

STEVENS FOREST TO DOWNTOWN COLUMBIA TRAIL

PLAN SDP-17-XXX

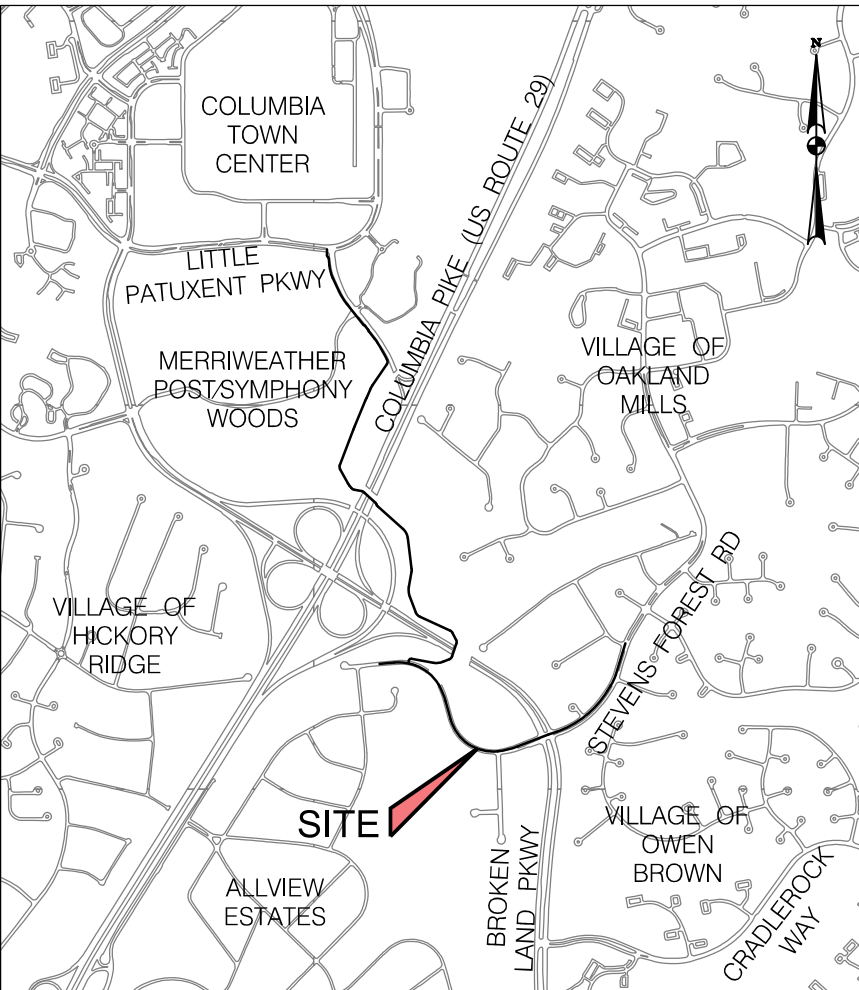
HOWARD COUNTY, MARYLAND

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GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND MD-SHA STANDARDS AND SPECIFICATIONS IF 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 RAFFIC CONTROL DEVICES (MDMUTCD).
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM A PARTIAL FIELD SURVEY WITH 1' CONTOUR INTERVALS. PREPARED BY HOWARD COUNTY, DATED JUNE 2016 AND AUGMENTED WITH HOWARD COUNTY 2014 GIS DATA. ADDITIONAL TOPOGRAPHIC SURVEYS WILL BE PREPARED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
- NO SUBSURFACE SURVEY HAS BEEN COMPLETED FOR THIS PROJECT. A LEVEL B SUBSURFACE UTILITY INVESTIGATION WILL BE PERFORMED DURING THE FINAL DESIGN PHASE.
- 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 AND THE US ACCESS BOARD SHARED-USE PATH ACCESSIBILITY GUIDELINES PROPOSED RULE MAKING (32010).
- EXISTING UTILITIES ARE BASED ON AVAILABLE PUBLIC RECORDS AND UTILITY COMPANY RECORD DRAWINGS. THE CONTRACTOR SHALL DIG TEST PITS BY HAND AT ALL PROPOSED UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT UTILITY LOCATIONS AS IDENTIFIED ON PLANS.
- WETLANDS, STREAMS AND FLOODPLAINS WITHIN OR ADJACENT TO THE SITE HAVE NOT BEEN FIELD VERIFIED. A FORMAL WETLANDS DELINEATION AND DETERMINATION OF IMPACTS WILL BE COMPLETED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
- NO HISTORIC STRUCTURES OR CEMETERIES ARE IMPACTED BY THIS PROJECT.
- NO TRAFFIC OR NOISE STUDIES ARE REQUIRED FOR THIS PROJECT.
- A LIMITED GEOTECHNICAL INVESTIGATION AND PRELIMINARY GEOTECHNICAL RECOMMENDATIONS WERE PREPARED BY KCI TECHNOLOGIES, INC., DATED OCTOBER 2016.
- THE SUBJECT PROPERTIES ARE ZONED NT AND R-12 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. THE PROJECT IS SUBJECT TO THE DOWNTOWN COLUMBIA PLAN - A GENERAL PLAN AMENDMENT, EFFECTIVE APRIL 6, 2010.
- THIS PROJECT REQUIRES WORK IN WETLANDS WETLAND BUFFERS, AND THE 100-YEAR FLOODPLAIN OF THE LITTLE PATUXENT RIVER. LIMITED ENVIRONMENTAL AND FLOOD STUDIES HAS BEEN PREPARED BY KCI TECHNOLOGIES, INC., DATED OCTOBER 2016. ADDITIONAL STUDIES WILL BE COMPLETED AS A PART OF THE FINAL DESIGN PHASE OF THE PROJECT.
- 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 BECAUSE IT IS A NEW TOWN DEVELOPMENT.
- STORM WATER MANAGEMENT REQUIREMENTS WILL BE FULFILLED WITH THE USE OF PERMEABLE ASPHALT AND BIORETENTION.
- APPLICABLE DPZ FILES; TBD
- PATH DEVELOPER: HOWARD COUNTY
PATH OWNER: HOWARD COUNTY
PATH MAINTENANCE: HOWARD COUNTY



VICINITY MAP
SCALE 1" = 1/4" MAP: 33
GRID: A1, B1, B2, B3, C3

HOWARD COUNTY CONTROL STATIONS

30GA NORTHING: 566,053.5979 EASTING: 1,352,177.5307 ELEVATION: 339.878 (LATEST ADJ. NOV. 2008)	36AA NORTHING: 562,804.8537 EASTING: 1,349,906.1701 ELEVATION: 359.151 (LATEST ADJ. NOV. 2008)
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SITE ANALYSIS DATA CHART

TOTAL PROPERTY AREA: LOT XX - X.XXX AC
LOT XX - X.XXX AC
AREA OF PLAN SUBMISSION: X.X ACRES
LIMIT OF DISTURBED AREA: X.X ACRES
PARKING SPACES REQUIRED BY ZONING: NA
PARKING PROVIDED: NA
PRESENT ZONING DESIGNATION: NT
PROPOSED USES: SHARED USE PATH
APPLICABLE DPZ FILE NUMBERS: XXX-XX-XXX-X


APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____
CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____
DIRECTOR _____ 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. _____, EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

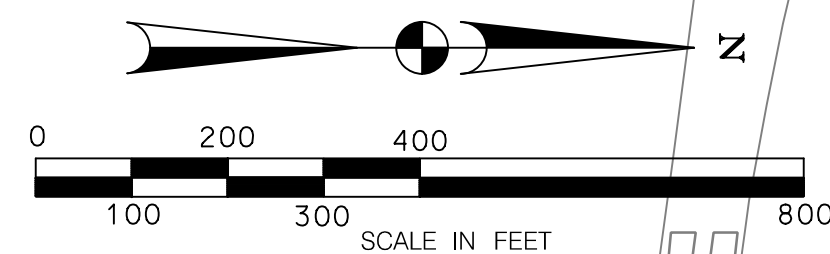
**TooleDesignGroup**
8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MD 20910
PHONE: (301) 927-1900 FAX: (301) 927-2800
www.tooledesigngroup.com
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

REUSE OF DOCUMENTS	BAR SHOWN BELOW IS ONE INCH ON ORIGINAL DRAWING. IF BAR DOES NOT MEASURE ONE INCH, ADJUST SCALES ACCORDINGLY.
ALL DRAWINGS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THIS PROJECT. REUSE OR ALTERATION WITHOUT TDG'S WRITTEN PERMISSION IS AT THE USER'S SOLE RISK.	0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

