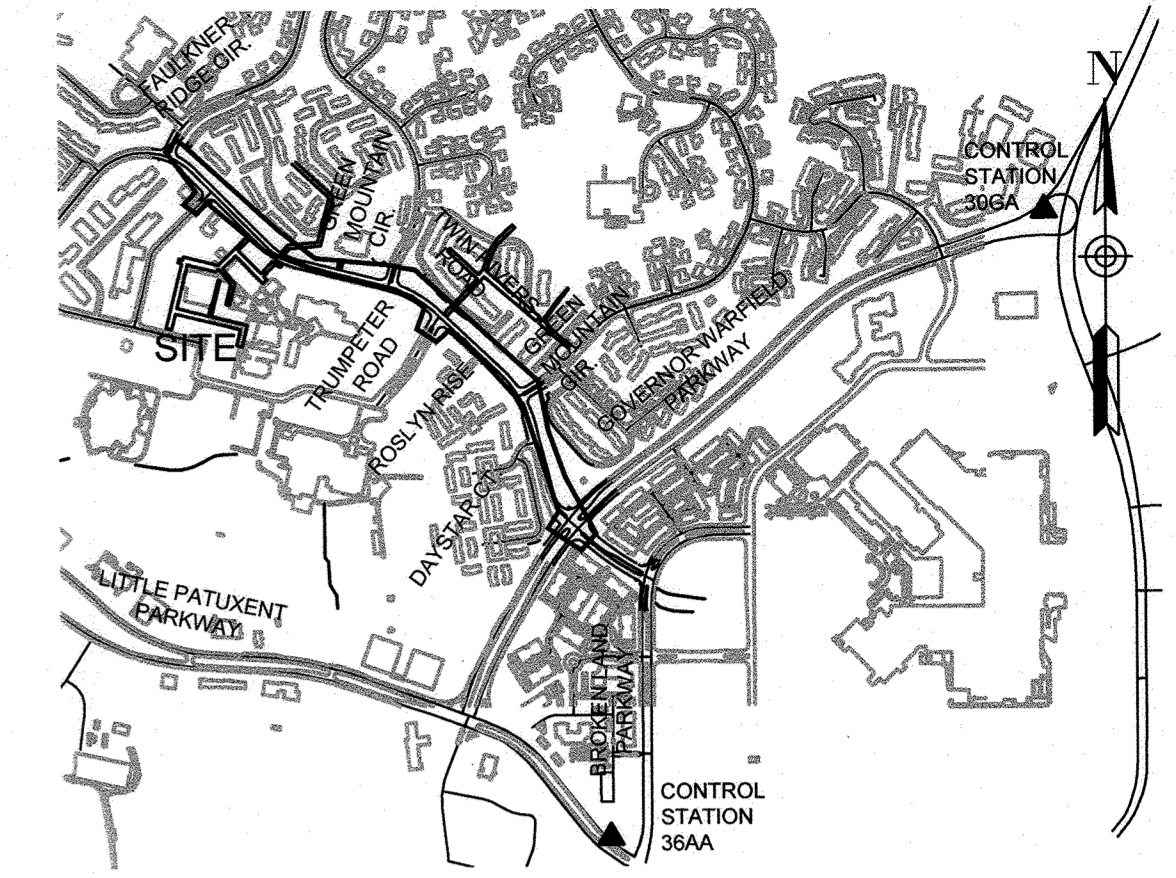


WILDE LAKE MULTI-USE PATHWAY SITE DEVELOPMENT PLAN SDP-19-036 HOWARD COUNTY, MARYLAND



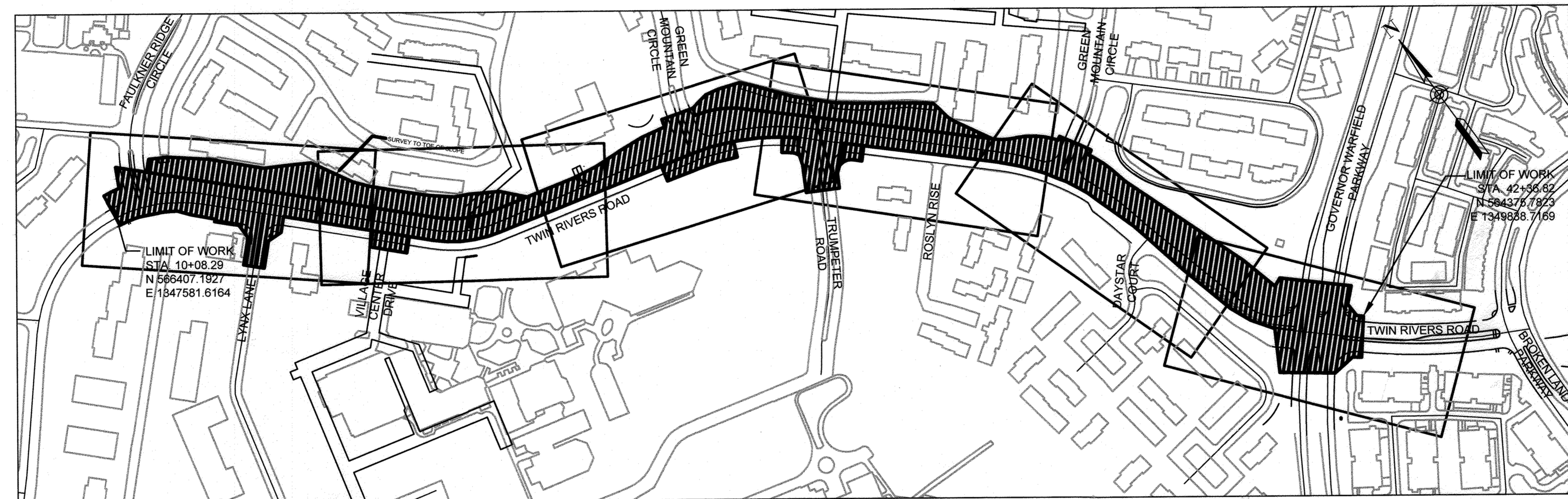
ADC MAP 26
GRIDS D7, E7, E8
VICINITY MAP
SCALE 1" = 1000'

SITE ANALYSIS DATA CHART
AREA OF PLAN SUBMISSION: 2.46 ACRES
LIMIT OF DISTURBED AREA: 2.46 ACRES
PRESENT ZONING DESIGNATION: NT
CEPPA NUMBER: 18
PROPOSED USE: MULTI-USE PATH

HOWARD COUNTY CONTROL STATIONS
30GA NORTHING: 566,053.9979
EASTING: 1,352,177.5307
ELEVATION: 339.87 (LATEST ADJ. NOV. 2008)
36AA NORTHING: 562,804.8537
EASTING: 1,349,908.1701
ELEVATION: 359.151 (LATEST ADJ. NOV. 2008)

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY AND MARYLAND STATE HIGHWAY ADMINISTRATION STANDARDS AND SPECIFICATIONS AS APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MDMUTCD).
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS FIELD SURVEY PREPARED BY GUTSCHICK LITTLE AND WEBER, PA. DATED APRIL 2017 AND SUPPLEMENTED IN SEPTEMBER 2018.
- SUBSURFACE DATA IS BASED ON A FIELD SURVEY BY AIDATA, INC. DATED MAY 2017.
- COORDINATES ARE BASED ON NAD '83/ NAVD 88 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 30 GA AND 36 AA.
- ALL PROPOSED IMPROVEMENTS SHALL MEET ALL APPLICABLE HOWARD COUNTY, AASHTO, MDMUTCD STANDARDS AND THE US ACCESS BOARD PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
- EXISTING UTILITIES ARE BASED ON AVAILABLE PUBLIC RECORDS AND LIMITED FIELD UTILITY SURVEY. THE CONTRACTOR SHALL DIG TEST PITS BY HAND AT ALL PROPOSED UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION AND DEPTH OF EXISTING UTILITIES.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES ADJACENT TO THE PROJECT SITE AT ALL TIMES. PRIOR TO DEMOLITION OF EACH SEGMENT OF THE EXISTING PATHWAY, CONTRACTOR SHALL PROVIDE AN ADA-COMPLIANT DETOUR ROUTE FOR PEDESTRIANS AND CYCLISTS AROUND CLOSED SECTIONS OF THE PATHWAY. PROVIDE BARRICADES AND DETOUR SIGNAGE PER MDMUTCD AT EACH CLOSURE.
- THE CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC OPEN IN EACH DIRECTION AT ALL TIMES ON TWIN RIVERS ROAD. TRAFFIC CONTROL FOR ALL LANE AND SHOULDER CLOSURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE TEMPORARY TRAFFIC CONTROL REQUIREMENTS OF THE MARYLAND STATE HIGHWAY ADMINISTRATION BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING BUS STOPS AT TRUMPETER LANE AT ALL TIMES. CONTRACTOR SHALL COORDINATE WITH HOWARD COUNTY TRANSIT FOR TEMPORARY RELOCATION OF WESTBOUND BUS STOP.
- NO WETLANDS, STREAMS, OR FLOODPLAINS ARE LOCATED WITHIN OR ADJACENT TO THE SITE.
- NO HISTORIC STRUCTURES OR CEMETERIES ARE IMPACTED BY THIS PROJECT.
- NO TRAFFIC OR NOISE STUDIES ARE REQUIRED FOR THIS PROJECT.



LOCATION MAP
SCALE 1" = 200'

- THE SUBJECT PROPERTIES ARE ZONED NT PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. THE PROJECT IS INTENDED TO FULFILL COMMUNITY ENHANCEMENTS, PROGRAMS, AND PUBLIC AMENITIES (CEPPA) REQUIREMENT #18, WHICH IS FOR THE HRD TO CONSTRUCT AT ITS EXPENSE THE WILDE LAKE TO DOWNTOWN COLUMBIA PEDESTRIAN AND BICYCLE PATHWAY.
- LANDSCAPE PLANS HAVE BEEN PREPARED BY A REGISTERED LANDSCAPE ARCHITECT AND ARE CERTIFIED TO CONFORM TO THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$4,380 FOR 9 SHADE TREES, 8 EVERGREEN TREES, 26 SHRUBS, 0 LF OF FENCE, AND 0 LF OF WALL.
- IN ACCORDANCE WITH SUBSECTION 16.1202(b)(1)(iv) THIS PROJECT IS EXEMPT FROM THE REQUIREMENT OF SECTION 16.1200 OF HOWARD COUNTY CODE FOR FOREST CONSERVATION SINCE IT IS PART OF A PLANNED UNIT DEVELOPMENT WHICH HAD PRELIMINARY PLAN APPROVAL AND 50% OR MORE OF THE LAND WAS RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE DECEMBER 31, 1992.
- STORM WATER MANAGEMENT REQUIREMENTS WILL BE FULFILLED WITH THE USE OF PERMEABLE ASPHALT AND NON-ROOF TOP IMPERVIOUS SURFACE DISCONNECTION.
- APPLICABLE DPZ FILES:
ECP-19-025 WILDE LAKE MULTI-USE PATHWAY ENVIRONMENTAL CONCEPT PLAN
SDP-90-189 WILDE LAKE PATHWAY (GREEN MOUNTAIN CIRCLE TO GOVERNOR WARFIELD PARKWAY)
FDP-11-A-1 VILLAGE OF WILDE LAKE, SECTION 5
FDP-2-A-9 VILLAGE OF WILDE LAKE, SECTIONS 1 THROUGH 4
F-68-063 TWIN RIVERS ROAD
SDP-73-058 WILDE LAKE HOLLOW OAKS TOT LOT
- IMPACTS TO EXISTING VEGETATION WILL BE MITIGATED BY 1:1 ONSITE REPLACEMENT PLANTINGS FOR EACH TREE REMOVED.
- PATH DEVELOPER: HOWARD HUGHES CORPORATION
PATH OWNER: HOWARD COUNTY (VIA LICENSE AGREEMENT WITH LANDOWNER)
PATH MAINTENANCE: DOWNTOWN COLUMBIA PARTNERSHIP (SEE 3-PARTY MAINTENANCE AGREEMENT)
PATH LAND OWNER: COLUMBIA ASSOCIATION

WILDE LAKE CONNECTOR TRAIL PROPERTY OWNERSHIP														
Property ID	Zone	Account ID	Property Ownership	Legal Description / Address	Plot No.	Deed Liber	Deed Folio	Tax Map	Tax Map Grid	Parcel	Lot	Easement	Parcel Area	Plan Sheet
1	NT	1415010991	COLUMBIA ASSOCIATION INC	6.082 A. OPEN SPACE EASEMENTS FAULKNER RIDGE S 5	3054 A-1378	3324	191	29	0	136	OP SP	TEMPORARY CONSTRUCTION, PERMANENT ACCESS, MAINTENANCE, AND STORMWATER MANAGEMENT	6.0800 AC	C1.1
2	NT	1415011149	COLUMBIA ASSOCIATION INC	LOT 211. 320 A GREEN MOUNTAIN CR BRYANT WOODS S1	22419	3324	191	30	0	241	211	TEMPORARY CONSTRUCTION, PERMANENT ACCESS, MAINTENANCE, AND STORMWATER MANAGEMENT	0.3200 AC	C1.3
3	NT	1415011130	COLUMBIA ASSOCIATION INC	LOT 212. 891 A GREEN MOUNTAIN CR BRYANT WOODS S1	22419	3324	191	30	0	241	212	TEMPORARY CONSTRUCTION, PERMANENT ACCESS, MAINTENANCE, AND STORMWATER MANAGEMENT	0.8900 AC	C1.4, C1.5
4	NT	1415011025	COLUMBIA ASSOCIATION INC	LOT 221 1.567 A GREEN MOUNTAIN CR BRYANT WOODS S1	22420	3324	191	30	0	241	221	TEMPORARY CONSTRUCTION, PERMANENT ACCESS, AND MAINTENANCE	1.5600 AC	C1.5

SHEET INDEX

SHEET NUMBER	DRAWING NUMBER	DESCRIPTION
1	C0.0	COVER SHEET
2	C0.1	LEGENDS AND ABBREVIATIONS
3	C1.0	GEOMETRIC LAYOUT PLAN
4-9	C1.1-C1.6	EASEMENT PLANS
10-12	C2.A-C2.C	E&S NOTES AND DETAILS
13-18	C2.1-C2.6	E&S AND DEMO PLANS
19-24	C3.1-C3.6	TRAIL PLAN AND PROFILE
25-30	C4.1-C4.6	SIGNING AND MARKING PLANS
31-36	C5.1-C5.6	LANDSCAPE PLANS
37	C5.7	LANDSCAPE DETAILS
38	C5.8	WAYSIDE ENLARGEMENT
39-46	C6.1-C6.7	GENERAL DETAILS
47-48	C7.1-C7.2	DRAINAGE AREA MAPS
49-54	C8.1-C8.6	TRAFFIC SIGNAL PLANS
55-60	LL.1-LL.6	LIGHTING PLANS
61-63	C10.1-C10.3	RAMP ENLARGEMENT DETAILS

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

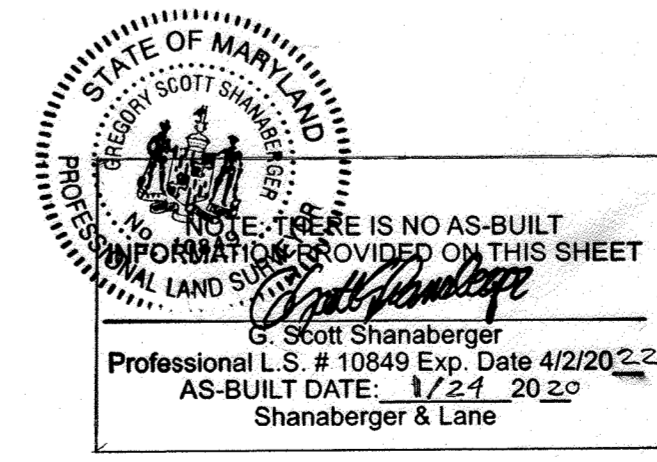
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19
Date: 12-24-19
Chief, Division of Land Development: [Signature] 12-23-19
Date: 12-23-19
Chief, Development Engineering Division: [Signature] 12-16-19
Date: 12-16-19

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DESIGN	DATE	BY	APPR.
DES. DPB			
DRN. AG			
CHK. EM			

Howard Hughes.
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 5002
EXPIRATION DATE: 12/28/19



PERMIT INFORMATION CHART					
PROJECT NAME:	SECTION/AREA	SEE PROPERTY OWNERSHIP TABLE ABOVE	PARCEL	SEE PROPERTY OWNERSHIP TABLE ABOVE	SEE PROPERTY OWNERSHIP TABLE ABOVE
WILDE LAKE MULTI-USE PATHWAY					
L/F SEE PROPERTY OWNERSHIP TABLE ABOVE	ZONE	TAX MAP	BLOCK	ELEC. DIST.	CENSUS TRACT
	NT	29/30/36	MULTIPLE	20	6054

COVER SHEET C0.0		
SCALE	ZONING	TDC. FILE No.
AS SHOWN	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	1 OF 63

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIR.
HOWARD COUNTY
ELECTION DISTRICT 5

I:\des-19036\19036\19036.dwg, Wild Lake Connector Trail\PRODUCTION\CAUVPLANS\5477.02.dwg, 001-003.dwg, PLOTTED: 7/11/2019 12:23 AM, LAST SAVED: 7/10/2019 11:36 PM, PLOTTED BY: Melony Allerton-Birk

DEMOLITION LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED

EROSION SEDIMENT CONTROL LEGEND

- LIMIT OF DISTURBANCE
- SILT FENCE
- TREE PROTECTION FENCE
- CURB INLET PROTECTION

SURVEY/SITWORK LEGEND

- EXISTING PROPERTY BOUNDARY/ RIGHT-OF-WAY
- PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT ACCESS/ MAINTENANCE/STORMWATER MANAGEMENT EASEMENT
- EXISTING GRADE CONTOUR - MAJOR
- EXISTING GRADE CONTOUR - MINOR
- FINISHED GRADE CONTOUR - MAJOR
- FINISHED GRADE CONTOUR - MINOR
- EDGE OF PAVEMENT
- CURB AND GUTTER
- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- PROPOSED IMPERVIOUS PAVEMENT
- PROPOSED PERMEABLE PAVEMENT
- PROPOSED CONCRETE
- PROPOSED SIGN ON U-POST
- EXISTING SIGN ON U-POST
- COBRAHEAD LIGHT FIXTURE
- PROPOSED POST TOP LIGHT

UTILITY LEGEND

- | | |
|-------------------------|------------------------------------|
| CATV BOX | STORM DRAIN CLEANOUT |
| CATV HANDBOX | STORM DRAIN DOWNSPOUT |
| CATV PEDESTAL | STORM DRAIN MANHOLE |
| ELECTRIC BOX | TELEPHONE BOX |
| ELECTRIC HANDBOX | TELEPHONE HANDBOX |
| ELECTRIC CABINET | TELEPHONE MANHOLE |
| ELECTRIC MANHOLE | TELEPHONE PEDESTAL |
| ELECTRIC SWITCHGEAR | CALL BOX |
| ELECTRIC TRANSFORMER | CARD READER |
| ELECTRIC METER | UNKNOWN MANHOLE |
| STREET LIGHT | UNKNOWN CLEANOUT |
| LANDSCAPE LIGHT | UTILITY POLE |
| TRAFFIC CONTROL HANDBOX | VENT PIPE |
| FIBER OPTIC BOX | FIRE HYDRANT |
| FIBER OPTIC HANDBOX | WATER MANHOLE |
| FIBER OPTIC MANHOLE | WATER METER |
| FILL CAP | WATER VALVE |
| FUEL TANK MANHOLE | IRRIGATION CONTROL VALVE |
| GAS METER | ABAND ABANDONED UTILITY |
| GAS VALVE | EOI END OF ELECTRONIC INFORMATION |
| MONITORING WELL | DIR. ONLY DIRECTION ONLY |
| SANITARY CLEANOUT | NAU NO ASSOCIATED UTILITY DETECTED |
| SANITARY MANHOLE | NFL NOT FIELD LOCATABLE |

- | |
|--|
| CABLE TV LINE (QL-B) |
| CABLE TV LINE (QL-C OR QL-D) |
| ELECTRIC LINE (QL-B) |
| ELECTRIC LINE (QL-C OR QL-D) |
| FIBER OPTIC LINE (QL-B) |
| FIBER OPTIC LINE (QL-C OR QL-D) |
| GAS LINE (QL-B) |
| GAS LINE (QL-C OR QL-D) |
| SANITARY SEWER LINE (QL-B) |
| SANITARY SEWER LINE (QL-C OR QL-D) |
| STORM DRAIN LINE (QL-B) |
| STORM DRAIN LINE (QL-C OR QL-D) |
| TELECOMMUNICATIONS LINE (QL-B) |
| TELECOMMUNICATIONS LINE (QL-C OR QL-D) |
| UNKNOWN DETECTED UTILITY/ CONDUCTOR (QL-B) |
| WATER LINE (QL-B) |
| WATER LINE (QL-C OR QL-D) |

UTILITY DESIGNATING NOTES

- UTILITY DEPICTIONS CONFORM TO C/ ASCE STANDARD 38-02.
- UTILITY QUALITY LEVELS DEFINED AS FOLLOWS:
 - QUALITY LEVEL "D" (QL-D) - INFORMATION COMES SOLELY FROM EXISTING UTILITY RECORDS.
 - QUALITY LEVEL "C" (QL-C) - INVOLVES SURVEYING VISIBLE ABOVEGROUND UTILITY FACILITIES, SUCH AS MANHOLES, VALVE BOXES, POSTS, ETC., AND CORRELATING THIS INFORMATION WITH EXISTING UTILITY RECORDS.
 - QUALITY LEVEL "B" (QL-B) - DESIGNATING INVOLVES THE USE OF SURFACE GEOPHYSICAL TECHNIQUES TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF UNDERGROUND UTILITIES.
 - QUALITY LEVEL "A" (QL-A) - LOCATING INVOLVES THE USE OF NONDESTRUCTIVE DIGGING EQUIPMENT AT CRITICAL POINTS TO DETERMINE THE PRECISE HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.
- THE SUBSURFACE UTILITIES DEPICTED HEREON AT QUALITY LEVEL "B" REPRESENT THE REMOTELY SENSED INDICATION OF THE SUBSURFACE UTILITY. UTILITY PIPE SIZES AND CONFIGURATIONS HAVE BEEN TAKEN FROM RECORD DRAWINGS AND ACCESSIBLE FIELD EVIDENCE. THE ACTUAL LOCATION, SIZE AND EXTENT OF ALL SUBSURFACE UTILITIES MUST BE DETERMINED THROUGH TEST HOLE OR OTHER QUALITY LEVEL "A" INVESTIGATION METHODS.
- AN EFFORT HAS BEEN MADE TO DEPICT UTILITIES AT QL "B". SOME UTILITIES ARE SHOWN AT QL "C" OR QL "D" AS NECESSARY.
- GRAVITY DEPENDENT UTILITY SYSTEMS (STORM AND SANITARY SEWERS) WERE NOT INCLUDED IN THE SCOPE OF THIS UTILITY MAPPING EFFORT.
- UTILITY SURFACE FEATURES, E.G. VALVES, MANHOLES AND VAULTS, ARE SHOWN SYMBOLICALLY AND THEIR SIZE AND SHAPE ARE SCHEMATIC AND NOT TO SCALE. EXCEPT AS SPECIFICALLY STATED HEREON, SUBSURFACE CONDITIONS SUCH AS SIZE AND ORIENTATION OF ANY ASSOCIATED STRUCTURE HAVE NOT BEEN DETERMINED. ACTUAL DIMENSIONS AND POSITIONS MUST BE DETERMINED THROUGH ADDITIONAL SUBSURFACE UTILITY INVESTIGATION.
- THE UNDERGROUND UTILITY LOCATIONS SHOWN HEREON REPRESENT A PROFESSIONAL OPINION AND INTERPRETATION BASED ON RECORD INDICATIONS AND FIELD EVIDENCE INCLUDING THE USE OF ELECTRONIC UTILITY DETECTION EQUIPMENT. THE RESULTS OF THIS UTILITY INVESTIGATION MAY BE AFFECTED BY THE AVAILABILITY OF UTILITY RECORD INFORMATION AND A VARIETY OF EXISTING SITE CONDITIONS. SITE CONDITIONS THAT MAY AFFECT THE RELIABILITY OF DETECTED UTILITY LOCATIONS INCLUDE SOIL CONTENT, DEPTH OF UTILITY, DENSITY OF UTILITY CLUSTERS, AND ELECTROMAGNETIC CHARACTERISTICS OF THE TARGET UTILITIES.

PAVEMENT MARKING LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|---|
| | | 4" SOLID WHITE LINE |
| | | 4" SOLID YELLOW LINE |
| | | 4" DASHED YELLOW CENTER LINE (3' STRIPE, 9' GAP) |
| | | 4" DOUBLE SOLID YELLOW LINE |
| | | 12" SOLID WHITE |
| | | 24" STOP BAR |
| | | CROSSWALK WITH 24" SOLID WHITE LINES - 5' O.C., ALIGNED WITH DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED |
| | | WHITE PAVEMENT ARROW, REFER TO MDMUTCD |
| | | BICYCLE LANE SYMBOL MARKING |

ABBREVIATIONS

- | | |
|---------------|---------------------------------------|
| ABAND APPROX. | ABANDONED APPROXIMATE, APPROXIMATELY |
| ASPH | ASPHALT |
| B | BOTTOM OF |
| BC | BOTTOM OF CURB |
| BLDG | BUILDING |
| CAL | CALIPER |
| CG | CURB & GUTTER |
| C/L | CENTERLINE |
| CLR | CLEAR |
| CMP | CORRUGATED METAL PIPE |
| CONC | CONCRETE |
| DET | DETAIL |
| DIA | DIAMETER |
| D/W | DRIVEWAY |
| DWG(S) | DRAWING(S) |
| EA | EACH |
| EL | ELEVATION |
| ELEC | ELECTRICAL |
| ENGR | ENGINEER |
| E/MH | ELECTRIC MANHOLE |
| EP | EDGE OF PAVEMENT |
| EX | EXISTING |
| FT | FEET |
| HH | HANDHOLE |
| HI | HIGH |
| HORIZ | HORIZONTAL |
| HP | HIGH POINT |
| HSCD | HOWARD SOIL CONSERVATION DISTRICT |
| INV | INVERT |
| J, J-BOX | JUNCTION BOX |
| LF | LINEAR FEET |
| LP | LAMP POLE |
| LP | LOW POINT |
| MAX | MAXIMUM |
| MDSHA | MARYLAND STATE HIGHWAY ADMINISTRATION |
| MH | MANHOLE |
| MIN | MINIMUM |
| N | NORTH |
| N/A | NOT APPLICABLE |
| NE | NORTHEAST |
| No. | NUMBER |
| NTS | NOT TO SCALE |
| PC | POINT OF CURVATURE |
| PERP | PERPENDICULAR |
| PI | POINT OF INTERSECTION |
| PROP | PROPERTY |
| PT | POINT OF TANGENCY |
| PVC | POLYVINYL CHLORIDE |
| PVMT | PAVEMENT |
| R | RADIUS |
| REQ'D | REQUIRED |
| REV | REVISION |
| R.O.W. | RIGHT-OF-WAY |
| SAN | SANITARY SEWER |
| SECT, SECT | SECTION |
| SF | SQUARE FEET |
| SG | STORM GRATE |
| SHA | STATE HIGHWAY ADMINISTRATION |
| SHT | SHEET |
| SMH | SEWER MANHOLE |
| SPEC | SPECIFICATION |
| SQ. FT. | SQUARE FEET |
| STA | STATION |
| STD | STANDARD |
| S/W | SIDEWALK |
| T/ | TOP OF |
| TC | TOP OF CURB |
| TEL MH | TELEPHONE MANHOLE |
| TEMP | TEMPORARY, TEMPERATURE |
| TYP | TYPICAL |
| VERT | VERTICAL |
| WL | WATER LINE |
| WV | WATER VALVE |

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 PROFESSIONAL ENGINEER
 Scott Shanabarger
 License No. 12247
 AS-BUILT DATE: 1/24/2022
 Shanabarger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19 Date
 Chief, Division of Land Development: [Signature] 12-23-19 Date
 Chief, Development Engineering Division: [Signature] 12-16-19 Date

TOOLE DESIGN
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Howard Hughes
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 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.984.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12247
 EXPIRATION DATE: 12/28/19

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 PROFESSIONAL ENGINEER
 Scott Shanabarger
 License No. 12247
 10/8/19

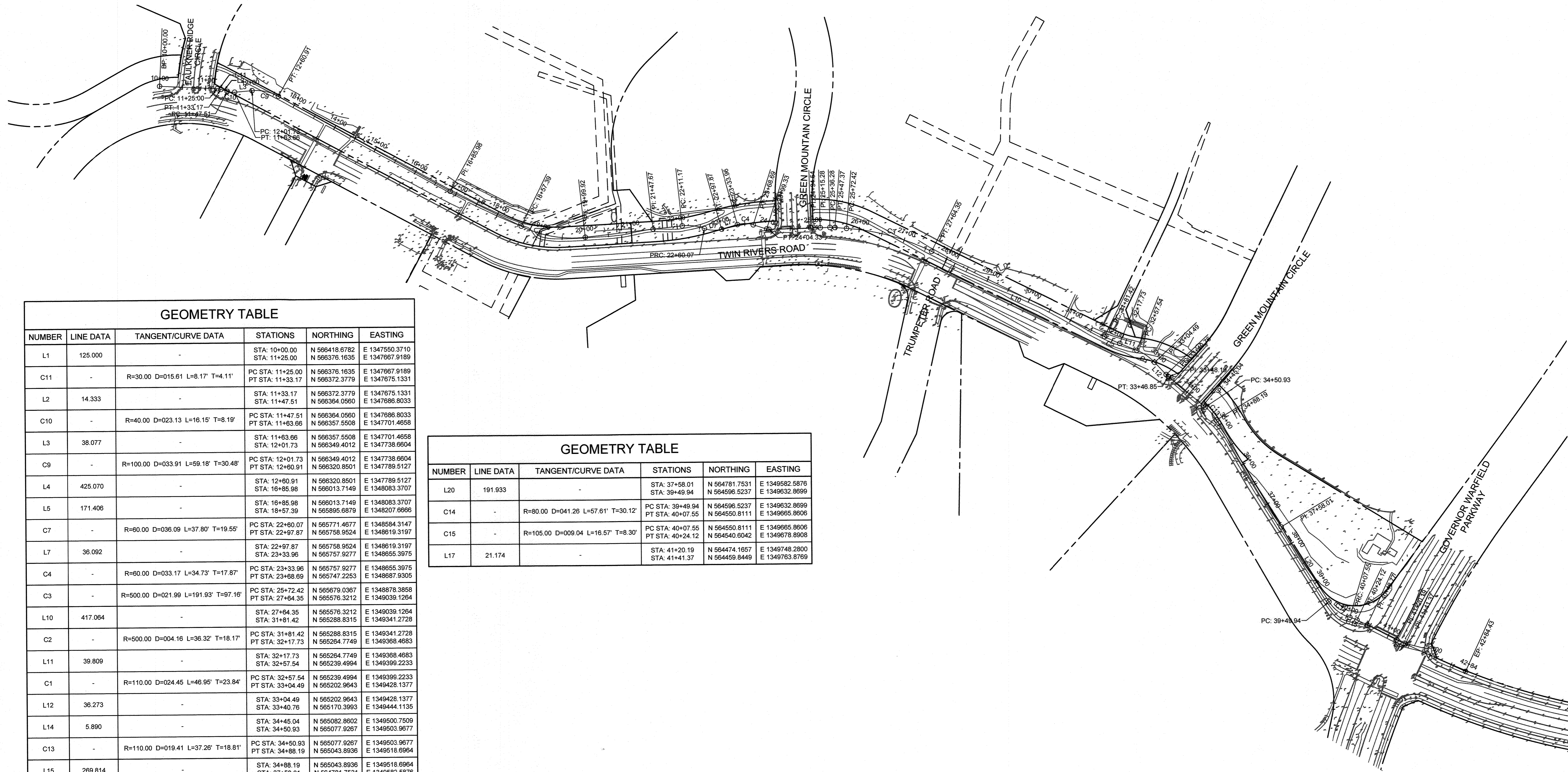
STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 PROFESSIONAL ENGINEER
 Scott Shanabarger
 License No. 12247
 11/14/19

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
 COLUMBIA, MD RIDGE C.R.

LEGENDS AND ABBREVIATIONS		C0.1
SCALE	ZONING	TDG. FILE No.
AS SHOWN	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	2 OF 63

ELECTION DISTRICT 5

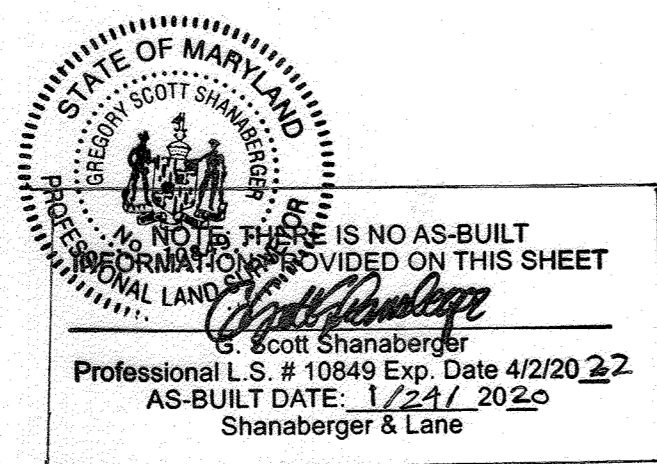
HOWARD COUNTY



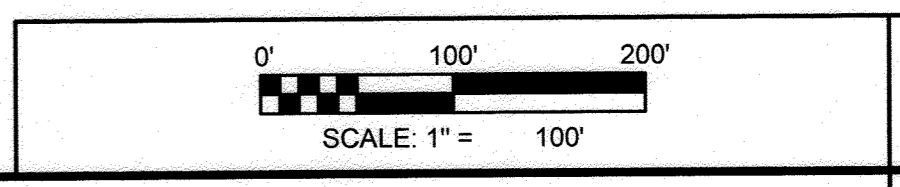
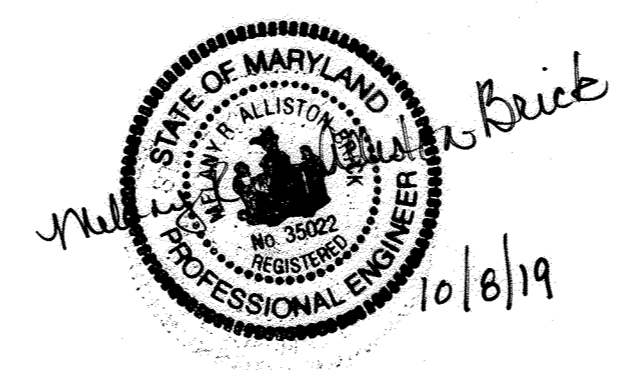
GEOMETRY TABLE					
NUMBER	LINE DATA	TANGENT/CURVE DATA	STATIONS	NORTHING	EASTING
L1	125.000	-	STA: 10+00.00 STA: 11+25.00	N 566418.6782 N 566376.1635	E 1347550.3710 E 1347667.9189
C11	-	R=30.00 D=015.61 L=8.17' T=4.11'	PC STA: 11+25.00 PT STA: 11+33.17	N 566376.1635 N 566372.3779	E 1347667.9189 E 1347675.1331
L2	14.333	-	STA: 11+33.17 STA: 11+47.51	N 566372.3779 N 566364.0560	E 1347675.1331 E 1347686.8033
C10	-	R=40.00 D=023.13 L=16.15' T=8.19'	PC STA: 11+47.51 PT STA: 11+63.66	N 566364.0560 N 566357.5508	E 1347686.8033 E 1347701.4658
L3	38.077	-	STA: 11+63.66 STA: 12+01.73	N 566357.5508 N 566349.4012	E 1347701.4658 E 1347738.6604
C9	-	R=100.00 D=033.91 L=59.18' T=30.48'	PC STA: 12+01.73 PT STA: 12+60.91	N 566349.4012 N 566320.8501	E 1347738.6604 E 1347789.5127
L4	425.070	-	STA: 12+60.91 STA: 16+85.98	N 566320.8501 N 566013.7149	E 1347789.5127 E 1348083.3707
L5	171.406	-	STA: 16+85.98 STA: 18+57.39	N 565895.6879 N 565771.4677	E 1348207.6866 E 1348584.3147
C7	-	R=60.00 D=036.09 L=37.80' T=19.55'	PC STA: 22+60.07 PT STA: 22+97.87	N 565771.4677 N 565758.9524	E 1348584.3147 E 1348619.3197
L7	36.092	-	STA: 22+97.87 STA: 23+33.96	N 565758.9524 N 565757.9277	E 1348619.3197 E 1348655.3975
C4	-	R=80.00 D=033.17 L=34.73' T=17.87'	PC STA: 23+33.96 PT STA: 23+68.69	N 565757.9277 N 565747.2253	E 1348655.3975 E 1348687.9305
C3	-	R=500.00 D=021.99 L=191.93' T=97.16'	PC STA: 25+72.42 PT STA: 27+64.35	N 565679.0367 N 565576.3212	E 1348878.3858 E 1349039.1264
L10	417.064	-	STA: 27+64.35 STA: 31+81.42	N 565576.3212 N 565288.8315	E 1349039.1264 E 1349341.2728
C2	-	R=500.00 D=004.16 L=36.32' T=18.17'	PC STA: 31+81.42 PT STA: 32+17.73	N 565288.8315 N 565264.7749	E 1349341.2728 E 1349368.4683
L11	39.809	-	STA: 32+17.73 STA: 32+57.54	N 565264.7749 N 565239.4994	E 1349368.4683 E 1349399.2233
C1	-	R=110.00 D=024.45 L=46.95' T=23.84'	PC STA: 32+57.54 PT STA: 33+04.49	N 565239.4994 N 565202.9643	E 1349399.2233 E 1349428.1377
L12	36.273	-	STA: 33+04.49 STA: 33+40.76	N 565202.9643 N 565170.3993	E 1349428.1377 E 1349444.1135
L14	5.890	-	STA: 34+45.04 STA: 34+50.93	N 565082.8602 N 565077.9267	E 1349500.7509 E 1349503.9677
C13	-	R=110.00 D=019.41 L=37.26' T=18.81'	PC STA: 34+50.93 PT STA: 34+88.19	N 565077.9267 N 565043.8936	E 1349503.9677 E 1349518.6964
L15	269.814	-	STA: 34+88.19 STA: 37+58.01	N 565043.8936 N 564781.7531	E 1349518.6964 E 1349592.5876

GEOMETRY TABLE					
NUMBER	LINE DATA	TANGENT/CURVE DATA	STATIONS	NORTHING	EASTING
L20	191.933	-	STA: 37+58.01 STA: 39+49.94	N 564781.7531 N 564596.5237	E 1349592.5876 E 1349632.8699
C14	-	R=80.00 D=041.26 L=57.61' T=30.12'	PC STA: 39+49.94 PT STA: 40+07.55	N 564596.5237 N 564550.8111	E 1349632.8699 E 1349665.8606
C15	-	R=105.00 D=009.04 L=16.57' T=8.30'	PC STA: 40+07.55 PT STA: 40+24.12	N 564550.8111 N 564540.6042	E 1349665.8606 E 1349678.8908
L17	21.174	-	STA: 41+20.19 STA: 41+41.37	N 564474.1657 N 564459.8449	E 1349748.2800 E 1349763.8769

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19
Date: 12-23-17
Chief, Division of Land Development: [Signature]
Chief, Development Engineering Division: [Signature] 12-16-19



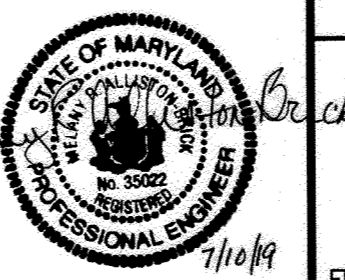
GEOMETRIC LAYOUT PLAN			C1.0
SCALE 1"=100'	ZONING NT	TDG. FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 3 OF 63	

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DRN.	CHK.	DATE	REVISION

Howard Hughes.
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Filchitt, President, Maryland Region
410.964.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32022, EXPIRATION DATE: 12/28/19



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIR.
HOWARD COUNTY
ELECTION DISTRICT 5

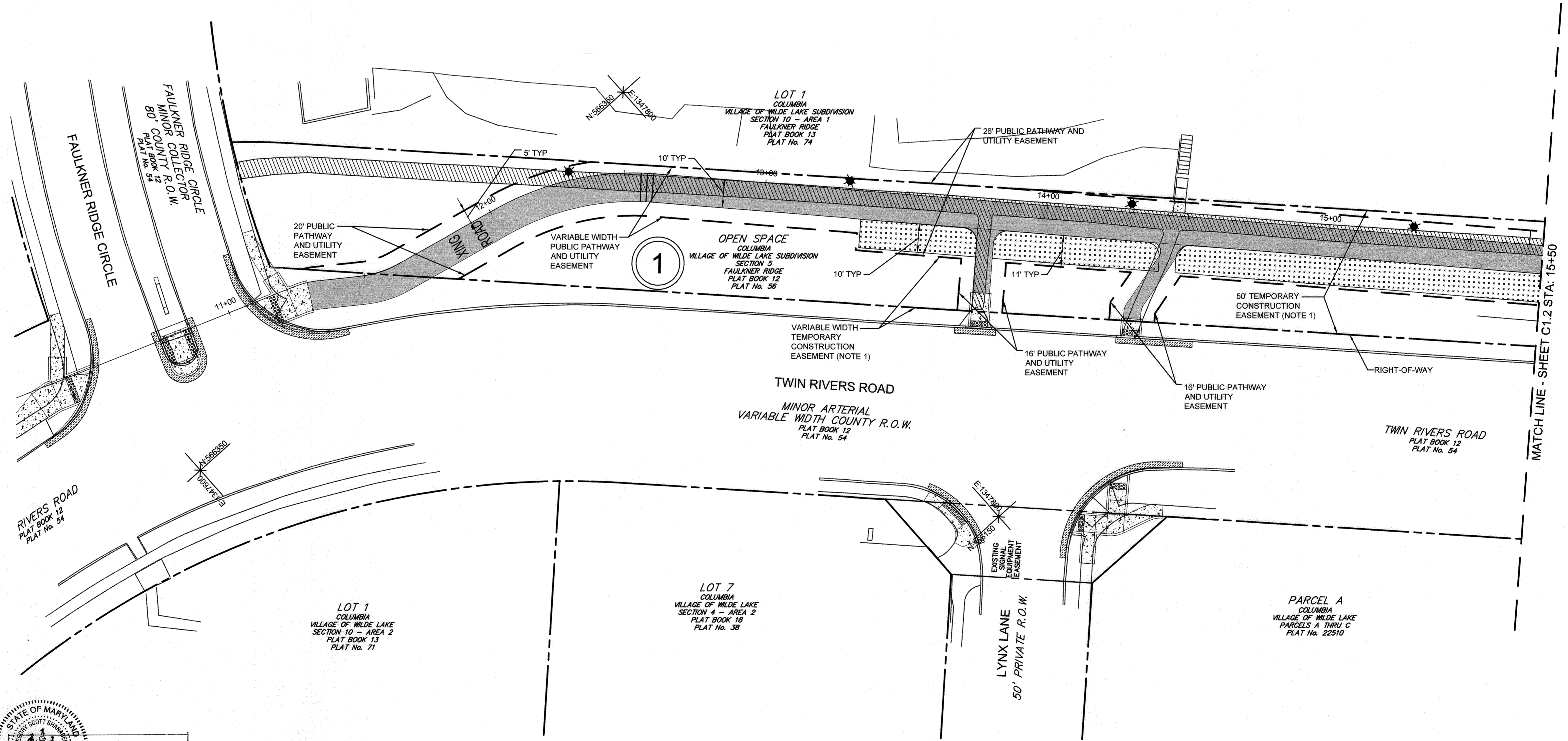
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- LEGEND**
- IMPERVIOUS PAVEMENT
 - PERMEABLE PAVEMENT
 - CONCRETE
 - NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
 - EXISTING CONCRETE REMOVAL
 - EXISTING ASPHALT PATH REMOVAL
 - 2' WIDE FULL DEPTH PAVEMENT REPAIR
 - PERMANENT EASEMENT
 - TEMPORARY EASEMENT
 - EXISTING RIGHT-OF-WAY

1 PROPERTY ID
(SEE DRAWING C0.0
FOR PROPERTY INFO)

NOTES:

- COLUMBIA ASSOCIATION PARCEL NO. 1 (FAULKNER RIDGE, SECTION 5, OPEN SPACE LOT) WILL BE USED IN ITS ENTIRETY AS A TEMPORARY CONSTRUCTION EASEMENT.

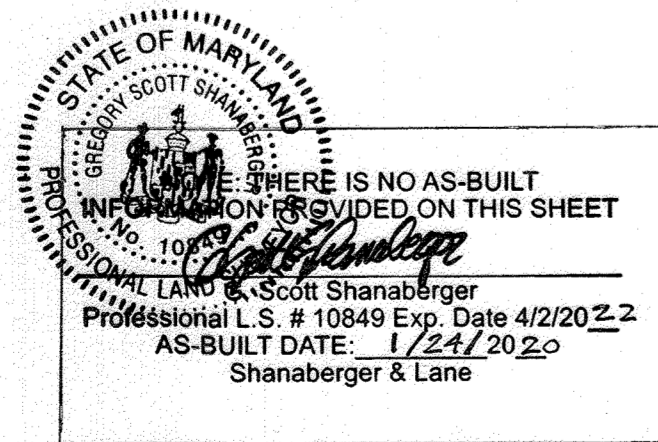


APPROVED
PLANNING BOARD OF HOWARD COUNTY

Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

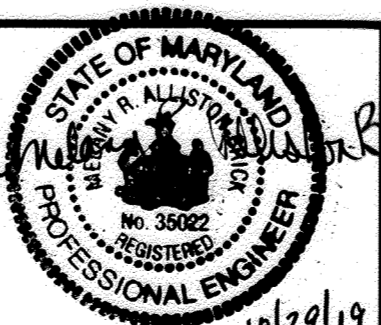
Director: [Signature] 12-24-19
Date
Chief, Division of Land Development: [Signature] 12-23-19
Date
Chief, Development Engineering Division: [Signature] 12-16-19
Date



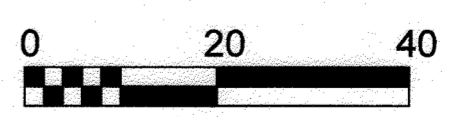
TOOLE DESIGN
8484 GEORGIA AVENUE
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SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

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410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022
EXPIRATION DATE: 12/28/19



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD













EASEMENT PLAN - 1 C1.1

SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 4 OF 63

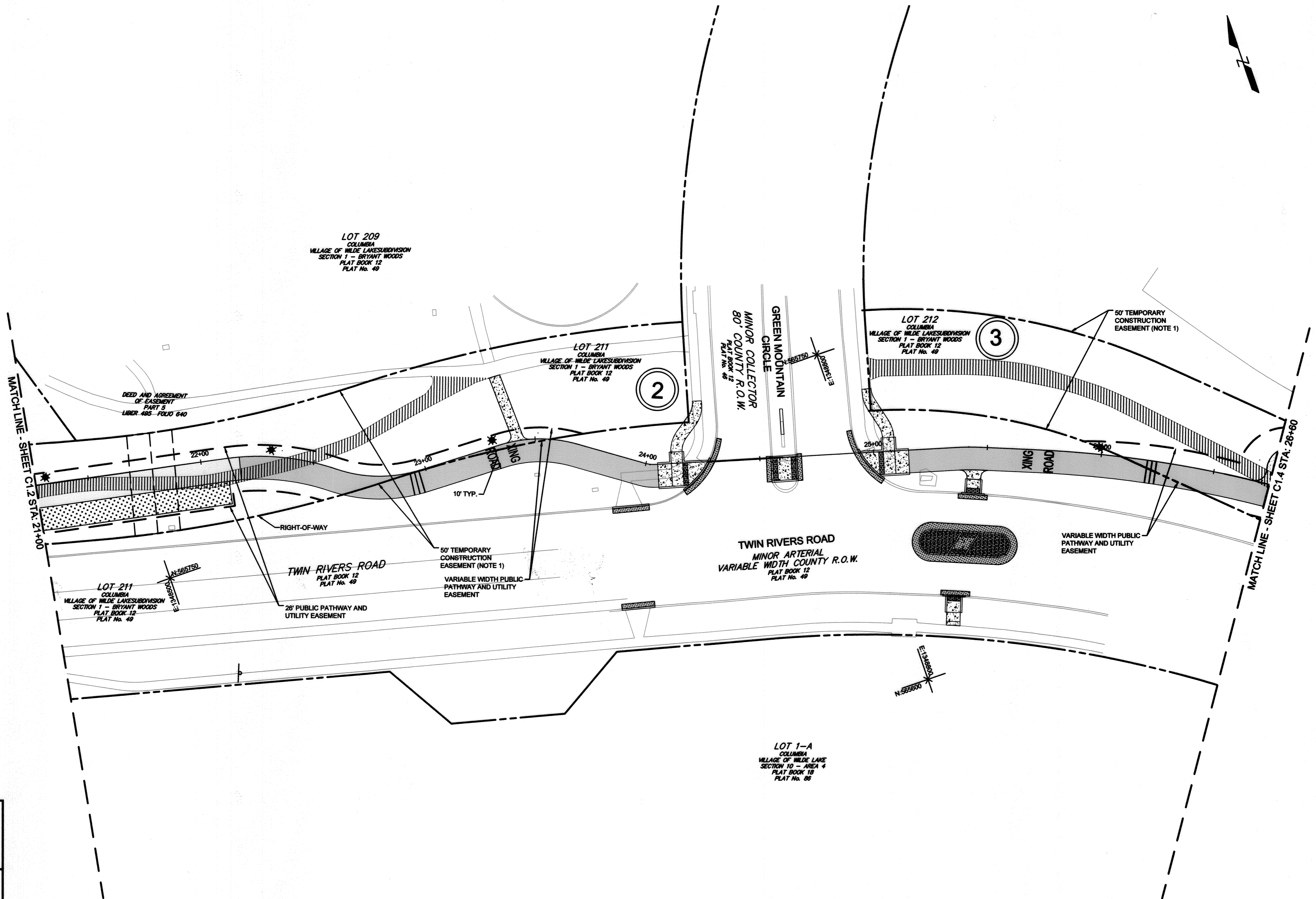
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LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  2' WIDE FULL DEPTH PAVEMENT REPAIR
-  PERMANENT EASEMENT
-  TEMPORARY EASEMENT
-  EXISTING RIGHT-OF-WAY

1 PROPERTY ID
(SEE DRAWING C0.0
FOR PROPERTY INFO)

- NOTES:**
1. COLUMBIA ASSOCIATION PARCEL NO. 2 (BRYANT WOODS, SECTION 1, LOT 211) AND PARCEL NO. 3 (BRYANT WOODS, SECTION 1, LOT 212) WILL BE USED IN THEIR ENTIRETY AS A TEMPORARY CONSTRUCTION EASEMENT.



STATE OF MARYLAND
SCOTT SHANBERGER
PROFESSIONAL LAND SURVEYOR
10849
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 12/16/19
Shanberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19
 Chief of Division of Land Development: [Signature] Date: 12-23-19
 Chief, Development Engineering Division: [Signature] Date: 12-16-19

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
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FAX: 301.927.2800
www.tooledesign.com

DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

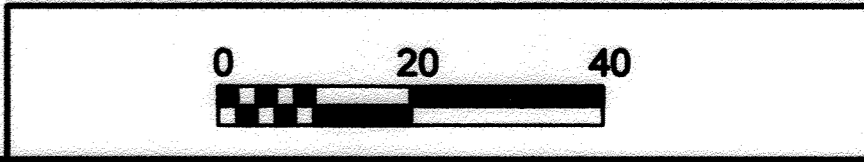
Howard Hughes
THE HOWARD HUGHES CORPORATION
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 55022
EXPIRATION DATE: 12/28/21

STATE OF MARYLAND
PROFESSIONAL ENGINEER



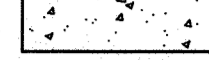
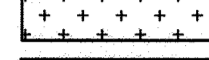


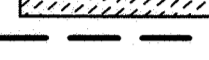



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD

ELECTION DISTRICT 5
HOWARD COUNTY



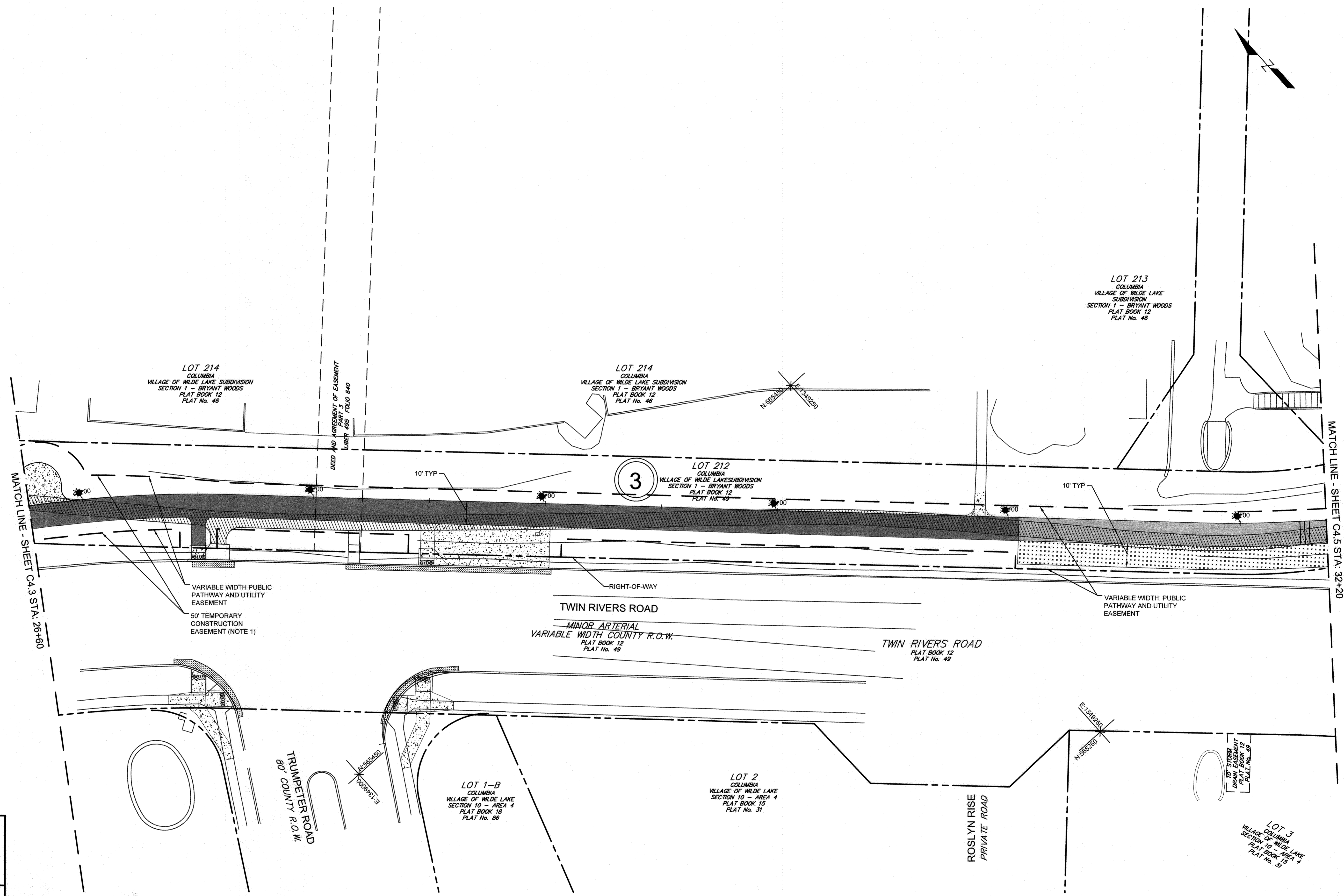
EASEMENT PLAN - 3		C1.3
SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 6 OF 63

LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  2' WIDE FULL DEPTH PAVEMENT REPAIR
-  PERMANENT EASEMENT
-  TEMPORARY EASEMENT
-  EXISTING RIGHT-OF-WAY

1 PROPERTY ID
(SEE DRAWING C0.0 FOR PROPERTY INFO)

- NOTES:**
1. COLUMBIA ASSOCIATION PARCEL NO. 3 (BRYANT WOODS, SECTION 1, LOT 212) WILL BE USED IN ITS ENTIRETY AS A TEMPORARY CONSTRUCTION EASEMENT.



STATE OF MARYLAND
SCOTT SHANBERGER
Professional Engineer
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

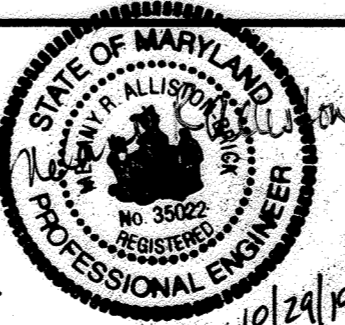
Director: *[Signature]* Date: 12-24-19
 Chief, Division of Land Development: *[Signature]* Date: 12-23-19
 Chief, Development Engineering Division: *[Signature]* Date: 12-16-19

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

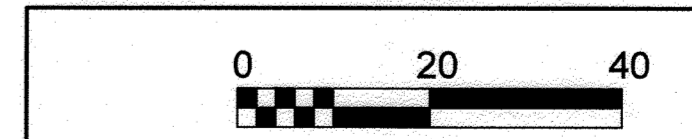
Howard Hughes
THE HOWARD HUGHES CORPORATION
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.984.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36022
EXPIRATION DATE: 12/28/19

[Signature]
10/29/19












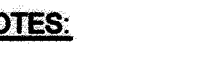
**WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD**



EASEMENT PLAN - 4		C1.4
SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 7 OF 63

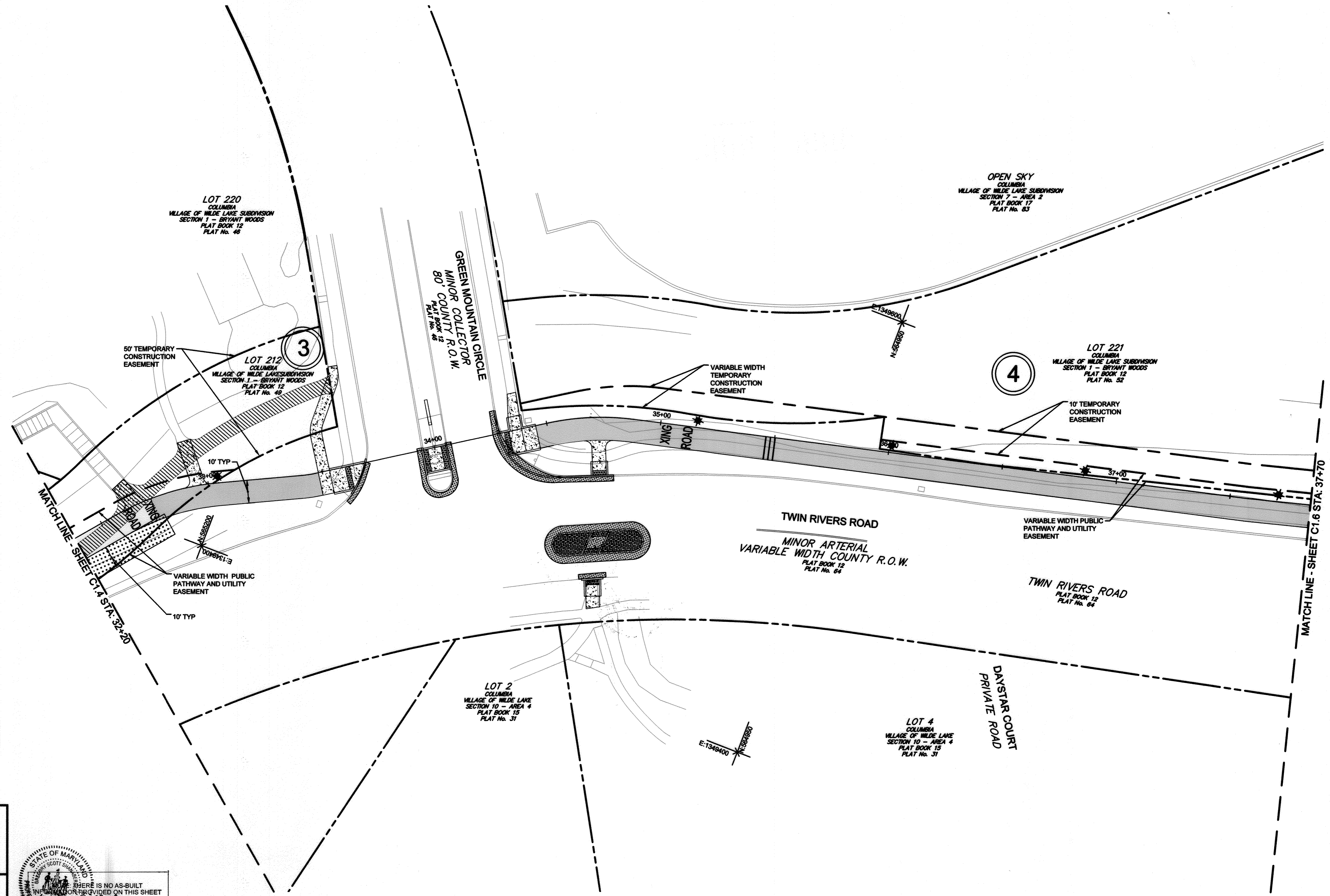
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 Plot Scale: 1"=20'
 Plot Orientation: Landscape
 Plot Color: Black
 Plot Lineweight: 0.25
 Plot Linetype: Solid
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 Plot Border: Yes
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 Plot Date: Yes
 Plot User: m103000

LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  2' WIDE FULL DEPTH PAVEMENT REPAIR
-  PERMANENT EASEMENT
-  TEMPORARY EASEMENT
-  EXISTING RIGHT-OF-WAY

1 PROPERTY ID
(SEE DRAWING C0.0 FOR PROPERTY INFO)

- NOTES:**
1. COLUMBIA ASSOCIATION PARCEL NO. 3 (BRYANT WOODS, SECTION 1, LOT 212) WILL BE USED IN ITS ENTIRETY AS A TEMPORARY CONSTRUCTION EASEMENT.



APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	<u>[Signature]</u>	12-24-19
Date		
Chief, Division of Land Development	<u>[Signature]</u>	12-23-19
Date		
Chief, Development Engineering Division	<u>[Signature]</u>	12-16-19
Date		

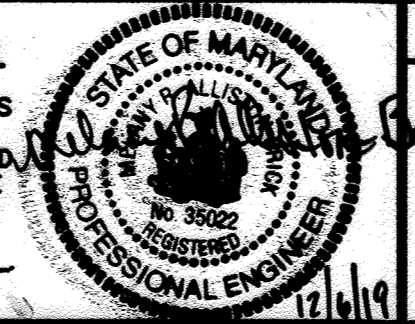
STATE OF MARYLAND
SCOTT SHANABERGER
PROFESSIONAL LAND SURVEYOR
No. 10849
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanabarger & Lane

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

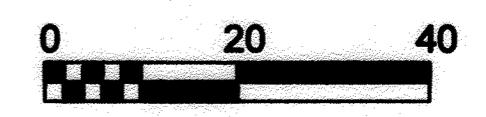
DATE	REVISION	BY	APPR.

Howard Hughes
THE HOWARD HUGHES CORPORATION
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitzhitt, President, Maryland Region
410.964.4800 - Greg.Fitzhitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36222
EXPIRATION DATE: 12/28/21



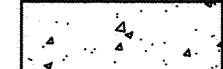
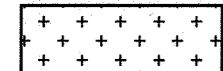


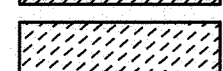
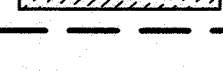
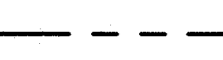



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD



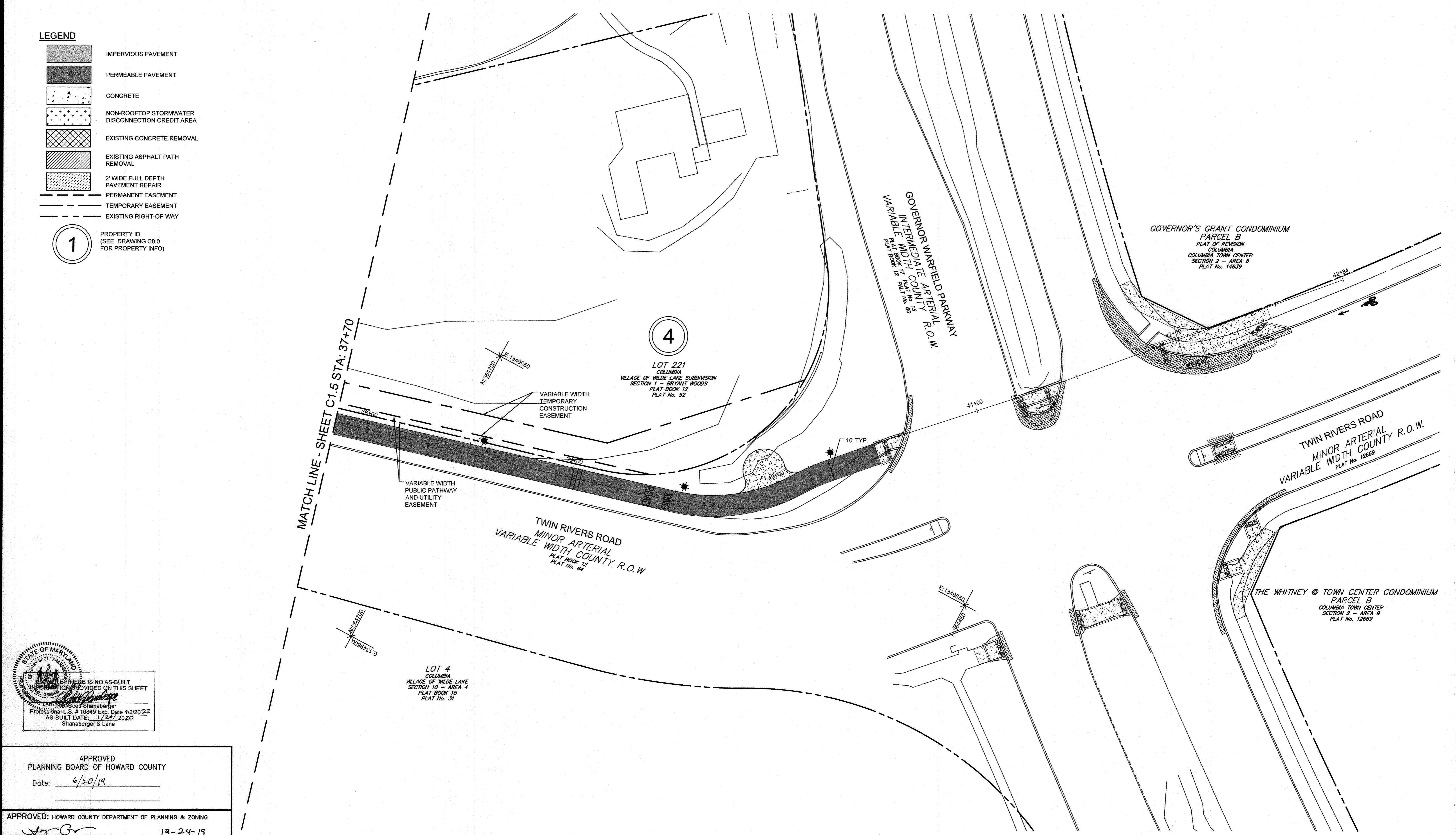
EASEMENT PLAN - 5		C1.5
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 8 OF 63

LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  2' WIDE FULL DEPTH PAVEMENT REPAIR
-  PERMANENT EASEMENT
-  TEMPORARY EASEMENT
-  EXISTING RIGHT-OF-WAY

1 PROPERTY ID
(SEE DRAWING C0.0
FOR PROPERTY INFO)

MATCHLINE - SHEET C1.5 STA: 37+70



STATE OF MARYLAND
SCOTT SHANABERGER
LANDSCAPE ARCHITECT
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanabarger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: 6/20/19

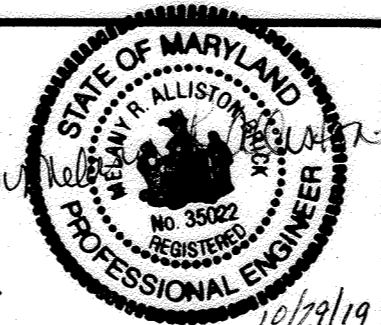
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19
Chief, Division of Land Development: [Signature] 12-23-19
Chief, Development Engineering Division: [Signature] 12-16-19

TOOLE DESIGN
8484 GEORGIA AVENUE
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SILVER SPRING, MD 20910
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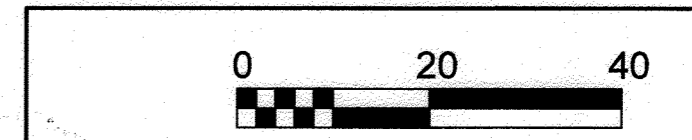
DATE	REVISION	BY	APPR.

Howard Hughes
THE HOWARD HUGHES CORPORATION
THE HOWARD HUGHES CORPORATION
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COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.984.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36022
EXPIRATION DATE: 12/28/19



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD



EASEMENT PLAN - 6 C1.6

SCALE	ZONING	TDG. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	9 OF 63

HOWARD COUNTY

EROSION AND SEDIMENT CONTROL

- TEMPORARY SILT FENCE SHALL BE CONSTRUCTED FOR SHEET RUN OFF, AND SHALL BE LOCATED AS DIRECTED BY HOWARD COUNTY REPRESENTATIVE OR EROSION AND SEDIMENT INSPECTOR. SUPER SILT FENCE MAY BE INSTALLED AT THE SITE UNDER THE DIRECTION OF THE HOWARD SOIL AND CONSERVATION DISTRICT INSPECTOR.
- WHEN WIRE SUPPORT IS USED, STANDARD STRENGTH FILTER CLOTH MAY BE USED. POSTS FOR THIS TYPE OF INSTALLATION SHALL BE PLACED A MAXIMUM OF 10 FEET APART. THE WIRE MESH FENCE MUST BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF TWO INCHES AND SHALL NOT EXTEND MORE THAN 34 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- WHEN WIRE SUPPORT IS NOT USED, EXTRA STRENGTH FILTER CLOTH MAY BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 5 FEET APART. THE FILTER FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING ONE INCH LONG (MINIMUM) HEAVY DUTY WIRE STAPLES OR TIE WIRES AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH.
- WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 14 GAUGE AND SHALL HAVE A MAXIMUM MESH SPACING OF 6 INCHES. POSTS SHALL BE EITHER STEEL POSTS OR WOODEN STAKES AND HAVE A MINIMUM LENGTH OF 5 FEET.
- SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS NOTED IN THE LATEST VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION AND SEDIMENT CONTROL HANDBOOK. THE SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0°F TO 120°F.
- SILT FENCES SHALL BE INSPECTED AND CLEANED ON A WEEKLY BASIS AND ON A DAILY BASIS IMMEDIATELY FOLLOWING EACH RAIN STORM. ALL NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.
- REFERENCE THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL OR MOST RECENT VERSION.
- THE TEMPORARY EROSION AND SILTATION (E&S) CONTROL ITEMS SHOWN ON THE E&S CONTROL PLAN ARE INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SILTATION WITHIN THE PROJECT LIMITS. THE E&S CONTROL PLAN IS BASED ON FIELD CONDITIONS AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR, IN CONJUNCTION WITH THE PROJECT DESIGNER AND/OR ENVIRONMENTAL MONITOR, SHALL ADJUST THE LOCATION, QUANTITY AND TYPE OF EROSION AND SILTATION CONTROL ITEMS REQUIRED BASED ON THE ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE SELECTED SEQUENCE OF CONSTRUCTION.
- THE AREAS BEYOND THE PROJECTS CONSTRUCTION AREA ARE TO BE PROTECTED FROM SILTATION. PERIMETER CONTROLS SUCH AS FILTER BARRIER, SILT FENCE, DIVERSION DIKES, TURBIDITY CURTAINS, ETC. SHALL BE INSTALLED PRIOR TO ANY GRUBBING OPERATIONS OR OTHER EARTH MOVING ACTIVITIES.
- ROCK FOR CHECK DAMS, DROP INLET SILT TRAPS, EROSION CONTROL STONE AND RIPRAP IN CHANNELS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION AND SEDIMENT CONTROL HANDBOOK.
- SILT REMOVAL AND SEDIMENT CLEAN-OUT FROM EROSION AND SILTATION CONTROL ITEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING:
 - TEMPORARY SEDIMENT BASINS AND SEDIMENT TRAPS - WHEN THE "WET" STORAGE VOLUME (PERMANENT POOL) HAS BEEN REDUCED BY 50%.
 - DEWATERING BASINS - WHEN THE EXCAVATED VOLUME HAS BEEN REDUCED BY 50%.
 - ALL OTHER EROSION AND SILTATION CONTROL ITEMS - WHEN THE CAPACITY, HEIGHT, OR DEPTH HAS BEEN REDUCED BY 50%.
- EXCEPT WHERE NOTED HEREON, TO THE BEST OF THE DESIGNER'S KNOWLEDGE, THE PROPOSED DEVELOPMENT OF THE SUBJECT PROPERTY CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS.
- LAND CONSERVATION NOTES - MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. HOWEVER, THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF MARYLAND OR ANY ORDINANCE ENACTED BY MARYLAND, SHA, OR HOWARD COUNTY.
- EROSION AND SILTATION CONTROL SHALL BE PROVIDED WHERE NECESSARY PRIOR TO CLEARING, GRADING AND CONSTRUCTION.
- ADDITIONAL SILTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS DIRECTED BY HOWARD COUNTY INSPECTOR DURING FIELD REVIEW. COSTS ASSOCIATED WITH ADDITIONAL MEASURES SHALL BE ASSUMED BY THE CONTRACTOR.

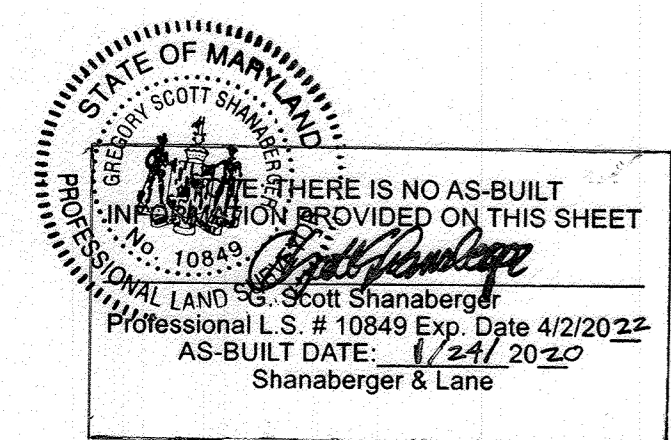
SEDIMENT CONTROL NOTES

- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 - PRIOR TO THE START OF EARTH DISTURBANCE.
 - UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 - PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
 - PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.
 OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET, ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-4).
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE, AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.
- SITE ANALYSIS:

TOTAL AREA OF SITE:	2.22 ACRES
AREA DISTURBED:	2.22 ACRES
AREA TO BE ROOFED OR PAVED:	0.35 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	1.44 ACRES
TOTAL CUT:	1555 CU. YDS.
TOTAL FILL:	595 CU. YDS.

 SURPLUS CUT TO BE DISPOSED OF ON A SITE WITH AN APPROVED SEDIMENT CONTROL PLAN.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY, AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
 - INSPECTION DATE
 - INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
 - NAME AND TITLE OF INSPECTOR
 - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
 - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
 - EVIDENCE OF SEDIMENT DISCHARGES
 - IDENTIFICATION OF PLAN DEFICIENCIES
 - IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
 - IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
 - COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
 - PHOTOGRAPHS
 - MONITORING/SAMPLING
 - MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
 - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE)
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
- DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
- WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
- TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
- ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 2' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UP HILL BY 2' IN ELEVATION.
- STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
 - USE I AND II MARCH 1 - JUNE 15
 - USE III AND IIII OCTOBER 1 - APRIL 30
 - USE IV MARCH 1 - MAY 31
- A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.



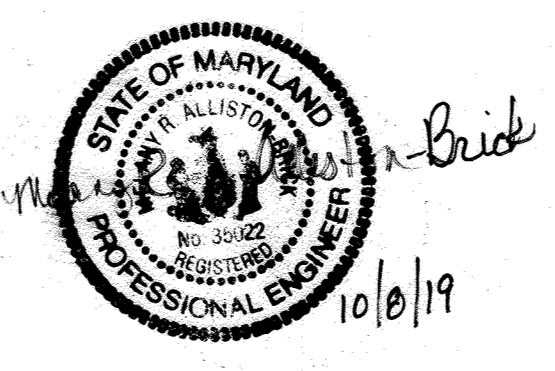
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19
Date: 12-23-19
Chief, Division of Land Development: [Signature]
Chief, Development Engineering Division: [Signature] 12-16-19

ENGINEER'S CERTIFICATION
"I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
ENGINEER'S SIGNATURE
7/10/19
DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
"I WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
SIGNATURE OF DEVELOPER/BUILDER
7/10/19
DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature]
HOWARD S.C.D.
10/17/19
DATE



TOOLE DESIGN
8484 GEORGIA AVENUE SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES. DPB	DRN. AG	CHK. EM	DATE	REVISION	BY	APPR.

Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.984.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 50022
EXPIRATION DATE: 12/28/19
[Signature]
7/10/19

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
COLUMBIA, MD
HOWARD COUNTY

E&S NOTES 1		C2.A	
SCALE	ZONING	TDC FILE No.	
	NT	5477.02	
DATE	TAX MAP - GRID	SHEET	
7/10/19	29/30/36	10 OF 63	

\\sc01-rh01\p0000\5477.02_Wilde Lake Connector_Traffic Production\CAD\PLANS\5477.02_C2S_000.dwg
 PLOTTED: 7/11/2019 12:26 AM, LAST SAVED: 7/10/2019 7:23 PM, PLOTTED BY: Mackey Alliston-Brick

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION: THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. PRACTICE APPLIED: WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

A. SOIL PREPARATION

- TEMPORARY STABILIZATION
 - SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- PERMANENT STABILIZATION
 - A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - SOIL pH BETWEEN 6.0 AND 7.0
 - SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM)
 - SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 5 TO 6 INCHES.
 - APPLY SOIL AMENDMENT AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SPEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE NECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING

- TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW pH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
- TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
- TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SMALL THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
- TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
 - TOPSOIL MUST BE LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY NOT BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUB-SOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1/4 INCHES IN DIAMETER.
 - TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, MUTT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY QUALIFIED AGRONOMIST OR SOIL SCIENTISTS BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
- TOPSOIL APPLICATION
 - EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 - UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTRIBUTED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
- FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
- LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNED LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH A FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
- LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

SEEDING AND MULCHING

DEFINITION: THE APPLICATION OF THE SEED AND MULCH TO ESTABLISH VEGETATIVE COVER. PURPOSE: TO PROTECT DISTURBED SOILS FROM THE EROSION DURING AND AT THE END OF CONSTRUCTION. PRACTICE APPLIES: TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

A. SEEDING

- SPECIFICATIONS
 - ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SNOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
 - MULCH ALONE MAY NOT BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
 - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURE ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
- APPLICATION
 - DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE, OR SITE-SPECIFIC SEEDING SUMMARIES.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDBED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 - DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY THE COVER SEED WITH SOIL.
 - CULTIPACKER SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER)
 - IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
 - LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNED OR HYDRATED LIME WHEN HYDROSEEDING.
 - WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

- MULCH MATERIALS (IN ORDER OF PREFERENCE)
 - STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
 - WOOD CELLULOSE FIBER MULCH (WCFFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - WCFFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 - WCFFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - WCFFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
 - WCFFM MATERIAL MUST NOT CONTAIN ELEMENTS OF COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 - WCFFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, pH RANGING FROM 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
- APPLICATION
 - APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
 - WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
 - WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- ANCHORING
 - PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
 - A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY WITH FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (ARGO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 - LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

TEMPORARY STABILIZATION

DEFINITION: TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS. PURPOSE: TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS. CONDITIONS WHERE PRACTICE APPLIES: EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

A. SEED MIXTURES

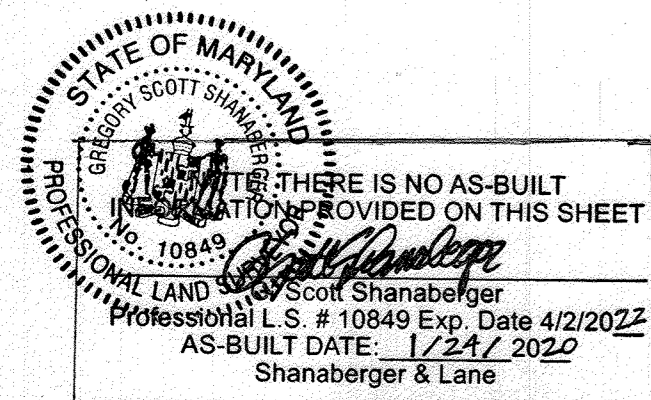
- GENERAL USE
 - SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE.
 - FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
 - WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.b. OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.
- TURFGRASS MIXTURES
 - AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE.
 - KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 100 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
 - KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET.

