ARB PLAN FOR

GREEN CLEAN - 3290 WORTH XING

ALBEMARLE, VIRGINIA

RIVANNA MAGISTERIAL DISTRICT

PROJECT CONTACT LIST

APPLICANT/DEVELOPER

GREEN CLEAN HOLDINGS, LLC
5215 COLLEY AVENUE, SUITE 109
NORFOLK VA 23508
CONTACT: CRAIG VAN BREMEN
EMAIL: CRAIG@GCAWEXPRESS.COM
TEL: (757) 460-8360

OWNER

GUARANTY BANK C/O W ROD GENTRY,
UNION BANK, AND TR
4355 INNSLAKE DRIVE
GLEN ALLEN, VA 23060

CIVIL ENGINEER

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DRIVE, SUITE 200
RICHMOND, VA 23230
TEL: (804) 673-3882
CONTACT: RYAN PERKINS, P.E.
EMAIL: RYAN.PERKINS@KIMLEY-HORN.COM

ARCHITECT

SBA STUDIOS, LLC
1565 DALE FORD ROAD
DELAWARE, OH 43015
TEL: (440) 476-8539
CONTACT: KEVIN CIESZYKOWSKI
EMAIL: KEVINC@SBA-STUDIOS.COM

SURVEYOR

JENNINGS 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.

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

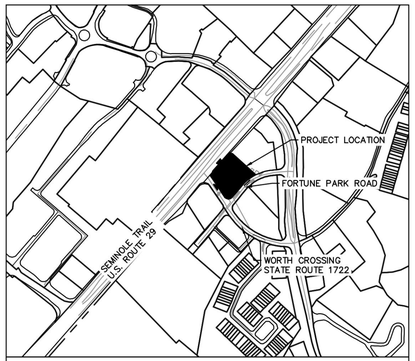
PUBLIC UTILITIES

PUBLIC WORKS
401 MCINTIRE ROAD 4TH FLOOR
CHARLOTTESVILLE, VA 22902
TEL: (434) 296-5816

FIRE MARSHAL

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

VICINITY MAP



VICINITY MAP
SCALE: 1" = 500'

NORTH

SHEET INDEX

SHEET NUMBER	SHEET TITLE
CA-100	COVER SHEET
CA-101	GENERAL NOTES
CV-101	EXISTING CONDITIONS
CS-101	SITE PLAN
CS-501	SITE DETAILS
CS-502	SITE DETAILS
CG-101	GRADING PLAN
CL-101	LIGHTING PLAN
CL-501	LIGHTING DETAIL
CP-101	PLANTING PLAN
CP-501	PLANTING NOTES AND DETAILS

TOTAL NUMBER OF SHEETS: 11

PROJECT DATA

SITE STATISTICS

PARCEL ID: 046B4-00-00-001D0
SITE ADDRESS: 3290 WORTH CROSSING
ZONED: HIGHWAY COMMERCIAL
MAGISTERIAL DISTRICT: RIVANNA
APPLICABLE OVERLAY DISTRICTS: ENTRANCE CORRIDOR
AIRPORT IMPACT AREA
STEEP SLOPES-MANAGED
EXISTING USE: COMMERCIAL
PROPOSED USE: CAR WASH
BUILDING SIZE: 3,700 sf
BUILDING HEIGHT: 22' 4"
TOTAL SITE AREA: 1.08 AC.
TOTAL DISTURBED AREA: 0.79 AC.
TOTAL IMPERVIOUS COVER: 0.51 AC. (47%)
OPEN SPACE: 0.57 AC. (53%)
STEEP SLOPES: EXISTING LANDSCAPING TO REMAIN; NO DISTURBANCE PROPOSED
FLOOD ZONE: THIS PROPERTY APPEARS TO LIE IN FLOOD ZONE "X"
AS SHOWN ON THE FLOOD INSURANCE RATE MAP,
MAP COMMUNITY - PANEL NUMBER 51003C0140D
EFFECTIVE DATE: FEBRUARY 4, 2005
WATER: ACSA
SEWER: ACSA
SOURCE OF TOPOGRAPHY: TOPOGRAPHIC SURVEY WAS PERFORMED BY JENNING STEPHENSON, P.C. ON OCTOBER 15, 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°7'42"N
LONGITUDE: 78°26'19"W
RECEIVING WATER(S): SOUTH FORK RIVANNA RIVER
VAHU6 CODE: JR08

BUILDING SETBACKS

FRONT: 10' (SEMINOLE TRAIL)
FRONT: 10' (WORTH CROSSING)
FRONT: 10' (FORTUNE PARK ROAD)
SIDE: 0'

PARKING SCHEDULE

PARKING PROVIDED: 19 SPACES
HANDICAP SPACES PROVIDED: 1 SPACE

TRAFFIC DATA

AM PEAK HOUR TRIP (ENTER/EXIT) N/A
PM PEAK HOUR TRIP (ENTER/EXIT) 29/28
VEHICLE TRIPS PER WEEKDAY 59

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	

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.

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No.	REVISIONS	DATE	BY
1	BID SET	02/10/20	

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
02/18/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113414010
DATE 02/18/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

COVER SHEET

GREEN CLEAN
3290 WORTH XING
PREPARED FOR
GREEN CLEAN
ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CA-100

Plotted By: Baum, Carter Sheet Set: Kha Layout: CA-100 COVER SHEET February 18, 2021 08:17:02am K:\RIC_civil\113414 - Green Clean\Civil\Sheets\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 REQUIRED 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.

No.	REVISIONS	DATE	BY
1	BID SET	02/10/20	

Kimley»Horn
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1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
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WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
02/18/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113414010
DATE 02/18/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

GENERAL NOTES

GREEN CLEAN
3290 WORTH XING
PREPARED FOR
GREEN CLEAN
ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CA-101

Plotted By:Baum, Carter Sheet Set:Kha Layout:CA-101 GENERAL NOTES February 18, 2021 08:55:20am K:\RIC_civil\113414 - Green Clean\VDT0 - Seminole Trail - Albemarle County\CAD\PlanSheets\CA-101 GENERAL NOTES.dwg
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CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD
C1	133.38	325.00	23°30'53"	67.64	S50°44'05"W	132.45
C2	65.30	35.00	106°54'18"	47.22	N87°34'13"W	56.24
C3	46.14	35.00	75°31'49"	27.11	N03°38'51"E	42.87

LEGEND

- DECIDUOUS TREE
- SHRUB
- BOLLARD
- HANDICAP PARKING/RAMP
- BENCHMARK
- CLEANOUT
- ELECTRIC METER
- HVAC UNIT
- ELECTRIC VAULT
- CABLE VAULT
- TELEPHONE PEDESTAL
- SIGN
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- GRATE INLET
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- LIGHT POLE

SEMINOLE TRAIL
U.S. ROUTE 29
(VARIABLE WIDTH R/W)

LOCATION OF "STEEP SLOPES-MANAGED" AS IDENTIFIED ON ALBEMARLE COUNTY GIS

P.O.B.
ROD FND.
N41°24'45"E 82.21'
ROD FND.
N46°42'45"E 99.91'
ROD SET
ROD FND.

TOP=517.67
COULD NOT ACCESS

BM #1
SQ. CUT ON
LIGHT POLE BASE
ELEV=520.71

#3290
1 STORY
BRICK
F.F.=521.00

1.080 ACRES

TOP=519.95
FL=514.25

DUMPSTER PAD

FIRST CITIZENS BANK & TRUST COMPANY
ADDRESS: 1815 FORTUNE PARK ROAD
PARCEL ID: 046B4-00-00-001D1
ZONED: HIGHWAY COMMERCIAL

WORTH CROSSING
STATE ROUTE 1722
(VARIABLE WIDTH R/W)
D.B. 1463 PG. 481

20' ACSA WATERLINE
& FIRE HYDRANT
EASEMENT
D.B. 1739 PG. 532

ROD SET
TOP=517.05
FL=510.40

NAIL SET
TOP=518.47
FL=515.30
12"CPP
INV=513.10
INV=513.05
INV=513.40
15"CPP
TOP=515.53
FL=515.30
TOP=518.08
FL=513.10
TRANSFORMER
ROD FND.
TOP=517.79
FL=514.45
TOP=516.46
FL=511.95

ROD SET
S38°58'38"W 81.38'
18"RCP
TOP=514.47
FL=509.60
C1
15"RCP

TOP=512.85
INV IN(15)=507.50
INV IN(18)=508.70
INV OUT=507.40
BM #2
NORTHEAST
CORNER OF DI
ELEV=512.83
18"RCP
TOP=512.32
FL=506.30

VARIABLE WIDTH
STORM DRAIN EASEMENT
D.B. 1643 PG. 641 (PLAT)
D.B. 1463 PG. 477

FORTUNE PARK ROAD
(50' R/W)
D.B. 1643 PG. 643

20' ACSA SANITARY
SEWER EASEMENT
D.B. 1482 PG. 105
D.B. 1739 PG. 532

VARIABLE WIDTH
STORM DRAIN EASEMENT
D.B. 1643 PG. 641 (PLAT)

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

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

ALTA/NSPS LAND TITLE SURVEY OF 1.080 ACRES OF LAND LOCATED ON THE SOUTH LINE OF SEMINOLE TRAIL

*RIVANNA DISTRICT * ALBEMARLE COUNTY, VIRGINIA*

DATE: DECEMBER 17, 2020 *SCALE: 1" = 20'*

JENNINGSTEPHENSON 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. 20-667

No.	REVISIONS	DATE	BY
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KHA PROJECT 113414010
DATE 02/18/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

EXISTING CONDITIONS

GREEN CLEAN 3290 WORTH XING

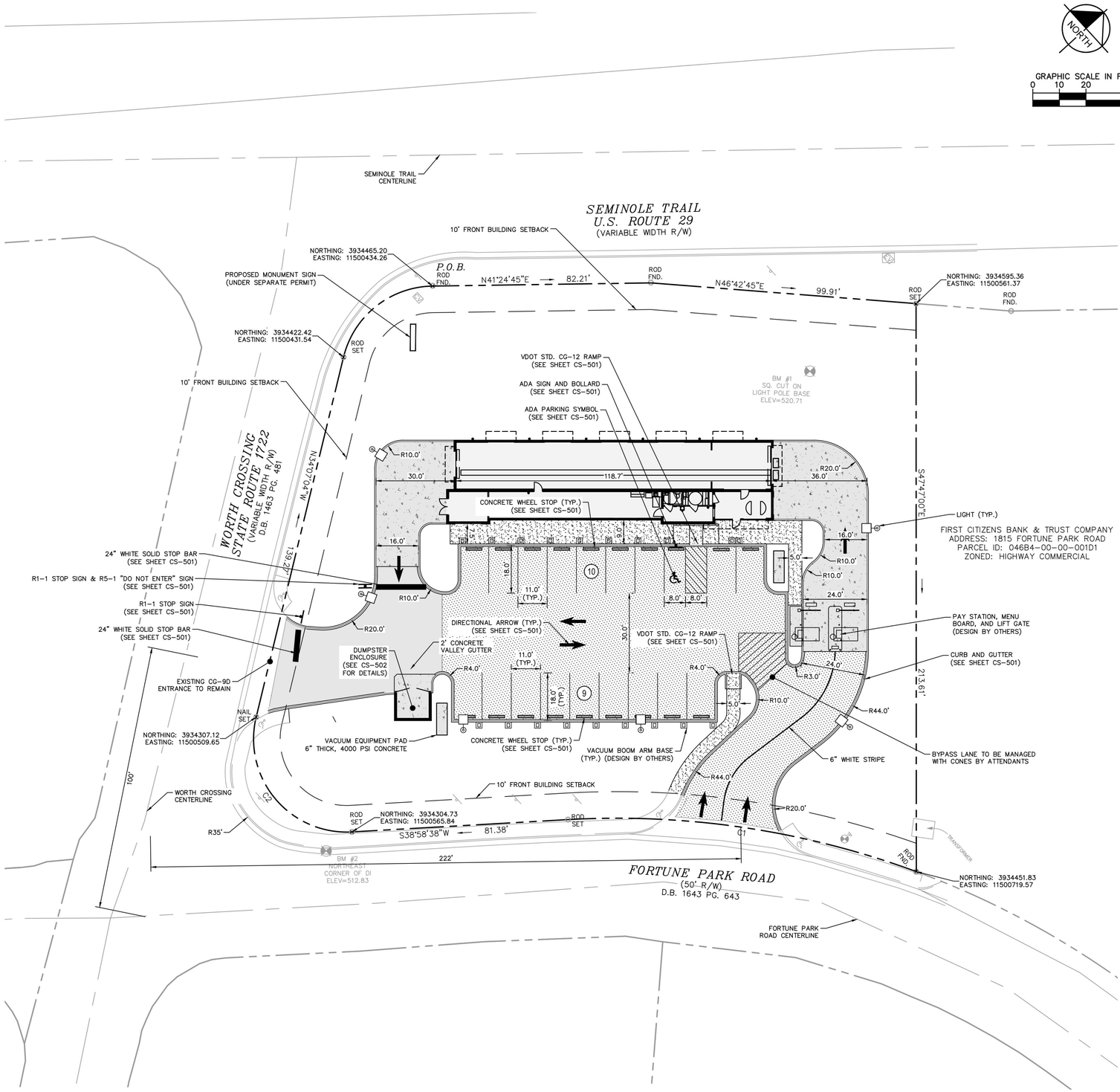
PREPARED FOR
GREEN CLEAN

ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CV-101

Plotted By:Baum, Carter Sheet Set:Kha Layout:CV-101 EXISTING CONDITIONS February 18, 2021 08:56:34pm K:\RIC_CIV\113414 - Green Clean\010 - Seminole Trail - Albemarle County\CAD\PlanSheets\CV-101 EXISTING CONDITIONS.dwg
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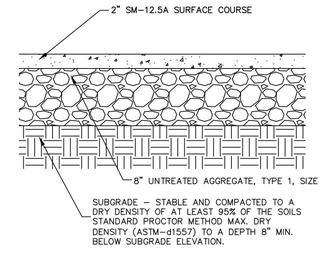


SITE PLAN LEGEND

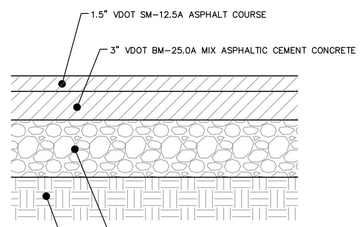
- HEAVY DUTY CONCRETE
- CONCRETE SIDEWALK
- LIGHT DUTY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CURB & GUTTER

SITE PLAN NOTES

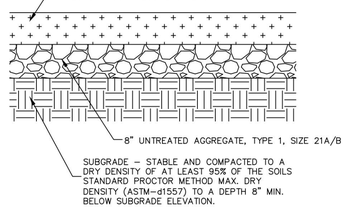
1. ALL CURB RADII ARE 5.0' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
4. TWO COATS OF TRAFFIC PAINT SHALL BE SUPPLIED FOR ALL PAVEMENT STRIPING.
5. REFER TO FINAL GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTIONS.



