED UP BY INLETS ALONG THE ROAD.

ADJACENT AREAS

THE SUBJECT SITE IS BORDERED BY GREENBRIER DRIVE TO THE NORTH, AN EXISTING HOSPITAL TO THE EAST, AN EXISTING MARKET TO THE SOUTH, AND SEMINOLE TRAIL TO THE WEST.

OFF-SITE AREAS

OFF-SITE LAND DISTURBANCE IS LIMITED TO UTILITY CONNECTIONS IN GREENBRIER DRIVE AND SEMINOLE TRAIL, A PROPOSED TURN LANE IN GREENBRIER DRIVE, AND CURB AND GUTTER WORK IN GREENBRIER DRIVE AND SEMINOLE TRAIL. A LARGE RECIPROCAL EASEMENT AGREEMENT WILL BE RECORDED TO ALLOW ALL TEMPORARY CONSTRUCTION ACTIVITIES TO OCCUR ON THE ADJACENT PARCEL.

SOILS

ACCORDING TO THE NATURAL RESOURCE CONSERVATION SERVICE MAP THE SOILS ON SITE ARE CLASSIFIED AS:

MAP UNIT: 50D—MANOR LOAM, 15 TO 25 PERCENT SLOPES
DESCRIPTION CATEGORY: GENSOIL
MANOR: 85 PERCENT

THE MANOR COMPONENT MAKES UP 85 PERCENT OF THE MAP UNIT. SLOPES ARE 15 TO 25 PERCENT. THIS COMPONENT IS ON INTERFLUVES, PIEDMONT UPLANDS. THE PARENT MATERIAL CONSISTS OF RESIDUUM WEATHERED FROM QUARTZ MICA SCHIST. DEPTH TO A ROOT RESTRICTIVE LAYER IS GREATER THAN 60 INCHES. THE NATURAL DRAINAGE CLASS IS WELL DRAINED. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH. AVAILABLE WATER TO A DEPTH OF 60 INCHES (OR RESTRICTED DEPTH) IS HIGH. SHRINK—SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED. IT IS NOT PONDED. THERE IS NO ZONE OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. ORGANIC MATTER CONTENT IN THE SURFACE HORIZON IS ABOUT 2 PERCENT. NONIRRIGATED LAND CAPABILITY CLASSIFICATION IS 4E. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

MAP UNIT: 91—URBAN LAND
DESCRIPTION CATEGORY: GENSOIL
URBAN LAND: 85 PERCENT

GENERATED BRIEF SOIL DESCRIPTIONS ARE CREATED FOR MAJOR SOIL COMPONENTS. THE URBAN LAND IS A MISCELLANEOUS AREA.

FOR MORE DETAILED SOILS INFORMATION, SEE THE FINAL ECS GEOTECHNICAL REPORT.

CRITICAL AREAS

LOCATIONS OF "STEEPS SLOPES—MANAGED" AS IDENTIFIED ON ALBEMARLE COUNTY GIS HAVE BEEN INCLUDED ON SHEET CV-101.

PERMANENT STABILIZATION

PERMANENT STABILIZATION SHALL BE PROVIDED BY THE SITE CONTRACTOR AND WILL BE ACHIEVED WITH SEEDING OR SODDING AS SHOWN ON THE LANDSCAPING PLAN SHEET FOR ALL VEGETATED AREAS. CONCRETE, PAVEMENT, AND OTHER IMPERVIOUS SURFACES WILL STABILIZE THE REMAINDER OF THE SITE.

SOIL STOCKPILE NOTE

NO SOIL STOCKPILES ARE ANTICIPATED FOR THIS PROJECT. HOWEVER, IF ONE IS NEEDED, AN AREA IS DESIGNATED ON SHEETS CE-101 AND CE-102.

EROSION CONTROL MEASURES

THE FOLLOWING EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN SHEET(S) OF THE SITE PLAN WILL BE USED FOR THIS PROJECT:

3.02 TEMPORARY STONE CONSTRUCTION ENTRANCE – A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER WILL BE PROVIDED AT THE PRIMARY CONSTRUCTION ACCESS POINT. THE PURPOSE OF THIS PRACTICE IS TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

3.05 SILT FENCE – A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED WILL BE PROVIDED AROUND MUCH OF THE SITE PERIMETER AND PARALLEL TO SLOPED AREAS. THE PURPOSE OF THIS PRACTICE IS TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. SHOOD THE FABRIC ON A SILT FENCE BECOMES OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

3.07 STORM DRAIN INLET PROTECTION – A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET WILL BE PROVIDED AT ALL INLET LOCATIONS WITHIN THE LIMITS OF DISTURBANCE. THE PURPOSE OF THIS PRACTICE IS TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

3.08 CULVERT INLET PROTECTION – A SEDIMENT FILTER LOCATED AT THE INLET TO STORM SEWER CULVERTS THE PURPOSE OF THIS PRACTICE IS TO PREVENT SEDIMENT FROM ENTERING IN, ACCUMULATING IN AND BEING TRANSFERRED BY A CULVERT AND ASSOCIATED DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF A DISTURBED PROJECT AREA. IT CAN ALSO BE USED TO PROVIDE EROSION CONTROL AT CULVERT INLETS DURING THE PHASE OF A PROJECT WHERE ELEVATION AND DRAINAGE PATTERNS CHANGE, CAUSING ORIGINAL CONTROL MEASURES TO BE INEFFECTIVE OR IN NEED OF REMOVAL.

3.09 TEMPORARY DIVERSION DIKE – AN EARTHEN BERM CONSTRUCTED ALONG A SLOPE TO DIVERT WATER INTO OR AWAY FROM SEDIMENT TREATMENT DEVICES. DIVERSION DIKES SERVE TO COLLECT SEDIMENT LADEN WATER AND DIRECT IT TO APPROPRIATE SEDIMENT TRAPS OR BASINS, AS WELL AS TO PREVENT CLEAN OFFSITE WATER FROM RUNNING OVER DISTURBED AREA AND BECOMING SEDIMENT LADEN.

3.13 SEDIMENT TRAP – A TEMPORARY PONDING AREA FORMED BY CONSTRUCTING AN EARTHEN EMBANKMENT WITH A STONE OUTLET. THE PURPOSE IS TO DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL DISTURBED AREAS LONG ENOUGH TO ALLOW THE MAJORITY OF THE SEDIMENT TO SETTLE OUT.

3.31 TEMPORARY SEEDING – THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS WILL BE PROVIDED ON ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 14 DAYS. TEMPORARY SEEDING SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN LONGER THAN 14 DAYS AS PER MS-1. THE PURPOSE OF THIS PRACTICE IS TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL PERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED.

3.32 PERMANENT SEEDING – THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED WILL BE PROVIDED AS SHOWN ON THE LANDSCAPING PLAN. PERMANENT SEEDING SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED AS PER MS-1. THE PURPOSE OF THIS PRACTICE IS TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS AND TO PERMANENTLY STABILIZE DISTURBED AREAS IN A MANNER THAT IS ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT MATERIALS.

3.38 TREE PROTECTION: PROTECTION OF DESIRABLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY. ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL, WATERSHED PROTECTION, LANDSCAPE BEAUTIFICATION, DUST AND POLLUTION CONTROL, NOISE REDUCTION, SHADE AND OTHER ENVIRONMENTAL BENEFITS WHILE THE LAND IS BEING CONVERTED FROM FOREST TO URBAN-TYPE USES.

PERMANENT STABILIZATION

PERMANENT STABILIZATION WILL BE ACHIEVED WITH SODDING AND SEEDING AS SHOWN ON THE LANDSCAPING AND PHASE II EROSION CONTROL PLAN SHEETS OF THE SITE PLAN FOR ALL VEGETATED AREAS. CONCRETE, PAVEMENT, AND OTHER IMPERVIOUS SURFACES WILL STABILIZE THE REMAINDER OF THE SITE.

MAINTENANCE

BETWEEN THE TIME THE EROSION CONTROL PLAN IS IMPLEMENTED AND FINAL SITE STABILIZATION IS ACHIEVED, ALL DISTURBED AREAS AND EROSION CONTROLS MUST BE INSPECTED NOT LESS THAN ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A RUNOFF PRODUCING RAINFALL EVENT.

EXAMPLES OF PARTICULAR ITEMS TO BE EVALUATED DURING SITE INSPECTIONS ARE LISTED BELOW. THIS LIST IS NOT INTENDED TO BE COMPREHENSIVE. DURING EACH INSPECTION, EACH INSPECTOR MUST EVALUATE OVERALL EROSION CONTROL SYSTEM PERFORMANCE, AS WELL AS THE EFFECTIVENESS OF SYSTEM COMPONENTS. ADDITIONAL FACTORS SHOULD BE CONSIDERED AS APPROPRIATE TO THE CIRCUMSTANCES.

- LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. A STABILIZED CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED WHERE VEHICLES ENTER AND EXIT. THIS ENTRANCE WILL BE MAINTAINED OR SUPPLEMENTED AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE ON VEHICLES. SEDIMENT TRACKED ONTO PUBLIC ROADWAYS MUST BE SHOVELED OR SWEPT FROM THE ROADWAY AND RE-DEPOSITED ON SITE IN A MANNER THAT MINIMIZES ITS OFFSITE RELEASE POTENTIAL.
- SEDIMENT BARRIERS MUST BE INSPECTED AND, IF NECESSARY, THEY MUST BE ENLARGED OR CLEANED IN ORDER TO PROVIDE ADDITIONAL CAPACITY. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS SHALL BE STOCKPILED ON THE UP SLOPE SIDE OF THE BARRIER. ADDITIONAL SEDIMENT BARRIERS MUST BE CONSTRUCTED AS NEEDED.
- INSPECTIONS WILL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS.
- GRASSED AREAS WILL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION WHEN TURF GRASS COVER PROVIDES PERMANENT STABILIZATION OF THE SOIL SURFACE EXCLUSIVE OF AREAS THAT HAVE BEEN PAVED OR COVERED BY BUILDING(S). PERMANENT STABILIZATION IS NOT CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO RECEIVING WATERS.

BASED UPON THE RESULTS OF THE INSPECTIONS, EACH EROSION AND SEDIMENT CONTROL MEASURE SHALL BE REPAIRED AND/OR MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE REQUIREMENTS SPECIFIED IN THE CORRESPONDING SECTION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. THE CONTRACTOR SHALL MAINTAIN A COPY OF THIS HANDBOOK ON SITE AT ALL TIMES DURING CONSTRUCTION.

TEMPORARY SEEDING REQUIREMENTS

TABLE 3.31-B
(Revised June 2003)
TEMPORARY SEEDING SPECIFICATIONS
QUICK REFERENCE FOR ALL REGIONS

SEED

APPLICATION DATES	SPECIES	APPLICATION RATES
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Iolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 -100 (lbs/acre)
Feb. 16 - Apr. 30	Annual Ryegrass (Iolium multi-florum)	60 - 100 (lbs/acre)
May 1 - Aug. 31	German Millet	50 (lbs/acre)

FERTILIZER & LIME

Apply 10-10-10 fertilizer at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.)
Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

NOTE:
1 - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
2 - Incorporate the lime and fertilizer into the top 4 – 6 inches of the soil by disking or by other means.
3 - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs

PERMANENT SEEDING REQUIREMENTS

TABLE 3.32-D
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS FOR PIEDMONT AREA

SEED[1]

LAND USE	SPECIES	APPLICATION PER ACRE
Minimum Care Lawn (Commercial or Residential)	Tall Fescue[1] Perennial Ryegrass Kentucky Bluegrass[1]	95-100% 0-5% 0-5% TOTAL: 175-200 lbs.
High-Maintenance Lawn	Tall Fescue[1]	TOTAL: 200-250 lbs.
General Slope (3:1 or less)	Tall Fescue[1] Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop[2]	128 lbs. 2 lbs. 20 lbs. TOTAL: 150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	Tall Fescue[1] Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop[2] Crownvetch[3]	108 lbs. 2 lbs. 20 lbs. 20 lbs. TOTAL: 150 lbs.

1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at http://sudan.cses.vt.edu/html/Turf/turf/publications/publications2.html

2 - Use seasonal nurse crop in accordance with seeding dates as stated below:

February 16th - April	Annual Rye
May 1st - August 15th	Foxtail Millet
August 16th - October	Annual Rye
November - February 15th	Winter Rye

3 - Substitute Sericea lespedeza for Crownvetch east of Farmville, VA (May through September use hulled seed, all other periods, use unhulled Sericea). If Flatpea is used, increase rate to 30 lbs./acre. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40

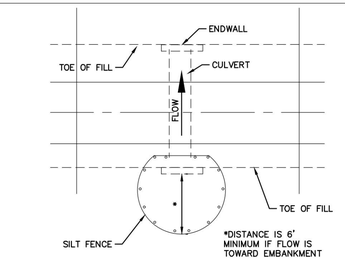
FERTILIZER & LIME

Apply 10-20-10 fertilizer at a rate of 500 lbs. / acre (or 12 lbs. / 1,000 sq. ft.)
Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

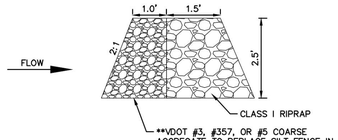
NOTE:
- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- Incorporate the lime and fertilizer into the top 4 – 6 inches of the soil by disking or by other means.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs

SEDIMENT TRAPS

Trap #	Drainage Area (acres)	Wet Storage: Volume Required (Cu. Yd.)	Wet Storage: Volume Provided (Cu. Yd.)	Wet Storage: Elevation	Dry Storage: Volume Required (Cu. Yd.)	Dry Storage: Volume Provided (Cu. Yd.)	Dry Storage: Elevation	Outlet Length (Feet)	Bottom Elevation	Top of Berm Elevation	Top of Berm Width	Dimensions (L x W)
1	1.40	93.8	99.4	453.50	93.8	97.1	456.00	8	450.00	456.00	6	APPROX. 100' X 30'

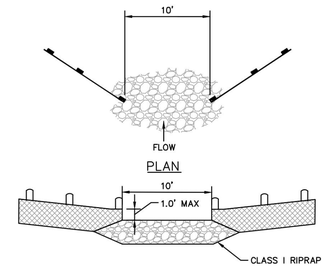


OPTIONAL STONE COMBINATION**



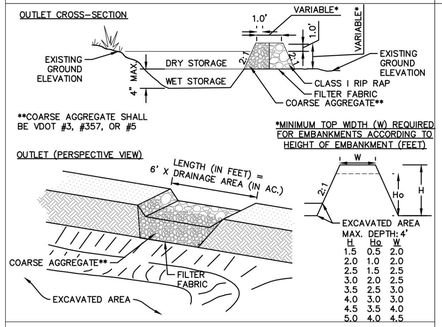
SOURCE: VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK 3.08-1

CULVERT INLET PROTECTION

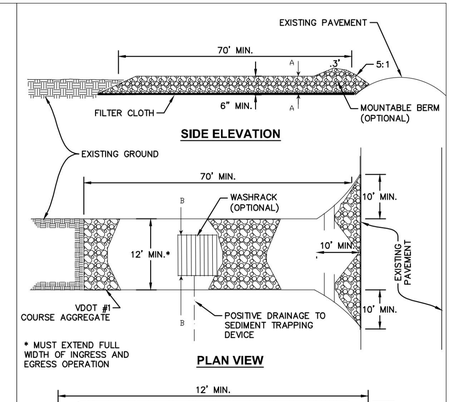


*TO BE PLACED IN LOW SPOTS ALONG SILT FENCE

SILT FENCE OVERFLOW DETAIL

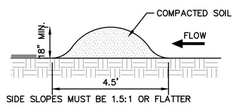


TEMPORARY SEDIMENT TRAP



SOURCE: VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK 3.02-1

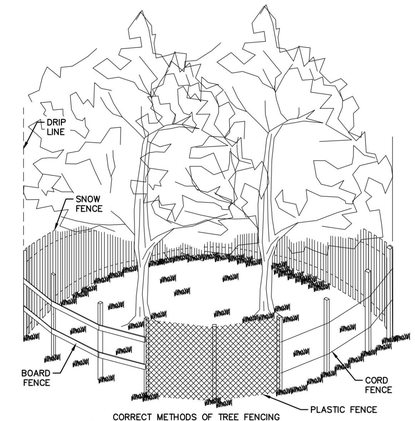
STONE CONSTRUCTION ENTRANCE



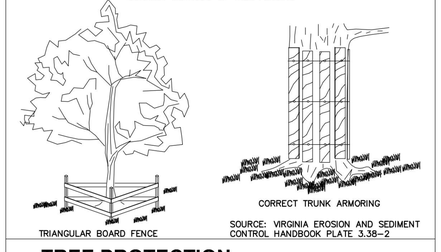
SIDE SLOPES MUST BE 1.5:1 OR FLATTER

TEMPORARY OR PERMANENT SEEDING AND MULCH MUST BE APPLIED IMMEDIATELY UPON CONSTRUCTION

TEMPORARY DIVERSION DIKE



CORRECT METHODS OF TREE FENCING



SOURCE: VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK PLATE 3.38-2

TREE PROTECTION

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

No.	REVISIONS	DATE	BY

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

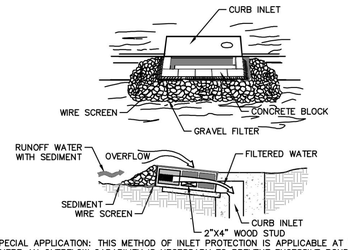
E&SC NOTES & DETAILS

WAWA
ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

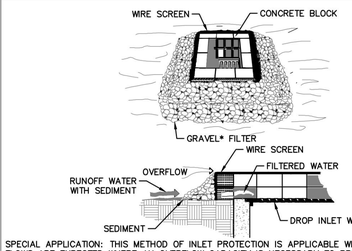
SHEET NUMBER
CE-501

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CE-501 E&SC NOTES & DETAILS September 13, 2021 09:11:38pm K:\RIC_civ\113358 - renaud\VDOT - route 29 and greenbrier\CAD\plansheets\CE-501 E&SC NOTES & DETAILS.dwg
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SPECIAL APPLICATION: THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.
*GRAVEL SHALL BE VDOT #3, #357, OR #5 COARSE AGGREGATE

BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER



SPECIAL APPLICATION: THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.
*GRAVEL SHALL BE VDOT #3, #357, OR #5 COARSE AGGREGATE

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER

MS-19 MINIMUM STANDARDS

MS-1 PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

MS-2 DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS-3 A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4 SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS-5 STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6 SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

MS-7 CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8 CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

MS-9 WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10 ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11 BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS-12 WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

MS-13 WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

MS-14 ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15 THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16 UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
F. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.

MS-17 WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL
DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

MS-18 ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

MS-19 PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS:

A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
(1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
(2)(A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
(B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
(C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
(1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO CHANNEL THE BED OR BANKS; OR
(2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;
(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PREDEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MANMADE CHANNEL; OR
(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.

D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.

E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.

MS-19 MINIMUM STANDARDS (CONT.)

F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.

G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.

H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.

I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.

K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS;
(II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE
CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT.

M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§62.1-44.15:24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS.

N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:
(FROM VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK)

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 9VAC25-840-40 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE CHESTERFIELD COUNTY ENVIRONMENTAL ENGINEER MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE CHESTERFIELD COUNTY ENVIRONMENTAL INSPECTOR.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CHESTERFIELD COUNTY ENVIRONMENTAL INSPECTOR.

ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED SEDIMENT TRAPPING/FILTERING DEVICE. NO CONTAMINATED EFFLUENT OR GROUNDWATER MAY BE DISCHARGED WITHOUT A SEPARATE VPDES DISCHARGE PERMIT FROM THE VDEQ.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES NOT LESS THAN ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 48 HOURS FOLLOWING A RUNOFF PRODUCING RAINFALL EVENT (0.5 INCH OR GREATER RAINFALL WITHIN A 24-HOUR PERIOD). A RAIN GAUGE SHALL BE INSTALLED ON-SITE TO DETERMINE IF AN INSPECTION TRIGGERING RAINFALL EVENT HAS OCCURRED. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

ES-10: DUST CONTROL SHALL BE PROVIDED IN COMPLIANCE WITH APPLICABLE LOCAL AND STATE DUST CONTROL REGULATIONS.

ES-11: NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED, REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.

ES-12: ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WHERE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND SHALL BE SERVICED BY A COMMERCIAL OPERATOR WHEN PROVIDED.

ES-13: NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION, WHEN USED FOR CONSTRUCTION, WHICH DISCHARGES FROM THE SITE, MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE VA DEPARTMENT OF HEALTH. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.

ES-14: MATERIALS RESULTING FROM CLEARING AND GRUBBING SHALL BE STOCKPILED UP SLOPE FROM ADEQUATE SEDIMENTATION CONTROLS OR HAULED OFF-SITE.

ES-15: THE USE OF DETERGENTS FOR LARGE SCALE WASHING IS PROHIBITED.

ES-16: CHEMICALS, PAINTS, SOLVENTS, FERTILIZIERS, AND OTHER TOXIC MATERIAL MUST BE STORED IN WATERPROOF CONTAINERS. EXCEPT DURING APPLICATION, THE CONTENTS MUST BE KEPT LOCKED IN TRUCKS OR WITHIN LOCKED STORAGE FACILITIES. RUNOFF CONTAINING SUCH MATERIAL MUST BE COLLECTED, REMOVED FROM SITE, TREATED, AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY.

No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

E&SC NOTES & DETAILS

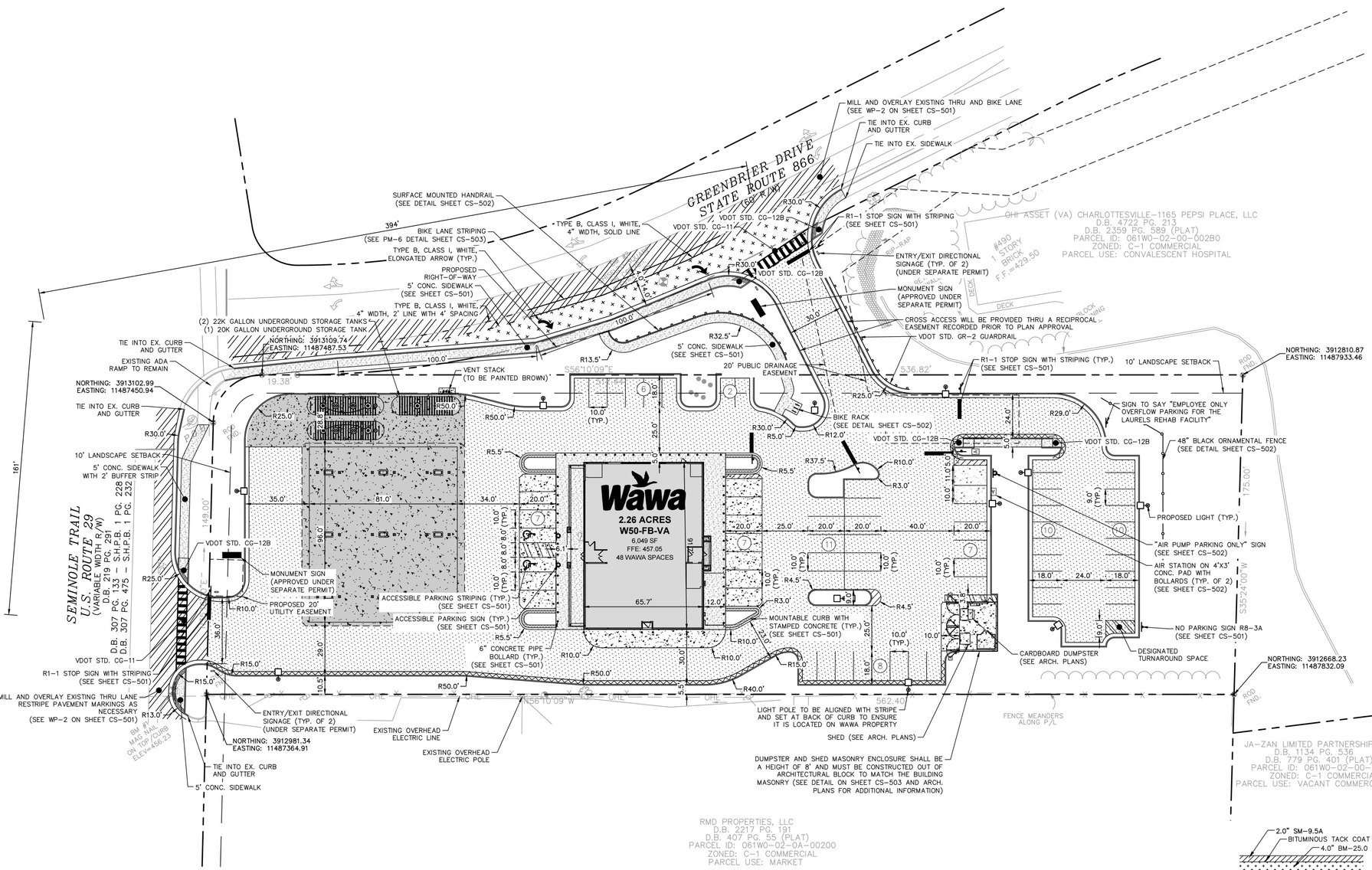
WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CE-502

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CE-502 E&SC NOTES & DETAILS September 13, 2021 09:13:47pm K:\RIC_CIV\113358 - remwa\001 - route 29 and greenbrier\CAD\plansheets\CE-502 E&SC NOTES.dwg
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Plotted By:McCray, Stephen Sheet Set:Kha Layout:CS-101 SITE PLAN September 13, 2021 08:43:49pm K:\Ric_Cv\113588 - renoud\V01 - route 29 and greenbrier\CAD\cornsheets\CS-101 SITE PLAN.dwg
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SITE LEGEND

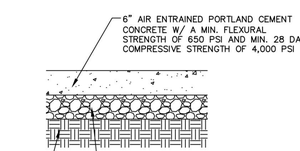
- GREENBRIER DRIVE TURN LANE ASPHALT PAVEMENT
- WAWA ASPHALT PAVEMENT SEE SECTION ON THIS SHEET
- CONCRETE SIDEWALK SEE SHEET CS-501
- STANDARD DUTY CONCRETE SEE SECTION THIS SHEET
- HEAVY DUTY CONCRETE SEE SECTION THIS SHEET
- MILL AND OVERLAY
- VDOT STD. CG-6 SEE SHEET CS-502
- SPILLING CURB/GUTTER SEE SHEET CS-502

SITE PLAN NOTES

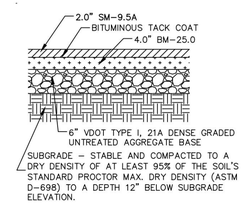
1. ALL CURB RADII ARE 5.0' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
4. TWO COATS WHITE TRAFFIC PAINT (4" MIN. WIDTH) REQUIRED FOR PAVEMENT STRIPING EXCEPT TWO COATS BLUE TRAFFIC PAINT SHALL BE USED FOR ACCESSIBLE PARKING AREA (18" LETTERS, 2" PAINT STROKE).
5. PROPOSED CONCRETE PADS TO HAVE 1 FT X 1 FT CHAMFERED CORNERS.
6. THE BUILDING STREET NUMBER IS TO BE PLAINLY VISIBLE FROM THE STREET FOR EMERGENCY RESPONDERS.
7. ALL LIGHTING TO BE INSTALLED 5' BEHIND CURB AND CENTERED ON PAVEMENT STRIPING UNLESS NOTED OTHERWISE.
8. TYING TO EXISTING CURB/GUTTER: THE EXISTING PAVEMENT SHALL BE NEATLY SAWCUT AND REMOVED FOR A DISTANCE OF 2'0" FROM FACE OF THE CURB AND 2'0" FROM THE EDGE OF THE CURB AND GUTTER AND THE SUBGRADE, BASE COURSE, AND PAVING REPLACED WITH NEW PRODUCTS.
9. REFER TO FINAL GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTIONS.
10. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
11. VISIBILITY OF ALL MECHANICAL EQUIPMENT FROM THE ENTRANCE CORRIDOR SHALL BE ELIMINATED.