*REFER TO PROPERTY TABLE FOR PROPERTY INFORMATION ON SHEET G-2					
PERMIT INFORMATION CHART					
PROJECT NAME: STEVENS FOREST TO DOWNTOWN COLUMBIA SHARED USE PATH			SECTION/AREA SEE SHEET G-2	PARCEL SEE SHEET G-2	
L/F N/A	ZONE NT /R-20	TAX MAP 36	BLOCK MULTIPLE	ELEC. DIST. 2, 3, & 4	CENSUS TRACT 6054
GENERAL					SHEET XX OF XXX
COVER SHEET					DWG G-1
					DATE OCT 2016
					PROJECT 5409.04

<div>DEMOLITION LEGEND</div> <div><div> EXISTING TREE TO BE REMOVED</div><div> EXISTING PAVEMENT/CONCRETE TO BE REMOVED (APPROXIMATE 18" DEPTH)</div><div> TO BE REMOVED BY OTHERS</div><div> TPF TREE PROTECTION FENCE</div></div> <div>EROSION AND SEDIMENT CONTROL LEGEND</div> <div><div> LOD LIMITS OF DISTURBANCE</div><div> LIMITS OF SOIL TYPES</div><div> DA LIMITS OF DRAINAGE AREA</div><div> SF SILT FENCE</div><div> SSF SUPER SILT FENCE</div><div> DF STREAM DIVERSION FENCE</div><div> EARTHEN DIKE</div><div> TPF TREE PROTECTION FENCE</div><div> FILTER LOG</div><div> SBD STRAW BALE DIKE</div><div> PERFORATED UNDERDRAIN PIPE</div><div> TEMPORARY SWALE</div><div> CD STONE CHECK DAM</div><div> RRP RIPRAP INFLOW PROTECTION</div><div> RIPRAP OUTLET PROTECTION</div><div> SIP STANDARD STORM DRAIN INLET PROTECTION</div><div> CIP CURB INLT PROTECTION</div><div> AGIP AT-GRADE INLET PROTECTION</div><div> SCE STONE CONSTRUCTION ENTRANCE</div></div> <div>SURVEY/SITWORK LEGEND</div> <div><div> PROPERTY INFORMATION NUMBER REFERS TO SHEET G-3 TABLE</div><div> TEMPORARY CONSTRUCTION EASEMENT</div><div> PERMANENT EASEMENT</div><div> EXISTING PROPERTY BOUNDARY</div><div> EXISTING RIGHT-OF-WAY</div><div> WETLAND BOUNDARY</div><div> B WETLAND BUFFER</div><div> 100-YEAR FLOODPLAIN BOUNDARY</div><div> 305 EXISTING GRADE CONTOUR - MAJOR</div><div> EXISTING GRADE CONTOUR - MINOR</div><div> 305 FINISHED GRADE CONTOUR - MAJOR</div><div> FINISHED GRADE CONTOUR - MINOR</div><div> EDGE OF WATER</div><div> EDGE OF PAVEMENT</div><div> CURB AND GUTTER</div><div> TOP OF SLOPE</div><div> BOTTOM OF SLOPE</div></div>		<div>SURVEY/SITWORK LEGEND, CONT'D</div> <div><div><div> TREELINE</div><div> TREE/SHRUB</div><div> EXISTING STORM DRAIN PIPE</div><div> WOOD FENCE</div><div> METAL/CHAIN LINK FENCE</div><div> SURVEY BENCHMARK</div><div> HORIZONTAL SURVEY CONTROL POINT</div><div> GUARDRAIL</div></div><div>UTILITY LEGEND</div><div><div> WATER LINE</div><div> SANITARY SEWER LINE</div><div> NATURAL GAS LINE</div><div> UNDERGROUND CABLE TV LINE</div><div> OVERHEAD CABLE TV LINE</div><div> UNDERGROUND TELEPHONE LINE</div><div> OVERHEAD TELEPHONE LINE</div><div> UNDERGROUND ELECTRIC LINE</div><div> OVERHEAD ELECTRIC LINE</div><div> STORM DRAIN LINE</div><div> PROPOSED STORM DRAIN/CULVERT PIPE</div><div> FIRE HYDRANT</div><div> WATER VALVE</div><div> WATER METER</div><div> SANITARY SEWER MANHOLE</div><div> SANITARY SEWER CLEANOUT</div><div> CURB INLET</div><div> DROP INLET</div><div> CONCRETE ENDWALL</div><div> PIPE END SECTION</div><div> STORM DRAIN MANHOLE</div><div> GAS METER</div><div> GAS VALVE</div><div> CABLE TV JUNCTION BOX</div><div> UTILITY POLE</div><div> TELEPHONE JUNCTION BOX</div><div> TELEPHONE MANHOLE</div><div> ELECTRIC MANHOLE</div><div> ELECTRIC JUNCTION BOX</div><div> EXISTING COBRAHEAD LIGHT FIXTURE</div><div> PROPOSED COBRAHEAD LIGHT FIXTURE</div><div> EXISTING TRAFFIC SIGNAL POLE</div><div> EXISTING TRAFFIC SIGNAL CABINET</div></div><div>SIGN LEGEND</div><div><div> EXISTING OR RELOCATED U POST</div><div> EXISTING SIGN</div><div> EXISTING SIGN TO BE REMOVED</div><div> EXISTING SIGN TO BE RELOCATED</div><div> RELOCATED LOCATION OF EXISTING SIGN</div><div> NEW SIGN TO BE INSTALLED</div><div> NEW SIGN TO BE INSTALLED ON EXISTING MAST ARM</div><div> WAYFINDING SIGN</div></div></div>		<div>PAVEMENT MARKING LEGEND</div> <div><div><div>EXISTING</div><div>PROPOSED</div></div><div><div> BICYCLE LANE SYMBOL</div><div> SHARED LANE MARKING SYMBOL</div><div> 5" SOLID WHITE LANE LINE (E.G. INSIDE BIKE LANE LINE)</div><div> 10" SOLID WHITE LANE LINE (E.G. OUTSIDE BIKE LANE LINE)</div><div> 5" BROKEN WHITE LANE LINE (10' STRIPE, 30' SKIP)</div><div> 5" DOTTED WHITE LANE LINE (2' STRIPE, 4' SKIP)</div><div> 10" DOTTED WHITE LANE LINE (2' STRIPE, 4' SKIP)</div><div> 5" SOLID YELLOW LANE LINE</div><div> 5" SOLID YELLOW CENTERLINE (CYCLE TRACK)</div><div> 5" DASHED YELLOW CENTER LINE (CYCLE TRACK - 3' STRIPE, 9' SKIP)</div><div> 5" DOUBLE SOLID YELLOW CENTERLINE</div><div> 5" SOLID YELLOW LANE LINE WITH 5" BROKEN YELLOW LANE LINE (10' STRIPE, 30' SKIP)</div><div> 8" SOLID WHITE/BLACK CONTRAST TAPE (SUGGESTED MANUFACTURER: 3M STAMARK OR APPROVED EQUAL)</div><div> 10" SOLID WHITE CHANNELIZATION LINE (45° TYP.)</div><div> 10" SOLID YELLOW CHANNELIZATION LINE (45° TYP.)</div><div> 16" STOP LINE</div><div> 24" STOP LINE</div><div> CROSSWALK WITH 2' SWL - 5' O.C. ALIGNED WITH DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED</div><div> WHITE PAVEMENT ARROW, REFER TO MDMUTC D</div><div> GREEN PAVEMENT MARKING MATERIAL, PREFORMED THERMOPLASTIC OR LIQUID EPOXY-BASED AS SHOWN ON PLANS</div><div> SIGN</div></div></div>		<div>ABBREVIATIONS, CONT'D</div> <div><div><div>D DBL DOUBLE</div><div>D DEG DEGREE</div><div>D DEMO DEMOLITION/DEMOLISH</div><div>D DEPR DEPRESS(ED)</div><div>D DET DETAIL</div><div>D DI DROP INLET</div><div>D DIA DIAMETER</div><div>D DIAG DIAGONAL</div><div>D DIM DIMENSION</div><div>D DIP DUCTILE IRON PIPE</div><div>D DP DEEP</div><div>D DW DRIVEWAY</div><div>D DWG(S) DRAWING(S)</div><div>D DWL DOWEL</div><div>EA EACH</div><div>EJ EXPANSION JOINT</div><div>EL ELEVATION</div><div>ELEC ELECTRICAL</div><div>EMBED EMBEDMENT</div><div>ENGR ENGINEER</div><div>EMH ELECTRIC MANHOLE</div><div>EP EDGE OF PAVEMENT</div><div>EQ EQUAL</div><div>ETC ET CETERA</div><div>EX EXISTING</div><div>EXC EXCAVATE/EXCAVATION</div><div>EXP EXPANSION</div><div>EXT EXTERIOR</div><div>F FUSE</div><div>FLEX FLEXIBLE</div><div>FT FEET</div><div>FTG FOOTING</div><div>GA. GUAGE</div><div>GALV. GALVANIZED</div><div>GPM GALLONS PER MINUTE</div><div>H HIGH</div><div>HC HEADER CURB</div><div>HGT HEIGHT</div><div>HH HANDHOLE</div><div>HI HIGH</div><div>HORIZ HORIZONTAL</div><div>HP HIGH POINT</div><div>HR HOUR</div><div>HT. HEIGHT</div><div>I.D. INSIDE