LIGHT DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



HEAVY DUTY ASPHALT SECTION
NOT TO SCALE



HEAVY DUTY CONCRETE PAVEMENT SECTION
NOT TO SCALE

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
02/18/2021
PROFESSIONAL ENGINEER

KHA PROJECT	113414010
DATE	02/18/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

SITE PLAN

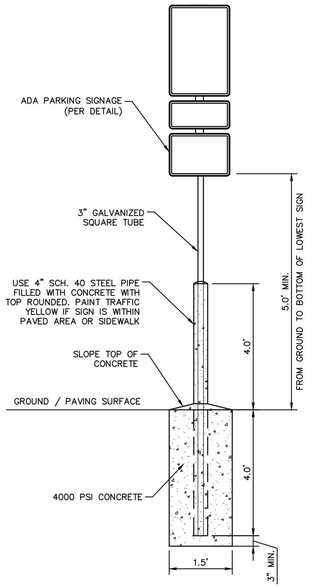
GREEN CLEAN
3290 WORTH XING

PREPARED FOR
GREEN CLEAN

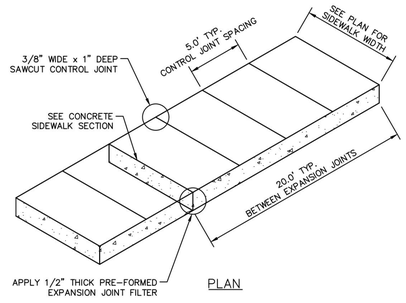
ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CS-101

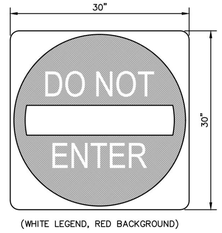
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ADA PARKING SIGN POST

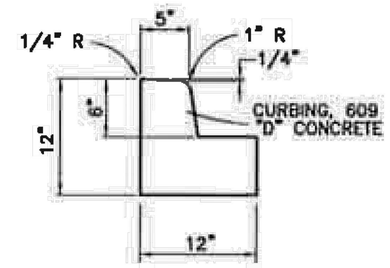


CONCRETE SIDEWALK



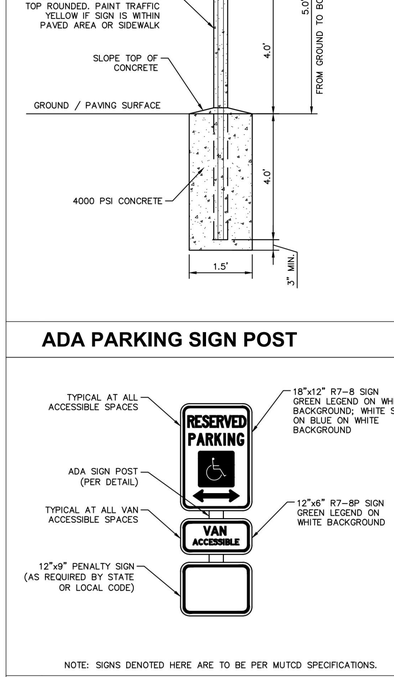
(WHITE LEGEND, RED BACKGROUND)

DO NOT ENTER SIGN (R5-1)

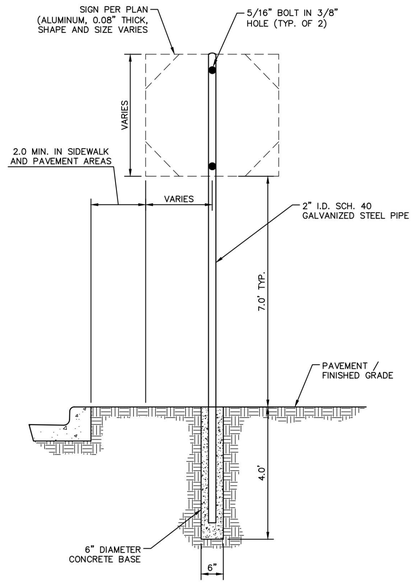


INTERIOR SITE CURB/GUTTER

NTS



DIRECTIONAL ARROW

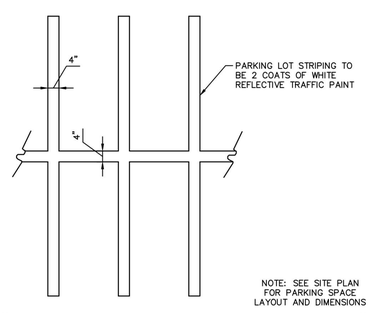


NOTE: DETAIL FOR ALL SIGNS ONSITE, OUTSIDE OF THE BUILDING AREA

SIGN POST

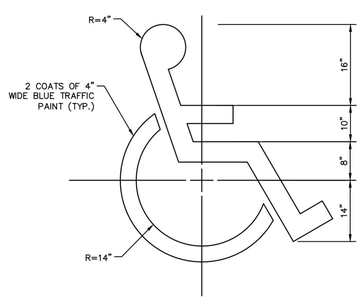
NOTE: SIGNS DENOTED HERE ARE TO BE PER MUTCD SPECIFICATIONS.

ADA PARKING SIGNAGE

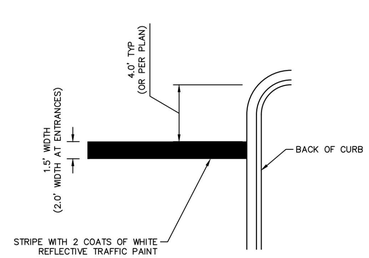


NOTE: SEE SITE PLAN FOR PARKING SPACE LAYOUT AND DIMENSIONS

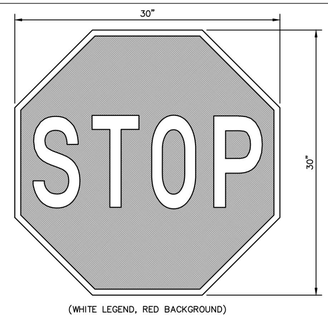
PARKING LOT STRIPING



ADA PARKING SYMBOL

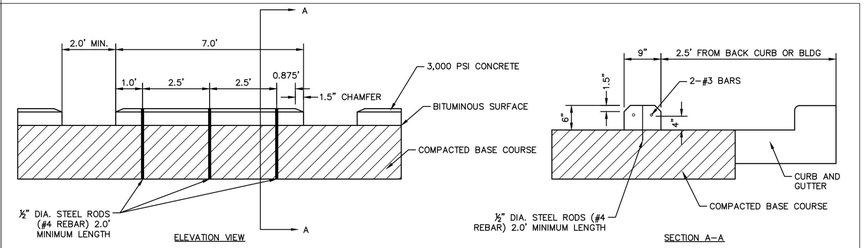


STOP BAR STRIPING



(WHITE LEGEND, RED BACKGROUND)

STOP SIGN (R1-1)



NOTE:
1. ANCHOR RODS TO BE SLEEVED OR GREASED THRU CONCRETE CURBS TO PERMIT RELOCATION OF CURBS.
2. SEE SITE PLAN FOR CURB STOP LOCATIONS. TYPICALLY PLACED 2.5' OFF OF BACK OF CURB

CONCRETE WHEEL STOP

No.	REVISIONS	DATE	BY
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RYAN R. PERKINS
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KHA PROJECT	113414010
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SCALE	AS SHOWN
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SITE DETAILS

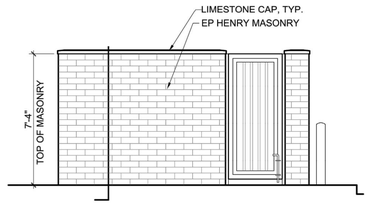
GREEN CLEAN
3290 WORTH XING

PREPARED FOR
GREEN CLEAN

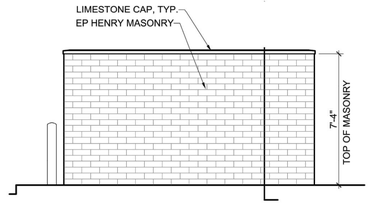
ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CS-501

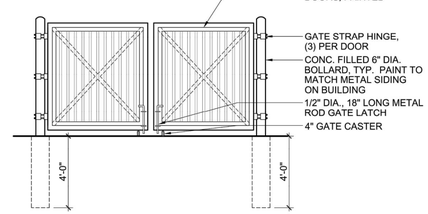
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DUMPSTER ENCLOSURE - ELEVATIONS

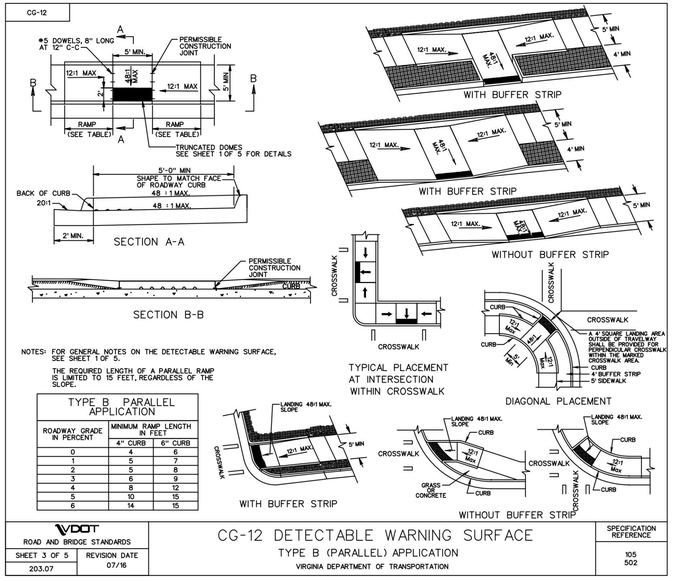


DUMPSTER ENCLOSURE - ELEVATIONS



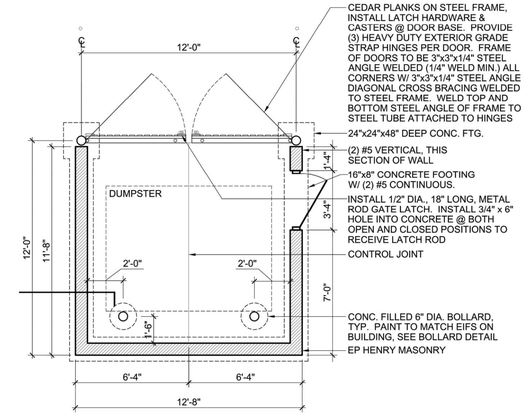
DUMPSTER ENCLOSURE - ELEVATIONS

CG-12



TYPE B PARALLEL APPLICATION		
ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15

VDOT ROAD AND BRIDGE STANDARDS		CG-12 DETECTABLE WARNING SURFACE	SPECIFICATION REFERENCE
SHEET 3 OF 5	REVISION DATE	TYPE B (PARALLEL) APPLICATION	105
203.07	07/16	VIRGINIA DEPARTMENT OF TRANSPORTATION	502



DUMPSTER PLAN

No.	REVISIONS	DATE	BY
1	BID SET	02/10/20	

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PROFESSIONAL ENGINEER

KHA PROJECT	113414010
DATE	02/18/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

SITE DETAILS

GREEN CLEAN
3290 WORTH XING
PREPARED FOR
GREEN CLEAN
ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CS-502

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STORM PIPES					
PIPE SEGMENT	LENGTH	DESCRIPTION	SLOPE	INV. (IN)	INV. (OUT)
STR. 110 TO STR. EX 101	23 LF	15 IN EX RCP	14.48%	513.00	509.60
STR. 111 TO STR. 110	65 LF	15 IN RCP	0.50%	513.42	513.10
STR. 112 TO STR. 110	18 LF	15 IN RCP	0.50%	513.20	513.11
STR. 113 TO STR. 112	96 LF	15 IN RCP	0.50%	513.78	513.30
STR. 114 TO STR. 113	52 LF	15 IN RCP	0.50%	514.14	513.88
STR. 115 TO STR. 114	58 LF	15 IN RCP	0.50%	514.53	514.24
STR. EX 101 TO STR. EX 100	105 LF	18 IN EX RCP	0.86%	509.60	508.70
STR. EX 102 TO STR. EX 101	122 LF	15 IN EX RCP	1.93%	511.95	509.60

STRUCTURE TABLE			
STRUCTURE NAME	DESCRIPTION	RIM	HEIGHT
STR. 110	VDOT STD. DI-1	516.43	3.43
STR. 111	VDOT STD. DI-3B (L=6')	516.61	3.18
STR. 112	VDOT STD. DI-3C (L=6')	518.01	5.00
STR. 113	VDOT STD. MH-1	519.40	5.81
STR. 114	VDOT STD. DI-3C (L=6')	519.72	5.58
STR. 115	VDOT MOD. DI-1 MONO BOX	516.93	2.40
STR. EX 100	EXISTING STRUCTURE	512.85	4.00
STR. EX 101	EXISTING STRUCTURE	514.47	4.87
STR. EX 102	EXISTING STRUCTURE	516.46	4.51

GRADING LEGEND

TC:	TOP OF CURB ELEVATION
BC:	BOTTOM OF CURB ELEVATION
FS:	FINISHED SURFACE ELEVATION
P:	PAVEMENT ELEVATION
ME:	MATCH EXISTING
FF:	FINISHED FLOOR ELEVATION
HP:	HIGH POINT
BI:	BOTTOM OF ISLAND
	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 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 DESIGNED WITH A MAXIMUM 1.75% CROSS SLOPE AND A 4.75% LONGITUDINAL SLOPE. CONTRACTOR TO ENSURE CROSS SLOPE DOES NOT EXCEED 2.0% AND LONGITUDINAL SLOPE DOES NOT EXCEED 5.0%.
6. CONTRACTOR TO MATCH EXISTING GRADES AT LIMITS OF DISTURBANCE AND ENSURE POSITIVE DRAINAGE.