NORTH

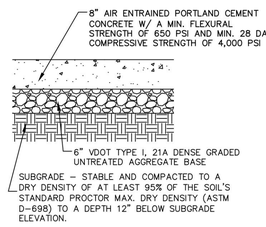
GRAPHIC SCALE IN FEET
0 15 30 60
1" = 30'



STANDARD DUTY CONCRETE SECTION
FUEL CANOPY, BLDG. PARKING, AND DUMPSTER PAD



WAWA ASPHALT PAVEMENT SECTION
DRIVE AISLES/TRUCK ROUTES



HEAVY DUTY CONCRETE SECTION
UNDERGROUND TANK PAD

No.	REVISIONS	DATE	BY

Kimley»Horn

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

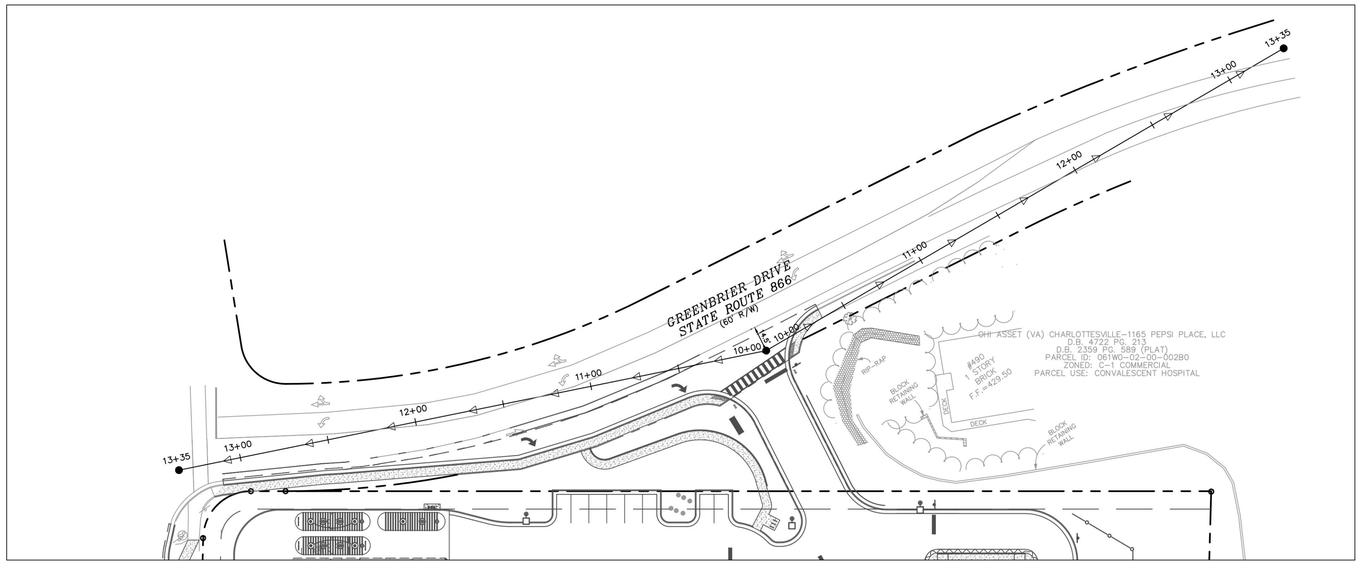
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CHECKED BY	RRP

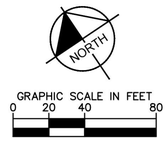
SITE PLAN

WAWA
ROUTE 29 AND GREENBRIER

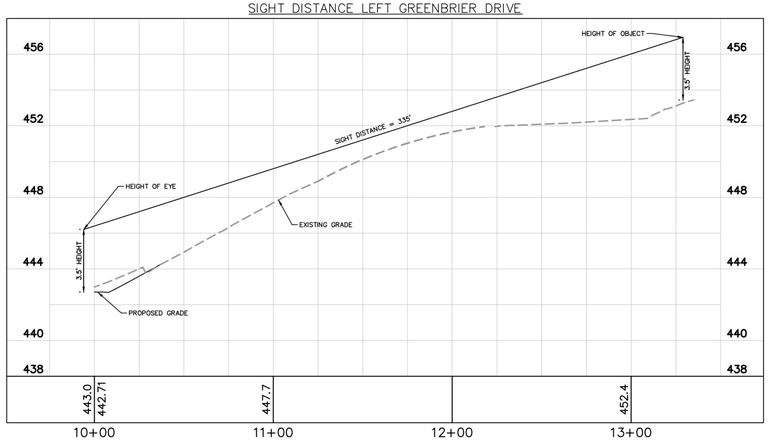
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-101

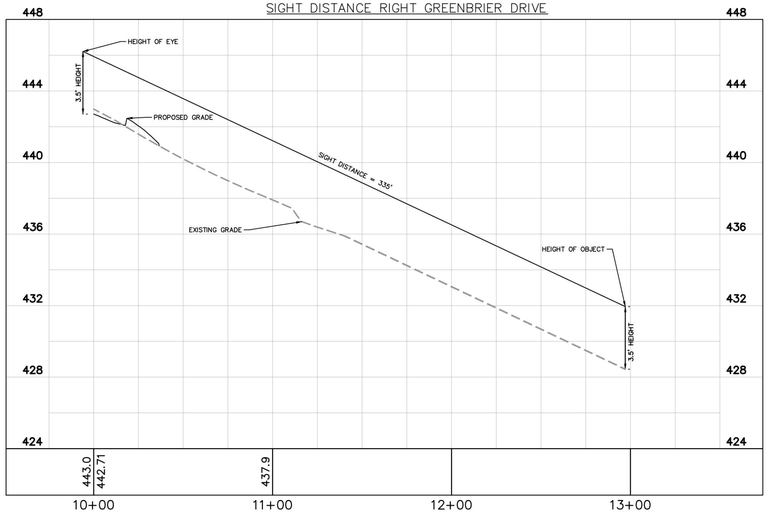


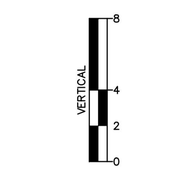


SIGHT DISTANCE LEFT GREENBRIER DRIVE

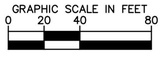


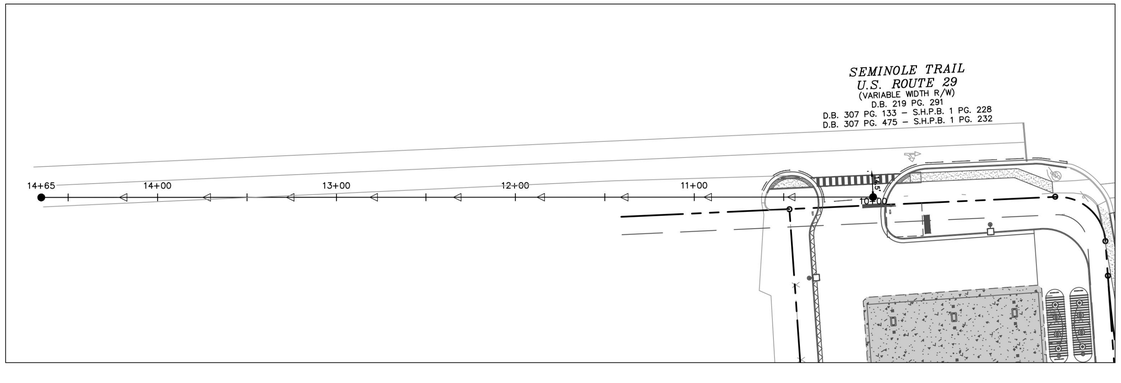
SIGHT DISTANCE RIGHT GREENBRIER DRIVE



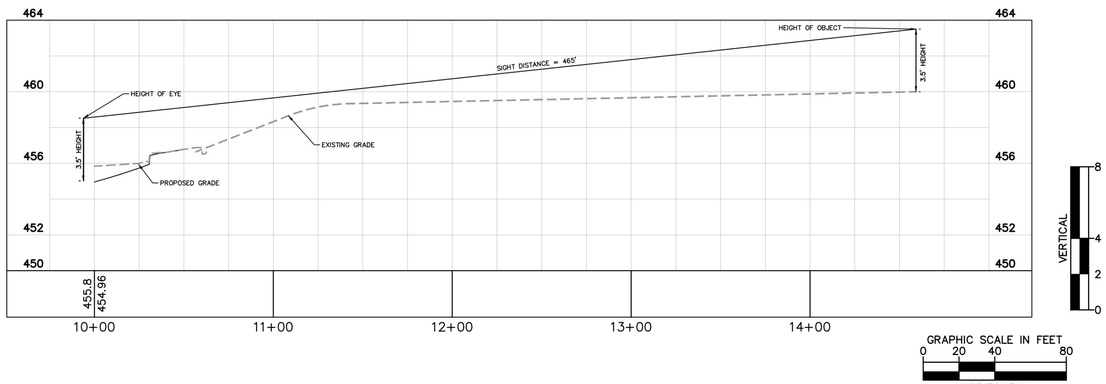








SIGHT DISTANCE LEFT SEMINOLE TRAIL



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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

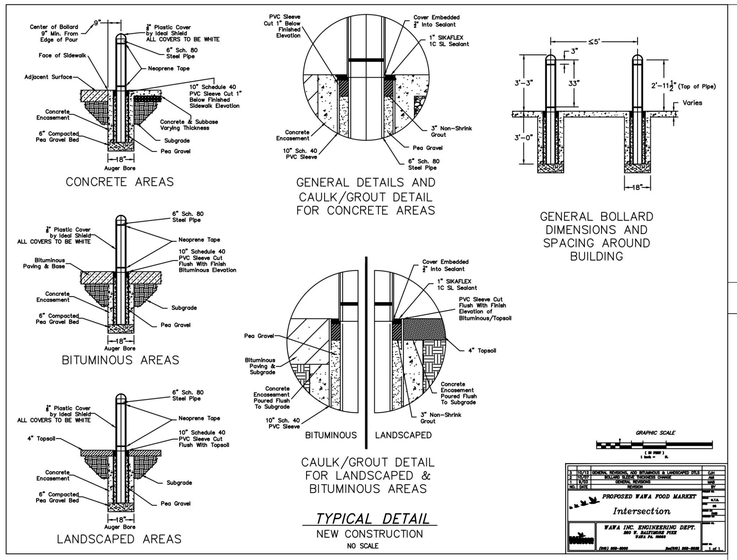
SIGHT DISTANCE PLAN & PROFILE

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

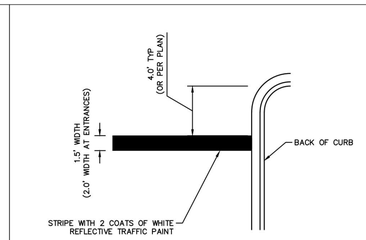
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CS-201

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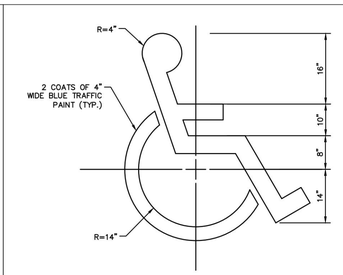




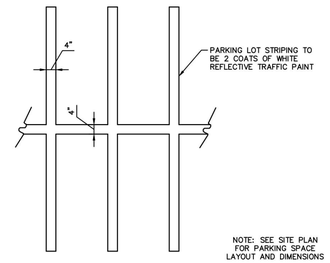
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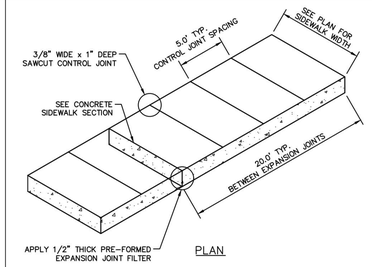
STOP BAR STRIPING

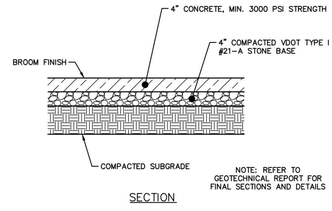


ADA PARKING SYMBOL

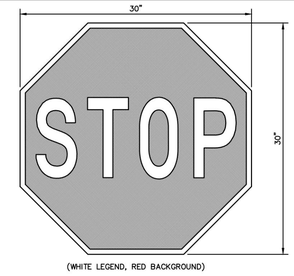


PARKING LOT STRIPING

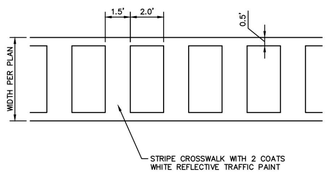




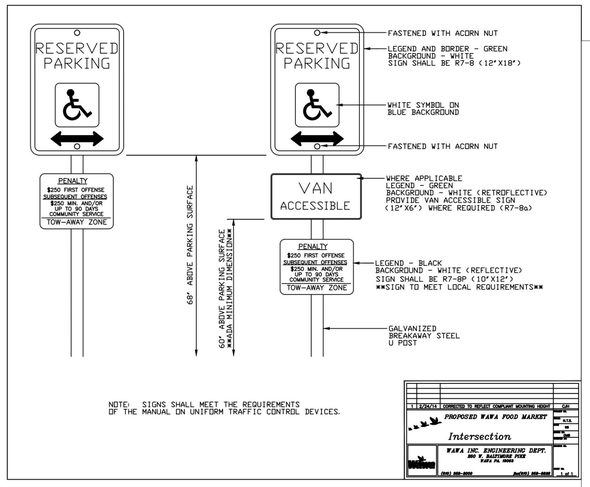
CONCRETE SIDEWALK



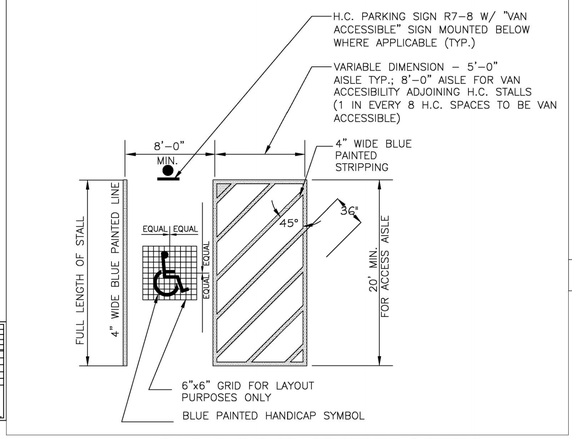
STOP SIGN (R1-1)



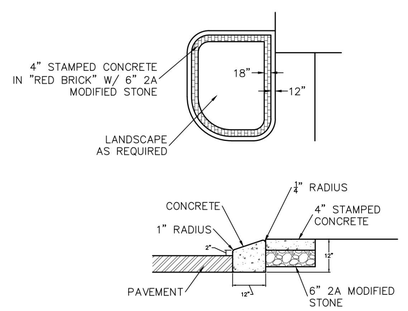
CROSSWALK STRIPING



ADA PARKING SIGN DETAIL
N.T.S.



ADA PARKING SPACE STRIPING DETAIL
N.T.S.



MOUNTABLE CURB/ISLAND AND STAMPED CONCRETE DETAIL
N.T.S.

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

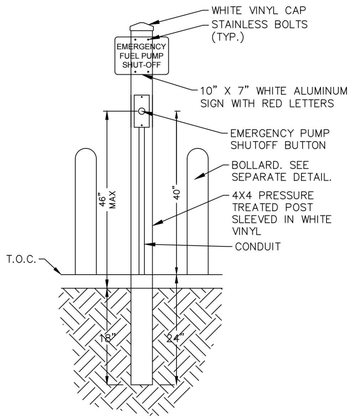
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DATE	09/14/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

SITE DETAILS

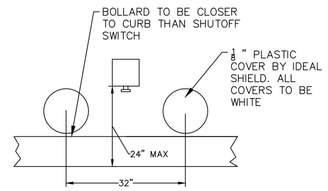
WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-501

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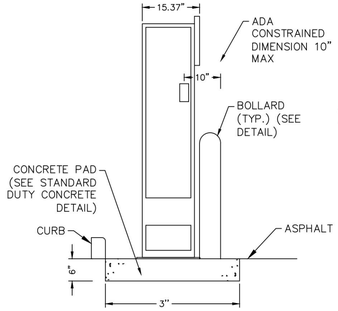
FRONT ELEVATION



PLAN VIEW

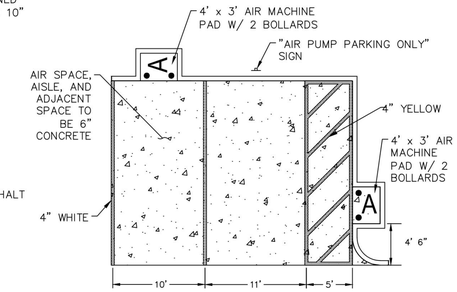
EMERGENCY PUMP SHUTOFF ("E-STOP") DETAIL

N.T.S.



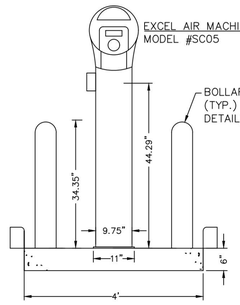
AIR PUMP SIDE ELEVATION

N.T.S.



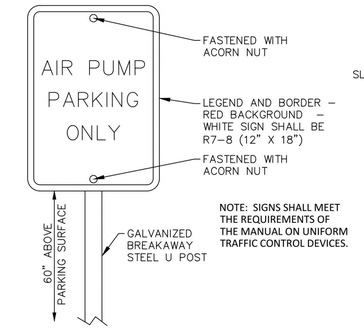
AIR PUMP PARKING DETAIL

N.T.S.



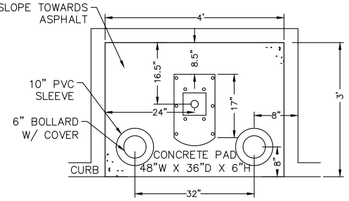
AIR PUMP FRONT ELEVATION

N.T.S.



AIR PUMP PARKING SIGN DETAIL

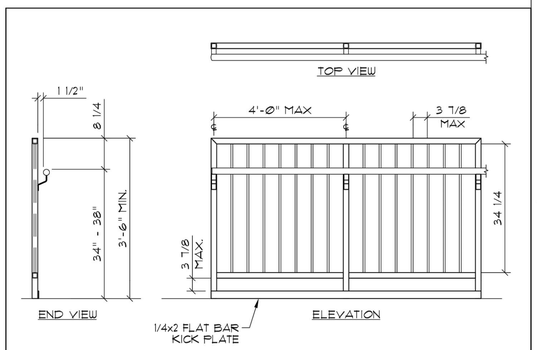
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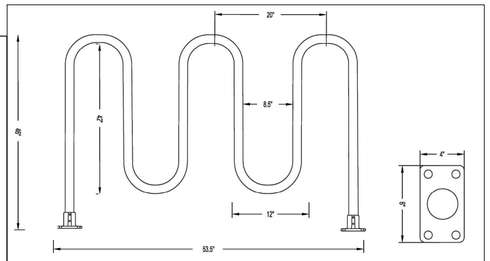


DESIGNER NOTE: AIR PUMP TO BE PLACED INLINE OF SIGHT TO BUILDING.

AIR PUMP PLAN VIEW DETAIL

N.T.S.





MADE OF ROLLED ALUMINUM:	1 1/2" SCHEDULE 40 ALUMINUM WITH 1 7/8" O.D.
STANDARD LENGTHS:	60" SECTION FITS UP TO 5 BIKES
STANDARD HEIGHT:	46"
INSTALLATION OPTIONS:	SURFACE MOUNT
FINISHING OPTIONS:	STANDARD CLEAR ANODIZED
MANUFACTURED BY:	IDEAL SHIELD 2525 CLARK ST DETROIT, MI 48209 PHONE: 1-866-825-8659

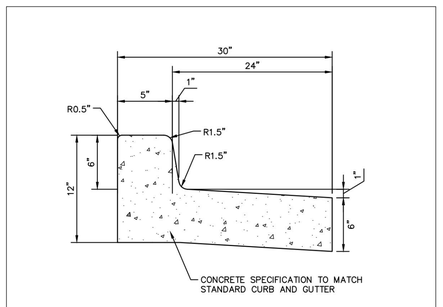
STANDARD BICYCLE RACK DETAIL

NTS

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8690 Stair Way NE Salem, OR 97305
www.pacificstair.com | 503.390.8305

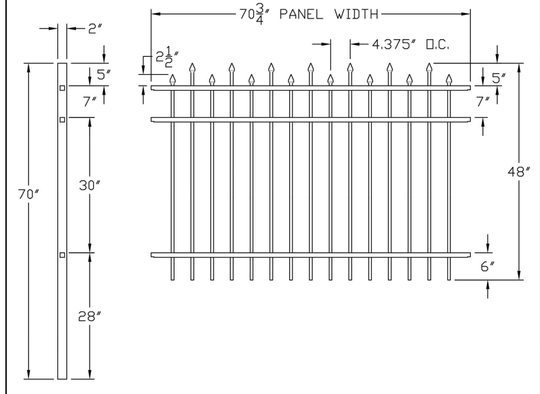
STANDARD GUARD RAIL WITH HANDRAIL
1. POST AND TOP LINE MATERIAL TO BE HSS 1 1/2" x 1 1/2" x Ø.120"
2. HANDRAIL MATERIAL TO BE 1 1/2" (1.66" O.D.) PIPE
3. PICKET MATERIAL TO BE 1/2" SQUARE BAR

PICKET: R437



SPILLING CURB AND GUTTER (30")

MERCHANTS METALS VINTAGE SQUARE PREMIUM, SPEAR TOP SMOOTH RAIL PANEL ATTACHES TO POST WITH CLIPS



NOTES:
1. DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE BY MANUFACTURE.
2. POST AND FOOTINGS AS REQUIRED BY SITE CONDITIONS AND CODES.

www.MerchantsMetals.com
Tech-Info@MerchantsMetals.com
888-260-1600
Drawing: VSP.R.R.6W

Merchants Metals®
the first name in fence solutions

SIZE	FILE:	PART NAME:	REV
A	VINTAGE SQUARE PREMIUM MM	REGENCY SPEAR TOP 3-RAIL	A
SCALE: NOT TO SCALE	DRAWN BY: SHAWN	DATE: 05/06/14	SHEET: N/A

No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

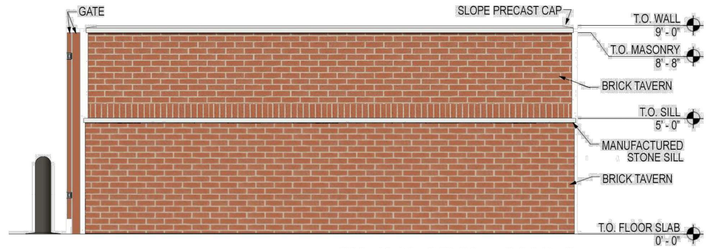
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DATE	09/14/2021
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DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

SITE DETAILS

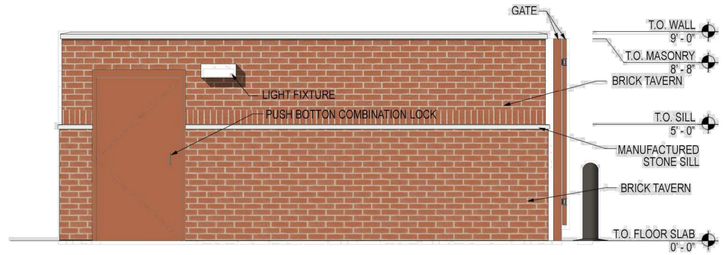
WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-502

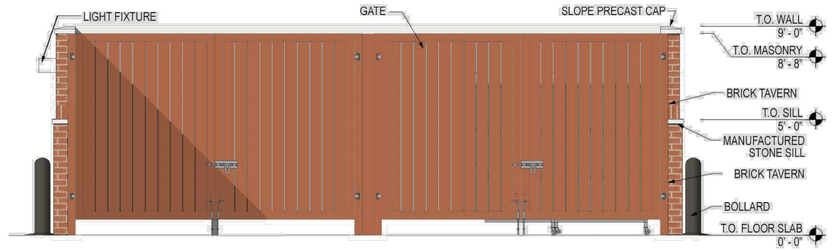
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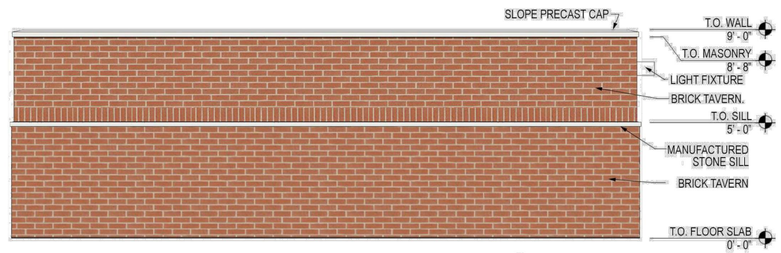
RIGHT ELEVATION