NOTES:

- SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
- IDEAL TIMES FOR SEEDING FOR TURF GRASS MIXTURES
 - WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5b, 6a)
 - CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 6b)
 - SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7a, 7b)
- TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1/2 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASS WILL POSE NO DIFFICULTY.
- IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

SEQUENCE OF CONSTRUCTION

- ARRANGE PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR AND OBTAIN THE GRADING PERMIT. 1 DAY
 - INSTALL TREE PROTECTION. 2 DAYS
 - CLEARING AND GRUBBING AS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS, INSTALL STABILIZE CONSTRUCTION ENTRANCE AND SILT FENCE. 1 WEEK
 - REMAINING CLEARING AND GRUBBING WITHIN INSTALLED PERIMETER CONTROLS, GRADE SITE. 1 MONTH
 - CONSTRUCT PERVIOUS ASPHALT BASE STONE, UNDER DRAINS. 2 MONTHS
 - STABILIZE THE AREA WITH ASPHALT PATH AND FINE GRADE REMAINING AREAS. 1 MONTH
 - PERMANENTLY STABILIZE REMAINING AREAS WITH GRASS SEED AND MULCH. 1 WEEK
 - WHEN ALL AREAS DRAIN TO THE SEDIMENT CONTROLS HAVE BEEN STABILIZED AND PERMISSION HAS BEEN GRANTED BY THE SEDIMENT CONTROL INSPECTOR, REMOVE THE SEDIMENT CONTROLS. PERMANENTLY STABILIZE THE REMAINING AREAS LANDSCAPING, SEED AND MULCH. 1 WEEK
- EROSION AND SEDIMENT CONTROL MANAGER (ESCM)**
- SOIL DISTURBANCE SUCH AS GRADING, EXCAVATION, SOIL PLACEMENT OR OTHER ACTIVITIES THAT INVOLVE SOIL DISTURBANCE WITHIN SHA RIGHT OF WAY SHALL BE SUPERVISED BY AN ESCM WITH A VALID SHA "YELLOW CARD" IN CONFORMANCE WITH SHA 2008 SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND ANY APPLICABLE EROSION AND SEDIMENT CONTROL PERMIT.



APPROVED
PLANNING BOARD OF HOWARD COUNTY

Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
Date

Chief, Division of Land Development: [Signature] 12-23-19
Date

Chief, Development Engineering Division: [Signature] 12-16-19
Date

ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 7/10/19
ENGINEER'S SIGNATURE DATE

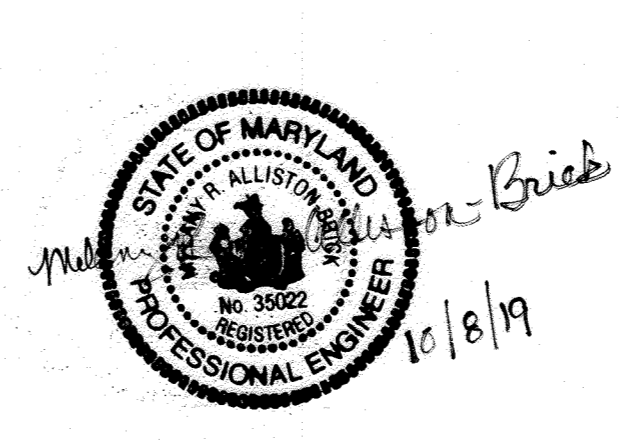
DEVELOPER'S/BUILDER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 7/10/19
SIGNATURE OF DEVELOPER/BUILDER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 10/17/19
HOWARD S.C.D. DATE



TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

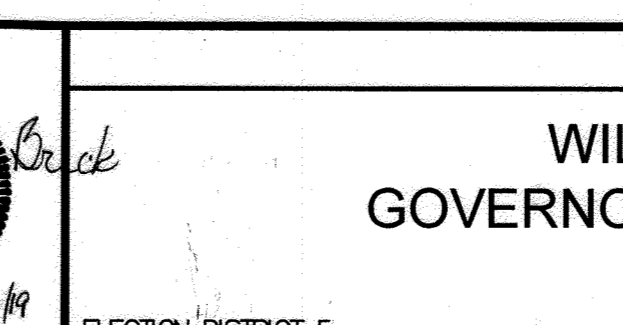
Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044

Greg Filchitt, President, Maryland Region
410.964.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022

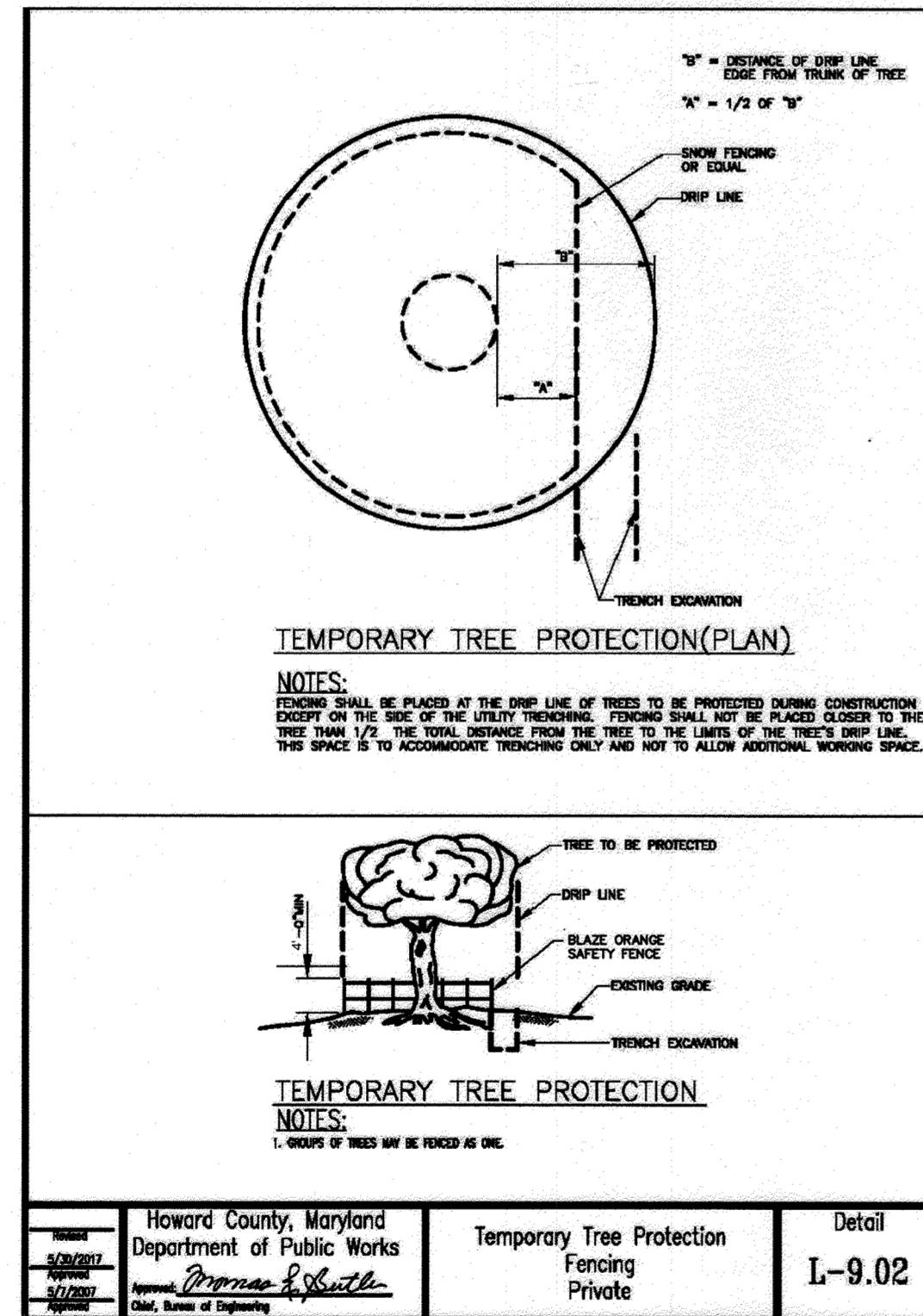
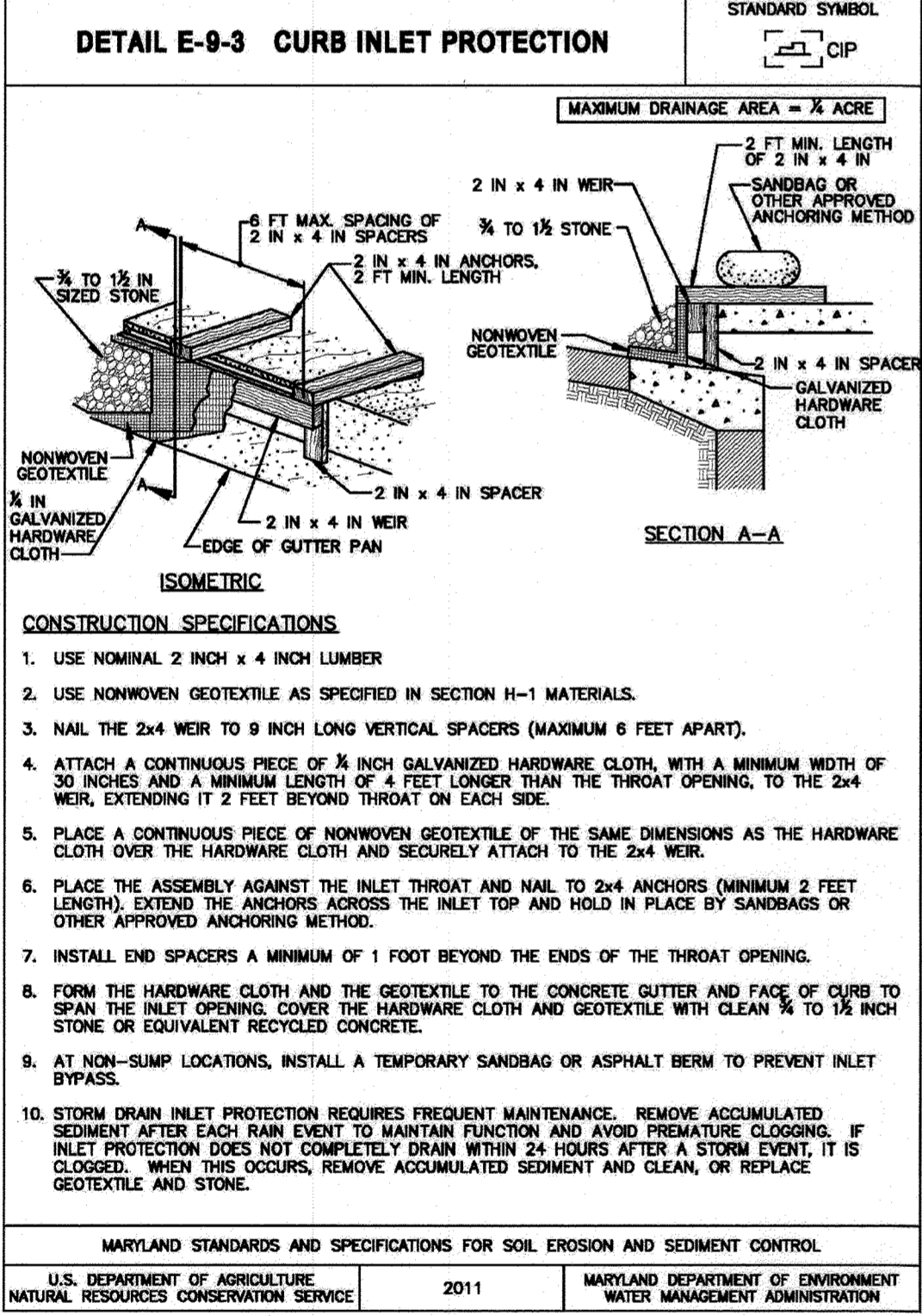
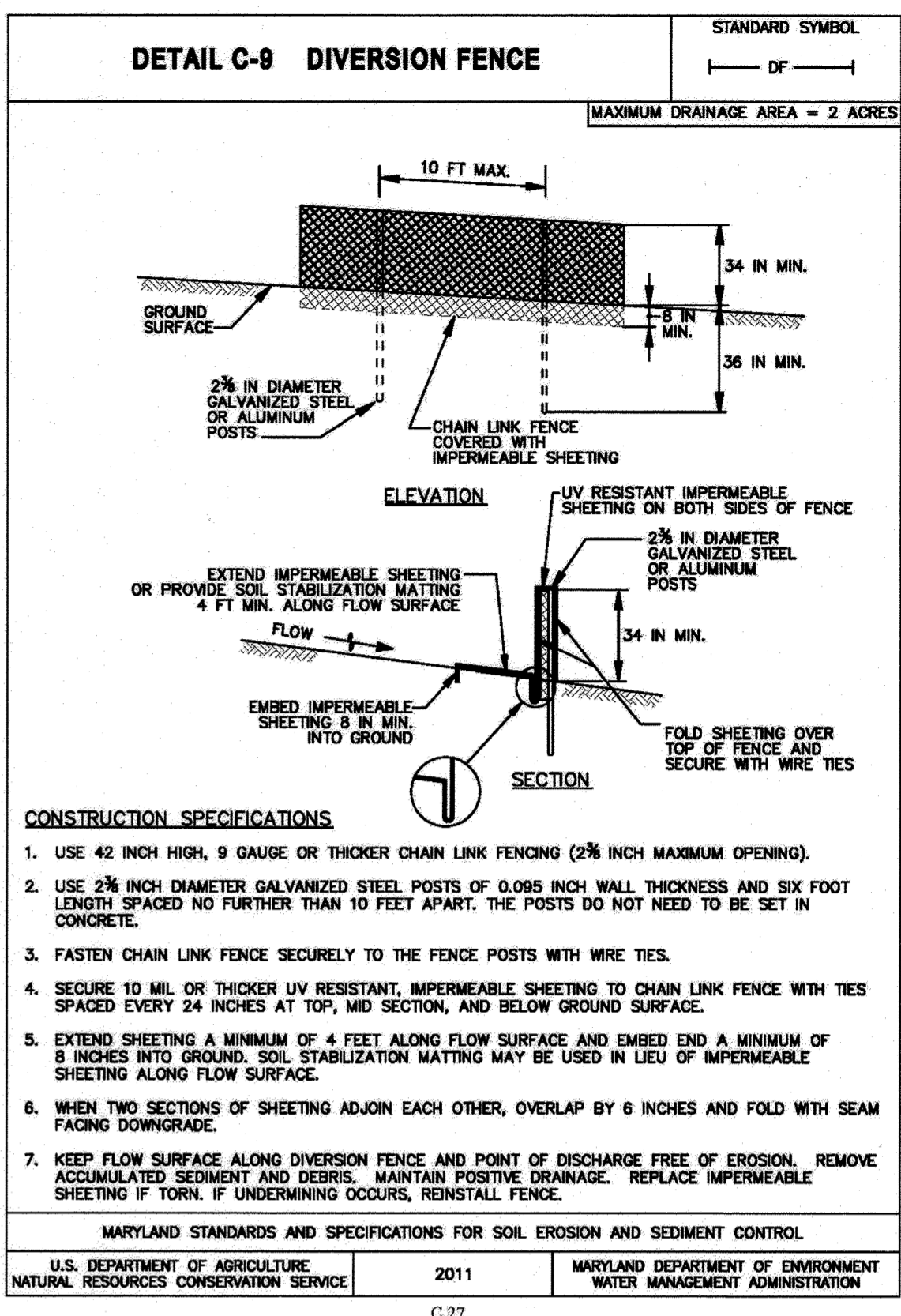
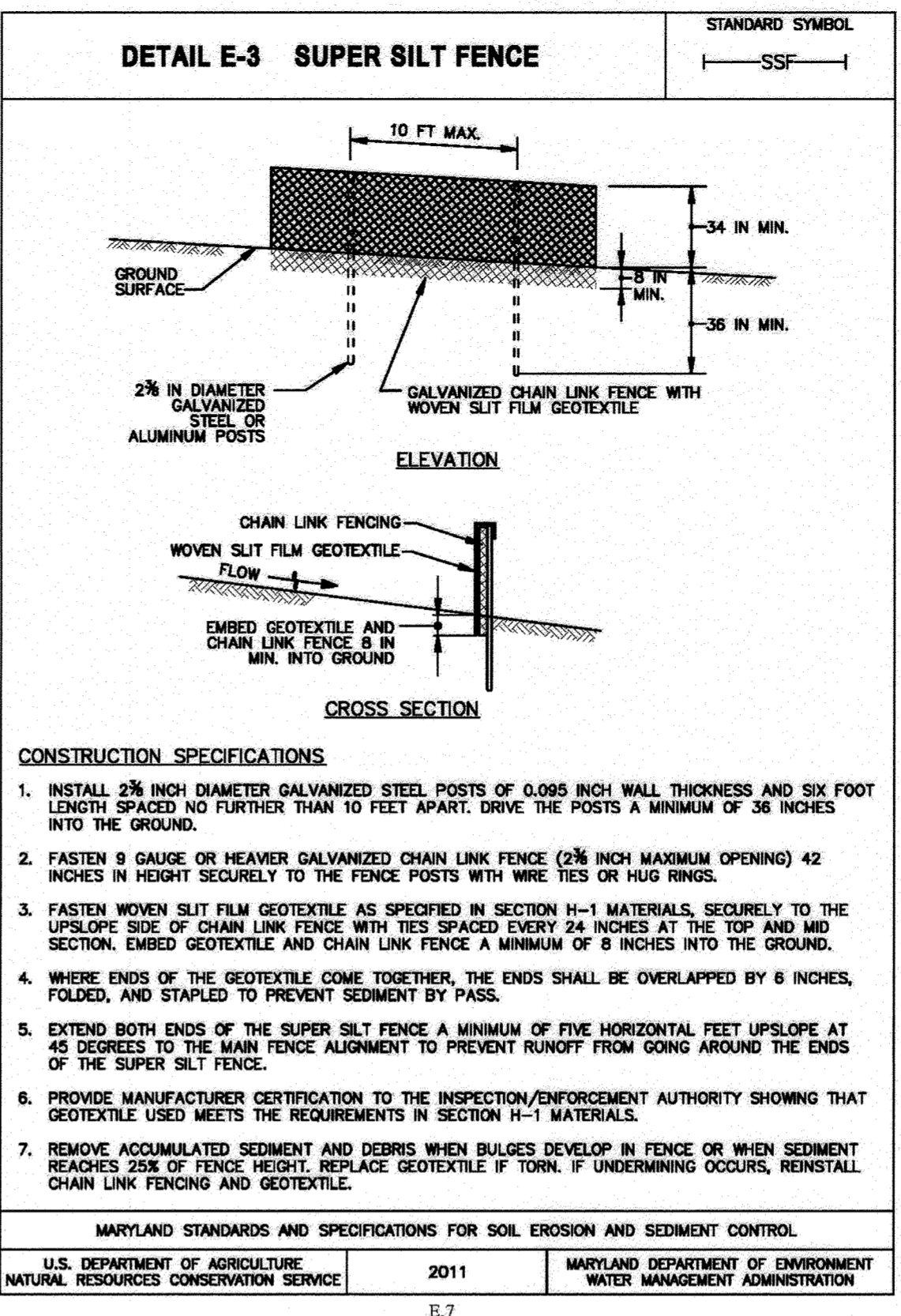
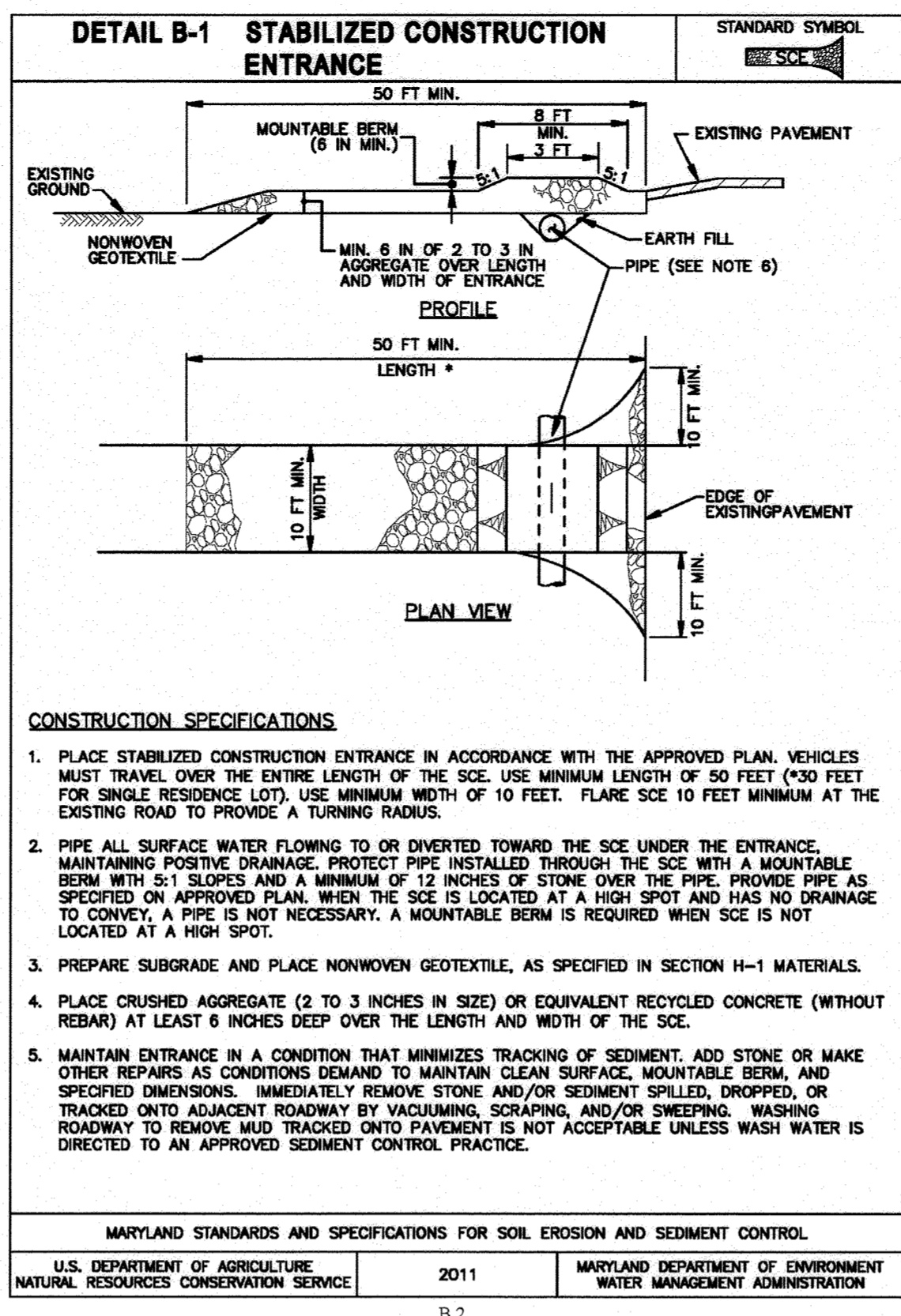
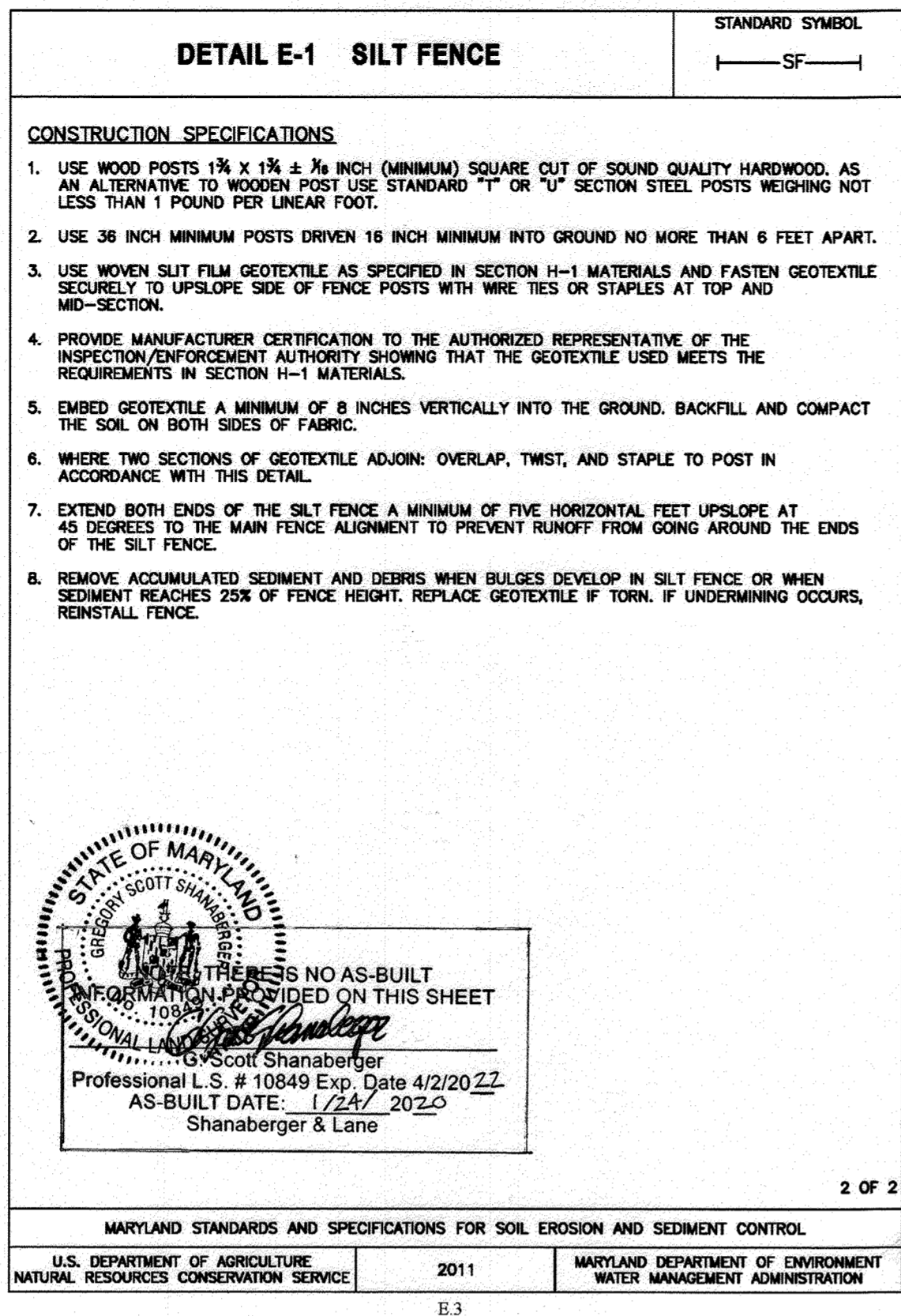
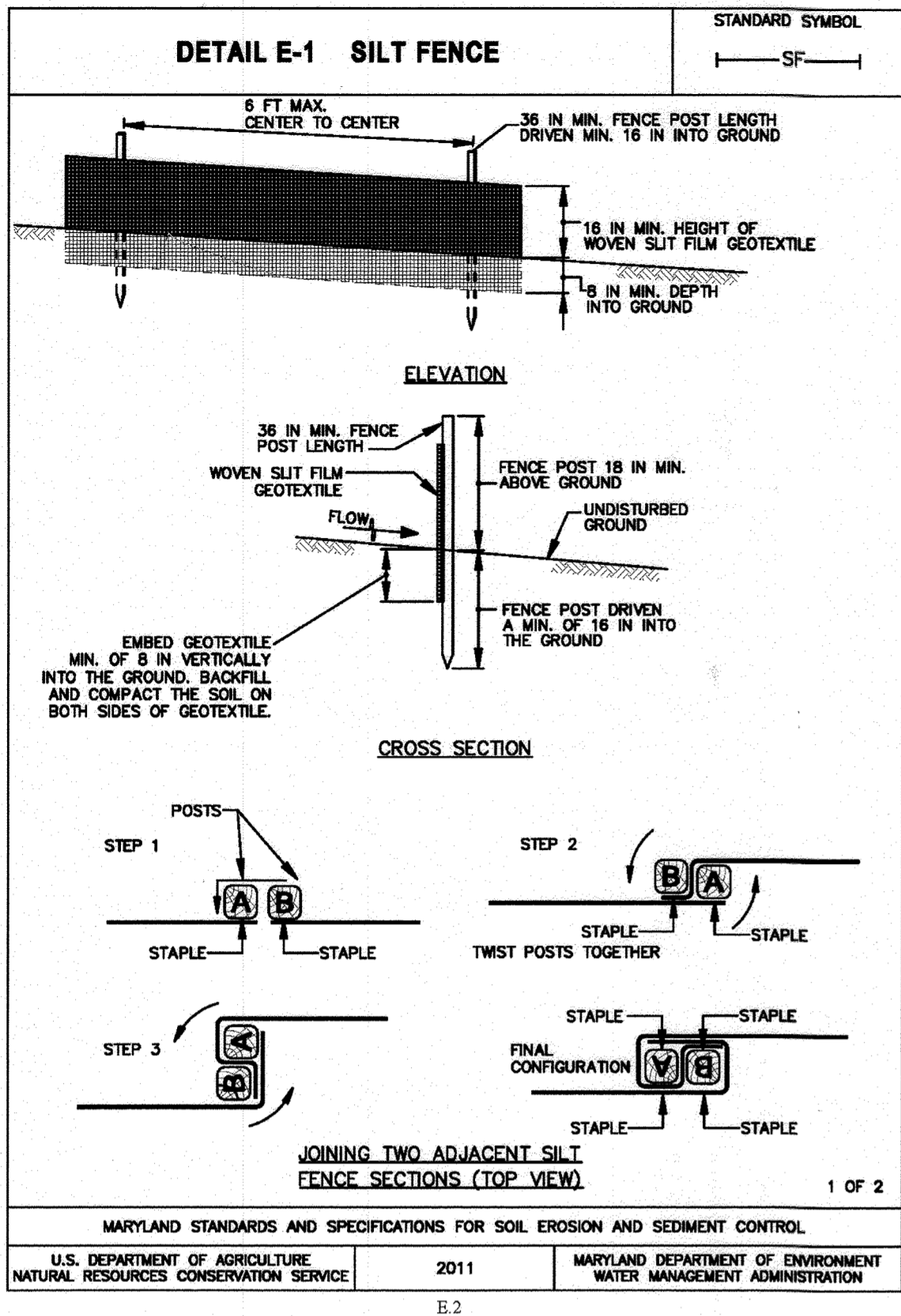
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EXPIRATION DATE: 12/28/19



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO ~~LYNX LANE~~ FALKNER
COLUMBIA, MD ~~RIDGE CIR.~~

HOWARD COUNTY

E&S NOTES 2	C2.B	
SCALE	ZONING	TDG. FILE No.
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	11 OF 63



STOCKPILE AREA
 DEFINITION: A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.
 PURPOSE: TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGED TO DRAINAGE PATTERNS.
 PRACTICE APPLIED: STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHINGS MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGE CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AS APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
8. IF STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.
9. MAINTENANCE: THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR A 2:1 SLOPE, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

DIVERSION FENCE
 DEFINITION: A TEMPORARY BARRIER OF IMPERMEABLE SHEETING OVER CHAIN LINK FENCE LOCATED IN SUCH A MANNER TO DIRECT WATER TO A DESIRED LOCATION.
 PURPOSE: TO DIRECT SEDIMENT-LADEN RUNOFF TO A SEDIMENT TRAPPING PRACTICE, OR TO INTERCEPT AND DIVERT CLEAR WATER AWAY FROM DISTURBED AREAS.
 PRACTICE APPLIED: CONSTRUCTED ALONG THE LIMIT OF DISTURBANCE (LOD) OR ACROSS DISTURBED AREAS. A DIVERSION FENCE IS USED WHEN THERE IS INSUFFICIENT SPACE TO CONSTRUCT AN EARTH DIKE, TEMPORARY SWALE, OR PERIMETER DIKE SWALE.

1. TO DIVERT SEDIMENT-LADEN RUNOFF FROM A DISTURBED AREA TO A SEDIMENT TRAPPING PRACTICE.
2. TO SEGMENT DRAINAGE AREAS FOR REDUCING ACREAGE TO SEDIMENT CONTROL PRACTICES.
3. TO DIVERT CLEAR WATER FROM AN UNDISTURBED AREA TO A STABLE OUTLET AT NON-EROSIVE VELOCITIES.

DESIGN CRITERIA:

1. THE MAXIMUM SLOPE ALONG FENCE IS 10 PERCENT.
2. THE MAXIMUM DRAINAGE AREA IS 2 ACRES.
3. FOR DRAINAGE AREAS LARGER THAN 2 ACRES, AN ENGINEERING DESIGN MAY BE USED BASED ON THE 2-YEAR FREQUENCY STORM WITH NRCS METHODOLOGIES (I.E., TR-55, TR-20), ASSUMING THE WORST SOIL COVER CONDITIONS TO PREVAIL IN THE CONTRIBUTING DRAINAGE AREA OVER THE LIFE OF THE DIVERSION FENCE.
4. MAINTAIN POSITIVE DRAINAGE ALONG THE ENTIRE LENGTH OF THE DIVERSION FENCE. SPOT ELEVATIONS MUST BE PROVIDED FOR DIVERSION FENCE HAVING LONGITUDINAL SLOPES FLATTER THAN 1%.
5. DISCHARGE VELOCITIES FROM DIVERSION FENCE MUST BE NON-EROSIVE.
6. WHERE DIVERSION FENCE IS USED TO CONVEY RUNOFF FROM DISTURBED AREAS, THE DISCHARGE MUST BE TO A SEDIMENT CONTROL PRACTICE SUITABLE FOR CONCENTRATED FLOW. SILT FENCE AND SUPER SILT FENCE ARE UNACCEPTABLE FOR RECEIVING DISCHARGES FROM DIVERSION FENCE.
7. WHERE DIVERSION FENCE IS USED TO CONVEY CLEAR WATER RUNOFF, THE DISCHARGE MUST BE TO AN UNDISTURBED, STABLE AREA AT A NON-EROSIVE VELOCITY (4 FPS); OTHERWISE, PROVIDE OUTLET PROTECTION.
8. WHEN DIVERSION FENCE IS USED IN CONJUNCTION WITH A SEDIMENT TRAPPING DEVICE, SEQUENCE CONSTRUCTION SO THAT THE DIVERSION FENCE INSTALLATIONS FOLLOWS COMPLETION OF THE SEDIMENT TRAPPING DEVICE(S).

MAINTENANCE: THE FLOW SURFACE ALONG THE DIVERSION FENCE AND AT THE POINT OF DISCHARGE MUST BE KEPT FREE OF EROSION. ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED AND POSITIVE DRAINAGE MAINTAINED. IMPERMEABLE SHEETING MUST BE REPLACED IF TORN, IF UNDERMINING OCCURS, REINSTALL FENCE.

Permanent Seeding Summary

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)			Lime Rate
					N	P ₂ O ₅	K ₂ O	
6	Tall Fescue (Lolium arundinaceum)	40	Mar 1 to May 15 Aug 1 to Oct 15	¼- ½ in	45 pounds per acre (1.0 lb/1000 sf)	90 lb/ac (2 lb/1000 sf)	90 lb/ac (2 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
	Perennial Ryegrass (Lolium perenne)	25	Mar 1 to May 15 Aug 1 to Oct 15	¼- ½ in				
	White Clover (Trifolium repens)	5	Mar 1 to May 15 Aug 1 to Oct 15	¼- ½ in				

Table B.1: Temporary Seeding for Site Stabilization

Plant Species	Seeding Rate ^{1/}		Seeding Depth ^{2/} (inches)	Recommended Seeding Dates by Plant Hardiness Zone ^{3/}		
	lb/ac	lb/1000 ft ²		5b and 6a	6b	7a and 7b
Cool-Season Grasses						
Annual Ryegrass (<i>Lolium perenne ssp. multiflorum</i>)	40	1.0	0.5	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Barley (<i>Hordeum vulgare</i>)	96	2.2	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Oats (<i>Avena sativa</i>)	72	1.7	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Wheat (<i>Triticum aestivum</i>)	120	2.8	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Cereal Rye (<i>Secale cereale</i>)	112	2.8	1.0	Mar 15 to May 31; Aug 1 to Oct 31	Mar 1 to May 15; Aug 1 to Nov 15	Feb 15 to Apr 30; Aug 15 to Dec 15
Warm-Season Grasses						
Foxtail Millet (<i>Setaria italica</i>)	30	0.7	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14
Pearl Millet (<i>Pennisetum glaucum</i>)	20	0.5	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14

NOTES:

- 1/ Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.
- 2/ For sandy soils, plant seeds at twice the depth listed above.
- 3/ The planting dates listed are averages for each zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall before the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-season grasses.

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 12-24-19
 Chief, Division of Land Development: [Signature] 12-23-19
 Chief, Development Engineering Division: [Signature] 12-16-19

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

ENGINEER'S SIGNATURE: [Signature] DATE: 7/10/19

DEVELOPER'S/BUILDER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF DEVELOPER/BUILDER: [Signature] DATE: 7/10/19

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] DATE: 10/17/19

TOOLE DESIGN
 8484 GEORGIA AVENUE SUITE 800 SILVER SPRING, MD 20910
 PHONE: 301.927.1900 FAX: 301.927.2800 www.tooledesign.com

DES. DPB	DRN. AG	CHK. EM	DATE	REVISION	BY	APPR.

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400 COLUMBIA, MD 21046
 Greg Fitchitt, President, Maryland Region 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 55022 EXPIRATION DATE: 12/28/19



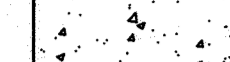


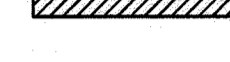
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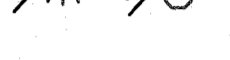




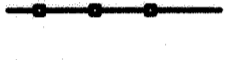
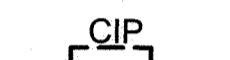
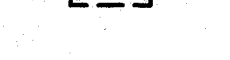
STATE OF MARYLAND PROFESSIONAL ENGINEER
 No. 55022
 10/8/19

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
 COLUMBIA, MD

E&S DETAILS	C2.C
SCALE	ZONING NT
DATE 7/10/19	TAX MAP - GRID 29/30/36
	TDC FILE No. 5477.02
	SHEET 12 OF 63

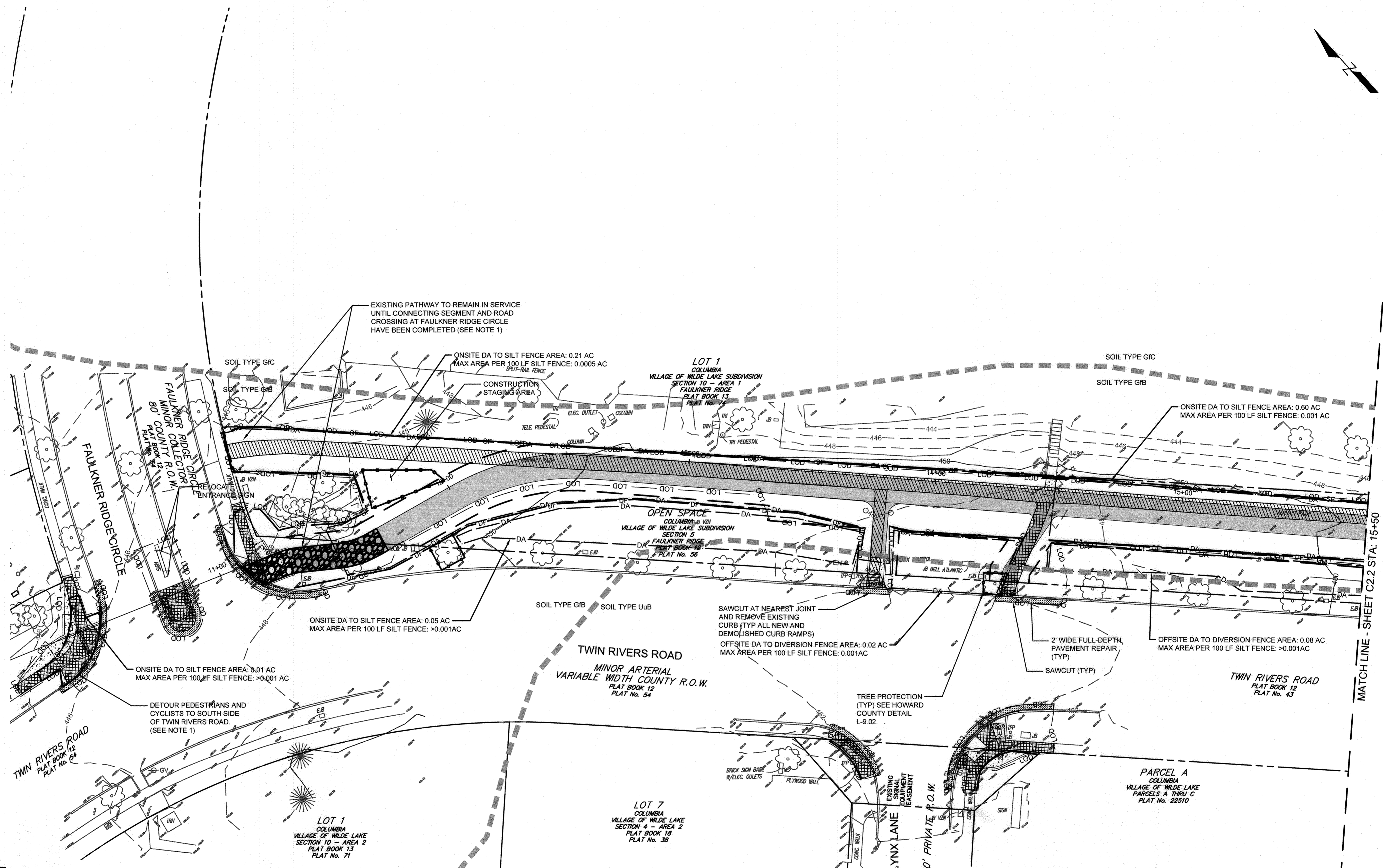
LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  PROPOSED STABILIZED CONSTRUCTION ENTRANCE

-  TREE REMOVAL
-  DIVERSION FENCE
-  DRAINAGE AREA TO E&S MEASURE
-  SILT FENCE
-  LIMIT OF DISTURBANCE
-  TREE PROTECTION (HC STD L9.02)
-  CONSTRUCTION STAGING AREA
-  SOIL MAP BOUNDARY
-  CURB INLET PROTECTION

- NOTES:**
1. PRIOR TO DEMOLITION OF EACH SEGMENT OF THE EXISTING PATHWAY, CONTRACTOR SHALL PROVIDE AN ADA-COMPLIANT DETOUR ROUTE FOR PEDESTRIANS AND CYCLISTS AROUND CLOSED SECTIONS OF THE PATHWAY. PROVIDE BARRICADES AND DETOUR SIGNAGE PER MD MUTCD AT EACH CLOSURE.
 2. SEE SHEET C2.B FOR EROSION AND SEDIMENT CONTROL DETAILS.
 3. SEE DRAWING C5.1 FOR LIST OF TREES TO BE REMOVED, SPECIES, AND CONDITION ASSESSMENT.

SOIL LEGEND		
SOIL TYPE	SOIL DESCRIPTION	SOILS GROUP
BaA	Baile silt loam, 0 to 3 percent slopes	C/D
GfB	Gladstone-Ruban land complex, 0 to 8 percent slopes	A
GfC	Gladstone-urban land complex, 8-15 percent slopes	A
UuB	Urban land-Udorthents complex, 0 to 8 percent slopes	A
GmC	Glenville silt loam, 8 to 15 percent slopes	C
GbB	Gladstone loam, 3 to 8 percent slopes	D



APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
 Date: _____

Chief, Division of Land Development: [Signature] 12-23-19
 Date: _____

Chief, Development Engineering Division: [Signature] 12-16-19
 Date: _____

ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 7/10/19
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 7/10/19
 SIGNATURE OF DEVELOPER/BUILDER DATE

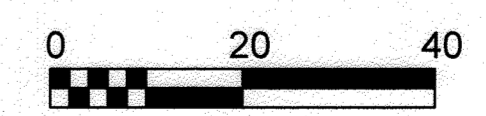
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 10/17/19
 HOWARD S.C.D. DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
[Signature]
 10/8/19

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

[Signature]
 Scott Shanabarger
 L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 1/24/2020
 Shanabarger & Lane



E&S AND DEMO PLAN - 1 C2.1

TOOLE DESIGN

8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DESIGN	DATE	REVISION	BY	APP'R.

Howard Hughes.
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044

Greg Fitchitt, President, Maryland Region
 410.984.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 15022










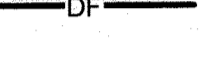
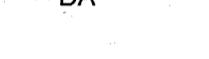




[Signature] 7/10/19
 EXPIRATION DATE: 12/28/19

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE - FAULKNER
 COLUMBIA, MD RIDGE CIR.

HOWARD COUNTY
 ELECTION DISTRICT 5

SCALE	ZONING	TDG. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	13 OF 63

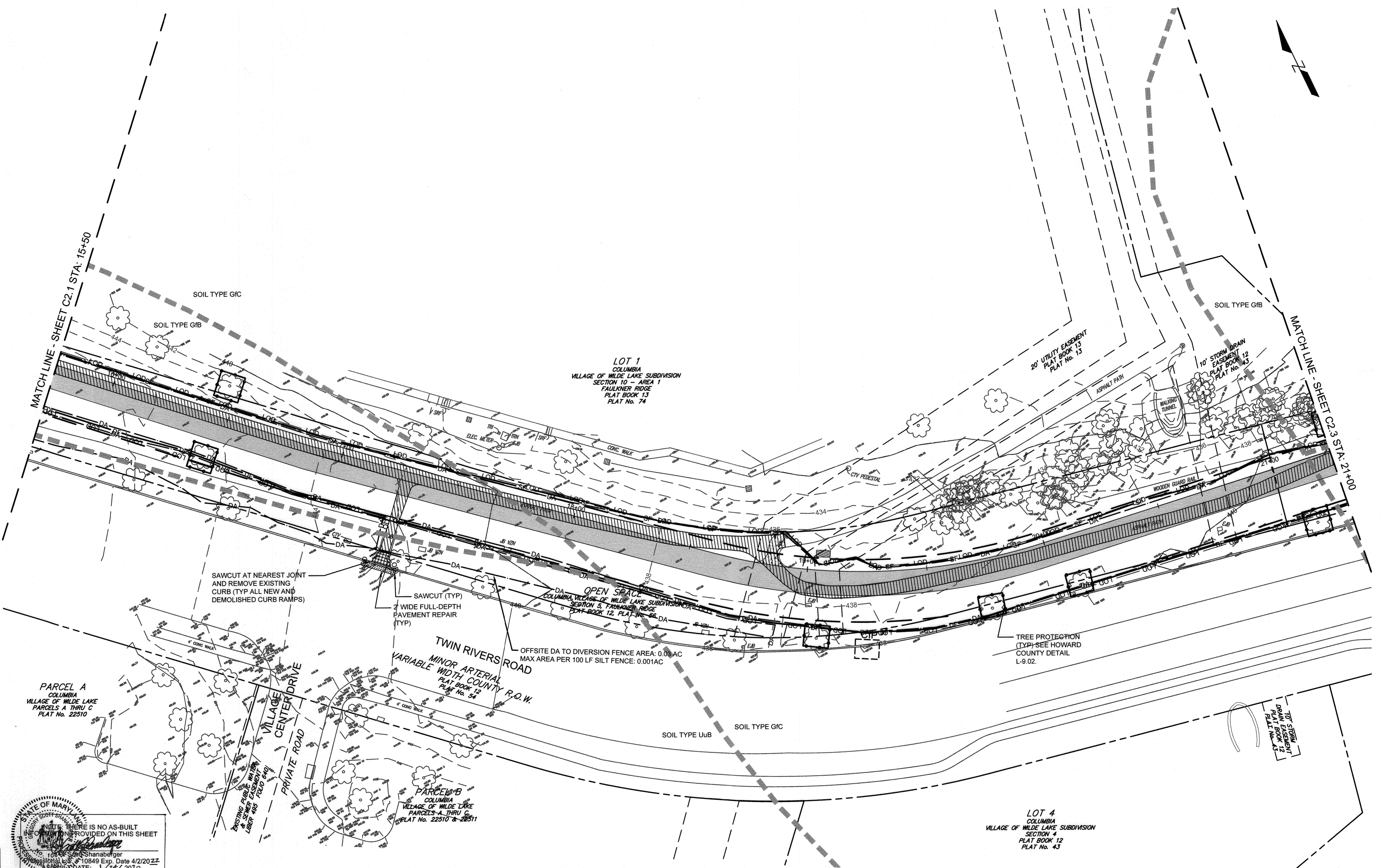
LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  PROPOSED STABILIZED CONSTRUCTION ENTRANCE
-  TREE REMOVAL
-  DIVERSION FENCE
-  DRAINAGE AREA TO E&S MEASURE
-  SILT FENCE
-  LIMIT OF DISTURBANCE
-  TREE PROTECTION (HC STD L9.02)
-  CONSTRUCTION STAGING AREA
-  SOIL MAP BOUNDARY
-  CURB INLET PROTECTION

NOTES

1. PRIOR TO DEMOLITION OF EACH SEGMENT OF THE EXISTING PATHWAY, CONTRACTOR SHALL PROVIDE AN ADA-COMPLIANT DETOUR ROUTE FOR PEDESTRIANS AND CYCLISTS AROUND CLOSED SECTIONS OF THE PATHWAY. PROVIDE BARRICADES AND DETOUR SIGNAGE PER MD MUTCD AT EACH CLOSURE.
2. SEE SHEET C2.B FOR EROSION AND SEDIMENT CONTROL DETAILS.
3. SEE DRAWING C5.1 FOR LIST OF TREES TO BE REMOVED, SPECIES, AND CONDITION ASSESSMENT.

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GbB	Gladstone loam, 3 or 8 percent slopes	D



STATE OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER
 No. 10849 Exp. Date 4/2/2022
 ASSESSOR: 1/24/2020
 Shanaberger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

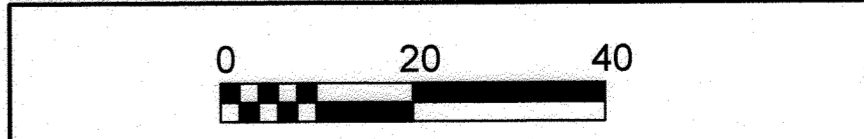
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 12-24-19
 Chief, Division of Land Development: [Signature] 12-23-19
 Chief, Development Engineering Division: [Signature] 12-16-19

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
 7/10/19
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
 "I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
 7/10/19
 SIGNATURE OF DEVELOPER/BUILDER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 10/17/19
 HOWARD S.C.D. DATE

STATE OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER
 No. 35502
 PROFESSIONAL ENGINEER
[Signature] 10/10/19



E&S AND DEMO PLAN - 2 C2.2

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

NO.	REVISION	DATE	BY	APPR.



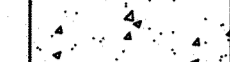





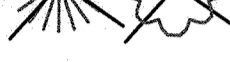
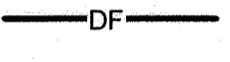
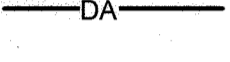




Howard Hughes
 THE HOWARD HUGHES CORPORATION
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35502
 EXPIRATION DATE: 12/28/19
[Signature] 7/10/19
 PROFESSIONAL ENGINEER

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
 COLUMBIA, MD
 HOWARD COUNTY

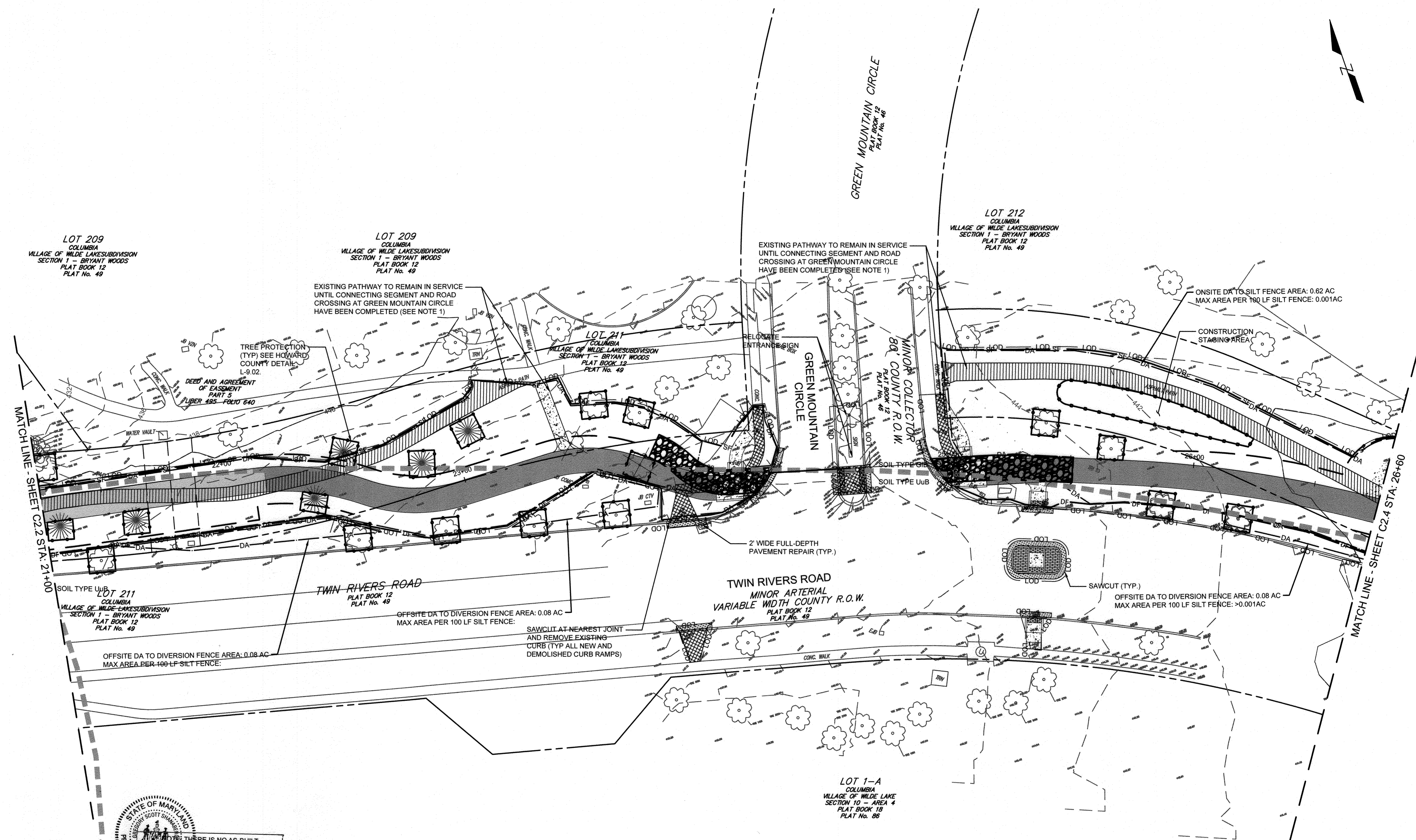
SCALE	ZONING	TDC FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	14 OF 63

LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  PROPOSED STABILIZED CONSTRUCTION ENTRANCE
-  TREE REMOVAL
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-  LIMIT OF DISTURBANCE
-  TREE PROTECTION (HC STD L9.02)
-  CONSTRUCTION STAGING AREA
-  SOIL MAP BOUNDARY
-  CURB INLET PROTECTION

- NOTES:**
1. PRIOR TO DEMOLITION OF EACH SEGMENT OF THE EXISTING PATHWAY, CONTRACTOR SHALL PROVIDE AN ADA-COMPLIANT DETOUR ROUTE FOR PEDESTRIANS AND CYCLISTS AROUND CLOSED SECTIONS OF THE PATHWAY. PROVIDE BARRICADES AND DETOUR SIGNAGE PER MD MUTCD AT EACH CLOSURE.
 2. SEE SHEET C2.8 FOR EROSION AND SEDIMENT CONTROL DETAILS.
 3. SEE DRAWING C5.1 FOR LIST OF TREES TO BE REMOVED, SPECIES, AND CONDITION ASSESSMENT.

SOIL LEGEND		
SOIL TYPE	SOIL DESCRIPTION	SOILS GROUP
BaA	Baile silt loam, 0 to 3 percent slopes	C/D
GfB	Gladstone-Ruban land complex, 0 to 8 percent slopes	A
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STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 I AND MY ASSISTANT HAVE EXAMINED THE SITE AND THE PLANS AND SPECIFICATIONS AND I HEREBY CERTIFY THAT THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 Greg Filchitt
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 12/24/2019
 Shanaberger & Lane

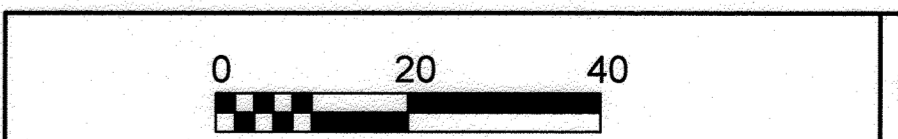
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 Melany Allister Brick
 7/10/19
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
 "I/ WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
 Greg Filchitt
 7/10/19
 SIGNATURE OF DEVELOPER/BUILDER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 John B. Bunker
 10/17/19
 HOWARD S.C.D. DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 I AND MY ASSISTANT HAVE EXAMINED THE SITE AND THE PLANS AND SPECIFICATIONS AND I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30622
 EXPIRATION DATE: 12/28/19
 Melany Allister Brick
 10/18/19
 PROFESSIONAL ENGINEER DATE



E&S AND DEMO PLAN - 3 C2.3

TOOLE DESIGN
 8484 GEORGIA AVENUE SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DES. DPB	DRN. AG	CHK. EM	DATE	REVISION	BY	APPR.

Howard Hughes.
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Filchitt, President, Maryland Region
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PROFESSIONAL CERTIFICATION
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 EXPIRATION DATE: 12/28/19
 Melany Allister Brick
 11/10/19
 PROFESSIONAL ENGINEER DATE



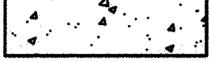





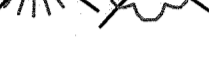
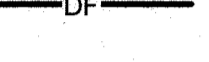
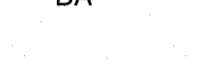


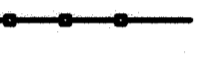

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO FALKNER RIDGE CIR.
 COLUMBIA, MD
 HOWARD COUNTY

SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 15 OF 63

ELECTION DISTRICT 5

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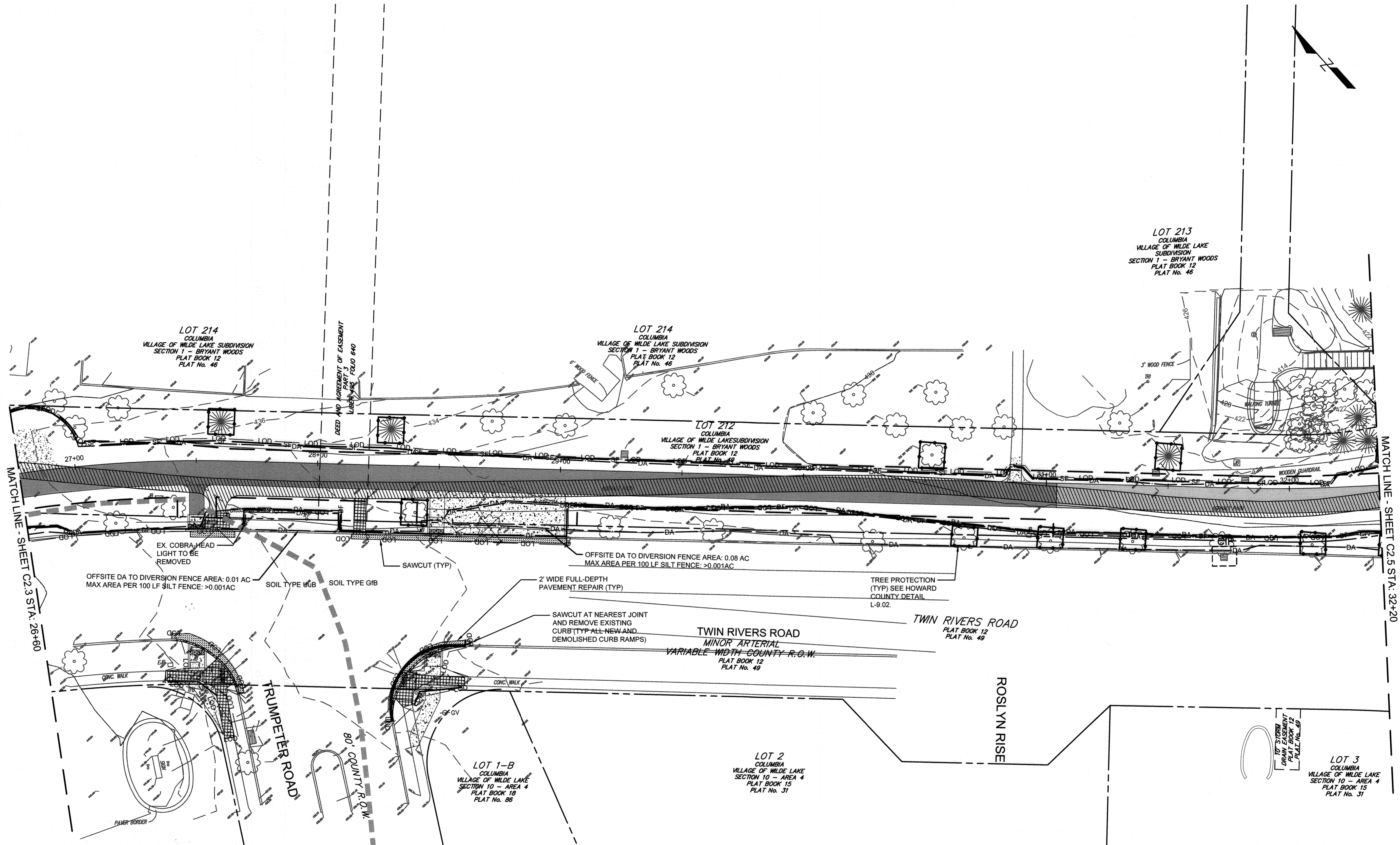
LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  PROPOSED STABILIZED CONSTRUCTION ENTRANCE
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-  SOIL MAP BOUNDARY
-  CURB INLET PROTECTION

NOTES:

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GmC	Glennville silt loam, 8 to 15 percent slopes	C
GbB	Gladstone loam, 3 to 8 percent slopes	D



APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Melany R. Allister-Brick
7/10/19
ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Greg Fitchitt
7/10/19
SIGNATURE OF DEVELOPER/BUILDER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John P. Roberts
10/17/19
HOWARD S.C.D. DATE

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022.

Greg Fitchitt
7/10/19
PROFESSIONAL ENGINEER

NOTE: THERE IS NO AS-BUILT RECORD INFORMATION PROVIDED ON THIS SHEET

Scott Shanabarger
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanabarger & Lane

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Angie Co 12-24-19
Director Date

J. Marable 12-23-19
Chief, Division of Land Development Date

John E. ... 12-16-19
Chief, Development Engineering Division Date

DESIGNER	DATE	REVISION	BY	APPR.

Howards Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
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Greg Fitchitt
7/10/19
PROFESSIONAL ENGINEER

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIP.



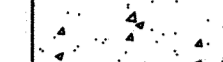


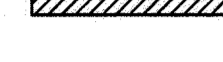



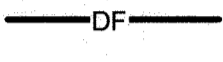
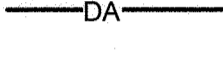




HOWARD COUNTY
ELECTION DISTRICT 5

E&S AND DEMO PLAN - 4 C2.4		
SCALE	ZONING	TDG. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	16 OF 63

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

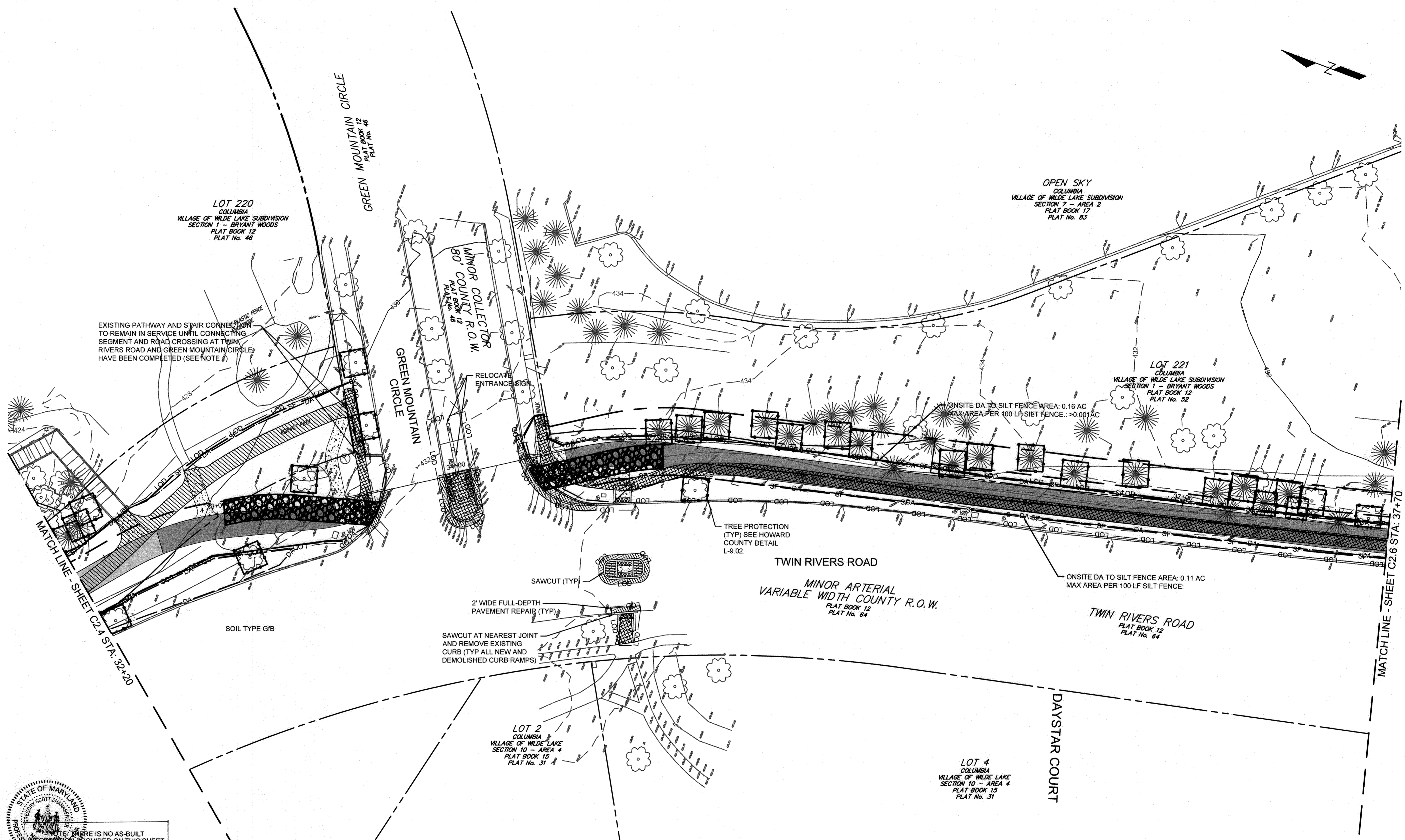
MATCH LINE - SHEET C2.5 STA. 32+20

LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  PROPOSED STABILIZED CONSTRUCTION ENTRANCE
-  TREE REMOVAL
-  DIVERSION FENCE
-  DRAINAGE AREA TO E&S MEASURE
-  SILT FENCE
-  LIMIT OF DISTURBANCE
-  TREE PROTECTION (HC STD L9.02)
-  CONSTRUCTION STAGING AREA
-  SOIL MAP BOUNDARY
-  CURB INLET PROTECTION

- NOTES:**
1. PRIOR TO DEMOLITION OF EACH SEGMENT OF THE EXISTING PATHWAY, CONTRACTOR SHALL PROVIDE AN ADA-COMPLIANT DETOUR ROUTE FOR PEDESTRIANS AND CYCLISTS AROUND CLOSED SECTIONS OF THE PATHWAY. PROVIDE BARRICADES AND DETOUR SIGNAGE PER MD MUTCD AT EACH CLOSURE.
 2. SEE SHEET C2.B FOR EROSION AND SEDIMENT CONTROL DETAILS.
 3. SEE DRAWING C5.1 FOR LIST OF TREES TO BE REMOVED, SPECIES, AND CONDITION ASSESSMENT.

SOIL LEGEND		
SOIL TYPE	SOIL DESCRIPTION	SOILS GROUP
BaA	Baile silt loam, 0 to 3 percent slopes	C/D
G1B	Gladstone-Ruban land complex, 0 to 8 percent slopes	A
G1C	Gladstone-urban land complex, 8-15 percent slopes	A
UuB	Urban land-Udortheints complex, 0 to 8 percent slopes	A
GmC	Glenville silt loam, 8 to 15 percent slopes	C
GbB	Gladstone loam, 3 o 8 percent slopes	D



STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 SCOTT SHANABERGER
 No. 3522
 REGISTERED PROFESSIONAL ENGINEER
 I HEREBY CERTIFY THAT THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET.
 Scott Shanabarger
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 1/24/2022
 Shanabarger & Lane

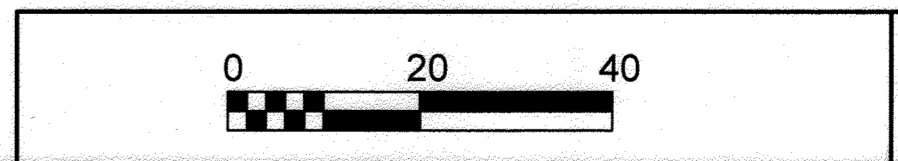
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 26, 2019

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 Melanie R. Allister-Brick
 7/10/19
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
 "I / WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
 Greg Fitchitt
 7/10/19
 SIGNATURE OF DEVELOPER/BUILDER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Howard S.C.D.
 10/17/19
 DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 ALLISTER-BRICK
 No. 3522
 REGISTERED PROFESSIONAL ENGINEER
 10/18/19



E&S AND DEMO PLAN - 5 C2.5		
SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 17 OF 63

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

NO.	REVISION	DATE	BY	APPR.



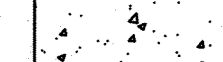


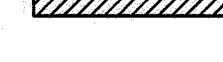



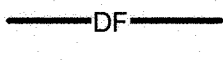
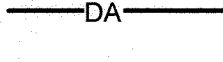




Howard Hughes
 THE HOWARD HUGHES CORPORATION
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 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3522.
 EXPIRATION DATE: 12/28/19
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 3522
 REGISTERED PROFESSIONAL ENGINEER
 7/10/19

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
 COLUMBIA, MD RIDGE CIR.
 HOWARD COUNTY
 ELECTION DISTRICT 5

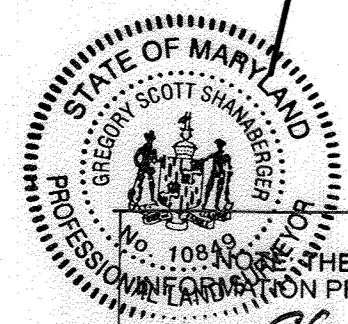
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 PLOTTED: 7/11/2019 12:27 PM, LAST SAVED: 7/10/2019 5:57 PM, PLOTTED BY: Melany Allister-Brick
 SDP-19-036

LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  EXISTING CONCRETE REMOVAL
-  EXISTING ASPHALT PATH REMOVAL
-  PROPOSED STABILIZED CONSTRUCTION ENTRANCE
-  TREE REMOVAL
-  DIVERSION FENCE
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-  SILT FENCE
-  LIMIT OF DISTURBANCE
-  TREE PROTECTION (HC STD L9.02)
-  CONSTRUCTION STAGING AREA
-  SOIL MAP BOUNDARY
-  CURB INLET PROTECTION

- NOTES:**
1. PRIOR TO DEMOLITION OF EACH SEGMENT OF THE EXISTING PATHWAY, CONTRACTOR SHALL PROVIDE AN ADA-COMPLIANT DETOUR ROUTE FOR PEDESTRIANS AND CYCLISTS AROUND CLOSED SECTIONS OF THE PATHWAY. PROVIDE BARRICADES AND DETOUR SIGNAGE PER MD MUTCD AT EACH CLOSURE.
 2. SEE SHEET C2.B FOR EROSION AND SEDIMENT CONTROL DETAILS.
 3. SEE DRAWING C5.1 FOR LIST OF TREES TO BE REMOVED, SPECIES, AND CONDITION ASSESSMENT.

SOIL LEGEND		
SOIL TYPE	SOIL DESCRIPTION	SOILS GROUP
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GfB	Gladstone-Ruban land complex, 0 to 8 percent slopes	A
GfC	Gladstone-urban land complex, 8-15 percent slopes	A
UuB	Urban land-Udortheints complex, 0 to 8 percent slopes	A
GmC	Glenville silt loam, 8 to 15 percent slopes	C
GbB	Gladstone loam, 3 to 8 percent slopes	D



NOTICE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 G. Scott Shanabarger
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 12-24-2019
 Shanabarger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 26, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 12-24-19
 Chief, Division of Land Development: [Signature] 12-23-19
 Chief, Development Engineering Division: [Signature] 12-16-19

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
 ENGINEER'S SIGNATURE DATE: 7/10/19

DEVELOPER'S/BUILDER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature]
 SIGNATURE OF DEVELOPER/BUILDER DATE: 7/10/19

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature]
 HOWARD S.C.D. DATE: 7/10/19



[Signature]
 10/10/19

TOOLE DESIGN
 8484 GEORGIA AVENUE SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
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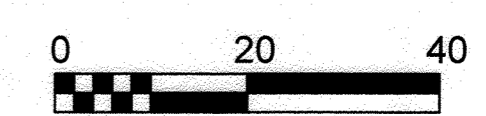
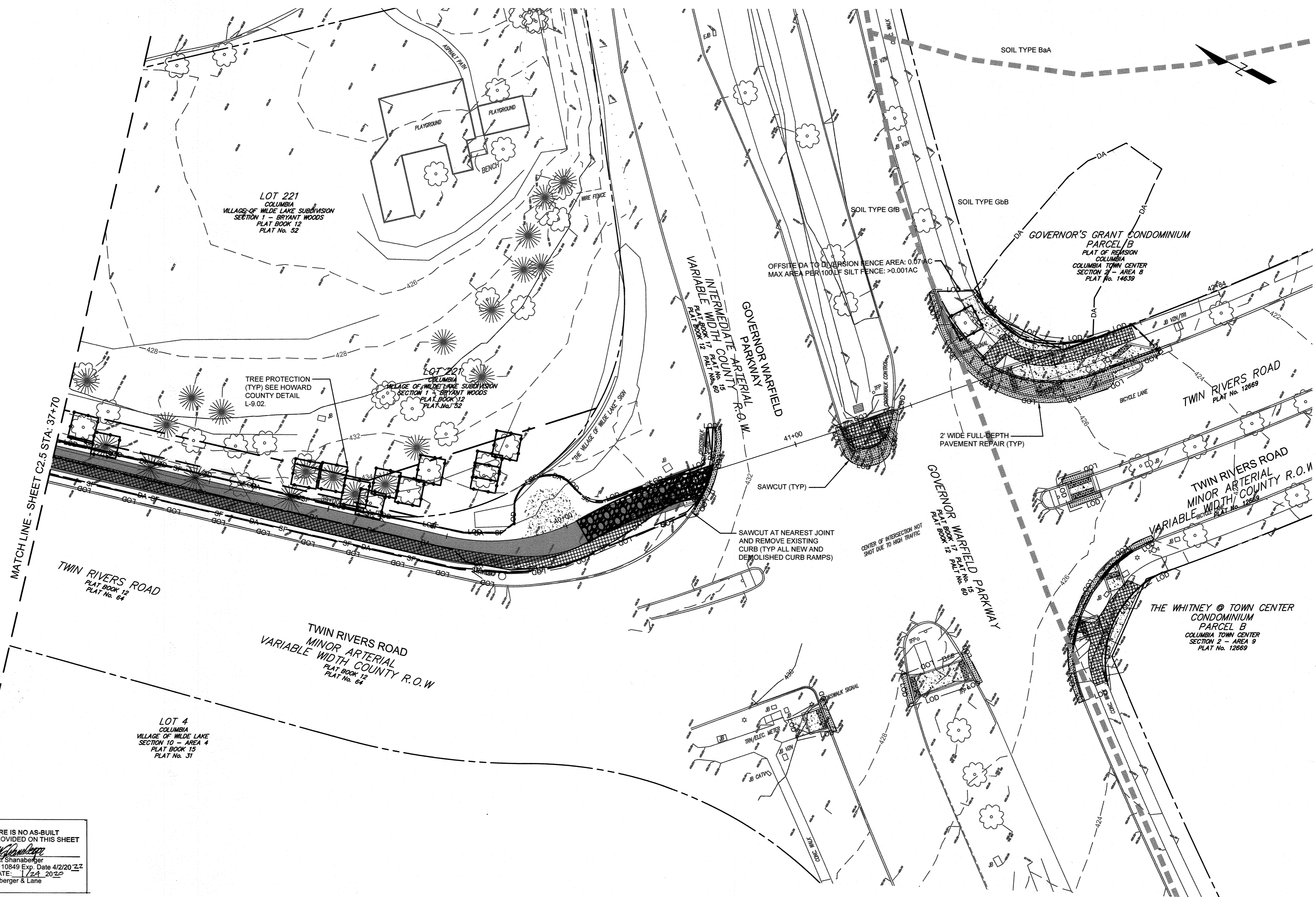
DES. DPB	DRN. AG	CHK. EM	DATE	REVISION	BY	APPR.