DIAMETER</div><div>INFO INFORMATION</div><div>INV INVERT</div><div>IRR IRRIGATION</div><div>J, J-BOX JUNCTION BOX</div><div>JB JERSEY BARRIER, JUNCTION BOX</div><div>JT JOINT</div><div>L ANGLE (STRU. SHAPE)</div><div>LB POUND</div><div>LF LINEAR FEET</div><div>LF LINEAR</div><div>LL LIVE LOAD</div><div>LO LOW</div><div>LP LAMP POLE</div><div>LP LOW POINT</div><div>LWT LIGHTWEIGHT</div><div>MATL MATERIAL</div><div>MAX MAXIMUM</div><div>MFR MANUFACTURER</div><div>MH MANHOLE</div><div>MIN MINIMUM</div><div>MISC MISCELLANEOUS</div><div>MT MOUNT</div><div>MTD MOUNTED</div><div>MTL METAL</div><div>N NORTH</div><div>NA NOT APPLICABLE</div><div>NE NORTHEAST</div><div>NEC NECESSARY</div><div>NIC NOT IN CONTRACT</div><div>NO. NUMBER</div><div>NTS NOT TO SCALE</div><div>NW NORTHWEST</div><div>OC ON CENTER</div><div>OD OUTSIDE DIAMETER</div><div>OPNG OPENING</div><div>OPP OPPOSITE</div><div>PC. PIECE, POINT OF CURVATURE</div><div>PED PEDESTAL, PEDESTRIAN</div><div>PERP PERPENDICULAR</div><div>PI POINT OF INTERSECTION</div><div>PL PLATE</div><div>PJF PREMOLDED JOINT FILLER</div><div>PNL PANEL</div><div>PE POLYETHYLENE</div><div>PREFAB PREFABRICATED</div><div>PROJ PROJECTION</div><div>PROP PROPERTY</div><div>PSI POUNDS PER SQUARE INCH</div><div>PT POINT OF TANGENCY</div><div>PTD PAINTED</div><div>PVC POLYVINYL CHLORIDE</div><div>PVMT PAVEMENT</div><div>R RADIUS</div><div>RC REINFORCED CONCRETE</div><div>RCP REINFORCED CONCRETE PIPE</div><div>REAC REINFORCED EXPOSED AGGREGATE CONCRETE</div><div>REINF REINFORCE(D), REINFORCEMENT</div><div>REQ'D REQUIRED.</div><div>REV REVISION</div><div>SAN SANITARY SEWER</div><div>SCH, SCHED SCHEDULE</div><div>SE SOUTHEAST</div><div>SEC, SECT SECTION</div><div>SF SQUARE FEET</div><div>SG STORM GRATE</div><div>SHT SHEET</div><div>SIM SIMILAR</div><div>SMH SEWER MANHOLE</div><div>SPEC SPECIFICATION</div><div>SQ. SQUARE</div><div>SQ. FT. SQUARE FEET</div><div>SS STAINLESS STEEL</div><div>STA STATION</div><div>STD STANDARD</div><div>STL STEEL</div><div>STRUC STRUCTURAL</div><div>SW SIDEWALK</div></div><div><div>T/ TOP OF</div><div>T & B TOP & BOTTOM</div><div>TBM TEMPORARY BENCHMARK</div><div>TC TOP OF CURB</div><div>TEL MH TELEPHONE MANHOLE</div><div>TEMP TEMPORARY, TEMPERATURE</div><div>THK THICK(NESS)</div><div>THRU THROUGH</div><div>TO TOP OF</div><div>TOC TOP OF CONCRETE</div><div>TR TRANSFER</div><div>TW TOP OF WALL</div><div>TYP TYPICAL</div><div>UGE UNDERGROUND ELECTRIC</div><div>UON UNLESS OTHERWISE NOTED</div><div>UGT UNDERGROUND TELEPHONE</div><div>VERT VERTICAL</div><div>VIF VERIFY IN FIELD</div><div>W WIDE FLANGE BEAM, WATER LINE</div><div>W/ WITH</div><div>WL WATER LINE</div><div>WJ WORKING JOINT</div><div>WV WATER VALVE</div><div>WWF WELDED WIRE FABRIC</div></div></div>		<div>ABBREVIATIONS</div> <div><div><div>& AND</div><div>< ANGLE</div><div>@ AT</div><div>* DEGREE</div><div>* DIAMETER</div><div>% PERCENT</div><div>+/- PLUS OR MINUS</div><div># POUND, NUMBER</div><div>ABAND ABANDONED</div><div>ADD L ADDITIONAL</div><div>ADJ. ADJACENT</div><div>ALT. ALTERNATE</div><div>APP'D APPROVED</div><div>APPROX. APPROXIMATE, APPROXIMATELY</div><div>ARCH. ARCHITECTURAL</div><div>ASPH ASPHALT</div><div>ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS</div><div>AVG. AVERAGE</div><div>B/ BOTTOM OF</div><div>B & B BALL AND BURLAP</div><div>BC BOTTOM OF CURB</div><div>BLDG BUILDING</div><div>BLK BLOCK</div><div>BM BEAM</div><div>BRG BEARING</div><div>BTWN BETWEEN</div><div>BYD BEYOND</div><div>C CONDUIT</div><div>CAL CALIPER</div><div>CB CATCH BASIN</div><div>CF CUBIC FEET</div><div>CFS CUBIC FEET PER SECOND</div><div>CG CURB & GUTTER</div><div>CJ CUBIC INCHES CAST IRON</div><div>CIP CAST IN PLACE CAST IRON PIPE</div><div>CJ CONTROL JOINT</div><div>CL CENTERLINE</div><div>CLR CLEAR</div><div>CLF CHAIN LINK FENCE</div><div>CMP CORRUGATED METAL PIPE</div><div>CMU CONCRETE MASONRY UNIT</div><div>CO CLEAN OUT</div><div>CONC CONCRETE</div><div>COND CONDITION</div><div>CONST CONSTRUCTION</div><div>CONT CONTAINER PLANT, CONTINUOUS</div><div>COORD COORDINATE</div><div>COR CORNER</div><div>CP CONCRETE PLANTER</div><div>CTR CENTER</div></div><div><div>REUSE OF DOCUMENTS</div><div>ALL DRAWINGS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THIS PROJECT. REUSE OR ALTERATION WITHOUT TDG'S WRITTEN PERMISSION IS AT THE USER'S SOLE RISK.</div></div><div><div>BAR SHOWN BELOW IS ONE INCH ON ORIGINAL DRAWING. IF BAR DOES NOT MEASURE ONE INCH, ADJUST SCALES ACCORDINGLY.</div><div>0' 1'</div></div><div><div>STEVENS FOREST TO DOWNTOWN COLUMBIA SHARED USE PATH</div><div>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</div></div></div>		<div>ABBREVIATIONS, CONT'D</div> <div><div>GENERAL</div><div>LEGENDS AND ABBREVIATIONS</div></div> <div><div>NO. DATE REVISION BY APVD</div><div>DATE OCT 2016</div><div>PROJECT 5409.04</div></div>					
<div>APPROVED</div> <div>PLANNING BOARD OF HOWARD COUNTY</div> <div>DATE: _____</div> <div>HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING</div> <div>CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE</div> <div>CHIEF, DIVISION OF LAND DEVELOPMENT DATE</div> <div>DIRECTOR DATE</div> <div>PROFESSIONAL CERTIFICATION</div> <div>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. _____ EXPIRATION DATE: _____.</div>		<div>DSGN CO</div> <div>DR RH</div> <div>CHK JC</div> <div>APVD MRAB</div> <div>NO. DATE REVISION BY APVD</div>		<div> 8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MD 20910 PHONE: (301) 927-1900 FAX: (301) 927-2800 www.tooledesigngroup.com PLANNING / ENGINEERING / LANDSCAPE ARCHITECTURE</div>		<div>REUSE OF DOCUMENTS</div> <div>ALL DRAWINGS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THIS PROJECT. REUSE OR ALTERATION WITHOUT TDG'S WRITTEN PERMISSION IS AT THE USER'S SOLE RISK.</div>		<div>BAR SHOWN BELOW IS ONE INCH ON ORIGINAL DRAWING. IF BAR DOES NOT MEASURE ONE INCH, ADJUST SCALES ACCORDINGLY.</div> <div>0' 1'</div>		<div>STEVENS FOREST TO DOWNTOWN COLUMBIA SHARED USE PATH</div> <div>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</div>		<div>GENERAL</div> <div>LEGENDS AND ABBREVIATIONS</div>		<div>SHEET XX OF XXX</div> <div>DWG G-2</div> <div>DATE OCT 2016</div> <div>PROJECT 5409.04</div>	