SEMINOLE TRAIL
U.S. ROUTE 29
(VARIABLE WIDTH R/W)

WORTH CROSSING
STATE ROUTE 1722
(VARIABLE WIDTH R/W)
D.B. 1463 PG. 481

FORTUNE PARK ROAD
(50' R/W)
D.B. 1643 PG. 643

CONTRACTOR TO ENSURE 2% MINIMUM SLOPE THROUGHOUT GRASS AREA TO INLET 115

CONTRACTOR TO ENSURE 2% MINIMUM SLOPE THROUGHOUT GRASS AREA TO INLET 110

6" PVC @ 2.0% MIN SLOPE (TYP.) FFE=519.69

BM #1 SQ. CUT ON LIGHT POLE BASE ELEV=520.71

TIE TO EXISTING CG-9D ENTRANCE

RIDGE LINE

TIE TO EXISTING SIDEWALK

TIE TO EXISTING CG-9D ENTRANCE

RAISED 6" ISLAND

LIMITS OF DISTURBANCE (0.79 AC.)

VARIABLE WIDTH STORM DRAIN EASEMENT D.B. 1643 PG. 641 (PLAT) D.B. 1463 PG. 477

VARIABLE WIDTH STORM DRAIN EASEMENT D.B. 1643 PG. 641 (PLAT)

BM #2 SOUTHEAST CORNER OF DI ELEV=512.83

TOP=517.05 FL=510.40

TOP=512.85 INV. IN(15)=507.50 INV. IN(18)=508.70 INV. OUT=507.40

TOP=515.00 INV. IN=507.00 INV. OUT=514.96.75

TOP=514.47 FL=509.60

TOP=516.46 FL=511.95

TOP=518.08 FL=513.10

TOP=517.79 FL=514.45

TOP=512.32 FL=506.30

TRANSFORMER

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

1	BID SET	02/10/20
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
02/18/2021
PROFESSIONAL ENGINEER

KHA PROJECT	113414010
DATE	02/18/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

GREEN CLEAN
3290 WORTH XING
PREPARED FOR
GREEN CLEAN
ALBEMARLE COUNTY VIRGINIA

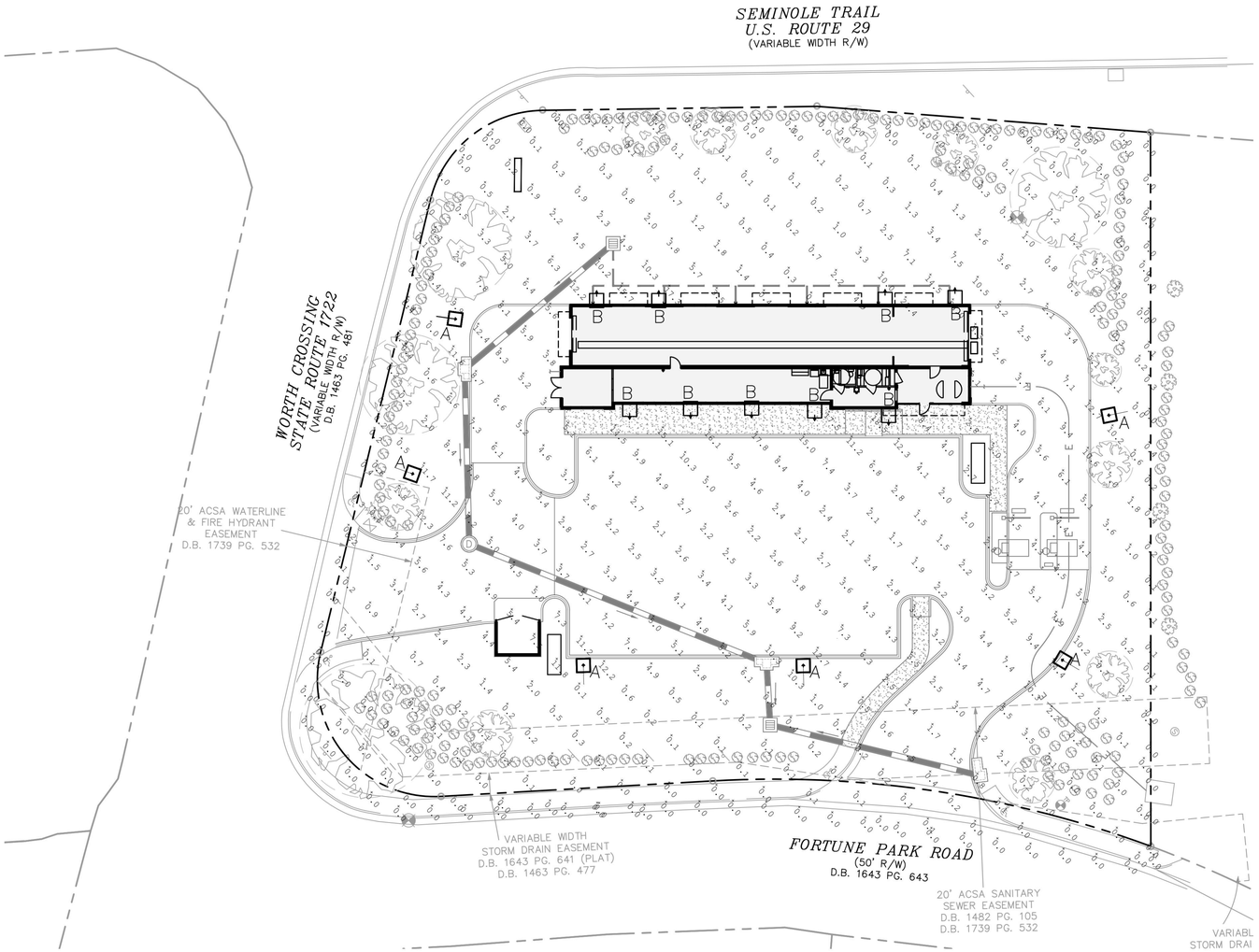
GRADING PLAN

SHEET NUMBER
CG-101

Plotted By: Baum, Carter Sheet Set: Kha Layout: GRADING PLAN February 18, 2021 09:20:59am K:\CVIC_CIV\113414 - Green Clean\010 - Seminole Trail — Albemarle County\CAD\PlanSheets\CG-101 GRADING AND PHASE I EROSION & SEDIMENT CONTROL PLAN.dwg
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.

GENERAL NOTES
1. PHOTOMETRIC PLANS ARE PROVIDED FOR INFORMATION PURPOSES ONLY.
2. MEP/CONTRACTOR TO PROVIDE LIGHTING SYSTEM DESIGN, INCLUDING JUNCTION BOXES, CONDUITS AND CONDUCTOR SIZE.
3. SOURCE OF POWER FOR LIGHTING TO BE CONFIRMED BY MEP CONTRACTOR TO COORDINATE WITH LOCAL POWER COMPANY FOR SERVICE

LIGHTING NOTES:
1. SEE SHEET CL-501 FOR FIXTURE AND LIGHT DETAILS
2. NEW POLES AND FIXTURES TO BE INSTALLED AS SHOWN.



LUMINAIRE SCHEDULE									
SYMBOL	LABEL	QUANTITY	ARRANGEMENT	DESCRIPTION	MANUFACTURER	HEIGHT	LAMP	WATTS	LIGHTING LOSS FACTOR
	A	6	SINGLE	ECF-S-48L-1A-WW-G2-4-HIS-BK	GARDCO	14'-0"	LED	160W	1.0
	B	3	SINGLE	LPW-32-70-WW-G3-4-BK	STONCO	9'-0"	LED	65W	1.0

MOUNTING NOTE:
TOTAL HEIGHT OF POLE MOUNTED FIXTURE TO BE 14' INCLUDING BASE. THIS HEIGHT IS BELOW THE REQUIRED MAXIMUM OF 20'.

NOTE:
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 FORM ADJACENT ROADS. THE SPILLOVER OF LIGHTING FROM LUMINAIRES ONTO PUBLIC ROADS AND PROPERTY IN RESIDENTIAL OR RURAL AREAS ZONING DISTRICTS SHALL NOT EXCEED ONE HALF FOOTCANDLE.

LIGHTING CALCULATIONS					
AREA	ILLUMINANCE-AVG.	MAX (FC.)	MIN (FC.)	AVG/MIN	MAX/MIN
PARKING AREA	5.0	18.5	0.2	25.2	92.5
PROPERTY LINE	0.05	0.4	0.0	N.A	N.A

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

No.	REVISIONS	DATE	BY
1	BID SET	02/10/20	

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

KHA PROJECT 113414010
DATE 02/18/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

LIGHTING PLAN

GREEN CLEAN
3290 WORTH XING
PREPARED FOR
GREEN CLEAN
ALBEMARLE COUNTY VIRGINIA

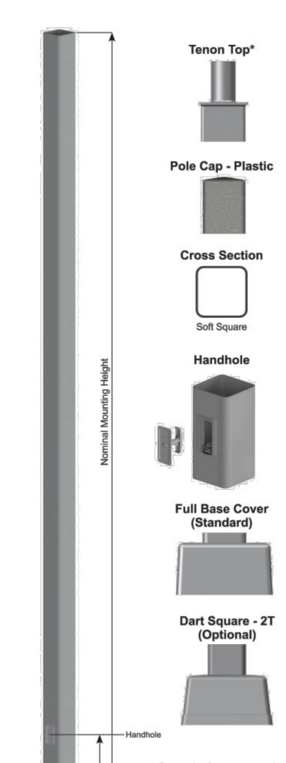
SHEET NUMBER
CL-101

Plotted By:Baum, Carter Sheet Set:Kha Layout:CL-101 LIGHTING PLAN February 18, 2021 09:01:03am K:\RIC_CIV\113414 - Green Clean\CIV\0 - Seminole Trail - Albemarle County\CAD\PlanSheets\CL-101 LIGHTING PLAN.dwg
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Plotted By: Baum, Carter Sheet Set: Kha Layout: CL-501 LIGHTING DETAILS February 18, 2021 09:01:18am K:\RIC_CIV\113414 - Green Clean\010 - Seminole Trail - Ablemarle County\CAD\PlanSheets\CL-501 LIGHTING DETAILS.dwg
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valmont STRUCTURES — DS330 Fatigue Resistant Soft Square Steel Post

Job Name: ____ Client Name: ____
Job Location - City: ____ State: ____ Created By: ____ Date: ____
Product: DS330 Quote: ____ Customer Approval: ____ Date: ____



*Consult factory on loading criteria for pole top mounted luminaires and/or brackets.

SPECIFICATIONS

Pole Shaft - The pole shaft is fabricated from hot rolled welded steel tubing of one-piece construction with a minimum yield strength of 55 KSI.

Pole Top – A removable pole cap is provided for poles receiving drilling patterns for side-mount luminaire arm assemblies. For top mount luminaire and/or bracket consult the factory. Consult the luminaire manufacturer for correct tenon size or drill pattern. Other pole top options include pole cap only (PC) or plain top (PL) which is typical when the pole top diameter matches the necessary slip fit dimensions.

Handhole – A reinforced handhole with grounding provision is provided at 1'-6" from the base end of the pole assembly. Each handhole includes an easy to install, self-contained Swing Latch handhole cover assembly. U.S. Patent Swing Latch cover is fabricated from durable polycarbonate/ABS blend plastic. All pole assemblies are provided with a 2.50" x 5.00" rectangular handhole. Handhole dimensions are nominal.

Base Cover – A two-piece full base cover fabricated from ABS plastic is provided with each pole assembly. Additional base cover options, including the dart square (2T) cast aluminum cover, are available upon request.

Anchor Bolts - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

Hardware - All structural fasteners are galvanized high strength carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

Finish - Standard finishes are either Galvanized (GV) or Finish Painted (FP). Additional finish options including Finish Paint over Galvanizing (FPGV) or any of the V-PRO™ Finish Coating Systems are available upon request. See the product ordering code for color options.

Design Criteria - Please reference Design Criteria Specification for appropriate design conditions.