LEFT ELEVATION



FRONT ELEVATION



REAR ELEVATION

Metal Door	Trim	Thin Brick
Benjamin Moore	James Hardie	Tavern Flash Red
Pumice Stone	Arctic White	Marion Ceramics
BM #1197	JH10-20	

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT	113358001
DATE	09/14/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
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CHECKED BY	RRP

SITE DETAILS

WAWA
ROUTE 29 AND
GREENBRIER

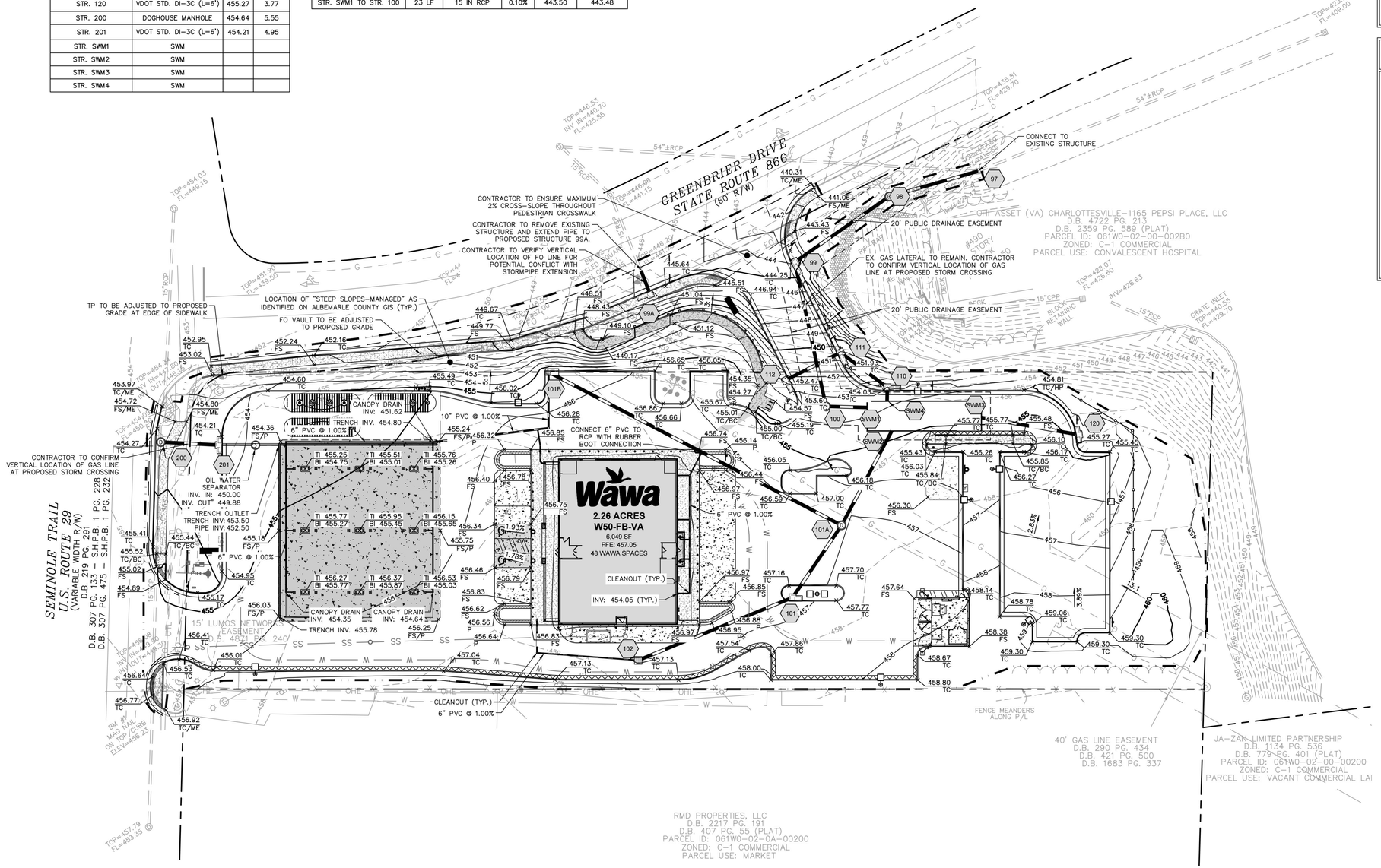
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-503

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STRUCTURE TABLE			
STRUCTURE NAME	DESCRIPTION	RIM	HEIGHT
STR. 97	EX. STRUCTURE	427.59	
STR. 98	VDOT STD. MH-1	436.52	8.82
STR. 99	VDOT STD. DI-3B (L=6')	444.48	10.38
STR. 99A	VDOT STD. DI-3B (L=6')	446.09	4.09
STR. 100	VDOT STD. MH-1	453.40	11.71
STR. 101	VDOT STD. DI-3B (L=6')	457.23	7.15
STR. 101A	VDOT STD. MH-1	456.92	8.12
STR. 101B	VDOT STD. DI-2B (L=6')	455.89	5.88
STR. 102	VDOT STD. DI-1	455.90	5.21
STR. 110	VDOT STD. DI-3B (L=6')	453.87	8.39
STR. 111	VDOT STD. DI-3B (L=6')	451.05	5.32
STR. 112	VDOT STD. DI-3B (L=6')	452.83	6.82
STR. 120	VDOT STD. DI-3C (L=6')	455.27	3.77
STR. 200	DOGHOUSE MANHOLE	454.64	5.55
STR. 201	VDOT STD. DI-3C (L=6')	454.21	4.95
STR. SWM1	SWM		
STR. SWM2	SWM		
STR. SWM3	SWM		
STR. SWM4	SWM		

STORM PIPES					
PIPE SEGMENT	LENGTH	DESCRIPTION	SLOPE	INV. (IN)	INV. (OUT)
STR. 98 TO STR. 97	51 LF	15 IN RCP	10.00%	427.89	422.81
STR. 99 TO STR. 98	63 LF	15 IN RCP	10.00%	434.32	427.99
STR. 99A TO STR.	15 LF	15 IN RCP	2.01%	442.00	441.70
STR. 100 TO STR. 99	82 LF	15 IN RCP	8.16%	443.38	436.72
STR. 101 TO STR. 101A	48 LF	15 IN RCP	2.45%	450.08	448.90
STR. 101A TO STR. SWM2	59 LF	15 IN RCP	0.50%	448.80	448.50
STR. 101B TO STR. 101A	182 LF	15 IN RCP	0.61%	450.01	448.90
STR. 102 TO STR. 101	92 LF	15 IN RCP	0.55%	450.69	450.18
STR. 110 TO STR. SWM4	7 LF	15 IN RCP	0.50%	445.48	445.44
STR. 111 TO STR. 110	32 LF	15 IN RCP	0.50%	445.74	445.58
STR. 112 TO STR. 111	34 LF	15 IN RCP	0.50%	446.01	445.84
STR. 120 TO STR. SWM3	54 LF	15 IN RCP	6.57%	451.50	447.92
STR. 201 TO STR. 200	32 LF	15 IN RCP	0.50%	449.25	449.09
STR. SWM1 TO STR. 100	23 LF	15 IN RCP	0.10%	443.50	443.48



GRADING LEGEND

TC:	TOP OF CURB ELEVATION
BC:	BOTTOM OF CURB ELEVATION
TW:	TOP OF WALL ELEVATION
BW:	BOTTOM OF WALL ELEVATION
TI:	TOP OF ISLAND ELEVATION
BI:	BOTTOM OF ISLAND ELEVATION
FF:	FINISHED FLOOR ELEVATION
FS:	FINISHED SURFACE ELEVATION
P:	PAVEMENT ELEVATION
G:	GROUND ELEVATION
RIM:	STRUCTURE RIM ELEVATION
ME:	MATCH EXISTING

XXX — DRAINAGE STRUCTURE CALLOUT

HENRICO COUNTY STANDARD CURB AND GUTTER

SPILLING CURB AND GUTTER

GRADING NOTES

1. THE ROOF/LANDSCAPE DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE.
2. PIPE LENGTHS ARE MEASURED FROM CENTER OF CHAMBER TO CENTER OF CHAMBER.
3. VDOT STANDARD ST-1 STEPS ARE REQUIRED ON ALL STRUCTURES WITH HEIGHT GREATER THAN 4 FEET.
4. ADA ACCESSIBLE PARKING SPACES ARE SHOWN AS SHADED AND DESIGNED WITH A MAXIMUM 1.5% SLOPE IN ALL DIRECTIONS. CONTRACTOR TO ENSURE SLOPE DOES NOT EXCEED 2.0% IN ANY DIRECTION.
5. PROPOSED SIDEWALK/ADA ACCESSIBLE ROUTES ARE SHOWN AS SHADED. CONTRACTOR TO ENSURE CROSS SLOPES DO NOT EXCEED 2.0% AND LONGITUDINAL SLOPE DOES NOT EXCEED 5.0%.
6. ALL CURB INLETS TO HAVE REBAR TRASH RACK INSTALLED.

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60
1" = 30'

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
PROFESSIONAL ENGINEER
09/14/2021

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

GRADING PLAN

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CG-101

Plotted By:McCroy, Stephen Sheet Set:Kha Layout:CG-101 GRADING PLAN September 13, 2021 08:45:26pm K:\ENC_CIV\113358 - rwnout\001 - route 29 and greenbrier\CAD\plansheets\CG-101 GRADING PLAN.dwg
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DRAINAGE AREA MAP LEGEND

IMPERVIOUS AREA

PERVIOUS AREA

FORESTED AREA

DRAINAGE AREA BOUNDARY

MANOR LOAM (HYDROLOGIC GROUP B) — 50D

URBAN LAND (HYDROLOGIC GROUP D) — 91

STORM STRUCTURE LABEL — 101

DRAINAGE AREA LABEL — DA-EX101

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80
1" = 40'

ENERGY BALANCE SUMMARY

Pre-Development

Runoff Curve Number (CN)	85				
Drainage Area	2.64	acres	Storm Event	Runoff Volume V	Peak Flow q (cfs)
Impervious Area	*1.44*	*acres*	1 -year	15,046	7.44
Managed Turf	*0.86*	*acres*	10 -year		17.26
Forest/Open Space	*0.34*	*acres*			
Time of Concentration (Tc)	5.0	min			

Post-Development (Prior to Routing)

Runoff Curve Number (CN)	91				
			Storm Event	Runoff Volume V	Peak Flow q (cfs)
Drainage Area	2.64	acres	1 -year	20,211	9.46
Impervious Area	*1.92*	*acres*	10 -year		19.22
Managed Turf	*0.72*	*acres*			
Forest/Open Space	*0.00*	*acres*			
Time of Concentration (Tc)	5.0	min			

Channel Protection Compliance

Energy Balance Equation, 1-year Storm
Improvement Factor: 0.8

Q_post < I.F. x Q_pre x RV_pre/RV_post
< 0.8 x 7.44 x 15046 / 20211

9.46	<	4.43
		DETENTION REQUIRED

Flood Protection Compliance

10-year storm

Q_post	<	Q_pre
19.22	<	17.26
		DETENTION REQUIRED

Post-Development Summary (Routed flows)

Storm Event	Peak Flow q (cfs)			
1 -year	4.41	(< Required	4.43	cfs)
10 -year	16.97	(< Required	*17.26*	cfs)

ULTIMATE OUTFALL SUMMARY

DRAINAGE AREA LABEL	TOTAL AREA (AC.)	IMPERVIOUS AREA (AC.)	MANAGED TURF AREA (AC.)	FOREST/ OPEN SPACE AREA (AC.)	C	CN	TIME OF CONC. Tc (min)
PRE B SOILS	0.60	0.07	0.33	0.20	0.31	63	5.0
PRE D SOILS	2.04	1.37	0.53	0.14	0.70	92	5.0
PRE TOTAL	2.64	1.44	0.86	0.34	0.61	85	5.0
BYPASS B SOILS	0.44	0.19	0.25	0.00	0.59	77	5.0
BYPASS D SOILS	0.75	0.54	0.21	0.00	0.75	93	5.0
DETENTION B SOILS	0.16	0.16	0.00	0.00	0.90	98	5.0
DETENTION D SOILS	1.29	1.03	0.26	0.00	0.79	94	5.0
BYPASS TOTAL	1.19	0.73	0.46	0.00	0.69	87	5.0
DETENTION TOTAL	1.45	1.19	0.26	0.00	0.80	95	5.0
COMBINED TOTAL	2.64	1.92	0.72	0.00	0.75	91	5.0

STORMWATER MANAGEMENT NARRATIVE

STORMWATER QUANTITY:
TO ADDRESS STORMWATER QUANTITY REQUIREMENTS FOR THE PROPOSED SITE, THE ENERGY BALANCE METHOD WAS CHOSEN. THE LIMITS OF ANALYSIS USED FOR THE ENERGY BALANCE CALCULATIONS (2.64 AC.) IS SLIGHTLY DIFFERENT THAN THE LIMITS OF DISTURBANCE (2.62 ACRES) DUE TO MINIMAL OFFSITE DRAINAGE AREAS REACHING THE SITE. THIS SITE IS ANALYZED USING TYPE B AND D SOILS PER THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK. THERE IS A 20% IMPROVEMENT FACTOR DUE TO THE LIMITS OF ANALYSIS BEING MORE THAN 1.0 ACRES.

OUTFALL:
- STRUCTURE 98 NEAR GREENBRIER DRIVE.

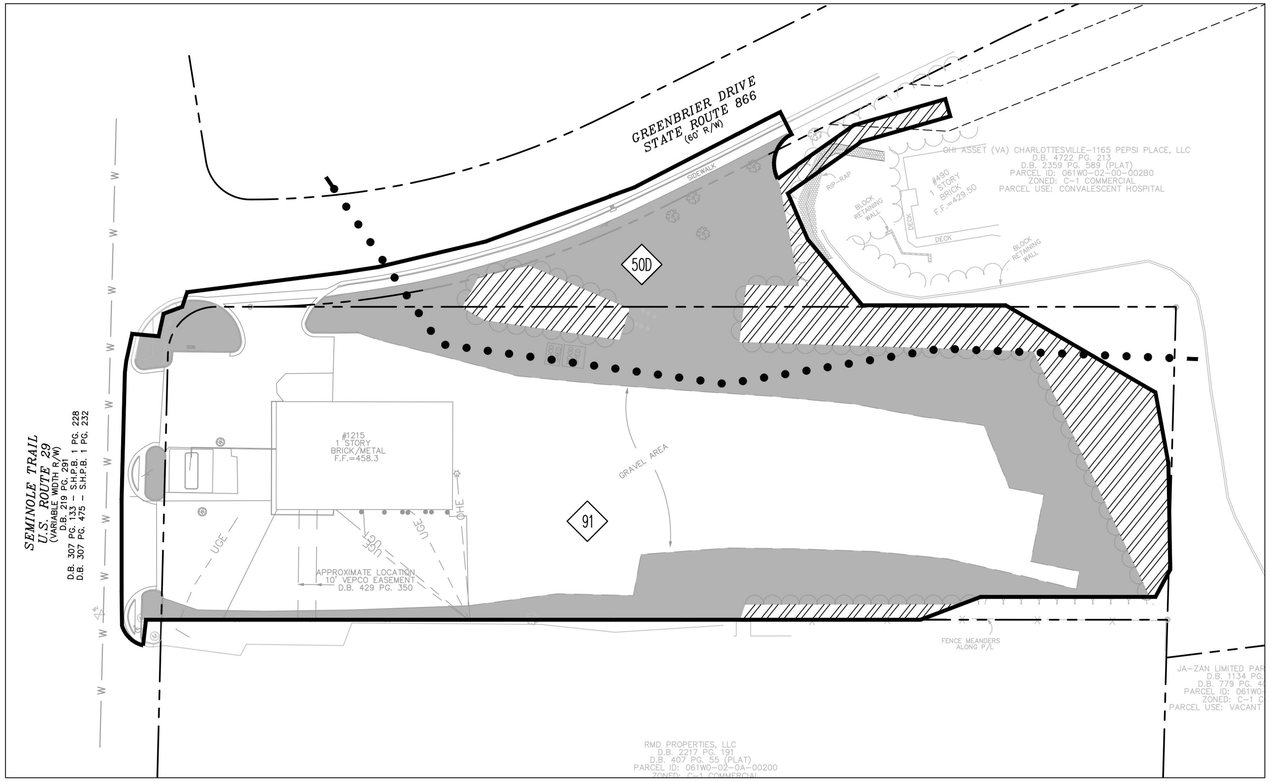
CHANNEL PROTECTION COMPLIANCE:

CHANNEL PROTECTION COMPLIANCE IS MET THROUGH 9VAC25-870-66.B.3.A. THE ENERGY BALANCE EQUATION WAS USED TO ANALYZE THE OUTFALL WITHIN THE LIMITS OF ANALYSIS FOR THE 1-YEAR STORM. THE ENERGY BALANCE WAS SATISFIED BY PROVIDING UNDERGROUND DETENTION. CONTROL STRUCTURE SWM1 REDUCES THE POST-DEVELOPMENT FLOW TO MEET ENERGY BALANCE.

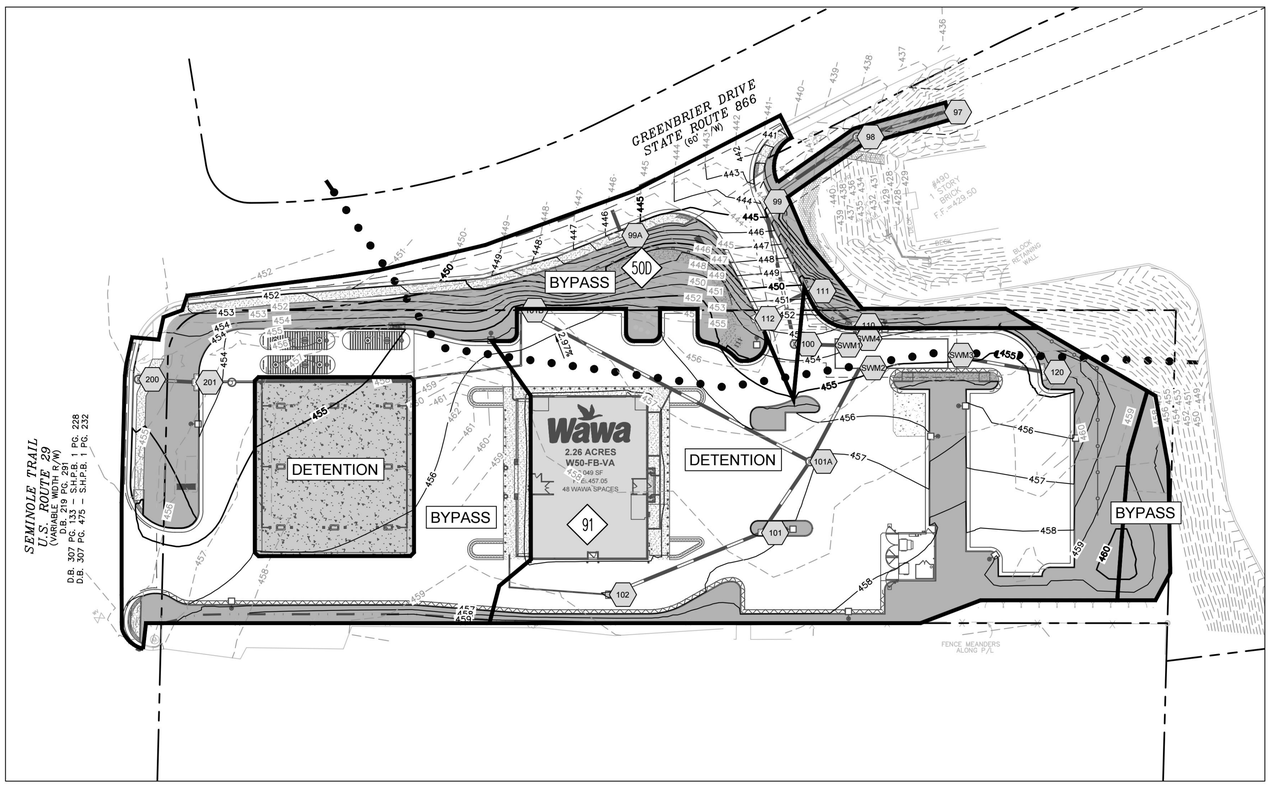
FLOOD PROTECTION COMPLIANCE:

FLOOD PROTECTION COMPLIANCE IS MET THROUGH 9VAC25-870-66.C.2.B, BY DISCHARGING THE POST-DEVELOPMENT PEAK FLOW RATE DOWNSTREAM OF STRUCTURE SWM1 AT A RATE LESS THAN THE PREDEVELOPMENT PEAK FLOW RATE.

PRE DEVELOPMENT



POST DEVELOPMENT



No.	REVISIONS	DATE	BY

Kimley»Horn
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1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001			
DATE	09/14/2021		
SCALE	AS SHOWN	DESIGNED BY	CBB
		DRAWN BY	STM
		CHECKED BY	RRP

STORMWATER QUANTITY

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CG-201

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CG-201 STORMWATER QUANTITY September 13, 2021 08:45:42pm K:\RIC_CIV\113358 remgut\001 route 29 and greenbrier\CAD\plansheets\CG-201 STORMWATER QUANTITY.dwg
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DRAINAGE AREA MAP LEGEND

IMPERVIOUS AREA

PERVIOUS AREA

FORESTED AREA

DRAINAGE AREA BOUNDARY

MANOR LOAM (HYDROLOGIC GROUP B) — 50D

URBAN LAND (HYDROLOGIC GROUP D) — 91

STORM STRUCTURE LABEL — 101

DRAINAGE AREA LABEL — DA-EX101

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80
1" = 40'

STORMWATER MANAGEMENT NARRATIVE

STORMWATER QUALITY:
THE LIMITS OF ANALYSIS FOR THE WATER QUALITY CALCULATIONS (2.62.) INCLUDE THE ENTIRE LIMITS OF DISTURBANCE FOR THE DEVELOPMENT.

PER RE-DEVELOPMENT REQUIREMENTS FOR DISTURBED AREAS MORE THAN 1 ACRE, THE ULTIMATE DEVELOPMENT REQUIRES A PHOSPHORUS LOAD REDUCTION OF 20% DUE TO THE INCREASE IN IMPERVIOUS AREA WITHIN THE LIMITS OF DISTURBANCE, THIS REDUCTION EQUATES TO 1.54 LBS / YEAR.

TO SATISFY REQUIREMENTS FOR WATER QUALITY ON SITE, THE DEVELOPER WILL PURCHASE 1.54 OF NONPOINT PHOSPHORUS NUTRIENT CREDITS FROM A NUTRIENT BANK LOCATED WITHIN THIS PROJECT WATERSHED.