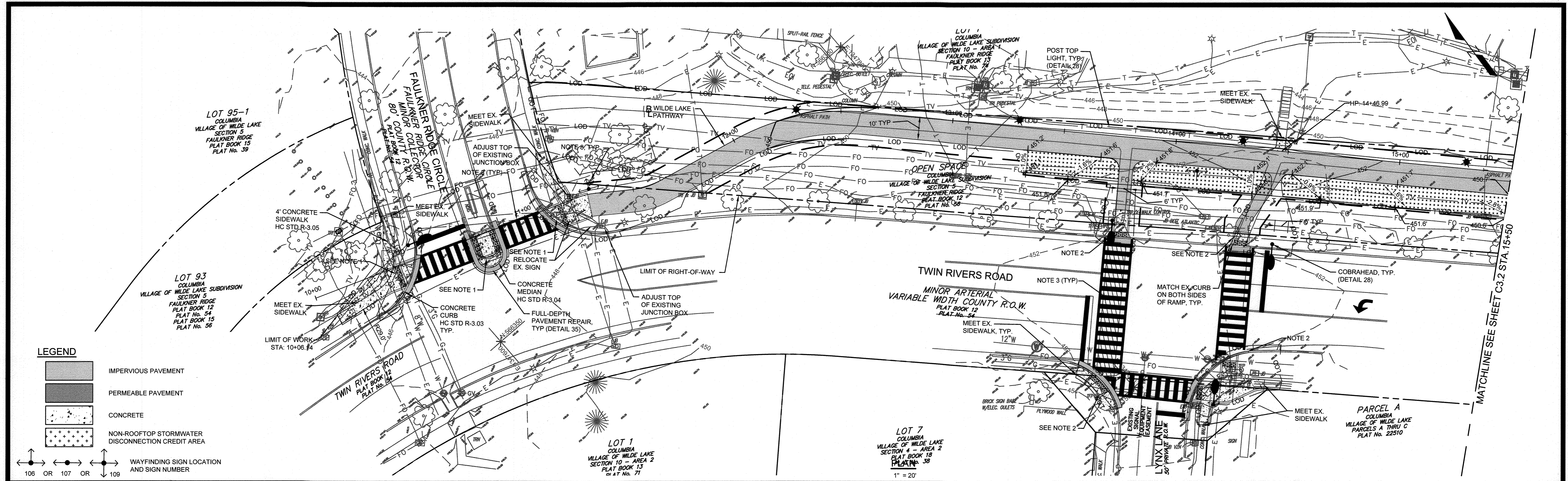
Howard Hughes
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 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.984.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022
 EXPIRATION DATE: 12/28/19
[Signature]
 DATE: 7/10/19

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
 COLUMBIA, MD
 HOWARD COUNTY

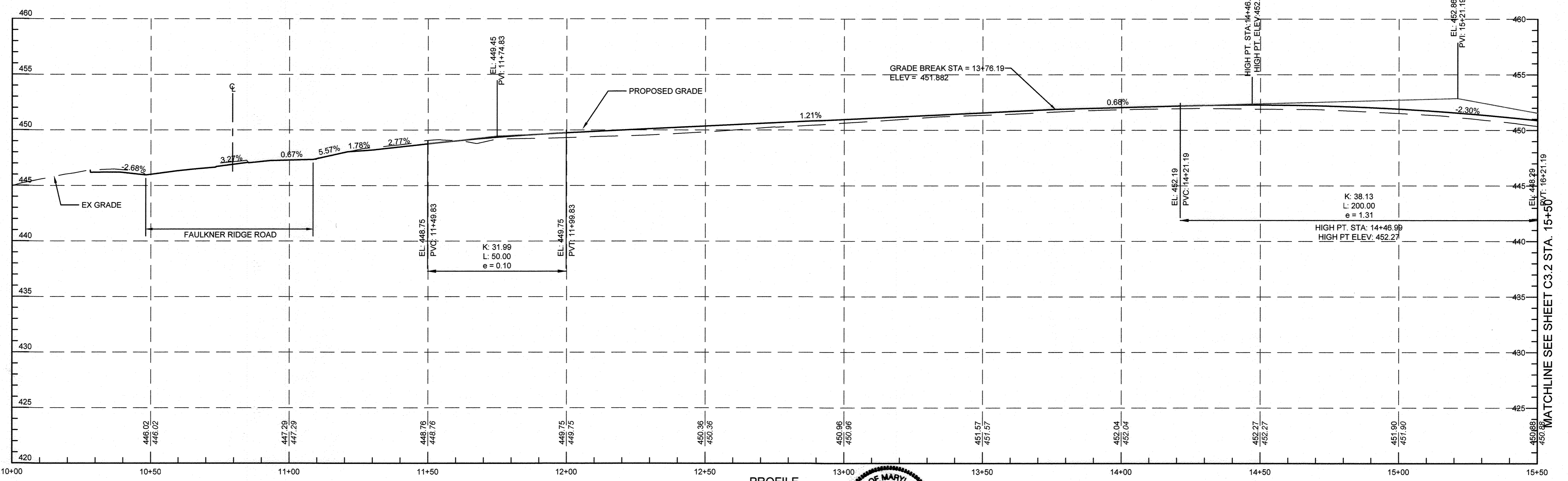
E&S AND DEMO PLAN - 6 C2.6		
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 18 OF 63





NOTES:

- SEE SHEET C10.1 DETAIL 1 FOR FAULKNER RIDGE CIRCLE CURB RAMP DETAILS.
- SEE SHEET C10.1 DETAILS 2 AND 3 FOR LYNX LANE CURB RAMP DETAILS.
- SEE SHEETS C4.1 - C4.6 FOR PROPOSED SIGNING AND MARKING LAYOUT AND DETAILS.
- CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING FOR ALL DRY UTILITY CROSSINGS OF PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
- CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING AT APPROXIMATELY 100-FOOT INTERVALS FOR ALL DRY UTILITIES ON PARALLEL ALIGNMENTS WITHIN PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
- WHERE DRY UTILITIES HAVE LESS THAN 18 INCHES OF COVER, THE CONTRACTOR SHALL COORDINATE WITH THE AFFECTED UTILITY PROVIDER TO RELOCATE LINES IF POSSIBLE. WHERE RELOCATION IS NOT POSSIBLE, LOWER LINES TO PROVIDE A MINIMUM OF 3 INCHES BELOW THE PERMEABLE PAVEMENT SYSTEM. FOR PARALLEL INSTALLATIONS, ADJUST HORIZONTAL LOCATION OF UTILITY TO MAINTAIN A MINIMUM OF 1 FOOT OF CLEARANCE FROM THE EDGE OF THE PERMEABLE PAVEMENT.
- SEE SHEETS C1.1 TO C1.6 FOR EASEMENT INFORMATION.
- SEE SHEET C6.3 FOR WAYFINDING SIGN AND MOUNTING DETAILS. SEE SHEETS C6.4 AND C6.5 FOR SIGN LEGENDS. CONFIRM FINAL SIGN LEGENDS WITH HOWARD COUNTY OFFICE OF TRANSPORTATION AND COLUMBIA ASSOCIATION OFFICE OF APPROPRIATING.



NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

Scott Shanaberger
 Professional Engineer
 License No. 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 1/24/2020
 Shanaberger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director 12-24-19
 Date

Chief, Division of Land Development 12-23-19
 Date

Chief, Development Engineering Division 12-16-19
 Date

TOOLE DESIGN

8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DES.	DPB	DRN.	AC	CHK.	EM	DATE	REVISION	BY	APPR.

Howard Hughes
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 Greg Fitchitt, President, Maryland Region
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PROFESSIONAL CERTIFICATION

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 EXPIRATION DATE: 12/28/19

Greg Fitchitt
 PROFESSIONAL ENGINEER
 1/10/19




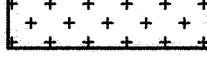
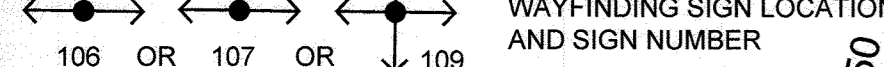
STATE OF MARYLAND
 ALLISTON B. BRICK
 PROFESSIONAL ENGINEER
 10/8/19

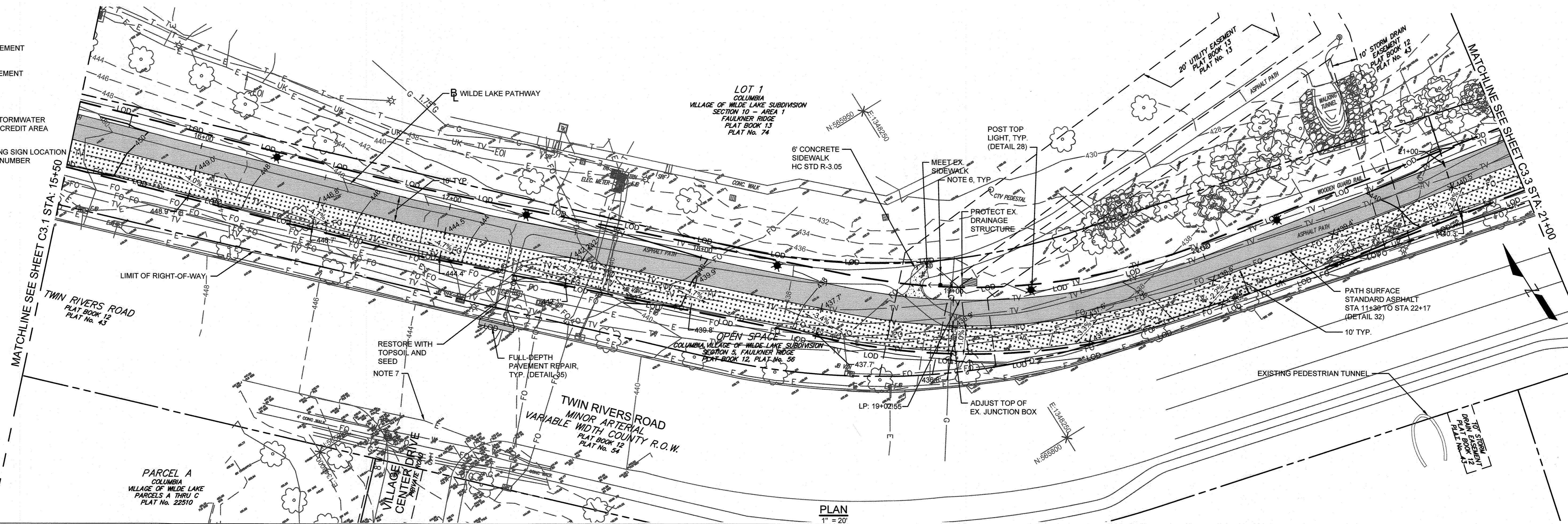
WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
 COLUMBIA, MD RIDGE C.R.

HOWARD COUNTY

TRAIL PLAN AND PROFILE - 1		C3.1	
SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 19 OF 63	

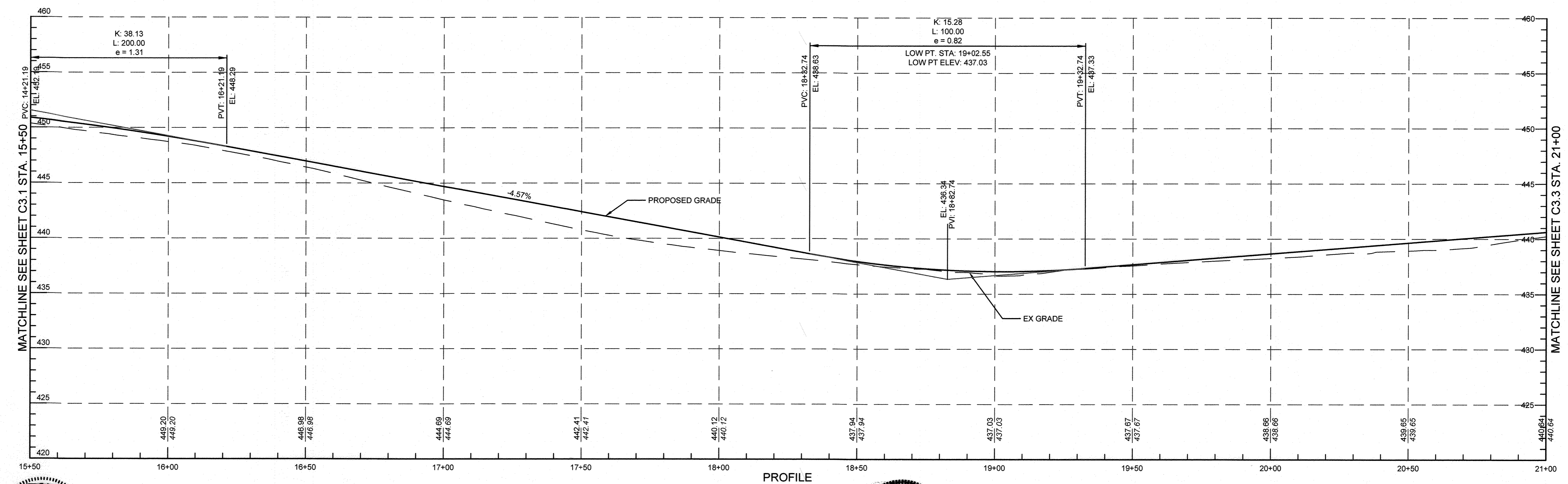
LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
-  WAYFINDING SIGN LOCATION AND SIGN NUMBER



NOTES:

1. SEE SHEETS C4.1 - C4.6 FOR PROPOSED SIGNING AND MARKING LAYOUT AND DETAILS.
2. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING FOR ALL DRY UTILITY CROSSINGS OF PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
3. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING AT APPROXIMATELY 100-FOOT INTERVALS FOR ALL DRY UTILITIES ON PARALLEL ALIGNMENTS WITHIN PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
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5. SEE SHEETS C1.1 TO C1.6 FOR EASEMENT INFORMATION.
6. SEE SHEET C6.3 FOR WAYFINDING SIGN AND MOUNTING DETAILS. SEE SHEETS C6.4 AND C6.5 FOR SIGN LEGENDS. CONFIRM FINAL SIGN LEGENDS WITH HOWARD COUNTY OFFICE OF TRANSPORTATION AND COLUMBIA ASSOCIATION PRIOR TO FABRICATING.
7. THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS MAY CONSIDER A CROSSWALK AT VILLAGE CENTER DRIVE AT A LATER DATE IF CONDITIONS WARRANT, AND IT CAN BE INSTALLED SAFELY FOR PEDESTRIANS.



APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

STATE OF MARYLAND
NOTICE: THERE IS NO AS-BUILT PROVIDED ON THIS SHEET
G. Scott Shanabarger
Professional Engineer
No. 10849 Exp. Date 4/2/2022
Shanabarger & Lane

STATE OF MARYLAND
Professional Engineer
No. 35022
10/6/19

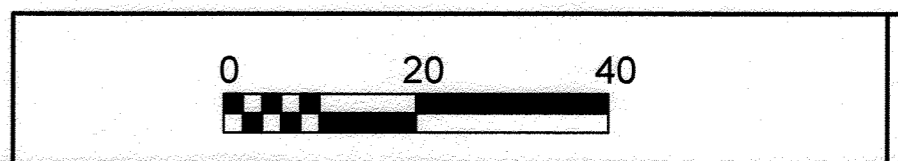
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19
Date: 12-23-19
Chief, Division of Land Development: [Signature]
Date: 12-16-19
Chief, Development Engineering Division: [Signature]

TOOLE DESIGN
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PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022
EXPIRATION DATE: 12/28/19

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE C.R.

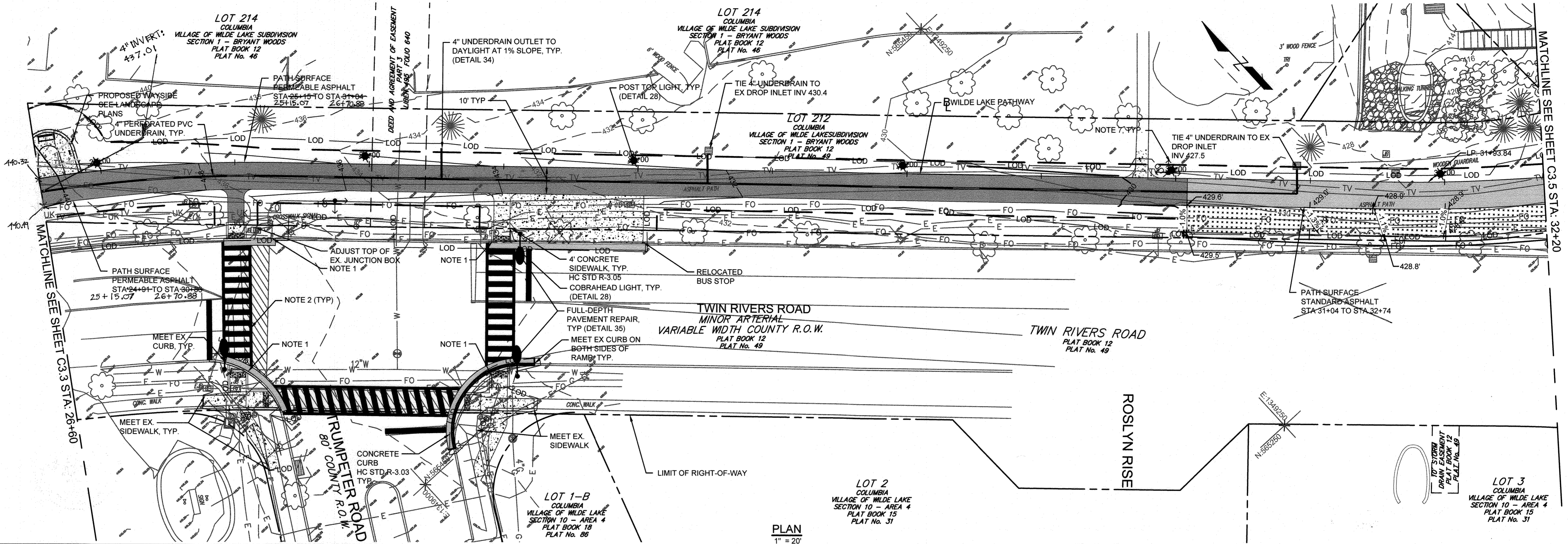


TRAIL PLAN AND PROFILE - 2			C3.2
SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 20 OF 63	

DES. DPB	DRN. AG	CHK. EM	DATE	REVISION	BY	APPR.
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LEGEND

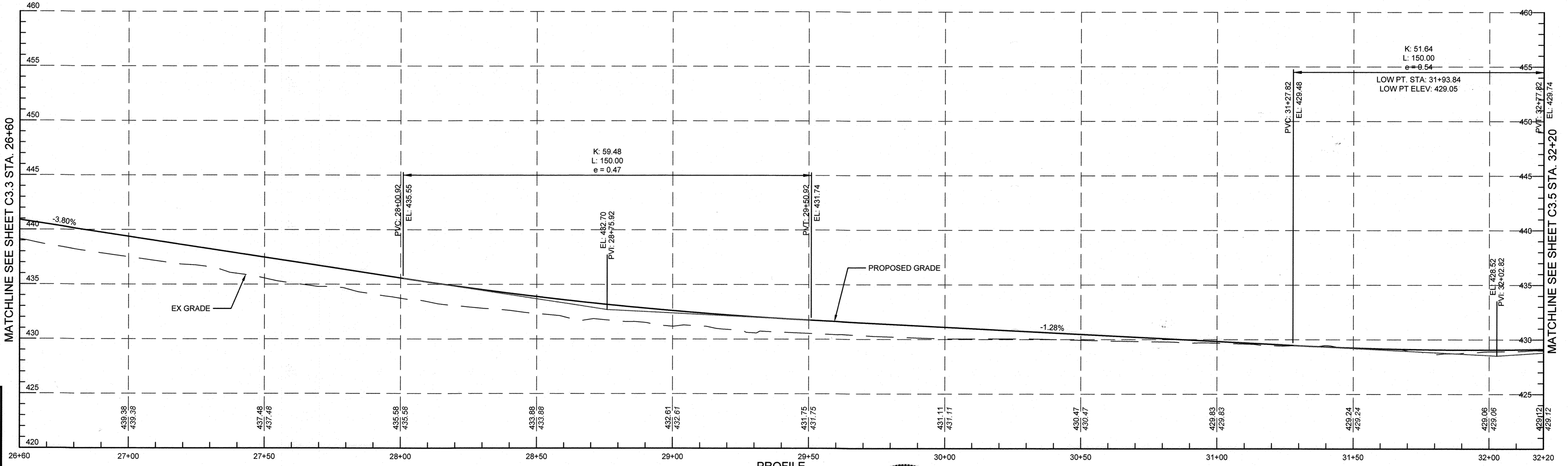
- IMPERVIOUS PAVEMENT
- PERMEABLE PAVEMENT
- CONCRETE
- NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
- WAYFINDING SIGN LOCATION AND SIGN NUMBER



AS-BUILT CERTIFICATE
 I HEREBY CERTIFY BY SIGNATURE AND SEAL THAT THE INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM THE FIELD AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
 GREG FITCHITT
 PROFESSIONAL LAND SURVEYOR
 LICENSE EXPIRES 03/31/2022
 AS-BUILT SURVEY DATE: 12/16/19

NOTES:

1. SEE SHEET C10.2 DETAILS 6, 7, AND 8 FOR TRUMPETER ROAD CURB RAMP DETAILS.
2. SEE SHEETS C4.1 - C4.6 FOR PROPOSED SIGNING AND MARKING LAYOUT AND DETAILS.
3. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING FOR ALL DRY UTILITY CROSSINGS OF PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
4. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING AT APPROXIMATELY 100-FOOT INTERVALS FOR ALL DRY UTILITIES ON PARALLEL ALIGNMENTS WITHIN PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
5. WHERE DRY UTILITIES HAVE LESS THAN 18 INCHES OF COVER, THE CONTRACTOR SHALL COORDINATE WITH THE AFFECTED UTILITY PROVIDER TO RELOCATE LINES IF POSSIBLE. WHERE RELOCATION IS NOT POSSIBLE, LOWER LINES TO PROVIDE A MINIMUM OF 3 INCHES BELOW THE PERMEABLE PAVEMENT SYSTEM. FOR PARALLEL INSTALLATIONS, ADJUST HORIZONTAL LOCATION OF UTILITY TO MAINTAIN A MINIMUM OF 1 FOOT OF CLEARANCE FROM THE EDGE OF THE PERMEABLE PAVEMENT.
6. SEE SHEETS C1.1 TO C1.6 FOR EASEMENT INFORMATION. SEE SHEET C6.3 FOR WAYFINDING SIGN AND MOUNTING DETAILS. SEE SHEETS C6.4 AND C6.5 FOR SIGN LEGENDS. CONFIRM FINAL SIGN LEGENDS WITH HOWARD COUNTY OFFICE OF TRANSPORTATION AND COLUMBIA ASSOCIATION PRIOR TO FABRICATING.
- 7.



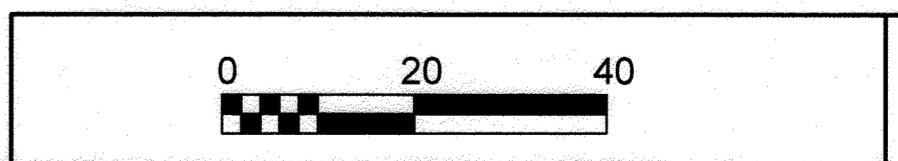
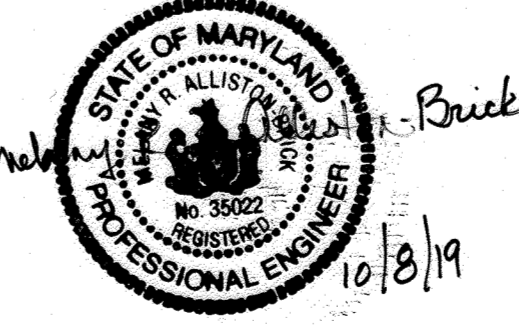
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 12-24-19
 Chief, Division of Land Development: [Signature] 12-23-19
 Chief, Development Engineering Division: [Signature] 12-16-19

DESIGN	DRN. AG	CHK. EM	DATE	REVISION	BY	APPR.

Howard Hughes.
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 39022.
 EXPIRATION DATE: 12/28/19
 Greg Fitchitt, Professional Engineer
 7/10/19



TRAIL PLAN AND PROFILE - 4		C3.4
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 22 OF 63

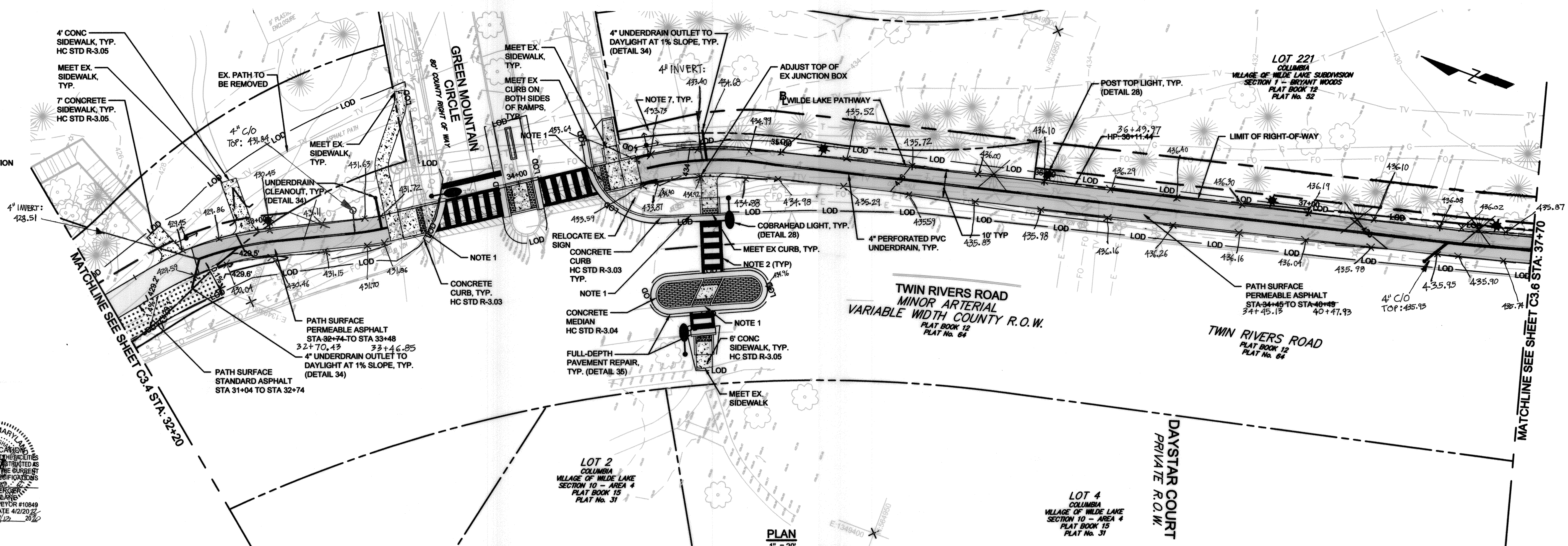
WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
 COLUMBIA, MD RIDGE CIR.
 HOWARD COUNTY
 ELECTION DISTRICT 5

LEGEND

- IMPERVIOUS PAVEMENT
- PERMEABLE PAVEMENT
- CONCRETE
- NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA

WAYFINDING SIGN LOCATION AND SIGN NUMBER
106 OR 107 OR 109

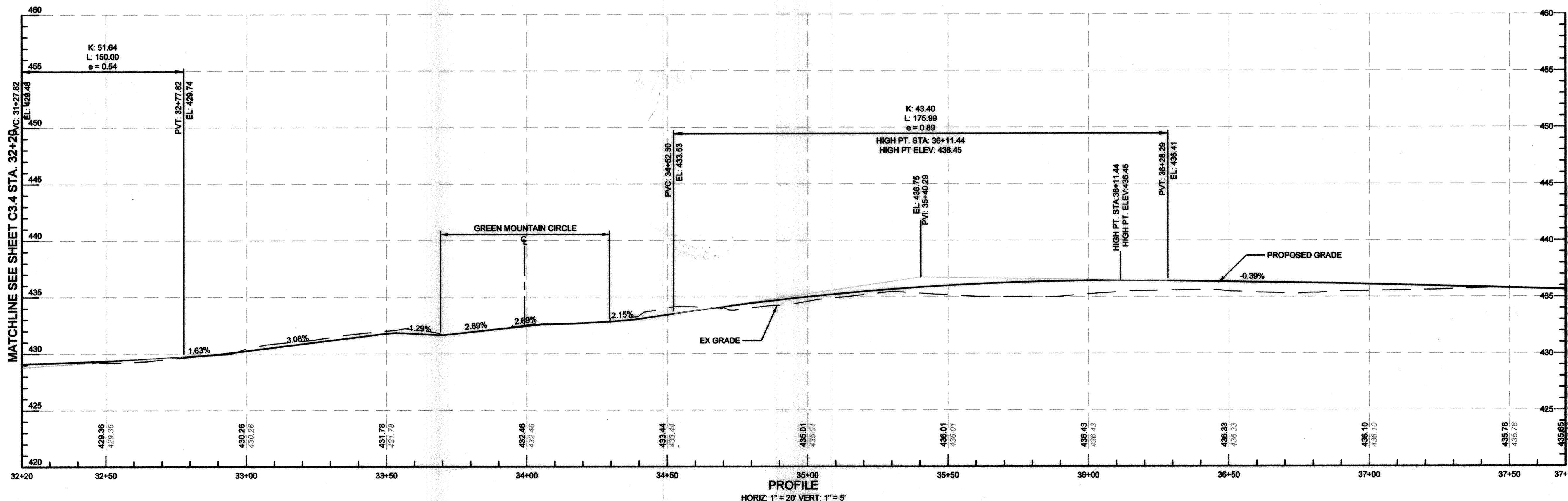
NOTE:
SEE SHEET C10.2 DETAILS 9 AND 10 FOR GREEN MOUNTAIN CIRCLE CURB RAMP AND REFUGE ISLAND DETAILS.



STATE OF MARYLAND
G. SCOTT SHAW
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/2/2022
BUILT SURVEY DATE 07/12/2020

NOTES:

1. SEE SHEET C10.2 DETAILS 9 AND 10 FOR GREEN MOUNTAIN CIRCLE CURB RAMP AND REFUGE ISLAND DETAILS.
2. SEE SHEETS C4.1 - C4.8 FOR PROPOSED SIGNING AND MARKING LAYOUT AND DETAILS.
3. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING FOR ALL DRY UTILITY CROSSINGS OF PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
4. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING AT APPROXIMATELY 100-FOOT INTERVALS FOR ALL DRY UTILITIES ON PARALLEL ALIGNMENTS WITHIN PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
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6. SEE SHEETS C1.1 TO C1.8 FOR EASEMENT INFORMATION.
7. SEE SHEET C6.3 FOR WAYFINDING SIGN AND MOUNTING DETAILS. SEE SHEETS C6.4 AND C6.5 FOR SIGN LEGENDS. CONFIRM FINAL SIGN LEGENDS WITH HOWARD COUNTY OFFICE OF TRANSPORTATION AND COLUMBIA ASSOCIATION PRIOR TO FABRICATING.



APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19

Chief, Division of Land Development: [Signature] Date: 12-23-19

Chief, Development Engineering Division: [Signature] Date: 12-16-19

TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APP'R.

Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchell, President, Maryland Region
410.984.4800 - Greg.Fitchell@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 39022
EXPIRATION DATE: 12/28/21

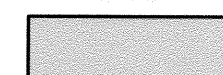

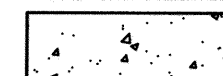
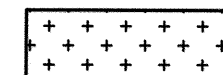

STATE OF MARYLAND
ALLIANCE
PROFESSIONAL ENGINEER

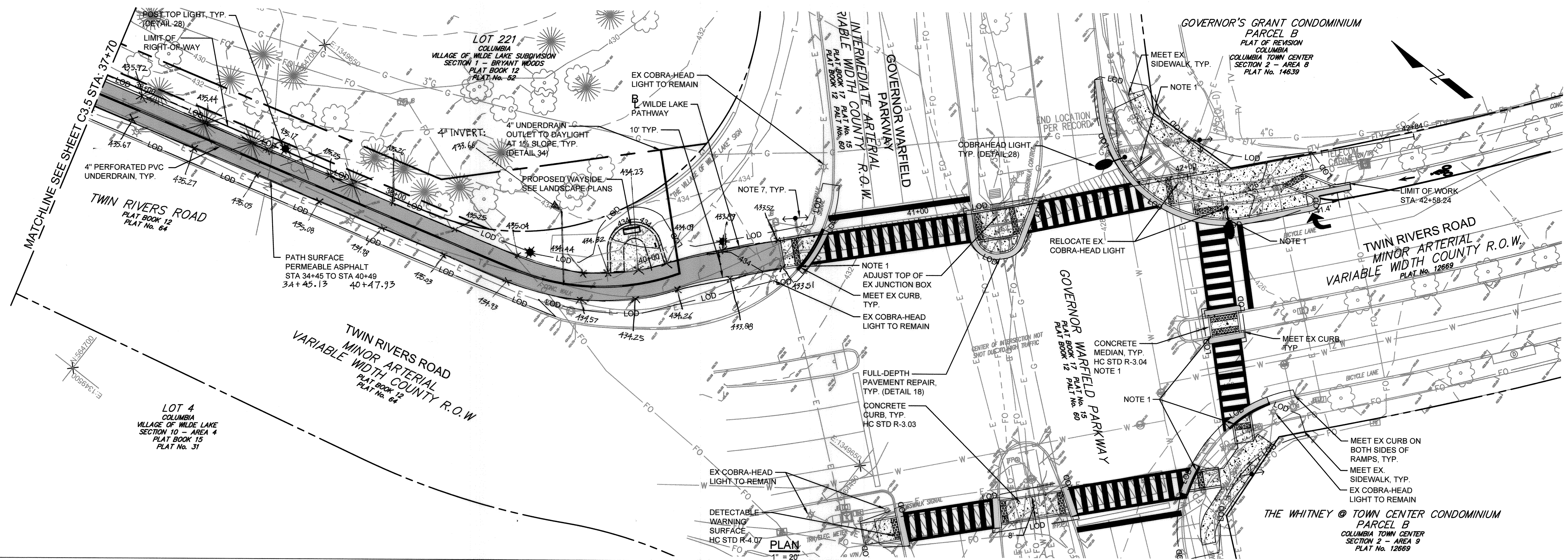
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD

12/6/19 ELECTION DISTRICT 5

TRAIL PLAN AND PROFILE - 5			C3.5
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02	SHEET 23 OF 63
DATE 7/10/19	TAX MAP - GRID 29/30/36		

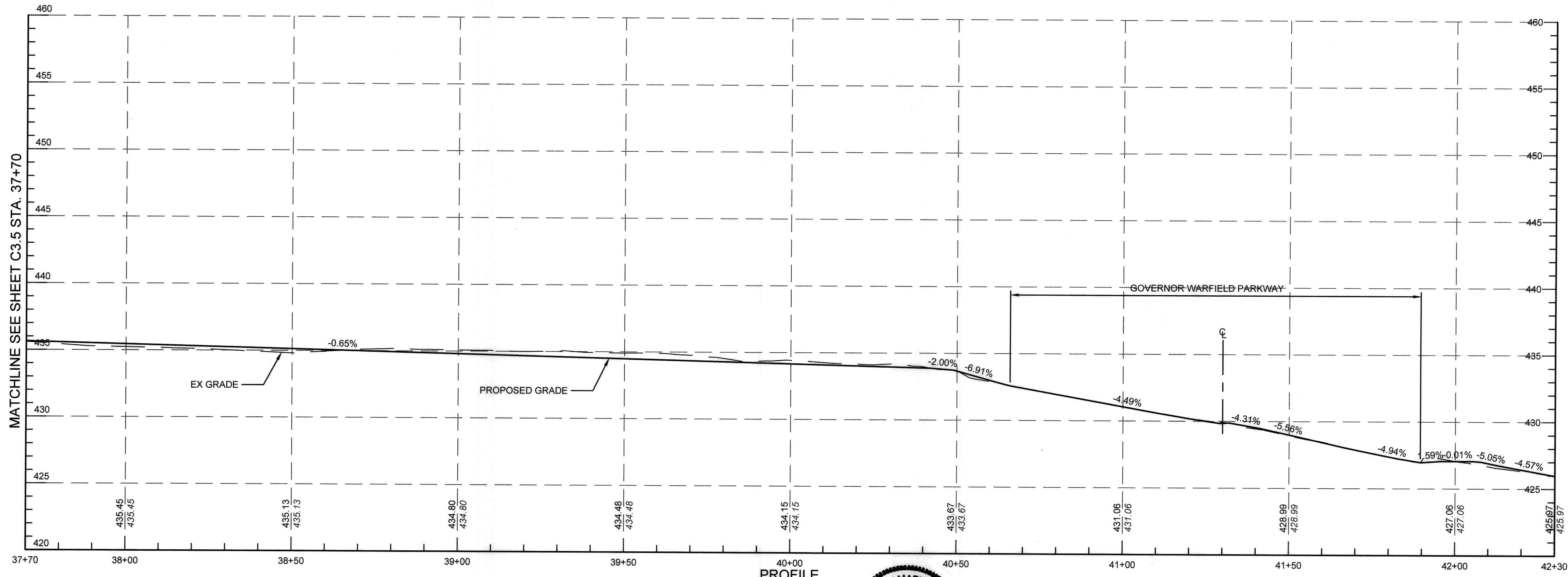
LEGEND

-  IMPERVIOUS PAVEMENT
-  PERMEABLE PAVEMENT
-  CONCRETE
-  NON-ROOFTOP STORMWATER DISCONNECTION CREDIT AREA
-  WAYFINDING SIGN LOCATION AND SIGN NUMBER



NOTES:

1. SEE SHEET C10.3 DETAILS 11, 12, AND 13 FOR GOVERNOR WARFIELD PARKWAY CURB RAMP AND REFUGE ISLAND DETAILS.
2. SEE SHEETS C4.1 - C4.6 FOR PROPOSED SIGNING AND MARKING LAYOUT AND DETAILS.
3. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING FOR ALL DRY UTILITY CROSSINGS OF PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
4. CONTRACTOR SHALL CONDUCT UTILITY TEST PITTING AT APPROXIMATELY 100-FOOT INTERVALS FOR ALL DRY UTILITIES ON PARALLEL ALIGNMENTS WITHIN PROPOSED PERMEABLE PAVEMENTS TO DETERMINE UTILITY LOCATION AND DEPTH.
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6. SEE SHEETS C1.1 TO C1.6 FOR EASEMENT INFORMATION.
7. SEE SHEET C8.3 FOR WAYFINDING SIGN AND MOUNTING DETAILS. SEE SHEETS C6.4 AND C6.5 FOR SIGN LEGENDS. CONFIRM FINAL SIGN LEGENDS WITH HOWARD COUNTY OFFICE OF TRANSPORTATION AND COLUMBIA ASSOCIATION PRIOR TO FABRICATING.



APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19

Chief, Division of Land Development: [Signature] Date: 12-23-19

Chief, Development Engineering Division: [Signature] Date: 12-16-19

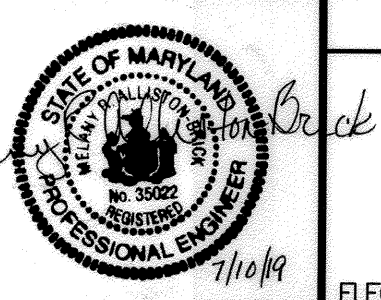
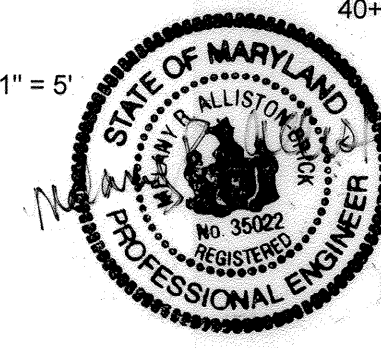
TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

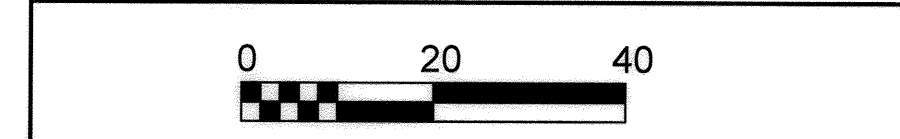
DES.	DPB	DRN.	AG	CHK.	EM
DATE	REVISION	BY	APPR.		

Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY., SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.994.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022
EXPIRATION DATE: 12/28/19



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
COLUMBIA, MD



TRAIL PLAN AND PROFILE - 6		C3.6
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 24 OF 63

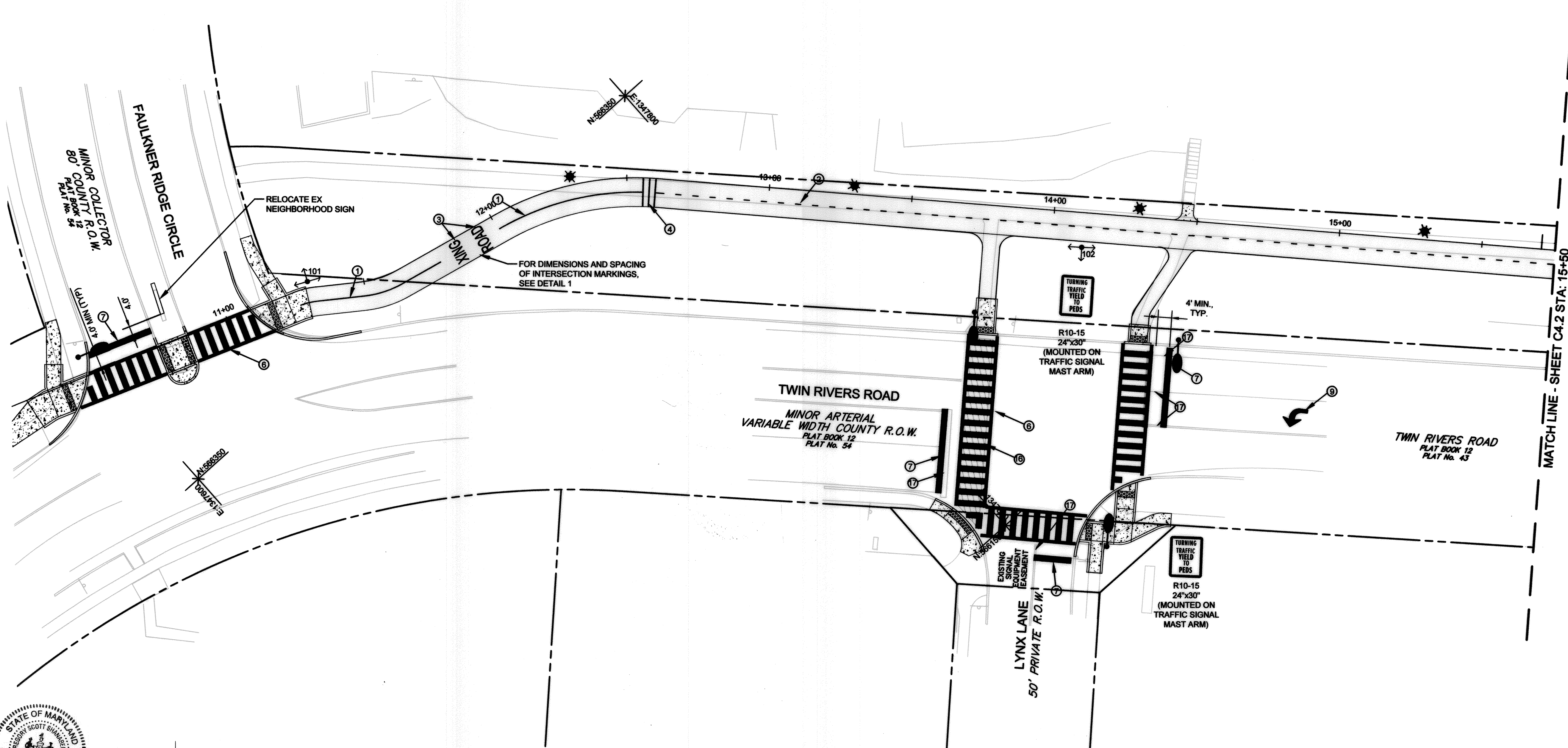
STATE OF MARYLAND
AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE FACTS SHOWN ON THIS PLAN WERE CORRECTLY APPROVED BY ME AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022
EXPIRATION DATE: 12/28/19

MARKING LEGEND

- ① 4" SOLID YELLOW LINE
- ② 4" DASHED (3:9) YELLOW LINE
- ③ "ROAD XING" ADVANCED PAVEMENT MARKING (SEE SHEET C6.1 DETAIL 1)
- ④ THERMOPLASTIC RUMBLE STRIPS (SEE SHEET C6.1 DETAIL 2)
- ⑤ 12" WHITE STOP BAR
- ⑥ 10' WIDE HIGH VISIBILITY CROSSWALK (SEE SHEET C6.1 DETAIL 3)
- ⑦ 24" WHITE STOP BAR
- ⑧ 4" DOUBLE YELLOW LINE
- ⑨ ARROW MARKING
- ⑩ BIKE LANE MARKING
- ⑪ 6" SOLID WHITE LINE
- ⑫ WAYFINDING SIGN ASSEMBLY WITH NUMBER (SEE SHEET C6.1 DETAILS 4-6)
- ⑬ 4" SOLID WHITE LINE
- ⑭ 4" DASHED (30:10) WHITE LINE
- ⑮ ERADICATE EXISTING MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS AND MEDIAN ISLANDS
- ⑯ ERADICATE EXISTING CROSSWALK

NOTES:

1. ERADICATE ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS. ERADICATION SHALL BE PERFORMED USING WATER BLASTING, GRINDING OR OTHER NON-DESTRUCTIVE METHOD APPROVED BY THE ENGINEER.
2. ALL PROPOSED SIGNS SHALL BE INSTALLED SUCH THAT THEY DO NOT OBSTRUCT SIGHT LINES AT INTERSECTIONS OR PEDESTRIAN/BICYCLE CROSSINGS.
3. ALL W11-2 PEDESTRIAN CROSSING AND ADVANCE PEDESTRIAN CROSSING SIGNS AND SUPPLEMENTAL PLAQUES SHALL BE FLUORESCENT YELLOW-GREEN.
4. ALL NEW PAVEMENT MARKINGS AND SIGN LOCATIONS SHALL BE APPROVED AND/OR FIELD MARKED BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO ANY INSTALLATION. CALL 410-313-5752.



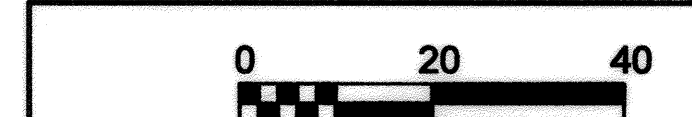
APPROVED
PLANNING BOARD OF HOWARD COUNTY

Date: June 16, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19
 Chief, Division of Land Development: [Signature] Date: 12-23-19
 Chief, Development Engineering Division: [Signature] Date: 12-16-19

STATE OF MARYLAND
 PROFESSIONAL LAND SURVEYOR
 Scott Shanaberger
 Professional L.S. # 10849 Exp. Date 4/2/20 2nd
 AS-BUILT DATE: 12-24-2020
 Shanaberger & Lane



SIGNING AND MARKING
PLAN - 1 C4.1

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 3022
 EXPIRATION DATE: 12/29/21



WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE
 COLUMBIA, MD

SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 25 OF 63

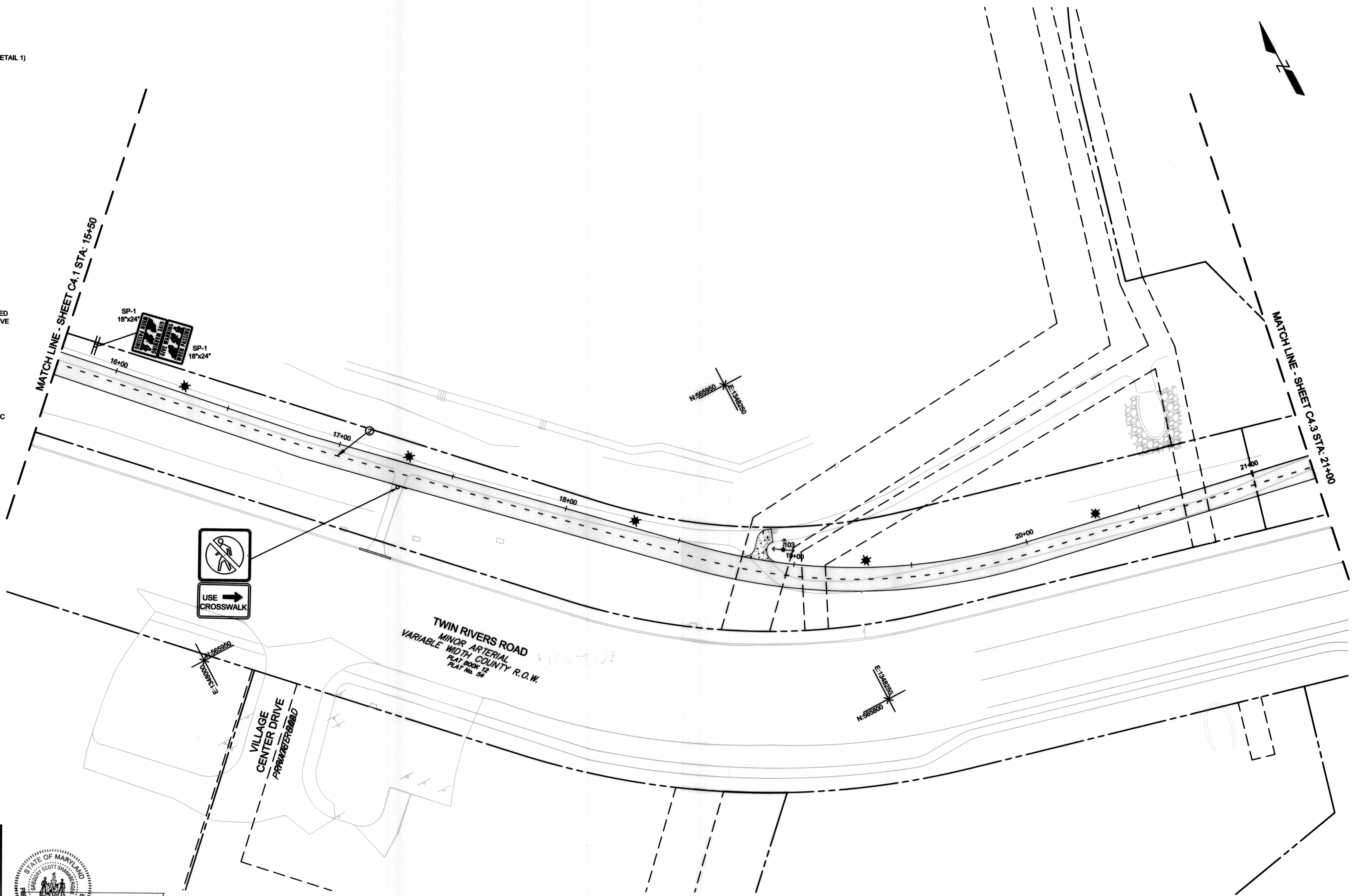
DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APP'R.

MARKING LEGEND

- ① 4" SOLID YELLOW LINE
- ② 4" DASHED (3:9) YELLOW LINE
- ③ "ROAD XING" ADVANCED PAVEMENT MARKING (SEE SHEET C6.1 DETAIL 1)
- ④ THERMOPLASTIC RUMBLE STRIPS (SEE SHEET C6.1 DETAIL 2)
- ⑤ 12" WHITE STOP BAR
- ⑥ 10' WIDE HIGH VISIBILITY CROSSWALK (SEE SHEET C6.1 DETAIL 3)
- ⑦ 24" WHITE STOP BAR
- ⑧ 4" DOUBLE YELLOW LINE
- ⑨ ARROW MARKING
- ⑩ BIKE LANE MARKING
- ⑪ 6" SOLID WHITE LINE
- ⑫ WAYFINDING SIGN ASSEMBLY WITH NUMBER (SEE SHEET C6.1 DETAILS 4-6)
- ⑬ 4" SOLID WHITE LINE
- ⑭ 4" DASHED (30:10) WHITE LINE
- ⑮ ERADICATE EXISTING MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS AND MEDIAN ISLANDS
- ⑯ ERADICATE EXISTING CROSSWALK

NOTES:

1. ERADICATE ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS. ERADICATION SHALL BE PERFORMED USING WATER BLASTING, GRINDING OR OTHER NON-DESTRUCTIVE METHOD APPROVED BY THE ENGINEER.
2. ALL PROPOSED SIGNS SHALL BE INSTALLED SUCH THAT THEY DO NOT OBSTRUCT SIGHT LINES AT INTERSECTIONS OR PEDESTRIAN/BICYCLE CROSSINGS.
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4. ALL NEW PAVEMENT MARKINGS AND SIGN LOCATIONS SHALL BE APPROVED AND/OR FIELD MARKED BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO ANY INSTALLATION. CALL 410-313-5752.



APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

STATE OF MARYLAND
SCOTT SHANABERGER
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 12/14/2020
Shanabarger & Lane

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
Date

Chief, Division of Land Development: [Signature] 12-23-19
Date

Chief, Development Engineering Division: [Signature] 12-16-19
Date

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DPB	DRN.	AC	CHK.	EM	DATE	REVISION	BY	APPR.

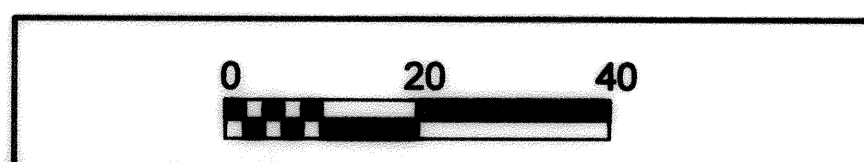
Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PARKWAY, SUITE 400
COLUMBIA, MD 21044
Greg Filchitt, President, Maryland Region
410.964.4900 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30022
EXPIRATION DATE: 12/28/21

STATE OF MARYLAND
ALLIUM
PROFESSIONAL ENGINEER

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD

ELECTION DISTRICT 5
HOWARD COUNTY



SIGNING AND MARKING PLAN - 2			C4.2
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 26 OF 63	

MARKING LEGEND

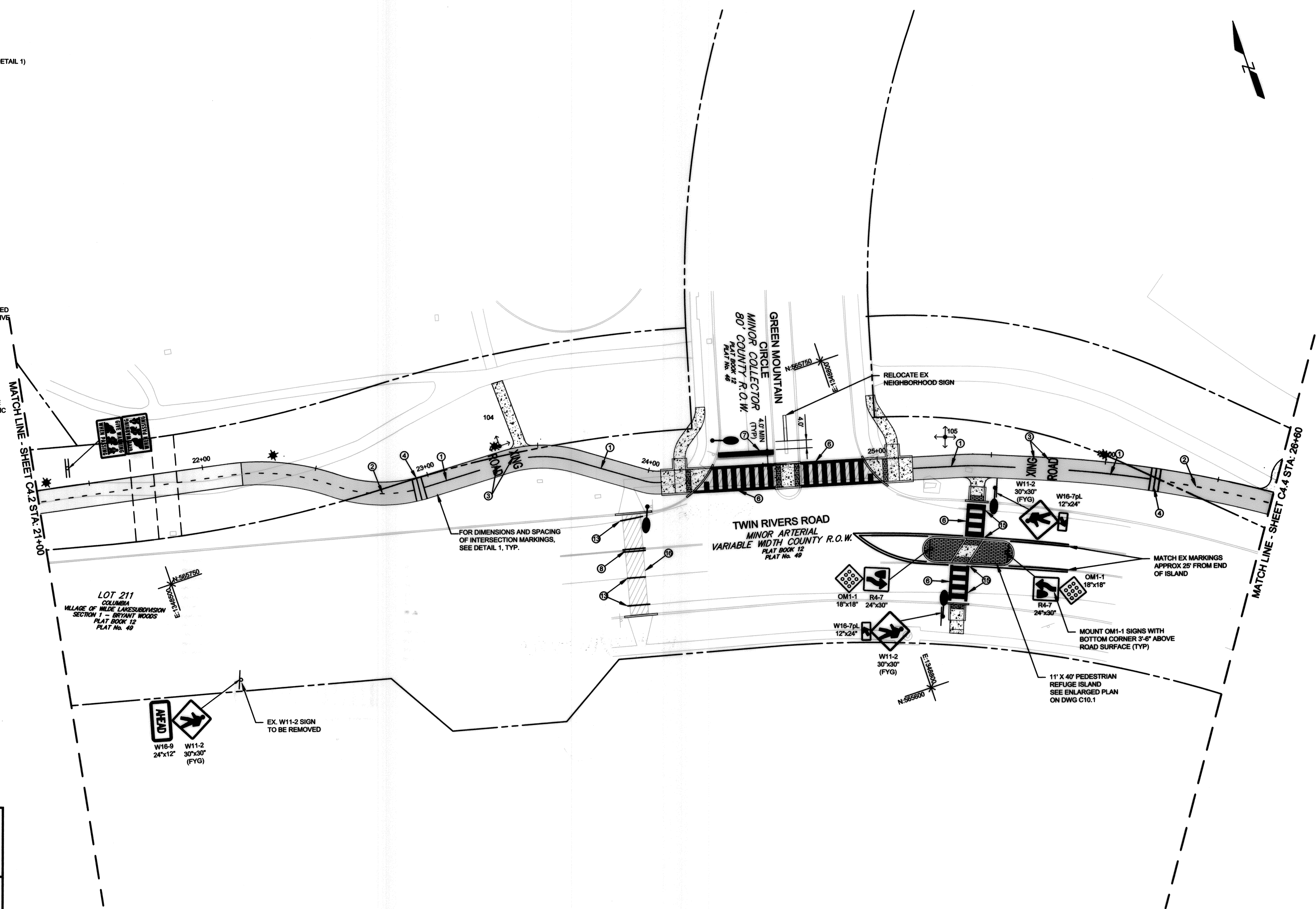
- ① 4" SOLID YELLOW LINE
- ② 4" DASHED (3:9) YELLOW LINE
- ③ "ROAD XING" ADVANCED PAVEMENT MARKING (SEE SHEET C6.1 DETAIL 1)
- ④ THERMOPLASTIC RUMBLE STRIPS (SEE SHEET C6.1 DETAIL 2)
- ⑤ 12" WHITE STOP BAR
- ⑥ 10' WIDE HIGH VISIBILITY CROSSWALK (SEE SHEET C6.1 DETAIL 3)
- ⑦ 24" WHITE STOP BAR
- ⑧ 4" DOUBLE YELLOW LINE
- ⑨ ARROW MARKING
- ⑩ BIKE LANE MARKING
- ⑪ 6" SOLID WHITE LINE
- ⑫ WAYFINDING SIGN ASSEMBLY WITH NUMBER (SEE SHEET C6.1 DETAILS 4-6)
- ⑬ 4" SOLID WHITE LINE
- ⑭ 4" DASHED (30:10) WHITE LINE
- ⑮ ERADICATE EXISTING MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS AND MEDIAN ISLANDS
- ⑯ ERADICATE EXISTING CROSSWALK

NOTES:

1. ERADICATE ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS. ERADICATION SHALL BE PERFORMED USING WATER BLASTING, GRINDING OR OTHER NON-DESTRUCTIVE METHOD APPROVED BY THE ENGINEER.
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MATCH LINE - SHEET C4.2 STA. 21+00

MATCH LINE - SHEET C4.4 STA. 26+00



STATE OF MARYLAND
SCOTT SHANBERGER
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 12/16/2019
Shaneberger & Lane

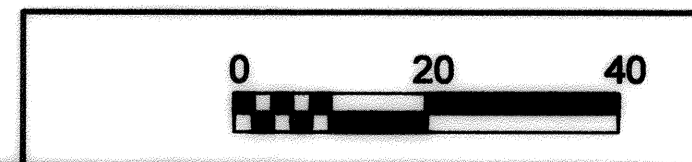
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
Date: 12-23-19

Chief, Division of Land Development: [Signature] 12-16-19
Date: 12-16-19

Chief, Development Engineering Division: [Signature]



SIGNING AND MARKING PLAN - 3		C4.3
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 27 OF 63

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

Howard Hughes
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Greg Fitchell, President, Maryland Region
410.964.4800 - Greg.Fitchell@howardhughes.com

PROFESSIONAL CERTIFICATION
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LICENSE NO. 35022
EXPIRATION DATE: 12/25/21

STATE OF MARYLAND
PROFESSIONAL ENGINEER
Greg Fitchell
12/16/19

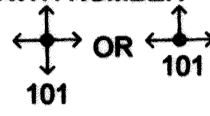
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD

ELECTION DISTRICT 5

HOWARD COUNTY

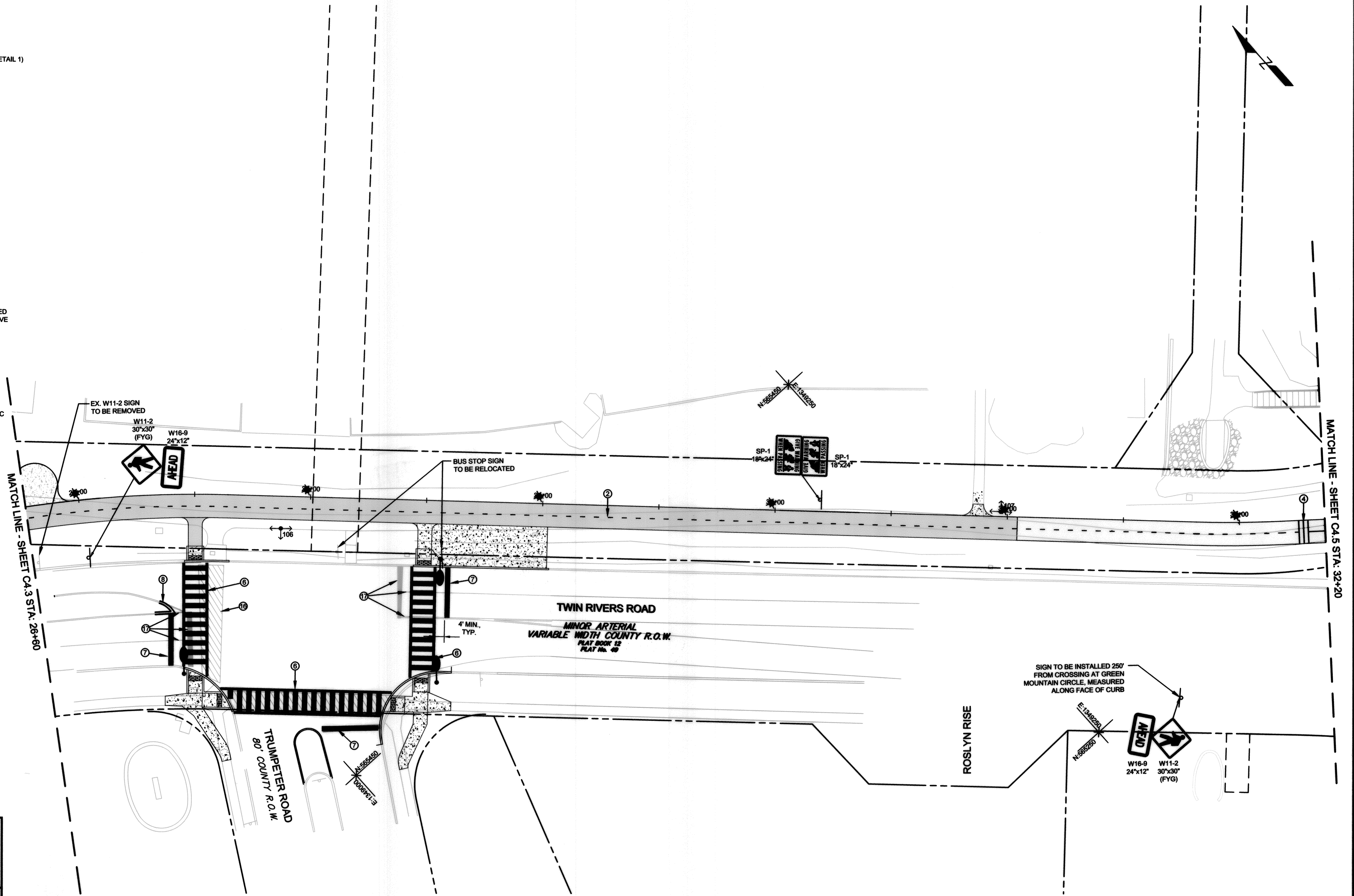
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MARKING LEGEND

- ① 4" SOLID YELLOW LINE
- ② 4" DASHED (3:9) YELLOW LINE
- ③ "ROAD XING" ADVANCED PAVEMENT MARKING (SEE SHEET C6.1 DETAIL 1)
- ④ THERMOPLASTIC RUMBLE STRIPS (SEE SHEET C6.1 DETAIL 2)
- ⑤ 12" WHITE STOP BAR
- ⑥ 10' WIDE HIGH VISIBILITY CROSSWALK (SEE SHEET C6.1 DETAIL 3)
- ⑦ 24" WHITE STOP BAR
- ⑧ 4" DOUBLE YELLOW LINE
- ⑨ ARROW MARKING
- ⑩ BIKE LANE MARKING
- ⑪ 6" SOLID WHITE LINE
- ⑫ WAYFINDING SIGN ASSEMBLY WITH NUMBER (SEE SHEET C6.1 DETAILS 4-6)
- ⑬ 4" SOLID WHITE LINE 
- ⑭ 4" DASHED (30:10) WHITE LINE
- ⑮ ERADICATE EXISTING MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS AND MEDIAN ISLANDS
- ⑯ ERADICATE EXISTING CROSSWALK

NOTES:

- 1. ERADICATE ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS. ERADICATION SHALL BE PERFORMED USING WATER BLASTING, GRINDING OR OTHER NON-DESTRUCTIVE METHOD APPROVED BY THE ENGINEER.
- 2. ALL PROPOSED SIGNS SHALL BE INSTALLED SUCH THAT THEY DO NOT OBSTRUCT SIGHT LINES AT INTERSECTIONS OR PEDESTRIAN/BICYCLE CROSSINGS.
- 3. ALL W11-2 PEDESTRIAN CROSSING AND ADVANCE PEDESTRIAN CROSSING SIGNS AND SUPPLEMENTAL PLAQUES SHALL BE FLUORESCENT YELLOW-GREEN.
- 4. ALL NEW PAVEMENT MARKINGS AND SIGN LOCATIONS SHALL BE APPROVED AND/OR FIELD MARKED BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO ANY INSTALLATION. CALL 410-313-5752.



STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 G. Scott Shanaberger
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 12/16/2019
 Shanaberger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: 12/16/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19
 Chief, Division of Land Development: [Signature] Date: 12-23-19
 Chief, Development Engineering Division: [Signature] Date: 12-16-19

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DATE	REVISION	BY	APPR.

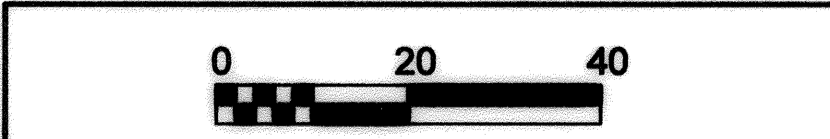
Howard Hughes
 THE HOWARD HUGHES CORPORATION
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchell, President, Maryland Region
 410.964.6800 - Greg.Fitchell@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30022
 EXPIRATION DATE: 12/29/21

STATE OF MARYLAND
 GREG FITCHELL
 PROFESSIONAL ENGINEER

**WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE
 COLUMBIA, MD**

HOWARD COUNTY
 ELECTION DISTRICT 5



SIGNING AND MARKING PLAN - 4			C4.4
SCALE 1" = 20'	ZONING NT	TDC FILE NO. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 28 OF 63	

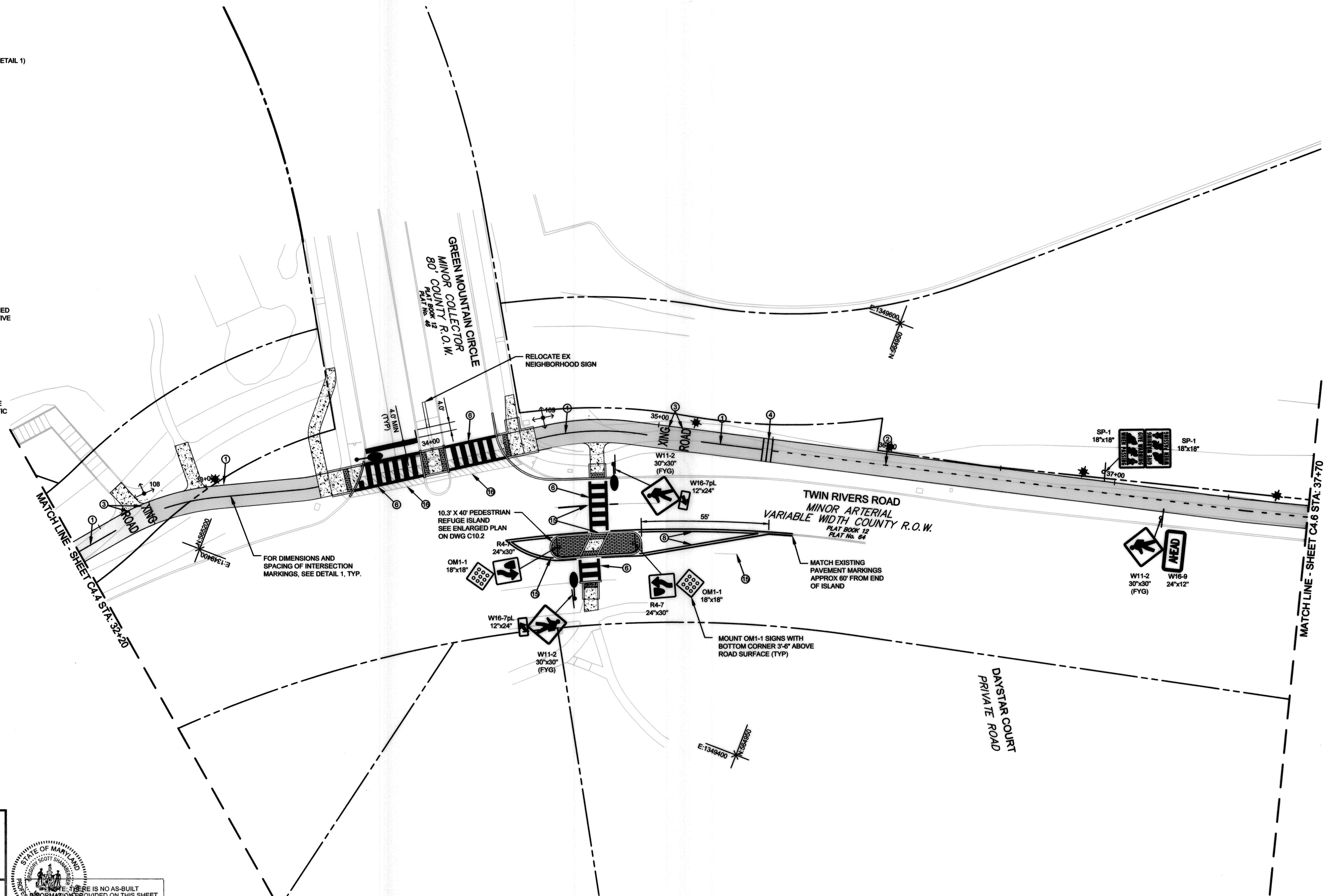
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MARKING LEGEND

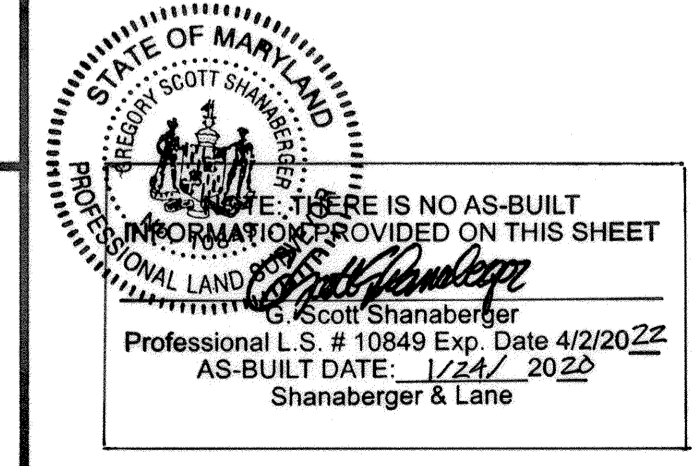
- ① 4" SOLID YELLOW LINE
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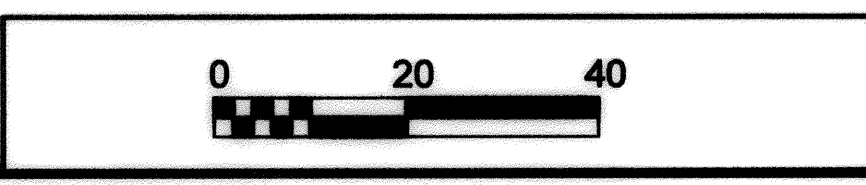


APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: 12/20/19



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19
 Chief, Division of Land Development: [Signature] Date: 12-23-19
 Chief, Development Engineering Division: [Signature] Date: 12-16-19



SIGNING AND MARKING PLAN - 5		C4.5
SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 29 OF 63

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchell, President, Maryland Region
 410.964.4800 - Greg.Fitchell@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022, EXPIRATION DATE: 12/28/21

12/16/19 ELECTION DISTRICT 5

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE
 COLUMBIA, MD

HOWARD COUNTY

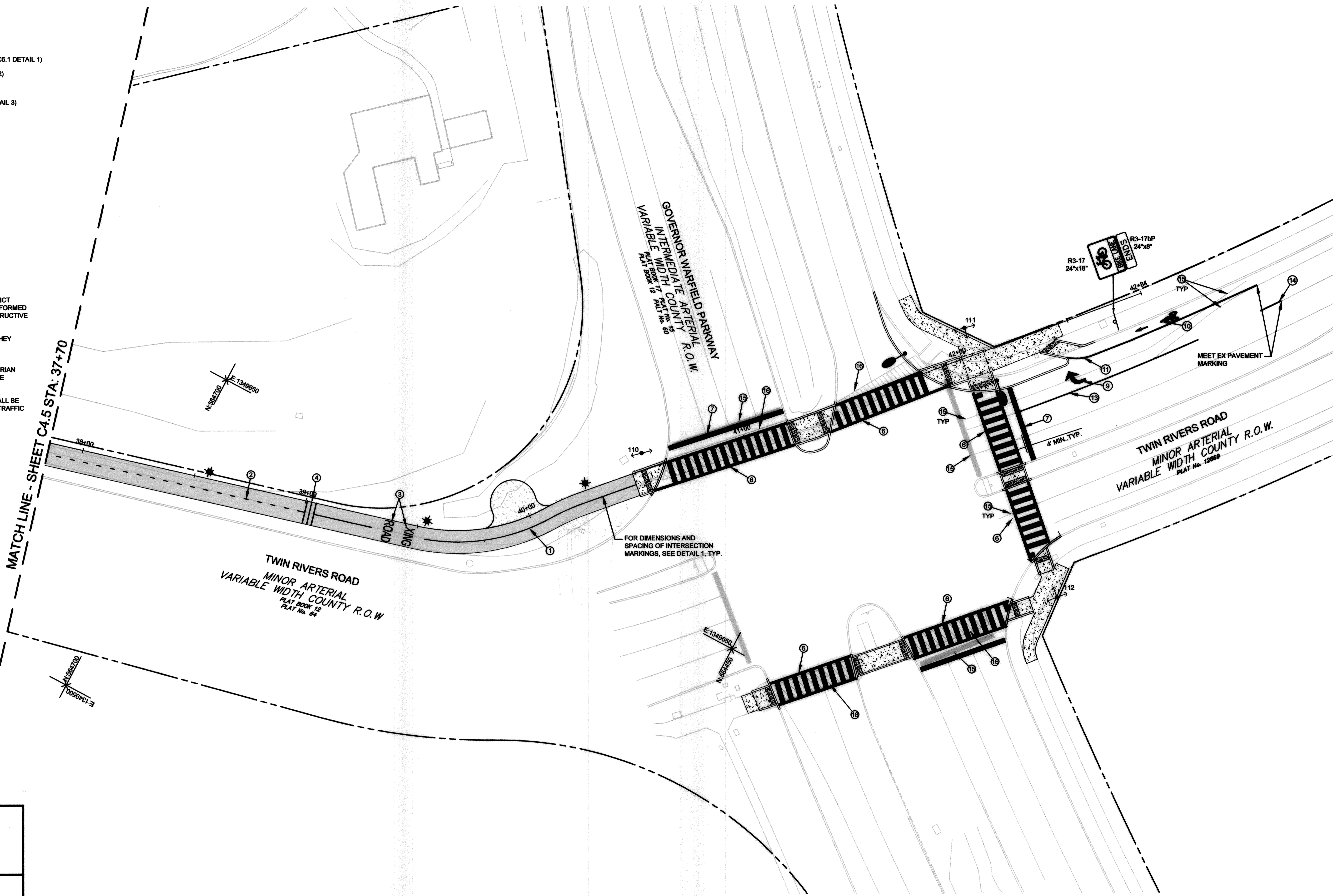
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MARKING LEGEND

- ① 4" SOLID YELLOW LINE
- ② 4" DASHED (3:9) YELLOW LINE
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MATCH LINE - SHEET C4.5 STA: 37+70



STATE OF MARYLAND
SCOTT SHANABERGER
Professional Engineer
No. 19077
AS-BUILT DATE: 12/24/2022
Shanaberger & Lane

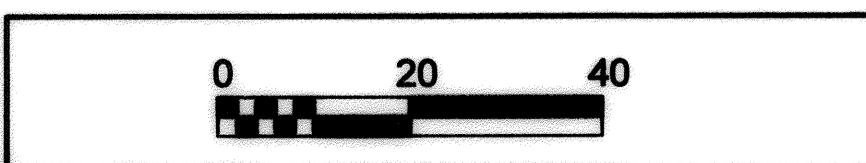
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19

Chief, Division of Land Development: [Signature] Date: 12-23-19

Chief, Development Engineering Division: [Signature] Date: 12-16-19



SIGNING AND MARKING PLAN - 6		C4.6
SCALE 1" = 20'	ZONING NT	TDG FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 30 OF 63

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

Howard Hughes
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10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchell, President, Maryland Region
410.964.4800 - Greg.Fitchell@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 38222
EXPIRATION DATE: 12/28/21

STATE OF MARYLAND
SCOTT SHANABERGER
Professional Engineer
No. 19077

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD

DES. DPB	DRN. AG	CHK. EM	DATE	REVISION	BY	APPR.
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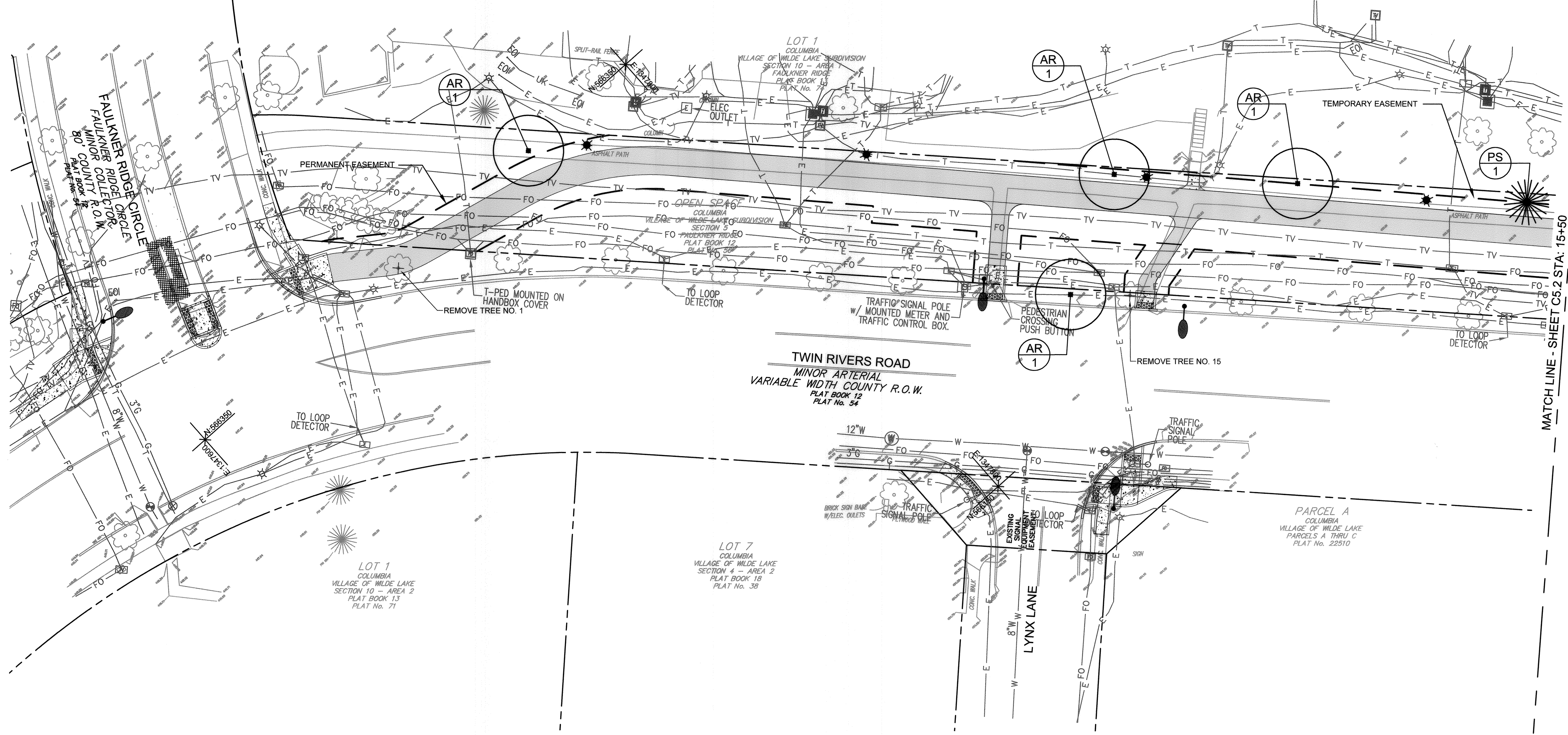
ELECTION DISTRICT 5
HOWARD COUNTY

LANDSCAPE LEGEND

- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- ✖ TREE REMOVAL
- LANDSCAPE AREA
- XX REFERS TO PLANT MATERIAL
- ## REFERS TO PLANT QUANTITY

SYMBOL	QTY.	BOTANICAL/ COMMON NAME	SIZE/TYPE
AR	4	Acer rubrum 'October Glory' October Glory red maple	3" cal.
PS	1	Pinus strobus Eastern White Pine	3" cal.

- NOTES:**
- FOR PLANTING INFORMATION, SEE DETAILS ON SHEET C5.7.
 - AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTES OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
 - THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
 - ALL TREES PLANTED ARE TO REPLACE TREES LOST DURING CONSTRUCTION, AS IDENTIFIED IN A TREE SURVEY PERFORMED BY TOOLE DESIGN GROUP, LLC DATED NOVEMBER 09, 2018.