LIMIT OF WORK
BEGINNING OF ON-ROAD SEGMENT
STA 100+00.00
N 558.304.14
E 1,352,687.15

LIMIT OF WORK
BEGINNING OF TRAIL SEGMENT
STA 10+00.00
N 558.311.27
E 1,352,985.76

LIMIT OF WORK
END OF TRAIL
SEGMENT
STA 26+50.00
N 562,923.42
E 1,352,140.32

LIMIT OF WORK
END OF ON-ROAD SEGMENT
STA 136+00.00
N 558.519.93
E 1,355,247.57

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

**TooleDesignGroup**
8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MD 20910
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PLANNING / ENGINEERING / LANDSCAPE ARCHITECTURE

REUSE OF DOCUMENTS
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BAR SHOWN BELOW IS ONE
INCH ON ORIGINAL DRAWING.
IF BAR DOES NOT MEASURE
ONE INCH, ADJUST SCALES
ACCORDINGLY.
0"  1"

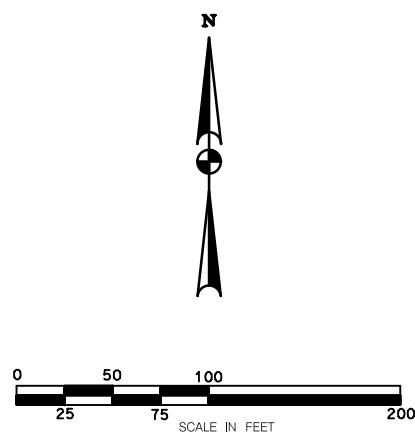
**STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH**

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

GENERAL

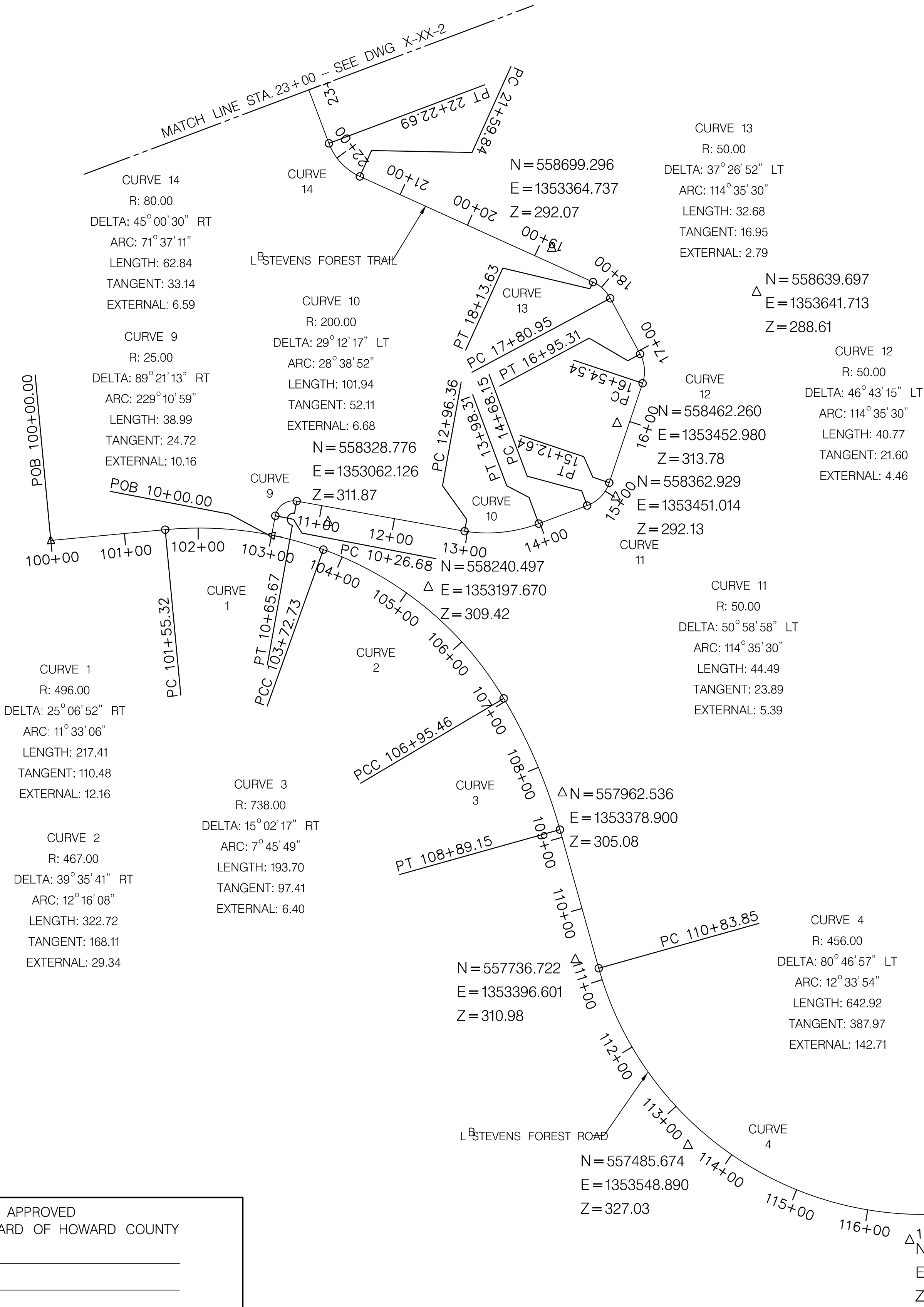
KEY PLAN

SHEET	XX OF XXX
DWG	G-4
DATE	OCT 2016
PROJECT	5409.04



BASELINE GEOMETRY INFORMATION			
STEVENS FOREST TRAIL			
POINT	STATION	NORTHING	EASTING
POB	10 + 00.00	558311.2651	1352985.7601
PC	10 + 26.68	558337.4688	1352990.7705
PI	10 + 51.40	558361.7485	1352995.4130
PT	10 + 65.67	558357.3802	1353019.7435
PC	12 + 96.36	558316.6130	1353246.8092
PI	13 + 48.47	558308.6962	1353298.3093
PT	13 + 98.31	558326.9143	1353347.1256
PC	14 + 68.15	558351.3356	1353412.5635
PI	14 + 91.99	558359.6709	1353434.8983
PT	15 + 12.64	558382.2716	1353442.4831
PC	16 + 54.54	558516.7948	1353487.6295
PI	16 + 76.14	558537.2685	1353494.5005
PT	16 + 95.31	558556.3066	1353484.3056
PC	17 + 80.95	558631.8053	1353443.8763
PI	17 + 97.90	558646.7454	1353435.8759
PT	18 + 13.63	558653.7418	1353420.4402
PC	21 + 59.84	558796.6699	1353105.1116
PI	21 + 92.99	558810.3529	1353074.9240
PT	22 + 22.69	558841.3758	1353063.2580

BASELINE GEOMETRY INFORMATION			
STEVENS FOREST ROAD			
POINT	STATION	NORTHING	EASTING
POB	100 + 00.00	558304.1435	1352687.1522
PC	101 + 55.32	558318.7295	1352841.7852
PI	102 + 65.80	558329.1048	1352951.7778
PCC	103 + 72.73	558291.8151	1353055.7753
PI	105 + 40.84	558235.0755	1353214.0169
PCC	106 + 95.46	558090.4977	1353299.7901
PI	107 + 92.87	558006.7228	1353349.4909
PT	108 + 89.15	557912.9216	1353375.7535
PC	110 + 83.85	557725.4367	1353428.2457
PI	114 + 71.82	557351.8364	1353532.8468
PCC	117 + 26.77	557395.2434	1353918.3781
PI	118 + 35.19	557407.3735	1354026.1151
PT	119 + 42.43	557446.2791	1354127.3117
PC	122 + 82.66	557568.3706	1354444.8813
PI	123 + 26.29	557584.0272	1354485.6051
PRC	123 + 69.91	557597.8929	1354526.9730
PI	127 + 31.78	557712.8969	1354870.0838
PT	130 + 64.33	558020.8397	1355060.1422
PC	131 + 32.95	558079.2357	1355096.1835
PI	131 + 94.62	558131.7092	1355128.5695
PT	132 + 55.61	558190.6646	1355146.6408
POE	136 + 00.00	558519.9342	1355247.5702