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 2.62

Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*0.48*
Post-Development TP Load Reduction for Site (lb/yr):	*1.54*

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space		0.20		0.14	0.34
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.33		0.51	0.84
Impervious Cover (acres)		0.07		1.37	1.44
					2.62

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be		0.25		0.45	0.70
Impervious Cover (acres)		0.35		1.57	1.92
Area Check	OK.	OK.	OK.	OK.	2.62

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.00	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft^3) 7,211

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft^3)	0	0	0	0	0	0
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00
TP LOAD REMAINING (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00

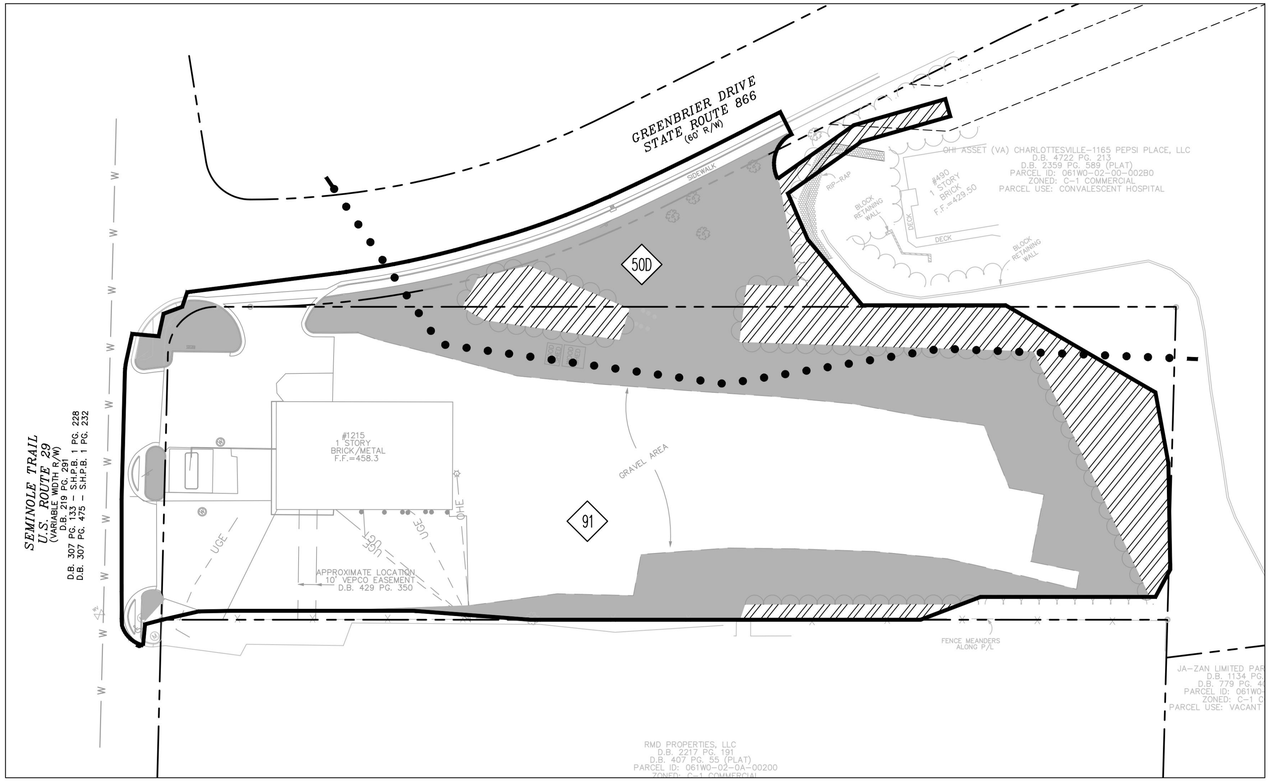
Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	4.53
TP LOAD REDUCTION REQUIRED (lb/yr)	1.54
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.00
TP LOAD REMAINING (lb/yr):	4.53
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	1.54

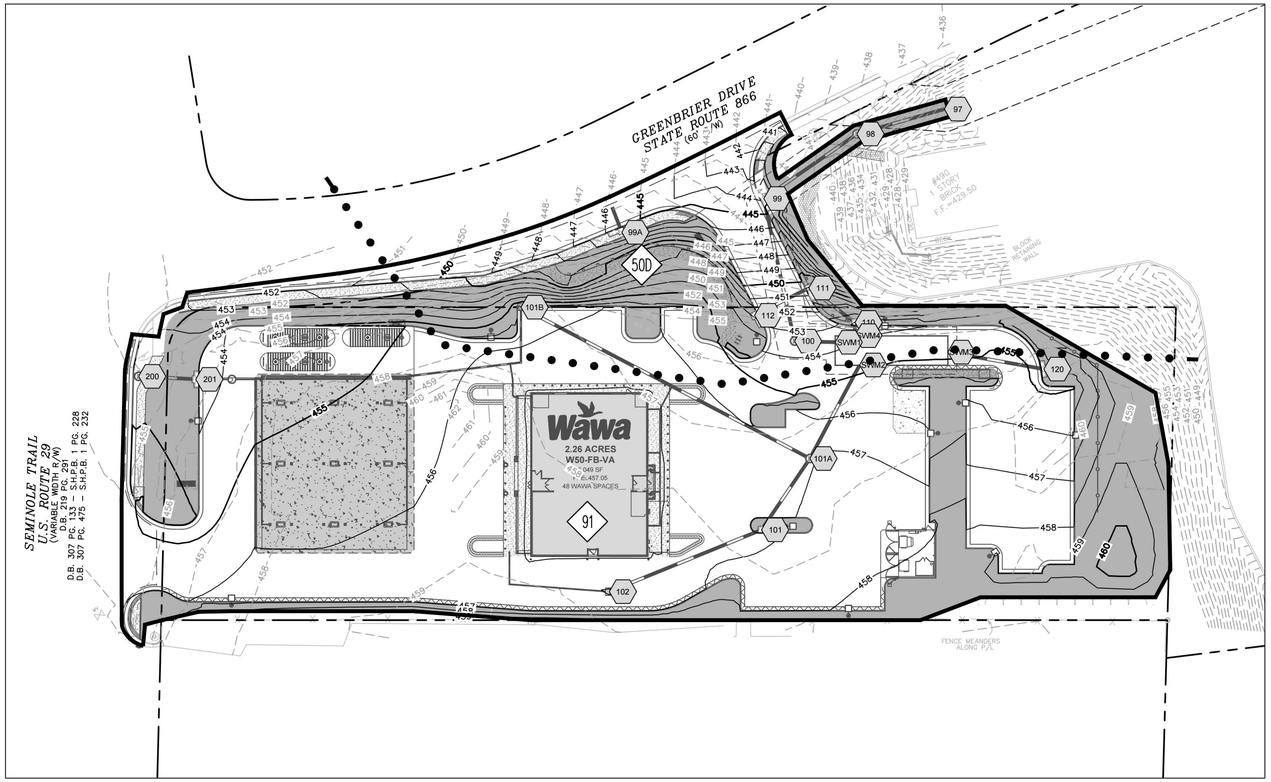
Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	32.41
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.00
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	32.41

PRE DEVELOPMENT



POST DEVELOPMENT



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PROFESSIONAL ENGINEER

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DATE 09/14/2021
SCALE AS SHOWN
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STORMWATER QUALITY

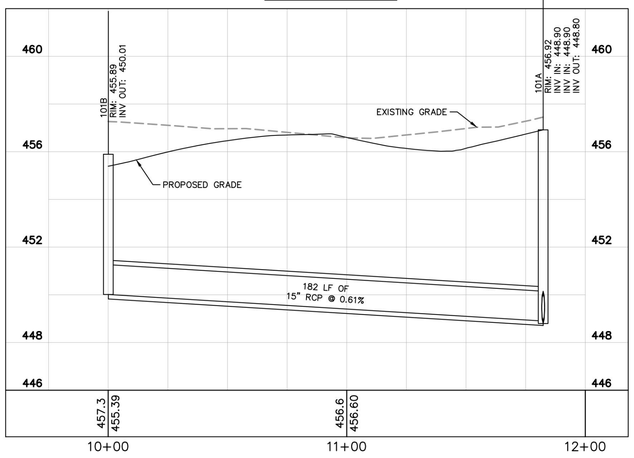
WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

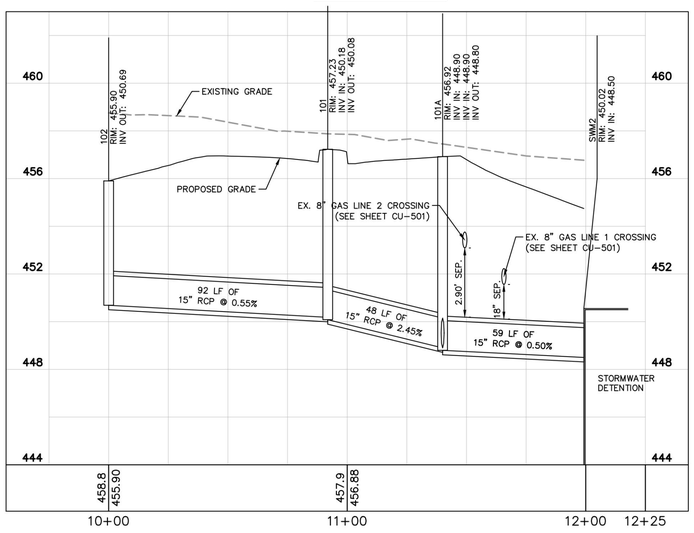
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CG-202

Plotted By: McCray, Stephen Sheet Set: KHA Layout: CG-202 STORMWATER QUALITY September 13, 2021 08:45:58am K:\CIC_CIV\113358 - renault\001 - route 29 and greenbrier\CAD\Volumesheets\CG-202 STORMWATER QUALITY.dwg
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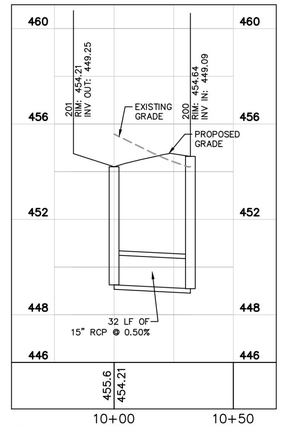
101B TO 101A



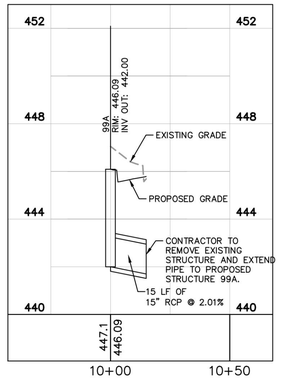
102 TO SWM2



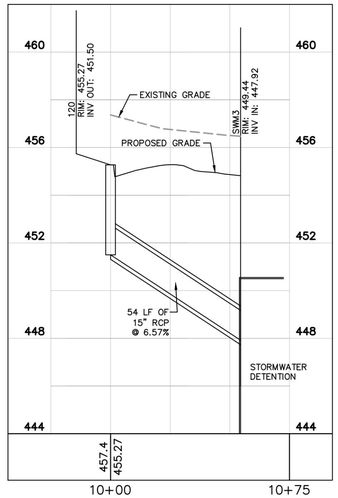
201 TO 200



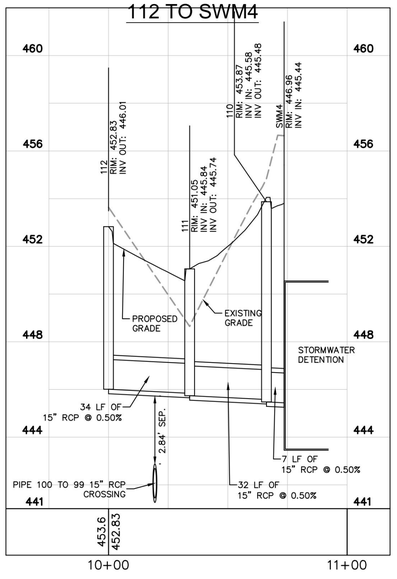
99A TO EX. PIPE



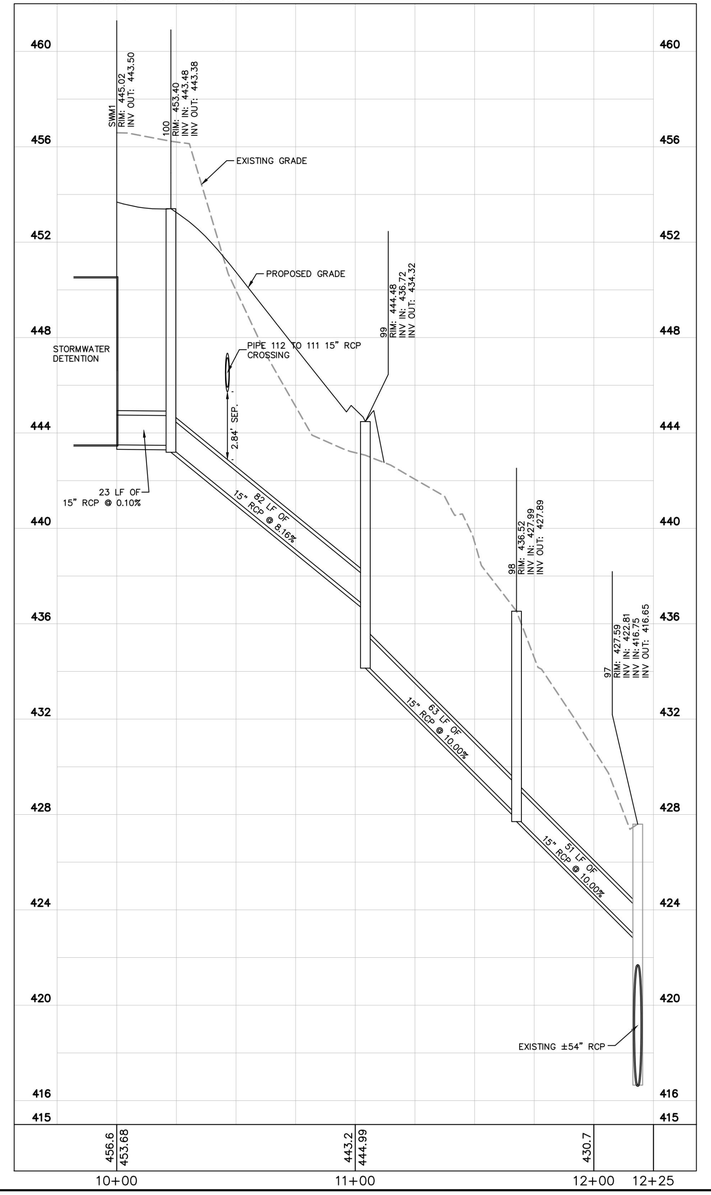
103 TO SWM3



112 TO SWM4

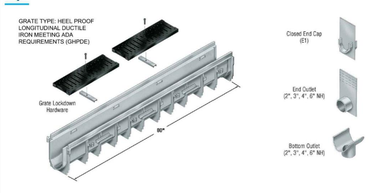


SWM1 TO 98



Z886 Perma-Trench HDPE 6" Drain System

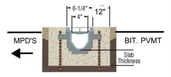
4



Z886 Applications

Highways	Industrial Parks
Driveways	Chemical Plants
Kitchens	Food Processing
Pools	Shopping Malls
Parking Lots	Industrial Plants
Gas Stations	Pharmaceuticals
Airports	Amusement Parks
Airplane Hangars	

Installation Specification



Features and Benefits

- *80" Modular Channel Sections with 20" Grates*
- *.75% Built-In Slope – Handles greater flows, uniform slope.*
- *Radiused Bottom – Better flow rate, less solids build-up.*
- *Smooth High Density Polyethylene Structural Composite Interior – 0% water absorption.*
- *Durable and Lightweight – Strong corrosion-resistant material.*
- *Extra Long Runs – Sidewall extensions allow pre-slope runs longer than 120 feet.*
- *Variety of Gratings*
- *Grate Options – Available in H-20, FAA, ADA. See pages 22-23.*

GRATE TYPE: HEEL PROOF LONGITUDINAL DUCTILE IRON MEETING ADA REQUIREMENTS (GHPDE)

Z886

5

Z886 Dimensional Data

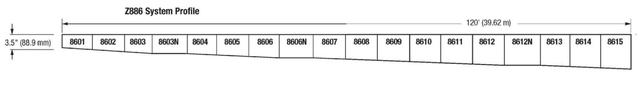
Trench Number	Shallow Invert inches	Shallow Invert mm	Deep Invert inches	Deep Invert mm	Max. Flow Rate GPM	Max. Flow Rate LPS	Approx. Weight (Less Grate) Lbs.	Approx. Weight (Less Grate) Kg.
8601	3.50	89	4.16	104	93	6	0.267	14	6.8
8602	4.10	104	4.76	119	132	8	0.272	15	6.8
8603	4.70	119	5.36	135	167	10	0.370	16	7.4
8603N	5.30	135	5.30	135	–	–	–	17	7.7
8604	5.30	135	6.00	150	183	12	0.468	19	8.3
8605	5.90	150	6.50	165	214	14	0.477	20	8.9
8606	6.50	165	7.10	180	240	16	0.540	21	9.5
8606N	7.10	180	7.10	180	–	–	–	22	10.0
8607	7.10	180	7.75	196	276	17	0.615	23	10.6
8608	7.75	196	8.39	211	309	19	0.655	25	11.2
8609	8.30	211	8.99	226	339	21	0.733	26	11.8
8610	8.90	226	9.53	241	371	23	0.827	27	12.4
8611	9.50	241	10.10	257	403	26	0.898	29	13.0
8612	10.10	257	10.70	272	435	28	0.969	30	13.6
8612N	10.70	272	10.70	272	–	–	–	30	13.6
8613	10.70	272	11.30	287	467	30	1.041	31	14.2
8614	11.30	287	11.90	302	499	32	1.113	33	14.8
8615	11.90	302	12.50	318	530	34	1.181	34	15.4

Z886 System Highlights



Engineering Specification Channels shall be 80" long, 6" wide, and have a 4" wide throat. Modular channel sections shall be made of High Density Polyethylene (HDPE), have interlocking ends, and radiused bottom. Channel shall be provided either flat (neutral) or with a .75% built-in slope. Channels shall be available with inverts ranging from 3.5" to 12.50". Channels shall have clips molded into the sides of the channel to accommodate vertical rebar for positioning and anchoring purposes. Choice of class A, B, C, D, E, and F grates shall be available with H-20 and/or FAA load ratings and/or ADA compliance with mechanical lockdown devices. End caps and catch basins shall be available to complement the channels and grates. End outlets, bottom outlets, and side outlets shall be available in 2", 3", 4", and 6" diameters. Trench drain shall be Flo-Thru model Z886.

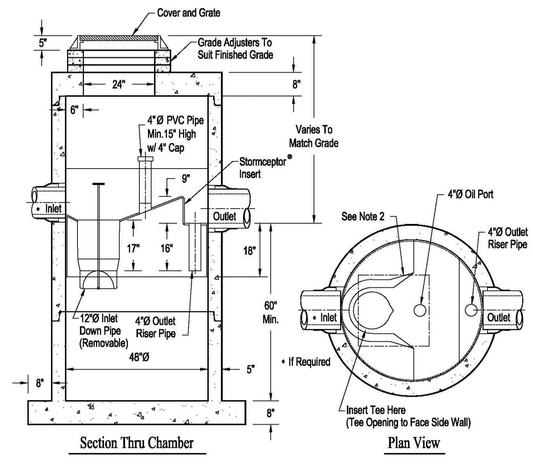
Z886 System Profile



Rinker MATERIALS™

Concrete Pipe Division

STC 450i Precast Concrete Stormceptor®
(450 U.S. Gallon Capacity)



Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Inlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Rinker 027

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STORMWATER PROFILES & DETAILS

WAWA ROUTE 29 AND GREENBRIER

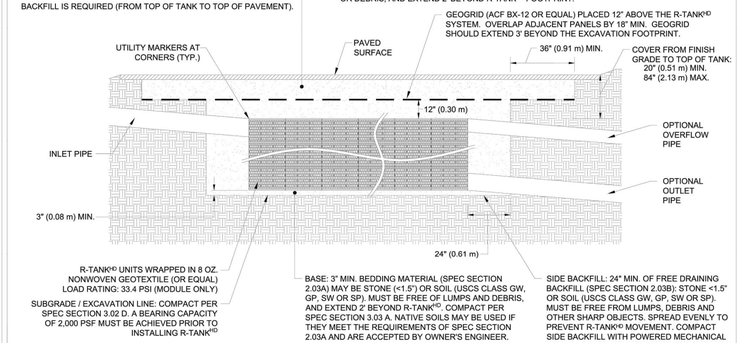
ALBEMARLE COUNTY VA

SHEET NUMBER
CG-501

Plotted By: McCray, Stephen Sheet Set: Kha Layout: CG-501 STORMWATER PROFILES & DETAILS September 13, 2021 08:46:20pm K:\Rlc_Civil\113358001 - renaud\Civil — route 29 and greenbrier\CAD\plansheets\CG-501 STORMWATER PROFILES & DETAILS.dwg
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TOTAL COVER: 20" MINIMUM AND 84" MAXIMUM. FIRST 12" MUST BE FREE DRAINING BACKFILL (SPEC SECTION 2.03B): STONE <1.5" OR SOIL (USCS CLASS GW, GP, SW OR SP). ADDITIONAL FILL MAY BE STRUCTURAL FILL (SPEC SECTION 2.03C): STONE OR SOIL (USCS CLASS SM, SP, SW, GM, GP OR GW) WITH MAX CLAY CONTENT<10%, MAX 25% PASSING NO. 200 SIEVE, AND MAX PLASTICITY INDEX OF 4. A MIN. 12" COVER MUST BE MAINTAINED BETWEEN BACKFILL EQUIPMENT AND THE TOP OF THE R-TANK™ SYSTEM AT ALL TIMES. TOTAL HEIGHT OF TOP BACKFILL SHOULD NOT EXCEED 7'. CONTACT ACF ENVIRONMENTAL IF MORE THAN 7' OR LESS THAN 20" OF TOP BACKFILL IS REQUIRED (FROM TOP OF TANK TO TOP OF PAVEMENT).

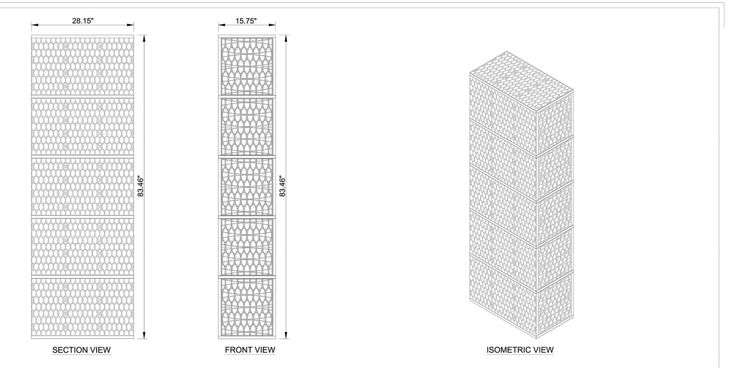
NOTES:
1. FOR COMPLETE MODULE DATA, SEE APPROPRIATE R-TANK[©] MODULE SHEET .
2. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CUSTOMARY U.S. UNITS, 7TH EDITION, 2014 WITH 2015 AND 2016 INTERIM REVISIONS.
3. PRE-TREATMENT STRUCTURES NOT SHOWN.
4. FOR INFILTRATION APPLICATIONS, GEOTEXTILE ENVELOPING R-TANK SHALL BE ACF M200 (PER SPEC SECTION 2.02A) AND BASE SHALL BE 4" MIN. UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANK[©] FOOTPRINT.



08/29/2018

R-TANK[HD] & HS-20 LOADS - SECTION VIEW

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com



MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. (715 MM) WIDTH = 15.75 IN. (400 MM) HEIGHT = 83.46 IN. (2120 MM) TANK VOLUME = 21.41 CF STORAGE VOLUME = 20.34 CF VOID INTERNAL VOLUME: 95% VOID SURFACE AREA: 90%	**LOAD RATING**: 33.4 PSI, (MODULE ONLY) HS25, (WITH ACF COVER SYSTEM) **MATERIAL**: 100% RECYCLED POLYPROPYLENE **SMALL PLATES PER SEGMENT/TOTAL**: 5/25

R-TANK[HD] - PENT MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com 5/16

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09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

STORMWATER DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CG-502

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CG-502 STORMWATER DETAILS September 13, 2021 08:46:22pm K:\NC_CLV\113358 - remsa\001 - route 29 and greenbrier\CAD\plansheets\CG-501 STORMWATER PROFILES.dwg
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UTILITY NOTES

1. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY KIMLEY-HORN IN ORDER TO VERIFY ADEQUATE SEPARATION BETWEEN UTILITIES CAN BE ACHIEVED AND NO CONFLICTS EXIST.
2. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND INCLUDING ELECTRIC, TELEPHONE, AND CATV.
3. WAWA DOMESTIC METER SERVICE PIPE SHALL BE TYPE K COPPER PIPE ON BOTH SIDES OF THE METER.
4. RPZ BACKFLOW PREVENTERS FOR DOMESTIC SERVICE LINE SHALL BE PROVIDED WITHIN BUILDING MECHANICAL ROOM.
5. ABOVE GROUND IRRIGATION EQUIPMENT SHALL BE COVERED BY AN ALL-WEATHER BOX OR DECORATIVE COVER.
6. REFER TO SHEET CV-101 FOR ALL EXISTING EASEMENTS.
7. REFER TO SHEET CE-101 FOR INFORMATION REGARDING ABANDONMENT OF EXISTING UTILITIES.
8. REFER TO SHEET CU-501 FOR ALL UTILITY DETAILS.
9. ALL PROPOSED SANITARY CLEANOUTS SHALL BE TRAFFIC-RATED.
10. A KNOX BOX IS REQUIRED. ITS LOCATION IS TO BE COORDINATED WITH THE FIRE MARSHALL'S OFFICE.
11. A FLOW TEST WAS PERFORMED ON 9/2/2021 WITH A Q20 CALCULATION THAT RESULTED IN 11417 GPM.