TREE REMOVAL SCHEDULE

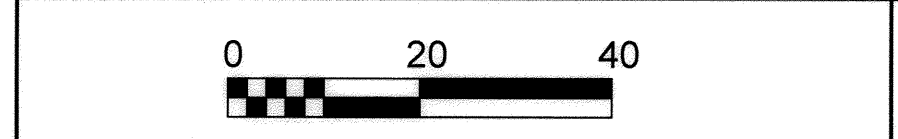
Tree #	Common Name	Botanical Name	Street Tree	DBH "	Condition	Permit Req'd.
1	Sugar Maple	Acer saccharum	Yes	12	Fair	Yes
2	Flowering Cherry	Prunus spp.	No	10	Good	Yes
3	Sugar Maple	Acer saccharum	No	8	Good	Yes
4	Flowering Cherry	Prunus spp.	No	8	Good	Yes
5	Sugar Maple	Acer saccharum	Yes	9	Good	Yes
6	Flowering Cherry	Prunus spp.	No	12	Good	Yes
7	Eastern White Pine	Pinus strobus	Yes	4	Fair	Yes
8	Eastern White Pine	Pinus strobus	Yes	16	Dead	No
9	Eastern White Pine	Pinus strobus	Yes	10	Poor	No
10	Eastern White Pine	Pinus strobus	Yes	12	Poor	No
11	Eastern White Pine	Pinus strobus	Yes	10	Poor	No
12	Sugar Maple	Acer saccharum	Yes	12	Good	Yes
13	Eastern White Pine	Pinus strobus	Yes	10	Poor	No
14	Sugar Maple	Acer saccharum	Yes	2	Good	No
15	Sugar Maple	Acer saccharum	Yes	8	Good	Yes

STATE OF MARYLAND
 PROFESSIONAL LANDSCAPE ARCHITECT
 Scott Shanabarger
 Professional L.S. # 10349 Exp. Date 4/2/2022
 AS-BUILT DATE: 12-24-2022
 Shanabarger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 26, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 12-24-17
 Chief, Division of Land Development: [Signature] Date: 12-23-19
 Chief, Development Engineering Division: [Signature] Date: 12-16-19

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
 [Signature] 5/30/19
 DEVELOPER'S/OWNER'S NAME DATE



LANDSCAPE PLAN - 1 C5.1

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Filchitt, President, Maryland Region
 410.984.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35222
 EXPIRATION DATE: 12/28/19
 [Signature] 10/19
 ELECTION DISTRICT 5

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
 COLUMBIA, MD RIDGE CIR.
 HOWARD COUNTY

SCALE	ZONING	TDG. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	31 OF 63

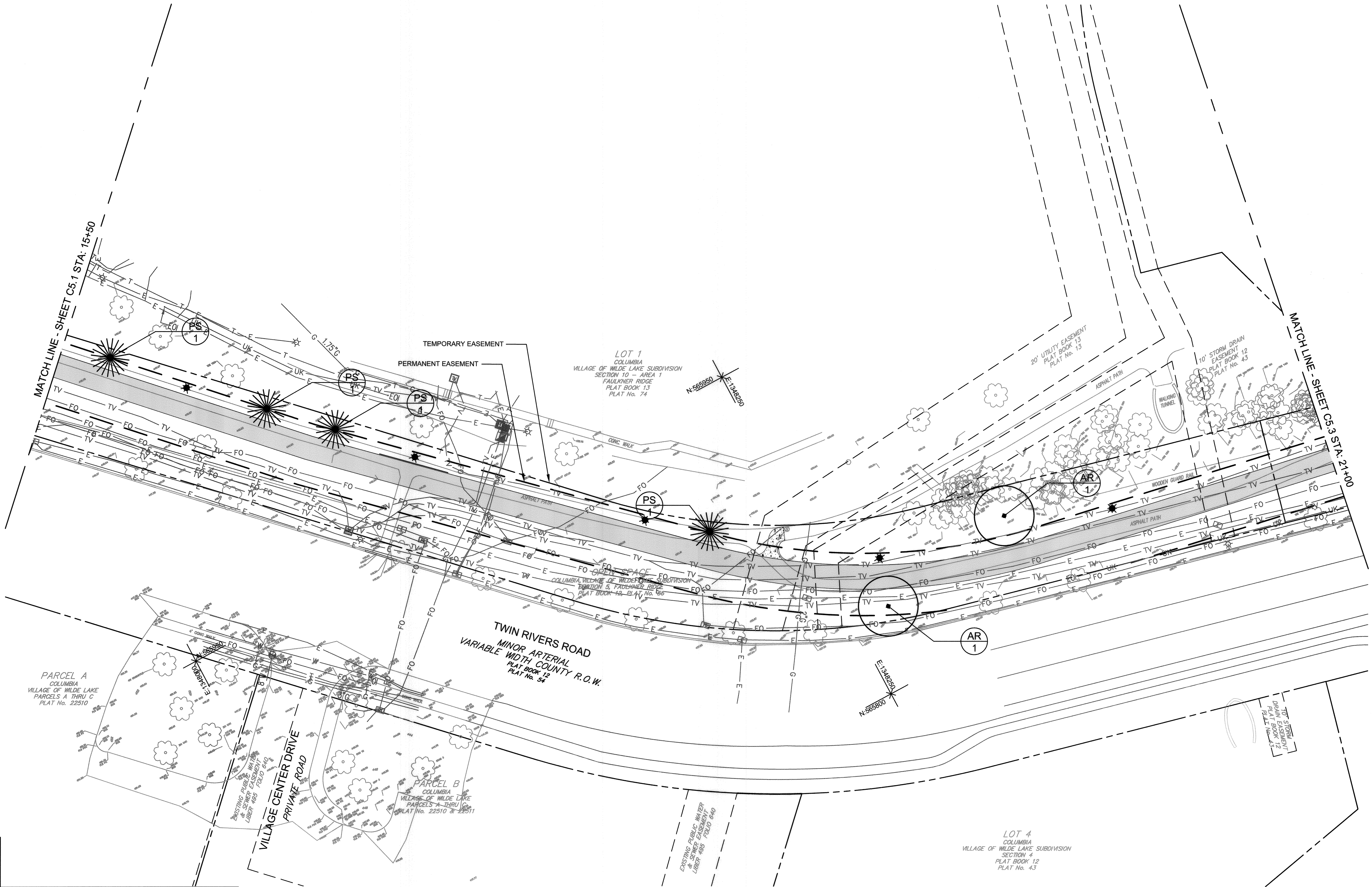
NO.	DATE	REVISION	BY	APPR.

LANDSCAPE LEGEND

- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- TREE REMOVAL
- LANDSCAPE AREA
- REFERS TO PLANT MATERIAL
- REFERS TO PLANT QUANTITY

SYMBOL	QTY.	BOTANICAL/ COMMON NAME	SIZE/TYPE
Trees			
AR	2	Acer rubrum 'October Glory' October Glory red maple	3" cal.
PS	4	Pinus strobus Eastern White Pine	3" cal.

- NOTES:**
- FOR PLANTING INFORMATION, SEE DETAILS ON SHEET C5.7.
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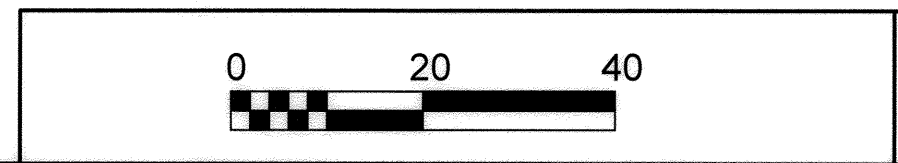


STATE OF MARYLAND
 PROFESSIONAL LAND SURVEYOR
 I HEREBY CERTIFY THAT THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET.
 Scott Shanaberger
 Professional L.S. # 10349 Exp. Date 4/2/2022
 AS-BUILT DATE: 12/24/2022
 Shanaberger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 26, 2018

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 12-24-19
 Chief of Land Development: [Signature] 12-23-19
 Chief, Development Engineering Division: [Signature] 12-12-19

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE
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 [Signature]
 DEVELOPER'S/OWNER'S NAME DATE 5/30/19



LANDSCAPE PLAN - 2 C5.2

TOOLE DESIGN
 8484 GEORGIA AVENUE SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DATE	REVISION	BY	APPR.

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
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 LICENSE NO. 15022
 EXPIRATION DATE: 12/28/19
 [Professional Engineer Seal]

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
 COLUMBIA, MD
 HOWARD COUNTY

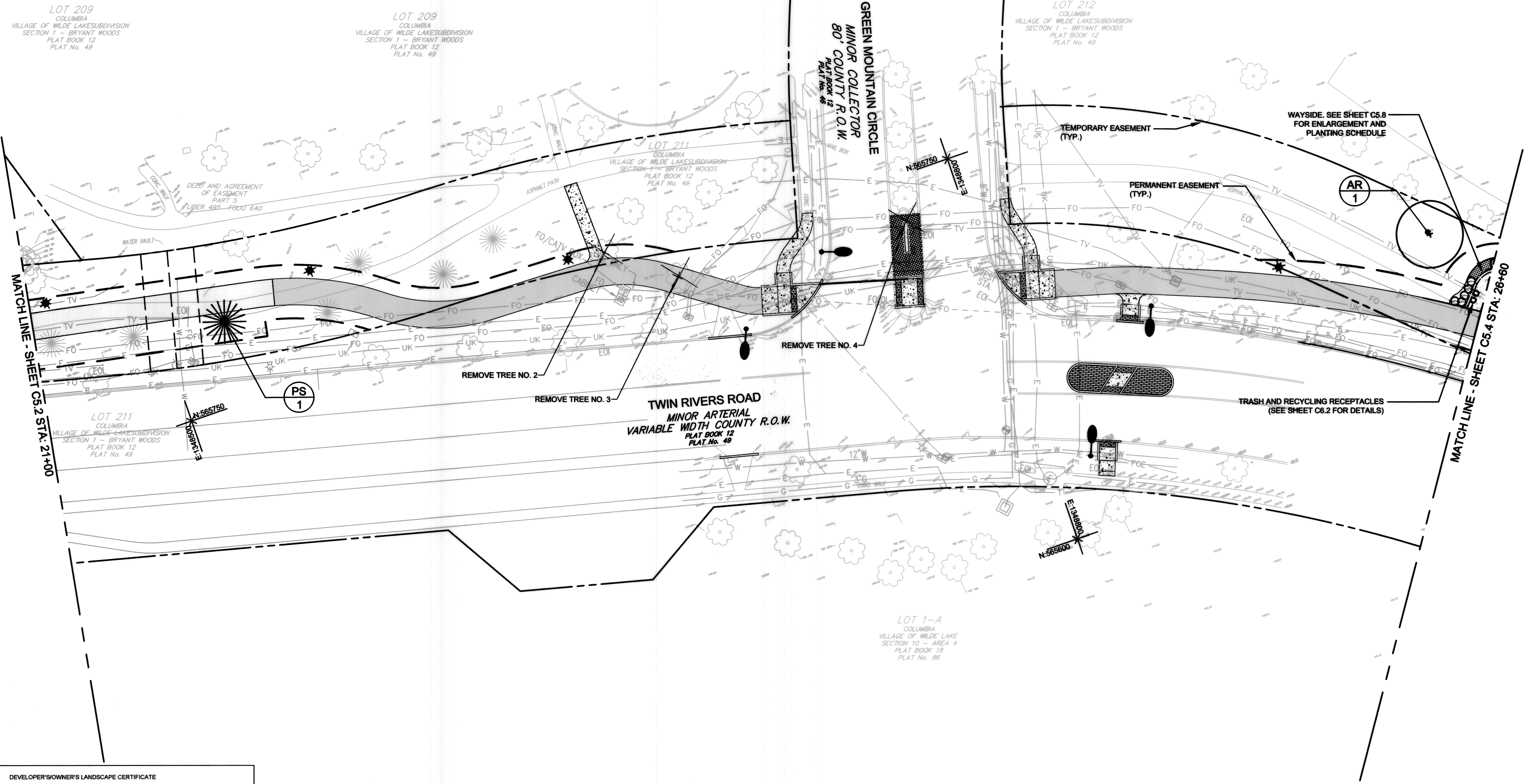
SCALE	ZONING	TDG. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	32 OF 63

LANDSCAPE LEGEND

- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- TREE REMOVAL
- LANDSCAPE AREA
- REFERS TO PLANT MATERIAL
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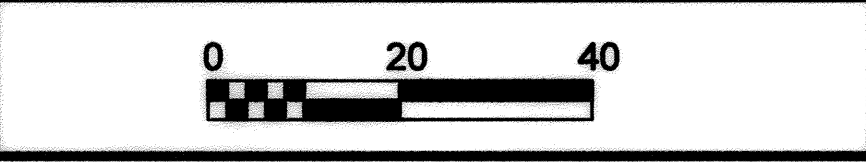


STATE OF MARYLAND
 PROFESSIONAL LANDSCAPE ARCHITECT
 THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 Scott Shanabarger
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 1/24/2020
 Shanabarger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: 6/26/19

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
 [Signature] 5/30/19
 DEVELOPER'S/OWNER'S NAME DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director [Signature] 12-24-19
 Chief, Division of Land Development [Signature] 12-25-19
 Chief, Development Engineering Division [Signature] 12-16-19



LANDSCAPE PLAN - 3 C5.3

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 600
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DATE	REVISION	BY	APPR.

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 30022
 EXPIRATION DATE: 12/28/21
 [Professional Engineer Seal]

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE
 COLUMBIA, MD
 ELECTION DISTRICT 5
 HOWARD COUNTY

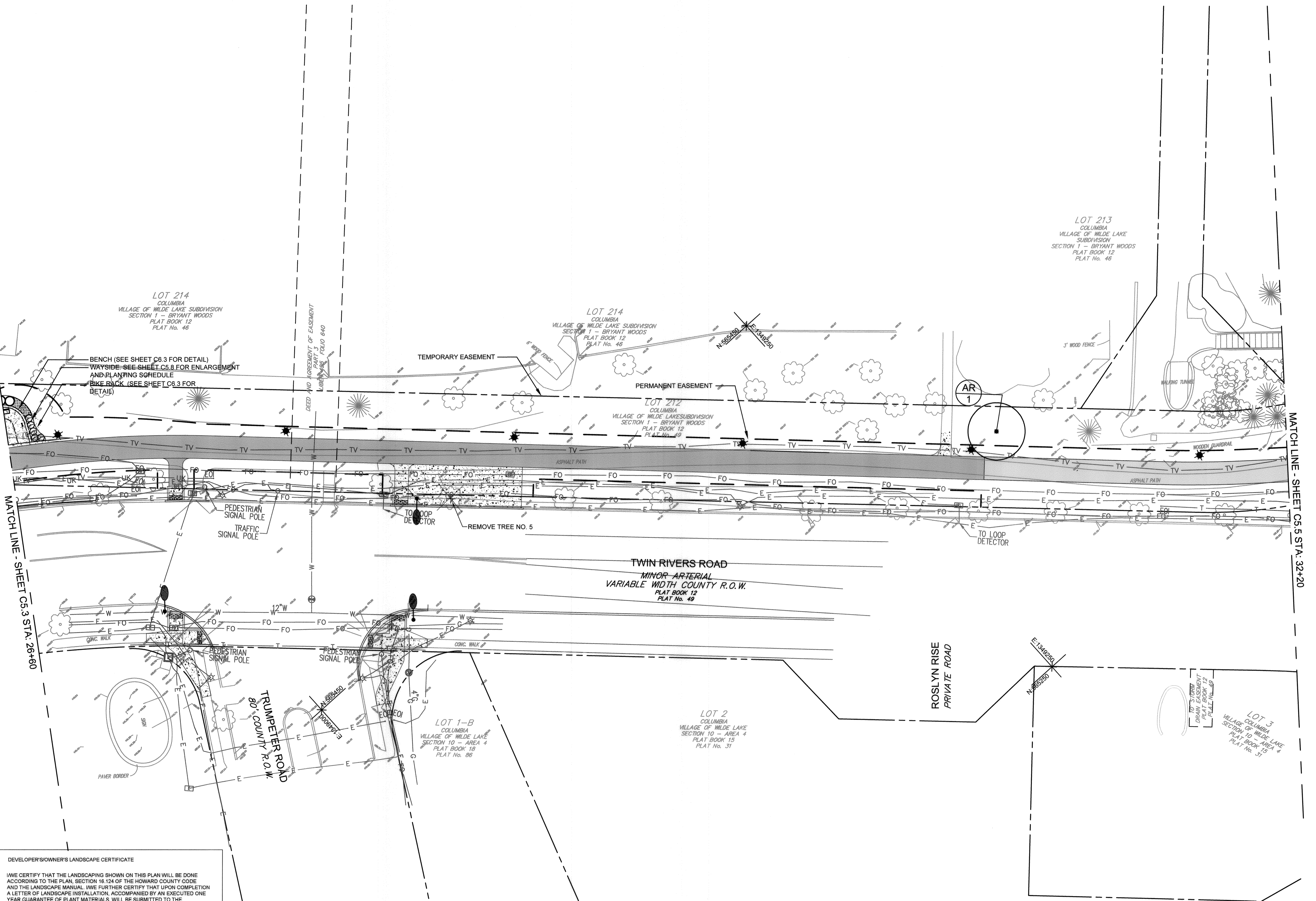
SCALE	ZONING	TDC FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	33 OF 63

LANDSCAPE LEGEND

- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- TREE REMOVAL
- LANDSCAPE AREA
- REFERS TO PLANT MATERIAL
- REFERS TO PLANT QUANTITY

SYMBOL	QTY.	BOTANICAL/ COMMON NAME	SIZE/TYPE
Trees			
AR	1	Acer rubrum "October Glory" October Glory red maple	3" cal.

- NOTES:**
- FOR PLANTING INFORMATION, SEE DETAILS ON SHEET C5.7.
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THIS IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

Shanaberger & Lane

Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanaberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY

Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *Angie Green* 12-27-19
Date: 12-23-19

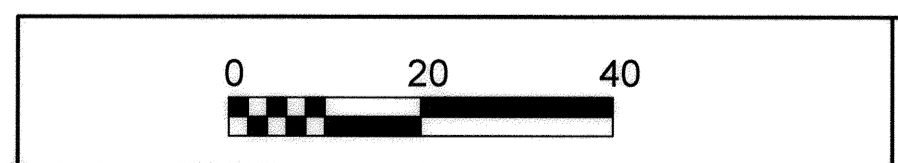
Chief, Division of Land Development: *Maureen*
Date: 12-16-19

Chief, Development Engineering Division: *John*
Date: 12-16-19

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Greg Fitchitt 5/30/19
DEVELOPER'S/OWNER'S NAME DATE



LANDSCAPE PLAN - 4 C5.4

TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DATE	REVISION	BY	APPR.

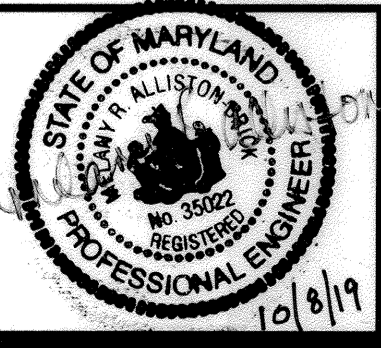
Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044

Greg Fitchitt, President, Maryland Region
410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022.

EXPIRATION DATE: 12/28/19



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
COLUMBIA, MD

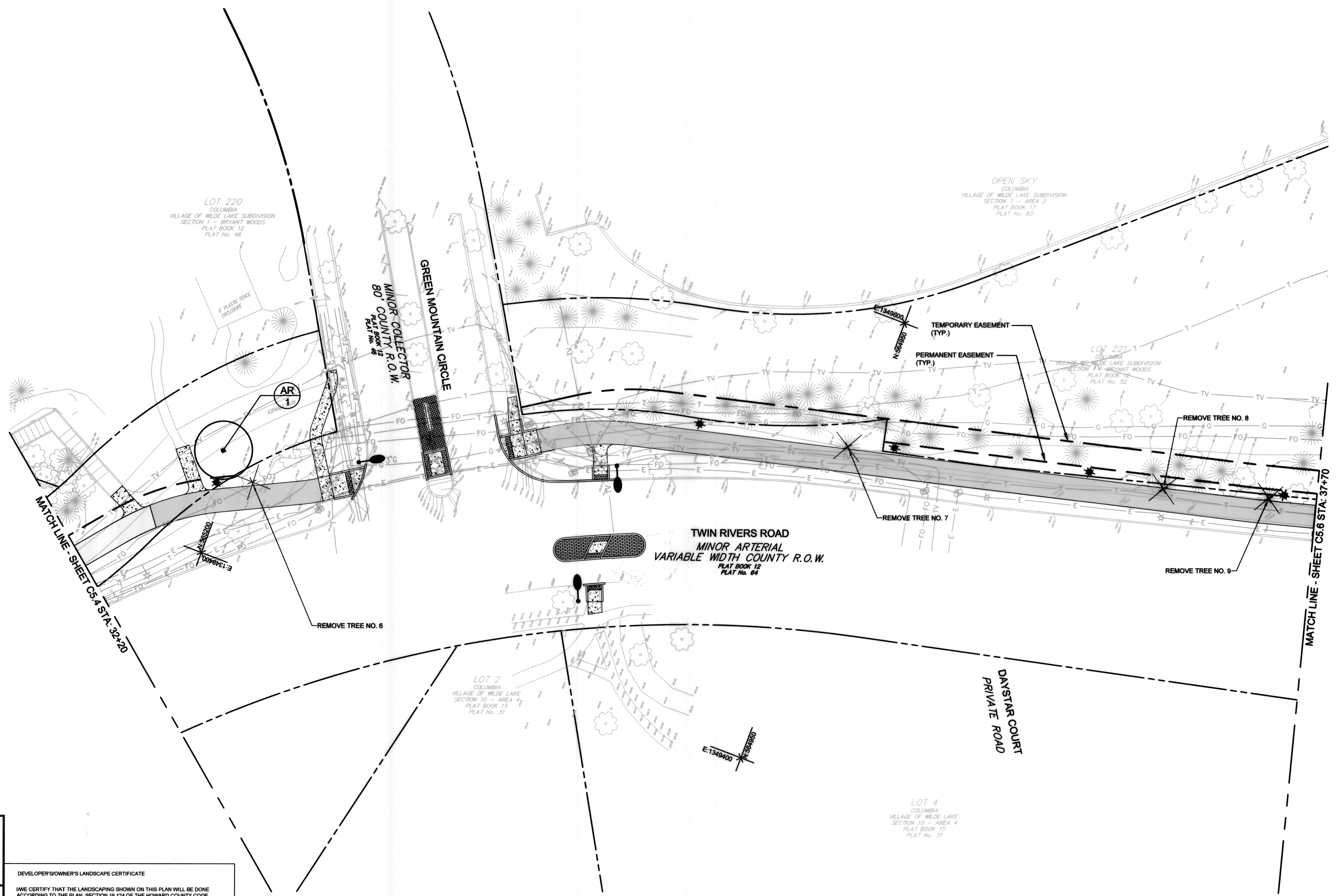
SCALE	ZONING	TDC FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	34 OF 63

LANDSCAPE LEGEND

- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- TREE REMOVAL
- LANDSCAPE AREA
- REFERS TO PLANT MATERIAL
- REFERS TO PLANT QUANTITY

SYMBOL	QTY.	BOTANICAL/ COMMON NAME	SIZE/TYPE
Trees			
AR	1	Acer rubrum 'October Glory' October Glory red maple	3" cal.

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STATE OF MARYLAND
 PROFESSIONAL LANDSCAPE ARCHITECT
 SCOTT SHANBERGER
 No. 10849
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 12/16/2020
 Shanberger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *[Signature]* 12-24-19
 Date: 12-23-19

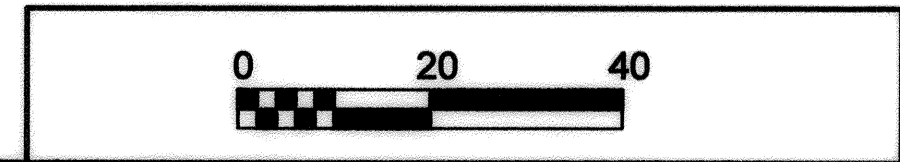
Chief, Division of Land Development: *[Signature]*
 Date: 12-16-19

Chief, Development Engineering Division: *[Signature]*

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[Signature] 5/30/19
 DEVELOPER'S/OWNER'S NAME DATE



LANDSCAPE PLAN - 5 C5.5

TOOLE DESIGN

8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DES.	DRN.	AG.	CHK.	EM.	DATE	REVISION	BY	APPR.

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION

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EXPIRATION DATE: 12/28/21

[Signature]
 PROFESSIONAL ENGINEER

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE
 COLUMBIA, MD

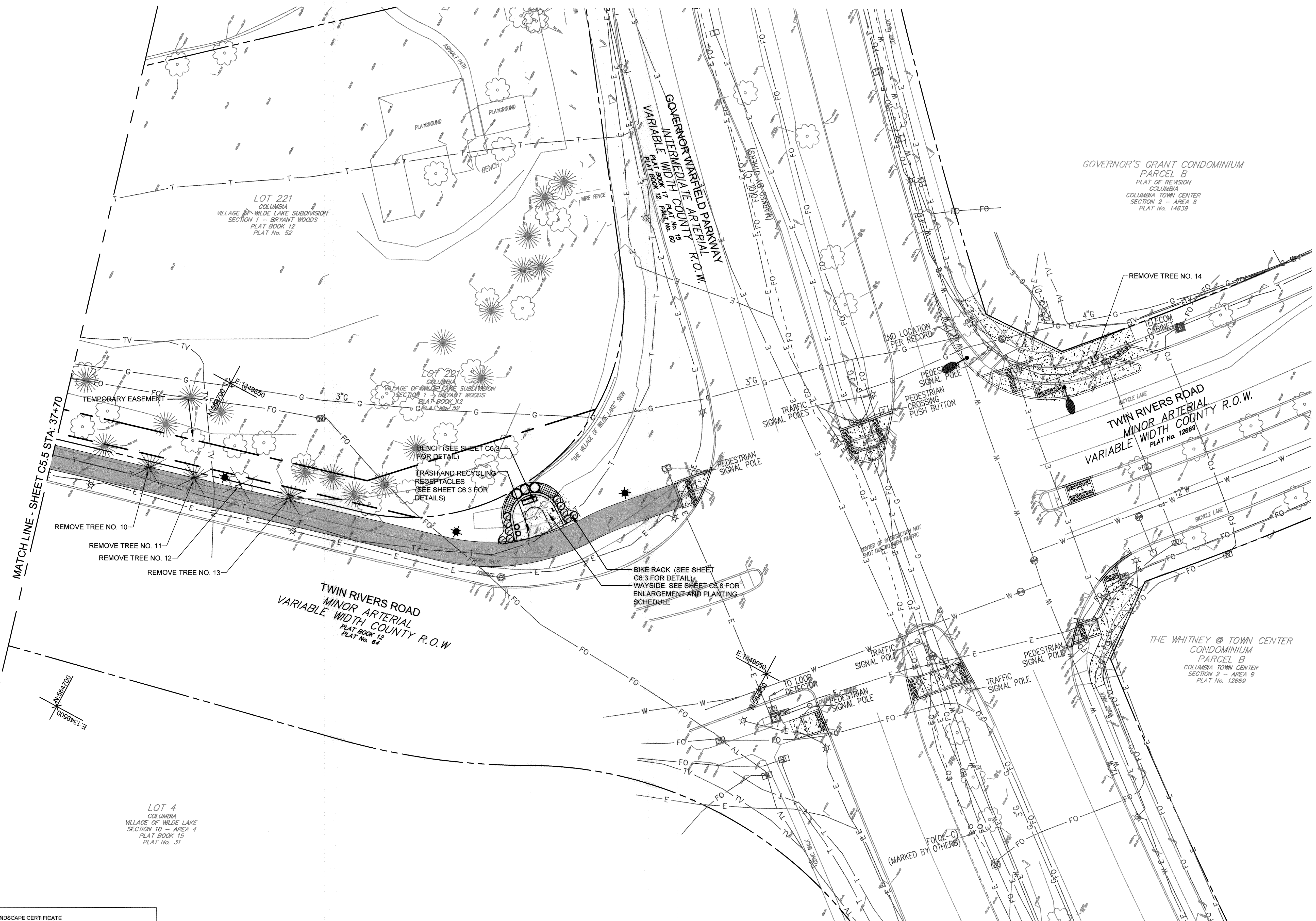
ELECTION DISTRICT 5
 HOWARD COUNTY

SCALE	ZONING	TDG. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	35 OF 63

LANDSCAPE LEGEND

- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- TREE REMOVAL
- LANDSCAPE AREA
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- REFERS TO PLANT QUANTITY

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STATE OF MARYLAND
 PROFESSIONAL LANDSCAPE ARCHITECT
 Scott Shanabarger
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 1/24/2020
 Shanabarger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: 6/10/19

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 DEVELOPER'S/OWNER'S NAME DATE

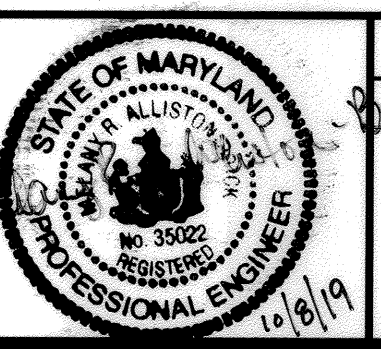
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 12-24-19
 Chief, Division of Land Development: [Signature] 12-23-19
 Chief, Development Engineering Division: [Signature] 12-16-19

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

DATE	REVISION	BY	APPR.

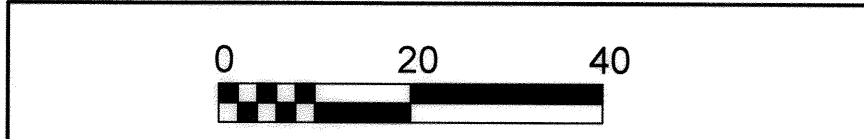
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PROFESSIONAL CERTIFICATION
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 EXPIRATION DATE: 12/28/19



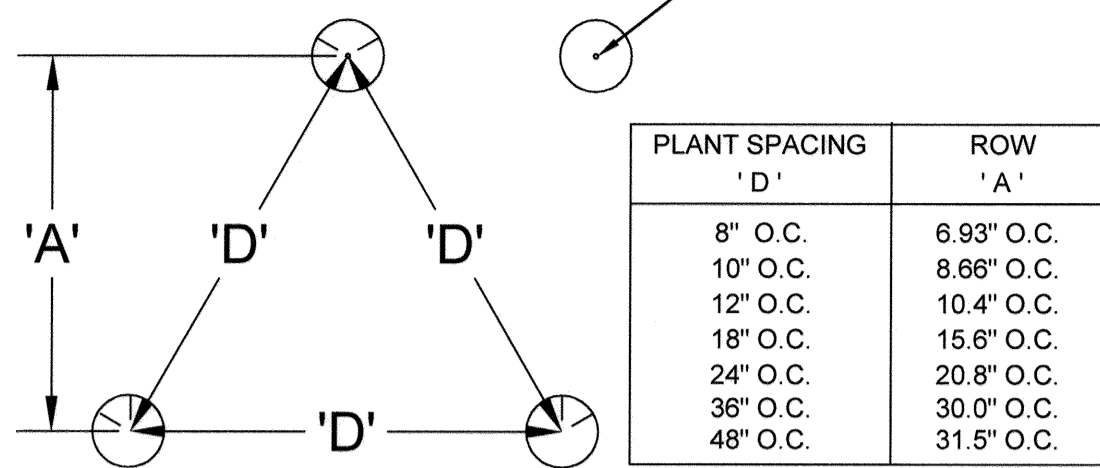
ELECTION DISTRICT 5

WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
 COLUMBIA, MD RIDGE CIR.
 HOWARD COUNTY

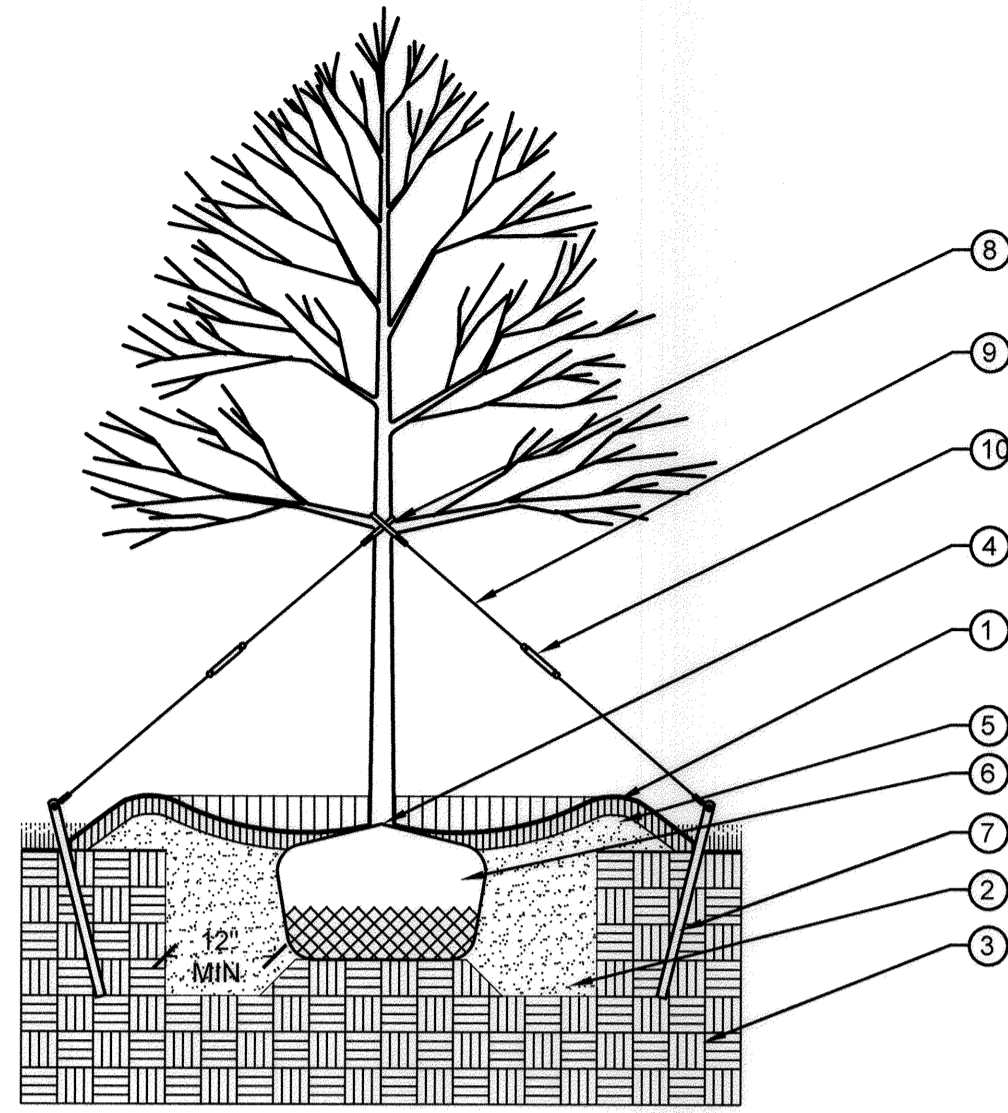


LANDSCAPE PLAN - 6		C5.6
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 36 OF 63

NOTE: GROUND COVERS AND PERENNIALS TO BE INSTALLED WITH TRIANGULAR SPACING

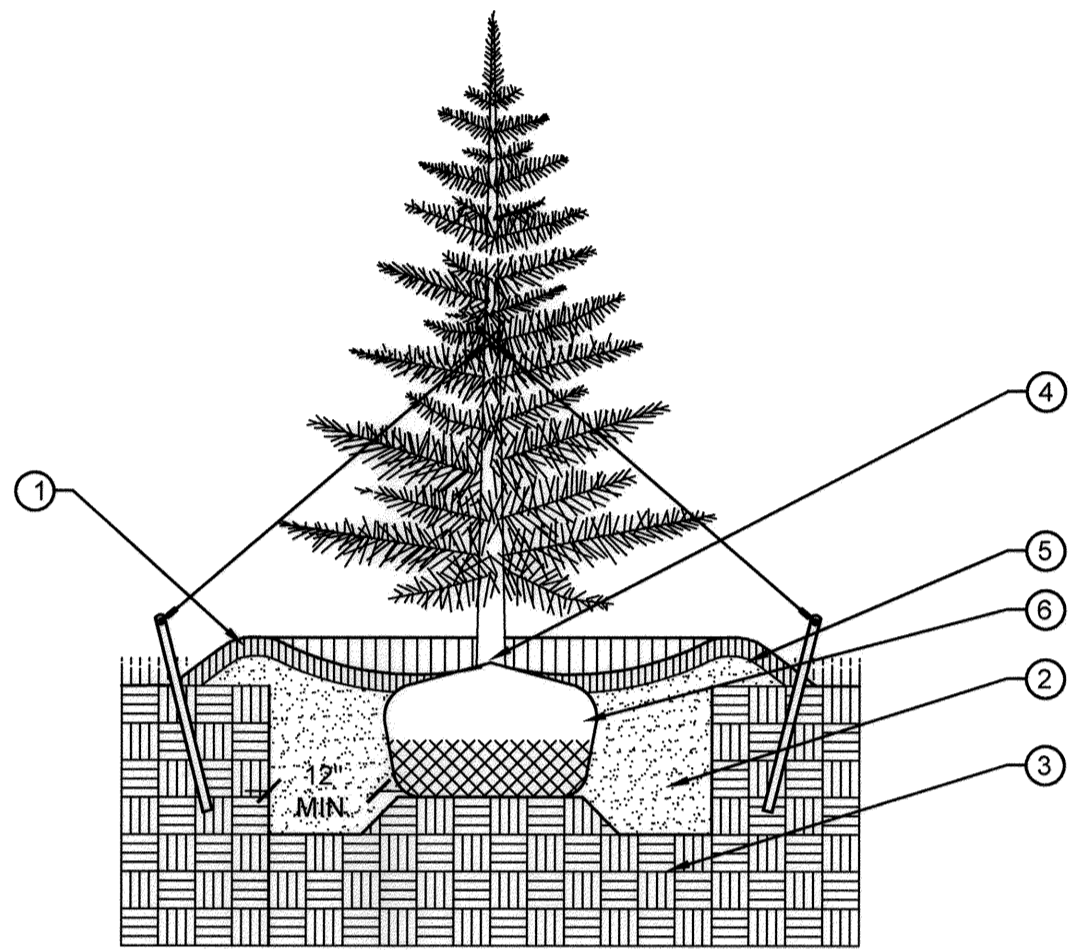


PERENNIAL/GROUNDCOVER PLANT SPACING
NTS



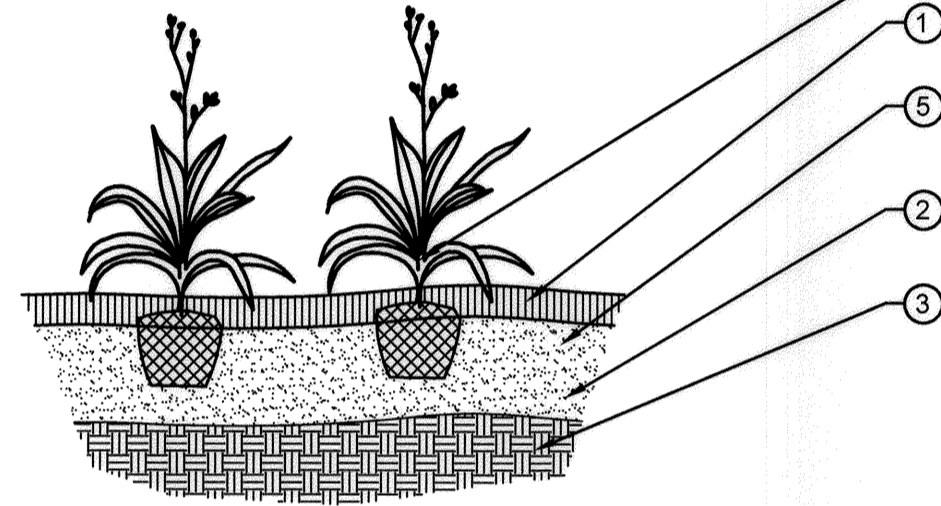
DECIDUOUS TREE PLANTING
NTS

- ① 2" SHREDDED HARDWOOD MULCH
- ② PREPARED BACKFILL SOIL MIXTURE. SEE SPECS
- ③ UNDISTURBED SOIL PEDESTAL
- ④ SET TREE ABOVE THE ORIGINAL GRADE 1/8 DEPTH OF ROOT BALL
- ⑤ SOIL SAUCER. USE PREPARED SOIL, 6" MIN.
- ⑥ ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/2 OF BURLAP. NON-BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED
- ⑦ HARDWOOD STAKES
- ⑧ RUBBER HOSE AT BARK ON EACH MAJOR STEM. ALL MAJOR STEMS SHOULD BE WIRED TOGETHER.
- ⑨ (3) GUY WIRES, WHITE FLAG ON 2 STRANDS OF EACH TWISTED GALVANIZED WIRE
- ⑩ (3) TURNBUCKLE, GALVANIZED



EVERGREEN TREE PLANTING
NTS

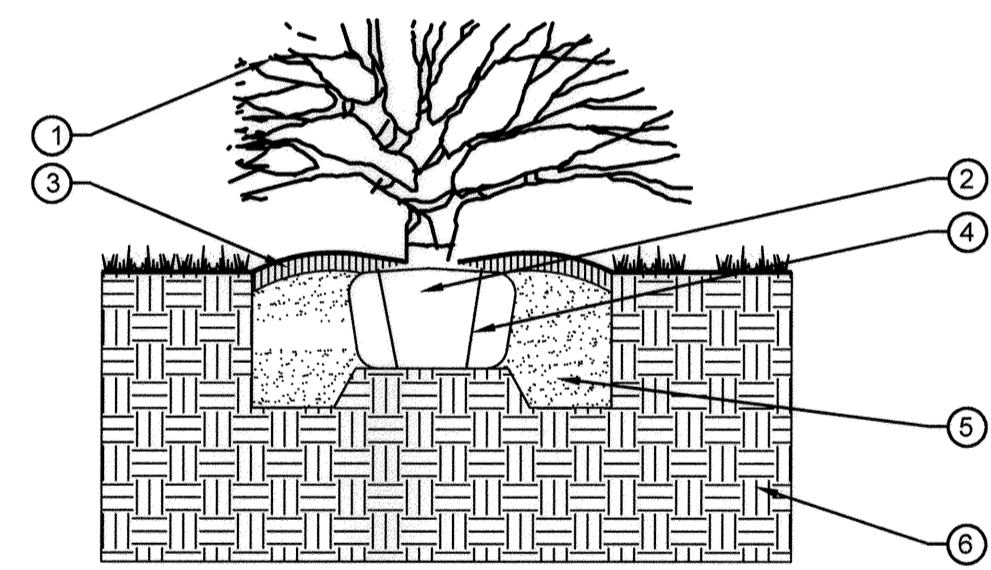
- ① 2" SHREDDED HARDWOOD MULCH
- ② PREPARED BACKFILL SOIL MIXTURE. SEE SPECS
- ③ UNDISTURBED SOIL PEDESTAL
- ④ SET TREE ABOVE THE ORIGINAL GRADE 1/8 DEPTH OF ROOT BALL
- ⑤ SOIL SAUCER. USE PREPARED SOIL, 6" MIN.
- ⑥ ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/2 OF BURLAP. NON-BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED



PERENNIAL/GROUNDCOVER PLANTING
NTS

- ① 2" SHREDDED HARDWOOD MULCH OVER ENTIRE BED
- ② PREPARED BACKFILL SOIL MIXTURE. SEE SPECS
- ③ UNDISTURBED SOIL PEDESTAL
- ④ SET GROUNDCOVERS AND PERENNIALS IN STAGGERED ROWS AT SPECIFIED SPACING
- ⑤ EXCAVATE ENTIRE BED TO DEPTH OF 8" AND PLACE PLANTING SOIL MIX

OVERALL PLANTING SCHEDULE			
SYMBOL	QTY	BOTANICAL/COMMON NAME	SIZE/TYPE
AR	9	Acer rubrum 'October Glory' October Glory red maple	3" cal.
PS	6	Pinus strobus Eastern White Pine	3" cal.
IC	20	Ilex cornuta 'China Girl' China Holly	3 gal./cont., min 2.5 - 3 ft. height
IG	6	Ilex glabra Inkberry Holly	7 gal./cont., min 2.5 - 3 ft. height
MC	36	Muhlenbergia reverchonii Undaunted Muhly Grass	3 gal./cont.



DECIDUOUS SHRUB PLANTING
NTS

- ① THIN BRANCHES BY 1/3 RETAINING PROPER FORM
- ② SET SHRUB ABOVE FINISHED GRADE 1/8 DEPTH OF ROOT BALL
- ③ 2" SHREDDED HARDWOOD MULCH OVER ENTIRE SHRUB BED
- ④ MAKE (3) - 1" CUTS IN SIDES OF ROOTBALL
- ⑤ PREPARED BACKFILL SOIL MIXTURE. SEE SPECS
- ⑥ UNDISTURBED SOIL PEDESTAL

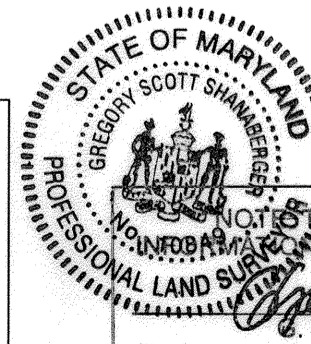
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: 6/20/19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] Date: 12-24-19
Chief, Division of Land Development: [Signature] Date: 12-23-19
Chief, Development Engineering Division: [Signature] Date: 12-16-19

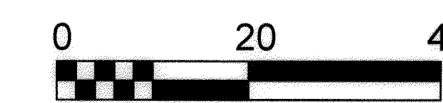
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DEVELOPER/SOWNER'S NAME: [Signature] DATE: 5/30/19



NOTES: THERE IS NO AS-BUILT PROVIDED ON THIS SHEET
Scott Shanaberger
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanaberger & Lane



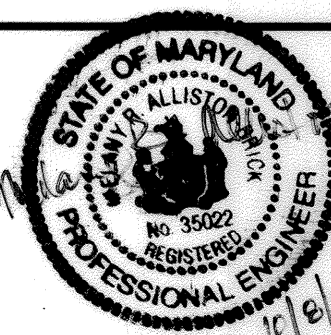
LANDSCAPE NOTES AND DETAILS C5.7

TOOLE DESIGN
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SILVER SPRING, MD 20910
PHONE: 301.927.1900
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DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

Howard Hughes.
THE HOWARD HUGHES CORPORATION
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PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35922
EXPIRATION DATE: 12/28/19

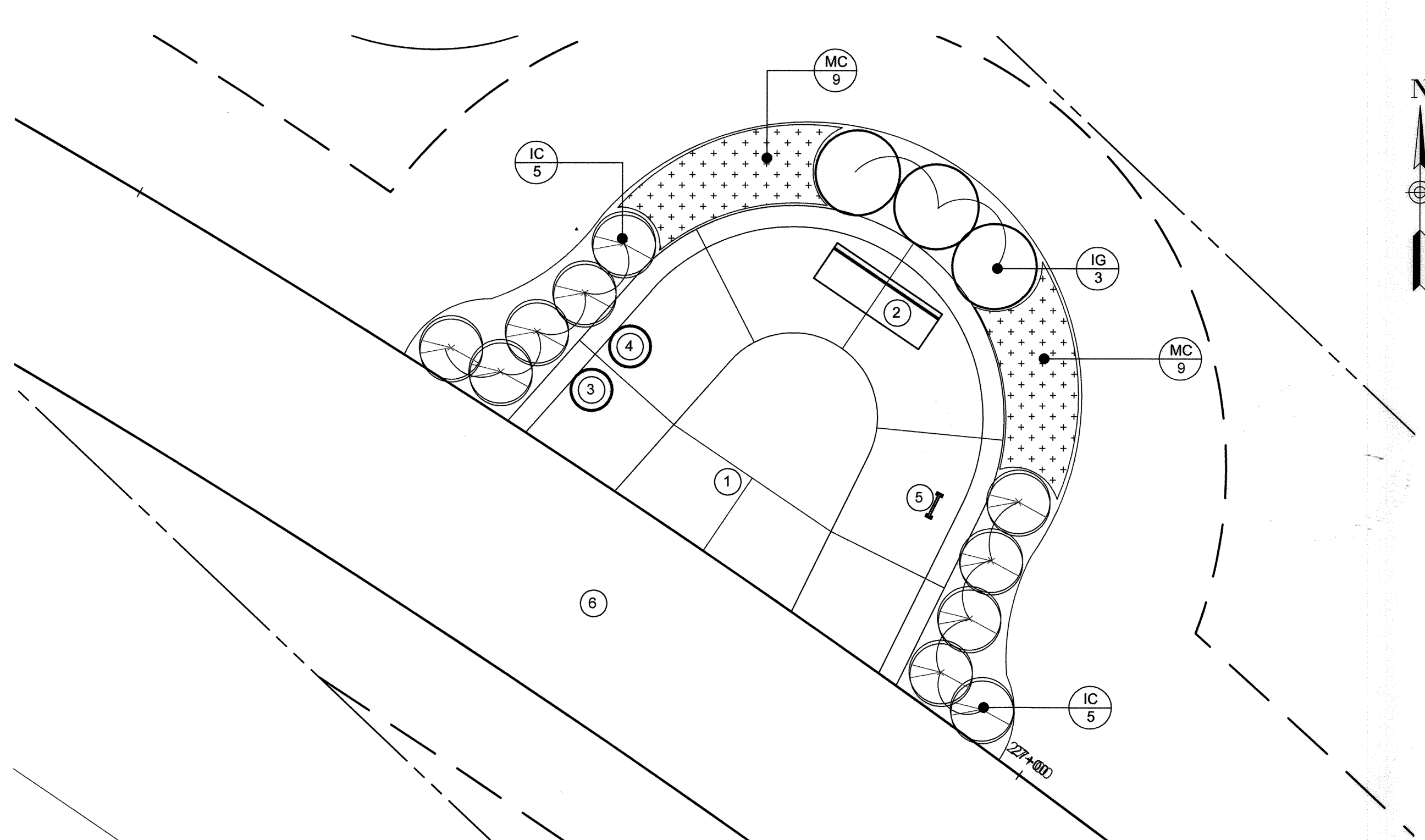
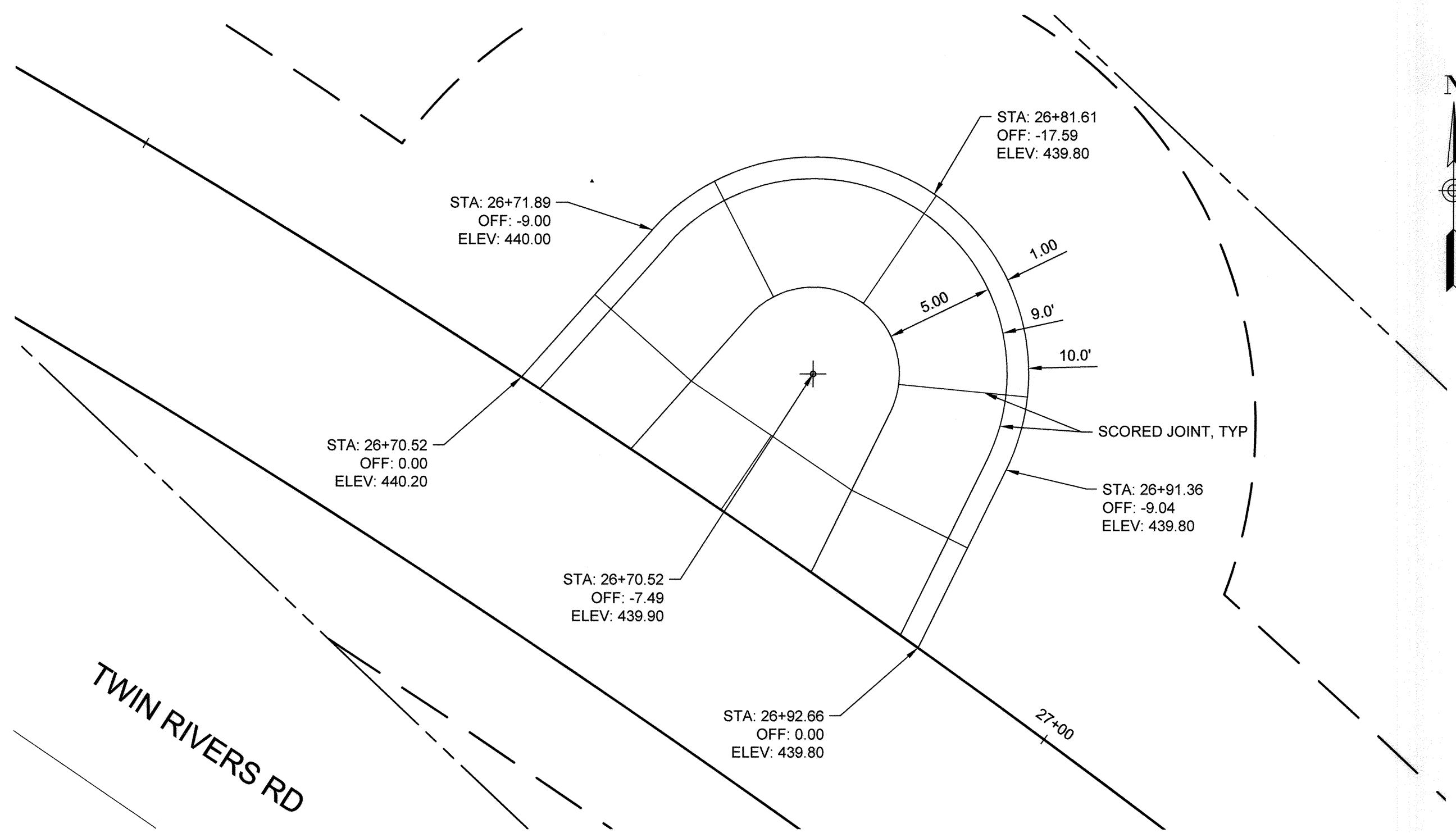


WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO ~~LYNX LANE~~ FAULKNER
COLUMBIA, MD ~~RIDGE CIR.~~

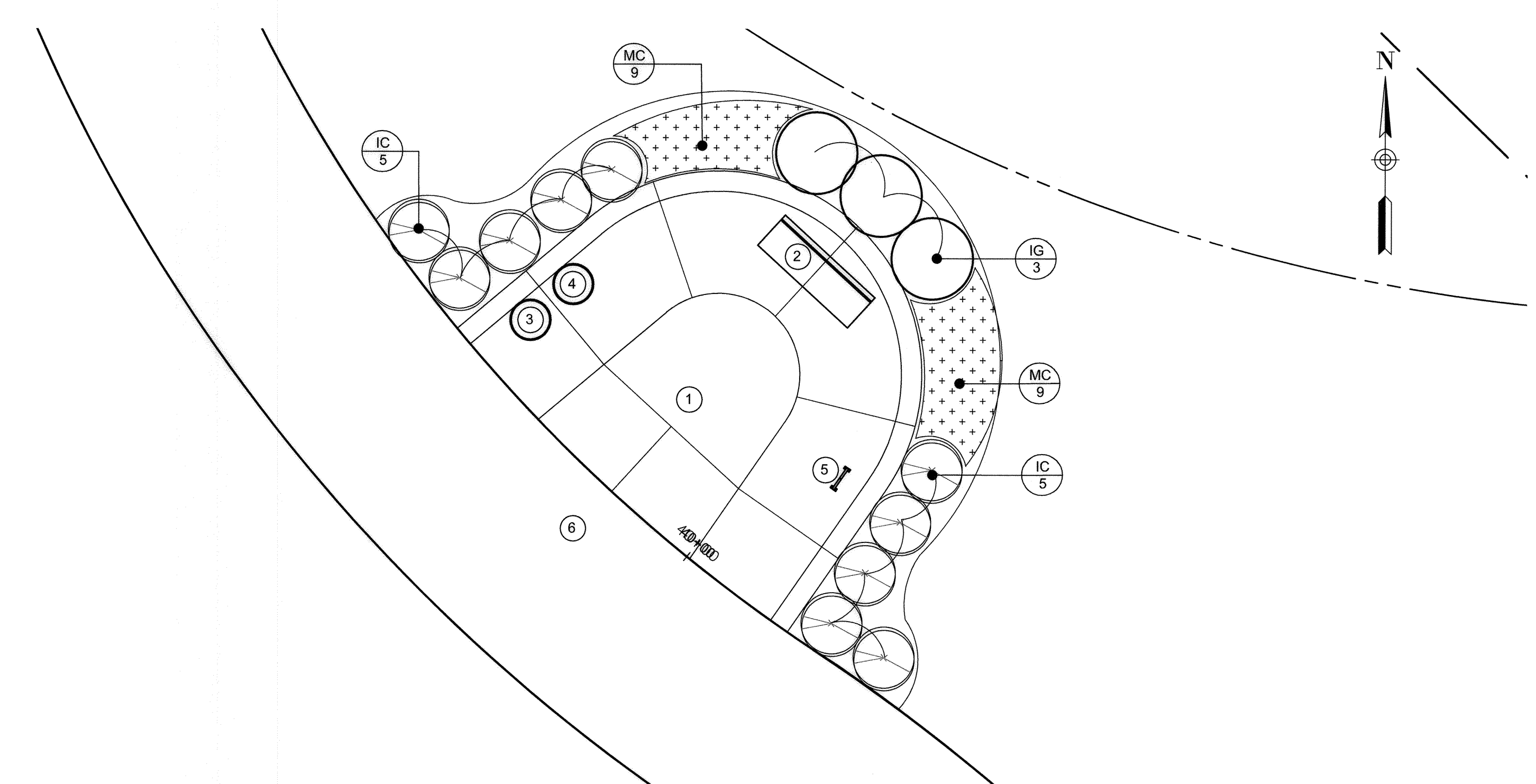
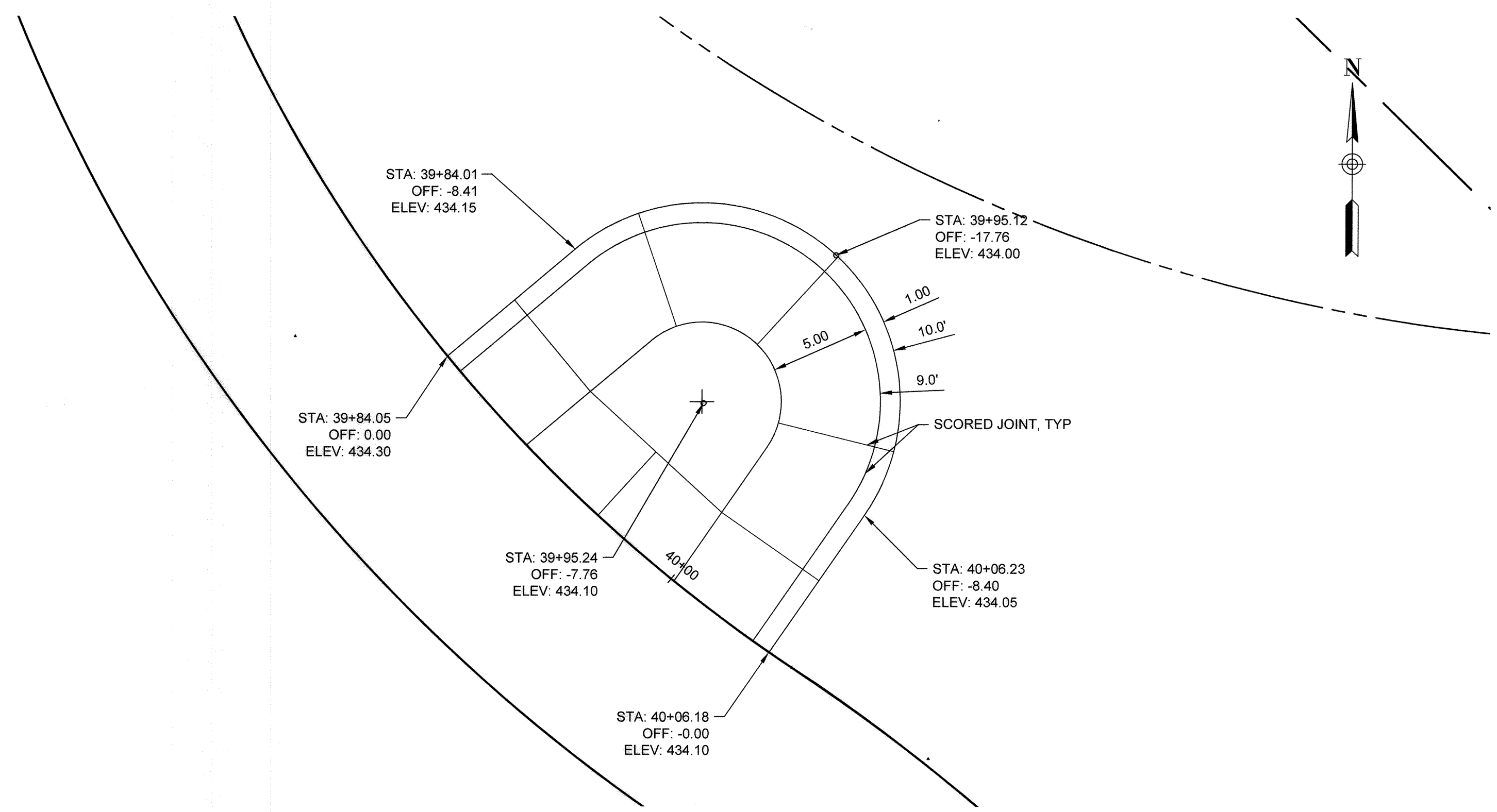
SCALE	ZONING	TDC. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	37 OF 63

ELECTION DISTRICT 5

HOWARD COUNTY



HARDSCAPE AND LANDSCAPE ENLARGEMENT TWIN RIVERS AND TRUMPETER
1" = 5'-0"



HARDSCAPE AND LANDSCAPE ENLARGEMENT TWIN RIVERS AND GOV WARFIELD
1" = 5'-0"

PLANTING SCHEDULE:

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE
IC	10	Ilex cornuta 'China Girl'	China Holly	3 gal./cont.
IG	3	Ilex glabra	Inkberry Holly	7 gal./cont.
MC	18	Muhlenbergia reverchoni	Undaunted Muhly Grass	3 gal./cont.

PLANTING SCHEDULE:

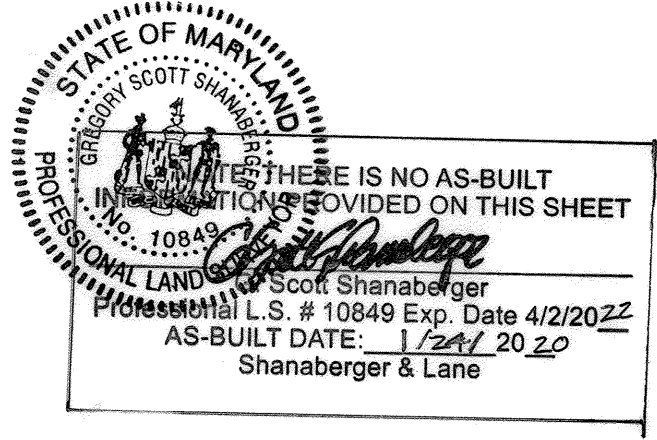
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE
IC	10	Ilex cornuta 'China Girl'	China Holly	3 gal./cont.
IG	3	Ilex glabra	Inkberry Holly	7 gal./cont.
MC	18	Muhlenbergia reverchoni	Undaunted Muhly Grass	3 gal./cont.

LEGEND

- ① CONCRETE: STANDARD GREY COLOR. REFER TO DETAIL 33.
- ② 6" BENCH. REFER TO DETAIL 37
- ③ TYPICAL TRASH RECEPTACLE. REFER TO DETAIL 36.
- ④ TYPICAL RECYCLING RECEPTACLE. REFER TO DETAIL 38.
- ⑤ BIKE RACK. REFER TO DETAIL 39.
- ⑥ PERMEABLE ASPHALT. REFER TO DETAIL 31.

DEVELOPER/SOWNER'S LANDSCAPE CERTIFICATE

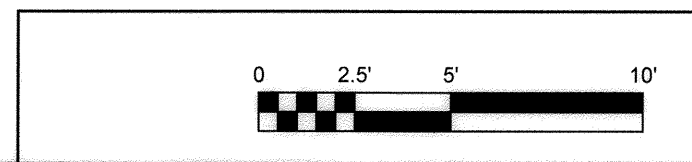
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.



DEVELOPER/SOWNER'S NAME: *[Signature]* DATE: 5/30/19

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: *[Signature]* Date: 12-24-19
Chief, Division of Land Development: *[Signature]* Date: 12-23-19
Chief, Development Engineering Division: *[Signature]* Date: 12-16-19



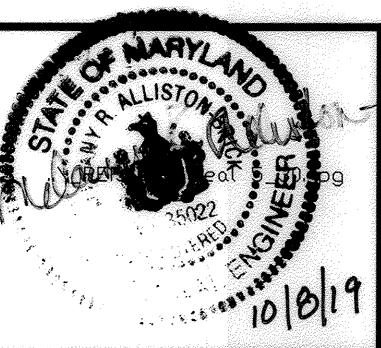
WAYSIDE ENLARGEMENT C5.8

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES. DPB	DRN. AG	CHK. EM	DATE	REVISION	BY	APP'R.

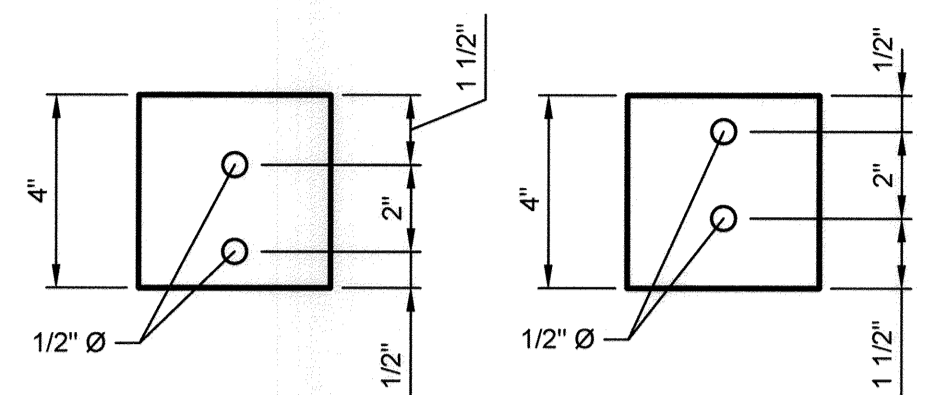
Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Filchitt, President, Maryland Region
410.964.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 35022
EXPIRATION DATE: 12/28/19



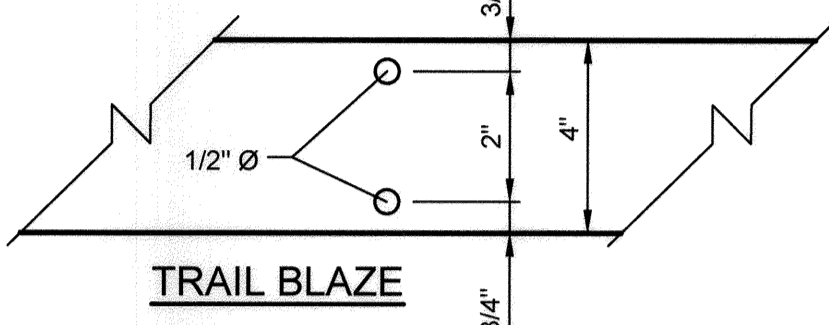
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIR.

SCALE	ZONING	TDC FILE No.
	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	38 OF 63

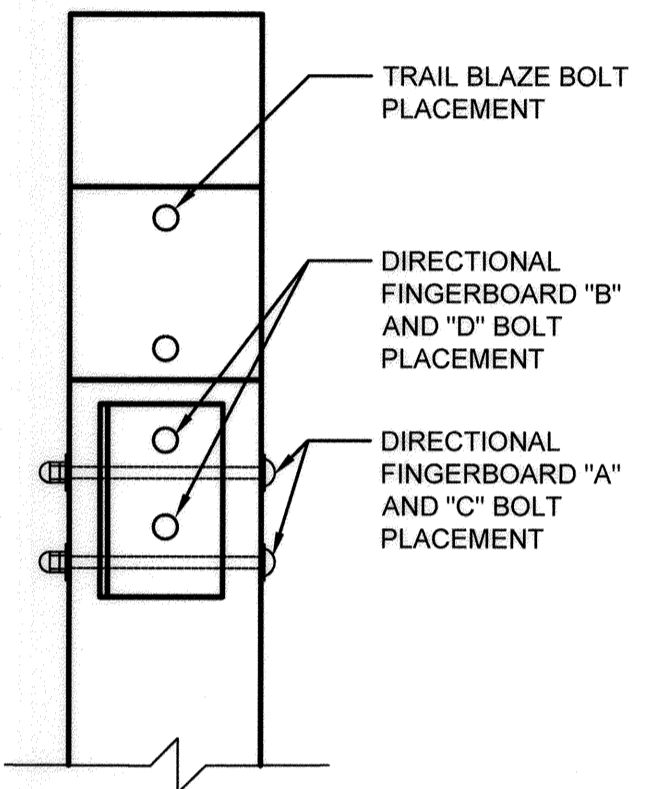


FINGERBOARD "A" & "C"
SEE DETAIL 6 FOR DESIGNATION

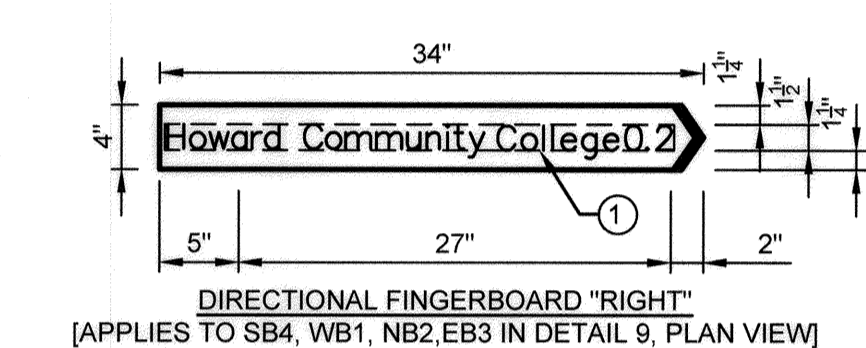
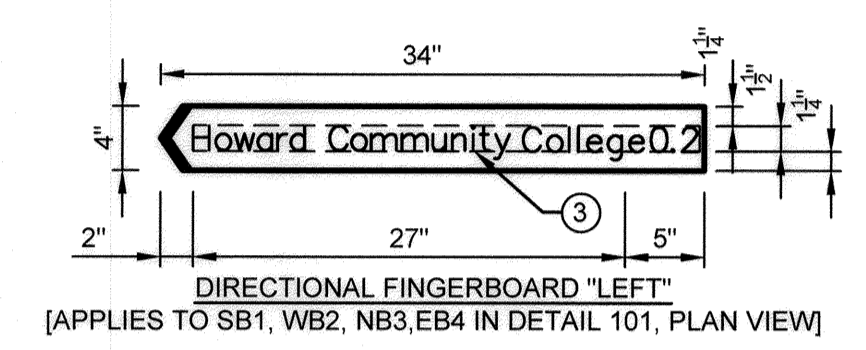
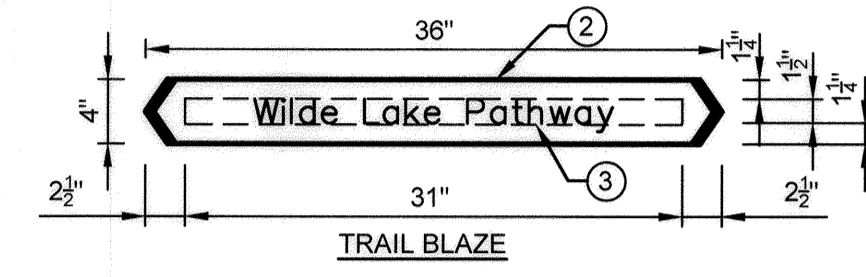
FINGERBOARD "B" & "D"
SEE DETAIL 6 FOR DESIGNATION



4 TYPICAL BOLT INSTALLATION ENLARGEMENT 1
NTS

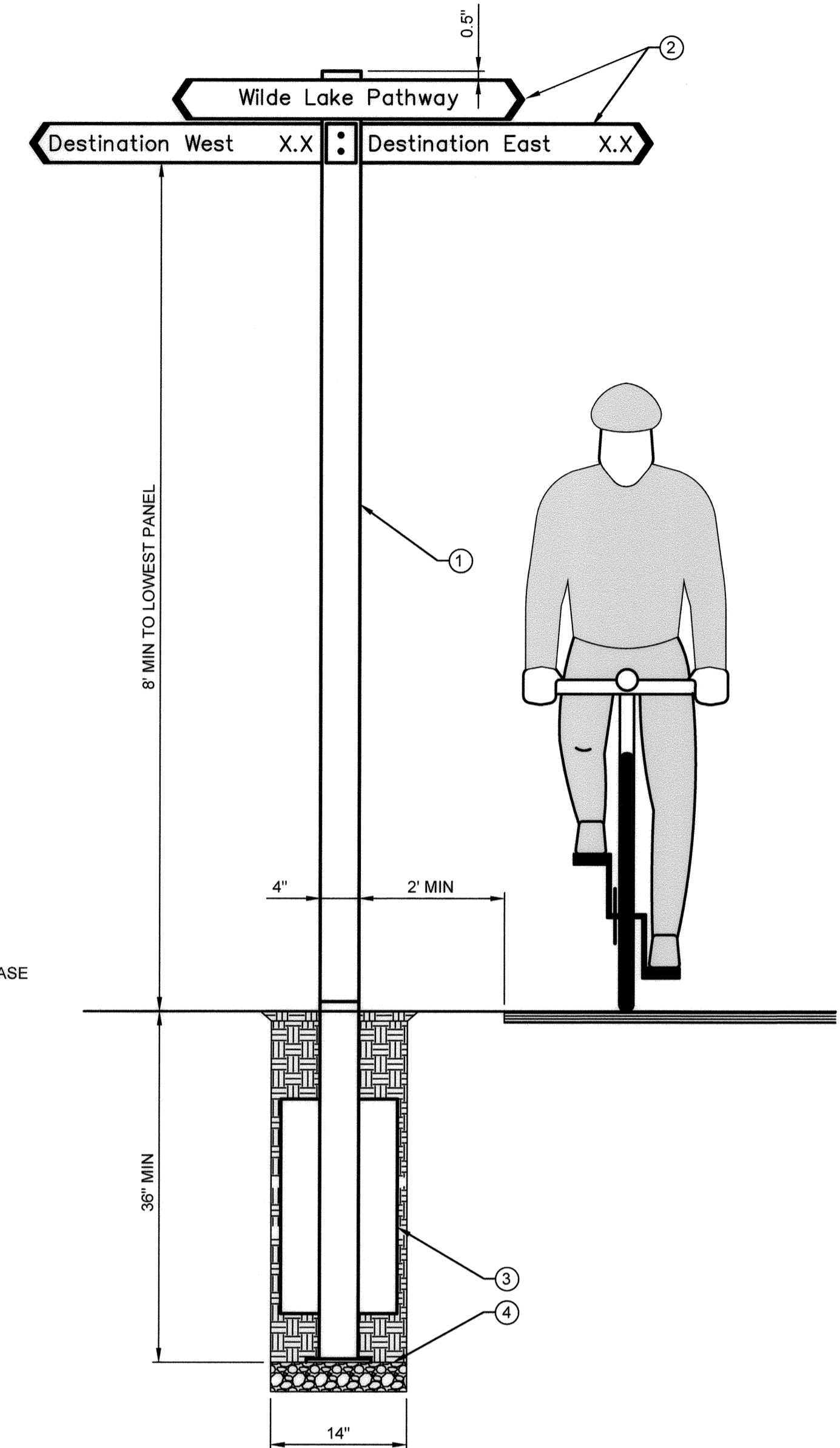


5 TYPICAL BOLT INSTALLATION ENLARGEMENT 2
NTS



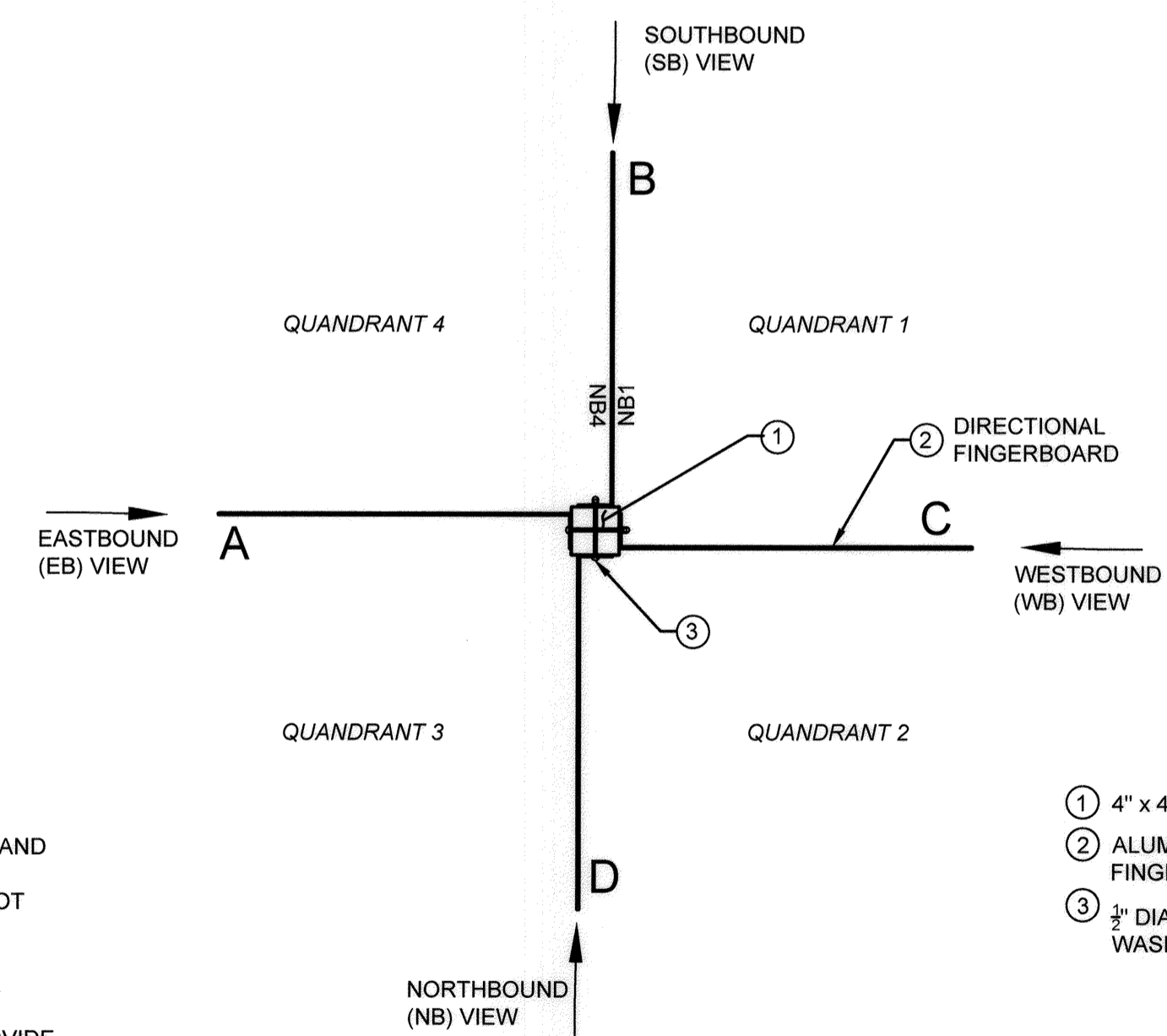
- ① TEXT: HELVETICA FONT (1.5" HEIGHT)
- ② FINGERBOARD SIGN PANEL COLOR: NPS-BROWN (PMS1615)
- ③ FINGERBOARD SIGN PANEL TEXT COLOR: WHITE
- TEXT STYLE: UPPER/LOWER CASE
- LETTER TRACKING: 1.00
- LETTER WIDTH FACTOR: 1.00

7 TYPICAL FINGERBOARD PANEL ENLARGEMENT
NTS

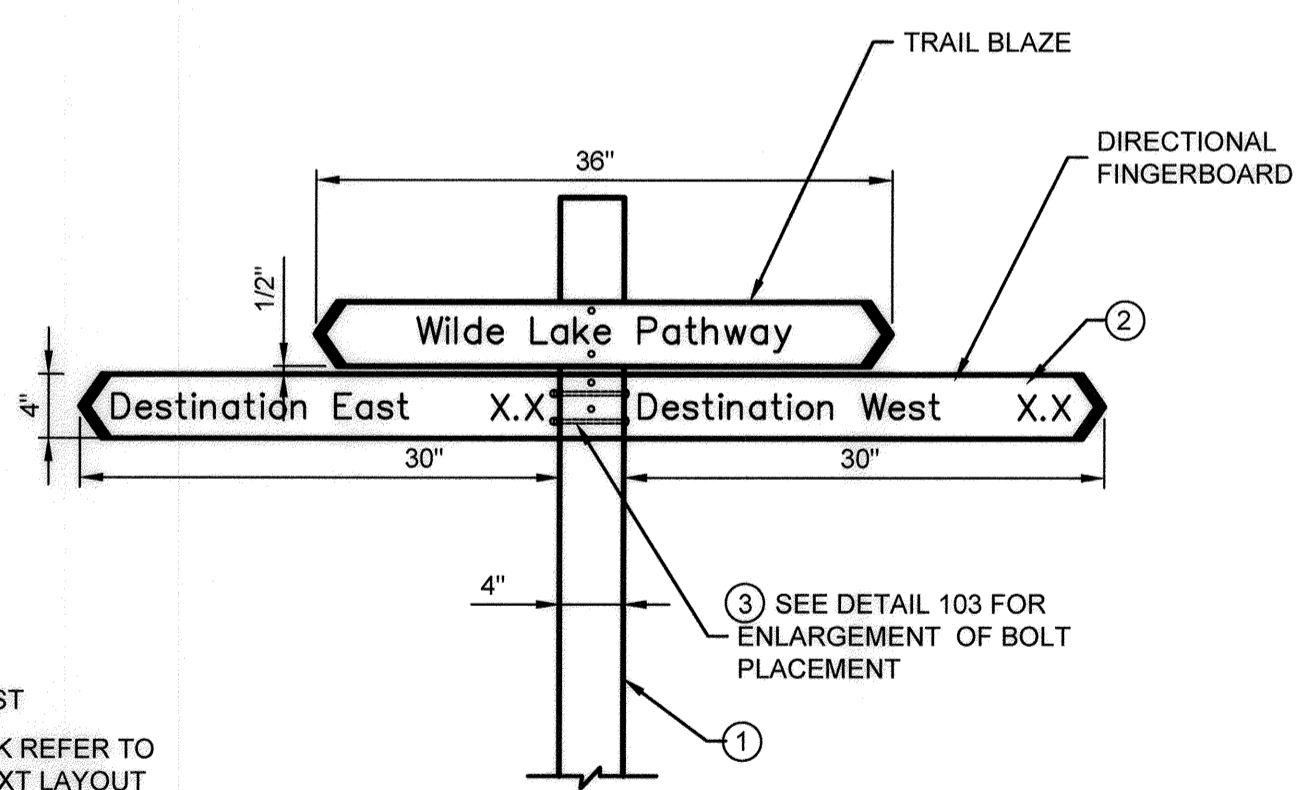


- ① 4" x 4" PRESSURE TREATED WOOD POST
- ② ALUMINUM FINGERBOARD, 0.125" THICK REFER TO FINGERBOARD DETAIL
- ③ POST FOOTING DIRECT BURIAL 36" MIN, 14" DIA POST HOLE WITH 12" STEEL STABILIZER FIN BOLTED TO POST WITH POST SAVER OR EQUIVALENT UP TO 2" ABOVE GRADE
- ④ 3" GRAVEL LAYER

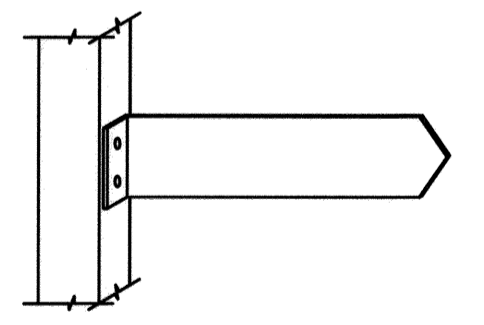
8 TRAIL WAYFINDING SIGN ASSEMBLY ELEVATION
NTS



6 POSTS, FINGERBOARD AND SECTION ORIENTATION
NTS

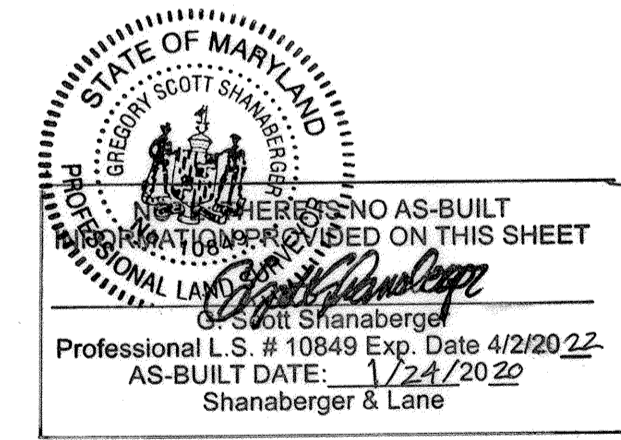


- ① 4" x 4" PRESSURE TREATED WOOD POST
- ② ALUMINUM FINGERBOARD, 0.125" THICK REFER TO FINGERBOARD ENLARGEMENT FOR TEXT LAYOUT
- ③ 3/4" DIA. THREADED STAINLESS STEEL WOOD BOLT WITH WASHER, HEX BOLT, AND ACORN NUT TO MATCH



PANEL MOUNTING DETAIL

- NOTES:
1. FINGERBOARD PANELS SHALL BE BENT TO PROVIDE 30° SIGN AND 2" MOUNTING FLANGE.
 2. PANEL BEND SHALL NOT BE GREATER THAN 90° AND SHALL NOT COMPROMISE THE STRUCTURAL INTEGRITY OF THE PANEL.
 3. PANEL FASTENERS SHALL BE 1/2" Ø, 18-8 STAINLESS STEEL CARRIAGE BOLTS WITH STAINLESS STEEL FLAT WASHER, HEX BOLT AND ACORN NUT TO MATCH.
 4. CROSSING PANEL FASTENERS SHALL BE STAGGERED TO PROVIDE A 1/2" MINIMUM CLEARANCE.