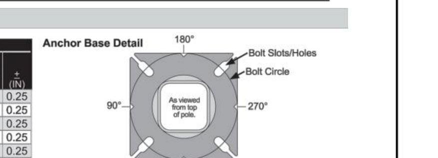
DS330 Fatigue Resistant Soft Square Steel Post — valmont STRUCTURES

Job Name: ____ Client Name: ____
Job Location - City: ____ State: ____ Created By: ____ Date: ____
Product: DS330 Quote: ____ Customer Approval: ____ Date: ____

ANCHORAGE DATA

POLE BASE SQUARE (IN)	WALL THK (GA)	BOLT CIRCLE DIA (IN)	± (IN)	SQUARE (IN)	THK (IN)	DIA x LENGTH x HOOK (IN)	PROJECTION (IN)	± (IN)
4.00	11	8.50	0.50	8.25	0.750	0.75 x 17.00 x 3.00	3.50	0.25
4.00	7	8.50	0.50	8.25	0.875	0.75 x 17.00 x 3.00	3.63	0.25
5.00	11	11.00	1.00	11.00	1.000	0.75 x 17.00 x 3.00	3.75	0.25
5.00	7	11.00	1.00	11.00	1.000	0.75 x 17.00 x 3.00	3.75	0.25
6.00	7	12.00	1.00	12.50	1.000	1.00 x 36.00 x 4.00	4.25	0.25

(POLE: base square, wall thk; BASE PLATE: bolt circle, square, thk; ANCHOR BOLTS: dia x length x hook, projection)



DESIGNATION,LOAD AND DIMENSIONAL DATA

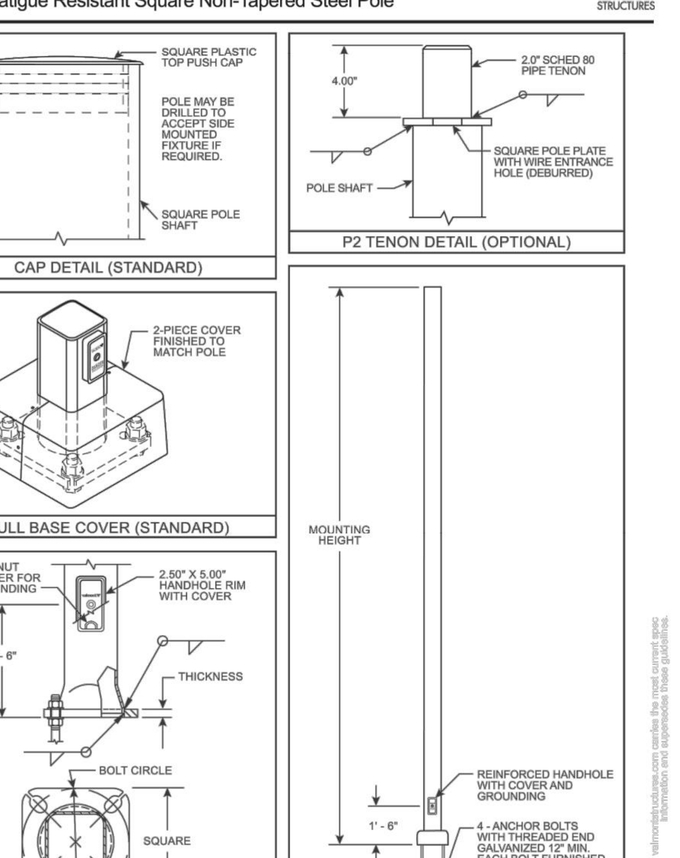
NOMINAL MOUNTING HEIGHT	80 MPH w/1.3 GUST MAX EPA¹ (SQFT)	80 MPH MAX WEIGHT¹ (LBS)	90 MPH w/1.3 GUST MAX EPA¹ (SQFT)	90 MPH MAX WEIGHT¹ (LBS)	100 MPH w/1.3 GUST MAX EPA¹ (SQFT)	100 MPH MAX WEIGHT¹ (LBS)	SHAFT BASE SQUARE³ (IN)	SHAFT TOP SQUARE (IN)	WALL THK (GA)	STRUCTURE WEIGHT² (LBS)	DESIGNATION
10'-0"	30.6	765	23.8	595	18.9	473	4.00	4.00	11	75	400Q100
12'-0"	24.4	610	18.8	470	14.8	370	4.00	4.00	11	90	400Q120
14'-0"	19.9	498	15.1	378	11.7	293	4.00	4.00	11	100	400Q140
16'-0"	15.9	398	11.8	295	8.9	223	4.00	4.00	11	115	400Q160
18'-0"	12.6	315	9.2	230	6.7	168	4.00	4.00	11	125	400Q180
20'-0"	9.6	240	6.7	167	4.5	150	4.00	4.00	11	140	400Q200
	17.7	443	12.7	343	9.4	235	5.00	5.00	11	185	500Q200
	28.1	703	21.4	535	16.2	405	5.00	5.00	7	265	500W200
25'-0"	4.8	150	2.6	100	1.0	50	4.00	4.00	11	170	400Q250
	10.8	270	7.7	188	5.4	135	4.00	4.00	7	245	400W250
	9.8	245	6.3	157	3.7	150	5.00	5.00	11	225	500Q250
	18.5	463	13.3	333	9.5	238	5.00	5.00	7	360	500W250
30'-0"	6.7	168	4.4	110	2.6	65	4.00	4.00	7	291	400W300
	4.7	150	2.0	50	N/A	N/A	5.00	5.00	11	265	500Q300
	10.7	267	6.7	167	3.9	100	5.00	5.00	7	380	500W300
	19.0	475	13.2	330	9.0	225	6.00	6.00	7	520	600W300
35'-0"	5.9	150	2.5	100	N/A	N/A	5.00	5.00	7	440	500W350
	12.4	310	7.6	190	4.2	105	6.00	6.00	7	540	600W350
40'-0"	7.2	180	3.0	75	N/A	N/A	6.00	6.00	7	605	600W400

1. Maximum EPA (Effective Projected Area) and weight values are based on side mounted fixtures only. Consult factory on loading criteria for pole top mounted luminaires and/or brackets. Variations from sizes above are available upon inquiry at the factory. Satisfactory performance of poles is dependent upon the pole being properly attached to a supporting foundation of adequate design.
2. Structure weight is a nominal value which includes the pole shaft and base plate only.
3. Belled-bottom will have reduced thickness due to the cold-working process. However, the belled-bottom meets or exceeds the structural capacity of the original square section. In addition, the rounded section provides better fatigue resistance.

PRODUCT ORDERING CODES

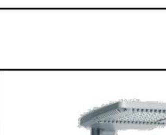
MODEL	DESIGNATION	FIXTURE MOUNTING	FINISH SYSTEM	STANDARD COLOR OPTIONS	BASE COVER	ANCHOR BOLTS	SUPPLEMENTAL INFO
DS330				--	--	--	
	Select Correct Designation from the Load and Dimensional Data Chart.	**Drill Mounting (See Orientation)** D1 = (1) Drilling @ 270° D2 = (2) Drillings @ 90° & 270° D4 = (4) Drillings @ 0°, 90°, 180°, & 270° D5 = (2) Drillings @ 180° & 270° D6 = (3) Drillings @ 90°, 180°, & 270° **Tenon Mounting** P2 = 2.38" OD x 4" tenon P4 = 4.00" OD x 6" tenon P5 = 2.88" OD x 4" tenon P6 = 2.88" OD x 5" tenon P7 = 2.38" OD x 5" tenon P9 = Special Size (Specify) **Other Options** PC = Pole Cap PL = Plain Top (No Cap)	GV = Galvanized FP = Finish Painted ----OPTIONAL---- FPGV = Finish Paint over Galvanizing VP30 = V-PRO™ 30 System VP32 = V-PRO™ 32 System VP53 = V-PRO™ 53 System VP54 = V-PRO™ 54 System VP57 = V-PRO™ 57 System VP100 = V-PRO™ 100 System VP105 = V-PRO™ 105 System	GV = Galvanized BK = Black DB = Dark Bronze MB = Medium Bronze WH = White LG = Light Gray CB = Bronze DG = Dark Green ST = Sandstone HTG= Hunter Green SG = Slate Gray SL = Silver SC = Special Color (Specify)	FBC = Full Base Cover ----OPTIONAL---- 2T = Square Dart Cover	AB = With Anchor Bolts LAB = Without Anchor Bolts	

DS330 - Fatigue Resistant Square Non-Tapered Steel Pole — valmont STRUCTURES



SPC7207 12/17 valmontstructures.com carries the most current spec information and supersedes these guidelines.

GARDCO by Signify — Site & Area — EcoForm — ECF-S small area light



Gardco EcoForm Gen-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 26,400 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings. Includes Service Tag, our innovative way to provide assistance throughout the life of the product.

Project: / Location: / Cat.No: / Type: / Lamps: Qty: / Notes:

Ordering guide

example: ECF-S-64L-900-NW-G2-AR-5-120-HIS-MGY

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distribution	Voltage	Dimming controls	Motion sensing lens	Photo-sensing	Electrical	Luminaire	Finish
ECF-S												
ECF-S EcoForm site and area, small	32L 32 LEDs (2 modules) 48L 48 LEDs (3 modules) 64L 64 LEDs (4 modules)	32L: 530 530mA; 700 700mA; 1A 1050mA; 1.2A 1200mA 48L: 900 900mA; 1A 1050mA; 1.2A 1200mA 64L: 900 900mA; 1A 1050mA	WW-G2 Warm White 3000K, 70CRI Generation 2 NW-G2 Neutral White 4000K, 70CRI Generation 2 CW-G2 Cool White 5000K, 70CRI Generation 2	AR Arm Mount (standard)[2] *The following mounting kits must be ordered separately (See accessories)* SF Slip Fitter Mount[3] (fits to 2 3/8" O.D. tenon) WS Wall mount with surface conduit rear entry permitted RAM Retrofit arm mount kit[2]	Type 2: 2 Type 2; 2-90 Rotated left 90°; 2-270 Rotated right 270° Type 3: 3 Type 3; 3-90 Rotated left 90°; 3-270 Rotated right 270° Type 4: 4 Type 4; 4-90 Rotated left 90°; 4-270 Rotated right 270° Type 5: 5 Type 5; 5W Type 5W AFR Auto Front Row AFR-90 Auto Front Row, Rotated left 90° AFR-270 Auto Front Row, Rotated right 270°	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)	DD 0-10V External dimming (by others)[4] DCC Dual Circuit Control[4,5,6] FAWS Field Adjustable Wattage Selector[4,5] SW Interface module for SiteWise[4,6,7] LLC Integral wireless module[4,6,8,17] BL Bi-level functionality[4,6,17] DynaDimmer: Automatic Profile Dimming CS50 Safety 50% Dimming, 7 hours[4,8] CM50 Median 50% Dimming, 8 hours[4,8] CS30 Safety 30% Dimming, 7 hours[4,8] CM30 Median 30% Dimming, 8 hours[4,8]	IMRI3 Integral with #3 lens[15] IMRI7 Integral with #7 lens[16]	PCB Photocontrol Button[6,9] TLRD5 Twist Lock Receptacle 5 Pin[10] TLRD7 Twist Lock Receptacle 7 Pin[10] TLRPC Twist Lock Receptacle w/ Photocell[6,11]	Fusing: F1 Single (120, 277, 347VAC)[9]; F2 Double (208, 240, 480VAC)[9] Pole Mount Fusing: FP1 Single (120, 277, 347VAC)[9]; FP2 Double (208, 240, 480VAC)[9]; FP3 Canadian Double Pull (208, 240, 480VAC)[9] Surge Protection (10kA standard): SP2 Increased 20kA	Square Pole Adapter included in standard product TB Terminal Block[12] RPA Round Pole Adapter (fits to 3"-3.9" O.D. pole)[13] HIS Internal Housing Side Shield[14]	Textured: BK Black; WH White; BZ Bronze; DGY Dark Gray; MGY Medium Gray Customer specified: RAL Specify optional color or RAL (ex: RAL7024); CC Custom color (Must supply color chip for required factory quote)

1. BL-IMRI3/7 equipped with out-boarded sensor housing when voltage is HVU (347-480V).
2. Mounts to a 4" round pole with adapter included for square poles.
3. Limited to a maximum of 45 degrees aiming above horizontal.
4. Not available with other dimming control options.
5. Not available with motion sensor.
6. Not available with photocontrol.
7. Available only in 120 or 277V.
8. Not available in 347 or 480V
9. Must specify input voltage.
10. Dimming will not be connected to NEMA receptacle if ordering with other control options.
11. Not available in 480V. Order photocell separately with TLRD5/7.
12. Not available with DCC.
13. Not available with SF and WS. RPAs provided with black finish standard.
14. HIS not available with Type 5 and 5W optics.
15. Not available with DD, DCC, and FAWS dimming control options.
16. Not available with DD, DCC, FAWS and LLC dimming control options.
17. Must specify a motion sensor lens.

ECF-S EcoForm small
Area luminaire

EcoForm Accessories (ordered separately, field installed)

Shielding Accessories

House Side shield
Standard optic orientation:
HIS-32-H[18] Internal House Side Shield for 32 LEDs (2 modules)
HIS-48-H[18] Internal House Side Shield for 48 LEDs (3 modules)
HIS-64-H[18] Internal House Side Shield for 64 LEDs (4 modules)

Optic at 90 or 270 orientation:
HIS-32-V[18] Internal House Side Shield for 32 LEDs (2 modules)
HIS-48-V[18] Internal House Side Shield for 48 LEDs (3 modules)
HIS-64-H[18] Internal House Side Shield for 64 LEDs (4 modules)
18. Not available with Type 5 or 5W optics

Luminaire Accessories

ECF-BD-G2 Bird deterrent
ECF-RAM-G2-(F) Retrofit Arm mount kit
ECF-SF-G2-(F) Slip Fitter Mount (fits to 2 3/8" O.D. tenon)
ECF-WS-G2-(F) Wall mount with surface conduit rear entry permitted

EcoForm PTF2 (pole top fitter fits 23/8-21/2" OD x 4" depth tenon)		EcoForm PTF3 (pole top fitter fits 3-31/2" OD x 6" depth tenon)		EcoForm PTF4 (pole top fitter fits 31/2-4" OD x 6" depth tenon)	
PTF2-ECF-S/L-1-90-(F)	1 luminaire at 90°	PTF3-ECF-S/L-1-90-(F)	1 luminaire at 90°	PTF4-ECF-S/L-1-90-(F)	1 luminaire at 90°
PTF2-ECF-S/L-2-90-(F)	2 luminaires at 90°	PTF3-ECF-S/L-2-90-(F)	2 luminaires at 90°	PTF4-ECF-S/L-2-90-(F)	2 luminaires at 90°
PTF2-ECF-S/L-2-180-(F)	2 luminaires at 180°	PTF3-ECF-S/L-2-180-(F)	2 luminaires at 180°	PTF4-ECF-S/L-2-180-(F)	2 luminaires at 180°
PTF2-ECF-S/L-3-90-(F)	3 luminaires at 90°	PTF3-ECF-S/L-3-90-(F)	3 luminaires at 90°	PTF4-ECF-S/L-3-90-(F)	3 luminaires at 90°
PTF2-ECF-S/L-4-90-(F)	4 luminaires at 90°	PTF3-ECF-S/L-4-90-(F)	4 luminaires at 90°	PTF4-ECF-S/L-4-90-(F)	4 luminaires at 90°
PTF2-ECF-S/L-3-120-(F)	3 luminaires at 120°	PTF3-ECF-S/L-3-120-(F)	3 luminaires at 120°	PTF4-ECF-S/L-3-120-(F)	3 luminaires at 120°

(F) = Specify finish

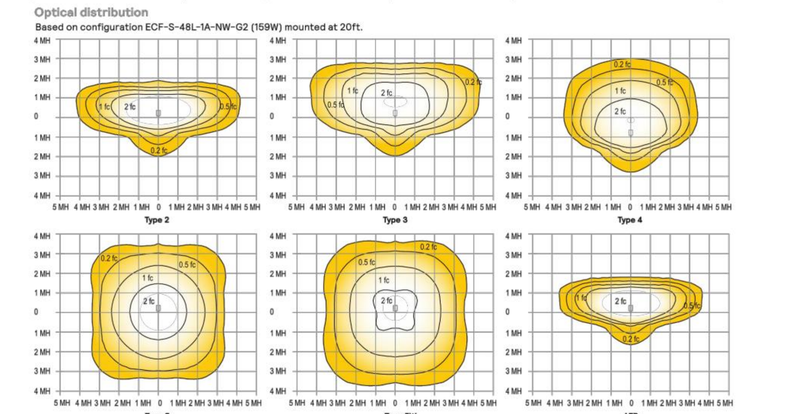
Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L_{70} hours limited to 6 times actual LED test hours

Ambient Temperature °C	Driver mA	Calculated L_{70} Hours	L_{70} per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1200 mA	>100,000 hours	>60,000 hours	>88%

Optical distribution

Based on configuration ECF-S-48L-1A-NW-G2 (159W) mounted at 20ft.