SEMINOLE TRAIL
U.S. ROUTE 29
(VARIABLE WIDTH R/W)
D.B. 219 PG. 291
D.B. 307 PG. 133 – S.H.P.B. 1 PG. 228
D.B. 307 PG. 475 – S.H.P.B. 1 PG. 232

GREENBRIER DRIVE
STATE ROUTE 866
(60' R/W)

CONTRACTOR TO VERIFY VERTICAL LOCATION OF FO LINE FOR POTENTIAL CONFLICT WITH STORMPIPE EXTENSION
APPROX. LOCATION OF EXISTING 8" COATED STEEL NATURAL GAS MAIN
EX. ASCA SANITARY SEWER LINE
ADJUST RIM OF EX. SANITARY SEWER MANHOLE TO PROPOSED GRADE
EX. 8" GAS LINE 2 (SEE SHEET CU-501)
EX. 8" GAS LINE 1 (SEE SHEET CU-501)
PRESSURE REGULATION STATION TO REMAIN
EX. GAS LATERAL TO REMAIN, CONTRACTOR TO CONFIRM VERTICAL LOCATION OF GAS LINE AT PROPOSED STORM CROSSING
20' PUBLIC DRAINAGE EASEMENT
UNDERGROUND STORM WATER MANAGEMENT SYSTEM
APPROXIMATE LOCATION OF DOMESTIC 1.5" BACKFLOW PREVENTER WITHIN BUILDING
OHI ASSET (VA) CHARLOTTESVILLE-1165 PEPSI PLACE, LLC
D.B. 4722 PG. 213
D.B. 2359 PG. 589 (PLAT)
PARCEL ID: 061W0-02-00-002B0
ZONED: C-1 COMMERCIAL
PARCEL USE: CONVALESCENT HOSPITAL
#490 STORY STICK ±0
RIP-RAP
DECK
BLOCK RETAINING WALL
1-5/8" RPZ BACKFLOW PREVENTER WITH UNIONS FOR WINTER REMOVAL
1-5/8" IRRIGATION METER
1-1" CORP. STOP
45 LF OF 6" DI WATERLINE
TAPPING SLEEVE CONNECTION
1-6"X4" TEE
1-4" GATE VALVE
1-4" THREADED PLUG
1-2" DOMESTIC SERVICE TAP
11 LF OF 1" TYPE 'K' COPPER DOMESTIC WATER LINE
PROPOSED 20' UTILITY EASEMENT
1-1.5" DOMESTIC WATER METER (PROVIDE 5' SEPARATION FROM HYDRANT)
1-FIRE HYDRANT ASSEMBLY
1-6" GATE VALVE
15' LUMOS NETWORKS EASEMENT
D.B. 4821 PG. 242
101 LF OF 6" PVC @ 1.04%
109 LF OF 6" PVC @ 1.04%
5 LF OF 6" PVC @ 6.84%
CO-6
RIM: 455.68
INV: 450.86 6" PVC
CO-5
RIM: 456.25
INV: 451.91 6" PVC
EX. MH
RIM: 455.71
INV IN: 450.77 6" PVC
ADJUST RIM OF EX. SANITARY SEWER MANHOLE TO PROPOSED GRADE. CONNECT LATERAL TO EXISTING MANHOLE USING BRANCH TIE-IN (SEE SHEET CU-501)
475 LF OF 2" TYPE 'K' COPPER DOMESTIC WATERLINE
APPROXIMATE LOCATION OF EX. 10" DI WATERLINE, CONTRACTOR TO VERIFY LOCATION PRIOR TO CONNECTION
CO-4 (2-WAY CLEANOUT)
RIM: 456.89
INV IN: 453.05 6" PVC
INV IN: 453.05 6" PVC
INV OUT: 453.05 6" PVC
10 LF OF 6" PVC @ 1.04%
GT2
INV OUT: 453.15 6" PVC
CO 3 (BLDG)
RIM: 457.05
INV OUT: 453.55 6" PVC
CO 1 (BLDG)
RIM: 457.05
INV OUT: 453.55 6" PVC
7 LF OF 6" PVC @ 1.04%
CO-2 (2-WAY CLEANOUT)
RIM: 456.69
INV: 453.48 6" PVC
8 LF OF 6" PVC @ 1.04%
GT1
INV IN: 453.40 6" PVC
1500 GALLON GREASE TRAP (SEE SHEET CU-502)
EXTENSION OF GAS SERVICE TO BE COORDINATED WITH UTILITY COMPANY
222 LF OF 3/4" PVC WATERLINE TO DUMPSTER HOSE BIBB
EX. 8" GAS LINE 1 (SEE SHEET CU-501)
EX. 8" GAS LINE 2 (SEE SHEET CU-501)
FENCE MEANDERS ALONG P/L
40' GAS LINE EASEMENT
D.B. 290 PG. 434
D.B. 421 PG. 500
D.B. 1683 PG. 337
JA-ZAN LIMITED PARTNERSHIP
D.B. 1134 PG. 536
D.B. 779-PG. 401 (PLAT)
PARCEL ID: 061W0-02-00-00200
ZONED: C-1 COMMERCIAL
PARCEL USE: VACANT COMMERCIAL LAI
RMD PROPERTIES, LLC
D.B. 2217 PG. 191
D.B. 407 PG. 55 (PLAT)
PARCEL ID: 061W0-02-0A-00200
ZONED: C-1 COMMERCIAL
PARCEL USE: MARKET
Wawa
2.26 ACRES
W50-FB-VA
6,049 SF
FFE: 457.05
48 WAWA SPACES
SWM1
SWM2
SWM3
SWM4
200
201
101A
101B
102
99
99A
97
98
100
101
110
111
112
120

NORTH
GRAPHIC SCALE IN FEET
0 15 30 60
1" = 30'

No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

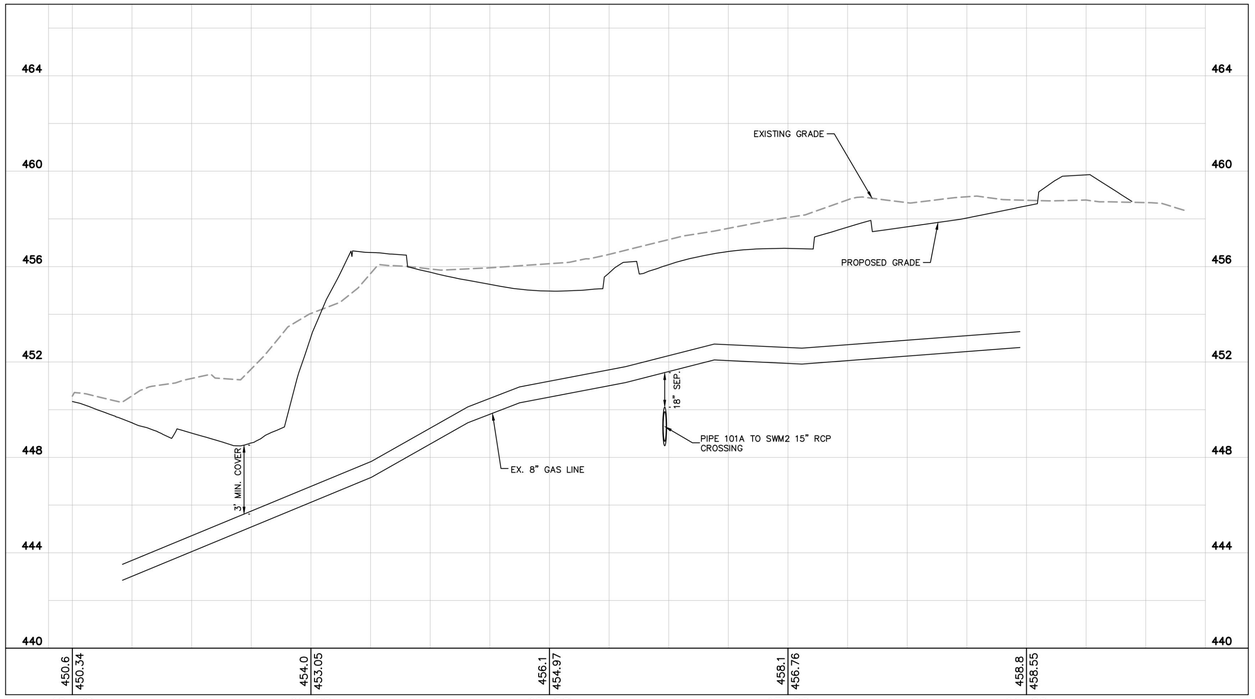
UTILITY PLAN

WAWA
ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

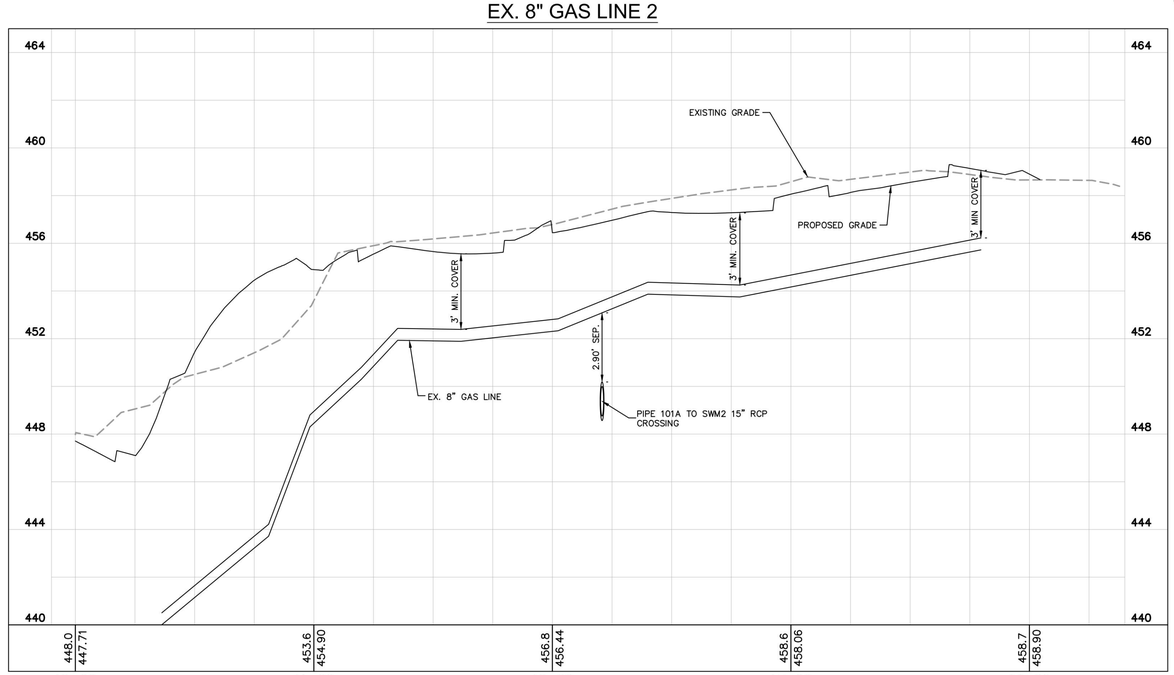
SHEET NUMBER
CU-101

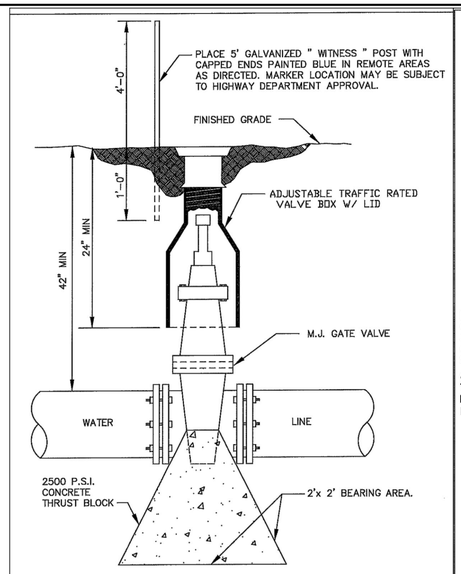
EX. 8" GAS LINE 1



GRAPHIC SCALE IN FEET
0 15 30 60
HORIZONTAL
VERTICAL
6
3
1.5
0

EX. 8" GAS LINE 2

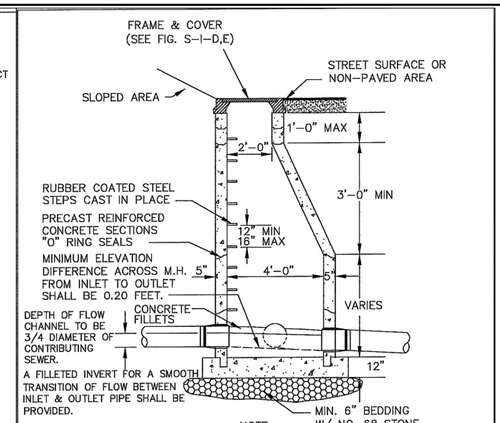




NOTE : IN REMOTE AREAS, VALVE BOXES SHALL EXTEND SIX (6) INCHES ABOVE GRADE.

TYPICAL GATE VALVE

NTS
FIG. W-5



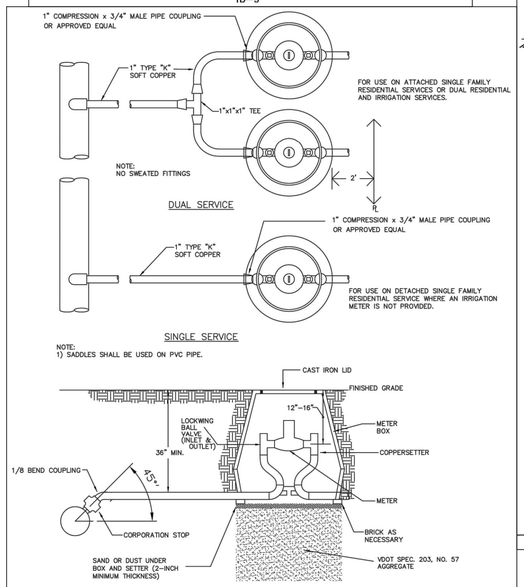
NOTE :

1. BEDDING THICKNESS REQUIREMENT SHOWN IS MINIMUM AND SHALL BE SPECIFICALLY DETERMINED BY THE CONSULTANT FOR THE SOIL CONDITIONS.
2. THE CONSULTANT WILL DETERMINE WHETHER MANHOLES SHALL HAVE EXTENDED OR NON-EXTENDED BASES.
3. ALL JOINTS, LIFT HOLES, INLETS, OUTLETS TO BE SEALED & GROUTED INSIDE AND OUT.

TYPICAL MANHOLE SECTION SHOWING BRANCH TIE-IN

N.T.S
FIG. S-I-A

TD-9

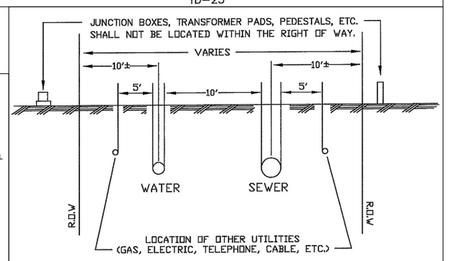


TYPICAL SERVICE LATERAL INSTALLATION (5/8" & 1" METERS)

NTS
FIG. W-6A

TD-10

TD-25



EASEMENT WIDTHS: WATER OR SEWER ONLY - 20' MINIMUM
WATER & SEWER ——— 30' MINIMUM

* SEE PART 3, PARAGRAPH D; SEPARATION OF WATER & SEWER SYSTEMS.

UTILITIES CROSSING A WATER OR SEWER EASEMENT SHOULD BE AT 90° TO THE RIGHT OF WAY.

UTILITY LOCATIONS & EASEMENT WIDTHS

NTS
FIG. W-1

TD-1

GAS PROFILE NOTES

1. GAS MAIN APPROXIMATIONS ARE BASED ON TOP OF PIPE ELEVATIONS PROVIDED BY INSIGHT.
2. INSIGHT TESTS WERE COMPLETED BETWEEN 07/13/2021 AND 07/15/2021.
3. CONTRACTOR TO CONFIRM LOCATION AND DEPTH OF EXISTING GAS MAINS PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO ENSURE 3' MINIMUM COVER OVER ALL EXISTING GAS MAINS.

No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

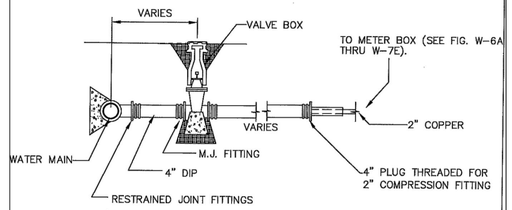
KHA PROJECT	113358001
DATE	09/14/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

UTILITY PROFILES & DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CU-501

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CU-501 UTILITY PROFILES & DETAILS September 13, 2021 08:46:49pm K:\RIC_CIV\113358 - remp\V001 - route 29 and greenbrier\CAD\plansheets\CU-501 UTILITY DETAILS.dwg
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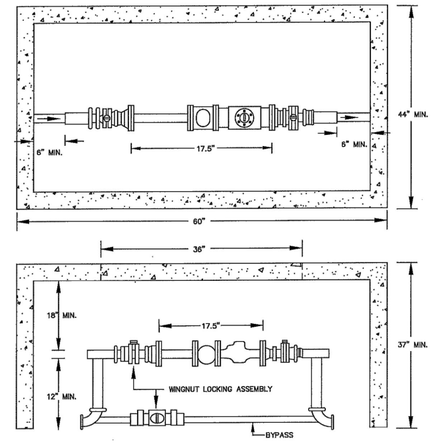
NOTES:

- GATE VALVE WILL BE 4" UNLESS OTHERWISE SPECIFIED BY THE ACSA.
- SERVICE LINE TO CONNECT AT MAIN WITH X"x4" TEE.
- REFER TO FIG. W-3 FOR THRUST BLOCK DETAILS ON TEE.
- REFER TO FIG. W-5 FOR THRUST BLOCK DETAILS AND DEPTH OF COVER ON GATE VALVE.
- NO CONCRETE SHOULD BE POURED ON ANY PART OF THE RESTRAINED JOINT. USE PLASTIC SHEETING AS PROTECTION FOR BOLTS.
- USE 2500 P.S.I. CONCRETE.

LARGE METER SERVICE LINE

NTS
FIG. W-6C

TD-12



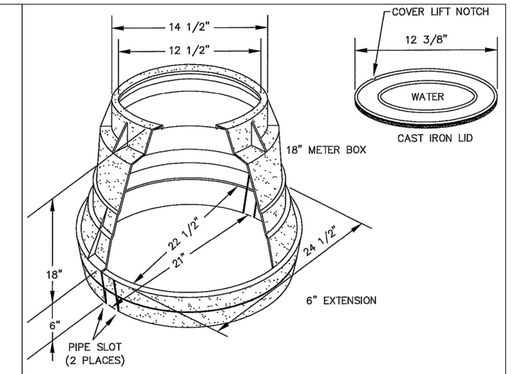
NOTES:

1. PROVIDE A 6" THICK GRAVEL BED BENEATH THE METER VAULT.
2. MINIMUM WALL THICKNESS FOR PRECAST OR POUR-IN-PLACE VAULTS SHALL BE 4". MINIMUM WALL THICKNESS FOR VAULTS CONSTRUCTED OF MASONARY BLOCK SHALL BE 8".
3. THE OUTSIDE OF THE VAULT BELOW GRADE SHALL BE COATED WITH AN APPROVED WATER PROOFING COMPOUND.

TYPICAL METER VAULT (1 1/2" METER)

NTS
FIG. W-7B

TD-15

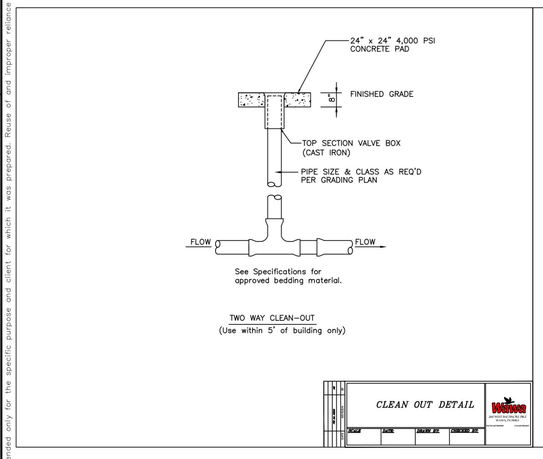


NOTES:
(1) A 1-3/4" DIAMETER HOLE IS REQUIRED IN THE LID FOR TOUCH READ METERS.

TYPICAL METER BOXES (5/8"-1" METERS)

NTS
FIG. W-7

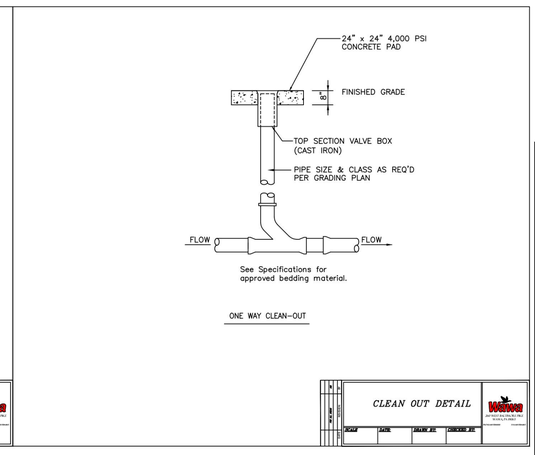
TD-13



See Specifications for approved bedding material.

TWO WAY CLEAN-OUT
(Use within 5' of building only)

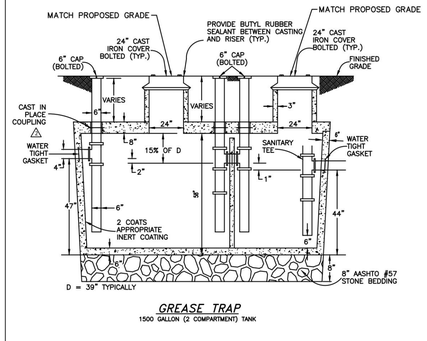
CLEAN OUT DETAIL



See Specifications for approved bedding material.

ONE WAY CLEAN-OUT

CLEAN OUT DETAIL



GREASE TRAP
1500 GALLON (2 COMPARTMENT) TANK

ALL INLET AND OUTLET PIPES SHALL BE INSTALLED NO MORE THAN 6" FROM THE BOTTOM OF THE GREASE TRAP.
TANK TAPERS TOP TO BOTTOM AND IS TRAPEZOIDAL IN CROSS SECTION.
TANK IS 5000 PSI CONCRETE-STEEL REINFORCED (@ 28 DAYS) CONCRETE CONFORMS TO ACI 318-14-4.5.1 AND 318-14-4.5.2, ASTM A615 AND A185
-DIMENSION: 151" INTERIOR/ 163" EXTERIOR LENGTH x 72" INTERIOR/ 84" EXTERIOR WIDTH

NOTES:
1) WHEN LOCATED IN DRIVEWAYS OR PAVED AREAS, GREASE TRAP TO BE DESIGNED FOR APPROPRIATE LOAD BEARING (E.G. WHEEL). GREASE TRAP SHALL BE CAPABLE OF WITHSTANDING HS-20 LOADING.
2) ALL PIPE PENETRATIONS SHALL BE WATERTIGHT.
3) GREASE TRAP SHALL BE PROVIDED WITH GAS-TIGHT MANHOLE COVERS, IN ACCORDANCE WITH TOWNSHIP STANDARD SPECIFICATIONS.
4) PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH 5000 PSI.
5) EXTERIOR CONCRETE SURFACES BELOW GRADE SHALL HAVE 2 COATS OF COAL TAR EPOXY.
6) SPECIFIC SEALANT DETAIL AT CONCRETE RISER TO CONCRETE VAULT INTERFACE SHALL BE WATERTIGHT. AT A MINIMUM, THE JOINT SHALL BE SEALED WITH BUTYL RUBBER SEALANT (KENT SEAL #2 OR APPROVED EQUIVALENT) AND THE EXTERIOR OF THE JOINT SHALL BE SEALED WITH NON-SHRINK GROUT IN CONFORMANCE WITH THE TOWNSHIP STANDARD GREASE TRAP DETAIL.
7) TANK SHALL BE TESTED FOR WATER TIGHTNESS BY FILLING FOR 24 HRS. TO SOAK, THEN TOPPED OFF, AND THEN WATCHED FOR 24 HRS. NO DROP IN WATER IS ALLOWED.
8) CAST IRON SHALL BE BOLTED TO CONCRETE WITH MASTIC TAPE (KENT SEAL OR APPROVED EQUIVALENT) SEALANT.
9) MAXIMUM EARTH COVER=5.0', HS-20 LOADING.
10) INLET AND OUTLET EQUIPPED WITH PIPE SEALS.

FIRE FLOW ESTIMATE FORM
ISO (Insurance Service Office) Method of Calculating Needed Fire Flow NFF (Needed Fire Flow)

ENGINEER: Kimley-Horn — DATE: 9/13/2021
PROJECT NAME: Wawa 1215 Seminole Trail — CALC. BY: CBB

TYPE OF CONSTRUCTION: WOOD FRAME C-1
Class of Construction Coefficient = F: 1.5

GROUND FLOOR AREA: 6,049 # OF STORIES 1
Total Floor Area = A_t (effective area) 6049

FIRE AREA CONSIDERED

Construction Factor $C_i = 18\ (F)\ (A_t)^{0.5}$ C_i: 2,000
(ROUNDED TO NEAREST 250 GPM)

TYPE OF OCCUPANCY: COMBUSTIBLE C-3
(Worst Case) Occupancy Factor = O_i: 1

EXPOSURE (X) AND COMMUNICATION (P):
$X_1 + P_1$ = 0.00 $X_4 + P_4$ =
$X_2 + P_2$ = $X_5 + P_5$ =
$X_3 + P_3$ = $X_6 + P_6$ =

$(X+P)_t = 1.0 + \Sigma(X_i+P_i)$ =

(Max. X +P)i = 1.75) 1.00
(n = NUMBER OF SIDES OF SUBJECT BUILDING)

NEEDED FIRE FLOW

$NFF = (C_i)\ (O_i)\ (X+P)_t$ NFF = 2,000

Automatic Sprinklers: NO Reduction Factor: 0% % X NFF = - 0

TOTAL: 2,000

Required Fire Flow - Rounded: 2,000 gpm

Fire Hydrants Required*: 2

I CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT

SIGNATURE: _____ **P.E.**

* COMMERCIAL AREA REQUIRES 350 FT. MAXIMUM HOSE LAY

References: NFF calculation procedure described in A.W.W.A. M-31, I.S.O.'s 1980 Commercial Fire Rating Schedule and I.S.O.'s 1980 Fire Suppression Rating Schedule.