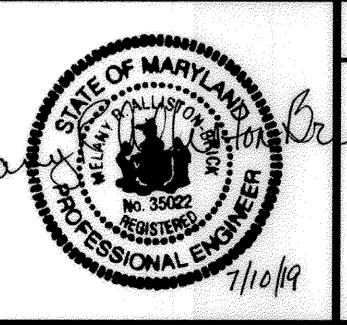
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19
Date: 12-23-19
Chief, Division of Land Development: [Signature]
Chief, Development Engineering Division: [Signature] 12-16-19

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PROFESSIONAL CERTIFICATION
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EXPIRATION DATE: 12/28/19



WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CR.
ELECTION DISTRICT 5
HOWARD COUNTY

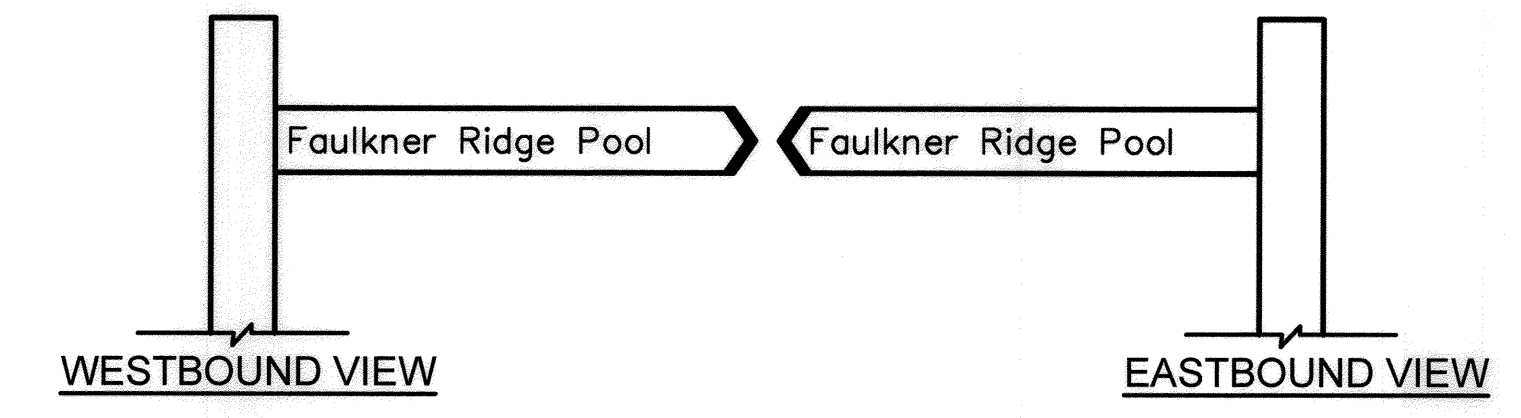
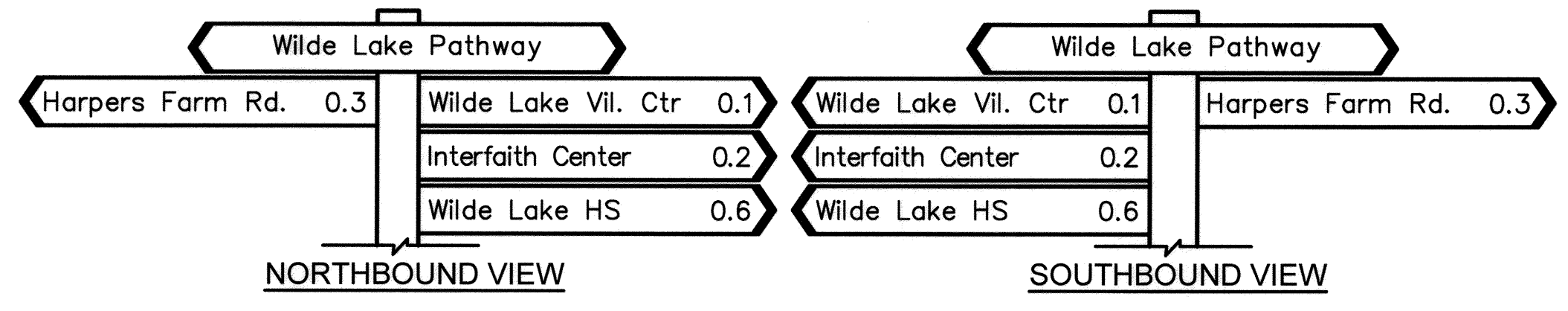
GENERAL DETAILS - 2		C6.2
SCALE AS SHOWN	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 40 OF 63

WAYFINDING SIGN SPECIFICATIONS

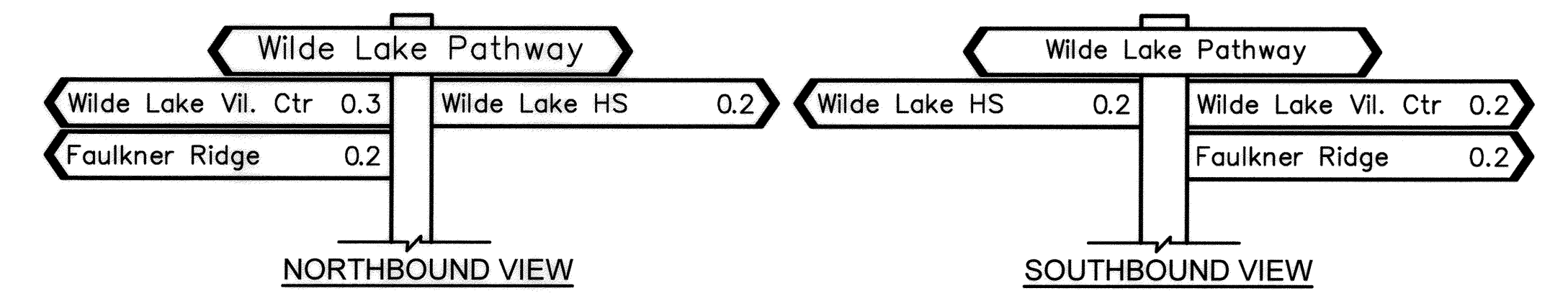
- 1. QUALITY ASSURANCE: A. JOB REFERENCES FROM PROJECTS OF A SIMILAR SIZE AND COMPLEXITY... B. POSTAL ADDRESS, PHONE, FAX, AND EMAIL ADDRESS... C. APPLICABLE SPECIFICATIONS AND STANDARDS: AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)... D. IF SITE CONDITIONS VARY FROM PLAN, CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION... 2. PREPARATION: GENERAL CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, LOADING/UNLOADING AND TRANSPORTATION SERVICES REQUIRED TO PERFORM AND COMPLETE THE WORK ACCORDING TO THE SPECIFICATIONS AND CONTRACT DOCUMENTS... A. DIMENSIONS FOR LEGEND SIZE AND ALL RELATED DIMENSIONS FOR SIGN LAYOUT, PANEL SIZES, POST SIZES, MOUNTING DIMENSIONS ARE AS SPECIFIED IN THE PLANS... B. ALL GRAPHIC FORMATS, USE OF TYPOGRAPHY, COLOR, DIRECTIONAL ARROW GRAPHICS, AND PICTOGRAMS ARE AS SPECIFIED IN THE PLANS... C. ALL STRUCTURES SHALL BE ENGINEERED TO MEET A VARIETY OF SITE CONDITIONS... D. ALL FINISHED SIGN PANELS SHALL BE PROVIDED WITH A 1-1/4" X 2-1/2" WEATHER RESISTANT IDENTIFICATION PLACED ON THE BACK OF THE SIGN...

- 3. FABRICATION: A. PROVIDE SHOP AND FABRICATION DRAWINGS FOR REVIEW AND APPROVAL... B. THE CONTRACTOR SHALL PREPARE, FOR REVIEW BY THE OWNER'S REPRESENTATION'S FABRICATION SHOP DRAWINGS... C. PLAN, ELEVATIONS, AND SECTION VIEW DRAWINGS... D. MATERIALS, FINISHED, COLORS, AND HARDWARE... E. SIGNAGE ELEMENTS IN DRAWINGS IDENTIFIED AND NUMBERED... F. FONTS INCLUDING HELVETICA SHALL BE USED TO VIEW, EDIT, PRODUCE, AND PRINT ALL GRAPHIC SIGN LAYOUTS... G. ALUMINUM PANEL, CEDAR WOOD POSTS, TUBULAR STEEL POSTS, MOUNTING HARDWARE AND MATERIAL FINISHES SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS... 4. INSTALLATION: A. ALL SIGNS ARE TO BE MOUNTED AT LOCATIONS AS IDENTIFIED IN THE SIGN PLAN AND APPROVED BY THE PROJECT DESIGNER AND/OR COUNTY REPRESENTATIVE...

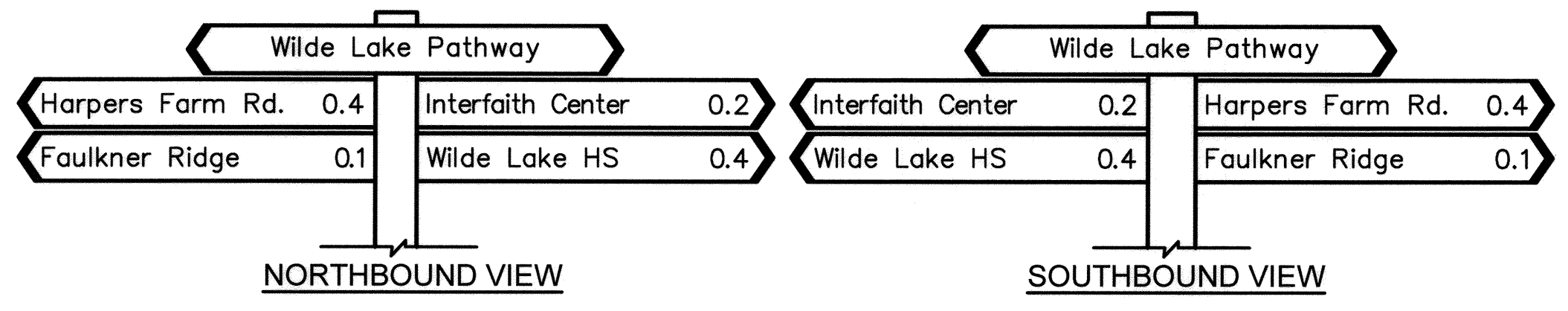
RIGHTS-OF-WAY ARE MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION(410-313-2430) PRIOR TO THE INSTALLATION. SIGN LOCATIONS WILL BE MARKED WITH A STAKE AND SHALL HAVE THE SIGN TYPE CODE, AND LOCATION CODE, AND CORRESPOND TO THE SIGN LOCATION IN THE PLAN DRAWINGS. DOUBLE POST SIGNS WILL BE STAKED AT THE LOCATION OF THE LEFT LEG WHEN FACING THE SIGN. DOUBLE-FACED SIGNS AND ANGLED INSTALLATIONS WILL BE STAKED WITH BOTH LEG LOCATIONS NOTED. THE STAKES SHALL BE INSPECTED PRIOR TO POST AND SIGN INSTALLATION. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE PRIOR TO INSTALLATION. DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE PROJECT DESIGNER FOR RESOLUTION. THE CONTRACTOR SHALL INSTALL ALL SIGNS LEVEL AND PLUMB AT THE SPECIFIED HEIGHTS AND ALIGNMENTS WITH ALL SPECIFIED FOOTINGS, BACKFILL, OR ATTACHMENT HARDWARE. THE CONTRACTOR SHALL REMOVE ALL PACKING, SIGN BOXES, AND CONSTRUCTION MATERIALS FROM THE PROJECT AREA UPON COMPLETION OF INSTALLATION. UNFORESEEN OBSTRUCTIONS MAY LIMIT THE DEPTH OF A STANDARD FOOTING OR REQUIRE SPECIAL MITIGATION TO PREVENT DAMAGE TO EXISTING TREE ROOTS. WHERE POSSIBLE, MOVE THE SIGN AS NEEDED TO ALLOW UNCONSTRAINED SUBSURFACE INSTALLATION. ADJUST SIGN INSTALLATION LOCATIONS TO KEEP THEM BEYOND THE DRIP LINE OF TREES WHEREVER POSSIBLE. NOTIFY THE PROJECT DESIGNER OF ANY PROPOSED SIGN LOCATIONS WITHIN THE DRIP LINE OF THE TREES. THE DRIP LINE SHALL BE DEFINED AS THE AREA BELOW THE FARTHEST-SPREADING BRANCHES OF A TREE. IF A SIGN PLACEMENT LOCATION MUST BE MOVED, THE CONTRACTOR SHALL GET APPROVAL OF THE PROJECT DESIGNER. IF THE SIGN CAN BE LOGICALLY MOVED, VERIFY SIGHT-LINES OF ADJUSTED LOCATIONS TO AFFIRM THAT SIGN IS STILL VISIBLE FROM THE DESIGNATED APPROACH. THE CONTRACTOR IS ALSO CAUTIONED TO EXCAVATE CAREFULLY WHERE TREE ROOTS MIGHT BE ENCOUNTERED. PRIOR TO BEGINNING EXCAVATION, THE CONTRACTOR SHALL NOTIFY THE PROJECT DESIGNER AND UTILITY COMPANIES OF PROPOSED SIGN LOCATIONS AND TIMES FOR EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PREVENTING DAMAGE TO KNOWN UTILITIES. IF DAMAGE OCCURS, THE CONTRACTOR SHALL REPAIR THE UTILITY AT NO ADDITIONAL EXPENSE. THE CONTRACTOR SHALL PROTECT ALL ADJACENT STRUCTURES, UTILITIES, SURFACES, VEGETATION AND PLANT MATERIALS FROM DAMAGE DURING INSTALLATION. THE CONTRACTOR WILL NOTIFY THE PROJECT DESIGNER IMMEDIATELY OF ANY OCCURRENCE OF DAMAGE. ANY DAMAGE TO THE ITEMS DESCRIBED ABOVE MUST BE RESTORED TO ORIGINAL CONDITION AND APPEARANCE, OR REPLACED.



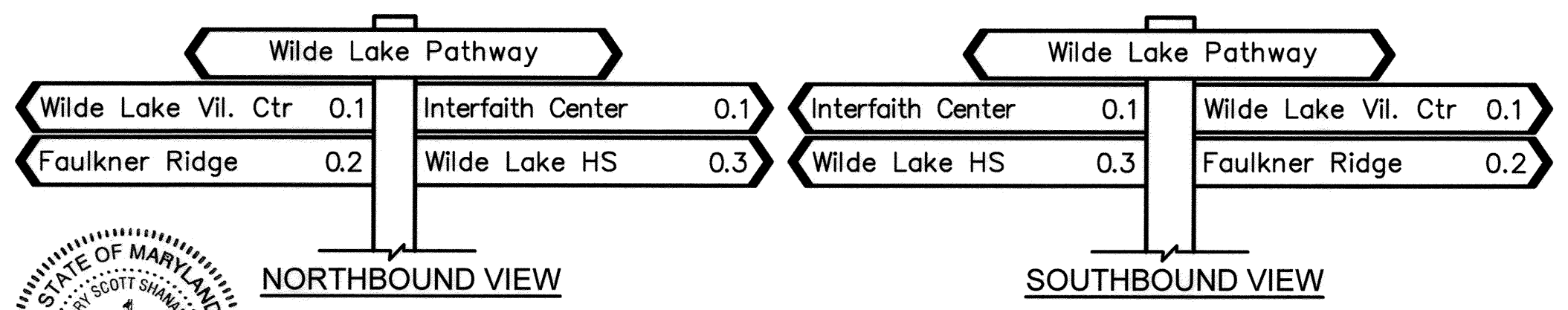
13 WAYFINDING LOCATION 101 NTS



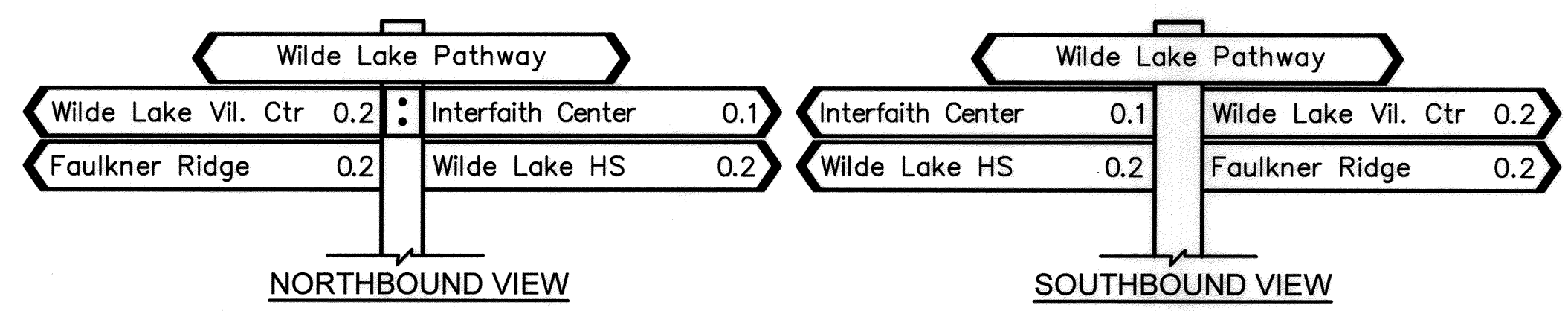
17 WAYFINDING LOCATIONS 105 NTS



14 WAYFINDING LOCATION 102 NTS



15 WAYFINDING LOCATION 103 NTS



16 WAYFINDING LOCATION 104 NTS

STATE OF MARYLAND PROFESSIONAL ENGINEER SCOTT SHANABERGER No. 53022 REGISTERED 10/18/19

APPROVED PLANNING BOARD OF HOWARD COUNTY Date: 12-16-19

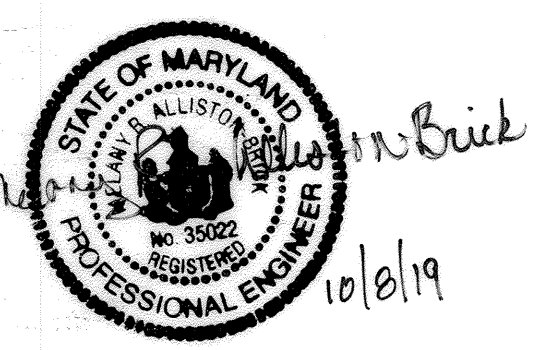
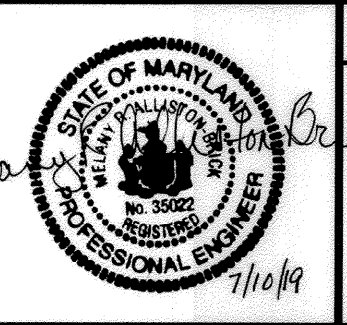
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING Director Date: 12-24-19 Chief, Division of Land Development Date: 12-23-19 Chief, Development Engineering Division Date: 12-16-19

TOOLE DESIGN 8484 GEORGIA AVENUE SUITE 800 SILVER SPRING, MD 20910 PHONE: 301.927.1900 FAX: 301.927.2800 www.tooledesign.com

DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

Howard Hughes THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PKWY, SUITE 400 COLUMBIA, MD 21044 Greg Fitchitt, President, Maryland Region 410.964.4800 - Greg.Fitchitt@howardhughes.com

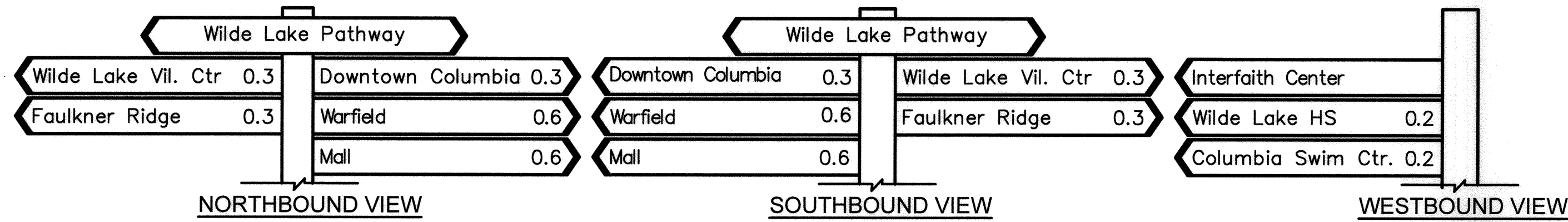
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 53022 EXPIRATION DATE: 12/28/19



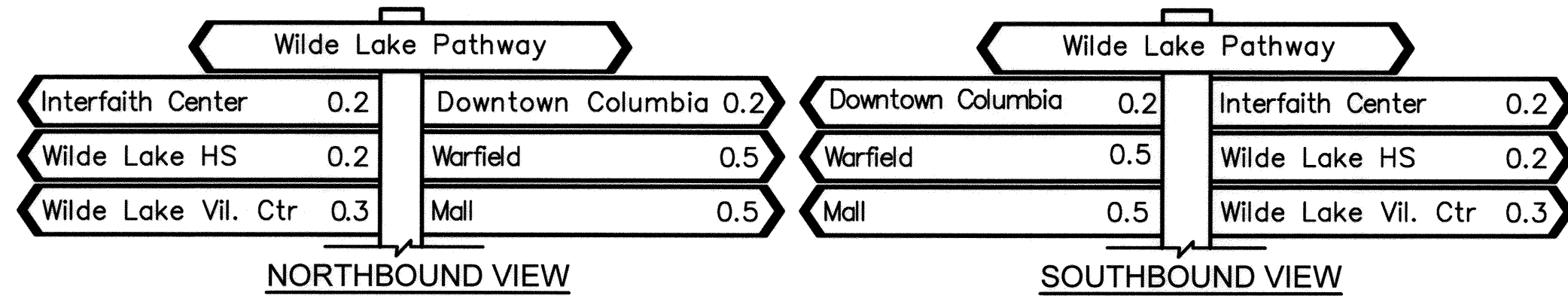
WILDE LAKE MULTI-USE PATHWAY GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CR. COLUMBIA, MD

GENERAL DETAILS - 3		C6.3
SCALE AS SHOWN	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 41 OF 63

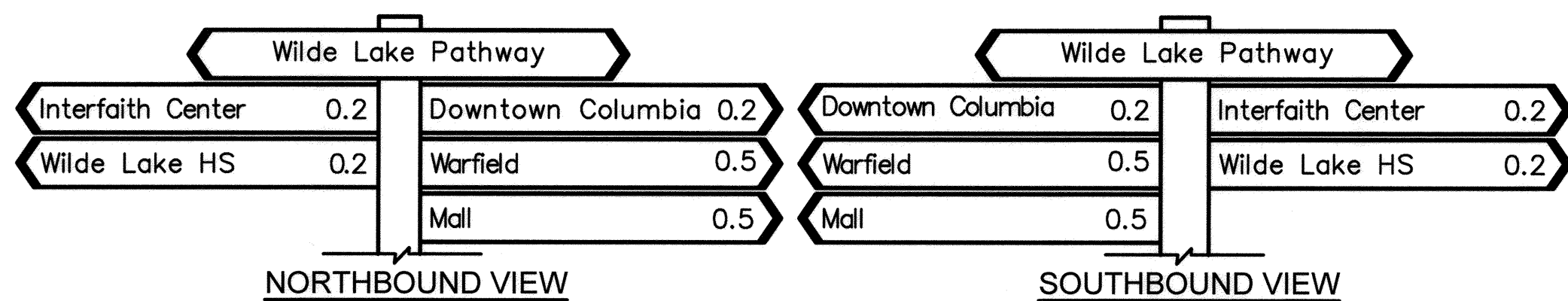
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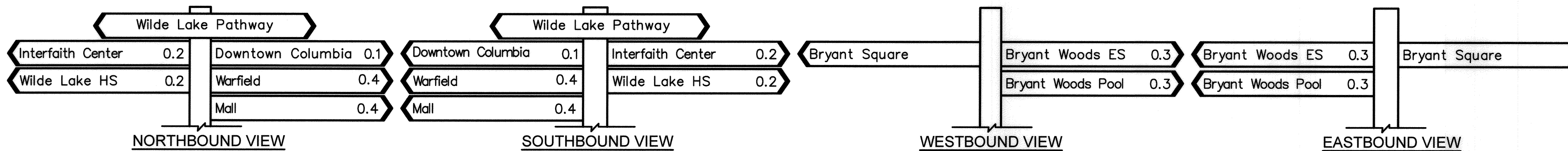
18 WAYFINDING LOCATION 106
NTS



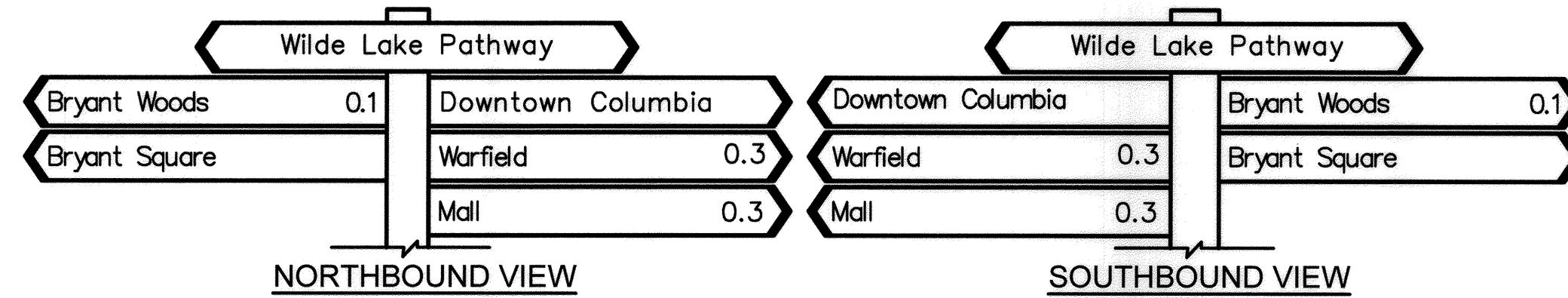
19 WAYFINDING LOCATION 107
NTS



20 WAYFINDING LOCATION 108
NTS



21 WAYFINDING LOCATION 109
NTS



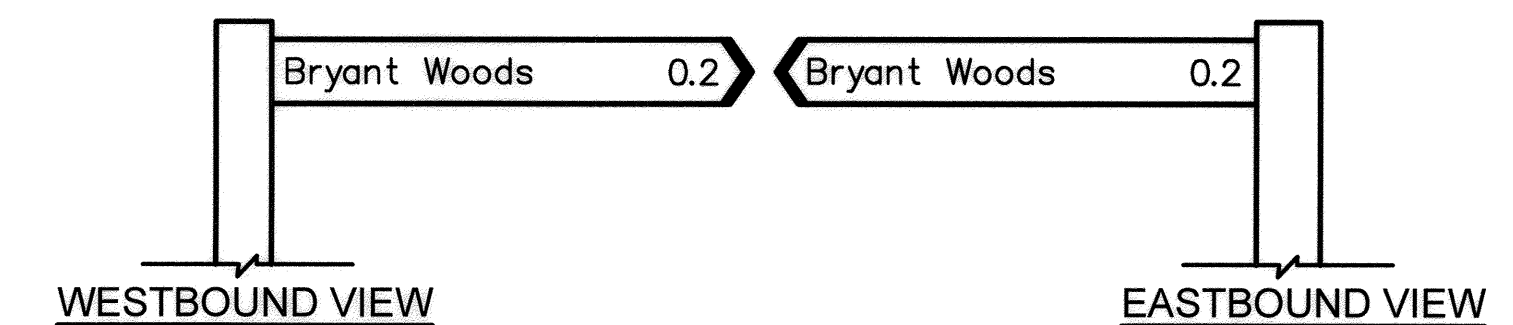
22 WAYFINDING LOCATION 110
NTS



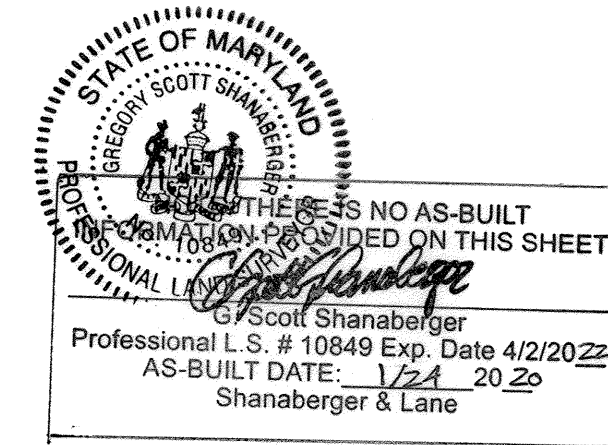
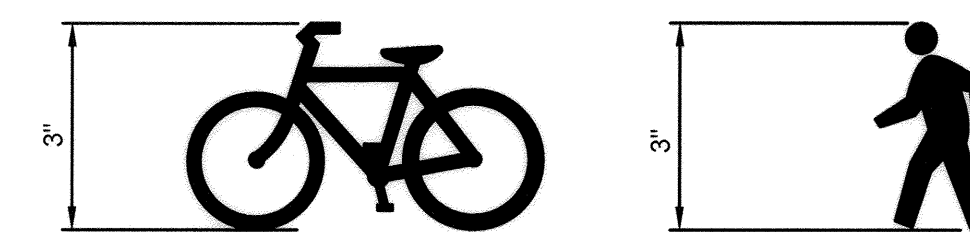
23 WAYFINDING LOCATION 111
NTS



24 WAYFINDING LOCATION 112
NTS



25 PEDESTRIAN AND BIKE SYMBOL
NTS



APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 26, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

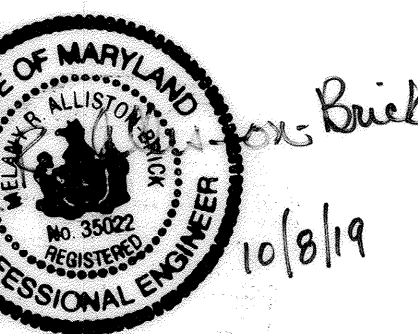
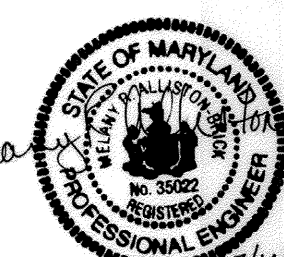
Director: [Signature] 12-24-19
Date: 12-23-19
Chief, Division of Land Development: [Signature]
Date: 12-16-19
Chief, Development Engineering Division: [Signature]
Date:

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DES. DPB DRN. AG CHK. EM DATE REVISION BY APPR.

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WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD RIDGE CIR.

GENERAL DETAILS - 4		C6.4
SCALE AS SHOWN	ZONING NT	TDC. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 42 OF 63

ELECTION DISTRICT 5

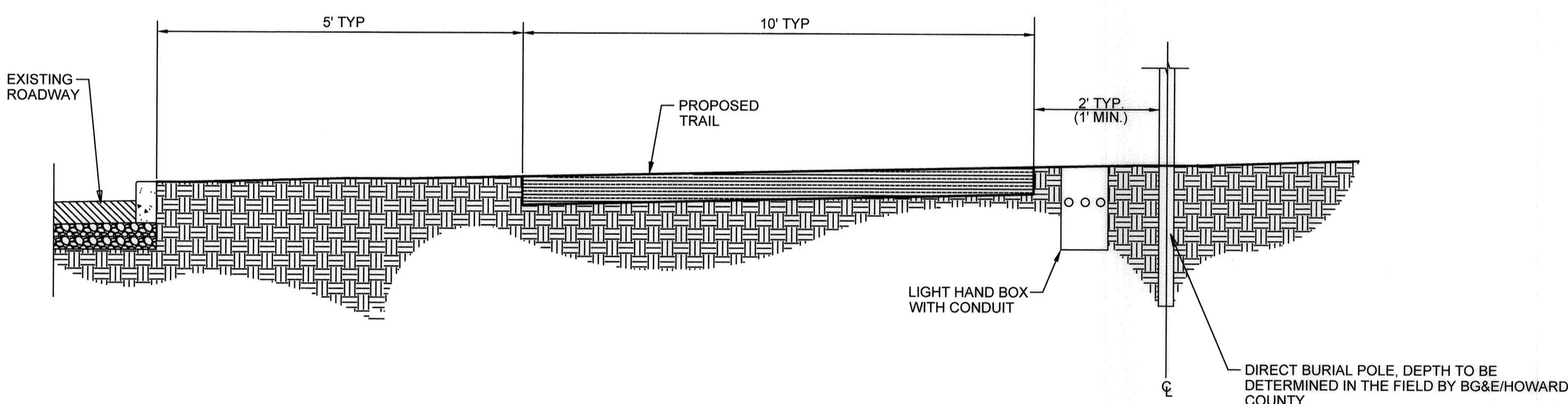
HOWARD COUNTY

NOTES:

- THE CONTRACTOR SHALL LOCATE AND MARK UNDERGROUND FACILITIES AND MAINTAIN MARKING DURING CONSTRUCTION.
- CALL MISS UTILITY PRIOR TO DIGGING. CERTAIN UTILITIES WITHIN THE VICINITY OF HIS PROJECT AREA ARE SHOWN ON THE PLANS. THE UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATELY LOCATED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND LIGHTING SYSTEMS BEFORE PROCEEDING WITH WORK.
- CONTRACTOR TO PROVIDE SURVEY AND STAKE OUT HAND BOXES & CONDUIT LOCATIONS. COORDINATE WITH BG&E AND HOWARD COUNTY.
- CONTRACTOR SHALL COORDINATE WITH HOWARD COUNTY AND UTILITIES PLAN ALL BORINGS UNDER EXISTING ROADWAYS.
- ALL ELECTRICAL WORK SHALL CONFORM TO BG&E LIGHTING GUIDELINES AND HOWARD COUNTY STREET LIGHT POLICIES AND GUIDELINES.
- FINAL STREET/PATH LIGHT POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD BY HOWARD COUNTY TRAFFIC OR BG&E FOR ALL PUBLIC LIGHT FIXTURES.
- ALL ILLUMINANCE VALUES PROVIDED ARE PROPOSED CONDITION.
- CONTRACTOR SHALL MAINTAIN AS-BUILT RED LINED AND MARKED UP RECORD DRAWINGS AT CONSTRUCTION SITE, AND MAKE RECORD DRAWINGS AVAILABLE FOR OBSERVATION AT TIME OF PAYMENT.
- GENERAL CONTRACTOR TO PROVIDE ALL NECESSARY BACKFILL AND GRADING FOR PROPER INSTALLATION OF HAND BOXES AND CONDUITS. GENERAL CONTRACTOR TO PROVIDE EXCAVATION FOR HAND BOX INSTALLATION. SEE HAND BOX DETAIL ON THIS SHEET.
- AT LOCATIONS WHERE PROPOSED CONDUIT WILL CROSS NEW OR EXISTING CONDUIT, PIPING OF ANOTHER TRADE, OR STRUCTURE THE CONTRACTOR SHALL HAND-DIG THE TRENCH AND SHALL TAKE ADEQUATE CARE NOT TO DAMAGE THE OTHER CONDUIT, PIPES AND STRUCTURES.
- THE CONDUITS SHALL BE MINIMUM 24" DEEP AND NO MORE THAN 38-INCHES BEHIND THE CURB OR WITHIN 48" OF ASPHALT TRAIL. SLOPE UNDERGROUND CONDUITS TO DRAIN TO HAND BOXES OR MAN-HOLES.
- BG&E WILL FURNISH THROUGH THE COUNTY ALL HAND BOXES REQUIRED AND THE CONTRACTOR WILL INSTALL AT CORRECT ELEVATION AND AT EACH LOCATION IDENTIFIED.
- CONTRACTOR TO FURNISH AND INSTALL 3" SCHEDULE 40 PVC OR HDPE SCHEDULE 40 CONDUIT SLEEVE 400# PULL STRING CROSSING UNDER BIKE/PEDESTRIAN PATH PER BG&E STANDARDS AND INSTALLATION DETAIL ON SHEET C8.4.
- ALL PEDESTRIAN LIGHT FIXTURES ARE TO BE FURNISHED AND INSTALLED BY BG&E.
- PROVIDE MINIMUM OF 6" OF SEPARATION OF LIGHTING CONDUIT FROM TRAFFIC AND COMMUNICATION CONDUITS WHEN IN CLOSE PROXIMITY.
- CONDUITS SHALL BE INSTALLED WITH LARGE RADIUS OFFSETS (5'-0" MINIMUM RADIUS) TO BYPASS DRAINAGE INLETS, MANHOLES, AND OTHER OBSTRUCTIONS.

- CONTRACTOR TO COORDINATE WITH BG&E WHEN PATHWAYS ARE READY FOR INSTALLATION OF DIRECT BURIAL CABLE. (BY BG&E)
- CONTRACTOR TO COORDINATE WITH BG&E WORK CREWS FOR TRENCHING AND CABLE INSTALLATION BETWEEN HAND BOXES AT MOST OPPORTUNE TIMES DURING COURSE OF WORK.
- ALL LIGHT POLES, LUMINAIRES, HAND BOXES, AND LIGHTING CIRCUITRY ARE TO BE DESIGNED, FURNISHED AND INSTALLED BY BG&E.

25 STREET LIGHTING
NTS



NOTE:
CAREFULLY SELECT LIGHT POLE LOCATIONS TO ENSURE THAT SIGHT LINES AT INTERSECTIONS AND DRIVEWAYS REMAIN FREE OF OBSTRUCTIONS.

PROPOSED LUMINAIRE SPECIFICATIONS

TYPE	LUMINAIRE DESCRIPTION
CH COBRA HEAD	HADCO ROAD FOCUS 250 LED DISTRIBUTION TYPE: III LAMP: 180 W LED MOUNTING HEIGHT: 30-FT BLACK FIBERGLASS POLE ARM LENGTH: 12 FT
PT POST TOP	LED 100 BLACK MODERN POST TOP DISTRIBUTION TYPE: III FULL TOP REFLECTOR, 53W LED POST TOP LUMINAIRE, MOUNTING HEIGHT: 14-FT BLACK FIBERGLASS POLE

26 LIGHT POLE PLACEMENT DETAIL
NTS

LIGHTING SPECIFICATIONS AND ILLUSTRATIONS 3

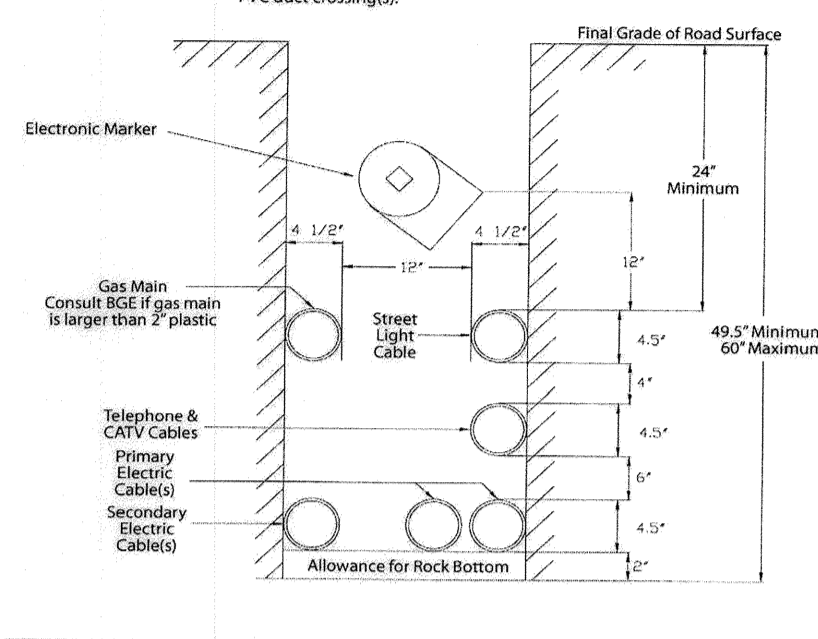
CUSTOMER INSTALLATION OF CONDUITS (CONT'D)

Road Crossing Specifications

NOTE: For street lights, 3" conduit may be used in place of 4 1/2" conduit

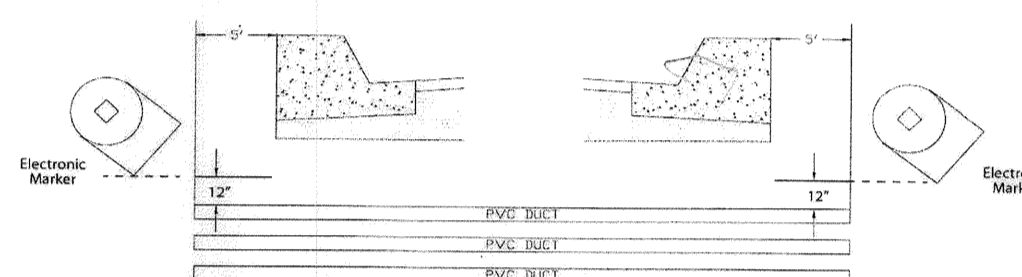
NOTES:

- A minimum 12" radial separation must be maintained between gas and any other utility.
- Allow a minimum 6" separation between primary ducts or between primary and secondary ducts.
- Place an electronic marker 12" above the end of the PVC duct crossing(s).



NOTES:

- All ducts to be 4" PVC SCH 40 unless otherwise noted. Ducts must extend a minimum 2' beyond proposed paving.
- Place an electronic marker 12" above the end of each PVC duct crossing(s).
- Install a PVC duct plug on the end of each duct crossing(s).

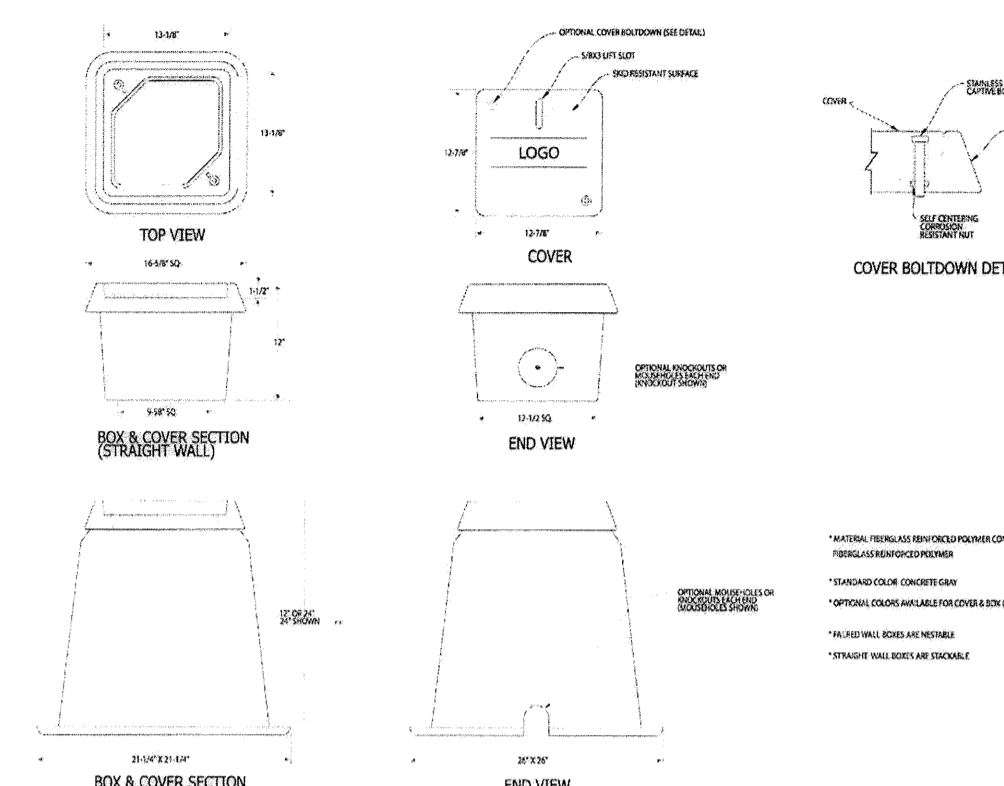


30

LIGHTING SPECIFICATIONS AND ILLUSTRATIONS 3

CUSTOMER INSTALLATION OF CONDUITS (CONT'D)

Hand Box - Sidewalk Application



Installation Guidelines

- Prepare the excavation.
 - Excavate approximately 10 inches greater around the actual outside dimension of the enclosure to be installed and 6 inches deeper than to depth will be required for installation.
 - Add 6 inches of gravel or crushed rock for drainage.
- Place enclosure in hole - top of enclosure should be at grade level.
- Fill and compact soil - fill to grade level with cover in enclosure.

Preferred Method for Cutting Holes in CDR Enclosures

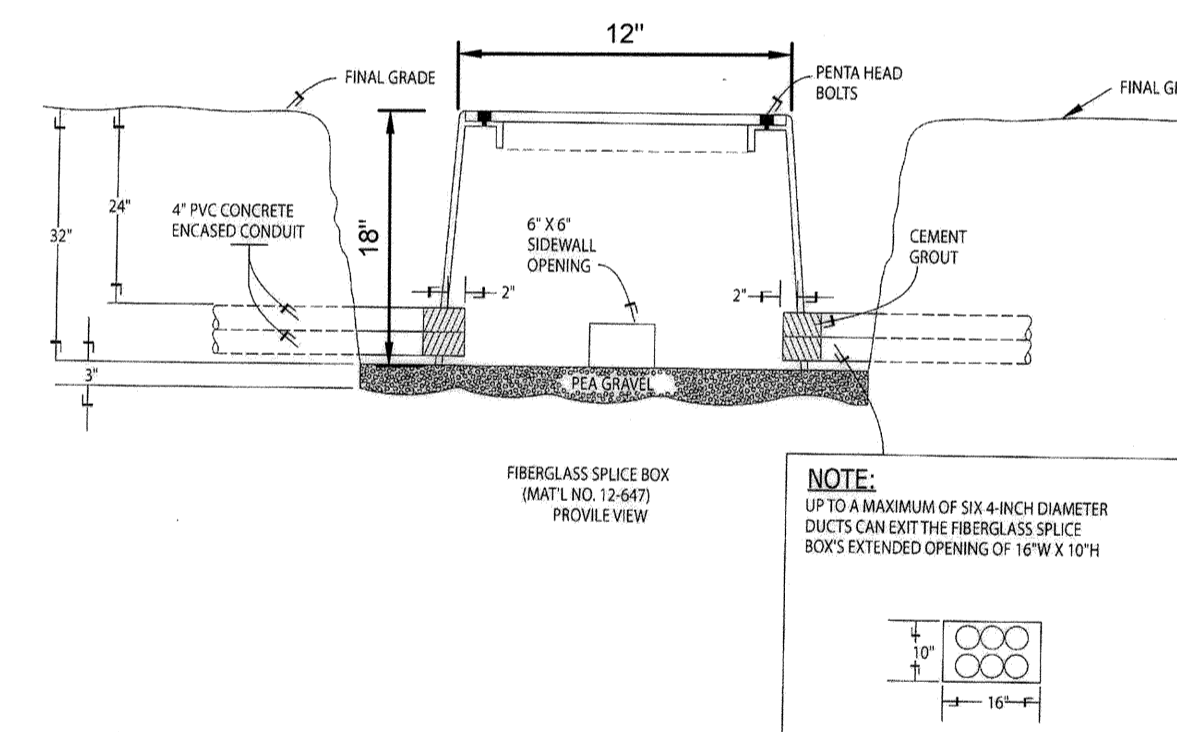
- Drill a 7/8" pilot hole with a carbide tipped drill.
- Drill hole using a hole saw. A diamond tipped hole saw will be able to cut more holes than a regular hole saw.
- Holes cut in the enclosure should not exceed more than 25% of the area of each sidewall and should not be cut into a structural reinforcing rib, corner, or box lip.

27

LIGHTING SPECIFICATIONS AND ILLUSTRATIONS 3

CUSTOMER INSTALLATION OF CONDUITS (CONT'D)

Hand Box - Grass/Dirt Application



General Information

- This fiberglass splice box must be installed only in pedestrian (grassy) areas on level ground. It must not be installed on a hill or slope.
- Excavate an area 6'W x 6'L x 36" deep (minimum) for the splice box.
- Stabilize the bottom of the excavation with 3" of pea gravel. The bottom flange of the splice box must be on a firm level foundation.
- Position the enclosure in the excavation so that the cover will be flush with final grade.
- Ducts can only enter and exit the splice box at opposite ends from each other. When necessary, the existing 6" x 6" openings in the end walls can be enlarged to accommodate multiple ducts (maximum opening 16"W x 10"H). This enlarged opening will allow up to six 4" diameter ducts (3W x 2H configuration) to enter or exit this box. However, only a maximum of eight ducts can be joined to this splice box at any time, one for the secondary main and up to seven for the service cables.
- Install the ducts no more than 2" into the splice box. Place cement grout around the ducts on the outside of the splice box to seal openings.
- Place a block of wood over side wall openings without ducts, on the outside, to prevent backfill from entering the confines of the splice box.
- Backfill evenly around the splice box with clean, dry earth. Mechanically tamp in 12" layers.
- Install fiberglass cover and secure its position with pentahead bolts.

28

27 CONDUIT AND HAND BOX INSTALLATION
NTS

APPROVED
PLANNING BOARD OF HOWARD COUNTY

Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19 Date

Chief, Division of Land Development: [Signature] 12-23-19 Date

Chief, Development Engineering Division: [Signature] 12-16-19 Date

STATE OF MARYLAND
PROFESSIONAL ENGINEER
No. 35022
Greg Fitchitt
Shanaberger & Lane

NOTICE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

Professional License # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/22/2022
Shanaberger & Lane

STATE OF MARYLAND
PROFESSIONAL ENGINEER
No. 35022
Greg Fitchitt
10/8/19

TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DRN.	AG.	CHK.	EM.	DATE	REVISION	BY	APPR.

Howard Hughes

THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044

Greg Fitchitt, President, Maryland Region
410.984.4800 - Greg.Fitchitt@howardhughes.com

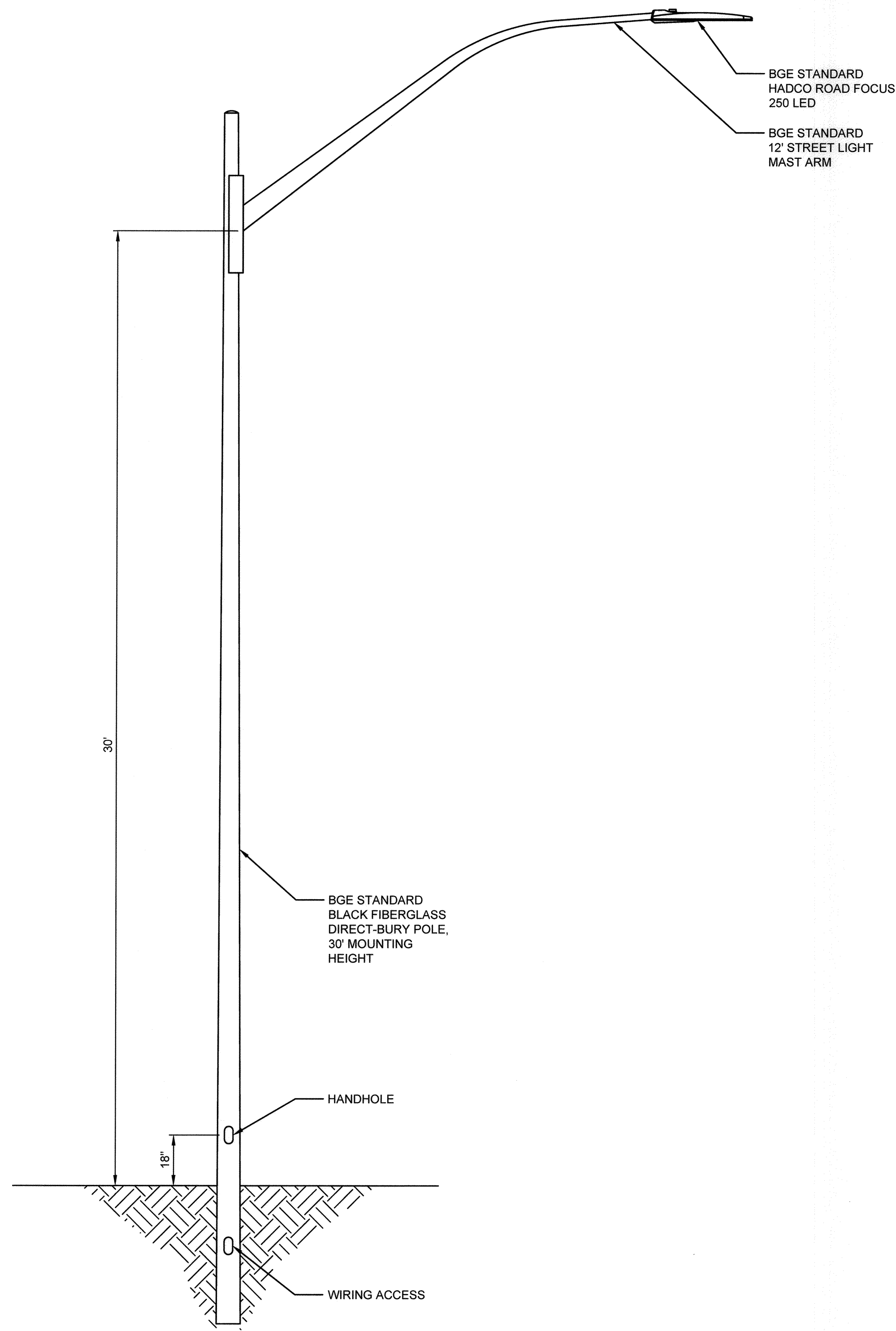
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022
EXPIRATION DATE: 12/28/19

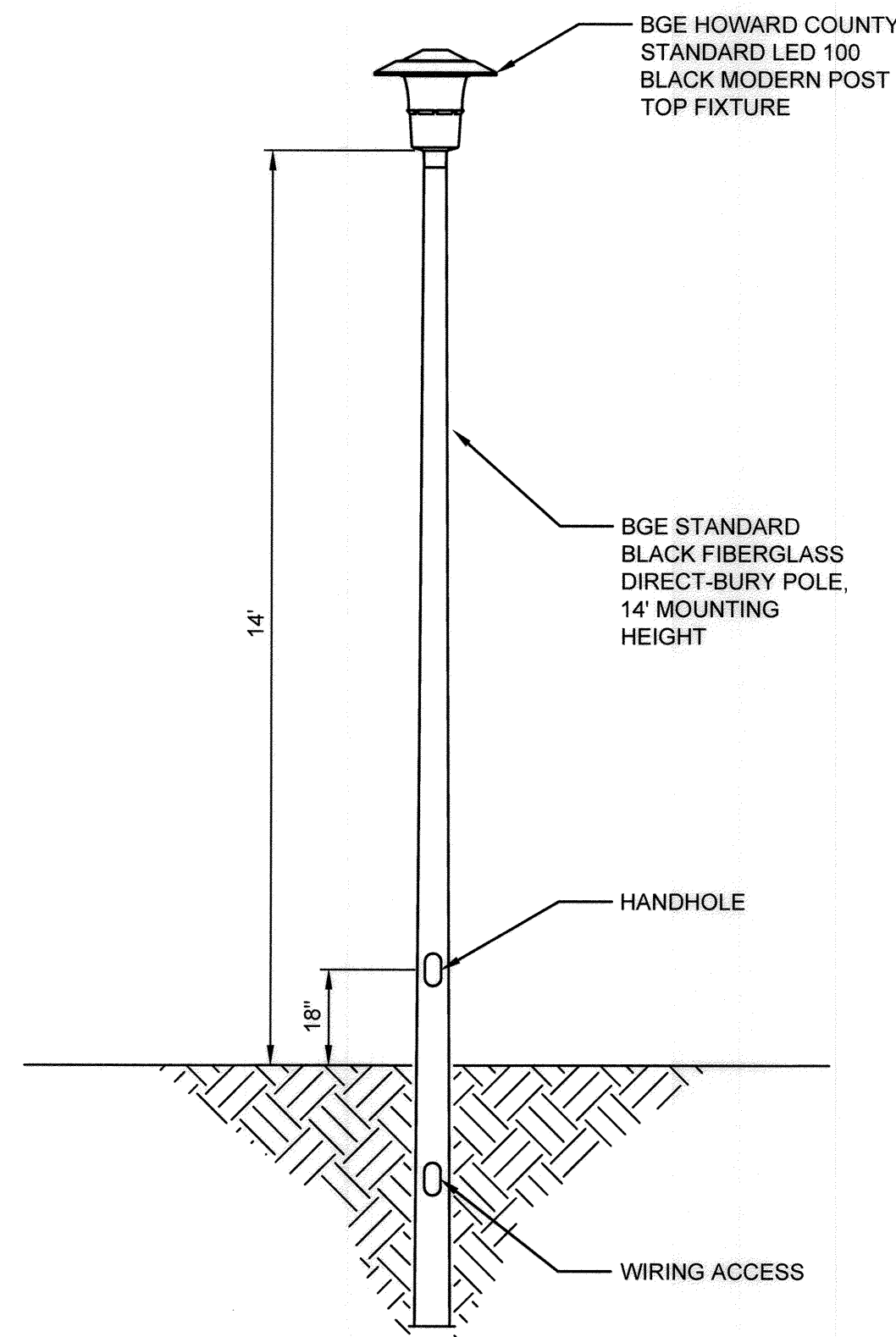
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIR.

ELECTION DISTRICT 5
HOWARD COUNTY

GENERAL DETAILS - 5		C6.5
SCALE	ZONING	TDG. FILE No.
	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	43 OF 63



COBRAHEAD ROADWAY LIGHTING



POST TOP PATHWAY LIGHTING

STATE OF MARYLAND
SCOTT SHANBERGER
Professional Engineer
No. 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanaberg & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY

Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-17
Date: 12-23-19
Chief, Division of Land Development: [Signature]
Date: 12-16-19
Chief, Development Engineering Division: [Signature]
Date: 12-16-19

28 PATHWAY AND STREET LIGHTING
NTS

STATE OF MARYLAND
ALLISTON BECK
Professional Engineer
No. 35022
10/8/19

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

NO.	REVISION	DATE	BY	APPR.

Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.964.4800 - Greg.Fitchitt@howardhughes.com

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EXPIRATION DATE: 12/28/19

STATE OF MARYLAND
ALLISTON BECK
Professional Engineer
No. 35022
7/10/19

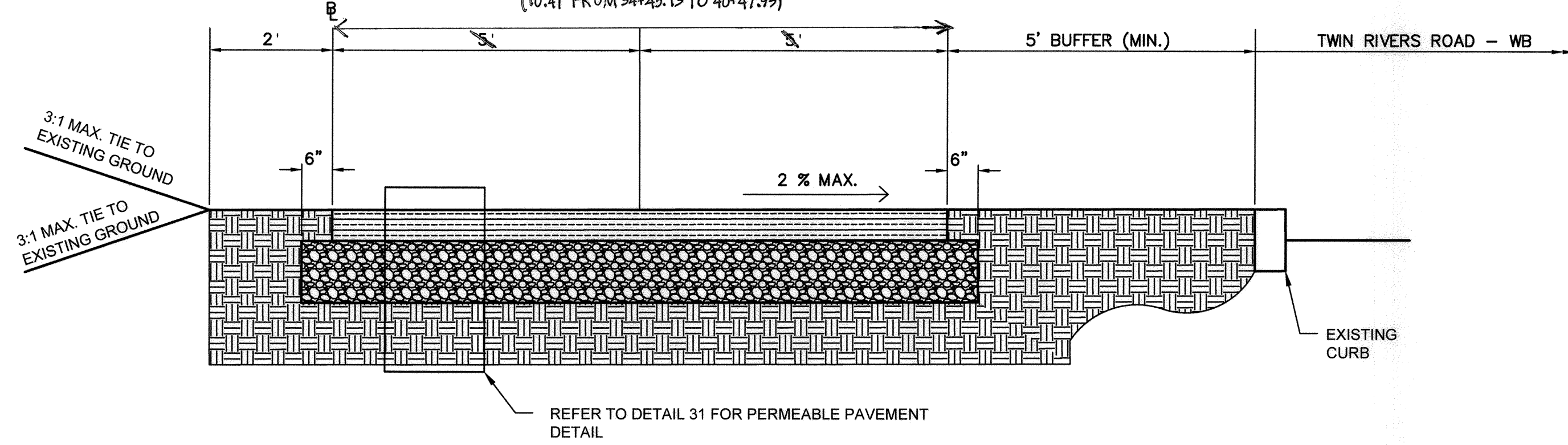
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIR.

ELECTION DISTRICT 5

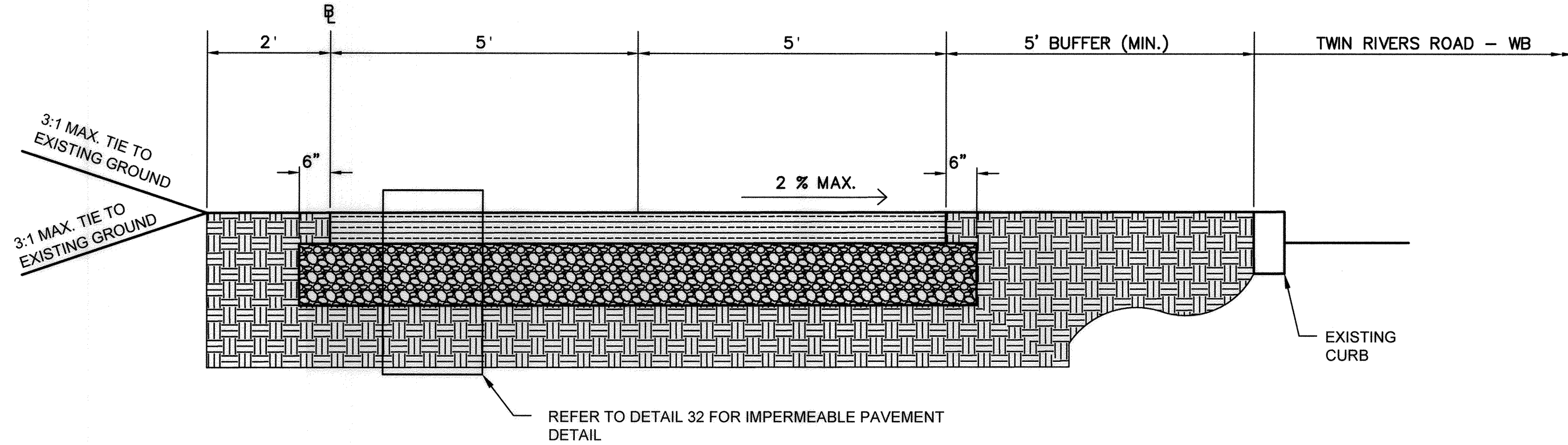
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	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	44 OF 63

HOWARD COUNTY

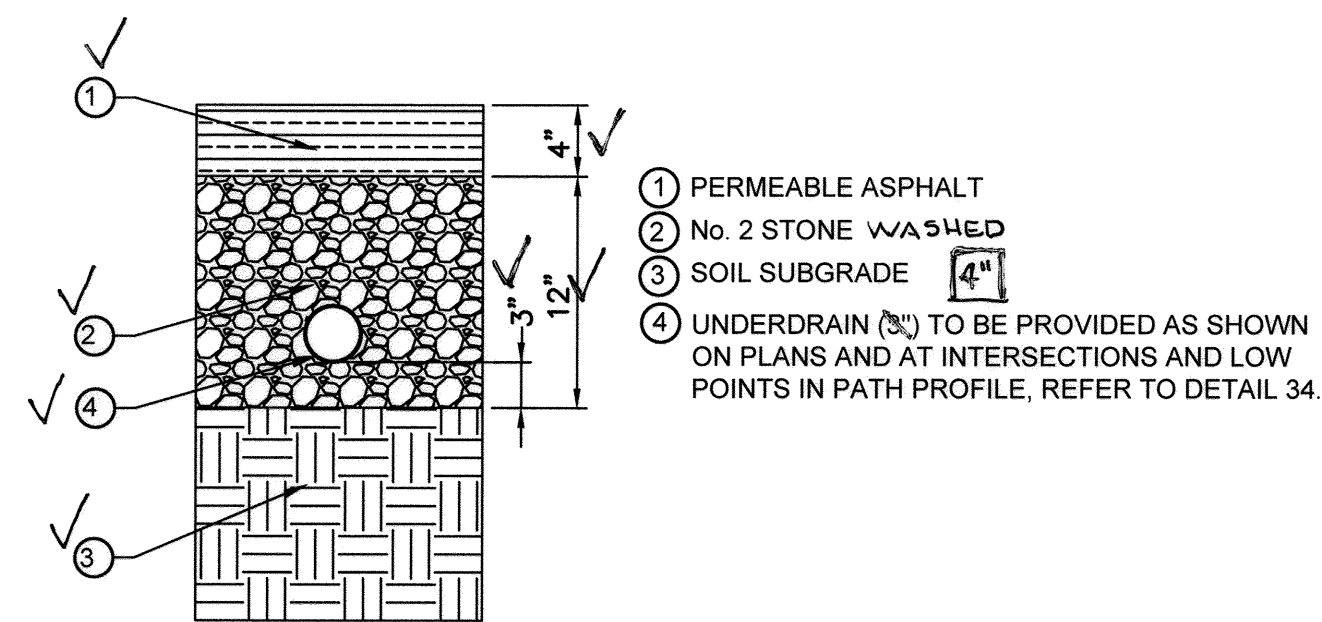
AVERAGE PERVIOUS PAVING WIDTH
 (10.27' FROM 22+16.85 TO 24+02.25)
 (10.11' FROM 25+15.07 TO 26+70.89)
 (10.28' FROM 32+70.43 TO 33+46.85)
 (10.41' FROM 34+45.13 TO 40+47.99)



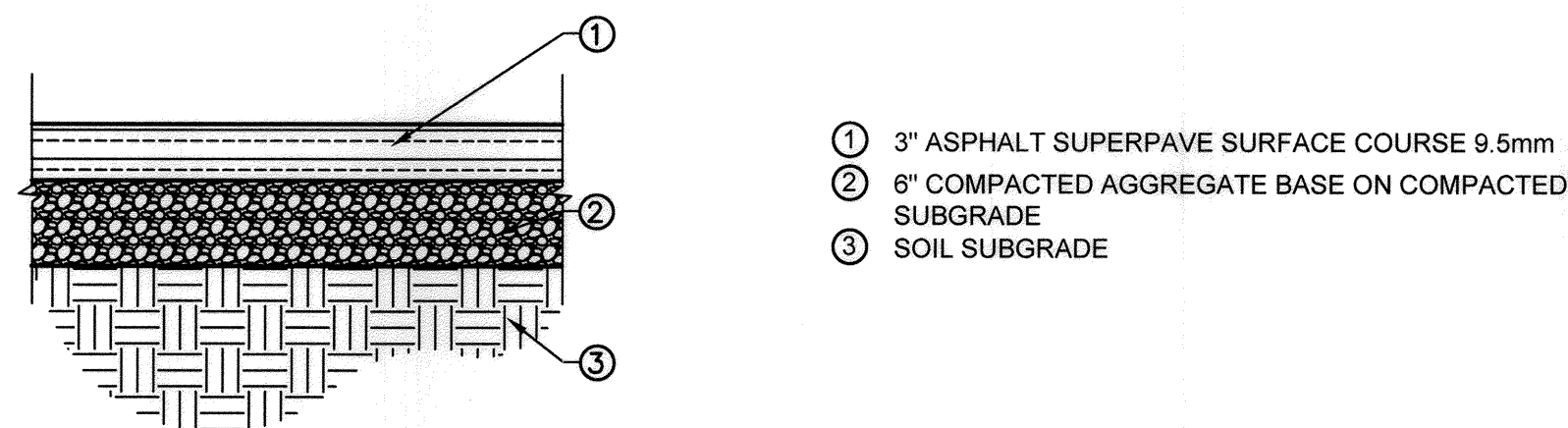
29 MULTI-USE PATH PERMEABLE PAVEMENT SECTION
 NTS



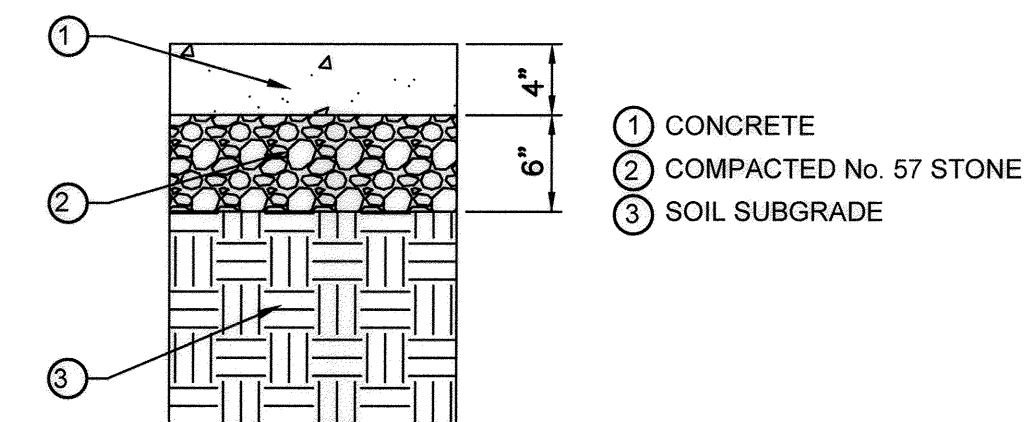
30 MULTI-USE PATH - IMPERVIOUS PAVEMENT SECTION
 NTS



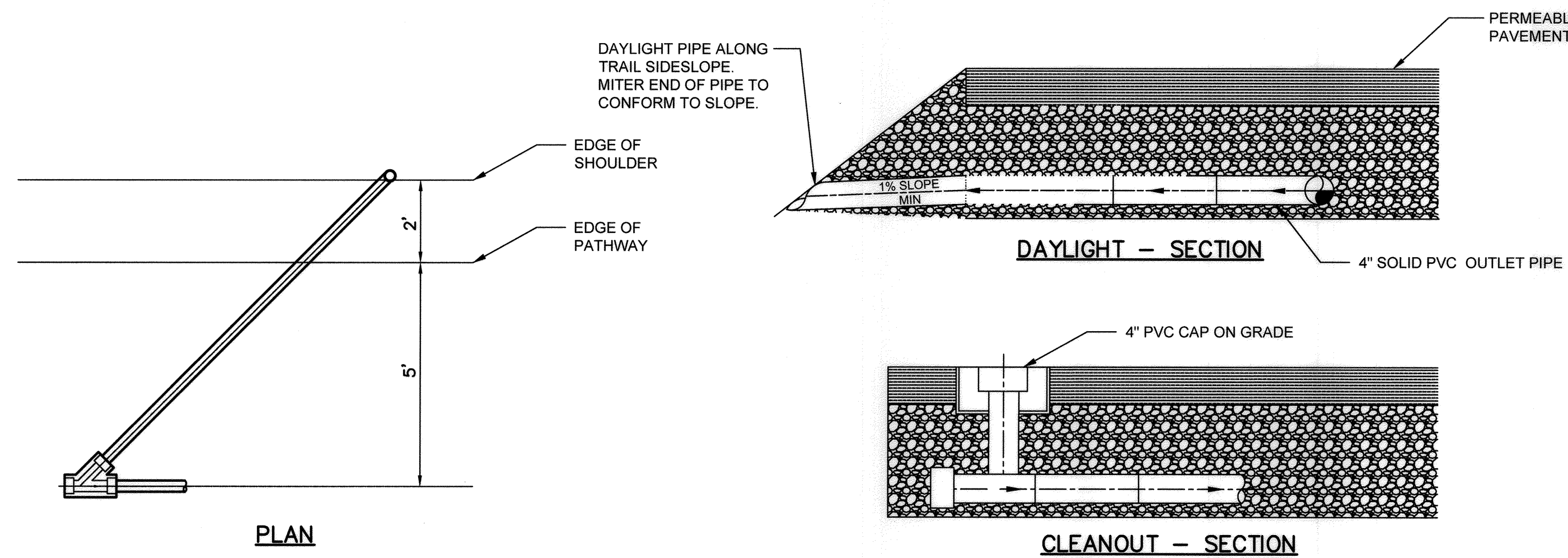
31 PERMEABLE ASPHALT PAVING ENLARGEMENT
 NTS



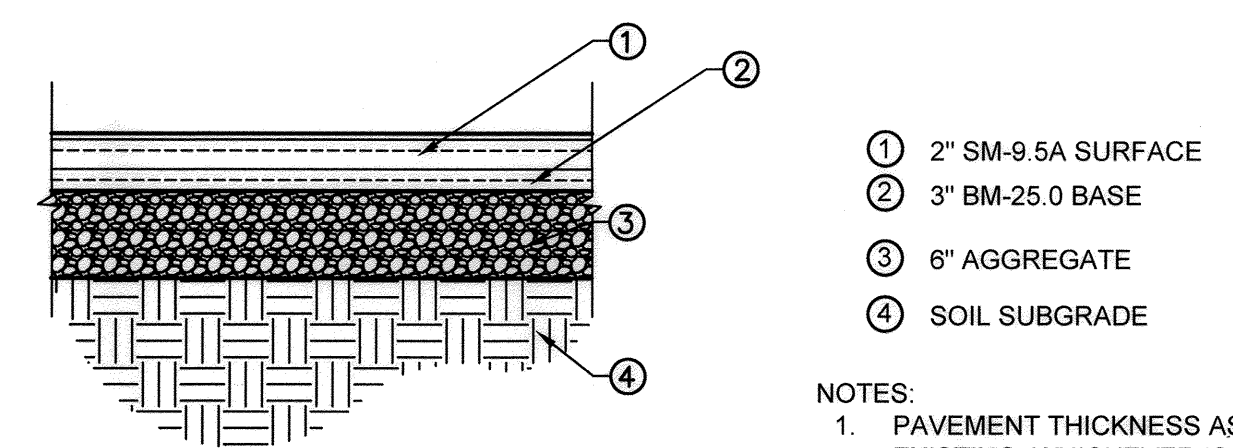
32 LIGHT DUTY ASPHALT PAVEMENT ENLARGEMENT
 NTS



33 CONCRETE PAVING ENLARGEMENT
 NTS



34 UNDERDRAIN CLEANOUT
 NTS



35 FULL DEPTH PAVEMENT REPAIR
 NTS

NOTES:
 1. PAVEMENT THICKNESS AS SHOWN, OR TO MATCH EXISTING, WHICHEVER IS GREATER.