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____

DSGN	OG					
DR	OG					
CHK	JC					
APVD	MRAB	NO.	DATE	REVISION	BY	APVD



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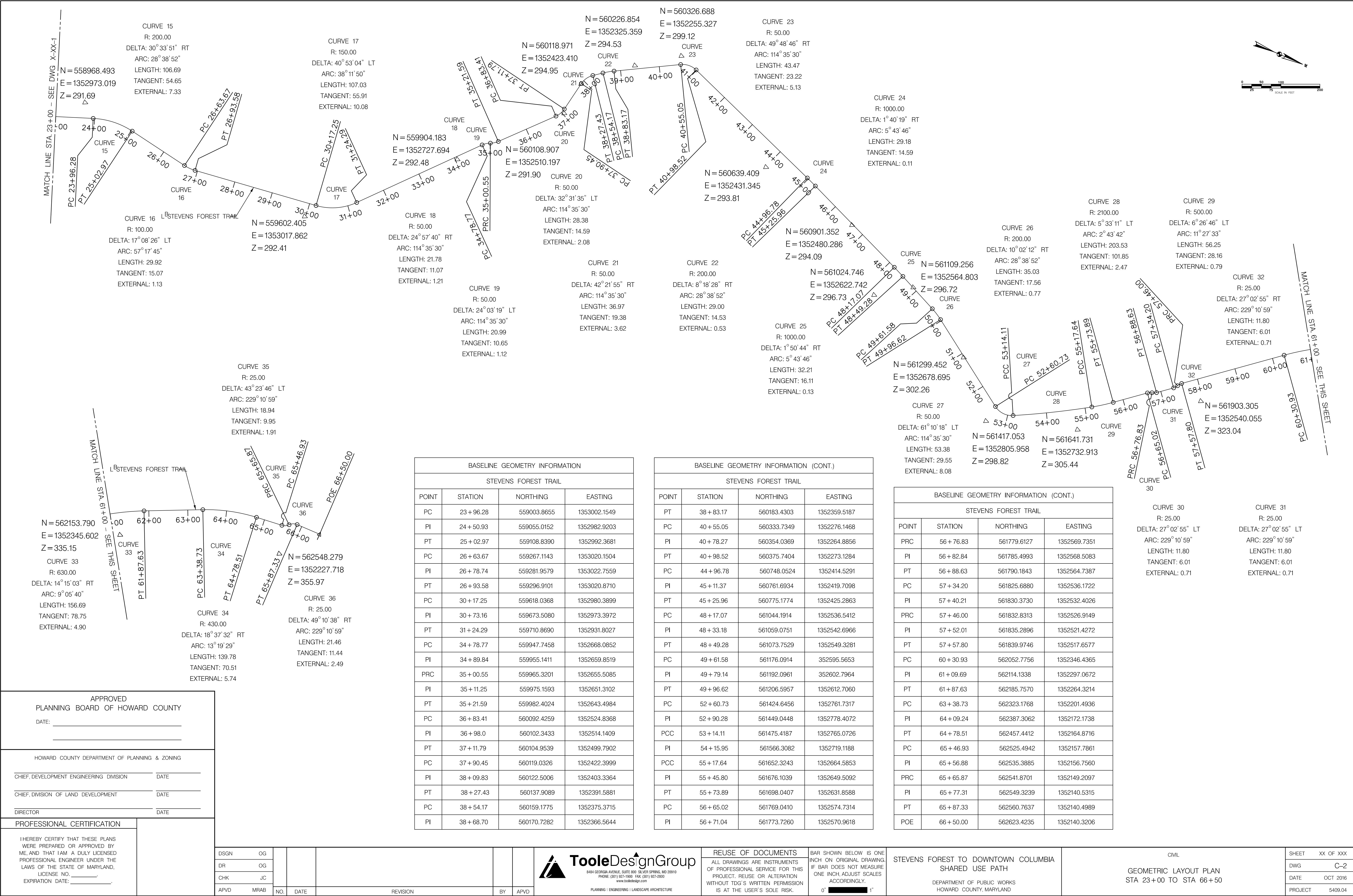
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ACCORDINGLY.
0' 1'

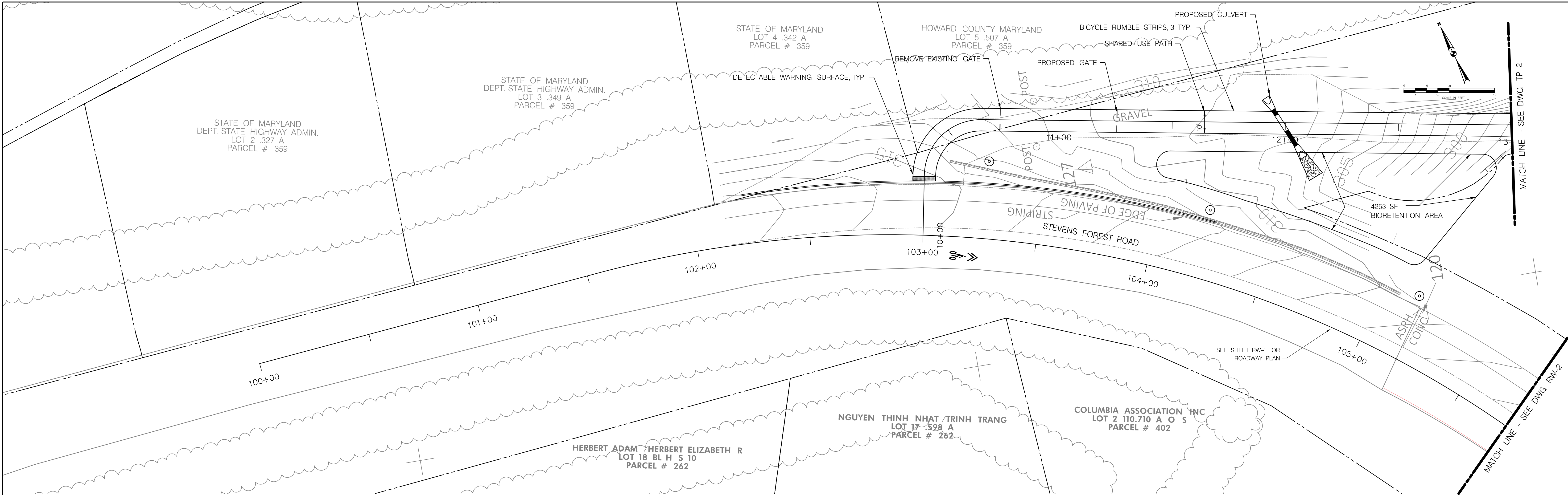
STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