.9/94 Form F-9

ACWWA Water Demand Estimate and Meter Sizing Using Fixture Values
(Based on AWWA M22 Manual, Second Edition and ACWWA Rules and Regulations)

ACWWA Project Number
Building address or number
Residential or Non-Residential: Non-Residential
Pressure Zone at Project (Obtained from ACWWA or Hydrant Test): 55

Fixture or Appliance	Fixture Value (at 60 psi)	Number of Fixtures	Subtotal Fixture Value
Toilet (tank)	4	0	0
Toilet (flush valve)	35	3	105
Urinal (wall or stall)	16	0	0
Urinal (flush valve)	35	2	70
Bidet	2	0	0
Shower (single head)	2.5	0	0
Sink (lavatory)	1.5	2	3
Kitchen Sink	2.2	0	0
Utility Sink	4	4	16
Dishwasher	2	0	0
Bathtub	8	0	0
Clothes Washer	6	0	0
Hose connections (with 50 ft of hose)			
1/2 in.	5	0	0
5/8 in.	9	0	0
3/4 in.	12	2	24
Miscellaneous			
Bedpan washers	10	0	0
Drinking fountains	2	0	0
Dental units	2	0	0
Combined Fixture Value			218
Demand (gpm)			62
Pressure Adjustment Factor			0.95
Total Adjusted demand (gpm)			**58.9**
Required ACWWA Meter Size			**1 1/2"**

No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
09/14/2021
PROFESSIONAL ENGINEER

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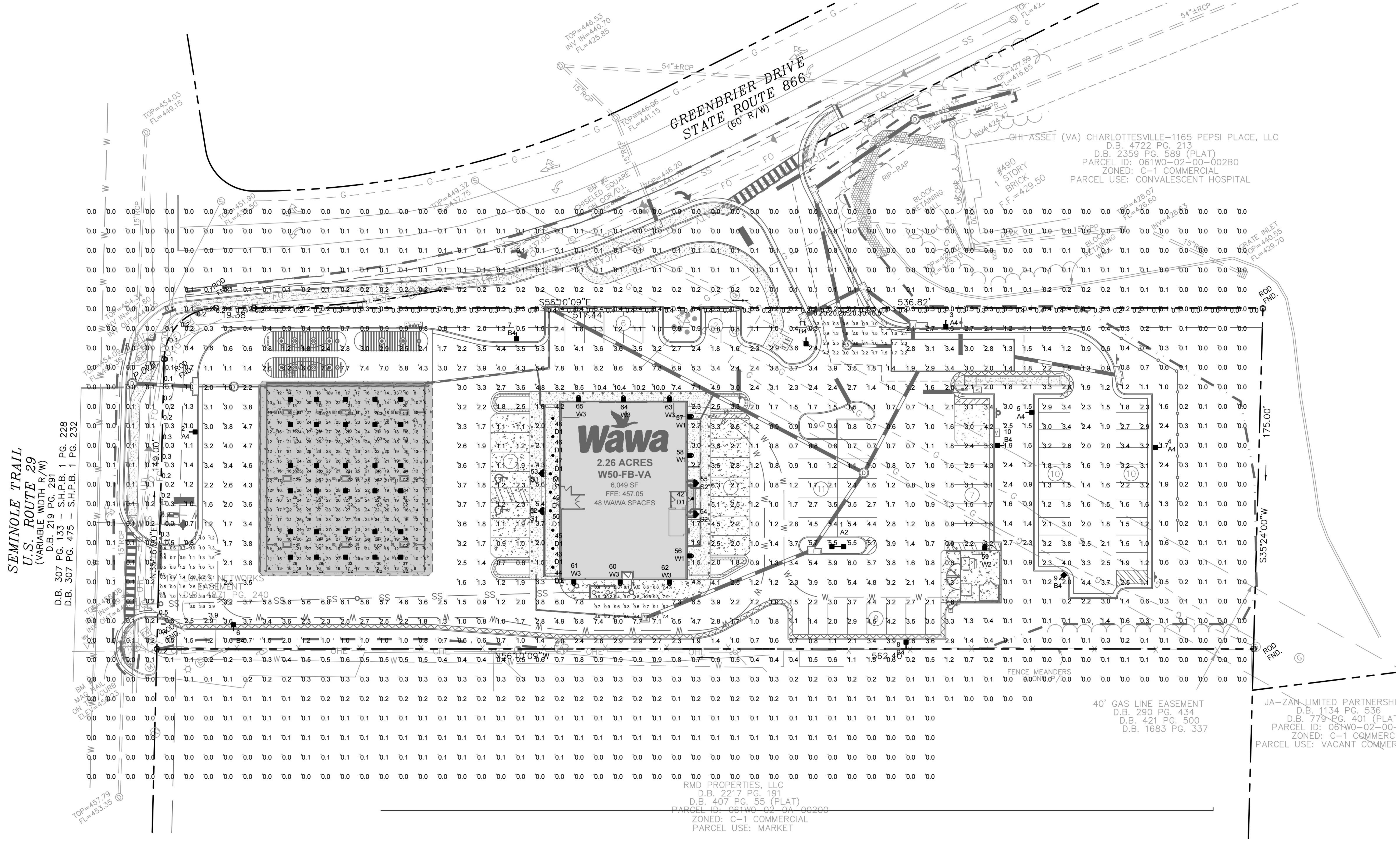
UTILITY DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CU-502

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THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES

ILLUMINATION LEVELS ARE THE RESULT OF CONDITIONS OR REQUESTS BY OTHERS
RED LEONARD ASSOCIATES IS NOT RESPONSIBLE
FOR INCIDENTS CAUSED BY INSUFFICIENT LIGHTING
AND DOES NOT RECOMMEND THESE LEVELS FOR
SECURITY AND SAFETY REASONS

LUMINAIRE LOCATION SUMMARY

LUM NO.	LABEL	MTG. HT.
1	A2	17.5
2	A4	17.5
3	A4	17.5
4	A4	17.5
5	A4	17.5
6	B4	17.5
7	B4	17.5
8	B4	17.5
9	B4	17.5
10	B4	17.5
11	B4	17.5
12	C3	19.32
13	C3	17.11
14	C3	19.333
15	C3	17
16	C3	24.5
17	C3	26.75
18	C3	21.75
19	C3	24.5
20	C3	26.75
21	C3	21.75
22	C2	19.32
23	C2	17.11
24	C2	19.32
25	C2	17.11
26	C2	19.32
27	C2	17.11
28	C2	19.32
29	C2	17.11
30	C2	24.5
31	C2	26.75
32	C2	21.75

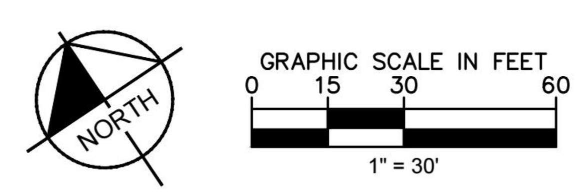
LUMINAIRE LOCATION SUMMARY

LUM NO.	LABEL	MTG. HT.
33	C2	24.5
34	C2	26.75
35	C2	21.75
36	C2	24.5
37	C2	26.75
38	C2	21.75
39	C2	24.5
40	C2	26.75
41	C2	21.75
42	D1	9
43	D1	9
44	D1	9
45	D1	9
46	D1	9
47	D1	9
48	D1	9
49	D1	9
50	D1	9
51	D1	9
52	S1	9
53	S1	9
54	S2	8.5
55	S2	8.5
56	W1	15
57	W1	15
58	W1	15
59	W2	8
60	W3	15
61	W3	15
62	W3	15
63	W3	15
64	W3	15
65	W3	15

INCLUDED NOTE PER ALBEMARLE COUNTY REQUIREMENTS:

EACH OUTDOOR LUMINAIRE EQUIPPED WITH A LAMP THAT EMITS 3,000 OR MORE INITIAL LUMENS SHALL BE A FULL CUTOFF LUMINAIRE AND SHALL BE ARRANGED OR SHIELDED TO REFLECT LIGHT AWAY FROM ADJOINING RESIDENTIAL DISTRICTS AND AWAY FROM ADJACENT ROADS. THE SPILLOVER OF LIGHTING FROM LUMINAIRES ONTO PUBLIC ROADS AND PROPERTY IN RESIDENTIAL OR RURAL AREA ZONING DISTRICTS SHALL NOT EXCEED ONE HALF FOOTCANDLE.

OTHER NOTES:
- ALL AREA LIGHTS ON 17 FT. POLES MOUNTED ON 6 IN. CONCRETE BASES
- ALL CONCRETE BASES TO BE LOCATED 5 FT. BEHIND CURB
- ALL FIXTURE COLORS SUBJECT TO FINAL APPROVAL BY CLIENT



FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES

LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CANOPY	19.03	29	6	3.17	4.83
DELIVERY	8.92	10.3	7.4	1.21	1.39
ENTRANCES & EXITS	1.58	4.2	0.2	7.90	21.00
PAVED	2.76	10.4	0.6	4.60	17.33
ROW	0.28	0.5	0.0	N.A.	N.A.
UNDEFINED	0.33	9.4	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	3000K FACTOR	LATF	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC	COLOR
	1	A2	BACK-BACK	12019	0.763	1.030	0.786	B3-U0-G3	134.2	268.4	Cree Lighting	ARE-EDG-3M-DA-06-E-UL-XX-700-30K (SPECIAL ORDER)	WHITE
	4	A4	SINGLE	8891	0.763	1.030	0.786	B1-U0-G2	134	536	CREE, INC.	ARE-EDG-3MB-DA-06-E-UL-XX-700-30K (SPECIAL ORDER)	WHITE
	6	B4	SINGLE	9549	0.763	1.030	0.786	B1-U0-G2	134	804	CREE, INC.	ARE-EDG-4MB-DA-06-E-UL-XX-700-30K (SPECIAL ORDER)	WHITE
	10	C3	SINGLE	7597	0.763	1.030	0.786	B3-U0-G0	68	680	CREE, INC.	CAN-304-PS-RD-04-E-UL-XX-525-30K (SPECIAL ORDER)	WHITE
	20	C2	SINGLE	8924	0.763	1.030	0.786	B3-U0-G1	92	1840	CREE, INC.	CAN-304-SL-RD-04-E-UL-XX-700-30K (SPECIAL ORDER)	WHITE
	10	D1	SINGLE	1652	1.000	1.020	1.020	B2-U0-G0	27.2	272	Cree Inc	KR6-20L-30K-120V + KR6T-SSGC-FF	N/A
	2	S1	SINGLE	2659	1.000	1.000	1.000	B0-U5-G2	20	40	FC/SSL Lighting	FCWS7170-XXX-30K-2500-CRI85-XX-D	ALUMINUM
	2	S2	SINGLE	2542	1.000	1.000	1.000	B0-U4-G2	20	40	FC/SSL Lighting	FCWS7168-XXX-30K-2500-CRI85-XX-D	ALUMINUM
	3	W1	SINGLE	4210	0.763	1.030	0.786	B1-U0-G1	43	129	CREE, INC.	SEC-EDG-3M-WM-04-E-UL-XX-350-30K (SPECIAL ORDER)	WHITE
	1	W2	SINGLE	2105	0.763	1.030	0.786	B1-U0-G1	25	25	CREE, INC.	SEC-EDG-3M-WM-02-E-UL-XX-350-30K (SPECIAL ORDER)	WHITE
	6	W3	SINGLE	12455	0.763	1.030	0.786	B3-U0-G3	127	762	CREE, INC.	SEC-EDG-3M-DM-12-E-UL-XX-350-30K (SPECIAL ORDER)	WHITE

No.	REVISIONS	DATE	BY

Kimley»Horn

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KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

LIGHTING PLAN

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CL-101

AREA		QTY	LABEL	DESCRIPTION
		1	A2	ARE-EDG-3M-DA-06-E-UL-XX-700-30K (SPECIAL ORDER)
		4	A4	ARE-EDG-3MB-DA-06-E-UL-XX-700-30K (SPECIAL ORDER)
		6	B4	ARE-EDG-4MB-DA-06-E-UL-XX-700-30K (SPECIAL ORDER)



CANOPY		QTY	LABEL	DESCRIPTION
		10	C3	CAN-304-PS-RD-04-E-UL-XX-525-30K (SPECIAL ORDER)
		20	C2	CAN-304-SL-RD-04-E-UL-XX-700-30K (SPECIAL ORDER)



DOWNLIGHT		QTY	LABEL	DESCRIPTION
		10	D1	KR6-20L-30K-120V + KR6T-SSGC-FF



WALL MOUNTED		QTY	LABEL	DESCRIPTION
		2	S1	FCWS7170-XXX-35K-2500-CRI85-XX-D



WALL MOUNTED		QTY	LABEL	DESCRIPTION
		2	S2	FCWS7168-XXX-35K-2500-CRI85-XX-D



THE EDGE® Series

LED Area/Flood Luminaire

Rev. Date: V9 04/01/2020

Product Description

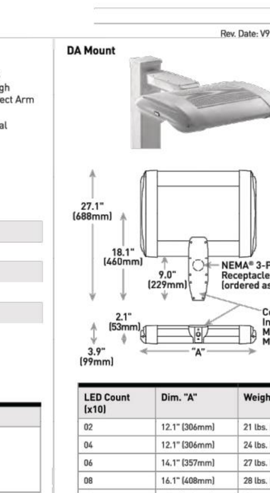
THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (details on page 2). Includes a leaf/debris guard.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

Performance Summary

- Patented NanoOptic® Product Technology
- Assembled in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://creelighting.com/warranty for warranty terms

DA Mount



Accessories

Field-Installed	
Bird Spikes XA-BRDSPK **Hand-Held Remote** XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	**Backlight Control Shields** XA-20BLS-4 - Four-pack - Unpainted stainless steel **Shorting Cap** XA-XSLSHRT

LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	21 lbs. (10kg)
04	12.1" (306mm)	24 lbs. (11kg)
06	14.1" (357mm)	27 lbs. (12kg)
08	16.1" (408mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)

AA/DL/SA Mount - see page 22 for weight & dimensions

Ordering Information

Example: ARE-EDG-2M-AA-12-E-UL-SV-350

Product	Optic			Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options	
ARE-EDG	2M Type II Medium 2MB Type II Medium w/BLS 2MP Type II Medium w/Partial BLS 3M Type III Medium	3MB Type III Medium w/BLS 3MP Type III Medium w/Partial BLS 4M Type IV Medium 4MB Type IV Medium w/BLS	4MP Type IV Medium w/Partial BLS 5M Type V Medium 5S Type V Short	AA Adjustable Arm DA Direct Arm DL Direct Long Arm	02 04 06 08 10 12 14 16	E	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	350 350mA 525 525mA 700 700mA - Available with 20-60 LEDs	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current - Not available with PML options HL Hi/Low (Dual Circuit Input) - Refer to HL spec sheet for details - Sensor not included P Photocell - Refer to PML spec sheet for availability with PML options - Available with UL voltage only PML Programmable Multi-Level, 20-40' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt	PML2 Programmable Multi-Level, 10-30' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt R NEMA® 3-Pin Photocell Receptacle - 3-pin receptacle per ANSI C136.10 - Not available with SA mount - Intended for downlight applications with maximum 45° tilt - Requires photocell or shorting cap by others - Refer to PML spec sheet for availability with PML options 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire
FLD-EDG	25 25° Flood 40 40° Flood	70 70° Flood SN Sign	N6 NEMA® 6	AA Adjustable Arm SA Side Arm - Available with 20-60 LEDs							

* Reference EPA and pole configuration suitability data beginning on page 19

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

304 Series™

LED Recessed Canopy Luminaire

Product Description

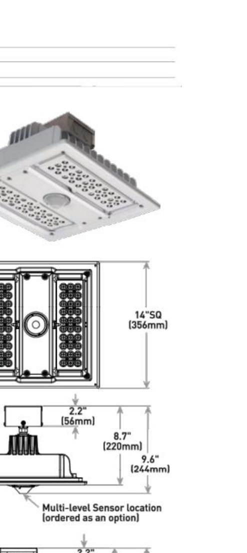
Luminaire housing is constructed from rugged die cast aluminum components (RS Mount) or die cast and extruded aluminum components (RD Mount). LED driver is mounted in a sealed weathertight center chamber that allows for access from below the fixture. Luminaire mounts directly to the canopy deck and is secured in place with die cast aluminum trim frame. Luminaire housing is provided with factory applied foam gasket that provides a watertight seal between luminaire housing and canopy deck. Suitable for use in single or double skin canopies with 16" (406 mm) wide panels. Designed for canopies of 19-22 gauge (maximum 0.040" (1 mm) thickness).
Applications: Petroleum stations, convenience stores, drive-thru banks and restaurants, retail and grocery

Performance Summary

- Patented NanoOptic® Product Technology
- Assembled in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://lighting.cree.com/warranty for warranty terms

RS Mount



Weight
22.0 lbs. (9.9kg)

Accessories

Field-Installed
Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Ordering Information

Example: CAN-304-5M-RS-04-E-UL-SV-350

Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
CAN-304	5M Type V Medium 5S Type V Short PS Petroleum Symmetric SL Sparkle Petroleum	RS Recessed Single Skin RD Recessed Double Skin	04 06	E	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	350 350mA 525 525mA 700* 700mA	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current F Fuse - When code dictates fusing use time delay fuse - Refer to PML spec sheet for availability with PML options PML Programmable Multi-Level - Refer to PML spec sheet for details 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire

* 60 LED luminaire requires marked spacing: 48" x 24" x 6" (1,219mm x 610mm x 152mm); 48" (1,219mm) center-to-center of adjacent luminaires, 24" (610mm) luminaire center to side building member, 6" (152mm) top of luminaire to overhead building member

Rev. Date: V2 10/26/2018

US: lighting.cree.com T (800) 236-6800 F (262) 504-5415
Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

CREE

KR Series

KR6™ LED Specification Downlight – Round 6"

Rev. Date: V15 06/11/2020

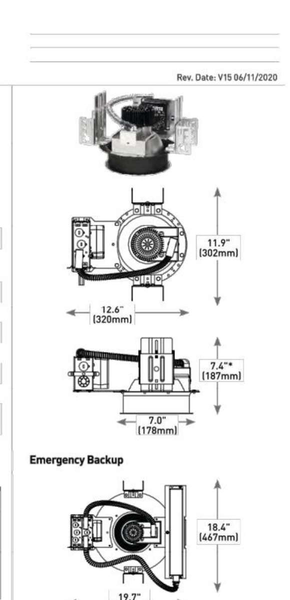
Product Description

The KR6™ LED specification downlight features Cree TrueWhite® Technology and delivers beautiful, high-quality light with efficacy up to 76 lumens per watt. Designed for new construction applications, the KR Series is available in a variety of color temperatures, round and square trims with high-quality anodized aluminum reflector finishes, a sloped ceiling adaptor accessory, and a variety of dimming options including Cree Lighting's Sunset Dimming Technology which provides rich, warm light that transitions from 2700K to 1800K as naturally as an incandescent source.

Performance Summary

- Utilizes Cree TrueWhite® Technology
- **Initial Delivered Lumens:** 700-5,300 lumens; Delivered lumen output is typical when using a SSGC type reflector
- **Input Power:** 13-87 watts
- **Emergency Performance:** Up to 1,210 Lumens; 10W; Minimum 90 Minutes
- **CRI:** 90
- **CCT:** 2700K, 3000K, 3500K, 4000K, 5000K
- **Controls:** Triac Dimming to 5%, 0/1-10V Dimming to 10%, and Lutron EcoSystem® Dimming to 1%
- **Limited Warranty†:** 10 years on KR6™ luminaire/1 year on accessories
- **Limited Warranty Emergency Back Up (EB) Battery:** 1 Year Battery Back Up. Test regularly in accordance with local codes

† See http://creelighting.com/warranty for warranty terms



* Add 1.5" (38mm) for 60L Lumen Package

Accessories

Field-Installed		
Sloped Ceiling Adaptor KRKS6**WW ** 0-35 (order in 5 degree increments)	**C-Channel Hanger Bars** RBH30C - Pair of 30" (762mm) rigid 3/4" x 1/2" (19mm x 13mm) C-Channel bars RBH24C-1 - Pair of 24" (610mm) x 1-1/2" (38mm) x 1/2" (13mm) standard C-Channel bars	**T-Bar Clips** RARC7 - Set of four - For use with RBH24C-1 hanger bars **Beauty Ring** KR6TA - White beauty ring to cover pan head fasteners on KR6T reflector

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Housing:** KR6-20L-35K-120V-10V + **Reflector:** KR6T-SSGC-FF

Reflector (Housing must be ordered separately)

KR6T			
Series	**Reflector Finish**	**Flange Finish**	**Options**
KR6T Standard Trim - Reflector attaches to housing with pan head fasteners and keyhole slots	SSGC Soft Satin Glow, Clear	FF Matches Reflector WF White Paint	WW Wall Wash

Housing (Reflector must be ordered separately)

Series	Size	Reflector	Lumen Package	Optic	CCT	Voltage	Controls	Options
KR	6 6 inch	Blank Round	9L 13W, 700 Lumens – 54 LPW 13L 18W, 1,100 Lumens – 61 LPW 20L 30W, 1,700 Lumens – 57 LPW 30L 39W, 2,550 Lumens – 65 LPW 40L 44W, 3,350 Lumens – 76 LPW 60L 87W, 5,300 Lumens – 61 LPW - Available on 120V and 277V only	Blank 70° Beam Angle	27K 2700K - 9L thru 40L only 30K 3000K 35K 3500K 40K 4000K 50K 5000K - Available on 40L and 60L only	120V 120 Volts 277V 277 Volts 347V 347 Volts	Blank - For standard control offering refer to control availability chart on page 4 10V 0/1-10V Dimming - Refer to control availability chart on page 4 LES Lutron EcoSystem® Dimming - Refer to control availability chart on page 4 - Not available with 60L	WD Sunset Dim - 9L and 13L @ 27K with Triac Dimming only EB7 Emergency Backup - Minimum 90 minutes - 120V, 277V only - Minimum operating temperature: 0°C (32°F)

CREE TRUE WHITE TECHNOLOGY · EcoSystem. Enabled

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

FC LIGHTING

FCWS7170

Date:	Approved:
Type:	
Fixture:	
Project:	

FCWS7170 Exterior Decor fixture is an IP65 rated, ADA compliant, easy to maintain fixture that has an impact resistant lens and face options to meet the design requirements of your building.

ADA

SPECIFICATIONS					
PHYSICAL					
lengths/dimensions [LxDxH]	fixture: 24" H x 7.25" W x 4" D				
weight	9.25 lbs				
housing	marine grade, corrosion resistant, heavy gauge high pressure die cast aluminum				
lens	impact resistant, UV stabilized, opal, polycarbonate diffuser				
mounting	mounts directly to standard junction box; masonry applications use four (4) 0.25" x 0.75" screws with lead anchors (fasteners not included, j-box by others)				
ingress protection	IP65: dry, damp, or wet locations with PVC closed cell foam gasket to seal out contaminants				
finish	six stage chemical iron phosphate substrate pre-treatment process with UV stable, polyester powder coat				
PERFORMANCE					
color temperature	2700K	3000K	3500K	4000K	
lumen output	1200 lm | 1800 lm | 2500 lm | 3800 lm | 5100 lm | 9555 lm				
lifetime	> 70,000 hours / L70 or better				
color consistency	3-Step McAdam Ellipse / standard: CRI ≥ 85 | optional: CRI ≥ 90 CRI				
temperature	operating: -13°F to 104°F (-25°C to 40°C) | start up: -13°F to 104°F (-25°C to 40°C) | storage: -40°F to 176°F (-40°C to 80°C)				
junction temperature	73°C @ Tᵃ 25°C				
warranty	5 year limited warranty (refer to website for details)				
NON-LED					
CFL	socket: PL: four pin plug-in type compact fluorescent lamp holder (lamp by others)				
ballast	ballast: fluorescent electronic, UL listed ballast standard				
ELECTRICAL					
input voltage	Universal 120-277VAC | optional: 347VAC (integral)				
power supply	Integral Class II, electronic, high power factor > 94% @120V				
certifications	ETL/cETL Listed, CEC Title 24 JA8 compliant (only 90CRI complies), ADA Compliant				
standards	UL 1598 / CSA C22.2 No. 250.0 - Class II / IES LM-79 / LM-80				
power consumption	79W @ 120V - 277V (maximum)				
dimming interface	standard: 0-10V (1%) | optional: ELV (120V only)/DMX (remote only)/DALI (integral)				

Expanded Disclaimer: Due to continuous development and improvements, specifications are subject to change without notice. FC Lighting and Solid State Luminaires reserves the right to change lab test details or specifications without notice. Product use certifies agreement to Solid State Luminaires terms and conditions. FCW & FCWS Series fixtures are engineered and produced in our Illinois manufacturing facility.

FC LIGHTING a US Commercial Lighting Manufacturer Since 1982 — Specification Sheet — JS Rev. **01/03/2018**

FC LIGHTING

FCWS7168



Date:	Approved:
Type:	
Fixture:	
Project:	

FCWS7168 Exterior Decor fixture is an IP65 rated, ADA compliant, easy to maintain fixture that has an impact resistant lens and face options to meet the design requirements of your building.

ADA

SPECIFICATIONS					
PHYSICAL					
lengths/dimensions	fixture: 18.5" H x 7.25" W x 4" D				
weight	7.5 lbs				
housing	marine grade, corrosion resistant, heavy gauge high pressure die cast aluminum				
lens	impact resistant, UV stabilized, opal, polycarbonate diffuser				
mounting	mounts directly to standard junction box; masonry applications use four (4) 0.25" x 0.75" screws with lead anchors (fasteners not included, j-box by others)				
ingress protection	IP65: dry, damp, or wet locations with PVC closed cell foam gasket to seal out contaminants				
finish	six stage chemical iron phosphate substrate pre-treatment process with UV stable, polyester powder coat				
PERFORMANCE					
color temperature	2700K	3000K	3500K	4000K	
lumen output	1200 lm | 1800 lm | 2500 lm | 4000 lm | 6200 lm				
lifetime	> 70,000 hours / L70 or better				
color consistency	3-Step MacAdam Ellipse / standard: CRI ≥ 85 | optional: CRI ≥ 90 CRI				
temperature	operating: -13°F to 104°F (-25°C to 40°C) | start up: -13°F to 104°F (-25°C to 40°C) | storage: -40°F to 176°F (-40°C to 80°C)				
junction temperature	73°C @ Tᵃ 25°C				
warranty	5 year limited warranty (refer to website for details)				
ELECTRICAL					
input voltage	Universal 120-277VAC | optional: 347VAC (integral)				
power supply	Integral Class II, electronic, high power factor > 94% @120V				
certifications	ETL/cETL Listed, CEC Title 24 JA8 compliant (only 90CRI complies), ADA Compliant				
standards	UL 1598 / CSA C22.2 No. 250.0 - Class II / IES LM-79 / LM-80				
power consumption	49W @ 120V - 277V (maximum)				
dimming interface	standard: 0-10V (1%) | optional: ELV (120V only)/DMX (remote only)/DALI (remote only)				

QUICK SHIP PRODUCT visit fclighting.com

Due to continuous development and improvements, specifications are subject to change without notice. FC Lighting reserves the right to change lab test details or specifications without notice. Product use certifies agreement to FC Lighting terms and conditions.