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITIES SHOWN ON THIS PLAN MEET THE CURRENT APPROVED STANDARDS AND SPECIFICATIONS OF THE STATE OF MARYLAND.
 GREG FITCHITT
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 LICENSE NO. 33022
 EXPIRATION DATE: 12/28/19

STATE OF MARYLAND
 ALLIANCE
 GREG FITCHITT
 PROFESSIONAL ENGINEER
 LICENSE NO. 33022
 EXPIRATION DATE: 12/28/19

APPROVED
 PLANNING BOARD OF HOWARD COUNTY

Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
 Chief, Division of Land Development: [Signature] 12-23-19
 Chief, Development Engineering Division: [Signature] 12-16-19

TOOLE DESIGN
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 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
 410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
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 EXPIRATION DATE: 12/28/19

STATE OF MARYLAND
 ALLIANCE
 GREG FITCHITT
 PROFESSIONAL ENGINEER
 LICENSE NO. 33022
 EXPIRATION DATE: 12/28/19

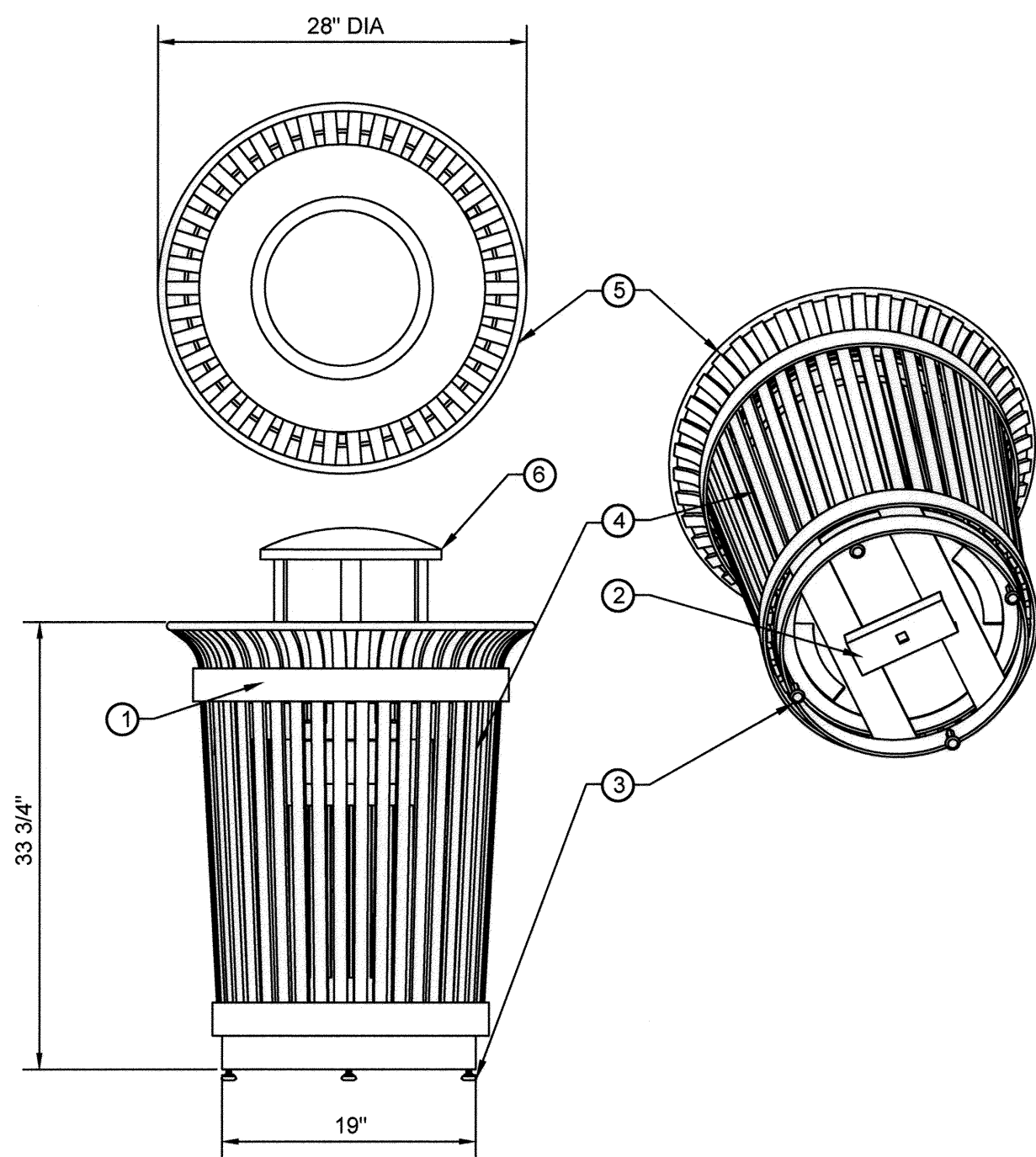
WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
 COLUMBIA, MD RIDGE CIR.

GENERAL DETAILS - 7 C6.7

SCALE AS SHOWN	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 45 OF 63

HOWARD COUNTY

ELECTION DISTRICT 5

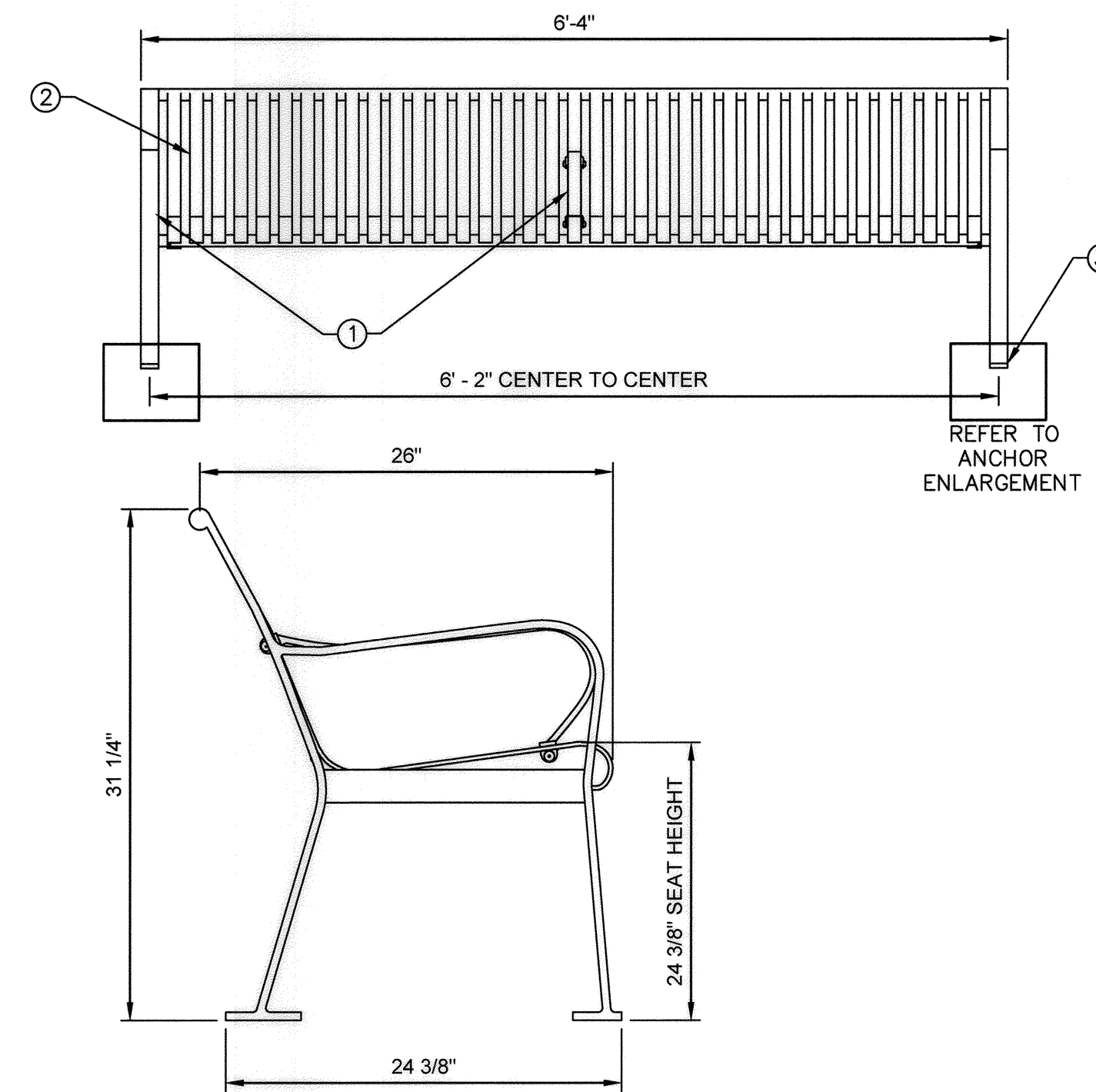


- ① (2) 1/4" x 2-1/2" HORIZONTAL SOLID STEEL BANDS
- ② 3/4" SQUARE CENTER ANCHOR BOLT HOLE
- ③ (4) LEVELING FEET WITH A 3/8" DIAMETER THREADED STEEL SHAFT
- ④ (42) 3/8" X 1" VERTICAL SOLID STEEL BARS
- ⑤ 5/8" SOLID STEEL TOP RING
- ⑥ RAIN BONNET LID

NOTES:

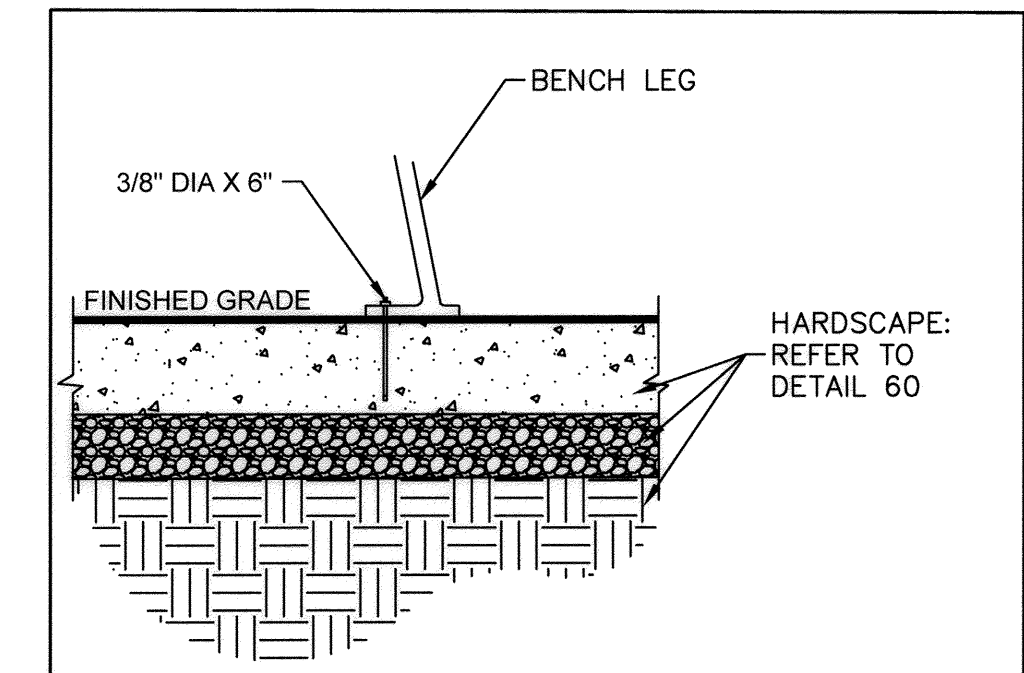
1. MATERIALS
 - A. TYPE: STEELITES RB SERIES RB-36, 36-GALLON, OR APPROVED EQUAL
 - B. COLOR: BLACK
 - C. FINISH: STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C POLYESTER POWDER COATINGS
2. TOP LOAD LIDS ARE SECURED WITH VINYL COATED GALVANIZED STEEL AIRCRAFT CABLE. CABLE IS LOOPED AROUND WELDED IN PLACE ATTACHMENT BRACKETS AND CRIMPED IN PLACE.
3. SIDE DOOR LID IS RIVITED IN PLACE.
4. PRODUCT MUST BE PERMANENTLY AFFIXED TO GROUND WITH ANCHOR BOLTS.
5. PLASTIC INNER LINERS ARE MOLDED ON TOOLING
6. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

36 TRASH RECEPTACLE
NTS



NOTES:

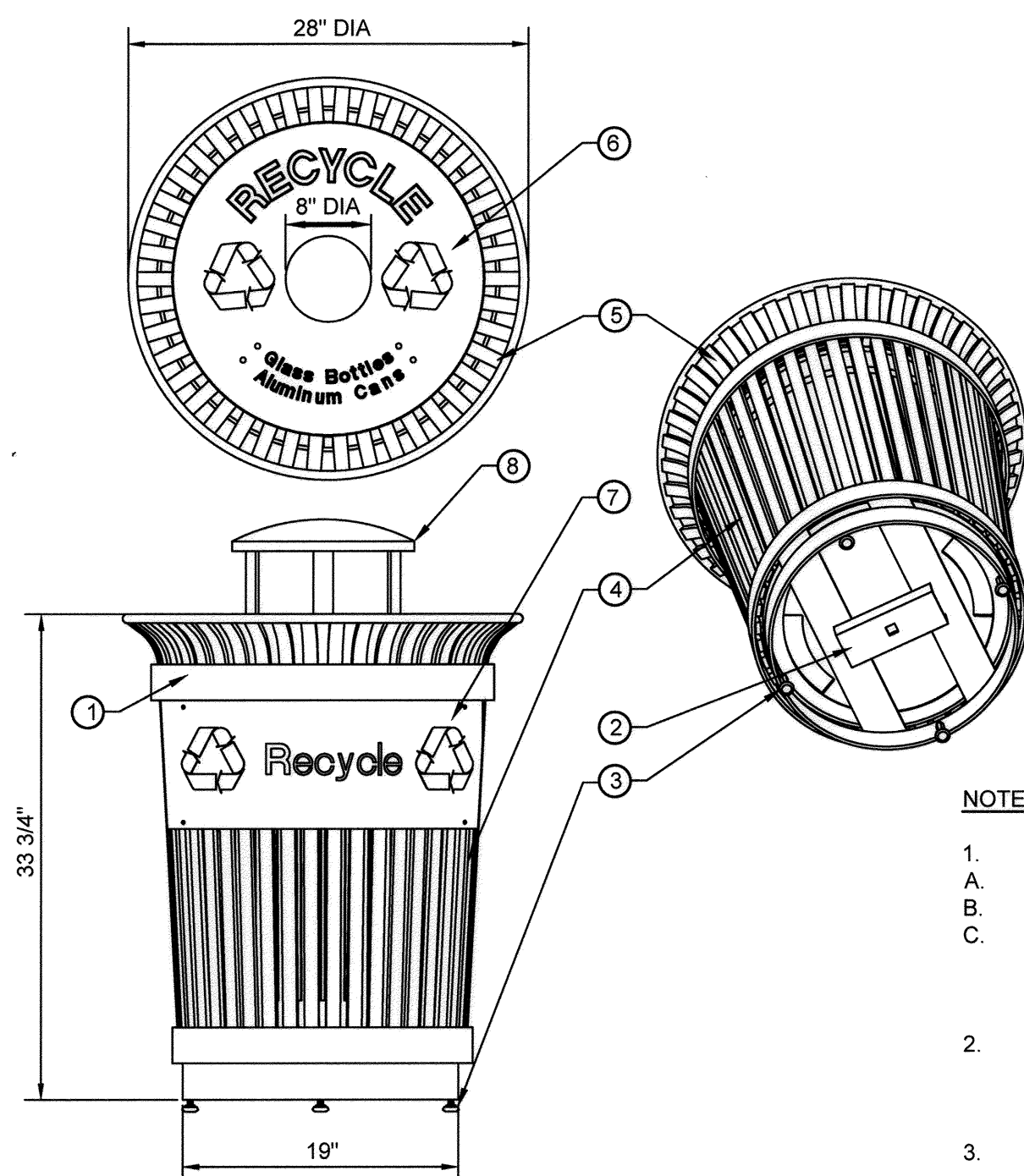
1. MATERIALS
 - A. TYPE: STEELITES RB SERIES RB-28, 6' LENGTH BENCH, OR APPROVED EQUAL
 - B. COLOR: BLACK
 - C. FINISH: STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER COATED WITH T.G.I.C. POLYESTER POWDER COAT.
2. IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT THE LOCAL CODES FOR REGULATIONS.
3. ANCHOR BOLTS NOT PROVIDED BY MANUFACTURER. PLACE ANCHOR BOLTS THROUGH 3/8" DIA. HOLE DRILL INTO PAVING USING A CARBIDE BIT. FASTEN ANCHOR SNUG AGAINST SITE FURNITURE.
4. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.



- ① 1/2" to 2" SOLID STEEL END AND CENTER ARMRESTS
- ② (37) STEEL SLATS ARE FORMED FROM 1/4" X 1-1/2" SOLID STEEL BARS
- ③ BENCH ANCHOR: 3/8" DIA. X 6" NONCORROSIVE SLEEVE ANCHOR WITH ROUND HEAD AT EACH LEG [REFER TO ENLARGEMENT]

ANCHOR ENLARGEMENT

37 BENCH
NTS

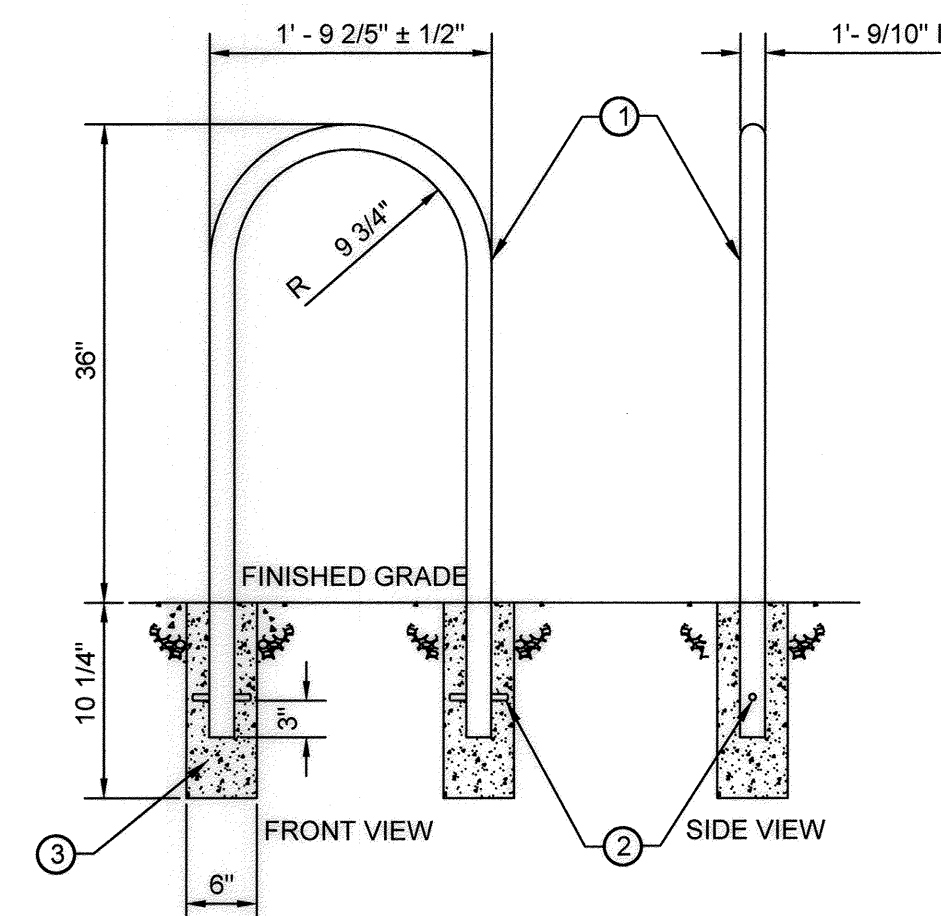


- ① (2) 1/4" x 2-1/2" HORIZONTAL SOLID STEEL BANDS
- ② 3/4" SQUARE CENTER ANCHOR BOLT HOLE
- ③ (4) LEVELING FEET WITH A 3/8" DIAMETER THREADED STEEL SHAFT
- ④ (42) 3/8" X 1" VERTICAL SOLID STEEL BARS
- ⑤ 5/8" SOLID STEEL TOP RING
- ⑥ RECYCLING LID WITH 18" STENCIL GAUGE
- ⑦ RECYCLING PLAQUE AFFIXED TO OUTSIDE OF SOLID STEEL BANDS
- ⑧ RAIN BONNET LID

NOTES:

1. MATERIALS
 - A. TYPE: STEELITES RB SERIES RB-36, 36-GALLON, OR APPROVED EQUAL
 - B. COLOR: BLUE
 - C. FINISH: STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C POLYESTER POWDER COATING
2. TOP LOAD LIDS ARE SECURED WITH VINYL COATED GALVANIZED STEEL AIRCRAFT CABLE. CABLE IS LOOPED AROUND WELDED IN PLACE ATTACHMENT BRACKETS AND CRIMPED IN PLACE.
3. SIDE DOOR LID IS RIVITED IN PLACE.
4. PRODUCT MUST BE PERMANENTLY AFFIXED TO GROUND WITH ANCHOR BOLTS.
5. PLASTIC INNER LINERS ARE MOLDED ON TOOLING
6. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

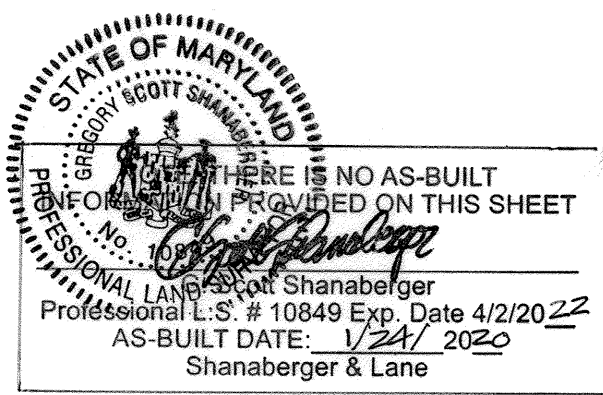
38 RECYCLING RECEPTACLE
NTS



NOTES:

1. MATERIALS
 - A. TYPE: INVERTED U SERIES SU-15E: 1.5" DIA. STEEL PIPE, EMBEDDED MOUNT REF # 474-022, OR APPROVED EQUAL
 - B. COLOR: BLACK
 - C. FINISH: THERMOPLASTIC POWDER COAT - T
2. PLASTIC INNER LINERS ARE MOLDED ON TOOLING
3. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

39 BICYCLE RACK
NTS



THIS SHEET CONTAINS NO AS-BUILT INFORMATION UNLESS PROVIDED ON THIS SHEET.
 Greg Fitchitt
 Greg Fitchitt, Professional Engineer
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 12/24/2020
 Shanabarger & Lane

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

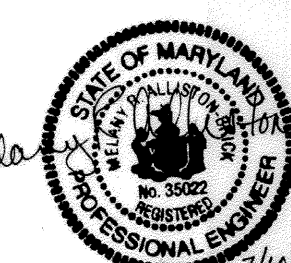
Director: [Signature] 12-24-19
 Date: 12-23-19
 Chief, Division of Land Development: [Signature]
 Chief, Development Engineering Division: [Signature] 12-16-19
 Date: 12-16-19

TOOLE DESIGN
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DES. DPB DRN. AG CHK. EM DATE REVISION BY APPR.

Howard Hughes
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 COLUMBIA, MD 21044
 Greg Fitchitt, President, Maryland Region
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PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3902, EXPIRATION DATE: 12/28/19

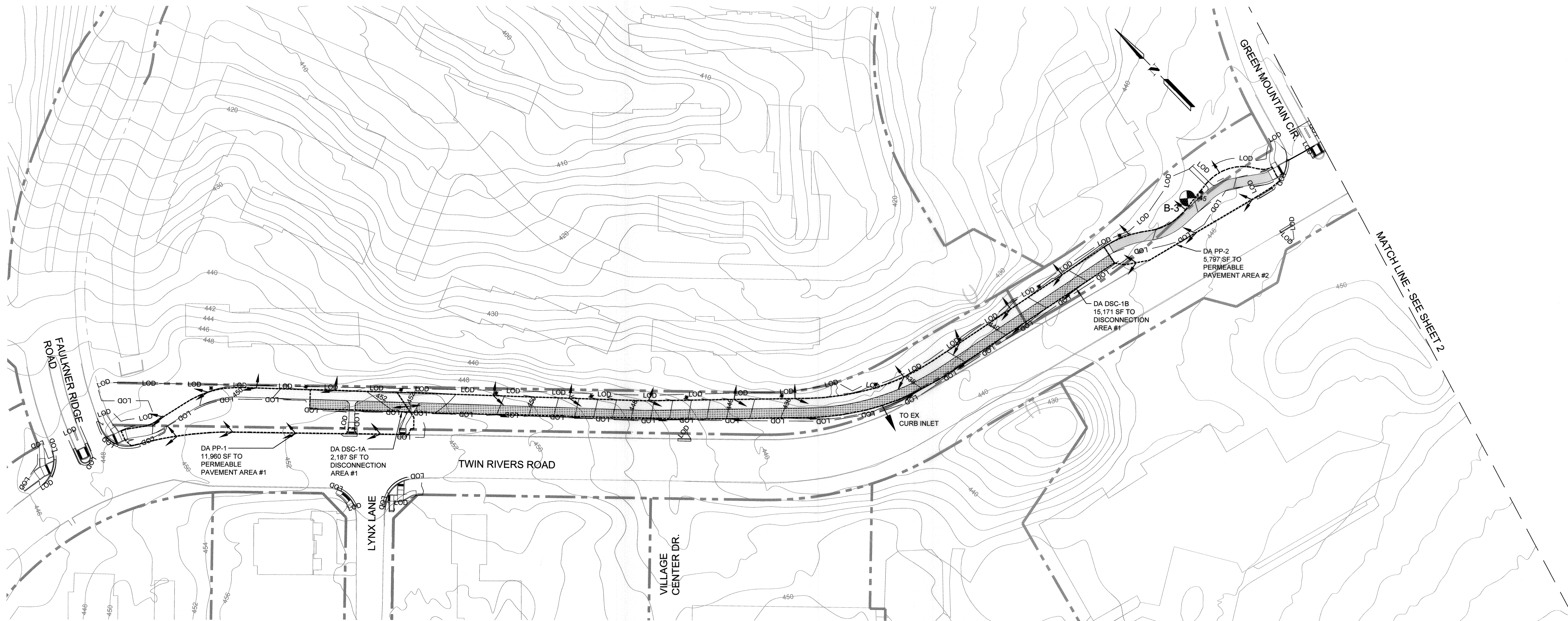


WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
 COLUMBIA, MD

GENERAL DETAILS - 8		C6.8
SCALE AS SHOWN	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 46 OF 63

ELECTION DISTRICT 5

HOWARD COUNTY

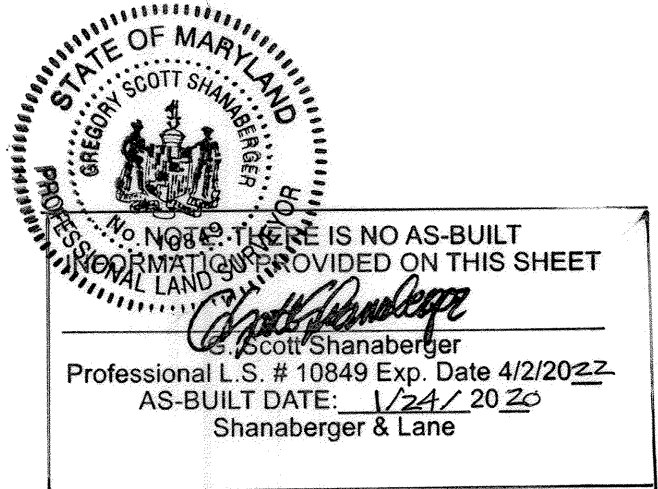


- NOTES:**
1. NO CHANGE TO EXISTING DRAINAGE PATTERN AS A RESULT OF PROPOSED IMPROVEMENTS.
 2. NO GROUND WATER OR ROCK WAS ENCOUNTERED DURING EXCAVATION FOR INFILTRATION TEST.

AVERAGE INFILTRATION RATE

TEST HOLE	IN/HR
B-3	3.0
B-5	0.3

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

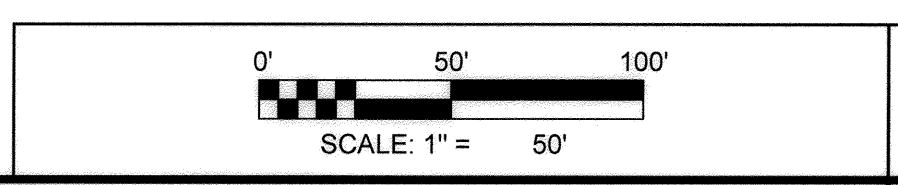
Director: [Signature] Date: 12-24-19

Chief, Division of Land Development: [Signature] Date: 12-23-19

Chief, Development Engineering Division: [Signature] Date: 12-16-19



DRAINAGE AREA	LAWN AREA	PERMEABLE PAVEMENT AREA	IMPERVIOUS AREA	NOTES
PP-1	8,505 SF	2,063 SF	1,392 SF	INCLUDES DSC-1A
DSC-1A	238 SF	0 SF	343 SF	DRAINS TO PP-1
DSC-1B	8,313 SF	0 SF	8,458 SF	DRAINS TO EX CURB INLET
PP-2	3,744 SF	2,053 SF	0 SF	



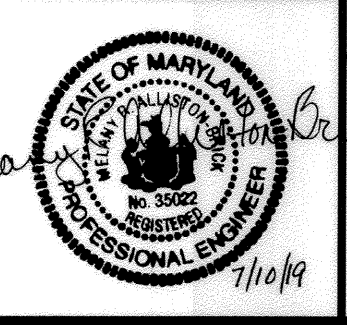
DRAINAGE AREA - 1 C7.1

TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

Howard Hughes.
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Filchitt, President, Maryland Region
410.984.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 3922 EXPIRATION DATE: 12/28/19

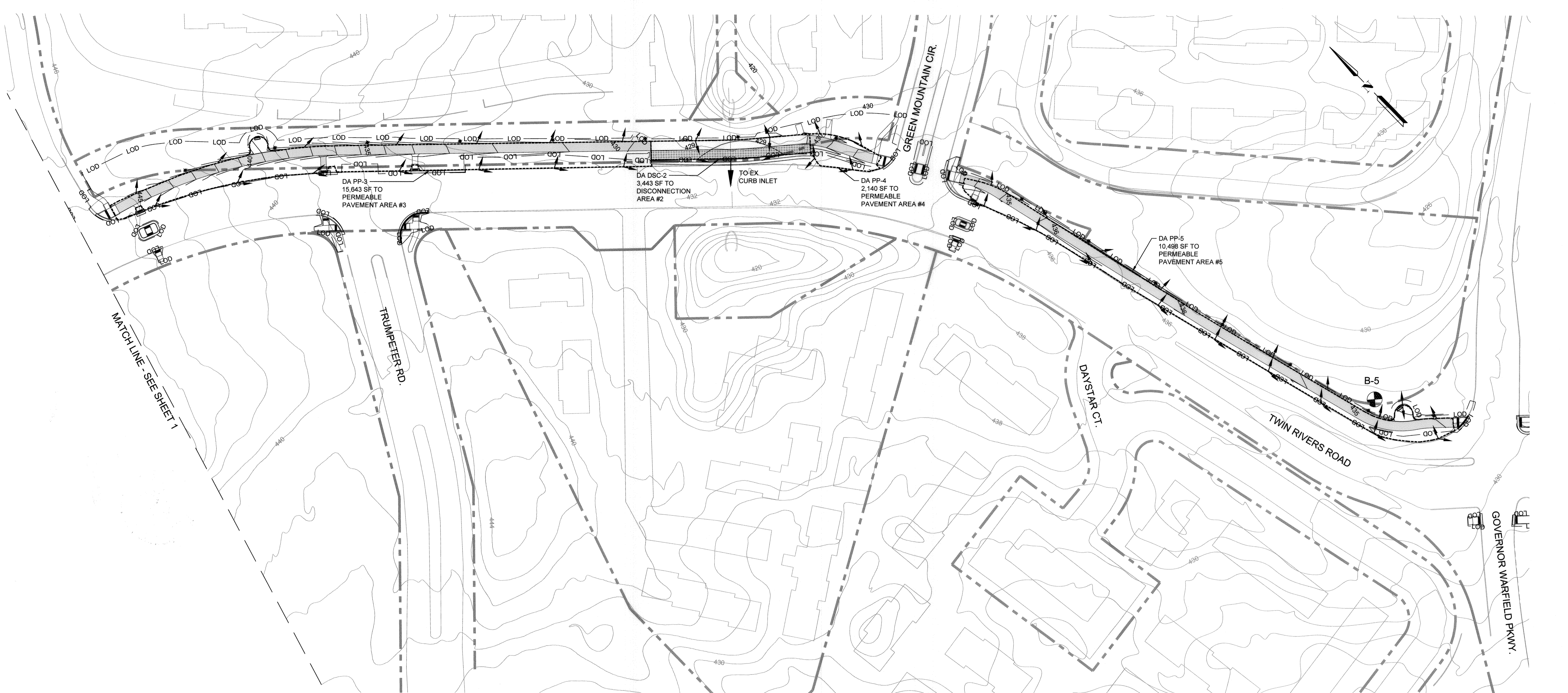


WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER RIDGE CIR.
COLUMBIA, MD

SCALE	ZONING	TDG. FILE No.
1"=50'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	47 OF 63

ELECTION DISTRICT 5

HOWARD COUNTY



AVERAGE INFILTRATION RATE

TEST HOLE	IN/HR
B-3	3.0
B-5	0.3

DRAINAGE AREA	LAWN AREA	PERMEABLE PAVEMENT AREA	IMPERVIOUS AREA	NOTES
PP-3	8,451 SF	7,192 SF	0 SF	
DSC-2	1,724 SF	0 SF	1,719 SF	DRAINS TO EX CURB INLET
PP-4	1,345 SF	795 SF	0 SF	
PP-5	4,175 SF	6,323 SF	0 SF	

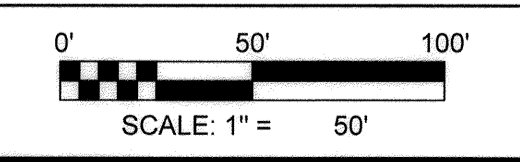
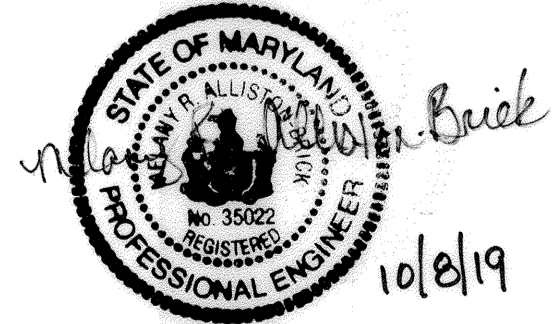
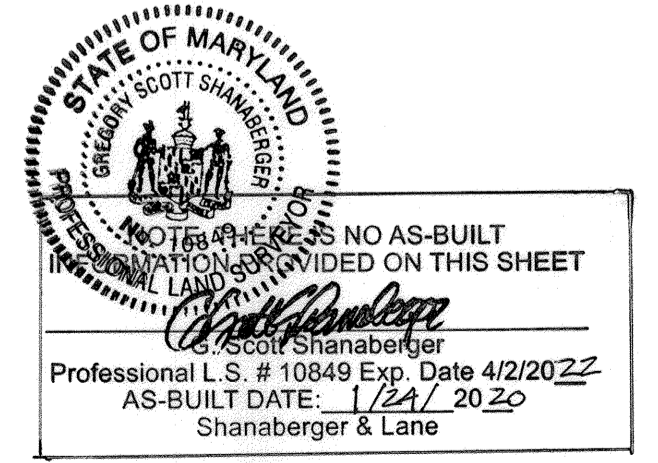
NOTES:

- NO CHANGE TO EXISTING DRAINAGE PATTERN AS A RESULT OF PROPOSED IMPROVEMENTS.
- NO GROUND WATER OR ROCK WAS ENCOUNTERED DURING EXCAVATION FOR INFILTRATION TEST.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *[Signature]* 12-24-19
 Date: 12-23-19

Chief, Division of Land Development: *[Signature]*
 Chief, Development Engineering Division: *[Signature]* 12-16-19
 Date: 12-16-19



DRAINAGE AREA - 2 C7.2

TOOLE DESIGN

8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
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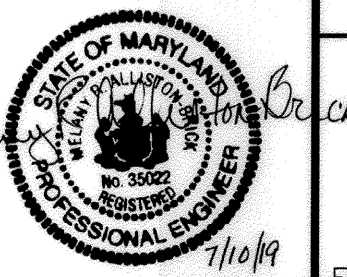
DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

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PROFESSIONAL CERTIFICATION

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WILDE LAKE MULTI-USE PATHWAY
 GOVERNOR WARFIELD PKWY. TO LYNX LANE CAULKNER RIDGE CIR.
 COLUMBIA, MD

SCALE	ZONING	TDG. FILE No.
1"=50'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	48 OF 63

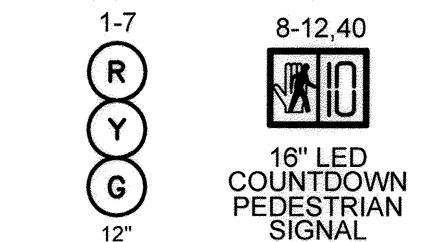
ELECTION DISTRICT 5

HOWARD COUNTY

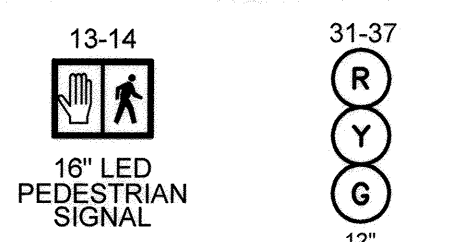
CONSTRUCTION DETAILS

- A. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (BROWN) WITH FOUNDATION STANDARD NO MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- B. REMOVE EXISTING PEDESTRIAN SIGNAL POLE, PEDESTRIAN SIGNAL HEAD, PUSH BUTTON AND FOUNDATION 12 IN BELOW GROUND (OR DEEPER AS NEEDED TO INSTALL ADJACENT INFRASTRUCTURE) AND BACK FILL.
- C. REMOVE EXISTING TRAFFIC SIGNAL POLE, MAST ARMS, CONTROLLER CABINET, LIGHTING ARM, TRAFFIC SIGNALS, VIDEO DETECTION, D3-1 SIGN, AND FOUNDATION 12 BELOW GROUND (OR DEEPER AS NEEDED TO INSTALL ADJACENT INFRASTRUCTURE) AND BACKFILL.
- D. REMOVE EXISTING TRAFFIC SIGNAL POLE, MAST ARM, LIGHTING ARM, TRAFFIC SIGNALS, D3-1 SIGNS AND FOUNDATION 12 BELOW GROUND (OR DEEPER AS NEEDED TO INSTALL ADJACENT INFRASTRUCTURE) AND BACKFILL.
- E. INSTALL HANDHOLE.
- F. REMOVE HANDHOLE.
- G. REMOVE EXISTING PUSH BUTTON, PEDESTRIAN SIGNAL POLE, AND FOUNDATION. INSTALL CONCRETE FOUNDATION TO MEET STANDARDS MD 801.01 AND 801.02, WITH TRAFFIC SIGNAL POLE (BROWN), TWIN 50/50 MAST ARM, TRAFFIC SIGNALS, LIGHTING ARM AND LUMINAIRE, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS. (INSTALL 1-3IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- H. INSTALL CONCRETE FOUNDATION PER STANDARD NO MD 801.01, WITH TRAFFIC SIGNAL POLE (BROWN), 50' MAST ARM, TRAFFIC SIGNALS, LIGHTING ARM AND LUMINAIRE, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS. (INSTALL 1-3IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- I. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT, TRENCHED.
- J. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT, SLOTTED.
- K. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT, TRENCHED.
- L. ERADICATE EXISTING CROSSWALK.
- M. ERADICATE EXISTING STOP BAR.
- N. ERADICATE EXISTING DOUBLE YELLOW CENTERLINE TO STOPBAR.
- O. INSTALL PROPOSED CROSSWALK, 10' WIDTH.
- P. INSTALL PROPOSED CROSSWALK, 12' WIDTH.
- Q. INSTALL PROPOSED 24" STOPBAR WITH EDGE OF STOPBAR 4' IN ADVANCE OF CROSSWALK EDGE.
- R. INSTALL VIDEO DETECTION CAMERA.
- S. INSTALL TWO 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT, TRENCHED.
- T. INSTALL CONTROLLER CABINET WITH UNINTERRUPTED POWER SERVICE.
- U. INSTALL METERED SERVICE PEDESTAL.
- V. TREE TO BE REMOVED.
- W. ABANDON EXISTING LOOP DETECTORS, DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
- X. INSTALL PROPOSED STREET NAME SIGN.
- Y. EXISTING POST TOP LIGHT TO REMAIN.
- Z. ERADICATE EX. 4" WHITE PAVEMENT MARKING TO STOPBAR.
- AA- DISCONNECT, PULL BACK 1/4 FROM CROSS FOX LANE TO THE EXISTING HANDHOLE (REPLACE FRAME/COVER) AND REROUTE THROUGH NEW CONDUIT
- AB- DISCONNECT, PULL BACK 1/4 FROM CROSS TRUMPETER RD TO THE EXISTING HANDHOLE (REPLACE FRAME/COVER) AND REROUTE THROUGH NEW CONDUIT
- AC- ABANDON EXISTING LOOP DETECTORS, DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER. REPLACE IN KIND WITH NEW LOOP DETECTOR.
- AD- INSTALL 6"x8" LOOP DETECTOR PER STANDARDS NO MD 810.01 AND MD 810.02. CONNECT TO PROPOSED CONTROLLER THROUGH EXISTING HANDHOLES.
- AE- USE EXISTING HANDHOLE. REPLACE FRAME AND COVER PER STANDARD NO. MD 811.02.
- AF- USE EXISTING BGE TRANSFORMER TO PROVIDE POWER. CONTRACTOR SHALL COORDINATE WITH BGE. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT, TRENCHED, WITH 3/4" PULL STRING WITHIN 5' OF BGE'S EXISTING TRANSFORMER. CONTRACTOR SHALL CONTACT BGE TO ARRANGE SERVICE AND PAY FEES.
- AG - PROPOSED STREET LIGHT POLE AND LUMINAIRE TO BE INSTALLED BY OTHERS.

PROPOSED SIGNALS



EXISTING SIGNALS TO BE REMOVED



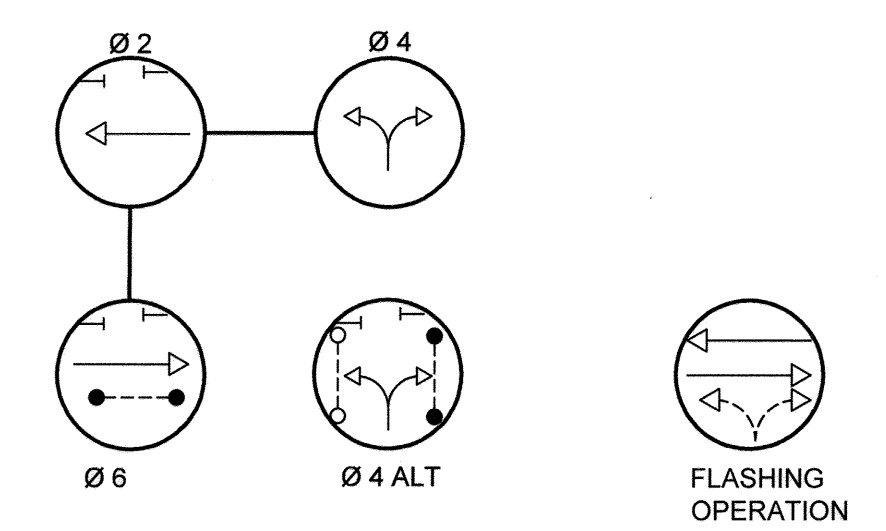
PROPOSED VIDEO DETECTION



EXISTING VIDEO DETECTION TO BE REMOVED

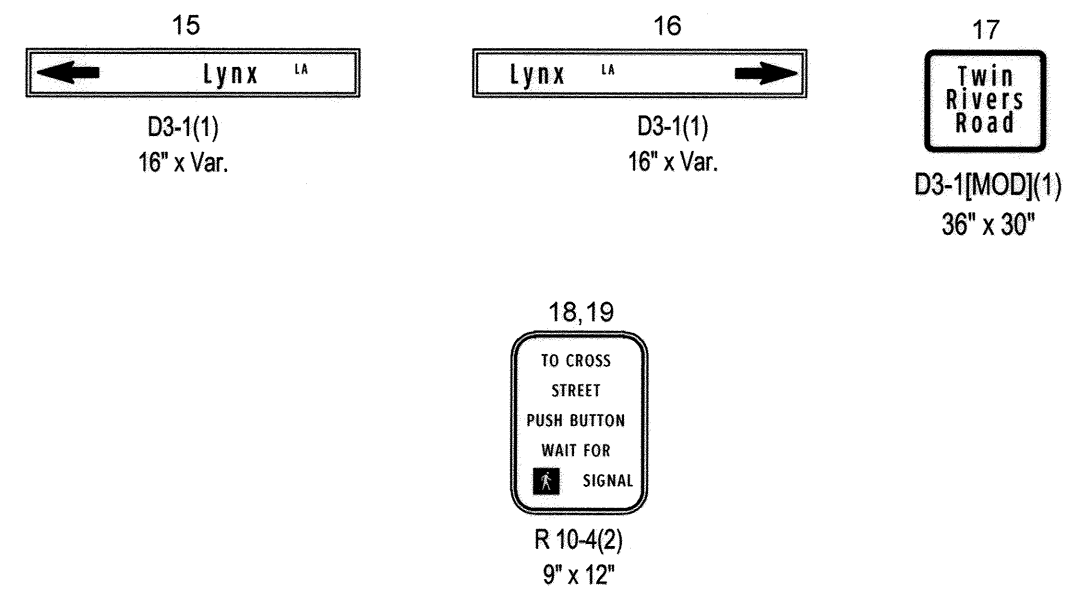


NEMA PHASING

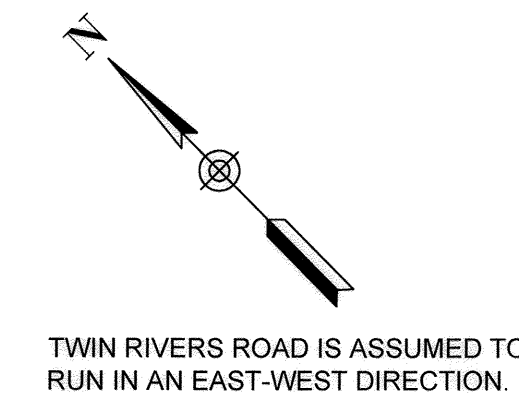
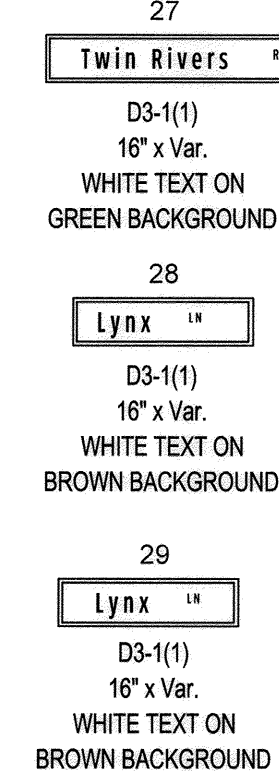
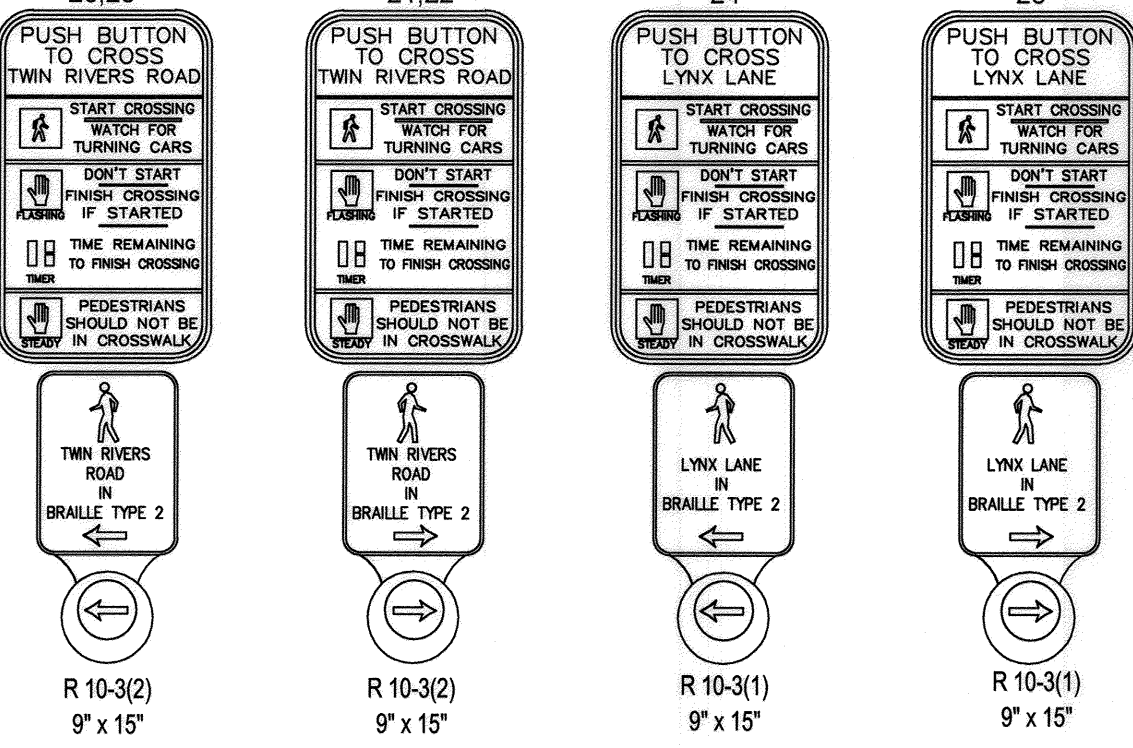


NEMA NOTES:
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

EXISTING SIGNS TO REMOVE



PROPOSED SIGNS



GENERAL NOTES

1. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, OR HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS. TO MEET CLEARANCES AS SPECIFIED IN MD 816.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
2. ALL UTILITIES SHOWN ARE SCHEMATIC AND BASED ON THE BEST AVAILABLE DATA. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE ENGINEER.
3. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED INCLUDING CONTROLLER, MMU, UPS SHALL BE HANDED OVER TO HOWARD COUNTY UPON COMPLETION OF THE NEW SIGNAL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
5. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
6. PUSHBUTTONS SHALL BE LOCATED SO THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" x 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
7. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
8. PUSHBUTTON ARROWS SHALL BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
9. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS SHALL MEET REQUIREMENTS OF MARYLAND MUTCD SEC. 4E09 AND FIG. 4E-2, AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS AND CONTACT THE ENGINEER.
10. CONTRACTOR SHALL VERIFY PROPOSED GEOMETRICS PRIOR TO INSTALLING SIGNAL EQUIPMENT.
11. ALL HANDHOLES SHALL BE INSTALLED AT FINAL GRADE.
12. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS, CURBING AND PAVEMENT CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT, AT CONTRACTORS EXPENSE.
13. REFER TO SHEET C10.1 FOR CURB RAMP AND INTERSECTION DESIGN DETAILS.
14. REFER TO SHEET LL.1 FOR ADDITIONAL LIGHTING DETAILS.
15. REFER TO SHEET C8.2 FOR POLE LOCATION DETAILS.

SPECIAL NOTES

1. THE CONTRACTOR SHALL NOT BLOCK VIEW OF EXISTING SIGNAL INDICATIONS DURING INSTALLATION OF PROPOSED EQUIPMENT. IF PROPOSED EQUIPMENT CANNOT BE INSTALLED DUE TO CONFLICT WITH EXISTING SIGNAL INDICATORS OR SPAN WIRES, A SIGNAL OUTAGE SHALL OCCUR DURING NON-PEAK HOURS AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL STAKE OUT SIGNAL POLE LOCATIONS AND CONTACT COUNTY TRAFFIC ENGINEER SUBIN GEORGE FOR ACCEPTANCE OF LOCATIONS PRIOR TO INSTALLATION.
3. THE CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES.
4. THE CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.
5. EQUIPMENT TO REMAIN INCLUDES CONDUIT OTHER THAN CONDUIT TO BE CAPPED AND ABANDONED, AND HANDHOLES OTHER THAN HANDHOLES TO BE REMOVED.
6. IF EXISTING CONDUIT TO REMAIN IS UNUSABLE THE CONTRACTOR SHALL CONTACT THE ENGINEER.
7. CONTRACTOR SHALL CONTACT HOWARD COUNTY'S UNDERGROUND UTILITY PERMIT DIVISION AT (410)313-4207 AT LEAST 5 BUSINESS DAYS PRIOR TO STARTING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
8. CONTRACTOR SHALL CONTACT HOWARD COUNTY'S TRAFFIC DIVISION AT LEAST 72 HOURS PRIOR TO STARTING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

TRAFFIC SIGNAL LEGEND		
PROPOSED		EXISTING
NA	MAST ARM	○
NA	TRAFFIC SIGNAL HEAD	○
←	PEDESTRIAN SIGNAL HEAD	←
↑	SIGN	↑
☼	STREET LIGHT	☼
□	HANDHOLE	□
—	CONDUIT	—
●	PEDESTRIAN PUSH BUTTON AND SIGN	●
NA	LOOP DETECTOR	□
□	CONTROLLER WITH PAD	□
□	METERED SERVICE PEDESTAL	□
○	SIGNAL POLE	○
NA	FIRE HYDRANT	○
NA	MANHOLE	○
NA	WATER VALVE	○ W.V.
NA	GAS VALVE	○ G.V.
—	GEOMETRICS	—
□	VIDEO DETECTION	□
□	VIDEO DETECTION ZONE	□

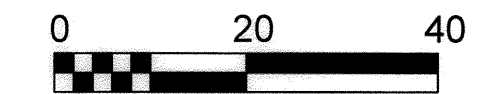
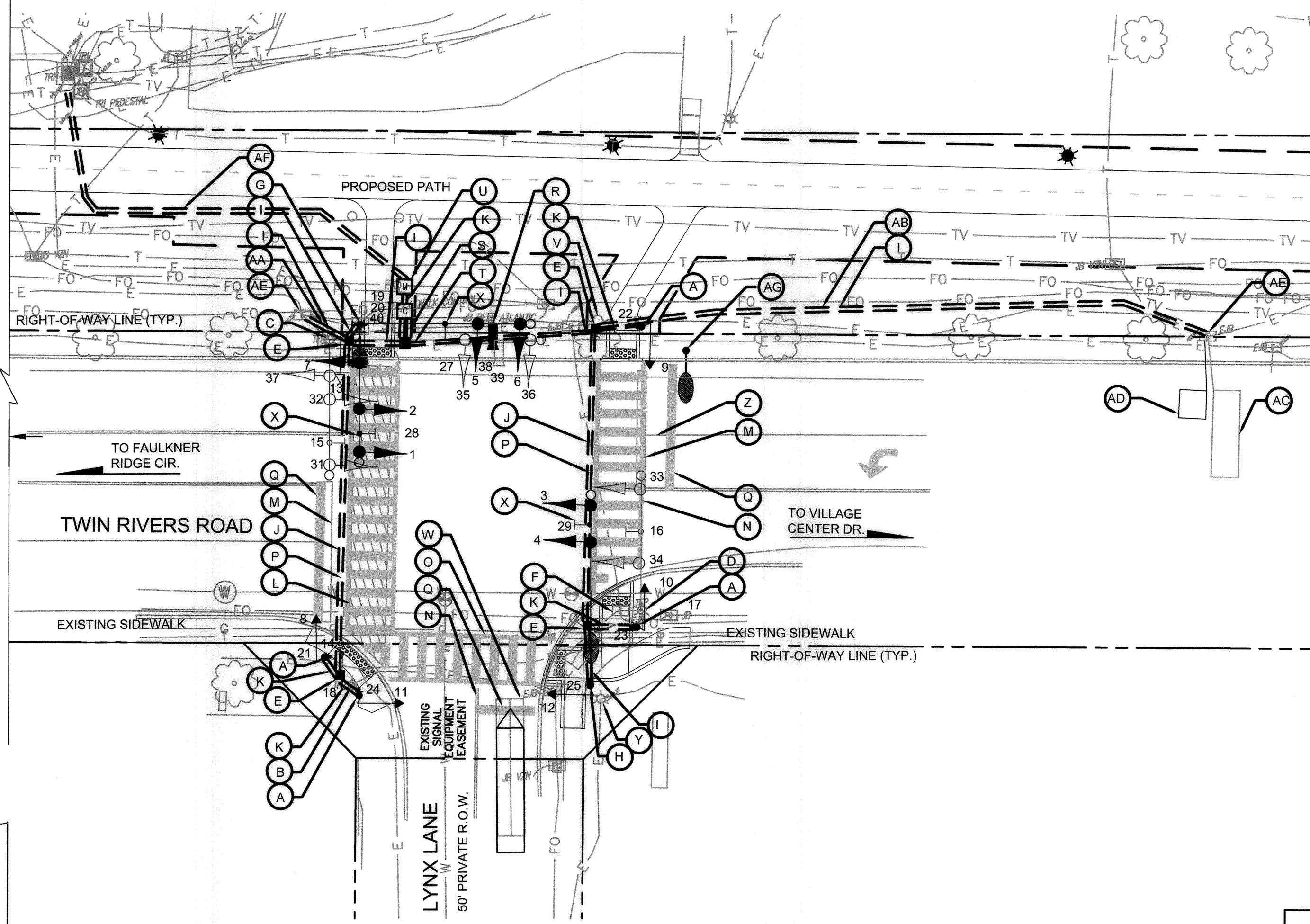
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] Date: 12-24-19
Chief, Division of Land Development: [Signature] Date: 12-23-19
Chief, Development Engineering Division: [Signature] Date: 12-16-19

UTILITY LEGEND

G	GAS MAIN
W	WATER MAIN
SD	SEWER MAIN
D	STORM DRAIN
TV	CABLE TELEVISION
E	ELECTRIC CABLES
T	TELEPHONE CABLES
FO	FIBER OPTICS

NOTICE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
[Signature]
Professional Engineer L.S. # 10849 Exp. Date 4/2/20 Z.Z. Shanaberger & Lane
AS-BUILT DATE: 1/24/2020



ENGINEER'S CERTIFICATION
"I HEREBY CERTIFY THAT THIS PLAN FOR TRAFFIC SIGNAL DESIGN REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY TRAFFIC ENGINEERING DIVISION."
[Signature] 7/10/2019
ENGINEER'S SIGNATURE DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director, Department of Public Works: [Signature] 11/15/19
Date: 11/15/2019
Chief, Bureau of Highways: [Signature] 11/15/2019
Date: 11/15/2019
Chief, Traffic Engineering Division

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[Signature]
Professional Engineer L.S. # 10849 Exp. Date 4/2/20 Z.Z. Shanaberger & Lane
AS-BUILT DATE: 1/24/2020
EXPIRATION DATE: 12/28/19

TRAFFIC SIGNAL PLAN
TWIN RIVERS ROAD AND
LYNX LANE

TRAFFIC SIGNAL PLAN - LYNX LANE		C8.1	
SCALE	1" = 20'	ZONING	NT
TDC FILE No.	5477.02		
DATE	7/10/19	TAX MAP - GRID	29/30/36
SHEET	49 OF 63		

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES NEW TRAFFIC SIGNAL POLES, MAST ARMS, AND TRAFFIC SIGNALS FOR ALL LEGS, THE ADDITION OF CROSSWALKS AND COUNTDOWN PEDESTRIAN SIGNAL HEADS ON THE EASTERN AND SOUTHERN INTERSECTION LEGS, THE ADDITION OF COUNTDOWN PEDESTRIAN SIGNAL HEADS TO THE WESTERN CROSSWALK, AND ACCESSIBLE PEDESTRIAN PUSHBUTTONS FOR ALL CROSSWALKS. THE NEW EQUIPMENT, FOUNDATIONS, SUPPORTS, HANDHOLES AND CONDUIT WILL BE INSTALLED PRIOR TO REMOVING AND ABANDONING EXISTING EQUIPMENT.

INTERSECTION OPERATION

THE INTERSECTION OPERATION WILL BE CHANGED TO PROVIDE PEDESTRIAN MOVEMENTS ACROSS THE EASTERN AND SOUTHERN INTERSECTION LEGS. THE PEDESTRIAN MOVEMENT ACROSS THE SOUTHERN LEG SHALL OPERATE IN REST IN WALK AND PEDESTRIAN RECALL.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

TWIN RIVERS ROAD AND LYNX LANE - SOUTH LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS LYNX AT TWIN RIVERS. WAIT."
 WALK: RAPID TICK

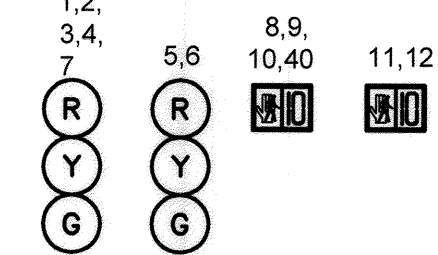
TWIN RIVERS ROAD AND LYNX LANE - EAST LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS TWIN RIVERS AT LYNX. WAIT."
 WALK: RAPID TICK

TWIN RIVERS ROAD AND LYNX LANE - WEST LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS TWIN RIVERS AT LYNX. WAIT."
 WALK: RAPID TICK

CONTROLLER REQUIREMENTS

THE EXISTING CONTROLLER WILL BE REMOVED AND A NEW CONTROLLER INSTALLED IN A NEW CABINET.

PHASE CHART



PHASE 2+6	G	R	DW	WK	
PHASE 2+6 PED CLEARANCE	G	R	DW	FL/DW	
PHASE 2+6 CHANGE	Y	R	DW	DW	
PHASE 4	R	G	DW	DW	
PHASE 4 CHANGE	R	Y	DW	DW	
PHASE 4 ALT	R	G	WK	DW	
PHASE 4 ALT PED CLEARANCE	R	G	FL/DW	DW	
PHASE 4 ALT	R	Y	DW	DW	
FLASHING OPERATION	FLY	FLR	DARK	DARK	

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE COUNTY AND INSTALLED BY THE CONTRACTOR

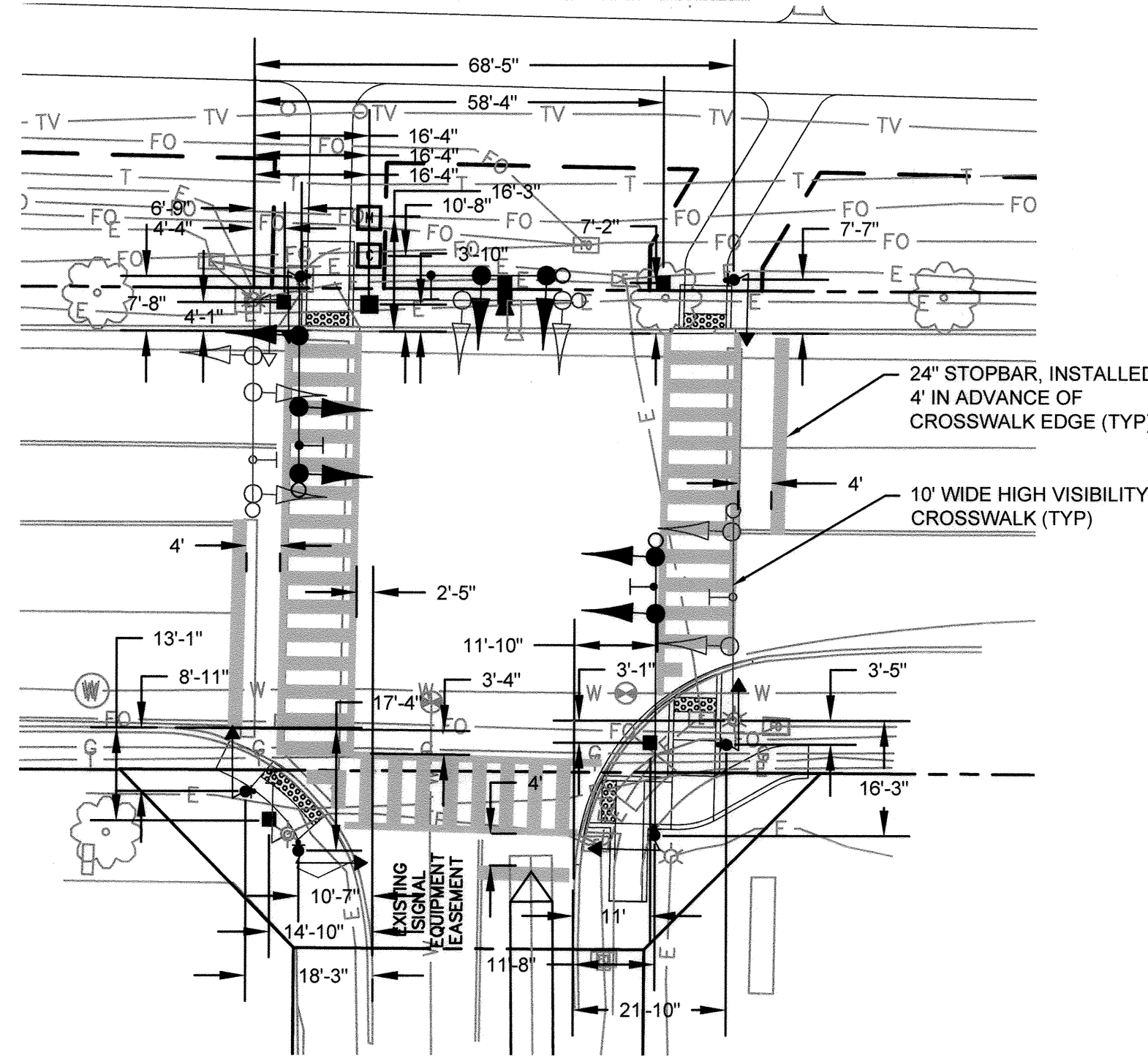
QUANTITY	DESCRIPTION
6 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSH BUTTON STATION, SIGNS, AND INTERFACE
6 EACH	PEDESTRIAN SIGNAL HEAD
3 EACH	STREETNAME SIGNS (D3-1)
100 L.F.	VIDEO DETECTION LEAD-IN CABLE
1 EACH	VIDEO DETECTION CAMERA
1 EACH	CENTRAL CONTROL UNIT
7 EACH	TRAFFIC SIGNAL HEAD (3-SECTION)
1 EACH	SINGLE MAST ARM POLE (BROWN)
1 EACH	TWIN MAST ARM POLE (BROWN)
1 EACH	CABINET/UPS

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

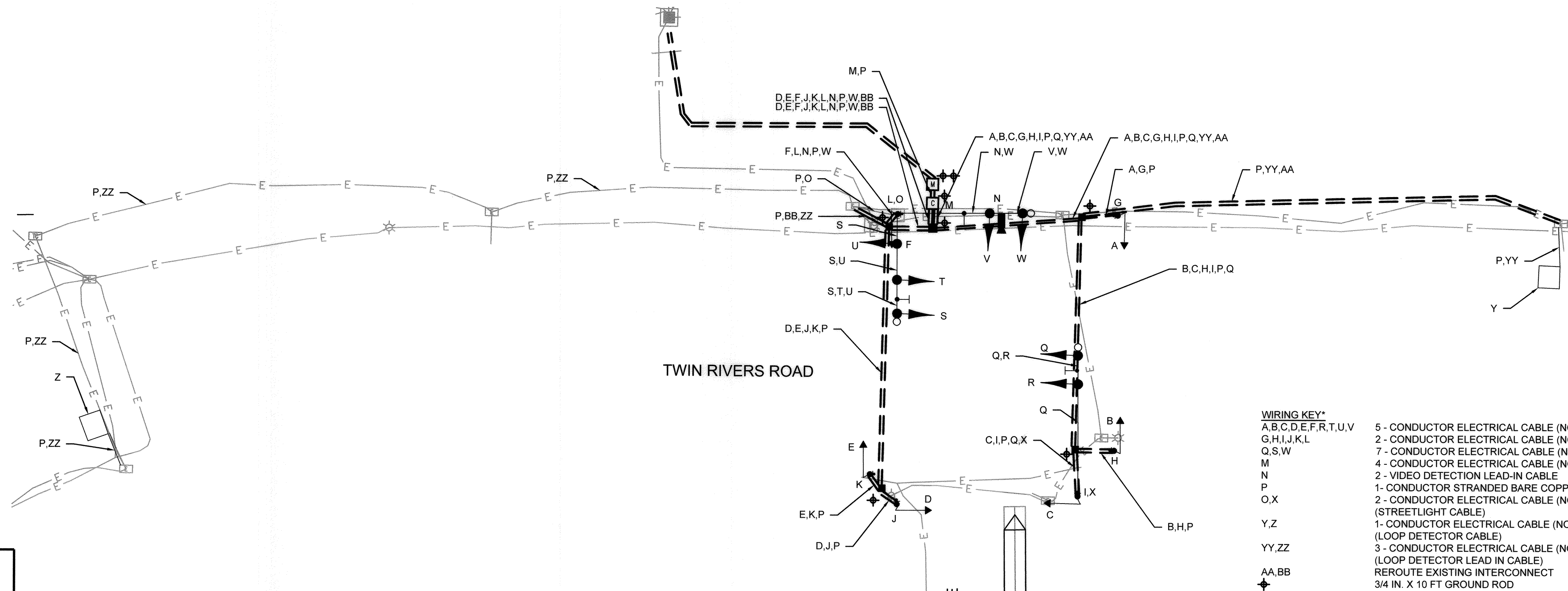
QUANTITY	DESCRIPTION
LUMP SUM	MAINTENANCE OF TRAFFIC
TBD	TEST PIT EXCAVATION
4 EACH	10 FT STEEL PEDESTAL POLE (BROWN)
355 L.F.	7- CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
750 L.F.	5- CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
670 L.F.	2- CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
50 L.F.	2- CONDUCTOR ELECTRICAL CABLE (NO. 10 A.W.G.)
775 L.F.	1- CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
10 L.F.	4- CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
45 L.F.	2 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCH
205 L.F.	3 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCH
135 L.F.	4 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - SLOT
110 L.F.	4 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCH
8 EACH	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
8 EACH	GROUND ROD 3/4 IN. DIAMETER X 10 FT LENGTH
5 EACH	HANDHOLE (WITH FRAME AND COVER)
3 EACH	HANDHOLE FRAME
3 EACH	HANDHOLE COVER
LUMP SUM	REMOVE AND DISPOSE OF EQUIPMENT
350 L.F.	ERADICATE EX. PAVEMENT MARKINGS (ALL WIDTHS)
280 L.F.	12" WHITE PAVEMENT MARKING
490 L.F.	24" WHITE PAVEMENT MARKING
75 L.F.	DETECTOR LOOP, 1- CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) WITH PVC TUBE JACKET
445 L.F.	DETECTOR LOOP LEAD IN CABLE, 3- CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
235 L.F.	REROUTE EXISTING INTERCONNECT CABLE
1 EACH	METERED SERVICE PEDESTAL
2 EACH	LIGHTING ARM (BROWN)
6 EACH	INSTALL PEDESTRIAN SIGNAL HEAD
6 EACH	INSTALL PEDESTRIAN PUSHBUTTON AND SIGN
1 EACH	INSTALL VIDEO DETECTION CAMERA
1 EACH	INSTALL CABINET (WITH UPS AND CCU)
1 EACH	INSTALL SINGLE MAST ARM POLE
1 EACH	INSTALL TWIN MAST ARM POLE
3 EACH	INSTALL STREET NAME SIGNS
7 EACH	INSTALL TRAFFIC SIGNAL HEAD (3-SECTION)

SIGNAL POLE LOCATIONS



*NOTE: MEASUREMENTS ARE TAKEN FROM FACE OF CURB, EXISTING SIGNAL POLE OR TANGENT OF FACE OF CURB.

PROPOSED WIRING



WIRING KEY*

A,B,C,D,E,F,R,T,U,V	5- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
G,H,I,J,K,L	2- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Q,S,W	7- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
M	4- CONDUCTOR ELECTRICAL CABLE (NO. 4 AWG)
N	2- VIDEO DETECTION LEAD-IN CABLE
P	1- CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
O,X	2- CONDUCTOR ELECTRICAL CABLE (NO. 10 AWG)
Y,Z	(STREETLIGHT CABLE)
1-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	(LOOP DETECTOR CABLE)
YY,ZZ	3- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
AA,BB	(LOOP DETECTOR LEAD IN CABLE)
◆	REROUTE EXISTING INTERCONNECT 3/4 IN. X 10 FT GROUND ROD

* PROPOSED WIRING ONLY

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Director, Department of Public Works
 Date: 11/15/2019

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 12/21/2020
 Shanabarger & Lane

APPROVED PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

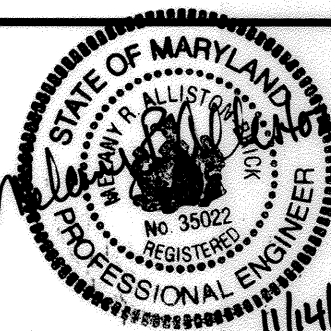
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director
 Date: 12-24-19
 Chief, Division of Land Development
 Date: 12-23-19
 Chief, Development Engineering Division
 Date: 12-16-19

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR TRAFFIC SIGNAL DESIGN REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY TRAFFIC ENGINEERING DIVISION."
 7/10/2019
 ENGINEER'S SIGNATURE: Melany Allister-Brice

TOOLE DESIGN
 8484 GEORGIA AVENUE SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

Howard Hughes
 THE HOWARD HUGHES CORPORATION
 10480 LITTLE PATUXENT PKWY, SUITE 400
 COLUMBIA, MD 21044
 Greg Filchitt, President, Maryland Region
 410.964.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35922
 EXPIRATION DATE: 12/28/19



PHASE 1

**TRAFFIC SIGNAL PLAN
 TWIN RIVERS ROAD AND
 LYNX LANE**



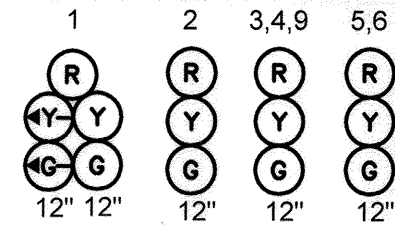
GENERAL SIGNAL INFORMATION - LYNX LANE			C8.2
SCALE	ZONING	TDG. FILE No.	
	NT	5477.02	
DATE	TAX MAP - GRID	SHEET	
7/10/19	29/30/36	50 OF 63	

HOWARD COUNTY

CONSTRUCTION DETAILS

- A- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (FEDERAL BROWN) WITH FOUNDATION STANDARD NO MD 801.01. COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS AND SIGNS. ALIGN SIGN AND PUSHBUTTON TACTILE ARROW WITH CROSSWALK. (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).

EXISTING SIGNALS TO REMAIN



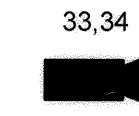
EXISTING SIGNALS TO REMOVE



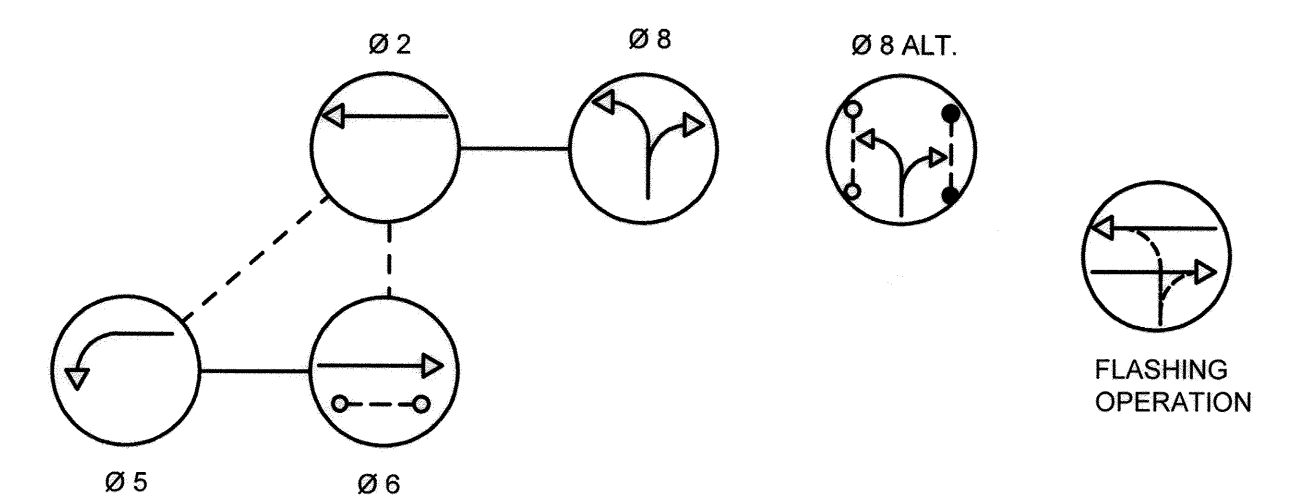
PROPOSED SIGNALS



PROPOSED VIDEO DETECTION

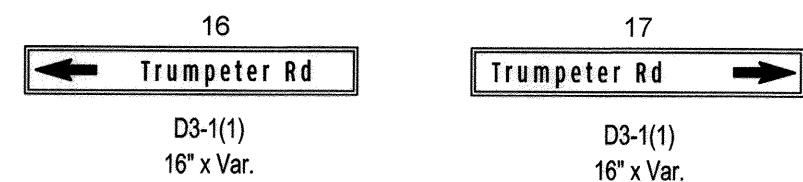


NEMA PHASING

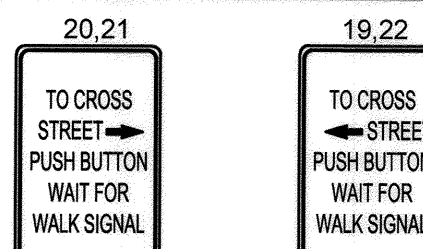


NEMA NOTES: PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

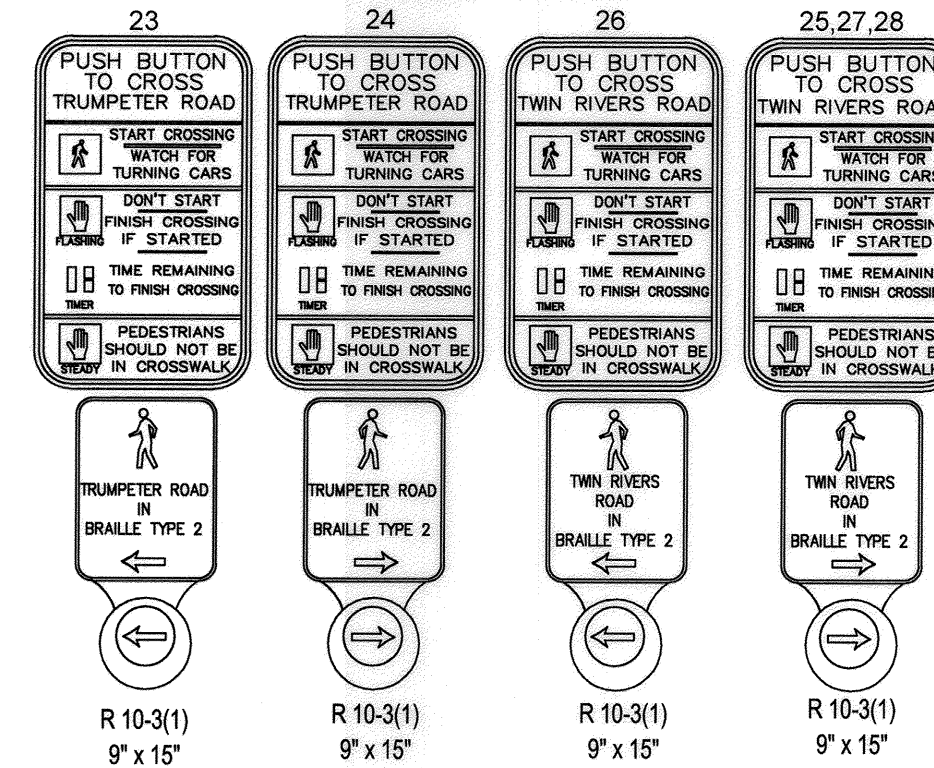
EXISTING SIGNS TO REMAIN



EXISTING SIGNS TO REMOVE



PROPOSED SIGNS



TRAFFIC SIGNAL LEGEND table with columns for PROPOSED and EXISTING, listing symbols for MAST ARM, SIGNAL HEAD, PEDESTRIAN SIGNAL HEAD, SIGN, STREET LIGHT, HANDHOLE, CONDUIT, PEDESTRIAN PUSH BUTTON AND SIGN, LOOP DETECTOR, CONTROLLER WITH PAD, SIGNAL POLE, FIRE HYDRANT, MANHOLE, WATER VALVE, GAS VALVE, GEOMETRICS, VIDEO DETECTION, VIDEO DETECTION ZONE, and OPTICOM DETECTION.