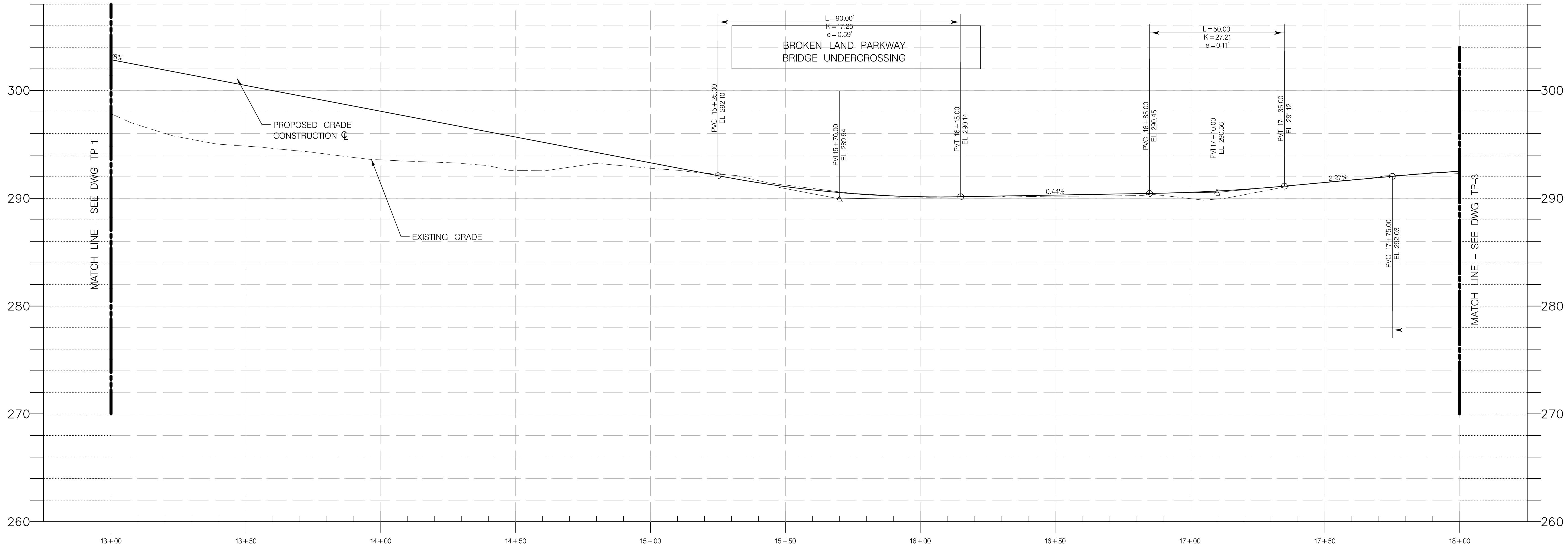
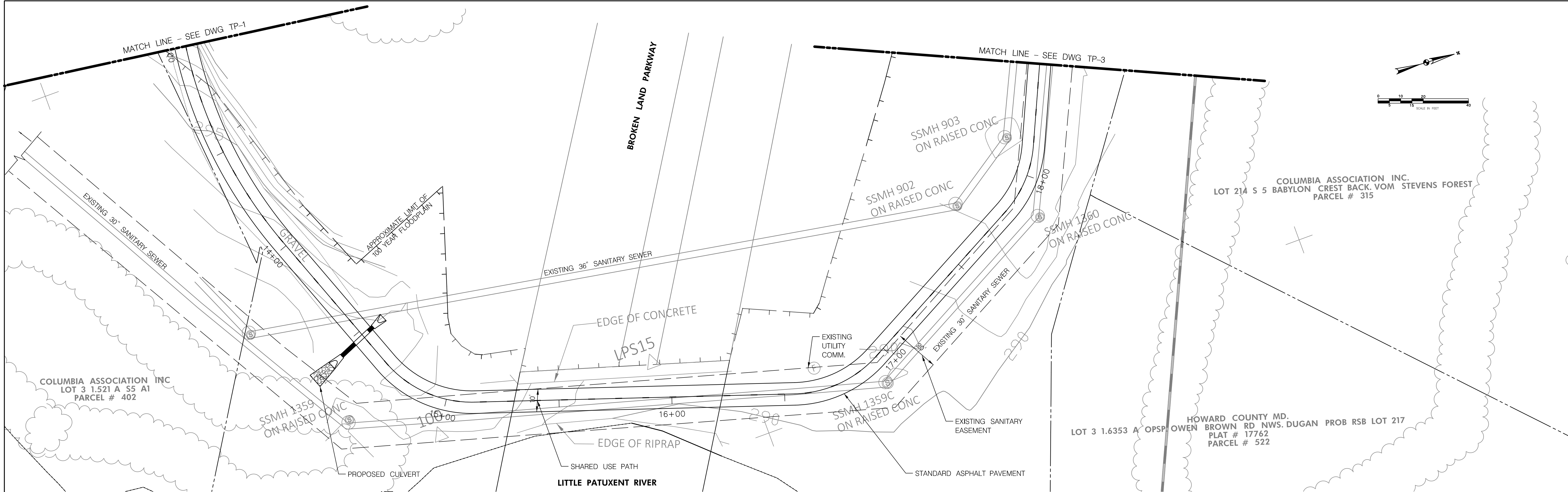
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
GEOMETRIC LAYOUT PLAN
STA 100+00 TO STA 136+00
STA 10+00 TO STA 23+00

SHEET XX OF XXX
DWG C-1
DATE OCT 2016
PROJECT 5409.04







APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____ EXPIRATION DATE: _____

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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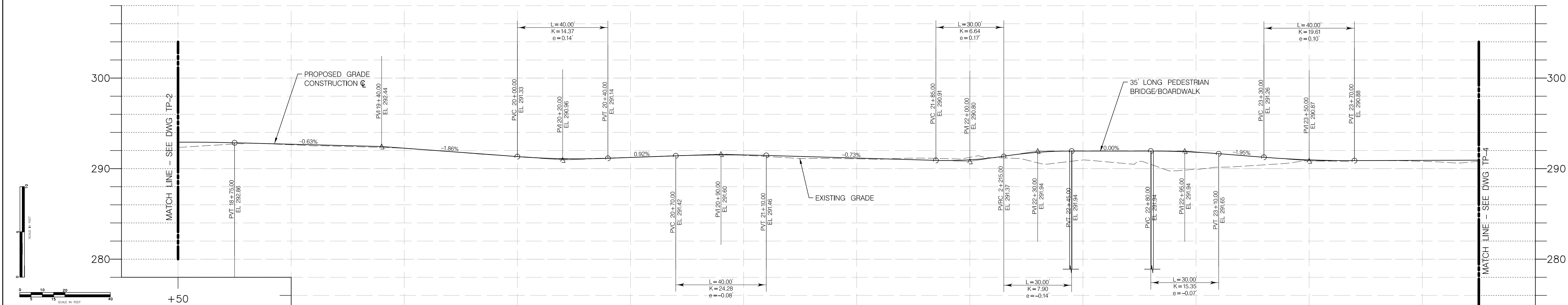
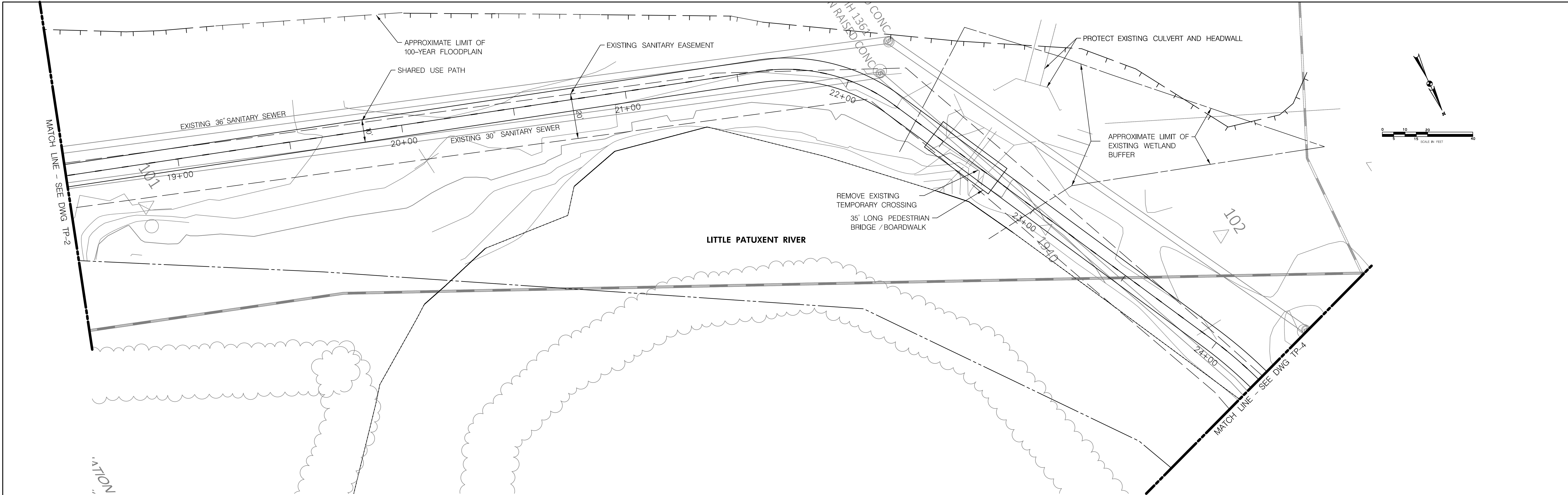
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0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
TRAIL PLAN AND PROFILE
STA 13+00 TO STA 18+00

SHEET	XX OF XXX
DWG	TP-2
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____ EXPIRATION DATE: _____.