US Commercial Lighting Manufacturer Since 1982 — Specification Sheet
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THE EDGE® LED Area/Flood Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks
- DA and DL mount utilizes convenient interlocking mounting method. Mounting is rugged die cast aluminum, mounts to 3-6" (76-152mm) square or round pole and secures to pole with 5/16-18 UNC bolts spaced on 2" (51mm) centers
- AA and SA mounts are rugged die cast aluminum and mount to 2" (51mm) IP, 2.375" (60mm) O.D. tenons
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight Charts on pages 1 and 22

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- DA and DL mounts designed with integral weathertight electrical box with terminal strips (12Ga-20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Consult factory if in-luminaire fusing is required
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20 LED (525 & 700mA) and 40-80 LED: 0.15mA; 100-160 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards when ordered with AA, DA and DL mounts
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*

LED Count (x10)	System Watts 120-480V	Total Current (A) 120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
14	158	1.32	0.77	0.68	0.62	0.47	0.35
16	179	1.49	0.87	0.77	0.68	0.53	0.39
525mA							
02	37	0.30	0.19	0.17	0.16	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
14	232	1.94	1.12	0.98	0.87	0.68	0.50
16	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

THE EDGE® Series Ambient Adjusted Lumen Maintenance[1]

Ambient	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Estimated[3] LMF	100K hr Estimated[3] LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

[1] Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

304 Series™ LED Recessed Canopy Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- RS Mount luminaire housing is constructed from rugged die cast aluminum and incorporates integral, high performance heatsink fins specifically designed for LED canopy applications
- RD Mount luminaire housing is constructed from rugged die cast aluminum and features high performance extruded aluminum heatsinks specifically designed for LED canopy applications
- LED driver is mounted in a sealed weathertight center chamber that allows for access from below the luminaire
- Field adjustable drive current between 350mA, 525mA and 700mA on Non-IC rated luminaires
- Luminaire housing provided with factory applied foam gasket and provides for a watertight seal between luminaire housing and canopy deck
- Mounts directly to the canopy deck and is secured in place with a die cast aluminum trim frame
- RS mount includes integral junction box which allows ease of installation without need to open luminaire
- Suitable for use in single (RS Mount) or double (RD Mount) skin canopies with 16" (406mm) wide panels
- Designed for canopies of 19-22 gauge (maximum 0.040" (1mm) thickness)
- See 228 Series™ canopy luminaires for canopies using 12" (305mm) deck sections
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weathertight electrical box with terminal strips (12Ga-20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **10V Source Current:** 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15 standards for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified when ordered with PS or SL optics and 525 or 700mA drive current. Please refer to www.designlights.org/QPL for most current information
- RoHS Compliant. Consult factory for additional details
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*

LED Count (x10)	System Watts 120-480V	Total Current (A) 120V	208V	240V	277V	347V	480V
350mA							
04	46	0.39	0.24	0.22	0.21	0.15	0.12
06	69	0.57	0.34	0.30	0.27	0.21	0.16
525mA							
04	71	0.59	0.35	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
700mA							
04	94	0.79	0.46	0.40	0.36	0.28	0.21
06	135	1.14	0.65	0.57	0.50	0.40	0.29

* Electrical data at 25°C (77°F)

304 Series™ Ambient Adjusted Lumen Maintenance[1]

Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Calculated[3] LMF	100K hr Calculated[3] LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

[1] Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

US: lighting.cree.com T (800) 236-6800 F (262) 504-5415
Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

CREE

KR6™ LED Specification Downlight – Round 6"

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIAL

- Low brightness parabolic spun Alzak aluminum cone, 0.06" (2mm) thick with polished radius and continuous self-flange
- Soft Satin Glow Clear finish, standard
- 2" (51mm) aperture throat to accommodate all standard and up to 3" (76mm) thick ceilings and provide flexibility in mounting within grid
- Provided with quick mounting brackets for optional carrying channels
- Light engine, optics, and driver accessible from below ceiling

ELECTRICAL SYSTEM

- **Power Factor:** > 0.9 for 120V and 277V
- **Total Harmonic Distortion:** < 20% at full load
- **Input Power:** 120, 277V, or 347V, 50/60Hz
- **Operating Temperature Range:** -18°C - +40°C (0°F - +104°F); minimum operating temperature with EB7 option is 0°C (32°F)
- **10V Source Current:** 9L & 13L: 0.15mA; 20L-40L: 2.2mA; 60L: 0.11mA

CONTROLS

- For standard control offering refer to control availability chart on page 4
- Triac dimming to 5%
- Continuous dimming to 10% with 0-10V DC control protocol
- **10V Source Current:** 9L & 13L: 0.15mA; 20L-40L: 2.2mA
- For use with Class 2 dimming systems only
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Lutron EcoSystem® Dimming to 1%
- Reference http://creelighting.com/products/indoor/new-construction-downlights/kr-series for recommended dimming controls and wiring diagrams

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for thru-wiring 8#12AWG-90°C
- Suitable for damp locations
- Designed for indoor use only
- Thermally protected Type NON-IC in accordance with Article 410 of the NEC and UL 1598
- Requires minimum 90°C supply conductors
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- EnergyStar® certified with the exception of 9L, 13L and 50K CCT. Please refer to https:www.energystar.gov/productfinder/product/certified-light-fixtures/results for most current information
- RoHS compliant. Consult factory for additional details
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

KR Series Ambient Adjusted Lumen Maintenance[1]

Ambient	Initial Delivered Lumens	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Estimated[3] LMF	100K hr Estimated[3] LMF
5°C (41°F)	9L, 13L	1.04	1.04	1.04	1.04	1.04
	20L	1.04	1.04	1.04	1.04	1.04
	30L	1.04	1.03	1.03	1.03	1.03
	40L, 60L	1.04	1.01	1.00	1.00	1.00
10°C (50°F)	9L, 13L	1.03	1.03	1.03	1.03	1.03
	20L	1.03	1.03	1.03	1.03	1.03
	30L	1.03	1.02	1.02	1.02	1.02
	40L, 60L	1.03	1.00	0.99	0.99	0.99
15°C (59°F)	9L, 13L	1.02	1.02	1.02	1.02	1.02
	20L	1.02	1.02	1.02	1.02	1.02
	30L	1.02	1.01	1.01	1.01	1.01
	40L, 60L	1.02	0.99	0.98	0.98	0.98
20°C (68°F)	9L, 13L	1.01	1.01	1.01	1.01	1.01
	20L	1.01	1.01	1.01	1.01	1.01
	30L	1.01	1.00	1.00	1.00	1.00
	40L, 60L	1.01	0.98	0.97	0.97	0.96
25°C (77°F)	9L, 13L	1.00	1.00	1.00	1.00	1.00
	20L	1.00	1.00	1.00	1.00	1.00
	30L	1.00	0.99	0.99	0.99	0.99
	40L, 60L	1.00	0.96	0.96	0.96	0.95
30°C (86°F)	9L, 13L	0.99	0.99	0.99	0.99	0.99
	20L	0.99	0.98	0.98	0.98	0.98
	30L	0.99	0.98	0.98	0.98	0.98
	40L, 60L	0.99	0.96	0.95	0.95	0.94
35°C (95°F)	9L, 13L	0.98	0.98	0.98	0.98	0.98
	20L	0.98	0.97	0.97	0.97	0.97
	30L	0.98	0.97	0.97	0.97	0.97
	40L, 60L	0.98	0.95	0.94	0.94	0.94

[1] Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Installation

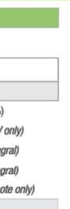
- Recommended ceiling cutout 6.5" (165mm)

Note: 30L and 40L versions require marked spacing: 24" (600mm) x 12" (300mm) x ½" (12mm). 24" (600mm) luminaire to luminaire, 12" (300mm) luminaire to side wall, ½" (12mm) above luminaire
60L versions require marked spacing: 48" (1219mm) x 24" (600mm) x 1" (25mm). 48" (1219mm) luminaire to luminaire, 24" (600mm) luminaire to side wall, 1" (25mm) above luminaire

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Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

FCWS7170 Ordering Information



ORDERING INFORMATION

FCWS7170							
SERIES	**VOLTAGE**	**SOURCE/TEMPERATURE/LED LUMENS**		**CRI**	**FINISH**	**OPTIONS & ACCESSORIES**	
FCWS7170	UNV UNV 120V-277V	LED 27K	1200 Lumens (10W)	CRI85 85 CRI	BK Black	LD	0-10V Dimming (1%)
	347V* 347V* (integral)	3K	1800 Lumens (15W)	CR85 Standard	BZ Bronze	ELV*	ELV Dimming* (120V only)
		35K	2500 Lumens (21W)	CRI90 90 CRI	CC Custom Color	DMX*	DMX Dimming* (integral)
		4K	3800 Lumens (31W)		SL Silver	DALI*	DALI Dimming* (integral)
			5100 Lumens (40W)		WH White	BBU	Battery Backup (remote only)
			9555 Lumens (79W)		BA Brushed Aluminum		* consult factory for lead time
			Contact the Factory for Non-LED source options				

Face Options *(standard face is included - see face options on dimensions page for reference)*

- **A** Face A *(see face on dimensions page)*
- **B** Face B *(see face on dimensions page)*
- **D** Face D *(see face on dimensions page)*

FC LIGHTING a US Commercial Lighting Manufacturer Since 1982 — Specification Sheet — JS Rev. **01/03/2018**

FCWS7168 Ordering Information



ORDERING INFORMATION

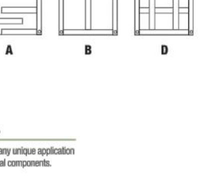
FCWS7168							
SERIES	**VOLTAGE**	**TEMPERATURE**	**LUMENS**	**CRI**	**FINISH**	**OPTIONS & ACCESSORIES**	
FCWS7168	UNV UNV 120V-277V	LED 27K	1200 lumens (9.5W)	CRI85 85 CRI	BK Black	LD	0-10V Dimming (1%)
	347V* 347V* (integral)	3K	1800 lumens (14W)	CRI90 90 CRI	BZ Bronze	ELV*	ELV Dimming* (120V only)
		35K	2500 lumens (20W)		CC Custom Color	DMX	DMX Dimming (remote only)
		4K	4000 lumens (32W)		SL Silver	DALI	DALI Dimming (remote only)
			6200 lumens (49W)		WH White	BBU	Battery Backup (remote only)
					BA Brushed Aluminum		* consult factory for lead time

STANDARD FACE INCLUDED



- **A** Face A *(see dimensions next page)*
- **B** Face B *(see dimensions next page)*
- **D** Face D *(see dimensions next page)*

OPTIONAL FACES



Consult Factory for other options and configurations.

To ensure you receive proper configurations for your lighting specifications, contact us directly about any unique application requirements. This may include but not be limited to lumen output, mounting needs, or electrical components.

QUICK SHIP PRODUCT visit fclighting.com

Due to continuous development and improvements, specifications are subject to change without notice. FC Lighting reserves the right to change lab test details or specifications without notice. Product use certifies agreement to FC Lighting terms and conditions.

US Commercial Lighting Manufacturer Since 1982 — Specification Sheet
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PROJECT NAME:
WAWA
ALBEMARLE COUNTY, VA
DRAWING NUMBER:
RL-7277-S1-R4

Wawa

No.	REVISIONS	DATE	BY

Kimley»Horn
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1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
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KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

LIGHTING DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CL-501

Plotted By: McCray, Stephen Sheet Set: Kha Layout: CL-501 LIGHTING DETAILS September 13, 2021 08:47:21pm K:\RIC_CIVIL\113358 - renaud\001 - route 29 and greenbrier\CAD\plansheets\CL-501 LIGHTING DETAILS.dwg
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	QTY	LABEL	DESCRIPTION
WALL MOUNTED	3	W1	SEC-EDG-3M-WM-04-E-UL-XX-350-57K
	1	W2	SEC-EDG-3M-WM-02-E-UL-XX-350-57K
	6	W3	SEC-EDG-3M-DM-12-E-UL-XX-350-57K

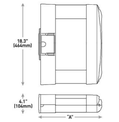


Cree Edge® Series

LED Security Wall Pack Luminaire

Rev. Date: V6 08/29/2019





Product Description

The Cree Edge® wall mount luminaire has a slim, low profile design. The luminaire end caps are made from rugged die cast aluminum with integral, weathertight LED driver compartments and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Includes a lightweight mounting box for installation over standard and mud ring single gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard.
Applications: General area and security lighting

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4,000K (+/- 300K), 5,700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

*See WarrantyTerms.cree.com for warranty terms.

Accessories

Field-Installed

Bird Spikes
SA-SMSDPK

Beauty Plate
- BMA-PLT1A***** - 12" (305mm) Square
- BMA-PLT2A***** - 14" (356mm) Square
- Covers holes left by incumbent wall packs

Hand-Held Remote
- SA-SENSOR
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

* Must specify color

LED Count (x100)	Dim. "A"	Weight
02	9.9" (251mm)	20 lbs. (9.1kg)
04	11.9" (302mm)	22 lbs. (10.0kg)
06	13.9" (353mm)	25 lbs. (11.2kg)
08	15.9" (404mm)	27 lbs. (12.2kg)
10	17.9" (455mm)	31 lbs. (14.1kg)
12	19.9" (505mm)	33 lbs. (14.9kg)

Ordering Information

Example: SEC-EDG-3M-WM-04-E-UL-SV-700

SEC-EDG		WM		E				
Product	**Optic**	**Mounting**	**LED Count (x100)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
SEC-EDG	**2M** Type II Medium **2MB** Type II Medium w/BLS **2S** Type II Short **2SB** Type II Short w/BLS **3M** Type III Medium **3MB** Type III Medium w/BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS	**WM** Wall Mount	**02** 2 **04** 4 **06** 6 **10** 10 **12** 12	**E**	**UL** Universal 120-277V or Universal 347-480V **347** 347V	**BK** Black **BZ** Bronze **DA** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA Available with 20-60 LEDs	**DIM** **0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Not available with PML option - Not available with PML option **P** **Photocell** - Button type, 120 VAC or 277 VAC **PML** **Programmable Multi-Level** - Refer to PML spec sheet for details - Not available with DIM options or options with 2P kit **40K** **4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire

c UL us DLC

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Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

Cree Edge® LED Security Wall Pack Luminaire

Product Specifications

CONSTRUCTION & MATERIALS
- Slim, low profile design
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance aluminum heat sinks specifically designed for LED applications
- Housing is rugged aluminum
- Furnished with low copper, light weight mounting box designed for installation over standard and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Allows mounting for uplight or downlight
- Designed and approved for easy through-wiring
- Includes leaf/debris guard
- Exclusive ColorSelect DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, environmental degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See Dimensions and Weight Chart on page 1

ELECTRICAL SYSTEM
- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weatherlight J-Box with leads (wire nuts) for easy power hook up
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Consult factory if in-luminaire fusing is required
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20(LED (525 & 700 mA) and 40-120 LED: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed
- Suitable for wet locations
- FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529 when ordered without P or PML options
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm - P65warnings.ca.gov

Electrical Data*

LED Count (x100)	System Watts 120-480V	Total Current (A) 120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	44	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.24	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.93	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
525mA							
02	37	0.30	0.19	0.17	0.14	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%.

Cree Edge® Series Ambient Adjusted Lumen Maintenance*

Ambient	Initial LMF	25K hr Reported† LMF	50K hr Reported† LMF	75K hr Estimated‡ LMF	100K hr Estimated‡ LMF
5°C (41°F)	1.04	1.01	0.99	0.96	0.94
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

* Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED light source operated at 700mA. Supported ambient temperature and current options may affect lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient temperature.
† In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are within the constraints of the in-situ test. See IES TM-21 for more details.
‡ Estimated values are calculated and represent time durations that exceed the in-situ duration of the LED.

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CREE LIGHTING

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PROJECT NAME:
WAWA
ALBEMARLE COUNTY, VA
DRAWING NUMBER:
RL-7277-S1-R4

Wawa

No.	REVISIONS	DATE	BY

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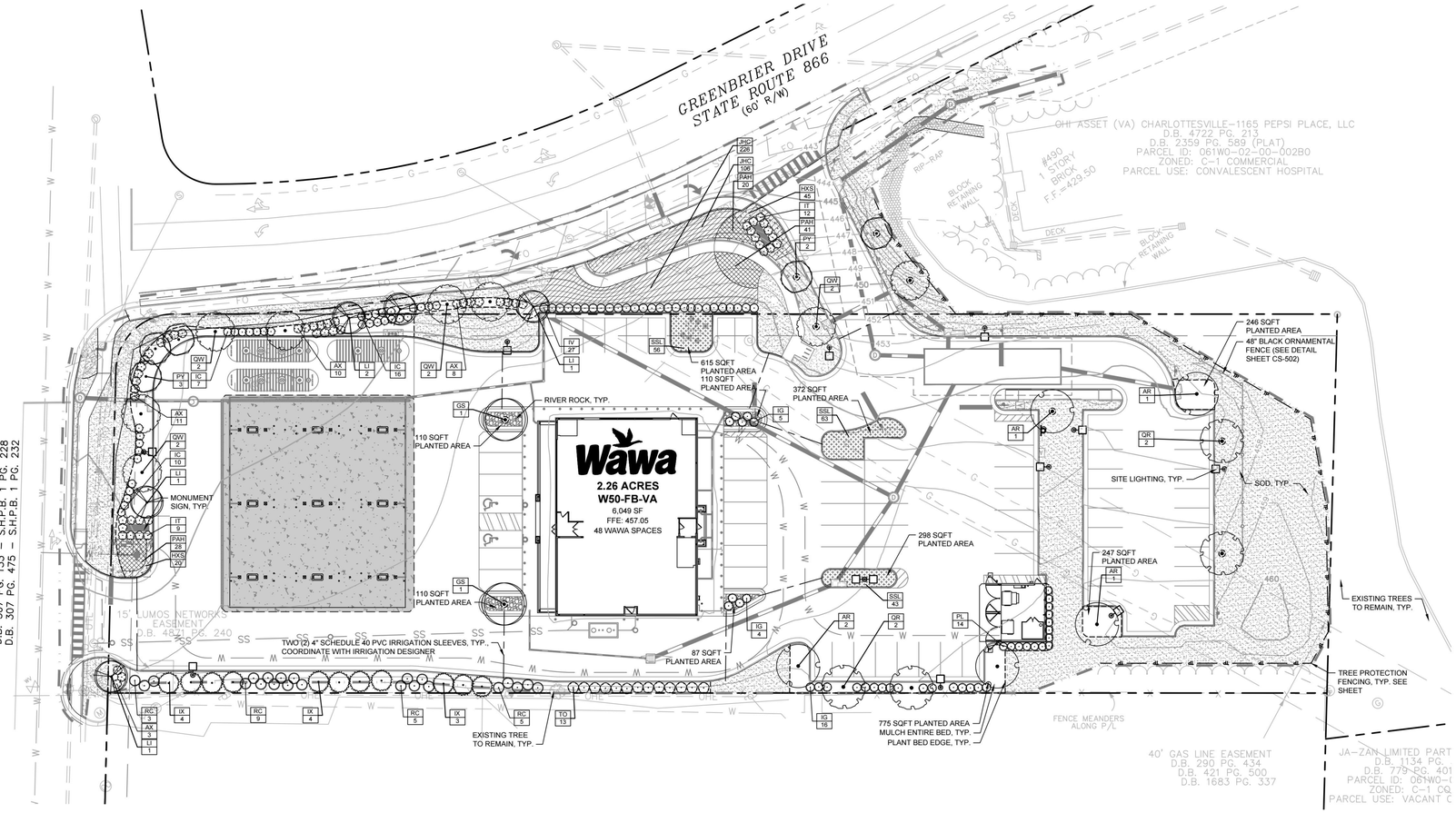
KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

LIGHTING DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CL-502

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CL-502 LIGHTING DETAILS September 13, 2021 09:47:35pm K:\RIC_Civil\113358 — rennpad\Dgn — route 29 and greenbrier\CAD\plansheets\CL-502 LIGHTING DETAILS.dwg
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GENERAL NOTES

1. SOD ALL AREAS WITHIN WAWA PROPERTY LIMITS THAT ARE NOT COVERED WITH MULCHED PLANT BEDS, STONE MULCH, BUILDINGS, HARDSCAPE, PAVEMENT, OR OTHERWISE NOTED.
2. SEED WITH PERMANENT LAWN GRASS ALL AREAS WITHIN THE RIGHT OF WAY'S WHICH ARE NOT OTHERWISE COVERED WITH PLANTING BEDS, PAVEMENT,BUILDINGS, OR HARDSCAPE, PER THE SEEDING SPECIFICATIONS ON SHEET CP-501.
3. EXISTING TREES AND SHRUBS INDICATED TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY INSTALLING TREE PROTECTIVE FENCING PER THE PROJECT PLANS AND SPECIFICATIONS.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN IRRIGATION PLAN AND INSTALLATION OF THE IRRIGATION SYSTEM. SEE SHEET CP-501 FOR GENERAL LANDSCAPE NOTES, PARAGRAPH R.
5. SEE SHEET CP-501 FOR PLANTING NOTES AND DETAILS.

GENERAL LANDSCAPING NOTES

1. ALL LANDSCAPING SHALL BE INSTALLED BY THE FIRST PLANTING SEASON FOLLOWING THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY WITHIN THE DEVELOPMENT.
2. ALL LANDSCAPING AND SCREENING SHALL BE MAINTAINED IN A HEALTHY CONDITION BY THE CURRENT OWNER OR A PROPERTY OWNERS' ASSOCIATION. REPLACEMENT MATERIAL SHALL COMPLY WITH THE APPROVED LANDSCAPE PLAN.
3. ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT, THE TOPPING OF TREES IS PROHIBITED. SHRUBS AND TREES SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL / HT	REMARKS
AR	5	Acer rubrum `October Glory`	October Glory Red Maple	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
GS	2	Gleditsia triacanthos inermis `Shademaster`	Shademaster Honey Locust	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
QR	4	Quercus rubra	Red Oak	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
QW	8	Quercus x warei `Long` TM	Regal Prince Oak	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL / HT	REMARKS
LI	5	Lagerstroemia indica x fauriei 'Natchez'	Natchez Crape Myrtle Multi-Trunk	B & B	8` HT. MIN	Strong Central Leader, Matched.
PY	5	Prunus x yedoensis	Yoshino Cherry	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL / HT	REMARKS
IX	11	Ilex x `Nellie R. Stevens`	Nellie R. Stevens Holly	B & B	8` HT. MIN	Full To Base, Dense.
TO	13	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	B & B	8` HT. MIN	Full To Base, Dense.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT	REMARKS
AX	32	Abelia x grandiflora `Compacta`	Compact Glossy Abelia	CONT.	24" HT MIN.	Full To Ground, Dense.
IC	33	Ilex cornuta `Burfordii Nana`	Dwarf Burford Holly	CONT.	24" HT MIN.	Full To Ground, Dense.
IG	25	Ilex glabra `Shamrock`	Shamrock Inkberry Holly	CONT.	24" HT MIN.	Full To Ground, Dense.
IV	27	Ilex verticillata	Winterberry	CONT.	24" HT MIN.	Full To Ground, Dense.
IT	21	Itea virginica `Sprich` TM	Little Henry Sweetspire	CONT.	24" HT MIN.	Full To Ground, Dense.
PL	14	Prunus laurocerasus `Schipkaensis`	Schipka English Laurel	CONT.	24" HT MIN.	Full To Ground, Dense.
RC	22	Rhododendron catawbiense	Catawba Rhododendron	CONT.	24" HT MIN.	Full To Ground, Dense.
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	REMARKS
HXS	65	Hemerocallis x 'Stella de Oro'	Stella de Oro Daylily	#1	24" O.C.	
JHC	332	Juniperus horizontalis	Creeping Juniper	#1	30" O.C.	
PAH	89	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	#1	30" O.C.	
SSL	162	Schizachyrium scoparium	Little Bluestem	#1	30" O.C.	

WAWA ALBEMARLE COUNTY - ENTRANCE CORRIDOR OVERLAY DISTRICT & SEC. 32.7.9.5

Location and Requirement	*Width (LF)*	*LF*	*Required*		*Provided*	
North Property Line (Greenbriar Drive) 10' LANDSCAPE SETBACK ALONG ROAD. LARGE SHADE STREET TREE (2.5" CAL.) /50' W/ INTERSPERSED ORNAMENTALS (8' HT.)& SHRUBS/5'.	10	352	*7.0*	Large Deciduous Tree (1 per 50 LF)	*6*	Large Deciduous Tree
			70.4	Medium Shrubs (1 per 5 LF)	*80*	Medium Shrubs
			N/A	Ornamental Tree (Interspersed)	*6*	Ornamental Trees
West Property Line (Semonile Trail) 10' LANDSCAPE SETBACK ALONG ROAD. LARGE SHADE STREET TREE (3.5" CAL.) 35' OC W/ INTERSPERSED ORNAMENTALS (8' HT.) & SHRUBS 5' OC.	10	165	*4.7*	Large Deciduous Tree (1 per 35 LF)	*2*	Large Deciduous Tree*
			33.0	Medium Shrubs (1 per 5 LF)	*61*	Medium Shrubs
			N/A	Ornamental Tree (Interspersed)	4	Ornamental Trees*
South Property Lines (Along Adjacent Property) INTERIOR - NO SETBACK- LIKE ZONING.	N/A	N/A	N/A	N/A	N/A	N/A
East Property Lines (Along Adjacent Property) INTERIOR - NO SETBACK- LIKE ZONING.	N/A	N/A	N/A	N/A	N/A	N/A

* LANDSCAPE REQUIREMENTS ALONG ROUTE 29 AND GREENBRIER DRIVE HAVE BEEN ADJUSTED ACCORDING TO COMMENTS FROM THE ARCHITECTURE REVIEW BOARD.

WAWA PARKING LOT LANDSCAPE REQUIREMENT - SEC. 32.7.9.6 AND ENTRANCE CORRIDOR OVERLAY

Required SF	*Required Trees*	*Calulation*	*Provided*
5% of parking paved area.	1 Tree for every 10 parking spaces provided	53,801.73 SF x .05 = 2,609.09 SF 68 /10 = 6.8 Trees	2970 SF 7 *Large Trees*

TREE CANOPY REQUIREMENT CALCULATIONS (as noted in Sec. 32.7.9.8)

Gross Site Area			**2.260 Acres**	**98,446 SF**
Tree Canopy Required			10%	**9,845 SF**
Tree Canopy Existing to Remain				**0 SF**
Tree Canopy Provided (Total)		*(Refer to Tree Canopy Breakdown)*		**10,124 SF**

TREE CALCULATION BREAKDOWN

Qty.	Type	Size	10 Yr. Canopy Coverage	Provided
5	Acer rubrum 'October Glory'	2.5" Cal. Min.	452 SF	2,260 SF
2	Gleditsia triacanthos inermis 'Shademaster'	2.5" Cal. Min.	481 SF	962 SF
4	Quercus rubra	2.5" Cal. Min.	424 SF	1,696 SF
8	Quercus x warei 'Long' TM	2.5" Cal. Min.	464 SF	3,712 SF
5	Lagerstroemia indica x fauriei 'Natchez'	8' Ht. Min.	77 SF	385 SF
5	Prunus x yedoensis	8' Ht. Min.	99 SF	495 SF
11	Ilex x ''Nellie R. Stevens'	8' Ht. Min.	44 SF	484 SF
13	Thuja occidentalis 'Smaragd'	8' Ht. Min.	10 SF	130 SF
			Total:	**10,124 SF**

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60
1" = 30'

No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
ROBBIE D. ROACH
Lic. No. 1870
09/14/2021
LANDSCAPE ARCHITECT

KHA PROJECT 113358001
DATE 09/14/2021
SCALE AS SHOWN
DESIGNED BY JTS
DRAWN BY JTS
CHECKED BY RDR

PLANTING PLAN

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CP-101

Plotted By:McCoy, Stephen Sheet Set:Kha Layout:CP-101 PLANTING PLAN September 13, 2021 08:48:02pm K:\RIC_CIV\113358 – route29 and greenbrier\CAD\plansheets\CP-101 PLANTING PLAN.dwg
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WAWA STANDARD LANDSCAPING SPECIFICATIONS:

1. ALL TOPSOIL SHALL BE A MINIMUM 4" IN ALL SOD AREAS AND 10" - 12" IN TREE, SHRUB AND GROUND COVER BEDS, INCLUDING PARKING LOT ISLAND BEDS. IT SHALL BE APPROVED BY A WAWA CONSTRUCTION REPRESENTATIVE, PRIOR TO INSTALLATION.

2. PLANTING BEHIND PERPENDICULAR PARKING IS TO BE LOCATED A MINIMUM OF 5' BEHIND THE CURB LINE.

3. ALL LANDSCAPE AND GRASS AREAS ARE TO BE HAND RAKED AND LEFT CLEAR OF ALL STONES, ROCK, CONSTRUCTION DEBRIS AND ANY UNSUITABLE MATERIALS.