ECF-S EcoForm small
Area luminaire

3000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2 Lumen Output	Type 2 BUG Rating	Type 2 Efficacy (LPW)	Type 3 Lumen Output	Type 3 BUG Rating	Type 3 Efficacy (LPW)	Type 4 Lumen Output	Type 4 BUG Rating	Type 4 Efficacy (LPW)
ECF-S-32L-530-WW-G2-x	32	530	3000	56	6,178	B2-U0-G1	111	6,044	B1-U0-G2	109	6,323	B1-U0-G2	114
ECF-S-32L-700-WW-G2-x	32	700	3000	73	7,968	B2-U0-G1	109	7,795	B1-U0-G2	107	8,156	B1-U0-G2	112
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	11,218	B2-U0-G2	106	10,974	B2-U0-G2	104	11,482	B2-U0-G2	109
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	12,443	B2-U0-G2	102	12,173	B2-U0-G2	100	12,736	B2-U0-G3	105
ECF-S-48L-900-WW-G2-x	48	900	3000	135	14,768	B3-U0-G3	109	14,448	B2-U0-G3	107	15,116	B2-U0-G3	112
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	16,723	B3-U0-G3	105	16,360	B3-U0-G3	103	17,116	B2-U0-G3	108
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	18,564	B3-U0-G3	102	18,162	B3-U0-G3	99	19,001	B3-U0-G4	104
ECF-S-64L-900-WW-G2-x	64	900	3000	178	19,545	B3-U0-G3	110	19,121	B3-U0-G3	108	20,005	B3-U0-G4	113
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	22,020	B3-U0-G3	107	21,543	B3-U0-G4	105	22,538	B3-U0-G4	109

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 5 Lumen Output	Type 5 BUG Rating	Type 5 Efficacy (LPW)	Type 5W Lumen Output	Type 5W BUG Rating	Type 5W Efficacy (LPW)	Type AFR Lumen Output	Type AFR BUG Rating	Type AFR Efficacy (LPW)
ECF-S-32L-530-WW-G2-x	32	530	3000	56	6,400	B2-U0-G1	115	6,672	B3-U0-G2	120	6,458	B3-U0-G2	116
ECF-S-32L-700-WW-G2-x	32	700	3000	73	8,254	B2-U0-G1	113	8,606	B3-U0-G2	118	8,330	B4-U0-G2	114
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	11,621	B3-U0-G2	110	12,116	B4-U0-G2	115	11,727	B4-U0-G2	111
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	12,890	B3-U0-G2	106	13,440	B4-U0-G2	111	13,008	B4-U0-G2	107
ECF-S-48L-900-WW-G2-x	48	900	3000	135	15,299	B3-U0-G2	113	15,951	B4-U0-G2	118	15,438	B4-U0-G2	114
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	17,324	B3-U0-G2	109	18,062	B4-U0-G2	114	17,482	B5-U0-G3	110
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	19,231	B3-U0-G2	105	20,051	B5-U0-G3	110	19,407	B5-U0-G3	106
ECF-S-64L-900-WW-G2-x	64	900	3000	178	20,247	B3-U0-G2	114	21,111	B5-U0-G3	119	20,432	B5-U0-G3	115
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	22,811	B3-U0-G2	111	23,784	B5-U0-G3	116	23,020	B5-U0-G3	112

4000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2 Lumen Output	Type 2 BUG Rating	Type 2 Efficacy (LPW)	Type 3 Lumen Output	Type 3 BUG Rating	Type 3 Efficacy (LPW)	Type 4 Lumen Output	Type 4 BUG Rating	Type 4 Efficacy (LPW)
ECF-S-32L-530-NW-G2-x	32	530	4000	56	6,864	B2-U0-G2	123	6,715	B1-U0-G2	121	7,025	B1-U0-G2	126
ECF-S-32L-700-NW-G2-x	32	700	4000	73	8,853	B2-U0-G2	121	8,661	B2-U0-G2	119	9,062	B1-U0-G2	124
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	12,464	B2-U0-G2	118	12,194	B2-U0-G2	115	12,757	B2-U0-G3	121
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	13,826	B3-U0-G3	114	13,526	B2-U0-G3	111	14,151	B2-U0-G3	116
ECF-S-48L-900-NW-G2-x	48	900	4000	135	16,409	B3-U0-G3	121	16,053	B2-U0-G3	119	16,795	B2-U0-G3	124
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	18,581	B3-U0-G3	117	18,178	B3-U0-G3	115	19,018	B2-U0-G4	120
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	20,627	B3-U0-G3	113	20,180	B3-U0-G4	110	21,112	B3-U0-G4	116
ECF-S-64L-900-NW-G2-x	64	900	4000	178	21,717	B3-U0-G3	122	21,246	B3-U0-G4	119	22,228	B3-U0-G4	125
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	24,467	B3-U0-G3	119	23,936	B3-U0-G4	116	25,043	B3-U0-G4	122

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 5 Lumen Output	Type 5 BUG Rating	Type 5 Efficacy (LPW)	Type 5W Lumen Output	Type 5W BUG Rating	Type 5W Efficacy (LPW)	Type AFR Lumen Output	Type AFR BUG Rating	Type AFR Efficacy (LPW)
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,414	B3-U0-G2	133	7,175	B3-U0-G2	129	7,111	B2-U0-G1	128
ECF-S-32L-700-NW-G2-x	32	700	4000	73	9,563	B3-U0-G2	131	9,255	B4-U0-G2	127	9,172	B2-U0-G1	126
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	13,462	B4-U0-G2	127	13,030	B4-U0-G2	123	12,912	B3-U0-G2	122
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	14,933	B4-U0-G2	123	14,453	B4-U0-G2	119	14,322	B3-U0-G2	118
ECF-S-48L-900-NW-G2-x	48	900	4000	135	17,723	B4-U0-G2	131	17,154	B5-U0-G3	127	16,999	B3-U0-G2	126
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	20,069	B5-U0-G3	126	19,424	B5-U0-G3	122	19,248	B3-U0-G2	121
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	22,279	B5-U0-G3	122	21,563	B5-U0-G3	118	21,368	B3-U0-G2	117
ECF-S-64L-900-NW-G2-x	64	900	4000	178	23,456	B5-U0-G3	132	22,702	B5-U0-G3	128	22,497	B3-U0-G2	127
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	26,427	B5-U0-G3	128	25,577	B5-U0-G4	124	25,346	B3-U0-G2	123

ECF-S EcoForm small
Area luminaire

5000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2 Lumen Output	Type 2 BUG Rating	Type 2 Efficacy (LPW)	Type 3 Lumen Output	Type 3 BUG Rating	Type 3 Efficacy (LPW)	Type 4 Lumen Output	Type 4 BUG Rating	Type 4 Efficacy (LPW)
ECF-S-32L-530-CW-G2-x	32	530	5000	56	6,658	B2-U0-G1	120	6,514	B1-U0-G2	117	6,815	B1-U0-G2	122
ECF-S-32L-700-CW-G2-x	32	700	5000	73	8,588	B2-U0-G1	118	8,402	B2-U0-G2	115	8,790	B1-U0-G2	121
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	12,090	B3-U0-G2	114	11,828	B2-U0-G2	112	12,375	B2-U0-G3	117
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	13,411	B3-U0-G3	110	13,120	B2-U0-G3	108	13,726	B2-U0-G3	113
ECF-S-48L-900-CW-G2-x	48	900	5000	135	15,917	B3-U0-G3	118	15,572	B2-U0-G3	115	16,291	B2-U0-G3	121
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	18,023	B3-U0-G3	114	17,633	B3-U0-G3	111	18,447	B2-U0-G4	116
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	20,008	B3-U0-G3	110	19,574	B3-U0-G4	107	20,479	B3-U0-G4	112
ECF-S-64L-900-CW-G2-x	64	900	5000	178	21,065	B3-U0-G3	118	20,609	B3-U0-G4	116	21,561	B3-U0-G4	121
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	23,733	B3-U0-G3	115	23,218	B3-U0-G4	113	24,291	B3-U0-G4	118

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 5 Lumen Output	Type 5 BUG Rating	Type 5 Efficacy (LPW)	Type 5W Lumen Output	Type 5W BUG Rating	Type 5W Efficacy (LPW)	Type AFR Lumen Output	Type AFR BUG Rating	Type AFR Efficacy (LPW)
ECF-S-32L-530-CW-G2-x	32	530	5000	56	6,897	B2-U0-G1	124	7,191	B3-U0-G2	129	6,960	B3-U0-G2	125
ECF-S-32L-700-CW-G2-x	32	700	5000	73	8,896	B2-U0-G1	122	9,276	B3-U0-G2	127	8,978	B4-U0-G2	123
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	12,524	B3-U0-G2	119	13,058	B4-U0-G2	124	12,639	B4-U0-G2	120
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	13,893	B3-U0-G2	114	14,485	B4-U0-G2	119	14,020	B4-U0-G2	115
ECF-S-48L-900-CW-G2-x	48	900	5000	135	16,489	B3-U0-G2	122	17,192	B4-U0-G2	127	16,639	B5-U0-G3	123
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	18,671	B3-U0-G2	118	19,467	B5-U0-G3	123	18,841	B5-U0-G3	119
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	20,727	B3-U0-G2	113	21,611	B5-U0-G3	118	20,916	B5-U0-G3	114
ECF-S-64L-900-CW-G2-x	64	900	5000	178	21,822	B3-U0-G2	123	22,753	B5-U0-G3	128	22,021	B5-U0-G3	124
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	24,586	B3-U0-G2	119	25,634	B5-U0-G3	124	24,810	B5-U0-G4	120

Stonco by Signify — Wall mount — LytePro — LPW32 large wall sconce



Stonco LytePro LED large wall sconce LPW32 features outstanding value in a compact, architectural design. This powerful and precise combination offers outstanding energy savings with excellent photometric performance. LPW32 is ideal for building perimeters and corridors in addition to wall lighting applications requiring strong lateral spacing and forward pattern projection.

Project: / Location: / Cat.No: / Type: / Lamps: Qty: / Notes:

Ordering guide

Example: LPW32-70-NW-G3-3-120-PCB-BZ

Prefix	Wattage	LED Color/Gen	Distribution	Emergency	Voltage
LPW32					
LPW32 LytePro 32 LED Large Wall Sconce	70 70W 90 90W 50 50W[1]	NW-G3 Neutral White 4000K 70 CRI Generation 3 WW-G3 Warm White 3000K 70 CRI Generation 3	3 Type 3 4 Type 4	-- None EBP Emergency Battery Pack[1,2,3] EBP only available with 50W version	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)

Options

Dimming controls	Motion sensing	Photocontrol	Finish
FAWS Field Adjustable Wattage Selector[4] BL Bi-level functionality[2,4]	IMRI3 Motion sensor #3 Lens[2,5]	PCB Photocontrol Button[2,6]	Textured: BK Black; WH White; BZ Bronze; DGY Dark Gray; MGY Medium Gray Customer specified: RAL Specify optional color or RAL (ex: OC-LGP or OC-RAL7024); CC Custom color (Must supply color chip for required factory quote)

Stocked luminaires – Ordering guide

Catalog Number	Description	Master Pack, Qty	UPC Code
LPW32-G3-8-DGY	LPW32, 70W, 650mA, 4000K, Type 3, 120-277V, Dark gray textured paint	3	622252813889
LPW32-G3-8-BZ	LPW32, 70W, 650mA, 4000K, Type 3, 120-277V, Bronze textured paint	3	622252813896

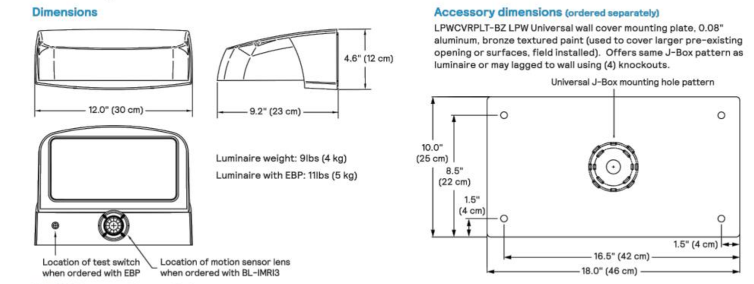
Stocked accessories – Ordering guide (Must be ordered separately)

Catalog Number	Description	Master Pack, Qty	UPC Code
LPWCVRPLT-BZ[7]	LPW Universal wall cover mounting plate, Bronze textured paint	(none)	190096144860

1. 50W configuration available with emergency battery backup only (EBP)
2. Not available in 347 or 480V
3. Not available with BL, FAWS or PCB
4. Not available with other control options.
5. Available only with BL diming option
6. Must specify voltage
7. Other colors available upon request as made-to-order

LPW32 LytePro
LED large wall sconce

Dimensions



Accessory dimensions (ordered separately)
LPWCVRPLT-BZ LPW Universal wall cover mounting plate, 0.08" aluminum, bronze textured paint (used to cover larger pre-existing opening or surfaces, field installed). Offers same J-Box pattern as luminaire or may lagged to wall using (4) knockouts.

LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 3 Lumen Output	Type 3 BUG Rating	Type 3 Efficacy (LPW)	Type 4 Lumen Output	Type 4 BUG Rating	Type 4 Efficacy (LPW)
LPW-32-70-NW-G3	32	650	4000	65	7386	B1-U0-G2	114	7149	B1-U0-G2	111
LPW-32-90-NW-G3	32	900	4000	90	9637	B2-U0-G2	107	9328	B2-U0-G2	104
LPW-32-70-WW-G3	32	650	3000	65	6686	B1-U0-G2	103	6472	B1-U0-G2	100
LPW-32-90-WW-G3	32	900	3000	89	8724	B2-U0-G2	98	8444	B2-U0-G2	95

LED Wattage and Lumen Values – Emergency mode

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts Normal Mode	Average System Watts Emergency Mode	Type 3 Normal Mode	Type 3 Emergency Mode	Type 4 Normal Mode	Type 4 Emergency Mode
LPW-32-50-NW-G3-EBP	32	400	4000	45	10	5232	1625	5064	1573
LPW-32-50-WW-G3-EBP	32	400	3000	45	10	4736	1471	4584	1424

Values from photometric tests performed in accordance with IESNA LM-79 and are representative of the configurations shown.
Actual performance may vary due to installation and environmental variables, LED and driver tolerances, and field measurement considerations. It is highly recommended to confirm performance with a photometric layout.
NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires. Contact factory for configurations not shown.

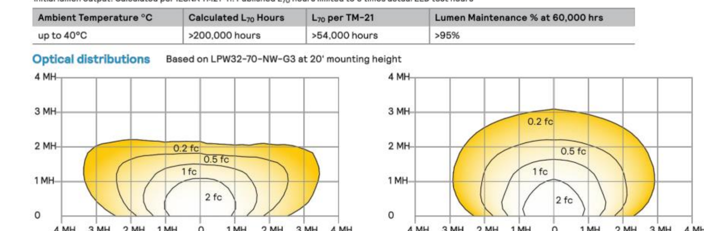
Predicted lumen depreciation data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L_{70} hours limited to 6 times actual LED test hours

Ambient Temperature °C	Calculated L_{70} Hours	L_{70} per TM-21	Lumen Maintenance % at 60,000 hrs
up to 40°C	>200,000 hours	>54,000 hours	>95%

Optical distributions

Based on LPW32-70-NW-G3 at 20' mounting height

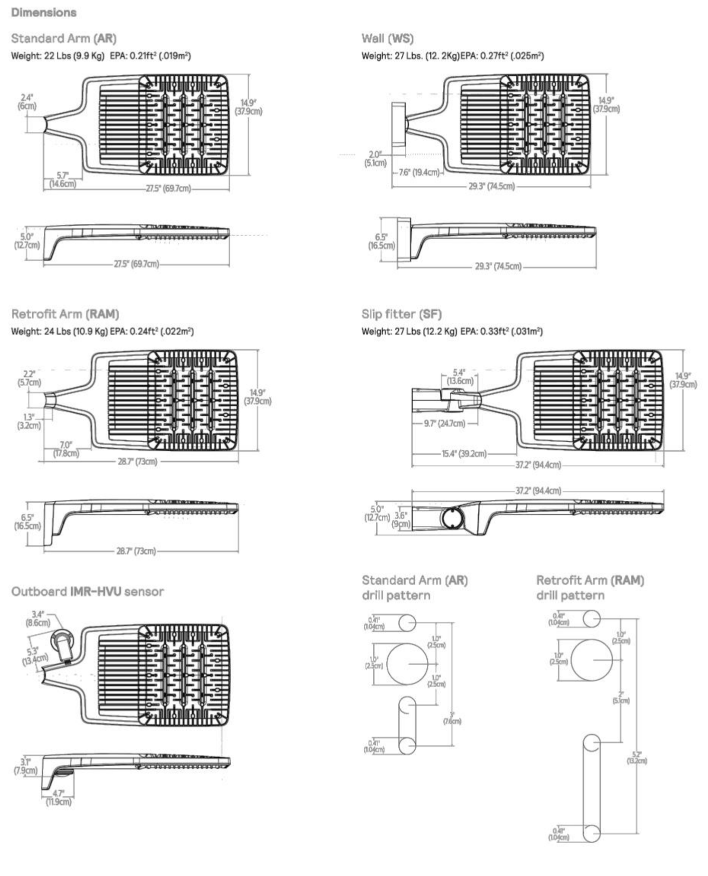


LPW32 20' mounting height			
Mounting height	18 ft	20 ft	23 ft
Multiplier	1.14	1.00	0.79

LPW32 20' mounting height			
Mounting height	18 ft	20 ft	23 ft
Multiplier	1.16	1.00	0.76

ECF-S EcoForm small
Area luminaire

Dimensions



ECF-S EcoForm small
Area luminaire

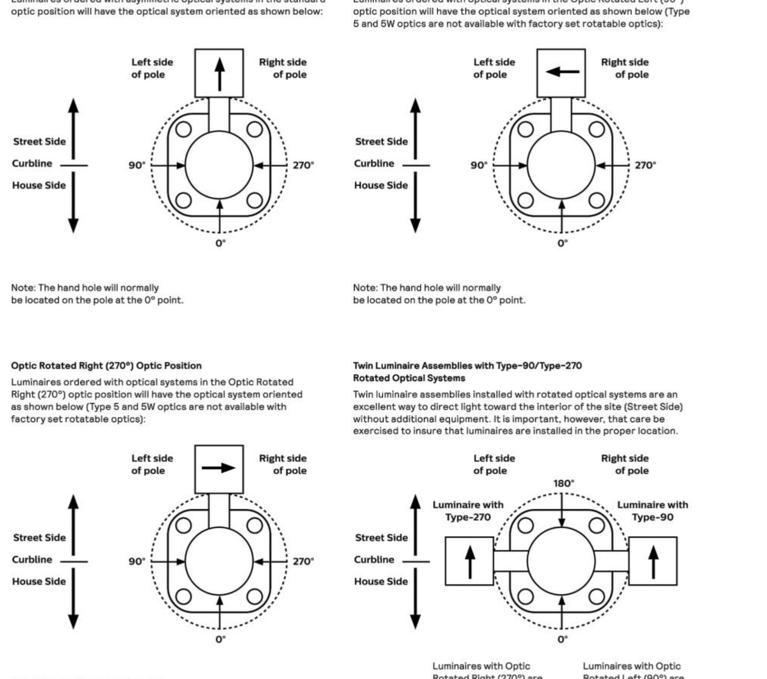
Optical Orientation Information

Standard Optic Position
Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:

Optic Rotated Left (90°) Optic Position
Luminaires ordered with optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):

Optic Rotated Right (270°) Optic Position
Luminaires ordered with optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):

Twin Luminaire Assemblies with Type-90/Type-270 Rotated Optical Systems
Twin luminaire assemblies installed with rotated optical systems are an excellent way to direct light toward the interior of the site (Street Side) without additional equipment. It is important, however, that care be exercised to insure that luminaires are installed in the proper location.



Note: The hand hole will normally be located on the pole at the 0° point.

Note: The hand hole location will depend on the drilling configuration ordered for the pole.

ECF-S EcoForm small
Area luminaire

Specifications

Housing
One-piece die cast aluminum housing with integral arm and separate, self-retained hinged, one-piece die cast door frame. Luminaire housing rated to IP66, tested in accordance to Section 9 of IEC 60598-1.

Vibration resistance
Luminaire is tested and rated 3G over 100,000 cycles conforming to standards set forth by ANSI C136.31-2010. Testing includes vibration in three axes, all performed on the same luminaire.

Light engine
Light engine comprises of a module of 16-LED aluminum metal clad board fully sealed with optics offered in multiples of 2, 3, and 4 modules or 32, 48, and 64 LEDs. Module is RoHS compliant. Color temperatures: 3000K +/-125K, 4000K, 5000K +/- 200K. Minimum CRI of 70. LED light engine is rated IP66 in accordance to Section 9 of IEC 60598-1.

Energy saving benefits
System efficacy up to 133 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

Optical systems
Type 2, 3, 4, 5, 5W, and AFR distributions available. Internal Shield option mounts to LED optics and is available with Type 2, 3, 4, and AFR distributions. Types 2, 3, 4, and AFR where specified and used as rotated, are factory set only. Performance tested per LM-79 and TM-15 (IESNA) certifying its photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

Mounting
Standard luminaire arm mounts to 4" O.D. round poles. Can also be used with 5" O.D. poles. Square pole adapter included with every luminaire. Round Pole Adapter (RPA) required for 3-3.9" poles. EcoForm features a retrofit arm kit. When specified with the retrofit arm (RAM) option, EcoForm seamlessly simplifies site conversions to LED by eliminating the need for additional pole drilling on most existing poles. RAM will be boxed separately. Also optional are slipfitter and wall mounting accessories. Note that only fixed mounts (AR, RAM, WS) are required to meet IDA compliance. SF mounting will not meet IDA.

Control options
0-10V dimming (DD): Access to 0-10V dimming leads supplied through back of luminaire (for secondary dimming controls by others). Cannot be used with other control options.
Dual Circuit Control (DCC): Luminaire equipped with the ability to have two separate circuits controlling drivers and light engines independently. Permits separate switching of separate modules controlled by use of two sets of leads, one for each circuit. Not recommended to be used with other control options, motion response, or photocells.
SiteWise (SW): SiteWise system includes a controller fully integrated in the luminaire that enables the luminaires to communicate with a dimming signal transmitter cabinet located on site using patented central dimming technology. A locally accessible mobile app allows users to access the system and set functionalities such as ON/OFF, dimming levels and scheduling. SiteWise is available with motion response options in order to bring the light back to 100% when motion is detected. Cannot be used with other control options or photocell options. Additional functionalities are available such as communication with indoor lighting and connection to BMS systems. Complete information on the control system can be found on the SiteWise website at philips.com/sitewise.
Automatic Profile Dimming (CS/CM/CE/CA): Standard dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. Dimming profiles include two dimming settings including dim to 30% or 50% of the total lumen output. When used in combination with not programmed motion response it overrides the controller's schedule when motion is detected. After 5 minutes with no motion, it will return to the automatic dimming profile schedule. Automatic dimming profile scheduled with the following settings:

- **CS50/CS30:** Security for 7 hours night duration (Ex., 11 PM – 6 AM)
- **CM50/CM30:** Median for 8 hours night duration (Ex., 10 PM – 6 AM)

All above profiles are calculated from mid point of the night. Dimming is set for 6 hours after the mid point and 1 or 2 hours before depending of the duration of dimming. Cannot be used with other dimming control options.

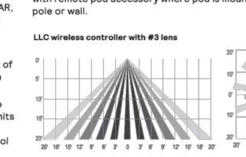
Field Adjustable Wattage Selector (FAWS): Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

FAWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: Typical value accuracy +/- 5%

Wireless system (LLC): Optional wireless controller integral to luminaire ready to be connected to a Limelight system (sold by others). The system allows you to wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely. Based on a high-density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless controls can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor solution. Equipped with motion response with #3 lens for 8-25' mounting heights. Also available with remote pod accessory where pod is mounted separate from luminaire to pole or wall.

LLC wireless controller with #3 lens



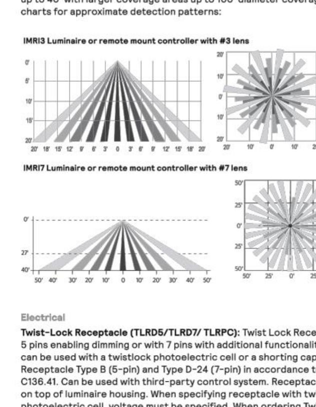
Motion response options
Bi-Level Infrared Motion Response (BL-IMRI): Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL-IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minutes default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. Other dimming settings can be provided if different dimming levels are required. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

ECF-S EcoForm small
Area luminaire

Specifications

Infrared Motion Response with Other Controls: When used in combination with other controls (Automatic Dimming Profile and SiteWise), motion response device will simply override controller's schedule with the added benefits of a combined dimming profile and sensor detection. In this configuration, the motion response device cannot be re-programmed with FSIR-100 Wireless Remote Programming Tool. The profile can only be re-programmed via the controller.

Infrared Motion Response Lenses (IMRI3/IMRI7): Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. Lens #7 is designed for higher mounting heights up to 40' with larger coverage areas up to 100' diameter coverage area. See charts for approximate detection patterns:



Electrical
Twist-Lock Receptacle (TLRD5/TLRD7/ TLRPC): Twist Lock Receptacle with 5 pins enabling dimming or with 7 pins with additional functionality (by others) can be used with a twistlock photoelectric cell or a shorting cap. Dimming Receptacle Type B (5-pin) and Type D-24 (7-pin) in accordance to ANSI C136.41. Can be used with third-party control system. Receptacle located on top of luminaire housing. When specifying receptacle with twistlock photoelectric cell, voltage must be specified. When ordering Twist-lock receptacle (TLRD5 or TLRD7), photocell or shorting cap is not included. TLRPC is shipped standard with 5 pin.
Driver: Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. Optional 0-10V dimming to 10% power. RoHS compliant.