DSGN	CO				
DR	RH				
CHK	JC				
APVD	MRAB	NO.	DATE	REVISION	BY

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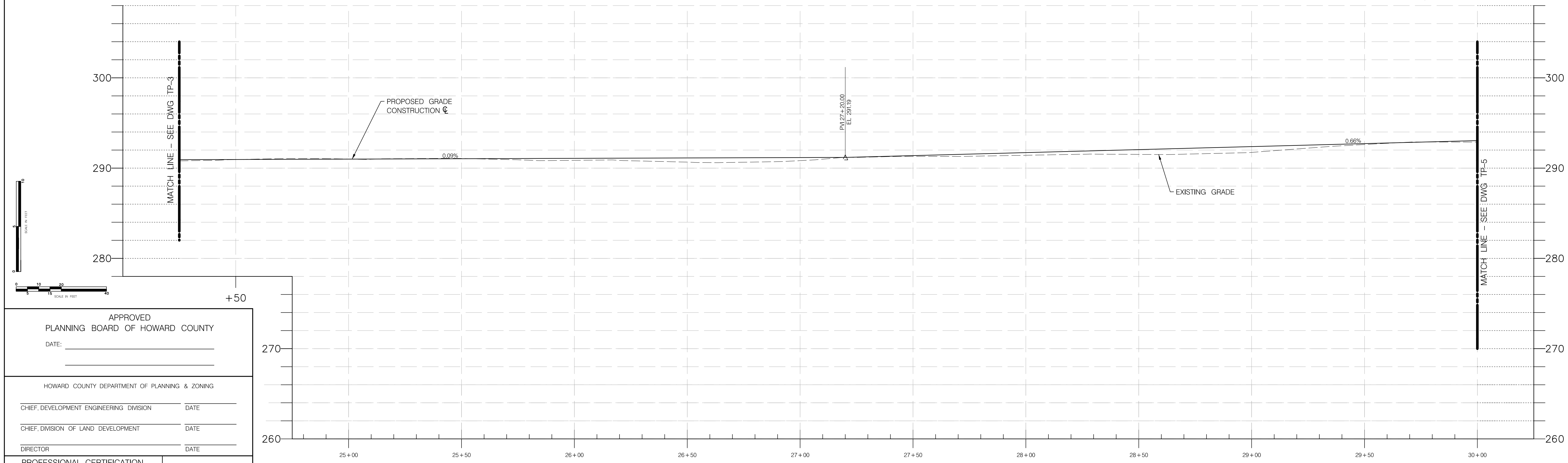
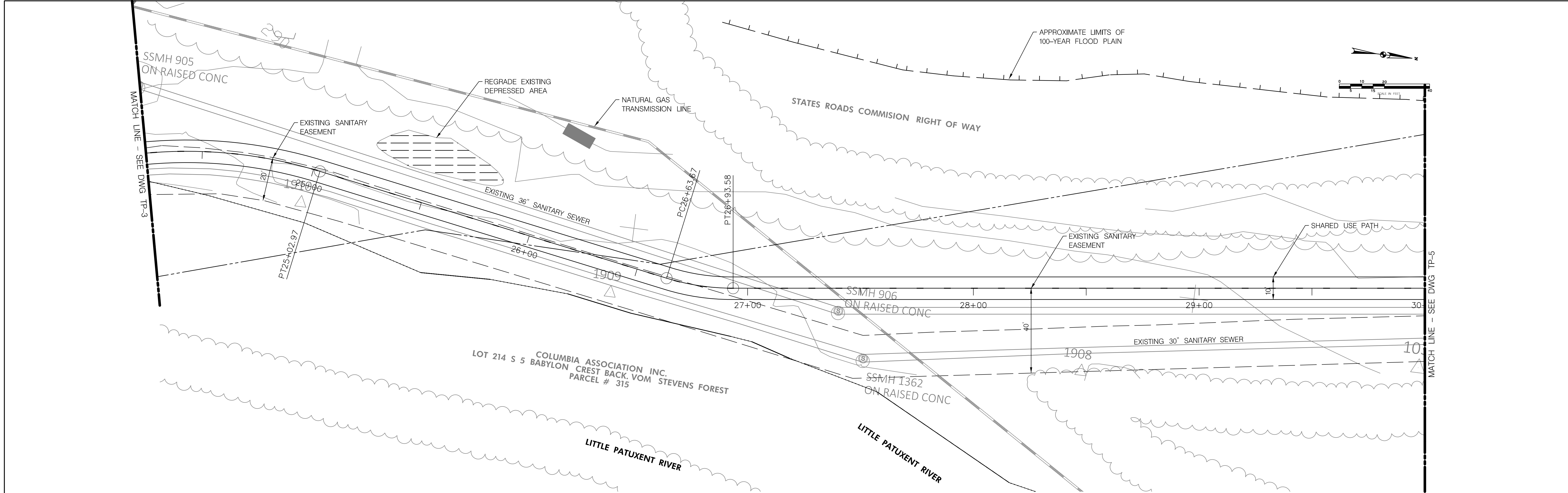
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0'  1'

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
TRAIL PLAN AND PROFILE
STA 18+00 TO STA 24+50

SHEET	XX OF XXX
DWG	TP-3
DATE	OCT 2016
PROJECT	5409.04




APPROVED PLANNING BOARD OF HOWARD COUNTY	
DATE: _____	
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DIRECTOR	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. _____, EXPIRATION DATE: _____.	

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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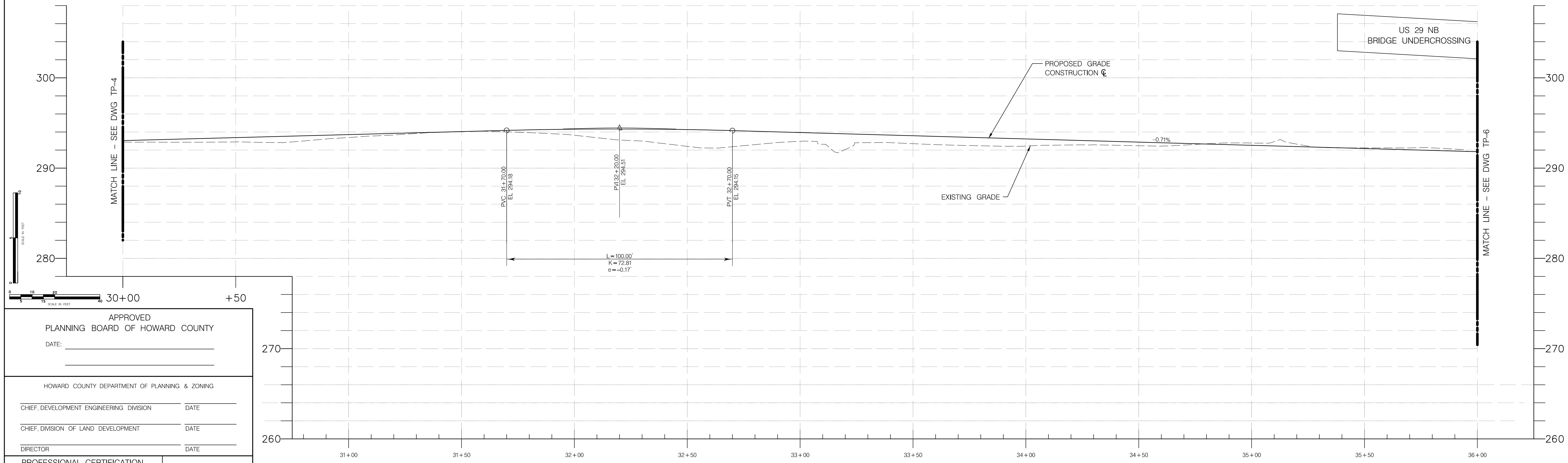
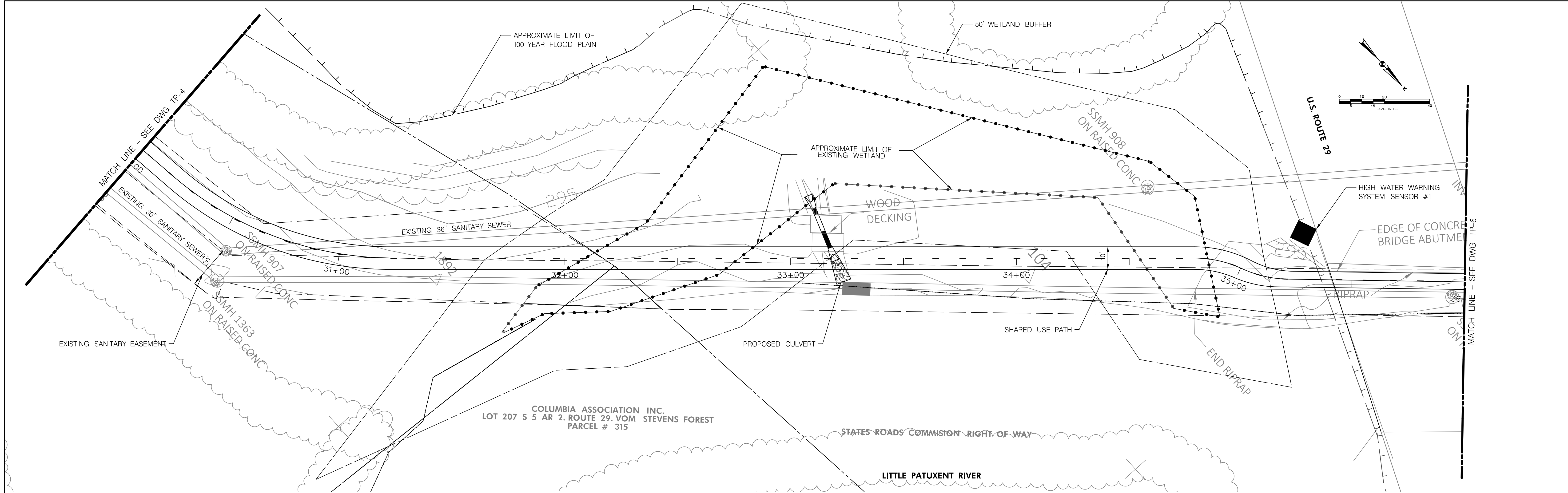
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0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DISCIPLINE
TRAIL PLAN AND PROFILES
STA 24-25 TO STA 30+00

SHEET	XX OF XXX
DWG	TP-4
DATE	OCT 2016
PROJECT	5409.04



APPROVED PLANNING BOARD OF HOWARD COUNTY	
DATE: _____	
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DIRECTOR	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. _____, EXPIRATION DATE: _____.	