4. ALL LANDSCAPE AND GRASS AREAS ARE TO BE IRRIGATED BY AUTOMATIC SPRINKLER SYSTEM. (SEE IRRIGATION SPECIFICATION.)

5. LANDSCAPE CONTRACTOR WILL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION AND PLANTING INSTALLATION.

6. ALL AREAS TO BE LANDSCAPED OR COVERED WITH STONE MUST BE TREATED WITH A PRE-EMERGENCE HERBICIDE (SURFLAN, DACTAL OR APPROVED EQUAL) IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE REGULATIONS AND THE MANUFACTURER'S INSTRUCTIONS.

7. MULCH BEDS ARE TO BE DELINEATED WITH HAND OR MACHINE DUG SHOVEL EDGING.

8. LANDSCAPE CONTRACTOR TO SUPPLY AND INSTALL A PERVIOUS WEED BARRIER (DEWITT, DUPONT OR APPROVED EQUAL) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS WITHIN ALL LANDSCAPES, INCLUDING STONE AND MULCH BEDS. ALL WEED BARRIER WILL BE OVERLAPPED A MINIMUM OF 6" AT ALL SEAMS. AT PLANT LOCATIONS, BARRIER SHOULD BE CUT IN AN "X" PATTERN SO TO ACCOMMODATE ROOT BALL AND REPLACED AFTER PLANT HAS BEEN INSTALLED.

9. WEED BARRIER SHALL NOT BE VISIBLE IN AREAS DESIGNATED FOR STONE MULCH. WHEN STONE IS CALLED FOR ADJACENT TO CURB OR SIDEWALKS, IT SHALL BE FEATHERED DOWN TO CURB LEVEL FROM A DISTANCE 24" FROM THE CURB.

10. ALL PROPOSED LANDSCAPING TO BE NURSERY GROWN, TYPICAL OF THEIR SPECIES OR VARIETY. THEY ARE TO HAVE NORMAL VIGOROUS ROOT SYSTEMS, FREE FROM DEFECTS AND INFECTIONS AND IN ACCORDANCE WITH ANSI Z60.1

11. ALL PROPOSED PLANTINGS SHOULD BE INSTALLED PER STANDARDS OF THE "AMERICAN ASSOCIATION OF NURSERYMEN" AND STATE NURSERY/ LANDSCAPE ASSOCIATIONS WITH REGARD TO PLANTING, PIT SIZE, BACKFILL MIXTURE, STAKING AND GUYING.

12. ALL PLANTING CONTAINERS AND BASKETS SHALL BE REMOVED DURING PLANTING. ALL PLANTS SHALL BE SET PLUMB AND POSITIONED SO THAT THE TOP OF THE ROOT COLLAR MATCHES, OR IS NO MORE THAN TWO (2") INCHES ABOVE, FINISHED GRADE. REPLACE AMENDED BACKFILL IN 6-INCH LAYERS AND COMPACT BACKFILL TO ELIMINATE VOIDS. CONTRACTOR SHALL PROVIDE A FOUR-INCH HIGH EARTHEN WATERING SAUCER ALONG THE PERIMETER OF EACH PLANTING PIT. CONTRACTOR SHALL WATER NEWLY PLANTED VEGETATION PRIOR TO MULCHING PLANTING PIT. ALL VOIDS SHALL BE FILLED AND SETTLING MITIGATED AS REQUIRED. ALUMINUM EDGING SHALL BE INSTALLED AROUND ALL PLANTING AREAS TO DELINEATE BETWEEN DIFFERENT LANDSCAPE MATERIALS.

13. AFTER INITIAL WATERING AND PRIOR TO MULCHING, CONTRACTOR SHALL APPLY HERBICIDES AND PRE-EMERGENT HERBICIDES AS REQUIRED TO ELIMINATE ANY WEED SEEDS OR PLANTS PRESENT ON ROOT BALL.

14. ALL PLANTING BEDS AND PITS EXCEPT FOR LANDSCAPE ISLANDS ADJACENT TO THE BUILDING AND DESIGNATED AREA AT THE FUEL VENT STACKS, SHALL BE MULCHED WITH DOUBLE GROUND HARDWOOD MULCH AT A MINIMUM DEPTH OF 3". LANDSCAPE ISLANDS ADJACENT TO THE TANK MAT SHALL BE MULCHED WITH 1"-3" "RIVER STONE" MULCH TO AT LEAST TO A DISTANCE OF 5' FROM THE TANK MAT AND VENT STACK. FOR LANDSCAPES ADJACENT TO BUILDING, CONTACT PROJECT ENGINEER.

15. SEEDBED PREPARATION

   A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS OR FERTILIZER MAY BE APPLIED AT THE RATE OF 260 POUNDS PER ACRE OR 6 POUNDS PER 1000 SQUARE FEET USING 10-20-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 4-1-2 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING.

   B. WORK LIME AND FERTILIZER INTO THE SOIL AS PRACTICAL TO A DEPTH OF 4-INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD PARALLEL TO THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.

   C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS OUTLINED BELOW.

   D. UNLESS REQUIRED FOR PARTICULAR BMP AREAS, ALL TURF ON WAWA LEASED PREMISES IS TO BE SOD. WHEN REQUIRED FOR BMP'S, SEED MIX IS TO MEET LOCAL REQUIREMENTS. SOD SHALL BE TURF TYPE TALL FESCUE AND INSTALLED ON A MINIMUM OF 4" OF TOPSOIL.

16. PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETENESS. THE CONTRACTOR SHALL REPLACE PLANTS, DEAD, UNHEALTHY, DYING OR DAMAGED THROUGH LOSS OF BRANCHES AND/OR FOLIAGE. LAWNS THAT ARE NOT IN GOOD CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REPAIRED UNTIL A GOOD LAWN RESULTS. *IT IS UNDERSTOOD THAT THE OWNER SHALL ASSUME RESPONSIBILITY FOR WATERING ALL PLANT MATERIAL AND LAWN AREA BEGINNING WITH THE DATE OF SUBSTANTIAL COMPLETENESS.*

GENERAL LANDSCAPE NOTES:

A. CONTRACTOR SHALL REVIEW ALL DRAWINGS, SPECIFICATIONS, PERMITS, AND REGULATORY REQUIREMENTS PRIOR TO COMMENCEMENT OF WORK.

B. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPING AND IRRIGATION PERMITS.

C. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS PROVIDED BY OTHERS.

D. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" OF VIRGINIA @ 1-800-552-7001 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.

E. FINAL LOCATION OF ALL PLANTINGS SHALL BE DETERMINED IN THE FIELD BY THE OWNER'S CHOSEN REPRESENTATIVE.

F. SUBSTITUTIONS AND/OR MODIFICATIONS TO PLANTING LAYOUT, PLANT MATERIALS, ETC. SHALL NOT BE MADE WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.

G. CONTRACTOR SHALL INSTALL ALL PLANT MATERIALS AS SHOWN IN THE DETAILS, AND AS INDICATED IN THE LANDSCAPE SPECIFICATIONS.

H. THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH THE STANDARDIZED LANDSCAPE SPECIFICATIONS JOINTLY ADOPTED BY THE VIRGINIA NURSERYMEN'S ASSOCIATION, THE VIRGINIA SOCIETY OF LANDSCAPE DESIGNERS AND THE VIRGINIA CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.

I. SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST ADDITION OF ANSI Z60.1, AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

J. ALL PLANT MATERIALS SHALL BE NURSERY GROWN STOCK AND SHALL BE FREE OF ANY DEFORMITIES, DISEASES, OR INSECT DAMAGE. ANY MATERIALS WITH DAMAGED OR DISFIGURED/ CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, INSECT DAMAGE, ETC., ARE NOT ACCEPTABLE AND WILL BE REJECTED.

K. TREES NOT EXHIBITING A CENTRAL LEADER WILL BE REJECTED UNLESS CALLED OUT IN THE PLANT LIST AS MULTI-STEM.

L. ALL PLANTING BEDS AND LAWN AREAS SHALL BE SEPARATED BY SHOVEL EDGING. NO EDGE SHALL BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS.

M. PLANTING BEDS SHALL RECEIVE 3" OF DARK, SHREDDED HARDWOOD MULCH THROUGHOUT. ORANGE AND/ OR RED MULCH IS NOT ACCEPTABLE.

N. ALL AREAS ON PLANS NOT INDICATED TO RECEIVE SOD PLANTING, PAVEMENT, OR HARDSCAPE WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE SEEDED WITH FESCUE, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. SEE SEEDING NOTES THIS SHEET.

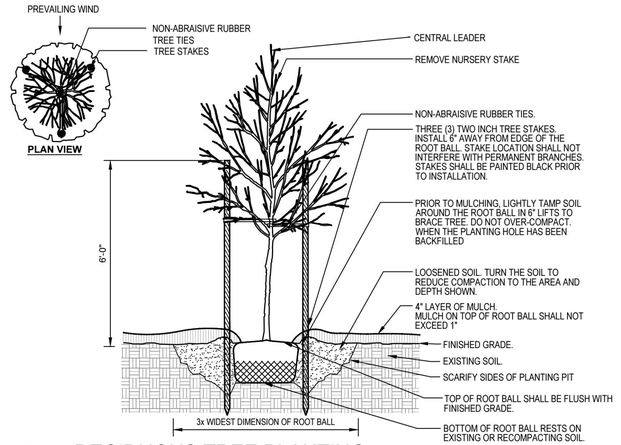
O. PLANT MATERIALS SHOWN ON PLANS ARE A GRAPHIC REPRESENTATION ONLY. CONTRACTOR SHALL PERFORM ALL LANDSCAPE INSTALLATION ON THE SUBJECT PROPERTY, AND NOT ON ADJACENT PROPERTIES, UNLESS OTHERWISE DIRECTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE. ROOTBALLS OF SHRUBS AND TREES SHALL BE PLANTED, IN THEIR ENTIRETY, WITHIN THE BOUNDARIES OF THE SUBJECT PROPERTY.

P. CONTRACTOR SHALL PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES, UNLESS OTHERWISE DIRECTED BY THE CIVIL ENGINEER.

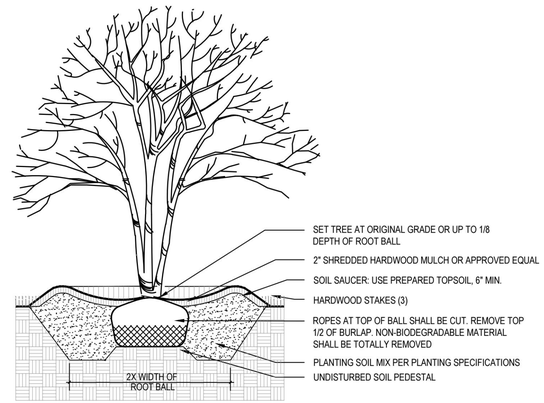
Q. QUANTITY TAKE-OFFS INDICATED ON THE PLANTING SCHEDULE ARE FOR CONVENIENCE ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE SCHEDULE, THE GRAPHIC REPRESENTATION IN THE PLANS SHALL DICTATE.

R. ALL LANDSCAPED AND LAWN AREAS ARE TO BE IRRIGATED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A TURNKEY DESIGN BUILD IRRIGATION SYSTEM AS PART OF THE BASE BID FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE AN IRRIGATION PLAN AND PRODUCT CUT SHEETS FOR REVIEW AND APPROVAL BY THE OWNER PRIOR TO BEGINNING WORK. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING IRRIGATION SLEEVING AS SHOWN ON THE LANDSCAPE PLAN PRIOR TO INSTALLATION OF PAVING MATERIALS.

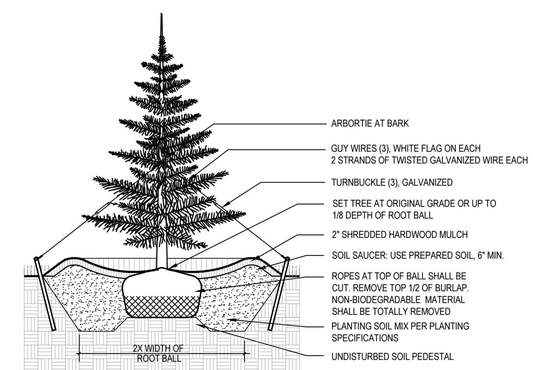
S. ALL MULCHED BEDS SHALL HAVE AN APPROVED GEO-TEXTILE WEED BARRIER INSTALLED PER THE PLANTING DETAILS . PRODUCT SPECIFICATION SHEETS SHALL BE SUBMITTED TO THE OWNER OR OWNERS REPRESENTATIVE PRIOR TO ORDERING MATERIAL.



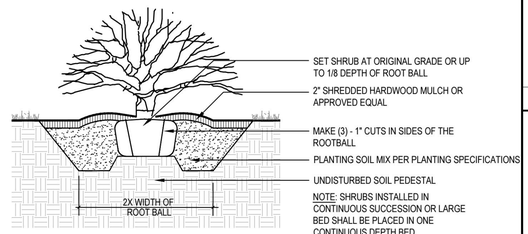
1 DECIDUOUS TREE PLANTING
NOT TO SCALE



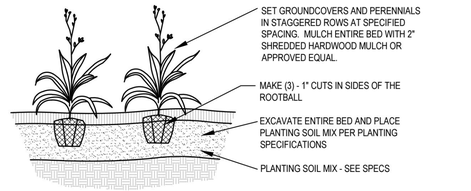
2 ORNAMENTAL TREE PLANTING
NOT TO SCALE



3 EVERGREEN TREE PLANTING
NOT TO SCALE

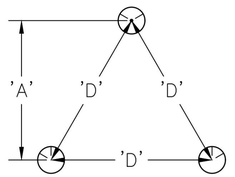


4 SHRUB PLANTING
NOT TO SCALE



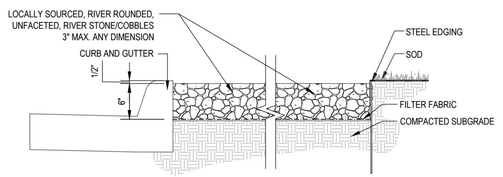
5 GROUNDCOVER PLANTING
NOT TO SCALE

NOTE: GROUNDCOVERS AND PERENNIALS TO BE INSTALLED WITH TRIANGULAR SPACING



PLANT SPACING 'D'	ROW 'A'
8" O.C.	6.93" O.C.
10" O.C.	8.66" O.C.
12" O.C.	10.4" O.C.
18" O.C.	15.6" O.C.
24" O.C.	20.8" O.C.
36" O.C.	30.0" O.C.
48" O.C.	31.5" O.C.

6 GROUNDCOVER SPACING
NOT TO SCALE



NOTE:
1. COLOR AND TEXTURE TO BE APPROVED BY OWNER PRIOR TO PURCHASE
2. ***ALTERNATE SETTING BED :*** PRIOR APPROVAL BY OWNER REQUIRED
   - SET STONES IN 2" CONCRETE SLAG.
   - DO NOT COVER MORE THAN 25% OF THE STONES

7 RIVER STONE
1"=1'-0"

No.	REVISIONS	DATE	BY

Kimley»Horn
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1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
ROBBIE D. ROACH
Lic. No. 1870
09/14/2021
LANDSCAPE ARCHITECT

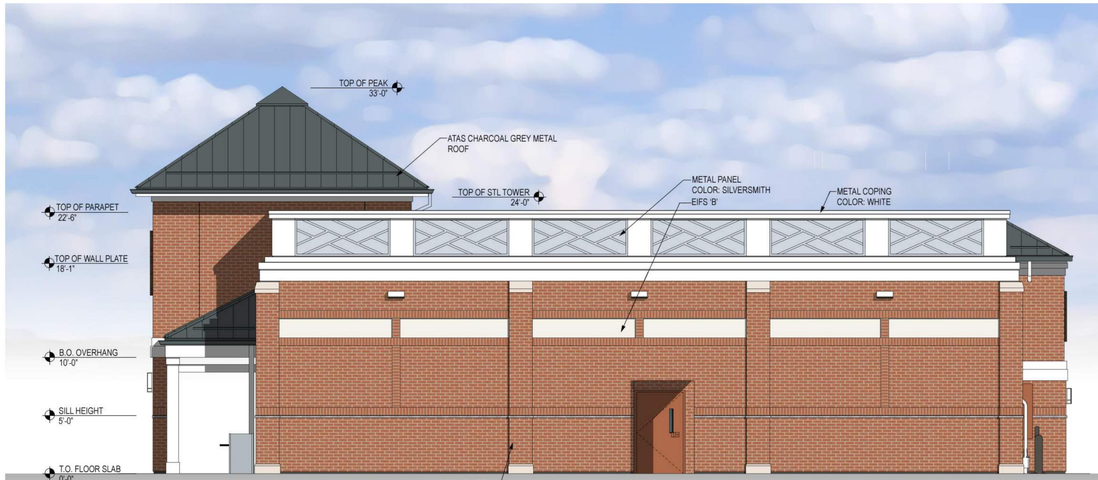
KHA PROJECT	113358001
DATE	09/14/2021
SCALE	AS SHOWN
DESIGNED BY	JTS
DRAWN BY	JTS
CHECKED BY	RDR

PLANTING DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CP-501

Plotted By:McCroy, Stephen Sheet Set:Kha Layout:CP-501 PLANTING DETAILS September 13, 2021 08:48:12pm K:\VRC_CIV\113358 - renoud\001 - route 29 and greenbrier\CAD\plansheets\CP-501 PLANTING DETAILS.dwg
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RIGHT (SOUTHWEST) ELEVATION

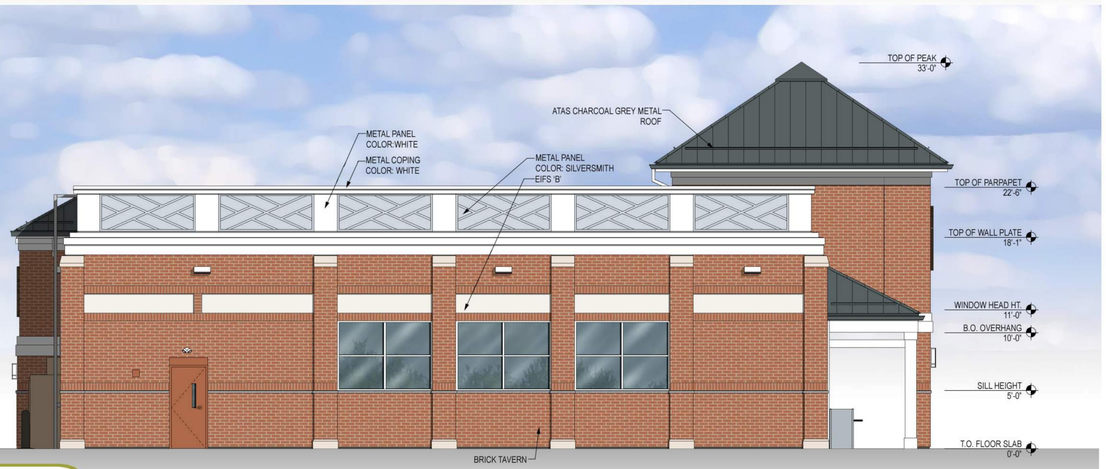


FRONT (NORTHWEST) ELEVATION (SEMINOLE TRAIL U.S ROUTE 29)

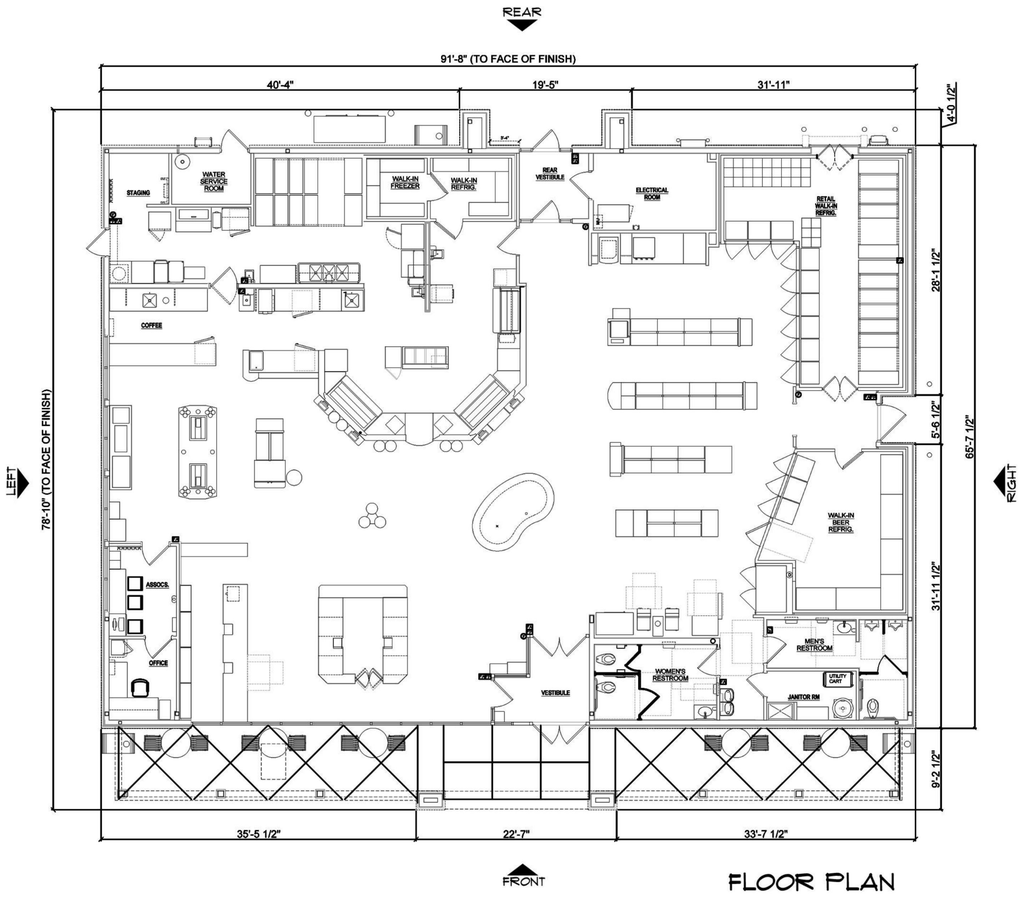


REAR (SOUTHEAST) ELEVATION

Roof Atas Aluminum Corp Charcoal Grey	Gutters/Porch/Soffits Atas Aluminum Corp Ascot White (10)
EIFS 'B' Dryvit Stark White	Thin Brick Tavern Flash Red Marion Ceramics
Trim / Fascia White	Door / Frames White
Service Doors/Frames Benjamin Moore Pumice Stone BM #1197	Ice Storage SW 2828 Colonial Revival Tan



LEFT (NORTHEAST) ELEVATION (GREENBRIER DR. STATE RT. 866)



FLOOR PLAN

NOTES:
1. SIGNAGE IS SHOWN FOR REFERENCE ONLY SEPARATE PERMIT REQUIRED.
2. WINDOW GLASS IN THE ENTRANCE CORRIDORS SHOULD MEET THE FOLLOWING CRITERIA:
   VISIBLE LIGHT TRANSMITTANCE (VLT) SHALL NOT DROP BELOW 40%.
   VISIBLE LIGHT REFLECTANCE (VLR) SHALL NOT EXCEED 30%.

Cuhaci & Peterson
Architects Engineers Planners
ORLANDO • PHILADELPHIA

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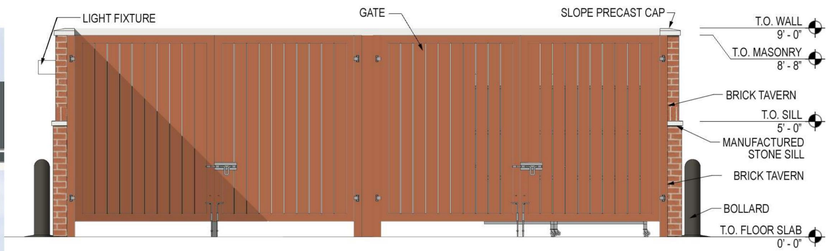
CANOPY END ELEVATION

CANOPY SIDE ELEVATION

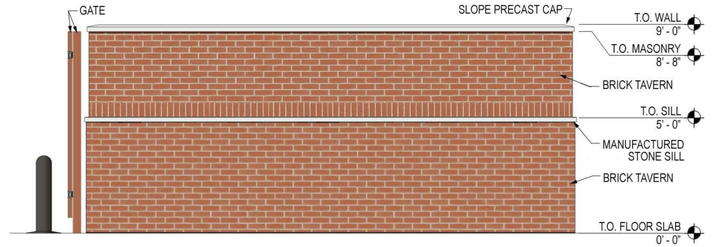


CANOPY PERSPECTIVE VIEW

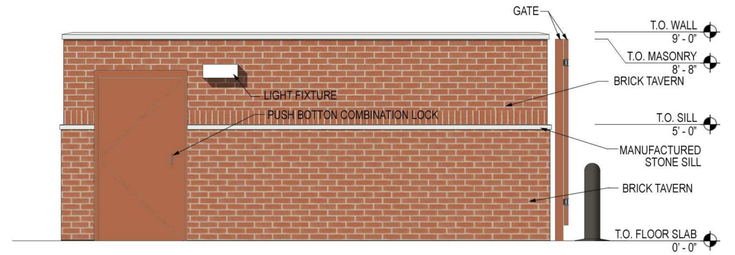
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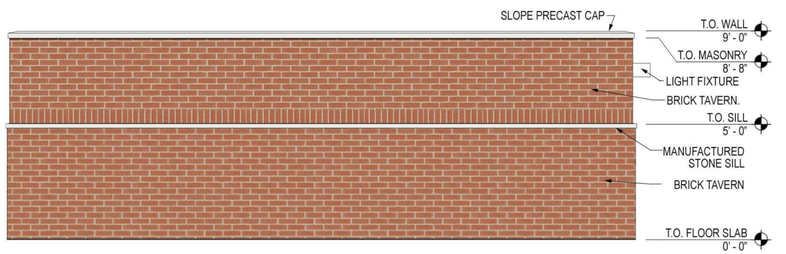
FRONT ELEVATION



RIGHT ELEVATION



LEFT ELEVATION



REAR ELEVATION

Metal Door
Benjamin Moore
Pumice Stone
BM #1197

Trim
James Hardie
Arctic White
JH10-20

Thin Brick
Tavern Flash Red
Marion Ceramics

Cuhaci & Peterson
Architects Engineers Planners

WAWA GAS CANOPY® STACKED 9 A FRAME - TRASH COMPOUND MARCIT-R - STORE #8660

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