Button Photocontrol (PCB): Button style design for internal luminaires mounting applications. The photocontrol is constructed of a high impact UV stabilized polycarbonate housing. Rated voltage of 120V or 208-277V with a load rating of 1000 VA. The photocell will turn on with 1-4Fc of ambient light.
Surge protection (SP1/SP2): Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA. 20kV / 10kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

Listings
UL/cUL wet location listed to the UL 1598 standard, suitable for use in ambient temperatures from -40° to 40°C (-40° to 104°F). Most EcoForm configurations are qualified under Premium and Standard DesignLights Consortium® categories. Consult DLC Qualified Products list to confirm your specific luminaire selection is approved. CCTs 3000K and warmer are Dark Sky Approved.

Finish
Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult factory for specs on optional or custom colors.

Service Tag
Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away. For more details visit: signify.com

Warranty
EcoForm luminaires feature a 5-year limited warranty.
See signify.com/warranties for complete details and exclusions.

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

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Signify North America Corporation, 200 Franklin Square Drive, Somerset, NJ 08873, Telephone 855-486-2216
Signify Canada Ltd., 281 Hillmount Road, Markham, ON, Canada L6C 2S3, Telephone 800-668-9008

LPW32 LytePro
LED large wall sconce

General Description
LytePro LED large wall sconce LPW32 combines excellent performance, design and value to meet the needs of the energy and budget conscious. The LPW32 is available for use in downward facing, surface wall mount applications, over recessed j-boxes or where power can be directly fed through back surface, whereby connections splices can be made inside the luminaire housing. Two SKU's are available as in-stock configurations (2-day quick ship).

Housing
Die-cast housing houses both the LED and driver assemblies. Design incorporates an integrated heat sink to maximize thermal performance and reliability. Backplate is corrosion free, composite polycarbonate, with built-in level bubble, offers integral interlocking hook and mount design for easy installation.

Mounting
Easy interlocking hook and mount housing/backplate design for easy installation. Mounts over 3.5", 4" octagonal j-boxes and single gang switch boxes or can be directly lagged to surface. Ensure proper steps for gasket/sealing luminaire to surface.

IP Rating
Optical compartment is IP65 rated.

LED Board and Array
Provides up to 114 lm/W in LPW32 at the system level. Standard color temp is 4000K or 3000K +/- 250K, minimum 70 CRI.

Electrical
Driver efficiency (>90% standard). 120-277V and 347-480V available. All drivers are dimmable.. Temp range: -40°C (-40°F) to 40°C (104°F). Open/short circuit protection. Inherent surge protection up to (6KVA). RoHS compliant.
Surge protection (SP1): Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA.

Listings
Product is cETLus listed suitable for Wet Locations. Suitable for use in ambients from -40°C to 40°C (-40°F to 104°F). DesignLights Consortium® qualified.

Finish
Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish.

Emergency Option
Emergency Battery Backup (EBP): Emergency battery packs included integral to the luminaire, allowing for a consistent look between emergency and non-emergency luminaires. A separate surface mount accessory box is not required. EBP is suitable for use in ambient temperature conditions from 0°C (-32°F) to 40°C (104°F) available on 50W configuration only. System is designed to have a secondary driver with relay to immediately detect AC power loss to power luminaire for a minimum of 90 minutes from the time power is lost. Available with 120-277V, or 'UNV' only.

Dimming Control Options
Field Adjustable Wattage Selector (FAWS): Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

FAWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: Typical value accuracy +/- 5%

Motion Response Options
Bi-Level Infrared Motion Response (BL): Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minutes default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. Other dimming settings can be provided if different dimming levels are required. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).
Infrared Motion Response Lenses (IMRI3): Infrared Motion Response integral module is available with sensor lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. See charts for approximate detection patterns:

IMRI3 Luminaire with #3 lens



Warranty
LPW32 luminaires, the LED arrays, and the drivers are all covered by a 5-year limited warranty. See www.signify.com/warranties for details.

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No.	REVISIONS	DATE	BY
1	BID SET	02/10/20	

Kimley»Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

KHA PROJECT 113414010
DATE 02/18/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

LIGHTING DETAILS

GREEN CLEAN
3290 WORTH XING
PREPARED FOR
GREEN CLEAN
ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CL-501

PLANT SCHEDULE

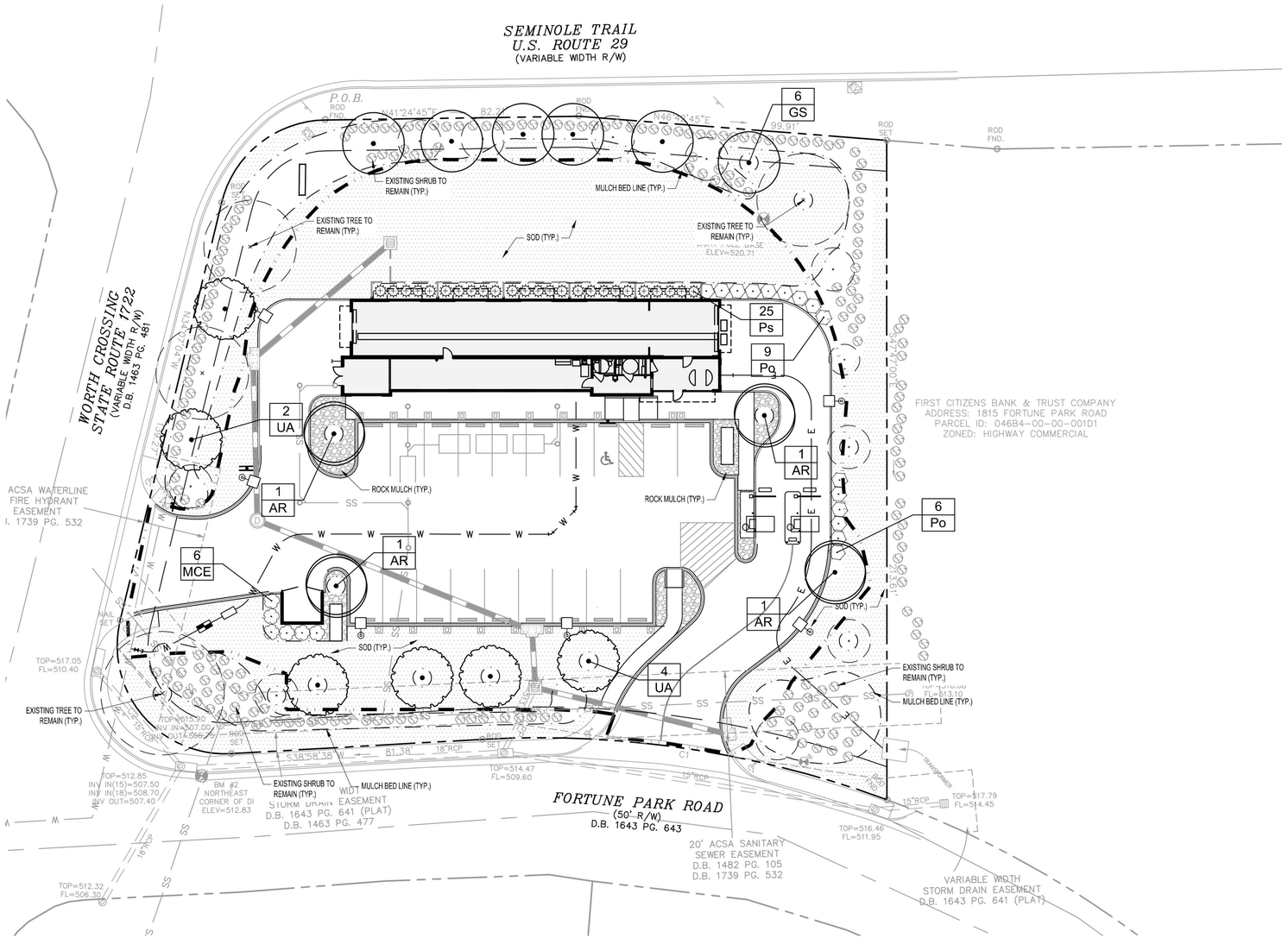
LARGE SHADE TREE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL / HT
AR	4	Acer rubrum `Red Sunset` Strong central leader	Red Sunset Maple	B & B	2.5"Cal
GS	6	Gleditsia triacanthos inermis `Shademaster` TM 12` HT MIN, Strong central leader	Shademaster Locust	B & B	3.5"Cal
UA	6	Ulmus americana `Princeton` Strong central leader	American Elm	B & B	2.5"Cal

EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT
MCE	6	Myrica cerifera Uniform; Dense; Full to the ground	Wax Myrtle	Cont.	24" HT MIN
Po	15	Prunus laurocerasus `Otto Luyken`	Otto Luyken Cherry Laurel	Cont.	

ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT
Ps	25	Panicum virgatum `Shenandoah`	Switch Grass	1 gal	

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.
4. BOTH PROPOSED AND EXISTING LANDSCAPING PLANTS AND TREES ADJACENT TO SITE DISTANCE TRIANGLE NEED TO BE MAINTAINED BETWEEN 2 AND 7 FEED ABOVE GROUND AS CLEAR ZONE.



KEY PLAN LEGEND

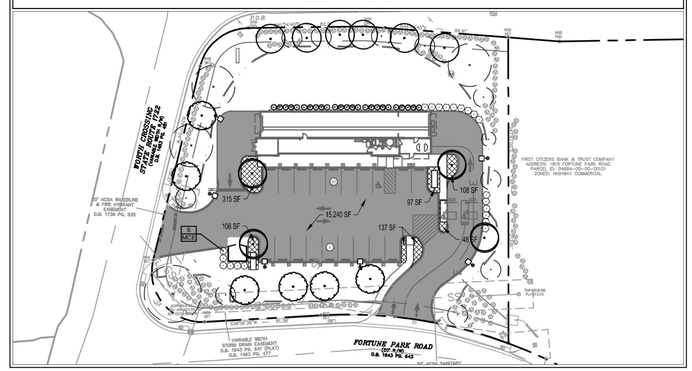
PARKING LOT LANDSCAPING AREA

PAVED PARKING AREA

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

PARKING LOT LANDSCAPING KEY PLAN
SCALE: 1" = 50'-0"



LANDSCAPE REQUIREMENTS AND CALCULATIONS PER ALBEMARLE COUNTY CODE AND ARCHITECTURAL REVIEW BOARD DESIGN GUIDELINES:

REQUIRED LANDSCAPING:

SITE REQUIREMENT (32.7.9.8): 10% CANOPY REQUIRED
SITE AREA: 47,057 SF X 10% = 4,708 SF
CANOPY REQUIRED: 4,708 SF
EXISTING CANOPY: 4,840 SF
CANOPY PROVIDED: 4,968 SF
TOTAL CANOPY PROVIDED: 9,808 SF

PARKING LANDSCAPE (32.7.9.6): 5% OF PARKING PAVED AREA.
15,240 SF X .05 = 762 SF
REQUIRED: 762 SF OF LANDSCAPED AREA
PROVIDED: 811 SF OF LANDSCAPED AREA

LARGE SHADE TREES (2.5" CAL.)
19 PARKING SPACES (19 / 10 = 1.9)
REQUIRED: 2 LARGE SHADE TREES
PROVIDED: 3 LARGE SHADE TREES

LARGE STREET TREE (2.5" CAL.) – 50' O.C & SHRUBS 5' O.C.
WORTH CROSSING
150 LF OF FRONTAGE/50 = 3 TREES
150 LF OF FRONTAGE/5 = 30 SHRUBS
REQUIRED: 3 LARGE SHADE TREES & 30 SHRUBS
EXISTING: 2 LARGE SHADE TREES & 41 SHRUBS
PROVIDED: 2 LARGE SHADE TREE

FORTUNE PARK ROAD
210 LF OF FRONTAGE/50 = 4.2 TREES
210 LF OF FRONTAGE/5 = 42 SHRUBS
REQUIRED: 5 LARGE SHADE TREES & 42 SHRUBS
EXISTING: 2 LARGE SHADE TREES & 73 SHRUBS
PROVIDED: 4 LARGE SHADE TREES

DUMPSTER ENCLOSURE TO BE SCREENED WITH 6 EVERGREEN SHRUBS.