UTILITY LEGEND table listing symbols for GAS MAIN, WATER MAIN, SEWER MAIN, STORM DRAIN, CABLE TELEVISION, ELECTRIC CABLES, TELEPHONE CABLES, and FIBER OPTICS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Director, Department of Public Works: 11/12/19. Chief, Bureau of Highways: 11/15/2019. Chief, Traffic Engineering Division: 11/15/2019.

APPROVED PLANNING BOARD OF HOWARD COUNTY. Date: June 20, 2021.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. Director: 12-24-19. Chief, Planning and Development: 12-23-19. Chief, Development Engineering Division: 12-16-19.

ENGINEER'S CERTIFICATION. I HEREBY CERTIFY THAT THIS PLAN FOR TRAFFIC SIGNAL DESIGN REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY TRAFFIC ENGINEERING DIVISION. Engineer: Marybeth Allerton Brick, 7/10/2019.

STATE OF MARYLAND PROFESSIONAL ENGINEER. I HEREBY CERTIFY THAT THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET. AS-BUILT DATE: 1/24/2022. Shanaberger & Lane.

TOOLE DESIGN logo and contact information: 8484 GEORGIA AVENUE SUITE 800 SILVER SPRING, MD 20910. PHONE: 301.927.1900. FAX: 301.927.2800. www.tooledesign.com.

Revision table with columns for DES, DPB, DRN, AG, CHK, EM, DATE, REVISION, BY, APPR.

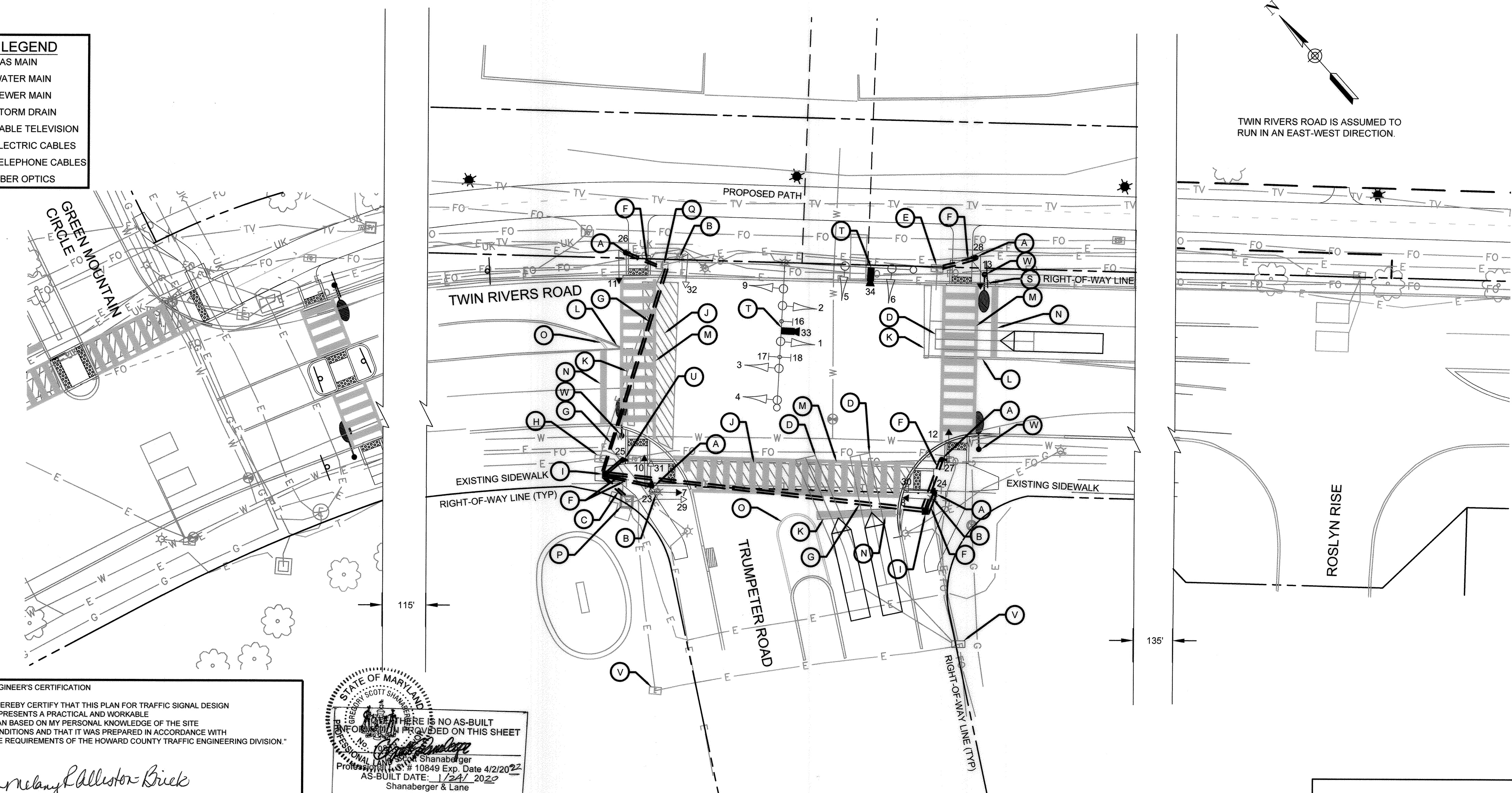
Howard Hughes logo and contact information: THE HOWARD HUGHES CORPORATION. 10480 LITTLE PATUXENT PKWY, SUITE 400 COLUMBIA, MD 21044. Greg Filchill, President, Maryland Region. 410.964.4800 - Greg.Filchill@howardhughes.com.

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 35022. EXPIRATION DATE: 12/28/19.

STATE OF MARYLAND PROFESSIONAL ENGINEER. Marybeth Allerton Brick, No. 35022, Registered Professional Engineer.

TRAFFIC SIGNAL PLAN TWIN RIVERS ROAD AND TRUMPETER ROAD

TRAFFIC SIGNAL PLAN - TRUMPETER ROAD C8.3. SCALE: 1" = 20'. ZONING: NT. TDG. FILE No.: 5477.02. DATE: 7/10/19. TAX MAP - GRID: 29/30/36. SHEET: 51 OF 63. HOWARD COUNTY.



- GENERAL NOTES: 1. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, OR HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS...
- SPECIAL NOTES: 1. THE CONTRACTOR SHALL NOT BLOCK VIEW OF EXISTING SIGNAL INDICATIONS DURING INSTALLATION OF PROPOSED EQUIPMENT...

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE ADDITION OF CROSSWALKS AND COUNTDOWN PEDESTRIAN SIGNAL HEADS ON THE EASTERN INTERSECTION LEG, THE ADDITION OF PEDESTRIAN SIGNAL HEADS TO THE WESTERN AND SOUTHERN CROSSWALKS, AND ACCESSIBLE PEDESTRIAN PUSHBUTTONS FOR ALL CROSSWALKS. THE NEW EQUIPMENT, FOUNDATIONS, SUPPORTS, AND CONDUIT WILL BE INSTALLED PRIOR TO REMOVING AND ABANDONING EXISTING EQUIPMENT, EXCEPT IN THE INSTANCE OF PEDESTRIAN SIGNAL HEADS TO BE RELOCATED.

INTERSECTION OPERATION

THE INTERSECTION OPERATION WILL BE CHANGED TO PROVIDE PEDESTRIAN MOVEMENTS ACROSS THE EASTERN INTERSECTION LEG. THE PEDESTRIAN MOVEMENT ACROSS THE SOUTHERN LEG SHALL OPERATE IN REST IN WALK AND PEDESTRIAN RECALL.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

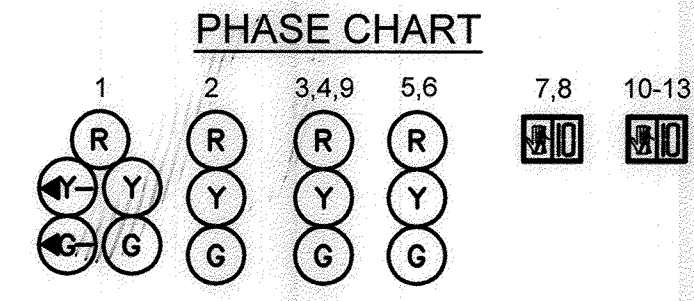
TWIN RIVERS ROAD AND TRUMPETER ROAD - SOUTH LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS TRUMPETER AT TWIN RIVERS, WAIT."
 WALK: RAPID TICK

TWIN RIVERS ROAD AND TRUMPETER ROAD - EAST LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS TWIN RIVERS AT TRUMPETER, WAIT."
 WALK: RAPID TICK

TWIN RIVERS ROAD AND TRUMPETER ROAD - WEST LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS TWIN RIVERS AT TRUMPETER, WAIT."
 WALK: RAPID TICK

CONTROLLER REQUIREMENTS

THE EXISTING CONTROLLER WILL REMAIN. THE CENTRAL CONTROL UNIT SHALL BE PLACED IN THE CABINET.



PHASE 2+5	<G/G	G	R	R	DW	DW	
PHASE 2+5 CHANGE	<Y/G	G	R	R	DW	DW	
PHASE 2+6	G	G	G	R	WK	DW	
PHASE 2+6 PED CLEARANCE	G	G	G	R	FL/DW	DW	
PHASE 2+6 CHANGE	Y	Y	Y	R	DW	DW	
PHASE 8	R	R	R	G	DW	DW	
PHASE 8 CHANGE	R	R	R	Y	DW	DW	
PHASE 8 ALT	R	R	R	G	DW	WK	
PHASE 8 ALT PED CLEARANCE	R	R	R	G	DW	FL/DW	
PHASE 8 ALT CHANGE	R	R	R	Y	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/R	DARK	DARK	

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE COUNTY AND INSTALLED BY THE CONTRACTOR

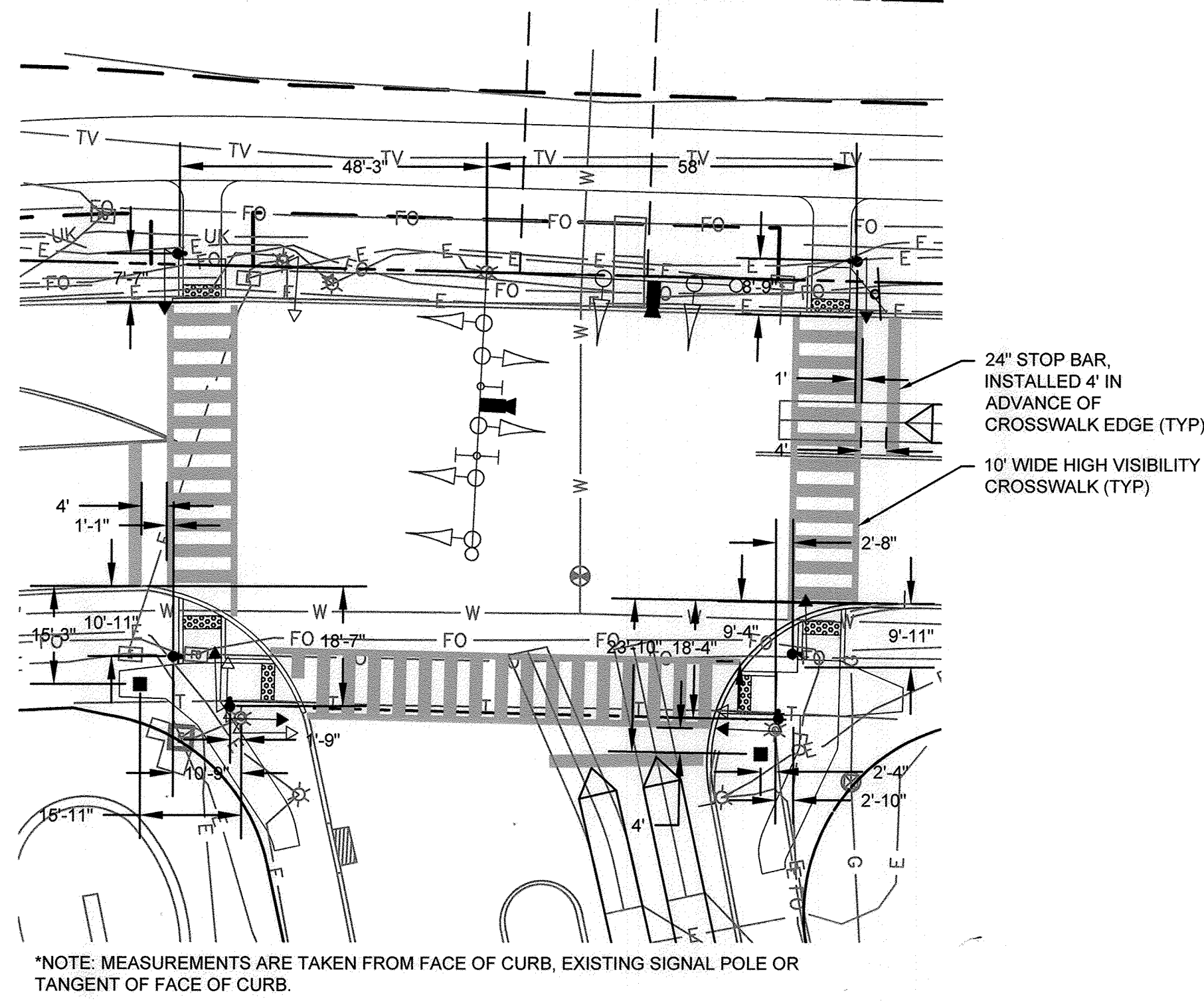
QUANTITY	DESCRIPTION
6 EACH	AUDIBLE/TACTILE PUSH BUTTON STATION, SIGNS, AND INTERFACE
6 EACH	PEDESTRIAN SIGNAL HEAD
1 EACH	CENTRAL CONTROL UNIT
2 EACH	VIDEO DETECTION CAMERA
610 L.F.	VIDEO DETECTION CABLE

EQUIPMENT LIST "B"

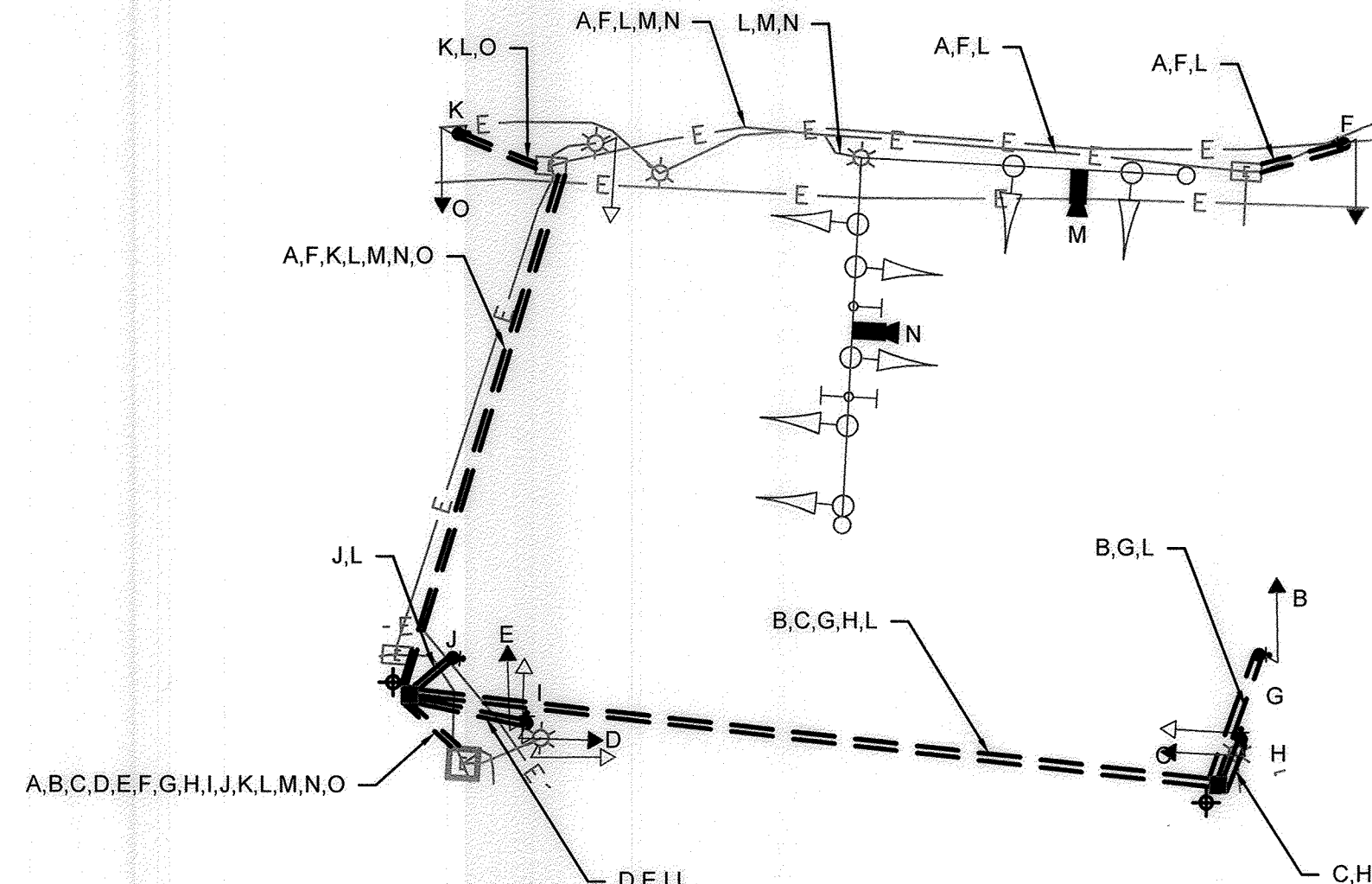
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

QUANTITY	DESCRIPTION
LUMP SUM	MAINTENANCE OF TRAFFIC
TBD	TEST PIT EXCAVATION
5 EACH	10 FT STEEL PEDESTAL POLE, BROWN
1 EACH	5 FT STEEL PEDESTAL POLE, BROWN
590 L.F.	5- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
595 L.F.	2- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
305 L.F.	1- CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
85 L.F.	2 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCHED
15 L.F.	4 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCHED
185 L.F.	4 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - SLOTTED
6 EACH	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
2 EACH	HANDHOLE (WITH FRAME AND COVER)
2 EACH	HANDHOLE FRAME
2 EACH	HANDHOLE COVER
1 EACH	HANDHOLE CONCRETE COLLAR
2 EACH	GROUND ROD 3/4 IN. DIAMETER X 10 FT LENGTH
LUMP SUM	REMOVE AND DISPOSE OF EQUIPMENT
750 L.F.	ERADICATE EX. PAVEMENT MARKING (ALL WIDTHS)
240 L.F.	4" YELLOW PAVEMENT MARKING
325 L.F.	12" WHITE PAVEMENT MARKING
450 L.F.	24" WHITE PAVEMENT MARKING
6 EACH	INSTALL PEDESTRIAN SIGNAL HEAD
6 EACH	INSTALL PEDESTRIAN PUSHBUTTON AND SIGN
2 EACH	INSTALL VIDEO DETECTION CAMERA
1 EACH	INSTALL CENTRAL CONTROL UNIT

SIGNAL POLE LOCATIONS



PROPOSED WIRING



WIRING KEY*
 A,B,C,D,E,O 5 - CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
 F,G,H,I,J,K 2 - CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
 L 1 - CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
 M,N 2 - VIDEO DETECTION LEAD-IN CABLE
 1/2 IN. X 1- FT GROUND ROD

*PROPOSED WIRING ONLY

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Director, Department of Public Works Date: 11/12/19
 Chief, Bureau of Highways Date: 11/15/2019
 Chief, Traffic Engineering Division Date: 11/15/2019

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 Scott Shanaberger
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 1/22/2020
 Shanaberger & Lane

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR TRAFFIC SIGNAL DESIGN REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY TRAFFIC ENGINEERING DIVISION."
 Melany D. Allister-Brick
 7/10/2019
 ENGINEER'S SIGNATURE DATE

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director Date: 12-24-19
 Chief, Division of Land Development Date: 12-23-19
 Chief, Development Engineering Division Date: 12-16-19

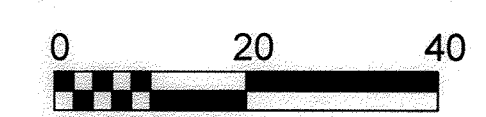
TOOLE DESIGN
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PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 39222
 EXPIRATION DATE: 12/28/19

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 Greg Filchitt
 11/14/19

GENERAL INFORMATION SHEET
 TWIN RIVERS ROAD AND TRUMPETER ROAD



GENERAL SIGNAL INFORMATION - TRUMPETER ROAD		C8.4
SCALE NA	ZONING NT	TDC. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 52 OF 63

HOWARD COUNTY

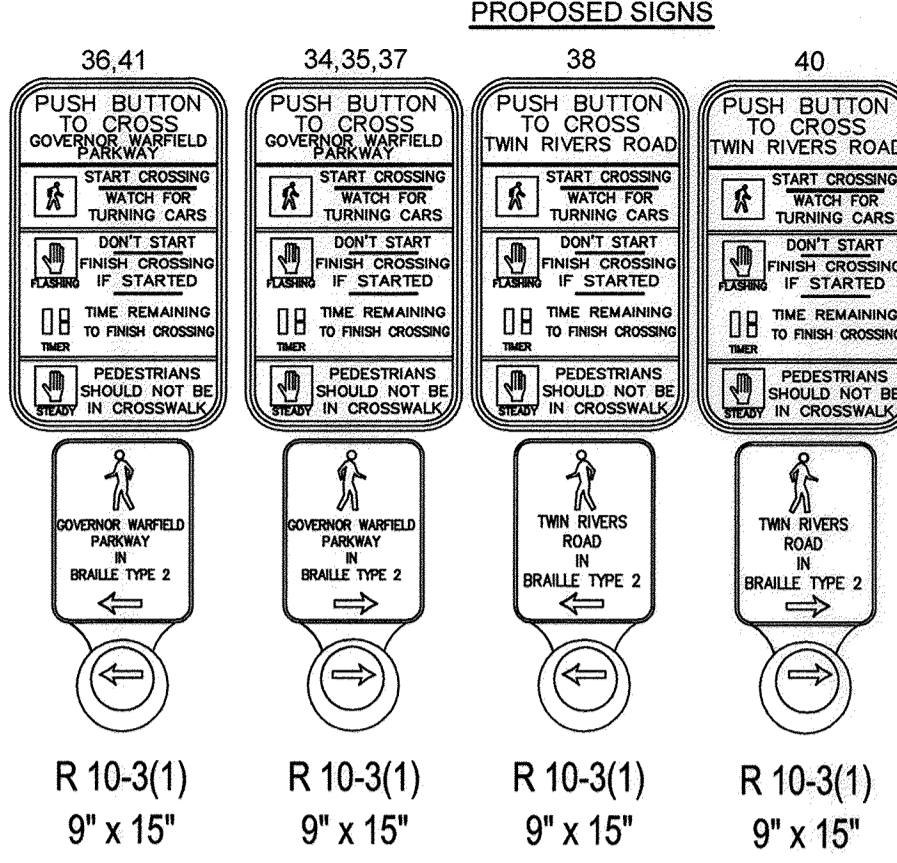
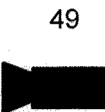
CONSTRUCTION DETAILS

- A- INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (FEDERAL BROWN) WITH FOUNDATION STANDARD NO MD 801.01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON. ALIGN SIGN AND PUSHBUTTON TACTILE ARROW WITH CROSSWALK. (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- B- ABANDON EXISTING LOOP DETECTORS, DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
- C- INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE (BROWN) WITH FOUNDATION STANDARD NO MD 801.01-01, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON. ALIGN SIGN AND PUSHBUTTON TACTILE ARROW WITH CROSSWALK. (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
- D- REMOVE EXISTING PEDESTRIAN SIGNAL POLE, PEDESTRIAN SIGNAL HEAD, PUSH BUTTON AND FOUNDATION 12 IN BELOW GROUND AND BACK FILL.
- E- ADJUST EXISTING VIDEO DETECTION TO ACCOMMODATE PROPOSED VIDEO DETECTION ZONE.
- G- REMOVE EXISTING PUSH BUTTON AND PED HEADS.
- H- USE EXISTING HANDHOLE, REPLACE EX. HANDHOLE FRAME AND COVER PER STANDARD MD-811.02.
- I- INSTALL 2 IN PVC SCHEDULE 80 ELECTRICAL CONDUIT, TRENCHED.
- J- INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT, BORED.
- K- INSTALL VIDEO DETECTION CAMERA.
- L- ERADICATE EXISTING STOPBAR.
- M- ERADICATE EXISTING CROSSWALK.
- N- REMOVE EXISTING PEDESTRIAN SIGNAL POLE, PEDESTRIAN SIGNAL HEAD, PUSH BUTTON AND FOUNDATION 12 IN BELOW GROUND AND BACKFILL. REMOVE AND RELOCATE EMERGENCY VEHICLE PREEMPTION EQUIPMENT. SEE NOTE O FOR LOCATION.
- O- INSTALL RELOCATED EMERGENCY VEHICLE PREEMPTION EQUIPMENT.
- P- EXISTING HANDHOLE IS BURIED BY UP TO 12 INCHES OF SOIL. REGRADE 4 FEET AROUND EXISTING HANDHOLE AND INSTALL NEW CONCRETE COLLAR FLUSH WITH FINISHED GRADE.
- Q- USE EXISTING HANDHOLE, REPLACE COVER, AND ADJUST FRAME TO ALIGN WITH HANDHOLE. COVER PER STANDARD MD-811.02.
- R- INSTALL PROPOSED 24" STOPBAR WITH EDGE OF STOPBAR 4' IN ADVANCE OF CROSSWALK EDGE.
- S- INSTALL PROPOSED CROSSWALK, 10' WIDE.
- T- REMOVE EXISTING PEDESTRIAN SIGNAL POLE, PEDESTRIAN SIGNAL HEAD, PUSH BUTTON AND FOUNDATION 12 IN BELOW GROUND, OR MORE IF NECESSARY TO INSTALL NEW FOUNDATION PER NOTE A, AND BACK FILL.
- U- USE EXISTING HANDHOLE. INSTALL NEW CONCRETE COLLAR FLUSH WITH PROPOSED GRADE.
- V- USE EXISTING HANDHOLE.
- W- INSTALL PROPOSED VIDEO DETECTION.
- X- PROPOSED STREET LIGHT POLE AND LUMINAIRE TO BE INSTALLED BY OTHERS.

PROPOSED SIGNALS



PROPOSED VIDEO DETECTION



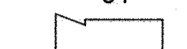
EXISTING SIGNALS TO REMOVE



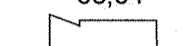
EXISTING SIGNS TO REMOVE



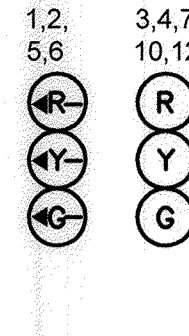
EX. VIDEO DETECTION TO BE ADJUSTED



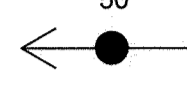
EX. VIDEO DETECTION TO REMAIN



EXISTING SIGNALS TO REMAIN



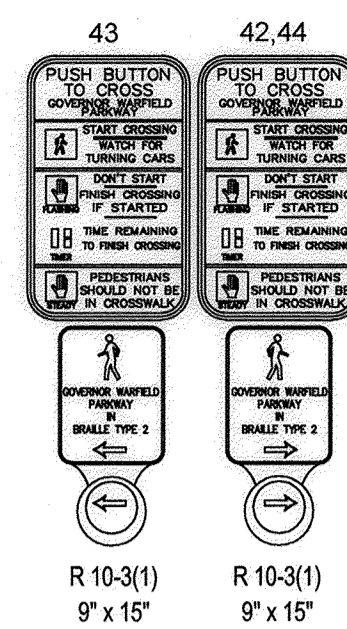
EXISTING OPTICOM DETECTION TO BE RELOCATED



EXISTING OPTICOM DETECTION TO REMAIN



EXISTING SIGNALS TO REMAIN



43 Governor Warfield PKWY

25, 26 Twin Rivers RD

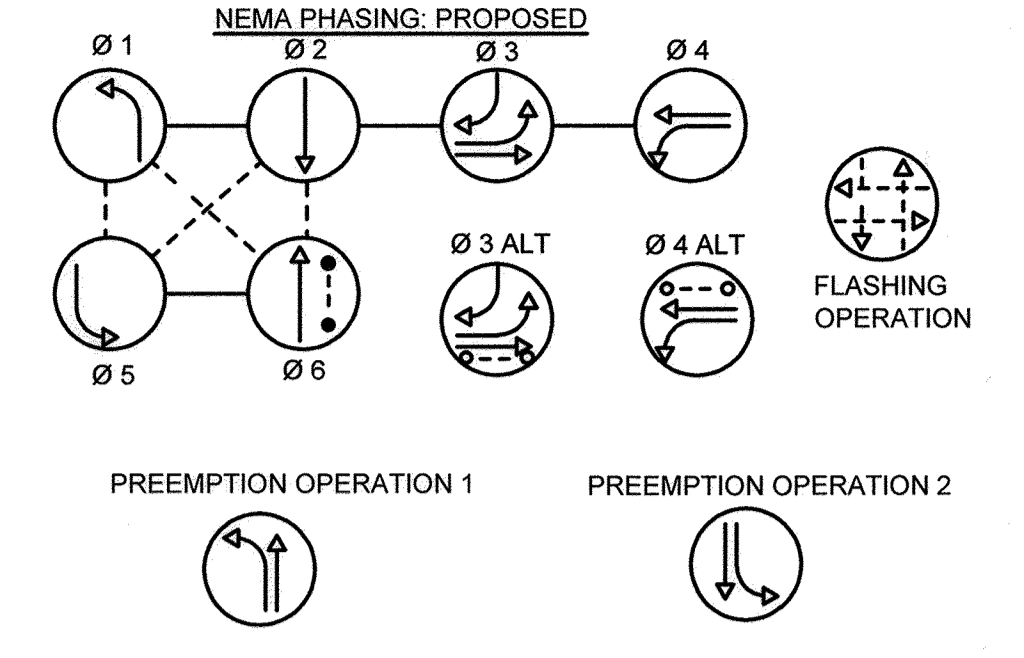


28 R 3-5(L) 30" x 36"

27, 30 R 3-5(R) 30" x 36"

31 R 3-8 40" x 36"

32 R 3-8 40" x 36"



NEMA NOTES:
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING
NA MAST ARM	○
NA TRAFFIC SIGNAL HEAD	○
← PEDESTRIAN SIGNAL HEAD	←
— SIGN	—
★ STREET LIGHT	★
■ HANDHOLE	□
— CONDUIT	—
● PEDESTRIAN PUSH BUTTON AND SIGN	●
NA LOOP DETECTOR	□
NA CONTROLLER WITH PAD	□
● SIGNAL POLE	○
NA FIRE HYDRANT	⊕
NA MANHOLE	⊙
NA WATER VALVE	⊙ W.V.
NA GAS VALVE	⊙ G.V.
— GEOMETRICS	—
— VIDEO DETECTION	—
← VIDEO DETECTION ZONE	←
← OPTICOM DETECTION	←

UTILITY LEGEND

— G	GAS MAIN
— W	WATER MAIN
— SD	SEWER MAIN
— D	STORM DRAIN
— TV	CABLE TELEVISION
— E	ELECTRIC CABLES
— T	TELEPHONE CABLES
— FO	FIBER OPTICS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

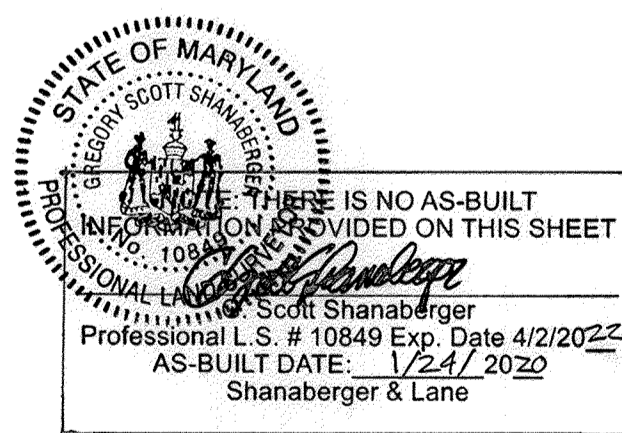
Director, Department of Public Works	Date
<i>[Signature]</i>	11/18/19
Chief, Bureau of Highways	Date
<i>[Signature]</i>	11/15/2019
Chief, Traffic Engineering Division	Date
<i>[Signature]</i>	11/14/2019

APPROVED PLANNING BOARD OF HOWARD COUNTY

Date:	June 10, 2019
-------	---------------

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

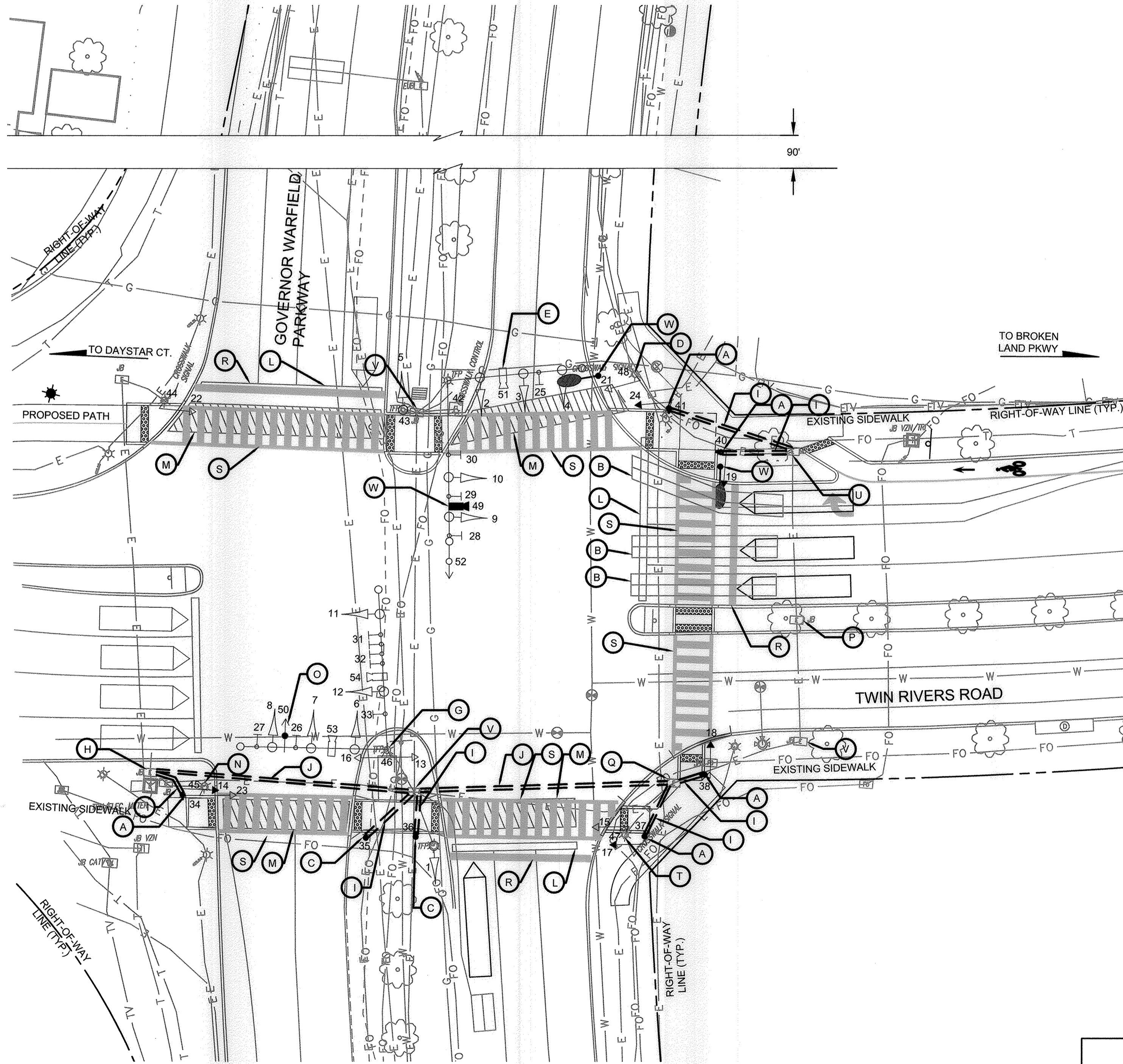
Director	Date
<i>[Signature]</i>	12-24-19
Chief, Division of Land Development	Date
<i>[Signature]</i>	12-23-19
Chief, Development Engineering Division	Date
<i>[Signature]</i>	12-16-19



ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR TRAFFIC SIGNAL DESIGN REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY TRAFFIC ENGINEERING DIVISION."

[Signature]
7/10/2019



TWIN RIVERS ROAD IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

GENERAL NOTES

- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, OR HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS. TO MEET CLEARANCES AS SPECIFIED IN MD 816.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- ALL UTILITIES SHOWN ARE SCHEMATIC AND BASED ON THE BEST AVAILABLE DATA. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE ENGINEER.
- VIDEO CAMERA LOCATION AND ALIGNMENT SHALL BE COORDINATED WITH THE ENGINEER.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED INCLUDING CONTROLLER, MMU, UPS SHALL BE HANDLED OVER TO HOWARD COUNTY UPON COMPLETION OF THE NEW SIGNAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
- PUSHBUTTONS SHALL BE LOCATED SO THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" x 80" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS SHALL BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS SHALL MEET REQUIREMENTS OF MARYLAND MUTCD SEC. 4E09 AND FIG. 4E-2, AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS AND CONTACT THE ENGINEER.
- CONTRACTOR SHALL VERIFY PROPOSED GEOMETRICS PRIOR TO INSTALLING SIGNAL EQUIPMENT.
- ALL HANDHOLES SHALL BE INSTALLED AT FINAL GRADE.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT, AT CONTRACTOR'S EXPENSE.
- REFER TO SHEET C10.2 AND C10.3 FOR CURB RAMP AND INTERSECTION DESIGN DETAILS.
- REFER TO SHEET C8.6 FOR POLE LOCATION DETAILS.

SPECIAL NOTES

- THE CONTRACTOR SHALL NOT BLOCK VIEW OF EXISTING SIGNAL INDICATIONS DURING INSTALLATION OF PROPOSED EQUIPMENT. IF PROPOSED EQUIPMENT CANNOT BE INSTALLED DUE TO CONFLICT WITH EXISTING SIGNAL INDICATORS OR SPAN WIRES, A SIGNAL OUTAGE SHALL OCCUR DURING NON-PEAK HOURS AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL STAKE OUT SIGNAL POLE LOCATIONS AND CONTACT COUNTY TRAFFIC ENGINEER SUBIN GEORGE FOR ACCEPTANCE OF LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.
- EQUIPMENT TO REMAIN INCLUDES MAST ARMS, CONDUIT OTHER THAN CONDUIT TO BE CAPPED AND ABANDONED, AND HANDHOLES OTHER THAN HANDHOLES TO BE REMOVED.
- IF EXISTING CONDUIT TO REMAIN IS UNUSABLE THE CONTRACTOR SHALL CONTACT THE ENGINEER.
- CONTRACTOR SHALL CONTACT HOWARD COUNTY'S UNDERGROUND UTILITY PERMIT DIVISION AT (410)313-4207 AT LEAST 5 BUSINESS DAYS PRIOR TO STARTING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- CONTRACTOR SHALL CONTACT HOWARD COUNTY'S TRAFFIC DIVISION AT LEAST 72 HOURS PRIOR TO STARTING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.



TRAFFIC SIGNAL PLAN - GOV WARFIELD PKWY C8.5

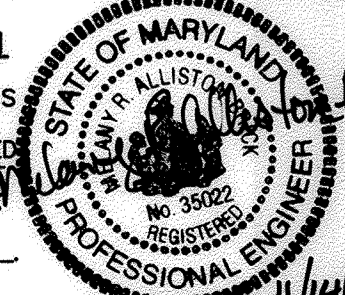
SCALE	ZONING	TDG. FILE No.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	53 OF 63

TOOLE DESIGN
8484 GEORGIA AVENUE SUITE 800 SILVER SPRING, MD 20910
PHONE: 301.927.1900 FAX: 301.927.2800 www.tooledesign.com

Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400 COLUMBIA, MD 21044
Greg Filchitt, President, Maryland Region 410.964.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 35222 EXPIRATION DATE: 12/28/19



TRAFFIC SIGNAL PLAN
TWIN RIVERS ROAD AND
GOVERNOR WARFIELD PARKWAY

ELECTION DISTRICT 5

HOWARD COUNTY

GENERAL
 THIS PROJECT INVOLVES THE ADDITION OF A CROSSWALK AND COUNTDOWN PEDESTRIAN SIGNAL HEADS ON THE EASTERN INTERSECTION LEG, THE ADDITION OF PEDESTRIAN SIGNAL HEADS TO THE NORTHERN, EASTERN, AND SOUTHERN CROSSWALKS, AND ACCESSIBLE PEDESTRIAN PUSHBUTTONS FOR ALL CROSSWALKS. THE NEW EQUIPMENT, FOUNDATIONS, SUPPORTS, AND CONDUIT WILL BE INSTALLED PRIOR TO REMOVING AND ABANDONING EXISTING EQUIPMENT.

INTERSECTION OPERATION
 THE INTERSECTION OPERATION WILL BE CHANGED TO PROVIDE PEDESTRIAN MOVEMENTS ACROSS THE EASTERN INTERSECTION LEG. TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

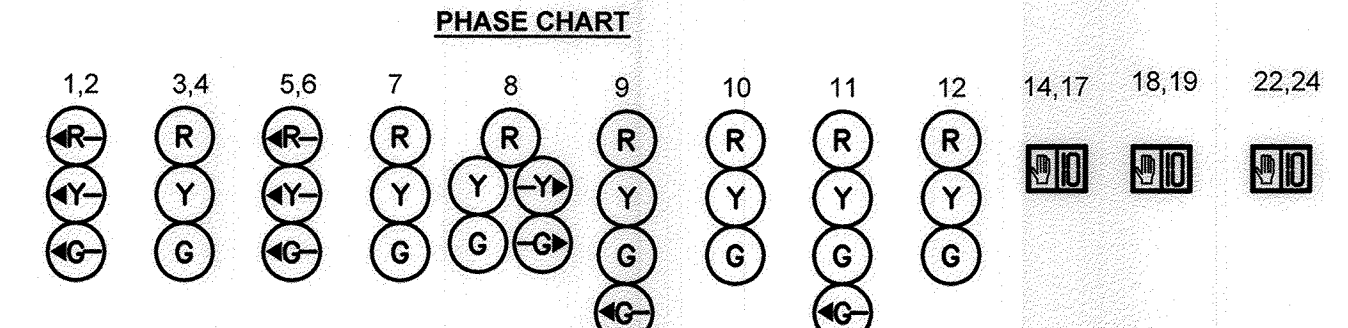
TWIN RIVERS ROAD AND GOVERNOR WARFIELD PARKWAY - NORTH LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS GOVERNOR WARFIELD AT TWIN RIVERS, WAIT."
 WALK: RAPID TICK

TWIN RIVERS ROAD AND GOVERNOR WARFIELD PARKWAY - SOUTH LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS GOVERNOR WARFIELD AT TWIN RIVERS, WAIT."
 WALK: RAPID TICK

TWIN RIVERS ROAD AND GOVERNOR WARFIELD PARKWAY - EAST LEG
STREETS AT 90 DEGREES
 WAIT: "WAIT TO CROSS TWIN RIVERS AT GOVERNOR WARFIELD, WAIT."
 WALK: RAPID TICK

CONTROLLER REQUIREMENTS
 THE EXISTING CONTROLLER WILL REMAIN.

PROJECT DESCRIPTION



PHASE 1+5	<G	R	<G	R	R	R	R	R	R	DW	DW	DW
1 CHANGE+5	<Y	R	<Y	R	R	R	R	R	R	DW	DW	DW
PHASE 1+5 MAY CHANGE TO PHASE 1+6, PHASE 2+5, OR PHASE 2+6												
PHASE 1+6	<G	G	<R	R	R	R	R	R	R	DW	DW	DW
1+6 CHANGE	<Y	G	<R	R	R	R	R	R	R	DW	DW	DW
PHASE 2+5	<R	R	<G	G	G	R	R	R	R	DW	DW	DW
2+5 CHANGE	<R	R	<Y	G	G	R	R	R	R	DW	DW	DW
PHASE 2+6	<R	G	<R	G	G	R	R	R	R	DW	DW	DW
2+6 PED CLEAR	<R	G	<R	G	G	R	R	R	R	DW	FL/DW	DW
2+6 CHANGE	<R	Y	<R	Y	Y	R	R	R	R	DW	DW	DW
PHASE 3	<R	R	<R	R	R/G>	R	R	<G/G	G	DW	DW	DW
3 CHANGE	<R	R	<R	R	R/Y>	R	R	Y	Y	DW	DW	DW
PHASE 3 ALT	<R	R	<R	R	R/G>	R	R	<G/G	G	W	DW	DW
3 ALT PED CLEAR	<R	R	<R	R	R/G>	R	R	<G/G	G	FL/DW	DW	DW
3 ALT CHANGE	<R	R	<R	R	R/Y>	R	R	Y	Y	DW	DW	DW
PHASE 4	<R	R	<R	R	R	<G/G	G	R	R	DW	DW	DW
4 CHANGE	<R	R	<R	R	R	Y	Y	R	R	DW	DW	DW
PHASE 4 ALT	<R	R	<R	R	R	<G/G	G	R	R	DW	DW	W
4 ALT PED CLEAR	<R	R	<R	R	R	<G/G	G	R	R	DW	DW	FL/DW
4 ALT CHANGE	<R	R	<R	R	R	Y	Y	R	R	DW	DW	DW
FLASHING OPERATION	FL/R	FL/Y	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK

NOTE: FOR PREEMPTION OPERATION 1, USE PHASE 1+6. FOR PREEMPTION OPERATION 2, USE PHASE 2+5.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE COUNTY AND INSTALLED BY THE CONTRACTOR

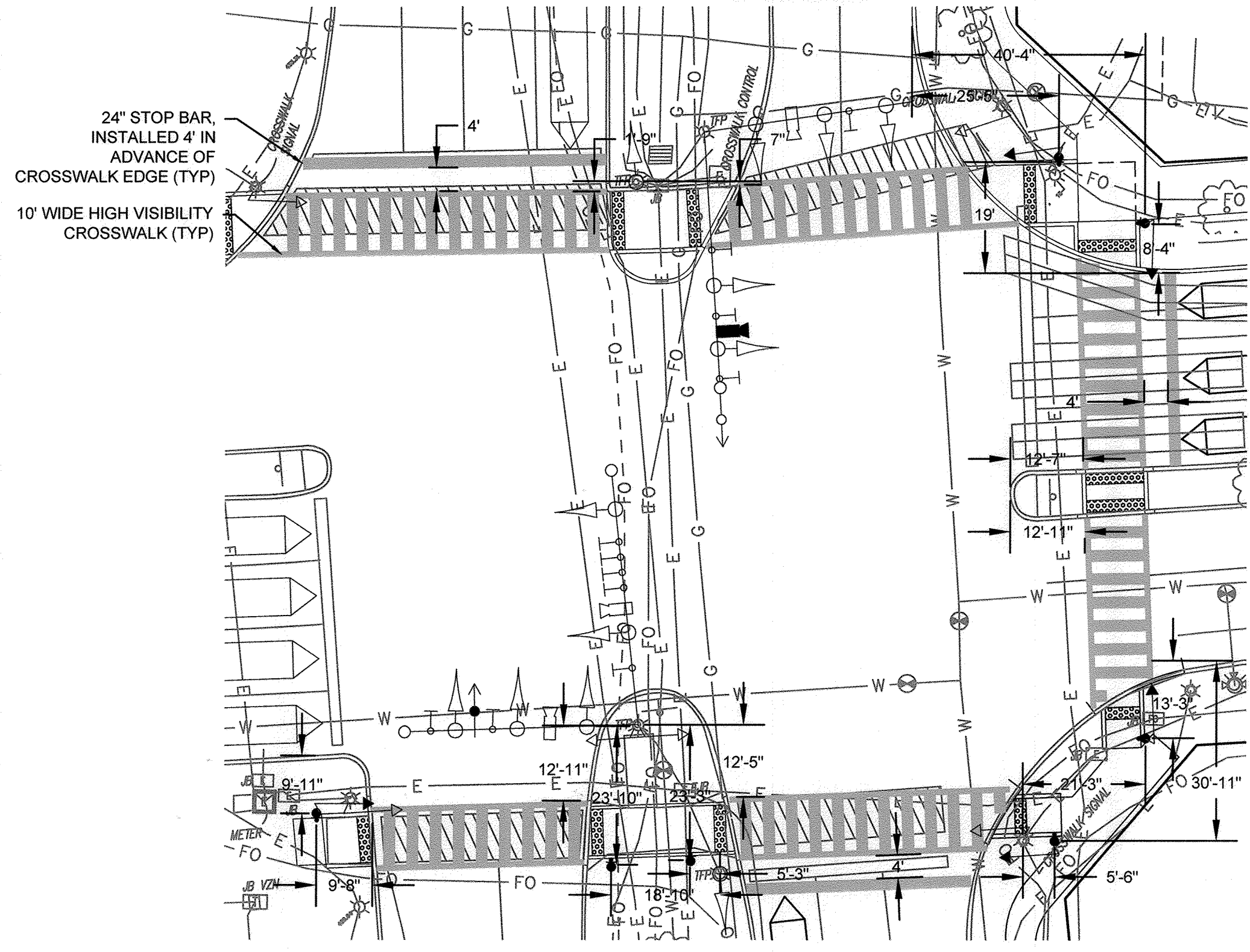
QUANTITY	DESCRIPTION
7 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSH BUTTON STATION, SIGNS, AND INTERFACE
5 EACH	PEDESTRIAN SIGNAL HEAD
255 L.F.	VIDEO DETECTION LEAD-IN CABLE
1 EACH	VIDEO DETECTION CAMERA

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

QUANTITY	DESCRIPTION
LUMP SUM	MAINTENANCE OF TRAFFIC
TBD	TEST PIT EXCAVATION
5 EACH	10 FT STEEL PEDESTAL POLE
1 EACH	5 FT STEEL PEDESTAL POLE
965 L.F.	5- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
1130 L.F.	2- CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
565 L.F.	1- CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
105 L.F.	2 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - TRENCHED
140 L.F.	4 IN. POLYVINYL CHLORIDE (SCHEDULE 80) ELECTRICAL CONDUIT - BORED
6 EACH	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
1 EACH	HANDHOLE COVER
1 EACH	HANDHOLE CONCRETE COLLAR
LUMP SUM	REMOVE AND DISPOSE OF EQUIPMENT
125 L.F.	OPTICOM LEAD-IN CABLE
1 EACH	RELOCATE OPTICOM DETECTION
1020 L.F.	ERADICATE EXISTING PAVEMENT MARKINGS (ALL WIDTHS)
515 L.F.	12" WHITE PAVEMENT MARKING
485 L.F.	24" WHITE PAVEMENT MARKING
7 EACH	INSTALL PEDESTRIAN SIGNAL HEAD
5 EACH	INSTALL PEDESTRIAN PUSHBUTTON AND SIGN
1 EACH	INSTALL VIDEO DETECTION CAMERA

SIGNAL POLE LOCATIONS



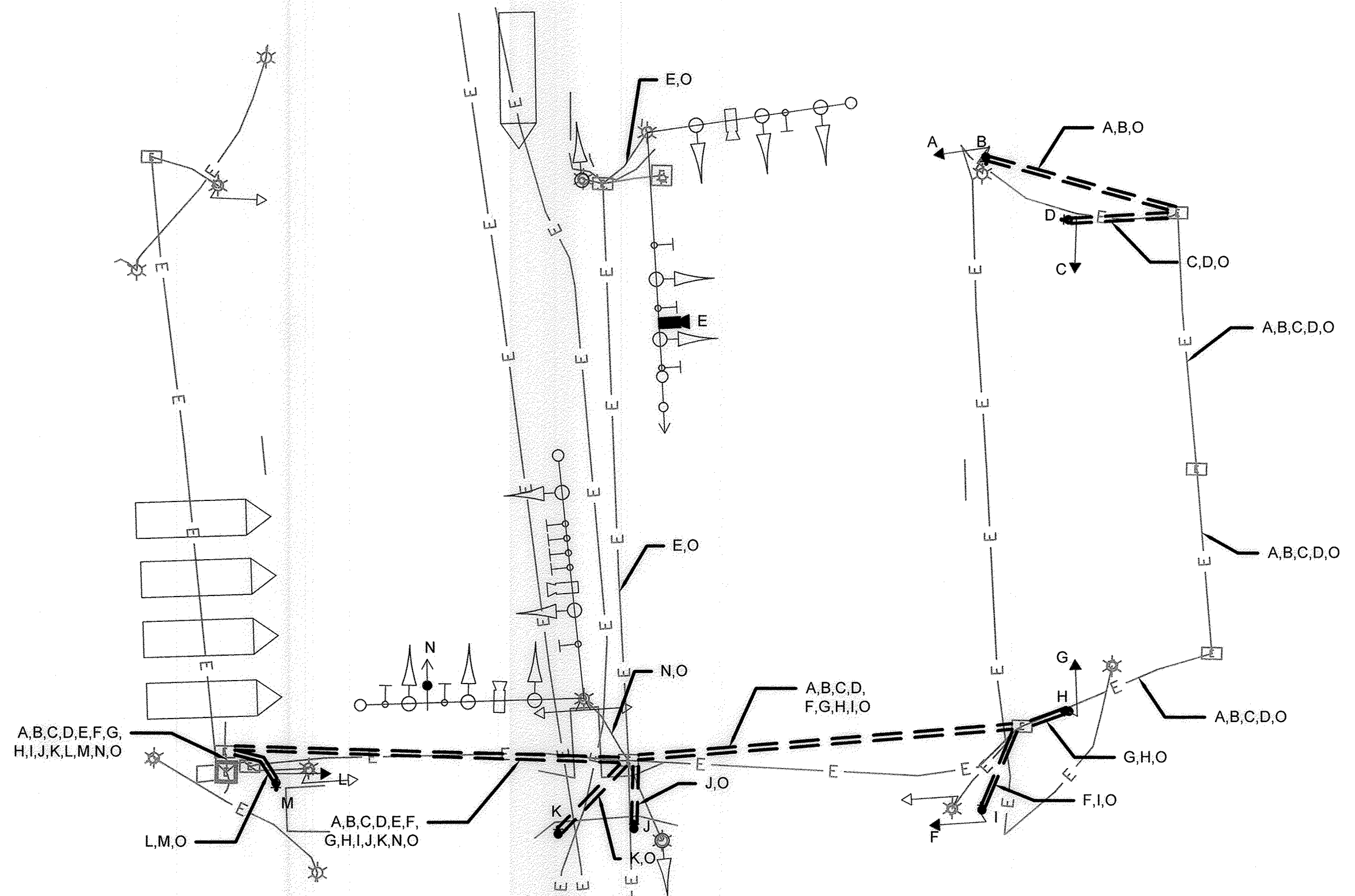
*NOTE: MEASUREMENTS ARE TAKEN FROM FACE OF CURB, EXISTING SIGNAL POLE OR TANGENT OF FACE OF CURB.

PROPOSED WIRING

WIRING KEY*

A,C,F,G,L	5 - CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
B,D,H,I,J,K,M	2 - CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
E	2 - VIDEO DETECTION LEAD-IN CABLE
N	2 - OPTICOM LEAD-IN CABLE
O	1 - CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)

*PROPOSED WIRING ONLY



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Director, Department of Public Works
 Chief, Bureau of Highways
 Chief, Traffic Engineering Division

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
 Scott Shanaberger
 Professional L.S. # 10849 Exp. Date 4/2/2022
 AS-BUILT DATE: 1/24/2020
 Shanaberger & Lane

ENGINEER'S CERTIFICATION
 "I HEREBY CERTIFY THAT THIS PLAN FOR TRAFFIC SIGNAL DESIGN REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY TRAFFIC ENGINEERING DIVISION."
 Marybeth Allerton-Brick
 7/10/2019
 ENGINEER'S SIGNATURE DATE

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director
 Chief, Division of Land Development
 Chief, Development Engineering Division

TOOLE DESIGN
 8484 GEORGIA AVENUE
 SUITE 800
 SILVER SPRING, MD 20910
 PHONE: 301.927.1900
 FAX: 301.927.2800
 www.tooledesign.com

Howard Hughes
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 COLUMBIA, MD 21044
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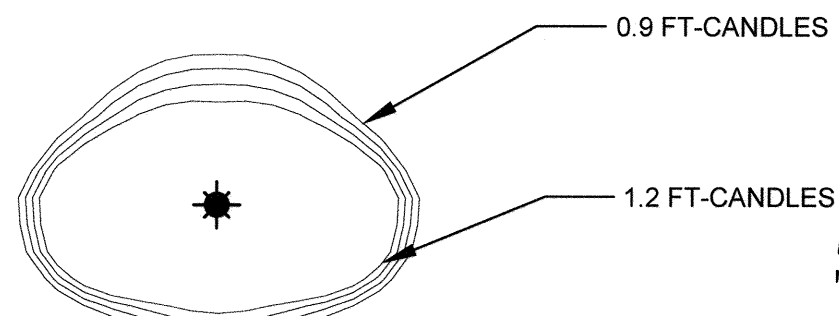
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 39022
 EXPIRATION DATE: 12/28/19

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 Greg Filchitt

GENERAL INFORMATION SHEET
 TWIN RIVERS ROAD AND GOVERNOR WARFIELD PARKWAY

GENERAL SIGNAL INFORMATION - GOV		C8.6
SCALE	ZONING	TDG. FILE No.
NA	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	54 OF 63

HOWARD COUNTY



POST-TOP ISOLINE DIAGRAM
N.T.S.

LIGHTING LEGEND

- ⊙ EXISTING STREETLIGHT
- ⊙ EXISTING UTILITY POLE
- ⊙ PROPOSED POST-TOP STREETLIGHT
- ⊙ PROPOSED COBRAHEAD STREETLIGHT
- E — PROPOSED ELECTRICAL CONDUIT

NOTES:

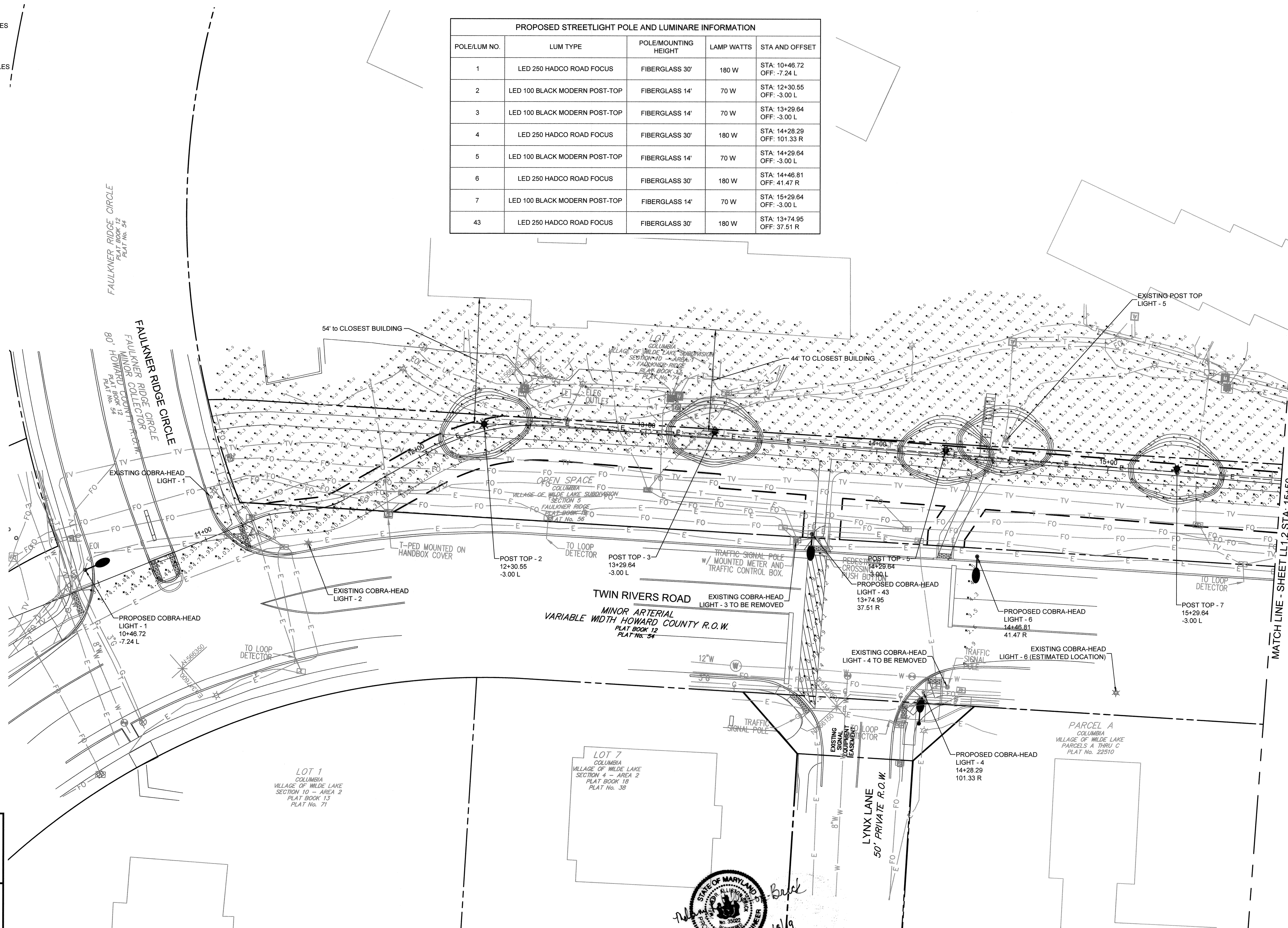
1. FOR STREET LIGHT POLE PLACEMENT AND INSTALLATION, SEE DRAWING C6.6.
2. FOR LIGHT POLE AND FIXTURE DETAILS, SEE DRAWING 6.7.

AGI32 CALCULATIONS

FAULKNER RIDGE CIRCLE TO GREEN MOUNTAIN CIRCLE, WEST
AVERAGE=0.36 MINIMUM=0.0 AVG/MIN=N.A.

INTERSECTION AT FAULKNER RIDGE CIRCLE
AVERAGE=4.33 MINIMUM=1.4 AVG/MIN=3.09

PROPOSED STREETLIGHT POLE AND LUMINAIRE INFORMATION				
POLE/LUM NO.	LUM TYPE	POLE/MOUNTING HEIGHT	LAMP WATTS	STA AND OFFSET
1	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 10+46.72 OFF: -7.24 L
2	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 12+30.55 OFF: -3.00 L
3	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 13+29.64 OFF: -3.00 L
4	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 14+28.29 OFF: 101.33 R
5	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 14+29.64 OFF: -3.00 L
6	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 14+46.81 OFF: 41.47 R
7	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 15+29.64 OFF: -3.00 L
43	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 13+74.95 OFF: 37.51 R



STATE OF MARYLAND
SCOTT SHANABERGER
PROFESSIONAL LAND SURVEYOR
No. 35222
EXPIRES 12/31/2022

THIS IS NO AS-BUILT PROVIDED ON THIS SHEET

Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 12/24/2020
Shanaberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
Date: 12-24-19

Chief, Division of Land Development: [Signature] 12-23-19
Date: 12-23-19

Chief, Development Engineering Division: [Signature] 12-16-19
Date: 12-16-19

TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

NO.	REVISION	DATE	BY	APPR.

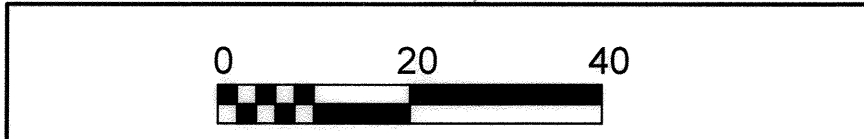
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Greg Filchitt, President, Maryland Region
410.984.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35222, EXPIRATION DATE: 12/29/19

STATE OF MARYLAND
ALFRED BUCK
No. 35222
REGISTERED PROFESSIONAL ENGINEER
10/10/19

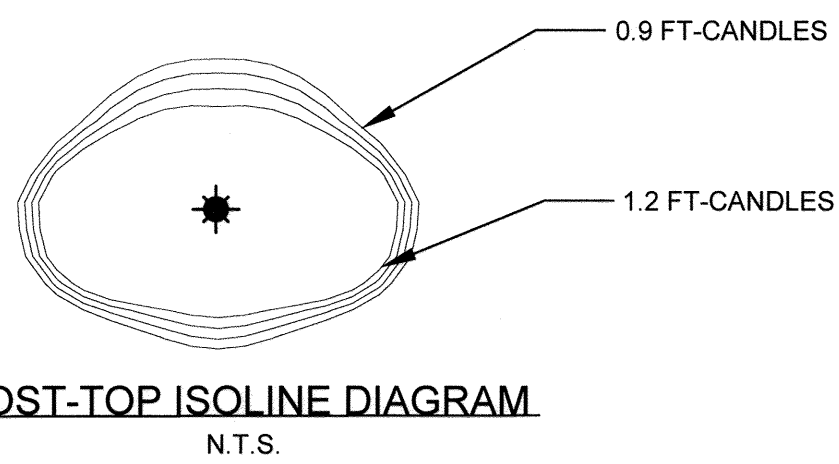
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD RIDGE CIR.

ELECTION DISTRICT 5
HOWARD COUNTY



LIGHTING PLAN - 1		LL1.1
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 55 OF 63

MATCH LINE - SHEET LL1.2 STA: 15+50



PROPOSED STREETLIGHT POLE AND LUMINARE INFORMATION				
POLE/LUM NO.	LUM TYPE	POLE/MOUNTING HEIGHT	LAMP WATTS	STA AND OFFSET
8	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 16+29.64 OFF: -3.00 L
9	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 17+29.78 OFF: -3.00 L
10	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 18+29.78 OFF: -3.00 L
11	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 19+30.66 OFF: -3.00 L
12	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 20+31.49 OFF: -3.00 L

LIGHTING LEGEND

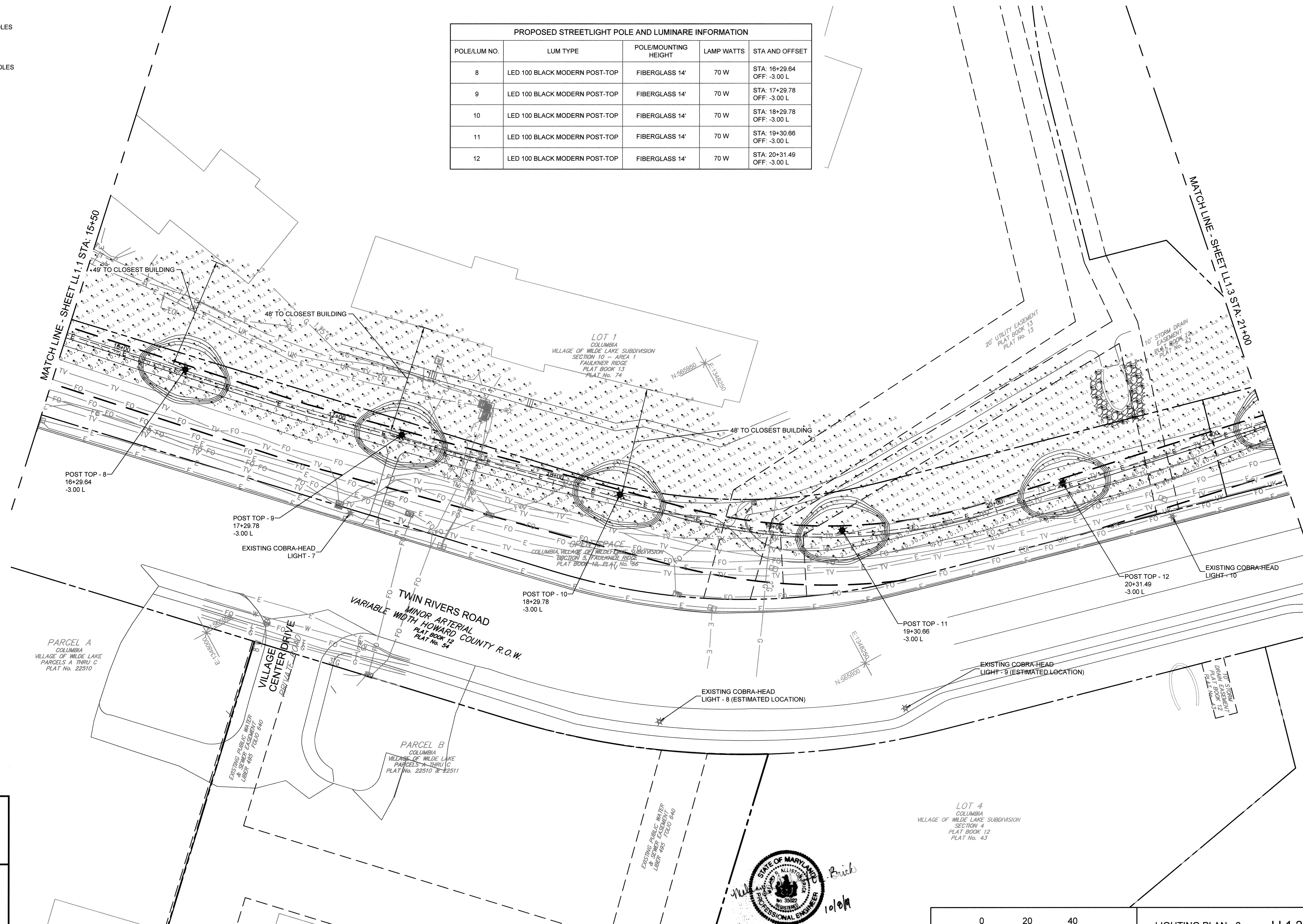
- ★ EXISTING STREETLIGHT
- EXISTING UTILITY POLE
- ★ PROPOSED POST-TOP STREETLIGHT
- PROPOSED COBRAHEAD STREETLIGHT
- E--- PROPOSED ELECTRICAL CONDUIT

NOTES:

1. FOR STREET LIGHT POLE PLACEMENT AND INSTALLATION, SEE DRAWING C6.6.
2. FOR LIGHT POLE AND FIXTURE DETAILS, SEE DRAWING 6.7.

AGI32 CALCULATIONS

FAULKNER RIDGE CIRCLE TO GREEN MOUNTAIN CIRCLE, WEST
AVERAGE=0.36 MINIMUM=0.0 AVG/MIN=N.A.



STATE OF MARYLAND
REGINALD SCOTT SHANABERGER
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2022
Shanaberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
Date: 12-23-19

Chief, Division of Land Development: [Signature]
Date: 12-16-19

Chief, Development Engineering Division: [Signature]
Date: 12-16-19

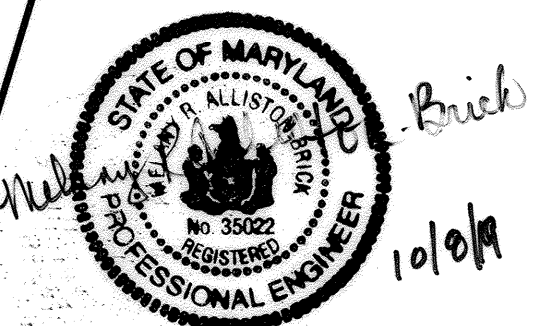
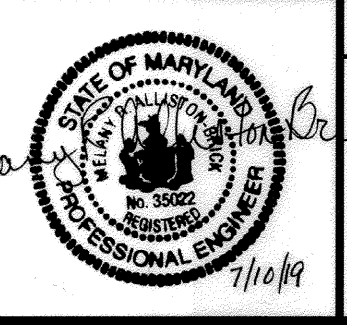
TOOLE DESIGN

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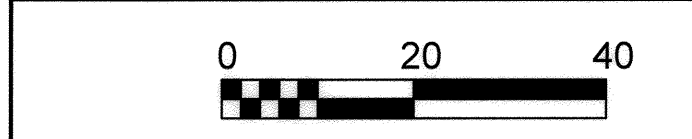
DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
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PROFESSIONAL CERTIFICATION
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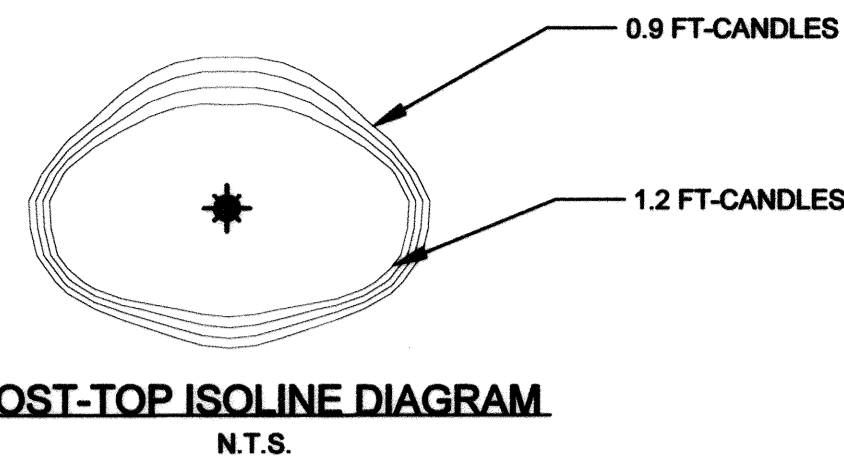


WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER CIRCLE
COLUMBIA, MD RIDGE CIR.



LIGHTING PLAN - 2		LL1.2
SCALE 1" = 20'	ZONING NT	TDG. FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 56 OF 63

\\scor-fic01\50000\5477.02_Wilde Lake Connector_Traffic\PRODUCTION\CAD\PLANS\5477.02_LL1.001.dwg
 PLOTTED: 7/11/2019 12:41 AM, LAST SAVER: 7/11/2019 12:07 AM, PLOTTED BY: Melony Allison-Brick



- LIGHTING LEGEND**
- ⊛ EXISTING STREETLIGHT
 - ⊙ EXISTING UTILITY POLE
 - ⊛ PROPOSED POST-TOP STREETLIGHT
 - PROPOSED COBRAHEAD STREETLIGHT
 - E --- PROPOSED ELECTRICAL CONDUIT

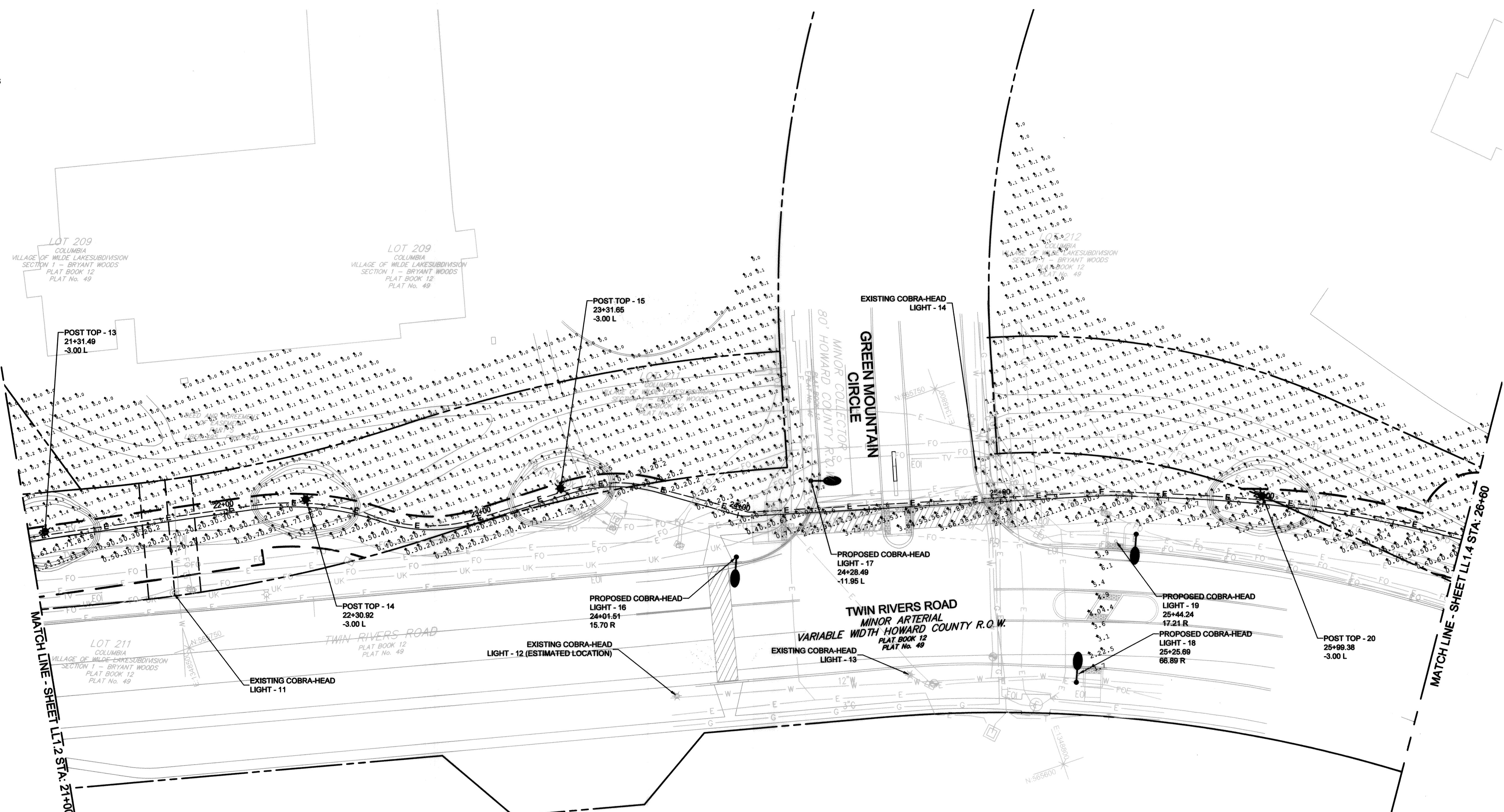
- NOTES:**
1. FOR STREET LIGHT POLE PLACEMENT AND INSTALLATION, SEE DRAWING C6.6.
 2. FOR LIGHT POLE AND FIXTURE DETAILS, SEE DRAWING 6.7.

AGI32 CALCULATIONS

FAULKNER RIDGE CIRCLE TO GREEN MOUNTAIN CIRCLE, WEST
AVERAGE=0.36 MINIMUM=0.0 AVG/MIN=0.00

GREEN MOUNTAIN CIRCLE, WEST TO GREEN MOUNTAIN CIRCLE, EAST
AVERAGE=0.36 MINIMUM=0 AVG/MIN=N/A

INTERSECTION AT GREEN MOUNTAIN CIRCLE, WEST
AVERAGE=4.96 MINIMUM=2.2 AVG/MIN=2.25



PROPOSED STREETLIGHT POLE AND LUMINAIRE INFORMATION

POLE/LUM NO.	LUM TYPE	POLE/MOUNTING HEIGHT	LAMP WATTS	STA AND OFFSET
13	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 21+31.49 OFF: -3.00 L
14	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 22+30.92 OFF: -3.00 L
15	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 23+31.65 OFF: -3.00 L
16	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 24+01.51 OFF: 15.70 R
17	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 24+28.49 OFF: -11.95 L
18	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 25+25.69 OFF: 66.89 R
19	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 25+44.24 OFF: 17.21 R
20	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 25+99.38 OFF: -3.00 L

STATE OF MARYLAND
PROFESSIONAL ENGINEER
SCOTT SHANBERGER
No. 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/21/2020
Shanberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-19

Chief, Division of Land Development: [Signature] Date: 12-23-19

Chief, Development Engineering Division: [Signature] Date: 12-16-19

TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APP'R.

Howard Hughes
THE HOWARD HUGHES CORPORATION
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.964.4800 - Greg.Fitchitt@howardhughes.com

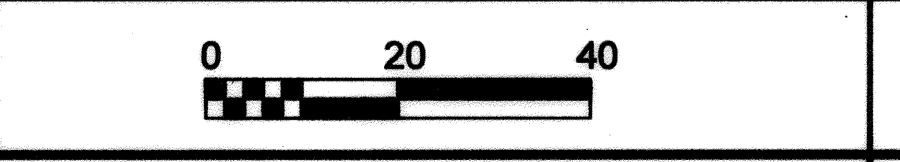
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 38022 EXPIRATION DATE: 12/28/21

STATE OF MARYLAND
PROFESSIONAL ENGINEER
12/16/19

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD

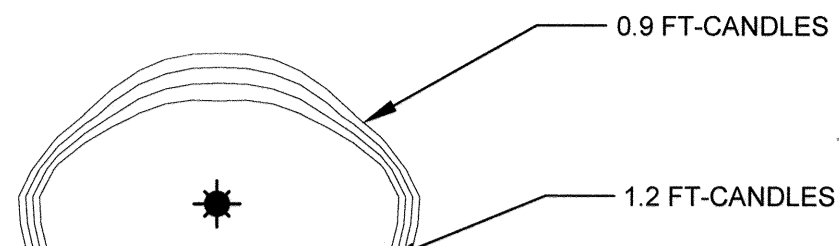
ELECTION DISTRICT 5
HOWARD COUNTY



LIGHTING PLAN - 3 LL1.3

SCALE	ZONING	TDC FILE NO.
1" = 20'	NT	5477.02
DATE	TAX MAP - GRID	SHEET
7/10/19	29/30/36	57 OF 63

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 PLOTTED: 12/16/2019 4:29 PM. LAST SAVED: 12/16/2019 2:58 PM. PLOTTED BY: [Name]
 SDP-19-036



POST-TOP ISOLINE DIAGRAM
N.T.S.