ENTRANCE CORRIDOR OVERLAY:

LARGE SHADE STREET TREE (3.5" CAL.) – 35' O.C. W/ INTERSPERSED ORNAMENTALS (6' HT.) & SHRUBS 5' O.C.
SEMINOLE TRAIL
205 LF OF FRONTAGE/35 = 5.86 TREES
205 LF OF FRONTAGE/5 = 41 SHRUBS
REQUIRED: 6 LARGE SHADE TREES W/ VARIABLE ORNAMENTALS & 41 SHRUBS
EXISTING: 1 LARGE SHADE TREE W/ 4 ORNAMENTALS & 65 SHRUBS
PROVIDED: 6 LARGE SHADE TREES

County of Albemarle
Conservation Plan Checklist – To be placed on Landscape Plans
(Handbook, pp III-284-111-297 for complete specifications)

1. **The following items shall be shown on the plan:**
   - ☑ Trees to be saved;
   - ☑ Limits of clearing (outside dripline of trees to be saved);
   - ☑ Location and type of protective fencing;
   - ☐ Grade changes requiring tree wells or walls;
   - ☐ Proposed trenching or tunneling beyond the limits of clearing.
2. **Markings:**
   - ☑ All trees to be saved shall be marked with print or ribbon at a height clearly visible to equipment operators.
   - ☑ No grading shall begin until the tree marking has been inspected and approved by a County Inspector.
3. **Pre-Construction Conference:**
   - ☑ Tree preservation and protection measures shall be reviewed with the contractor on site.
4. **Equipment Operation and Storage:**
   - ☑ Heavy equipment, vehicular traffic and storage of construction materials including soil shall not be permitted within the driplines of trees to be saved.
5. **Soil Erosion and Stormwater Detention Devices:**
   - ☑ Such devices shall not adversely affect trees to be saved.
6. **Fires:**
   - ☑ Fires are not permitted within 100 feet of the dripline of trees to be saved.
7. **Toxic Materials:**
   - ☑ Toxic materials shall not be stored within 100 feet of the dripline of trees to be saved.
8. **Protective Fencing:**
   - ☑ Trees to be retained within 40 feet of a proposed building or grading activity shall be protected by fencing.
   - ☑ Fencing shall be in place and shall be inspected and approved by a County Inspector prior to grading or construction.
9. **Tree Wells:**
   - ☐ When the ground level must be raised within the dripline of a tree to be saved, a tree well shall be provided and a construction detail submitted for approval.
10. **Tree Walls:**
    - ☐ When the ground level must be lowered within the dripline a tree to be saved, a tree wall shall be provided; and a construction detail submitted for approval.
11. **Trenching and Tunneling:**
    - ☐ When trenching is required within the limits of clearing, it shall be done as far away from the trunks of trees as possible. Tunneling under a large tree shall be considered as an alternative when it is anticipated that necessary trenching will destroy feeder roots.
12. **Cleanup:**
    - ☑ Protective fencing shall be the last items removed during the final cleanup.
13. **Damaged Trees:**
    - ☑ Damaged trees shall be treated immediately by pruning, fertilization or other methods recommended by a tree specialist.

NOTE: IT IS THE DEVELOPER'S RESPONSIBILITY TO CONFER WITH THE CONTRACTOR ON TREE CONSERVATION REQUIREMENTS.

02/17/21
OWNER SIGNATURE **(DATE)**

CONTRACT PURCHASER SIGNATURE **(DATE)**

5/1/06 Page 1 of 1

No.	REVISIONS	DATE	BY
1	BID SET	02/10/20	

Kimley»Horn
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COMMONWEALTH OF VIRGINIA
ROBBIE D. ROACH
Lic. No. 1870
02/18/2021
LANDSCAPE ARCHITECT

KHA PROJECT 113414010
DATE 02/18/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

PLANTING PLAN

GREEN CLEAN
3290 WORTH XING
PREPARED FOR
GREEN CLEAN
ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CP-101

Plotted By: Baum, Carter Sheet Set: Kha Layout: CP-101 PLANTING PLAN February 18, 2021 09:10:01am K:\Ric_Civ\113414 - Green Clean\010 - Seminole Trail – Albemarle County\CAD\PlanSheets\CP-101 PLANTING PLAN.dwg
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GENERAL 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.

PERFORMANCE SPECIFICATION

I. PLANTS

A. General

1. Live healthy plants free of dead branches and parts
2. Free of disease, insect, injury and damage
3. Unbroken, intact, dense and solid rootballs and containers, without cracks, flat sides or previously repaired damage.
4. Free of girdling roots or rootbound/circling container conditions
5. Plants of consistent in growth habit and healthy character
6. Free of compromising growth conditions such as weak crotch connections, crossed branches, snags and scars
7. Point of origin growing location within 100 miles of project site
8. Graded, standards, caliper, sizes and stock consistent with *ANSI Z60.1, American Standard for Nursery Stock* most current edition
9. Species identified consistent with *Hortus Third: . Concise Dictionary of Plants Cultivated in the United States and Canada*, most current edition and *Manual of Woody Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*, most current edition
10. All disturbed areas shall be grass seed unless otherwise identified on landscape plans

B. Trees:

1. Deciduous Single Trunk
   a. Full, straight and upright with consistent symmetrical natural branching pattern throughout
   b. Branching Height-seven (7) feet to lowest branch in two years unless otherwise required by local jurisdiction

2. Deciduous Multi-Trunk
   a. Full and upright with straight consistent symmetrical natural branching pattern throughout
   b. Canes evenly spaced and of similar growth habit
   c. Free of suckers and extraneous branching

3. Evergreen Single-Trunk
   a. Full and upright with continuous symmetrical dense natural habit
   b. Clear branching height twelve (12) inches above top of rootball
   c. Free of suckers and extraneous branching
   d. Do not shear or otherwise prune to shape plantings

C. Evergreen and Deciduous Shrubs

1. Full, dense and naturally symmetrical.
2. Consistent with container and/or balled and burlapped size
3. Free of suckers and extraneous branching
4. Do not shear or otherwise prune or shape plantings

D. Evergreen and Deciduous Groundcover

1. Full and dense in pots or flats

E. Perennials and Seasonal Color

1. Full and dense in pots or flats

F. Turf Grass

1. Subgrade
   a. Soil Mix-10% Compost, 90% topsoil by volume
   b. Preparation-loosen subgrade to a minimum depth of four (4) inches. Remove all non-natural materials including litter, stones, sticks and all items greater than ¾ inch in any dimension
   c. Preparation-spread soil mix at a depth of four (4) inches continuously to meet grade elevations shown on drawings. Allow for thickness of sod when applicable

2. Grass Sod
   a. Install not longer than twenty-four (24) hours from harvest
   b. Grass bed not less than two (2) inches in continuous thickness
   c. 100% continuous live sod coverage after first growing season and at end of warranty period.
   d. Of uniform non-varying density and continuous texture quality capable of growth and development immediately upon installation. Weed and noxious plant free
   e. Stagger installation rows and place aligned parallel to contours
   f. Fill joints solidly with planting bed preparation soil
   g. Provide anchor pins at twenty-four (24) inches on center for slopes greater than 4:1

3. Grass Seed
   a. Mix approved by the Landscape Architect
   b. Provide first and new of year seed crops in mix free of weed seeds and deleterious matter
   c. Provide seed mix not greater than 15% annual or perennial rye
   d. Coverage 85% continuous coverage live stand after first growing season and at end of warranty
   e. Replacement or overseeding mixes consistent with original application/installation
   f. Provide erosion blankets or other slope retention methods as noted on drawings

II. Materials and Appurtenances

A. Testing

1. Materials testing information/certificates/dated labels shall be current to the project and performed/certified not greater than 120 calendar previous days from current date of submittal for review

B. Top Soil

1. Neutral Ph balance 5.5 -7.5. Friable and containing 2.0-5.0% organic matter by dry weight. Continuously free of non-soil items such as stones, debris, sticks, trash, and deleterious matter greater than ¾ inch in any direction. Clay content shall not exceed 25%.Gravel content shall not exceed 10%. Silt shall not exceed 25%

C. Use of Existing Topsoil

1. Existing topsoil on-site may be repurposed with prior Owner approval. Contractor shall provide soil testing and additive program that demonstrates consistent performance and characteristics and composition as identified herein. Owner shall approve soil testing and soil amendment/additive methods and procedures

D. Shredded Hardwood Mulch

1. 100% organic shredded first year hardwood free of deleterious matter, rock, gravel and weed seed. Neutral Ph balance 5.5-7.5

E. Composted Pine Bark Fines

1. 100% organic ground pine bark with no particle dimension greater than ¾-inch and no greater than 10% wood content

F. Compost Ph

1. Balanced 5.0-8.5 mature, stable and weed free produced by natural aerobic decomposition. Free of visible contaminants and toxic substances. Not greater than 5% sand, silt, clay or rock by dry weight. Consistent with US-EPA CFR Title 40 Part 503 Standards for Class A biosolids

G. Compost Testing

1. Prior to delivery on-site, the following items are required for approval by Owner: Feedstock percentage in final compost product; statement that the products meets federal, state and local health safety requirements
2. Provide copy of lab analysis less than 120 calendar days old verifying that the product meets described physical requirements; chemical contaminants; Ph; physical contaminants; biological contaminants (including a statement that fecal coliform and salmonella testing and results comply with requirements of the US Composting Council Seal of Testing approval programs

H. Planting Mix

1. 85% topsoil and 15% Compost

I. Fertilizer

1. Granular 10% nitrogen, 6% Phosphorous, 4% Potassium granular form with 50% Nitrogen in organic form. Product and Material Safety Data as approved by Owner

J. Herbicide

1. Product and Material Safety Data as approved by Owner

K. Water

1. Potable only unless otherwise approved by Owner

L. Hardwood Stakes

1. 2 x 2 x 48 inch square of sound hardwood, painted flat black on all sides

M. Tree Ties

1. Villa Non-Abrasive Rubber Tree Ties or approved equal

N. Filter Fabric

1. Mirafi 140-N or approved equal

III. Execution

A. Site Conditions

1. Inspect site and notify Owner in writing of acceptance with indication that project conditions are acceptable are suitable to proceed with work. Notify Owner of any existing damage and/or other conflicting conditions.
2. Do not proceed with work until unsatisfactory conditions have been satisfactorily remedied. Notify Owner of acceptance prior to commencement of work.
3. Notify Owner in writing of any conditions that may preclude successful completion of work including items such as coordination with other trades, incomplete work, drainage, soil temperature and/or composition, access to storage/work areas, damage to conditions, etc.
4. Notify Owner in writing immediately of any items that may influence work schedule, timing of tasks, materials delivery and/or installation and warranty responsibilities.
5. Coordinate and cooperate with other trades working in and adjacent to work areas. Examine drawings of other trades which show development of the entire project and become familiar with the scope of required work by others.

B. Planting Seasons

Recommended seasons are a general guide based on historical climatic data and typical performance of plantings, and which vary dependent on project-specific environmental conditions. Due to construction schedules, recommended planting seasons may/may not coincide with request(s) for certificate of occupancy for projects. Coordination of planting installation and seasons shall be reviewed with Owner on an individual project basis.

1. Deciduous and Evergreen Shrubs
a. Install/plant between March 15 and June 15 and/or September 15 and November 30

3. Perennials
a. Install/plant between March 15 and June 15 and/or September 15 and November 30

4. Spring Flowering Bulbs
a. Install/plant between September 15 and December 15

5. Seasonal Annuals
a. Install/plant in season per approved schedule

6. Turf Grass
a. Install/plant between March 15 and May 15 and/or September 15 and November 30
b. Do not install/plant seed or sod turf grass areas when ambient air temperature is below forty (40) degrees Fahrenheit, or forecast for a twelve (12) hour period after completion of work

7. No Plant Installation
a. Do not install plantings or turf grass between June 15 and September 15, without approval by Owner

C. Positioning & Location of Plantings

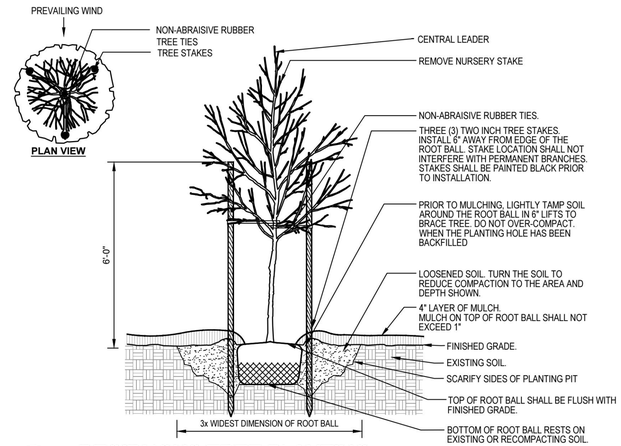
1. Position plants to show the most-prominent and well-formed face to most-public view
2. Field locate plants and location/spacing/dimension of planting beds on project site prior to beginning installation
3. Verify location of individual plants and plant beds prior to beginning installation. Do not proceed without Owner approval

D. Implementation

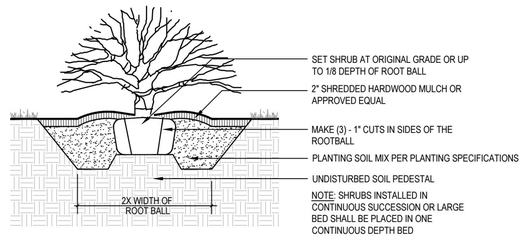
1. Pursue work continuously without delay or interruption until completion unless notified otherwise by Owner
2. Provide project submittals ahead of commencement of work. Landscape Architect requires a minimum of ten (10) working days from date of receipt for review of submittals and response to Owner and Contractor. Plan accordingly for procurement of materials
3. Continuously update implementation schedule and notify Owner of progress. Delays related to material availability are not cause for non-completion of scheduled delivery of work
4. Report delays due to weather or site conditions immediately upon finding. Provide recommendation for remedy of schedule delays. Do not work, place or modify frozen soil
5. Report delays due to extraordinary natural or other conditions beyond control of Contractor

E. Clean Up

1. Remove trash, debris and work materials from site prior to request for substantial completion. Thoroughly clean surfaces impacted by work including building, parking areas, roadways, sidewalks, signs, lights, site furnishings, etc.
2. Repair any damage to existing conditions that occurred during execution of work.
3. All clean-up and demobilization procedures shall be performed to satisfaction of the Owner and Landscape Architect.



A DECIDUOUS TREE PLANTING
NOT TO SCALE



B SHRUB PLANTING
NOT TO SCALE

No.	REVISIONS	DATE	BY
1	BID SET	02/10/20	

Kimley»Horn

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COMMONWEALTH OF VIRGINIA
ROBBIE D. ROACH
Lic. No. 1870
10/26/2020
LANDSCAPE ARCHITECT

KHA PROJECT 113414010
DATE 02/18/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

PLANTING NOTES AND DETAILS

GREEN CLEAN
3290 WORTH XING

PREPARED FOR
GREEN CLEAN

ALBEMARLE COUNTY VIRGINIA

SHEET NUMBER
CP-501

Plotted By:Baum, Carter Sheet Set:Kha Layout:CP-501 PLANTING NOTES AND DETAILS February 18, 2021 09:02:02pm K:\RIC_CIV\113414 - Green Clean\CAD\010 - Seminole Trail - Albemarle County\CAD\PlanSheets\CP-501 PLANTING NOTES AND DETAILS.dwg
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