LIGHTING LEGEND

- ⊛ EXISTING STREETLIGHT
- ⊙ EXISTING UTILITY POLE
- ⊛ PROPOSED POST-TOP STREETLIGHT
- PROPOSED COBRAHEAD STREETLIGHT
- E --- PROPOSED ELECTRICAL CONDUIT

NOTES:

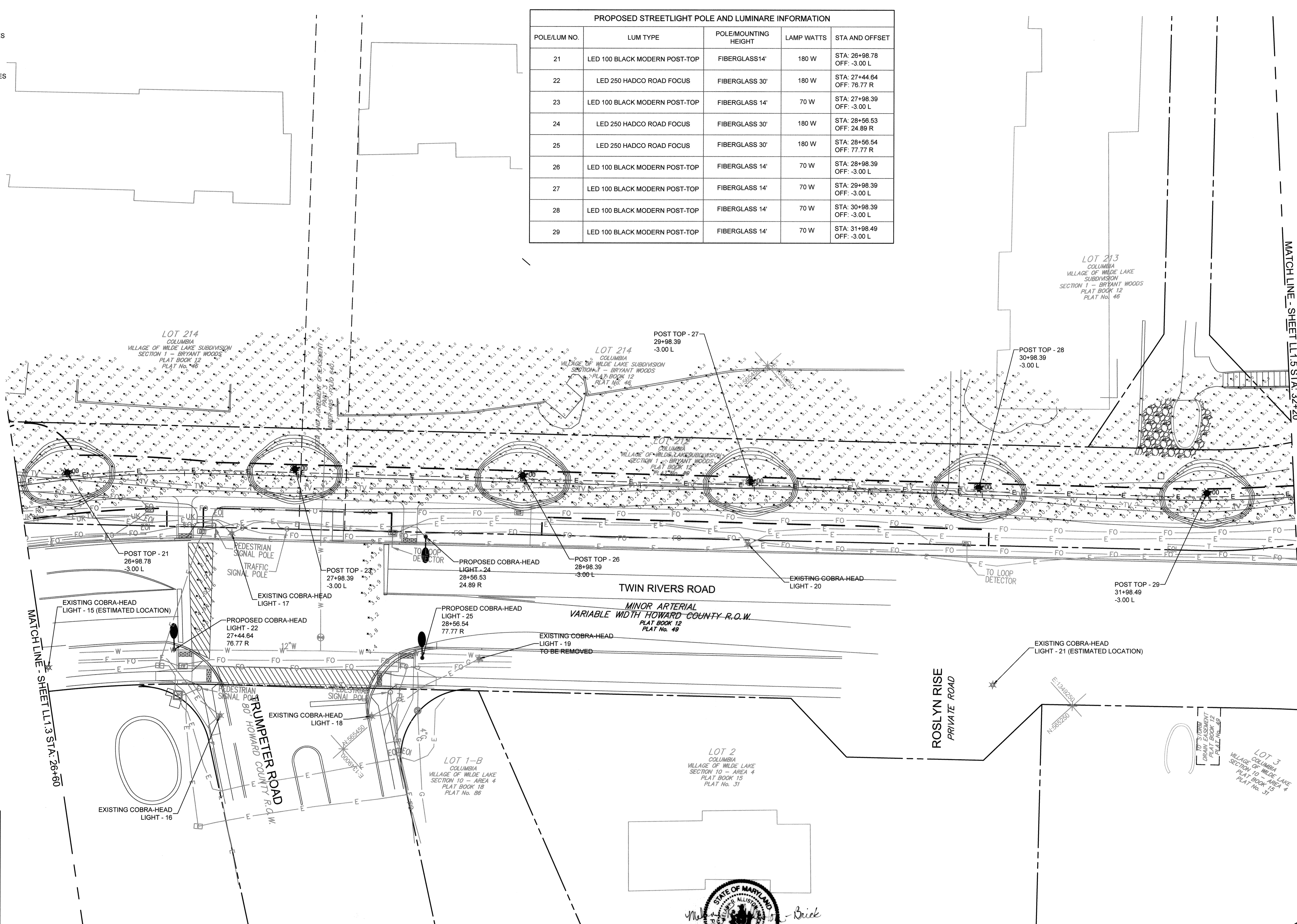
1. FOR STREET LIGHT POLE PLACEMENT AND INSTALLATION, SEE DRAWING C6.6.
2. FOR LIGHT POLE AND FIXTURE DETAILS, SEE DRAWING 6.7.

AGI32 CALCULATIONS

GREEN MOUNTAIN CIRCLE, WEST TO GREEN MOUNTAIN CIRCLE, EAST
AVERAGE=0.36 MINIMUM=0 AVG/MIN=N/A

INTERSECTION AT GREEN MOUNTAIN CIRCLE, WEST
AVERAGE=4.96 MINIMUM=2.2 AVG/MIN=2.25

POLE/LUM NO.	LUM TYPE	POLE/MOUNTING HEIGHT	LAMP WATTS	STA AND OFFSET
21	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	180 W	STA: 26+98.78 OFF: -3.00 L
22	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 27+44.64 OFF: 76.77 R
23	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 27+98.39 OFF: -3.00 L
24	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 28+56.53 OFF: 24.89 R
25	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 28+56.54 OFF: 77.77 R
26	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 28+98.39 OFF: -3.00 L
27	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 29+98.39 OFF: -3.00 L
28	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 30+98.39 OFF: -3.00 L
29	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 31+98.49 OFF: -3.00 L



STATE OF MARYLAND
SCOTT SHANABER
PROFESSIONAL ENGINEER
No. 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2022
Shanaberger & Lane

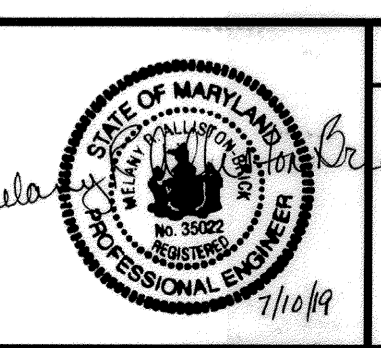
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19
Date: 12-23-19
Chief, Division of Land Development: [Signature]
Chief, Development Engineering Division: [Signature] 12-16-19

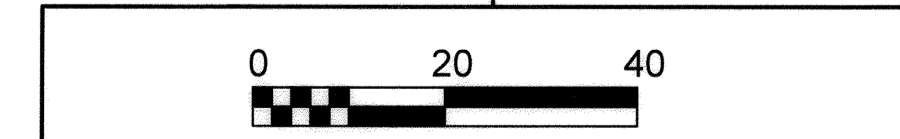
TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

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10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Filchitt, President, Maryland Region
410.984.4800 - Greg.Filchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30029
EXPIRATION DATE: 12/29/19



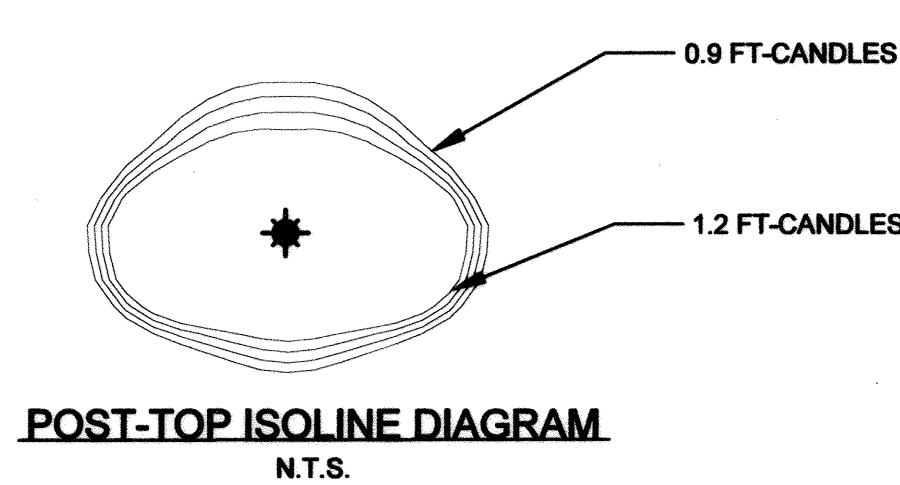
STATE OF MARYLAND
SCOTT SHANABER
PROFESSIONAL ENGINEER
10/8/19



LIGHTING PLAN - 4		LL1.4
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 58 OF 63

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIR.

PROPOSED STREETLIGHT POLE AND LUMINAIRE INFORMATION				
POLE/LUM NO.	LUM TYPE	POLE/MOUNTING HEIGHT	LAMP WATTS	STA AND OFFSET
30	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 33+04.17 OFF: -3.00 L
31	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 33+67.04 OFF: -3.14 L
32	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 34+73.73 OFF: 23.47 R
33	LED 250 HADCO ROAD FOCUS	FIBERGLASS 30'	180 W	STA: 34+48.29 OFF: 71.47 R
34	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 35+15.98 OFF: -3.00 L
35	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 36+00.98 OFF: -3.00 L
36	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W	STA: 36+85.98 OFF: -3.00 L
37	LED 100 BLACK MODERN POST-TOP	FIBERGLASS 14'	70 W </tr	



- LIGHTING LEGEND**
- ☆ EXISTING STREETLIGHT
 - ⊙ EXISTING UTILITY POLE
 - ★ PROPOSED POST-TOP STREETLIGHT
 - PROPOSED COBRAHEAD STREETLIGHT
 - E --- PROPOSED ELECTRICAL CONDUIT

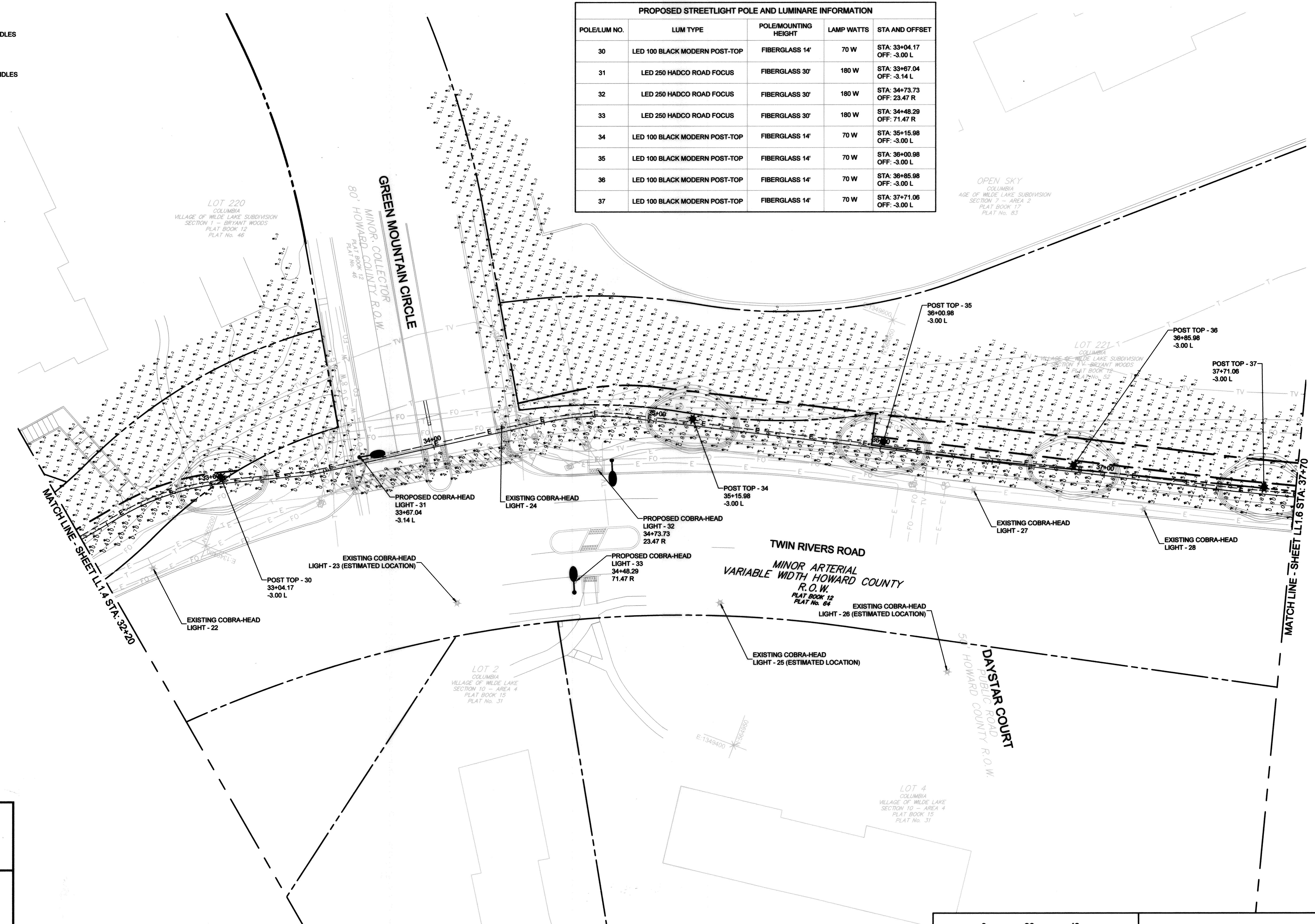
- NOTES:**
- FOR STREET LIGHT POLE PLACEMENT AND INSTALLATION, SEE DRAWING C6.6.
 - FOR LIGHT POLE AND FIXTURE DETAILS, SEE DRAWING 6.7.

AGI32 CALCULATIONS

GREEN MOUNTAIN CIRCLE, WEST TO GREEN MOUNTAIN CIRCLE, EAST
AVERAGE=0.36 MINIMUM=0 AVG/MIN=N/A

GREEN MOUNTAIN CIRCLE, EAST TO GOVERNOR WARFIELD PARKWAY
AVERAGE=0.48 MINIMUM=0 AVG/MIN=N/A

INTERSECTION AT GREEN MOUNTAIN CIRCLE, EAST
AVERAGE=5.02 MINIMUM=2.8 AVG/MIN=1.79



STATE OF MARYLAND
SCOTT SHANABERGER
Professional Engineer
No. 17241
Professional Seal
Professional No. 17241 Exp. Date 4/2/2022
AS-BUILT DATE: 12-16-19
Shanaberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] Date: 12-24-17

Chief, Division of Land Development: [Signature] Date: 12-23-19

Chief, Development Engineering Division: [Signature] Date: 12-16-19

TOOLE DESIGN

8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

DES.	DPB	DRN.	AG	CHK.	EM	DATE	REVISION	BY	APPR.

Howard Hughes
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fitchell, President, Maryland Region
410.964.4800 - Greg.Fitchell@howardhughes.com

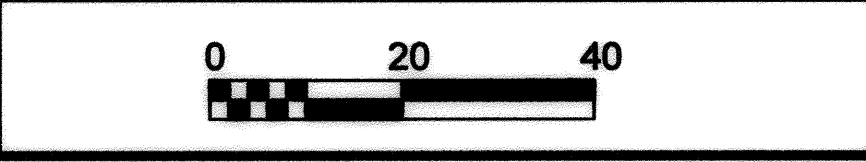
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 33022
EXPIRATION DATE: 12/28/21

STATE OF MARYLAND
SCOTT SHANABERGER
Professional Engineer
No. 17241

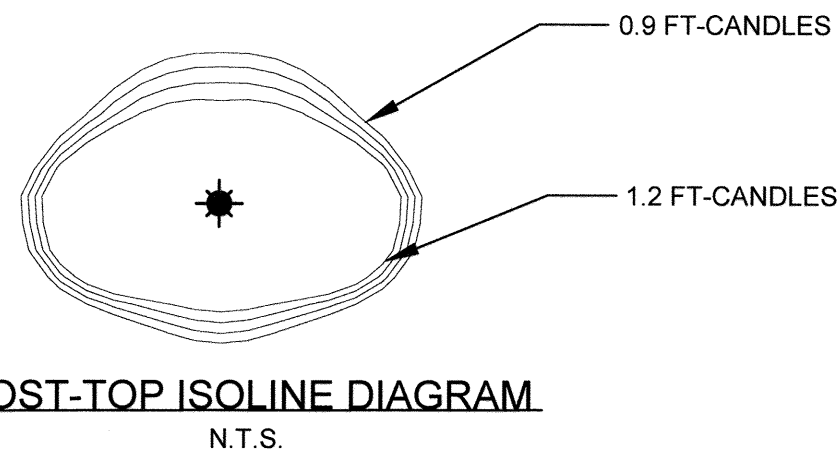
**WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD**

ELECTION DISTRICT 5
HOWARD COUNTY



LIGHTING PLAN - 5			LL1.5
SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 59 OF 63	

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LIGHTING LEGEND

- ★ EXISTING STREETLIGHT
- ⊙ EXISTING UTILITY POLE
- ⊙ PROPOSED POST-TOP STREETLIGHT
- PROPOSED COBRAHEAD STREETLIGHT
- E --- PROPOSED ELECTRICAL CONDUIT

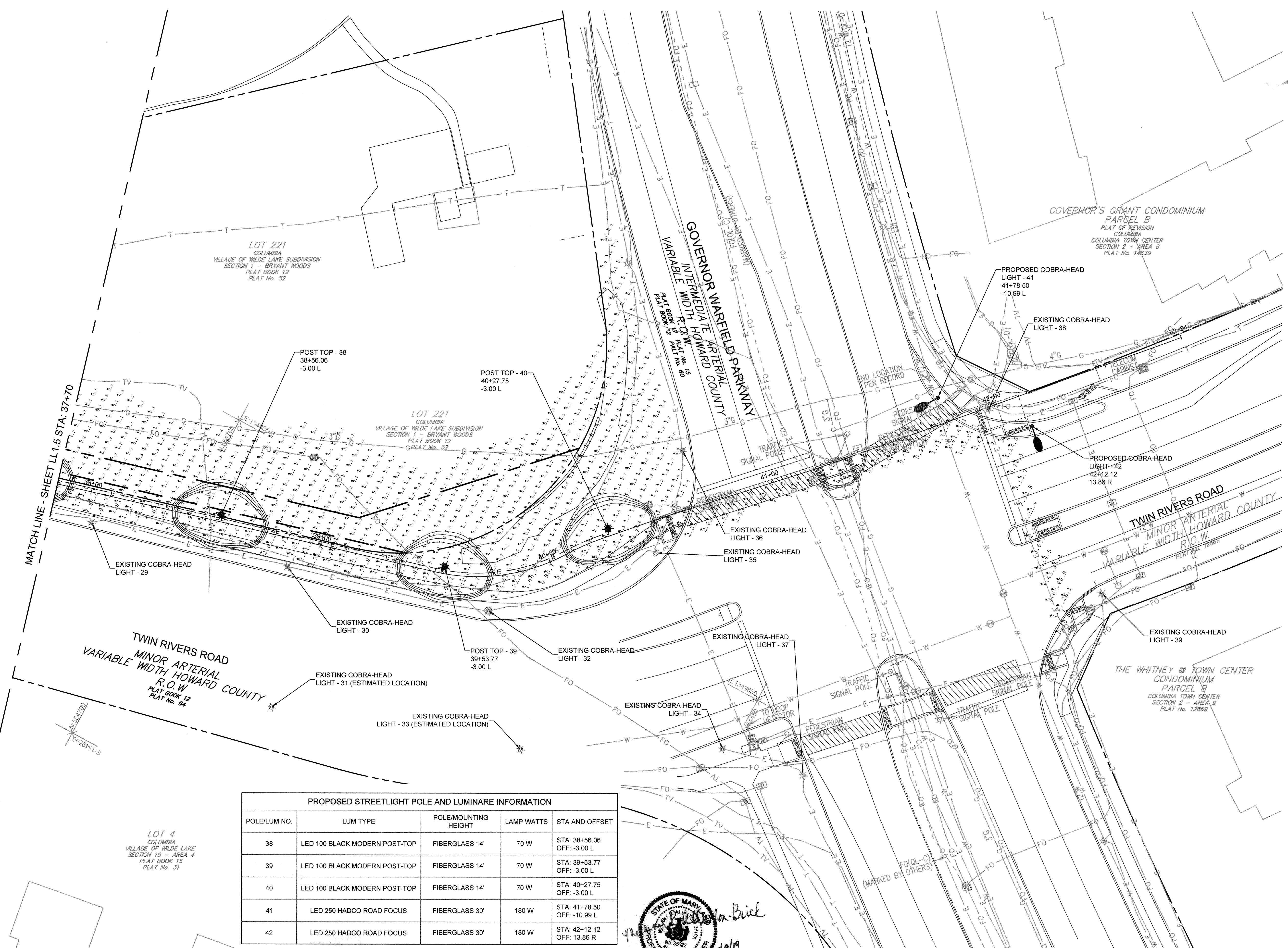
NOTES:

1. FOR STREET LIGHT POLE PLACEMENT AND INSTALLATION, SEE DRAWING C6.6.
2. FOR LIGHT POLE AND FIXTURE DETAILS, SEE DRAWING 6.7.

AGI32 CALCULATIONS

GREEN MOUNTAIN CIRCLE, EAST TO GOVERNOR WARFIELD PARKWAY
AVERAGE=0.48 MINIMUM=0 AVG/MIN=N/A

INTERSECTION AT GOVERNOR WARFIELD PARKWAY
AVERAGE=1.39 MINIMUM=0.4 AVG/MIN=3.48



STATE OF MARYLAND
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanaberger & Lane

APPROVED
PLANNING BOARD OF HOWARD COUNTY

Date: June 16, 2019

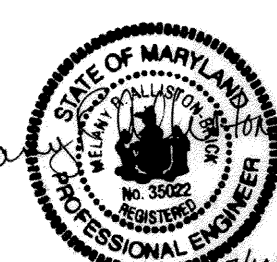
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] 12-24-19
Date: 12-23-19
Chief, Division of Land Development: [Signature]
Date: 12-16-19
Chief, Development Engineering Division: [Signature]

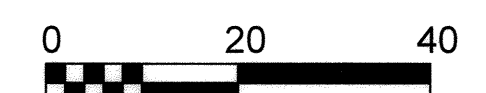
TOOLE DESIGN
8484 GEORGIA AVENUE
SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.984.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38022
EXPIRATION DATE: 12/28/19



STATE OF MARYLAND
Professional Engineer
Greg Fitchitt
12/16/19



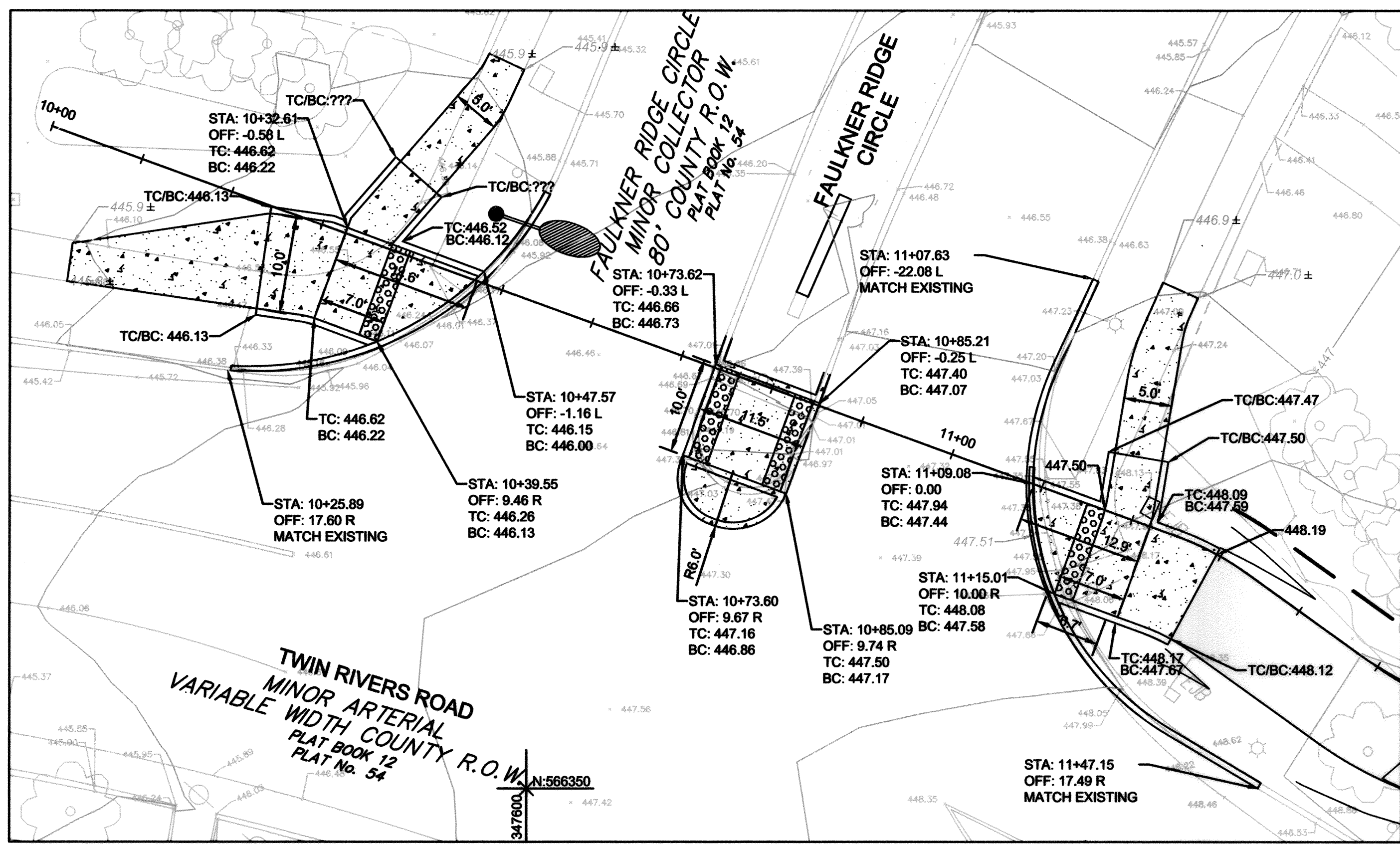
LIGHTING PLAN - 6 LL1.6

SCALE 1" = 20'	ZONING NT	TDC FILE No. 5477.02
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 60 OF 63

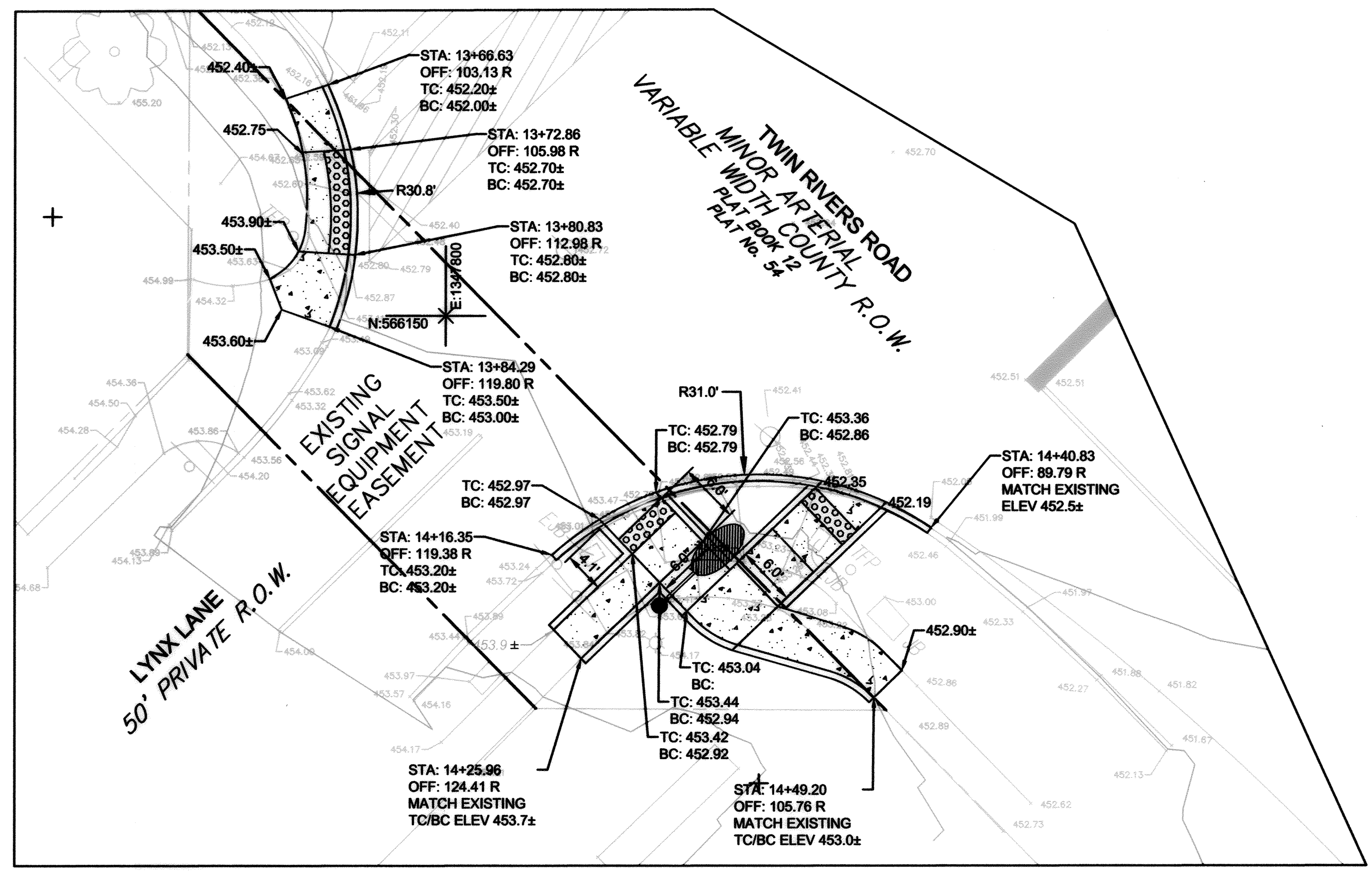
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE - FRANKNER
COLUMBIA, MD RIDGE CIR.

ELECTION DISTRICT 5

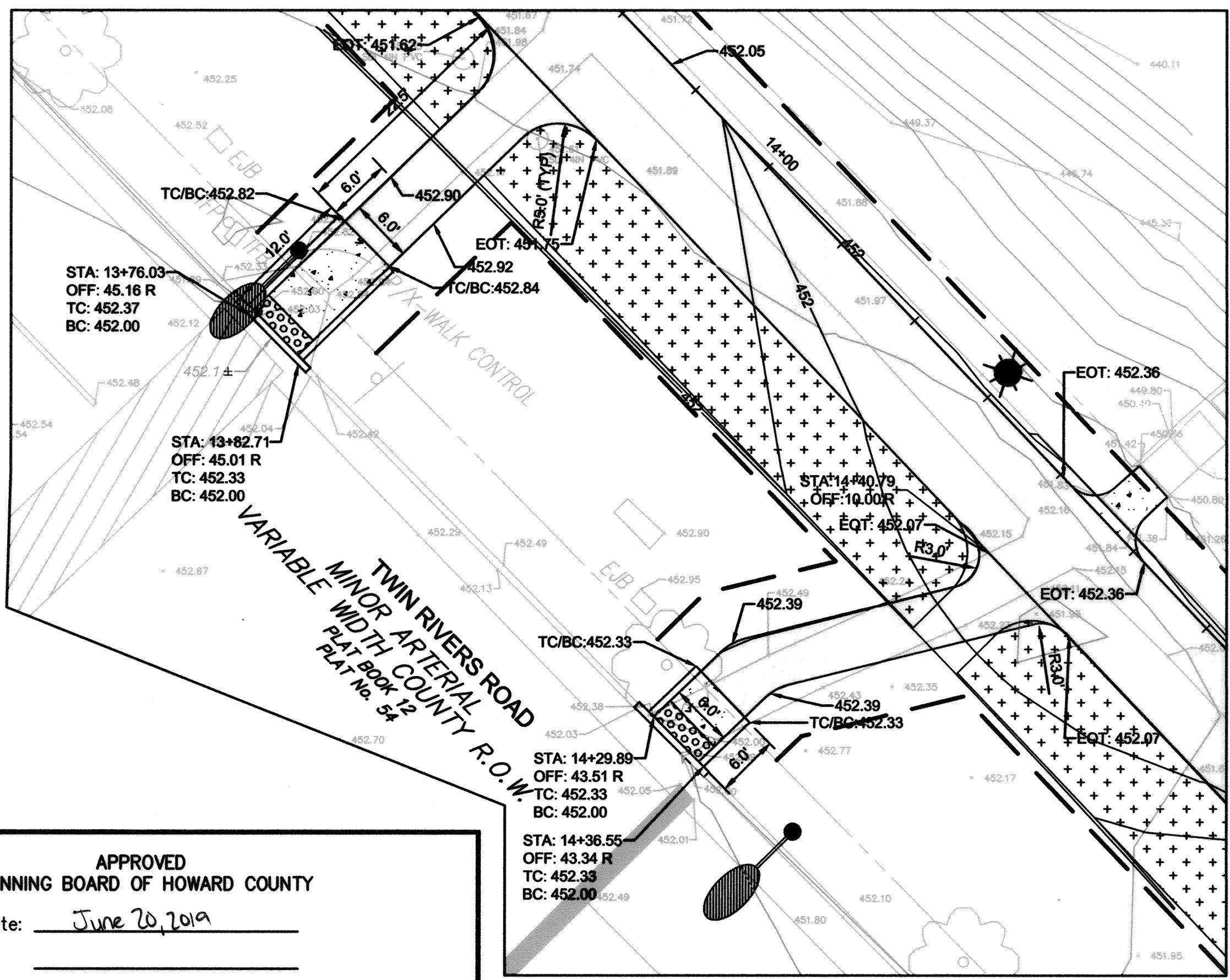
HOWARD COUNTY



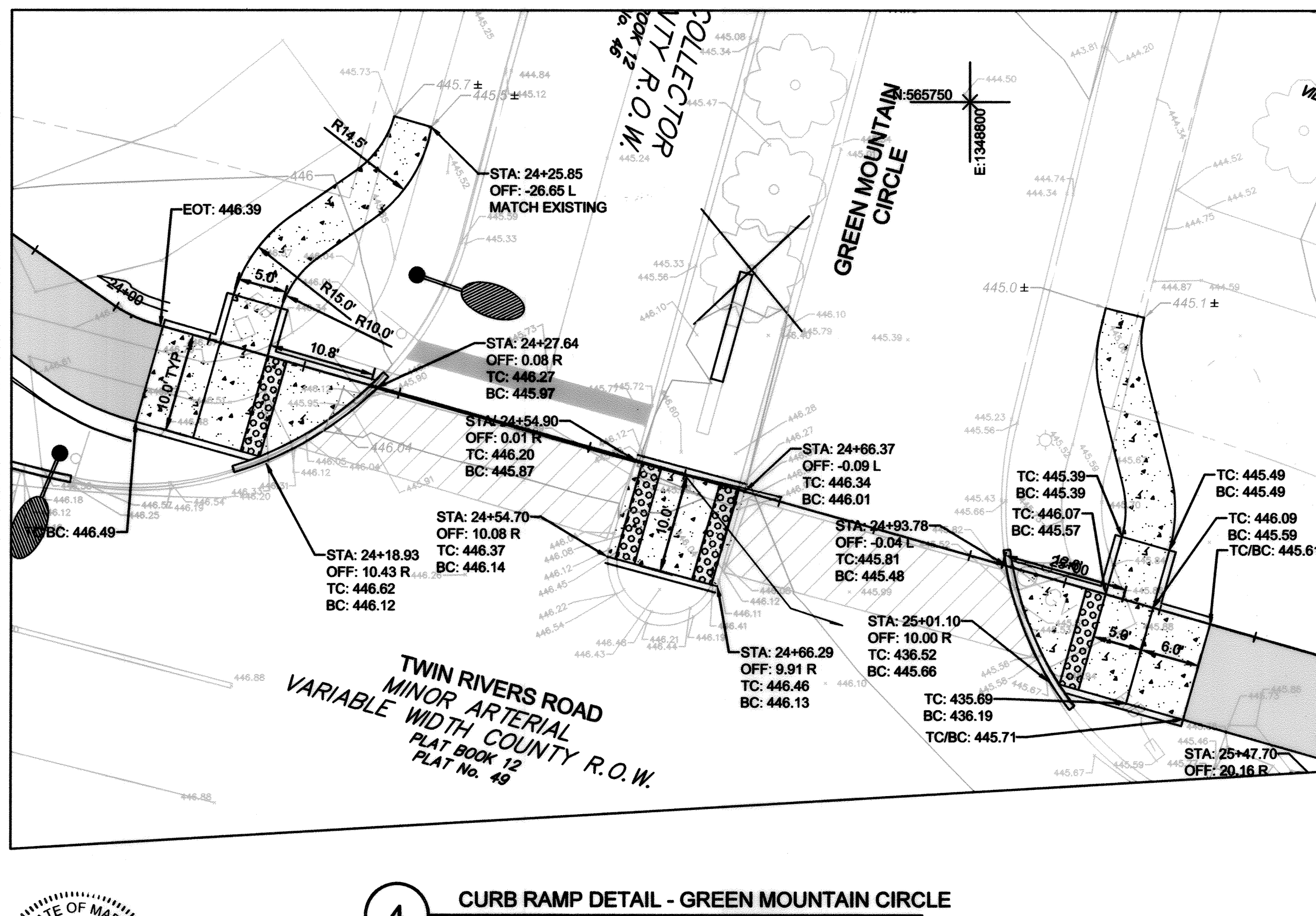
1 CURB RAMP DETAIL - FAULKNER RIDGE CIRCLE
1"=10'



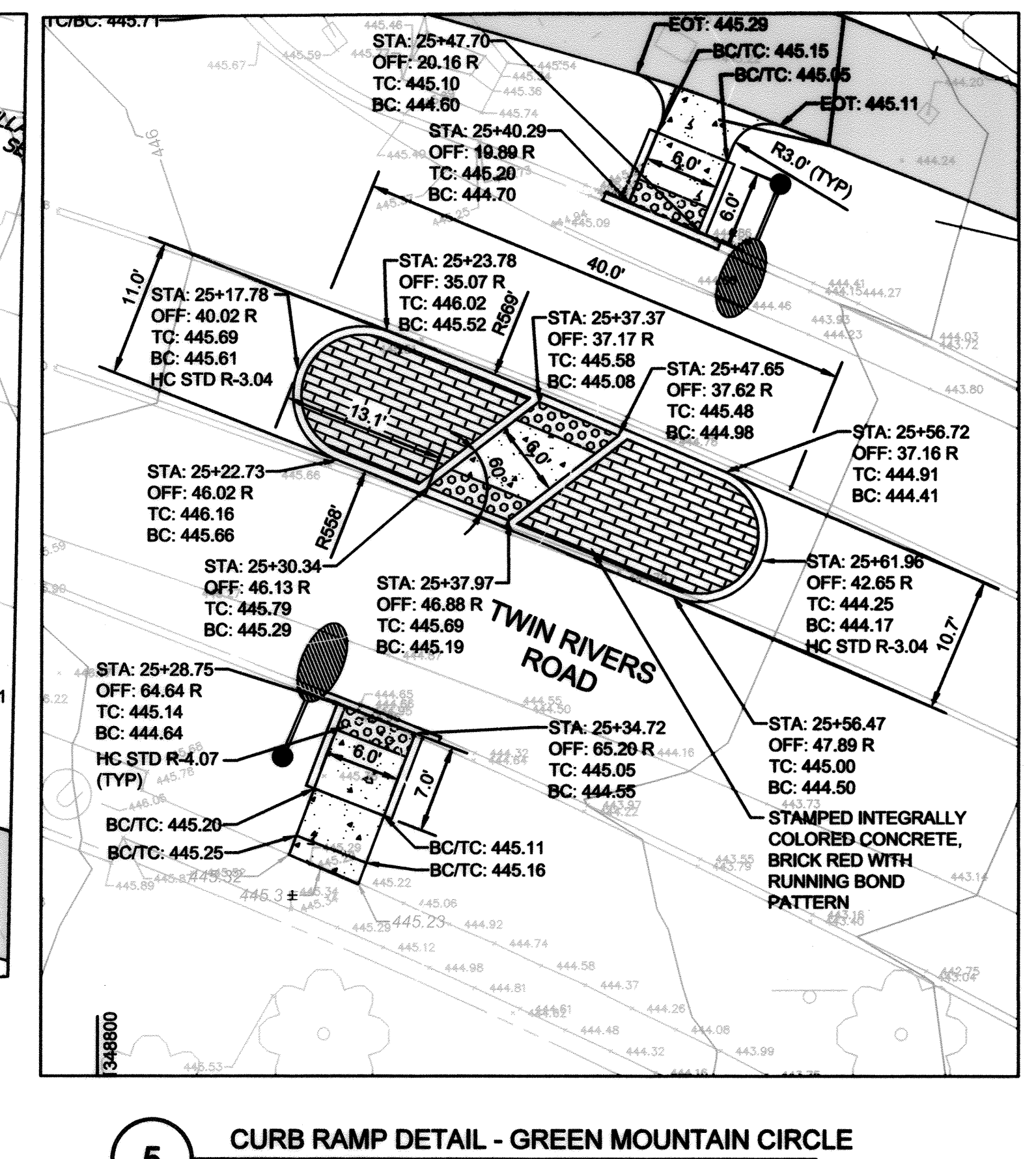
2 CURB RAMP DETAIL - LYNX LANE
1"=10'



3 CURB RAMP DETAIL - LYNX LANE
1"=10'



4 CURB RAMP DETAIL - GREEN MOUNTAIN CIRCLE
1"=10'



5 CURB RAMP DETAIL - GREEN MOUNTAIN CIRCLE
1"=10'

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 20, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 12-24-19 Date
Chief, Division of Land Development: [Signature] 12-23-19 Date
Chief, Development Engineering Division: [Signature] 12-16-19 Date

STATE OF MARYLAND
NOTICE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET
Professional Seal of Scott Shanabarger, No. 35822, License No. 2022, Expiration Date: 12/31/2022
Shanabarger & Lane



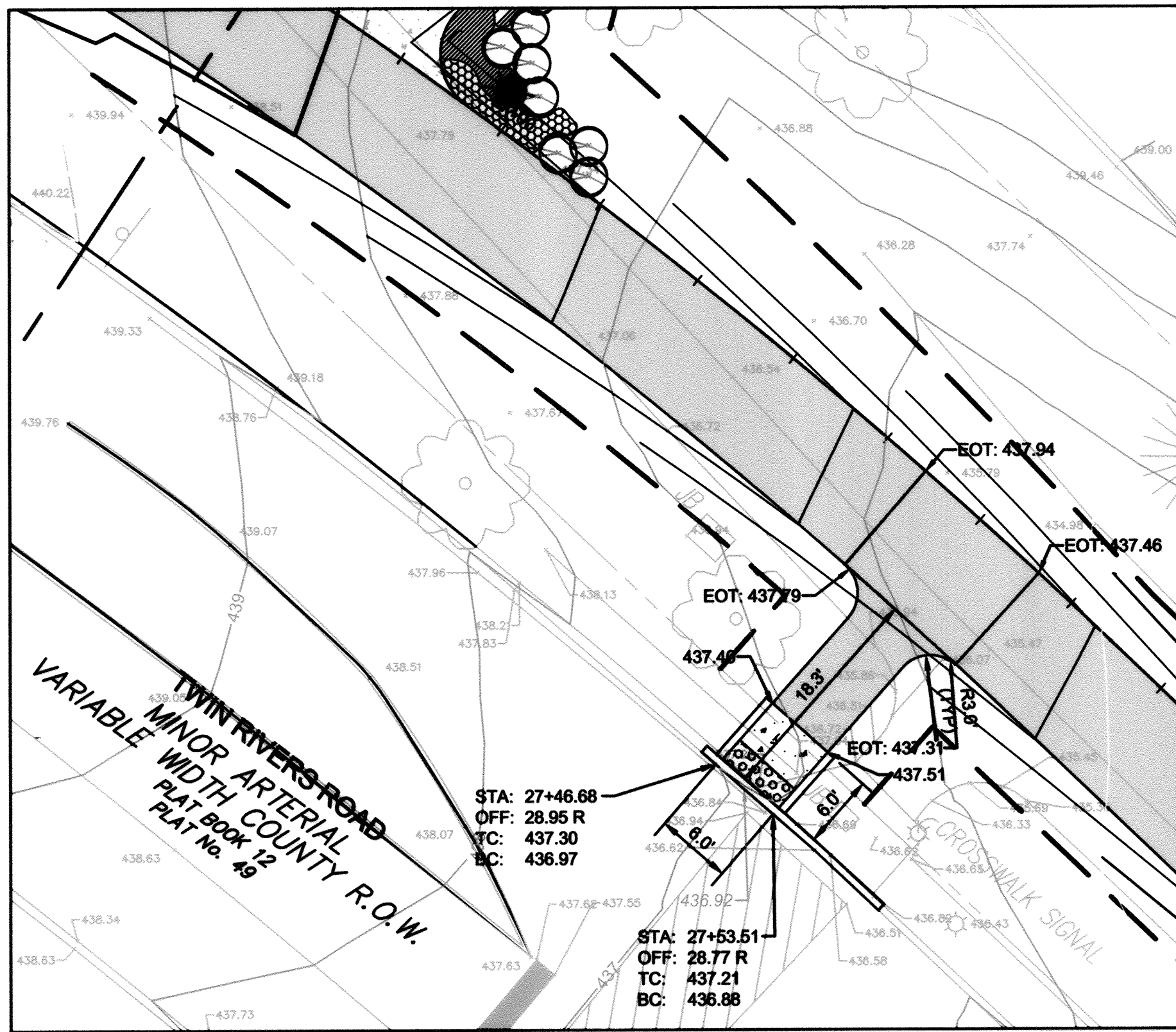
RAMP ENLARGEMENT DETAILS - 1			C10.1
SCALE 1" = 10'	ZONING NT	TDG. FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 61 OF 63	

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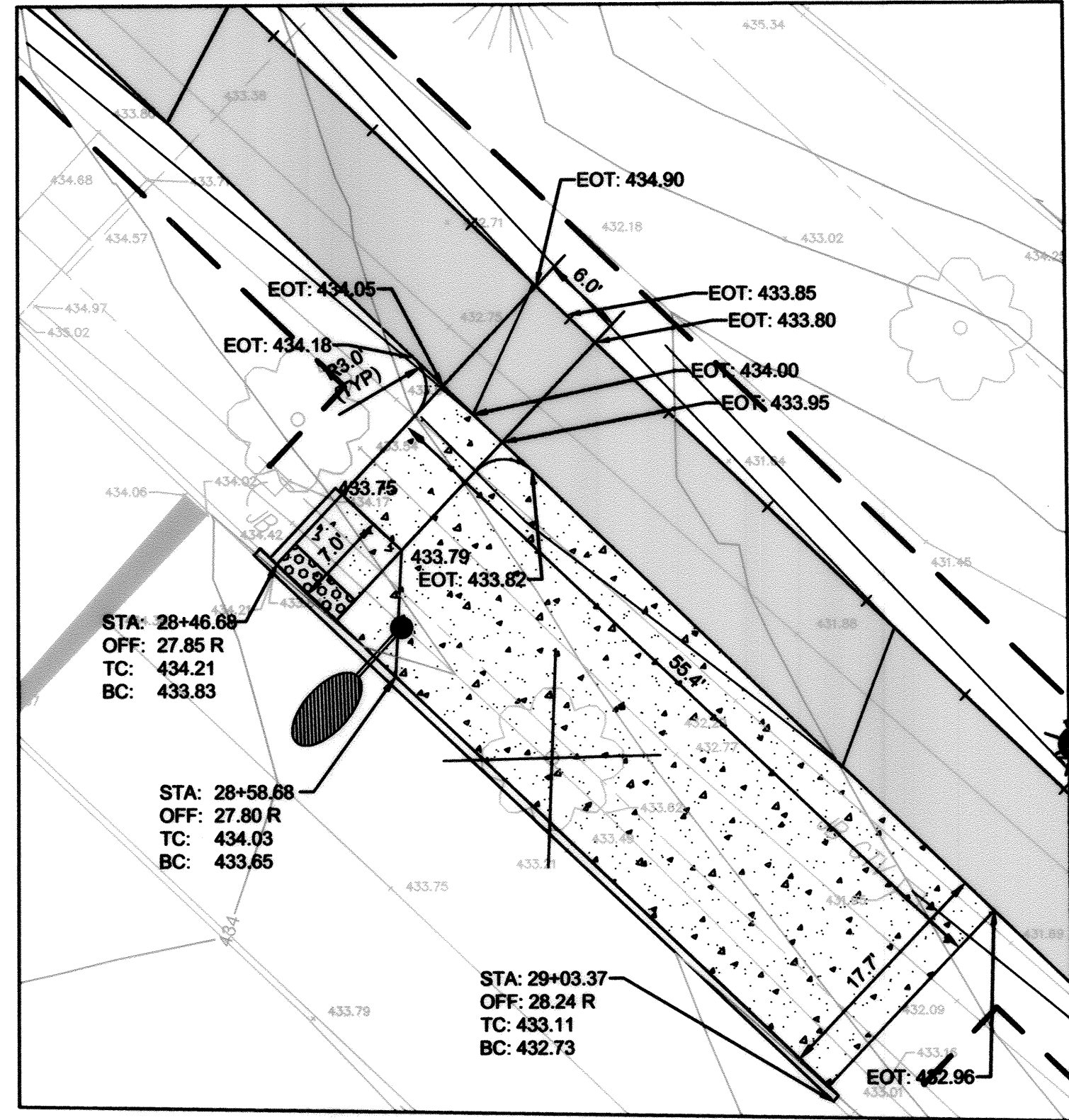
Howard Hughes
THE HOWARD HUGHES CORPORATION
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COLUMBIA, MD 21044
Greg Fitchitt, President, Maryland Region
410.964.4800 - Greg.Fitchitt@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 2022, EXPIRATION DATE: 12/31/2022
Professional Seal of Scott Shanabarger, No. 35822, License No. 2022, Expiration Date: 12/31/2022

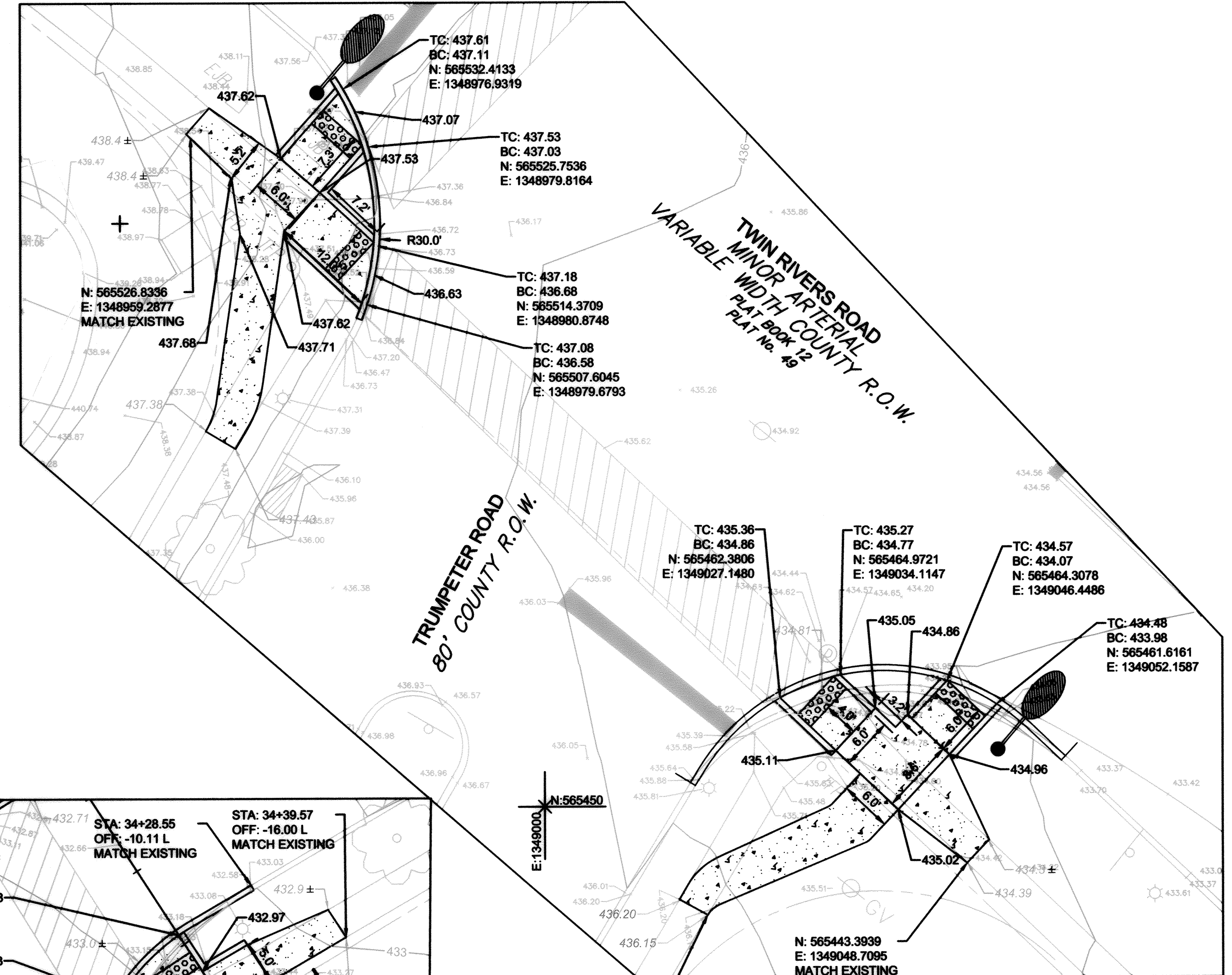
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD
ELECTION DISTRICT 5
HOWARD COUNTY



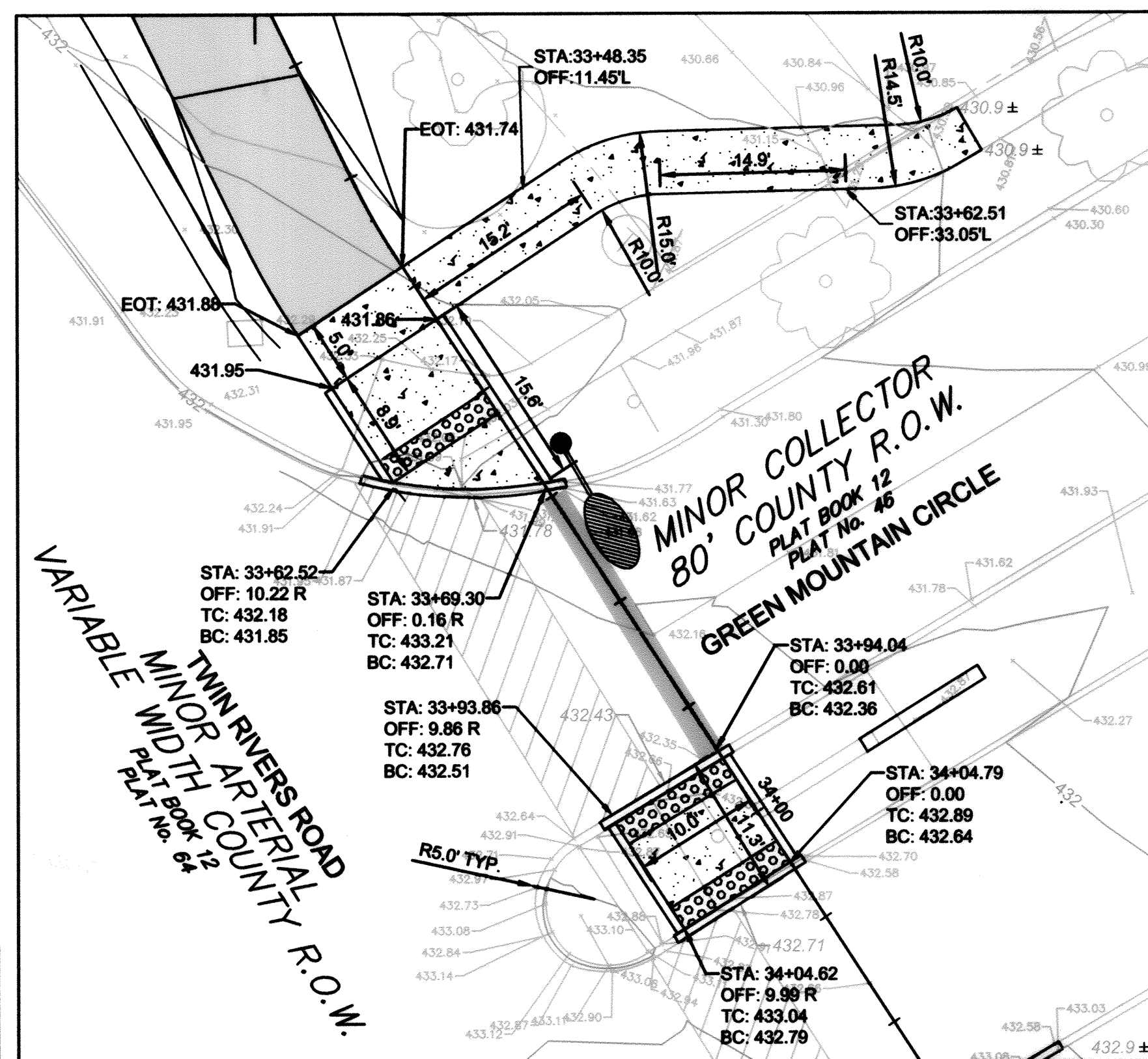
6 CURB RAMP DETAIL - TRUMPETER ROAD
1"=10'



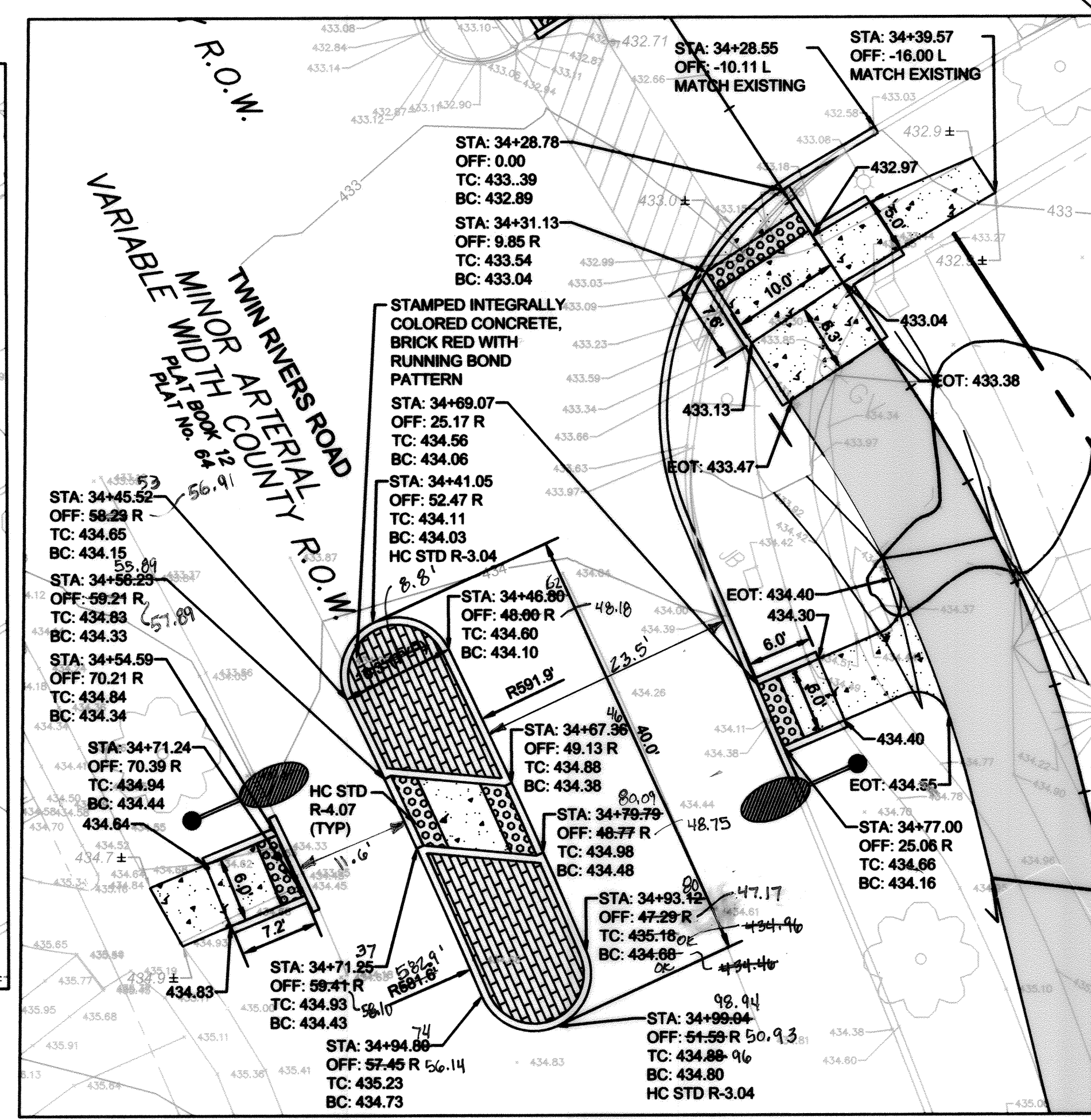
7 CURB RAMP DETAIL - TRUMPETER BUS STOP
1"=10'



8 CURB RAMP DETAIL - TRUMPETER ROAD
1"=10'



9 CURB RAMP DETAIL - GREEN MOUNTAIN CIRCLE
1"=10'



10 CURB RAMP DETAIL - GREEN MOUNTAIN CIRCLE
1"=10'

STATE OF MARYLAND
PROFESSIONAL ENGINEER
SCOTT SHANBERGER
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 12/21/2022
Shanberger & Lane

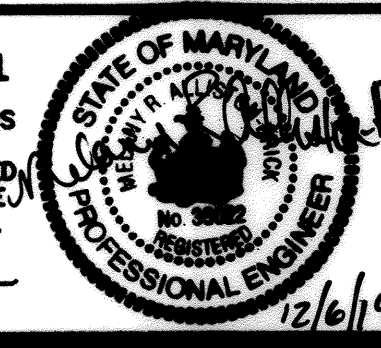
APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: W. G. Orr Date: 12-24-19
Chief, Division of Land Development: J. M. G. M. Date: 12-23-19
Chief, Development Engineering Division: J. S. L. Date: 12-16-19

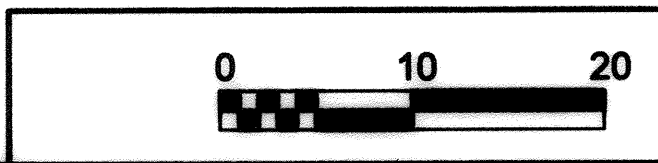
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Greg Fitchell, President, Maryland Region
410.964.4800 - Greg.Fitchell@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS
WERE PREPARED OR APPROVED BY
ME AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 56543
EXPIRATION DATE: 12/21/22



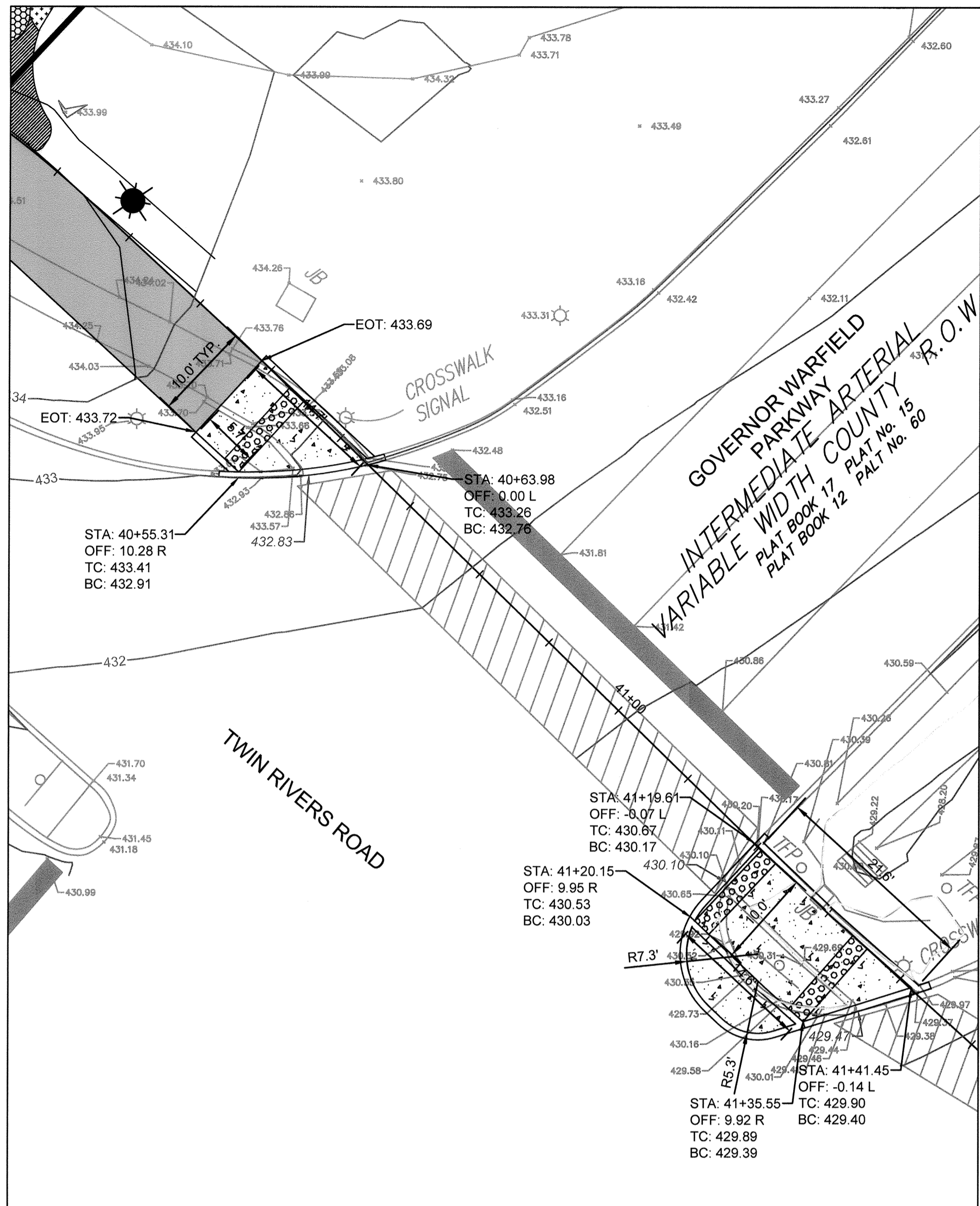
WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE
COLUMBIA, MD



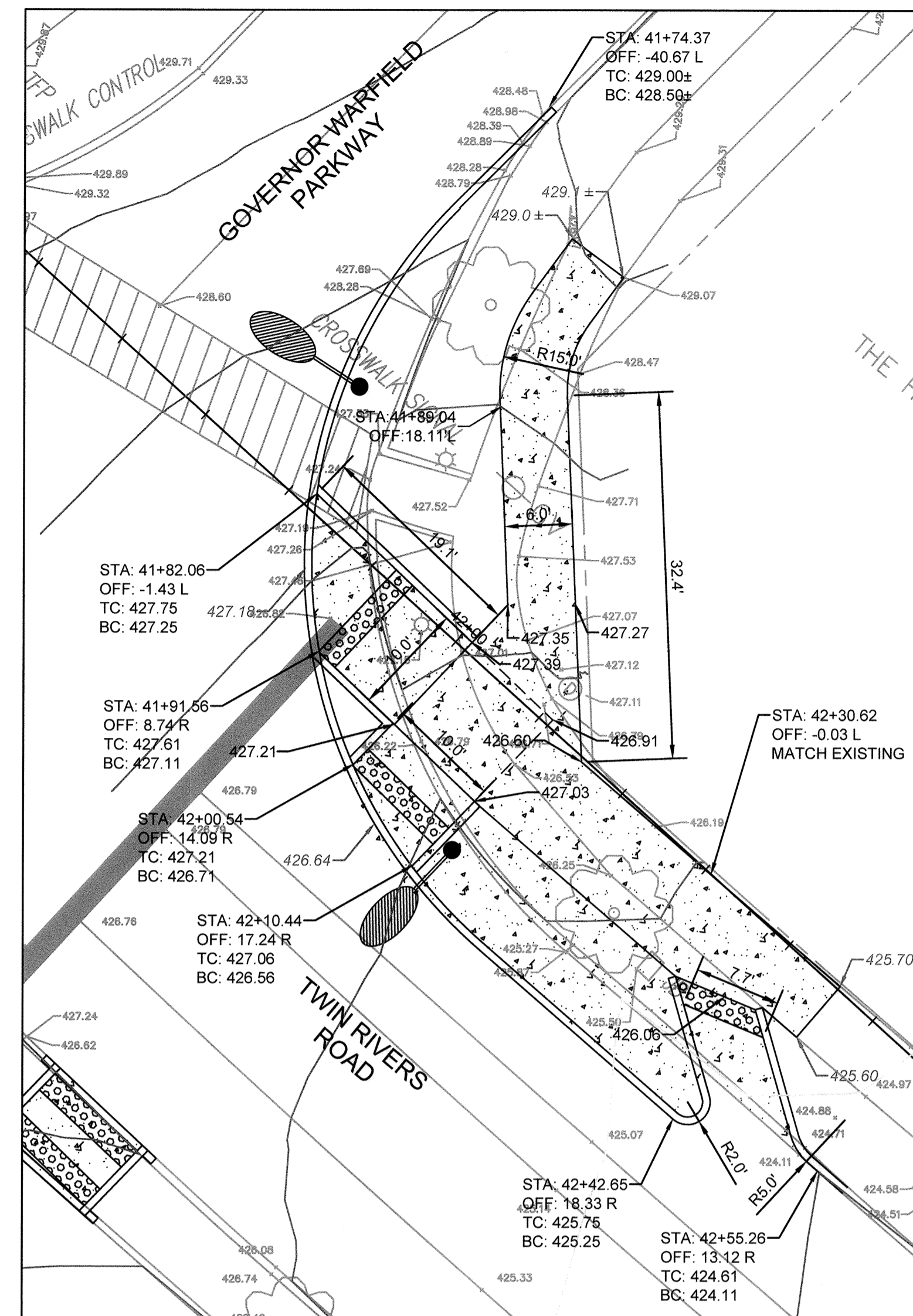
RAMP ENLARGEMENT DETAILS - 2			C10.2
SCALE 1" = 10'	ZONING NT	TDG. FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 62 OF 63	

HOWARD COUNTY

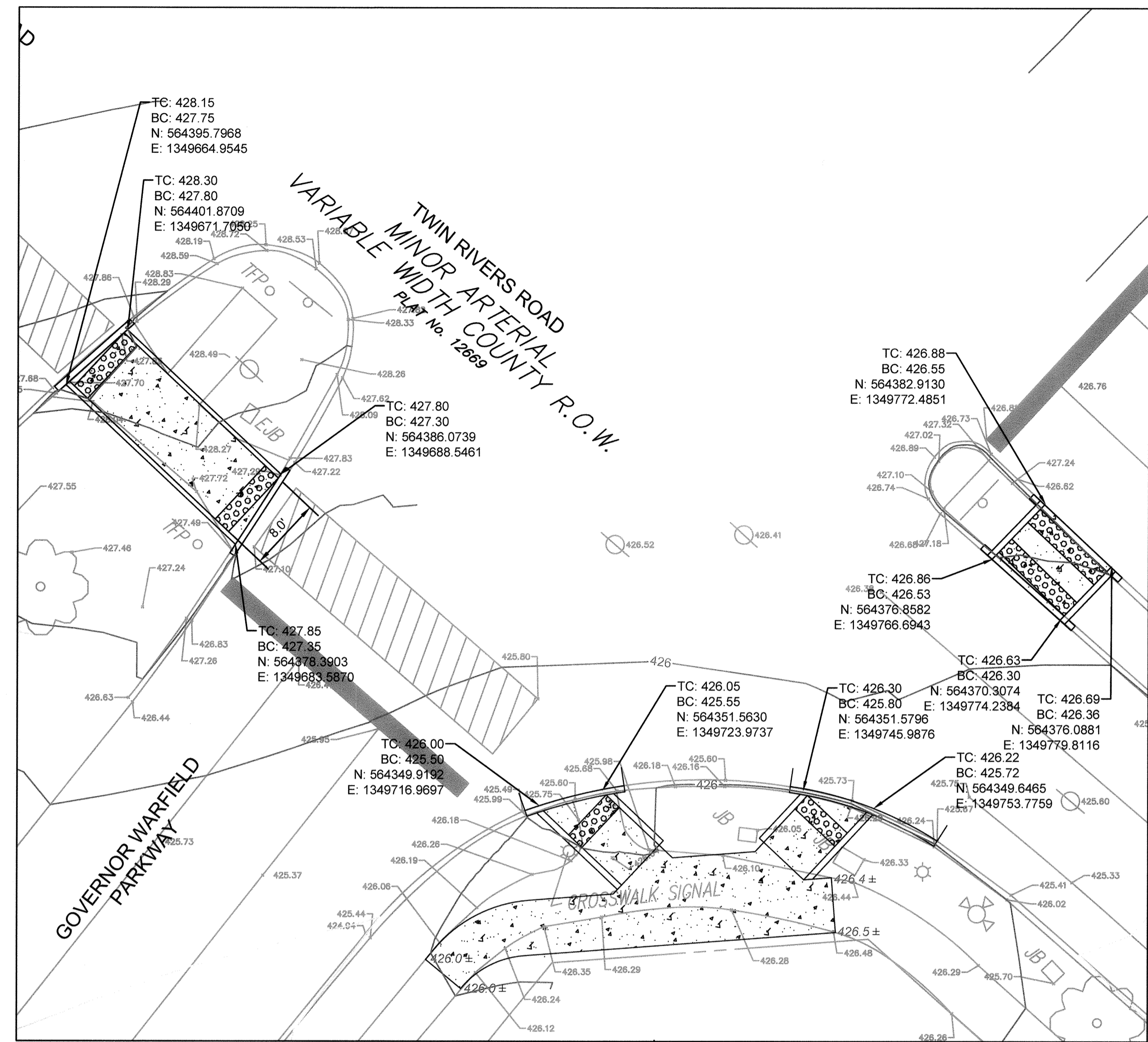
ELECTION DISTRICT 5



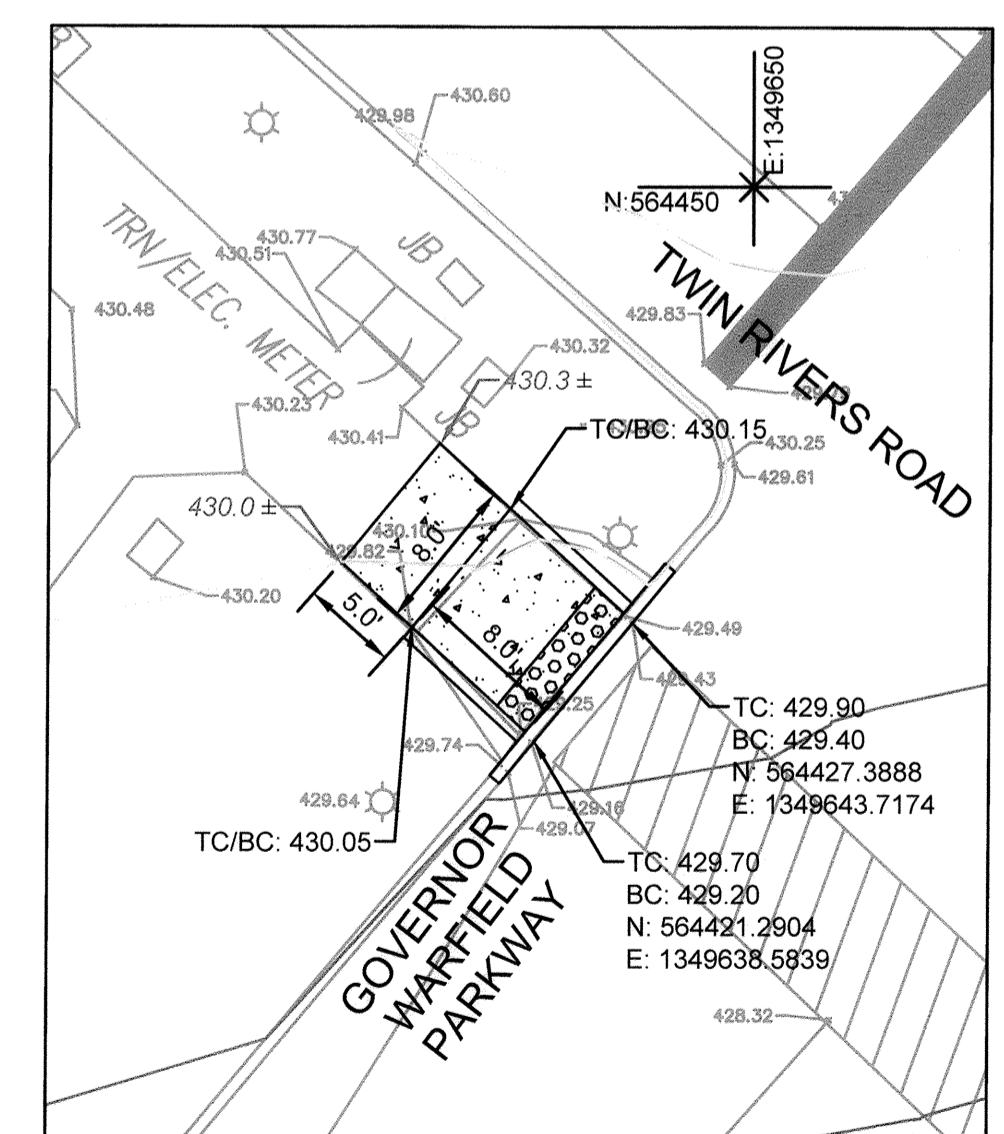
11 CURB RAMP DETAIL - GOVERNOR WARFIELD PKWY
1"=10'



12 CURB RAMP DETAIL - GOVERNOR WARFIELD PKWY
1"=10'



13 CURB RAMP DETAIL - GOVERNOR WARFIELD PKWY
1"=10'



14 CURB RAMP DETAIL - GOVERNOR WARFIELD PKWY
1"=10'

APPROVED
PLANNING BOARD OF HOWARD COUNTY
Date: June 10, 2019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Ang Goo 12-24-19
Director Date

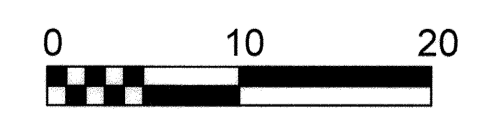
J. M. ... 12-23-19
Chief, Division of Urban Development Date

Chad ... 12-16-19
Chief, Development Engineering Division Date

STATE OF MARYLAND
PROFESSIONAL ENGINEER
NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

Greg Fichtel
Professional L.S. # 10849 Exp. Date 4/2/2022
AS-BUILT DATE: 1/24/2020
Shanabarger & Lane

STATE OF MARYLAND
PROFESSIONAL ENGINEER
Greg Fichtel
10/6/19



RAMP ENLARGEMENT DETAILS - 3			C10.3
SCALE 1" = 10'	ZONING NT	TDG. FILE No. 5477.02	
DATE 7/10/19	TAX MAP - GRID 29/30/36	SHEET 63 OF 63	

TOOLE DESIGN
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PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

Howard Hughes.
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PKWY, SUITE 400
COLUMBIA, MD 21044
Greg Fichtel, President, Maryland Region
410.964.4800 - Greg.Fichtel@howardhughes.com

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35022 EXPIRATION DATE: 12/28/19

STATE OF MARYLAND
PROFESSIONAL ENGINEER
Greg Fichtel
7/10/19

WILDE LAKE MULTI-USE PATHWAY
GOVERNOR WARFIELD PKWY. TO LYNX LANE FAULKNER
COLUMBIA, MD RIDGE CIR.
ELECTION DISTRICT 5
HOWARD COUNTY