DSGN	CO				
DR	RH				
CHK	JC				
APVD	MRAB	NO.	DATE	REVISION	BY

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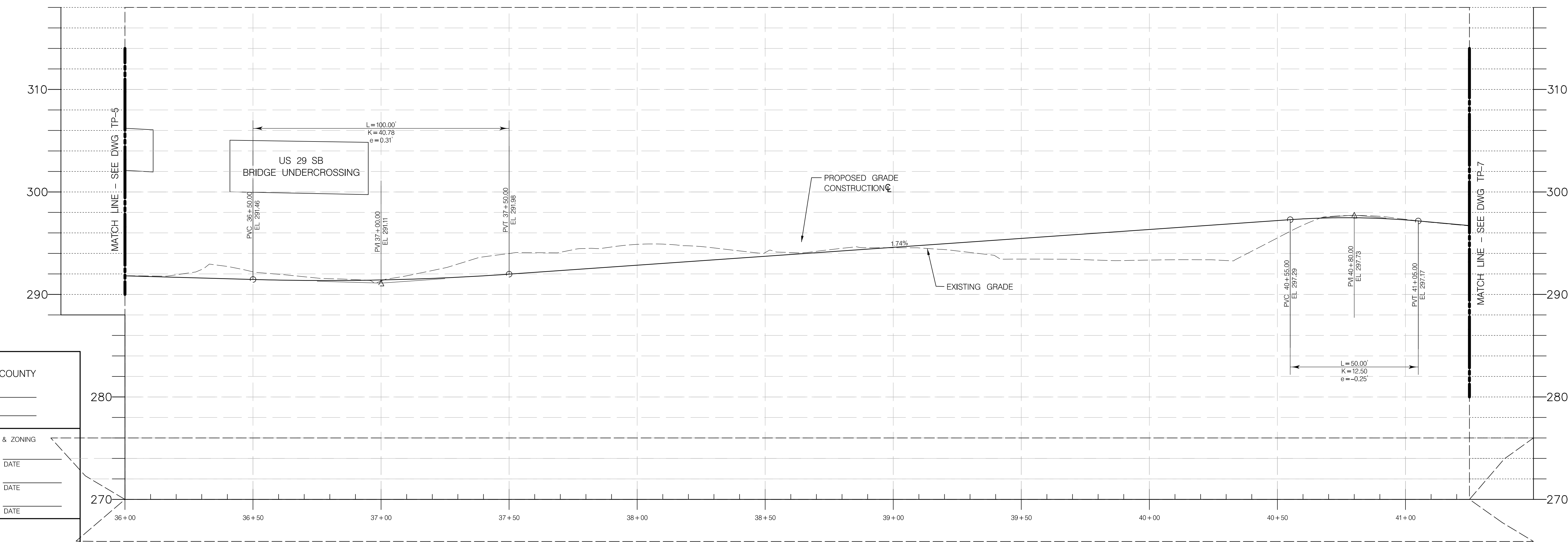
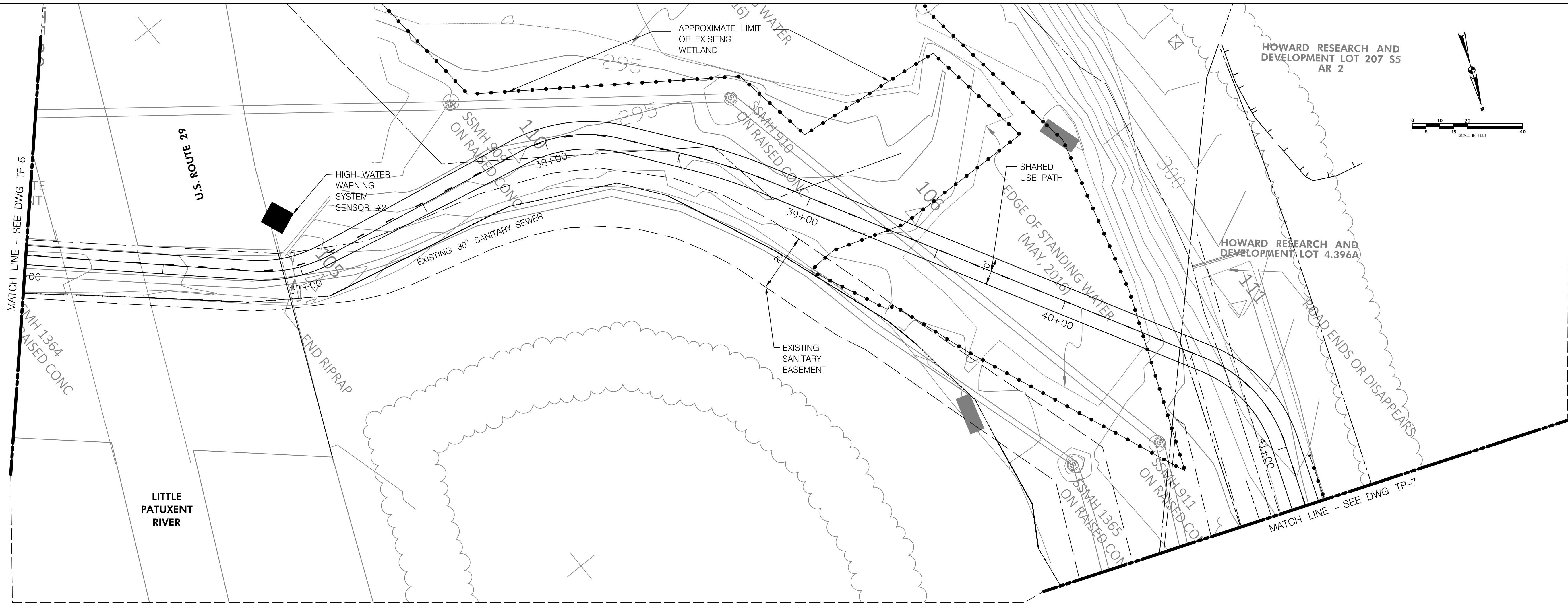
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0" 1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
TRAIL PLAN AND PROFILE
STA 30+00 TO STA 36+00

SHEET	XX OF XXX
DWG	TP-5
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____ EXPIRATION DATE: _____

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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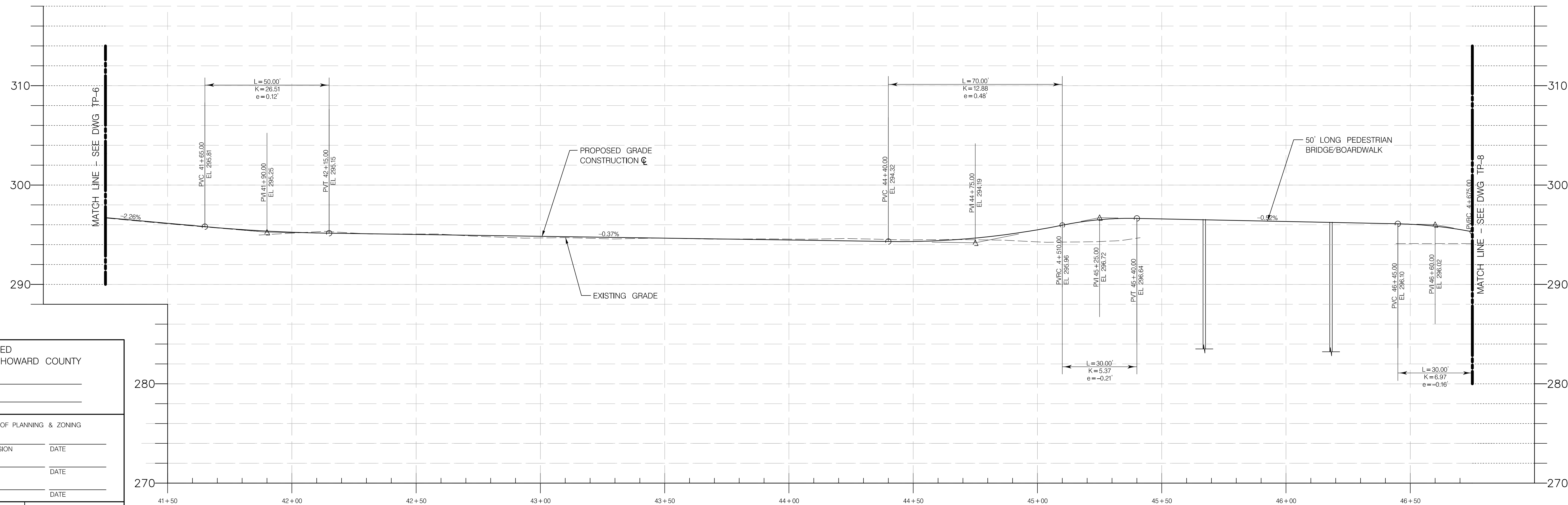
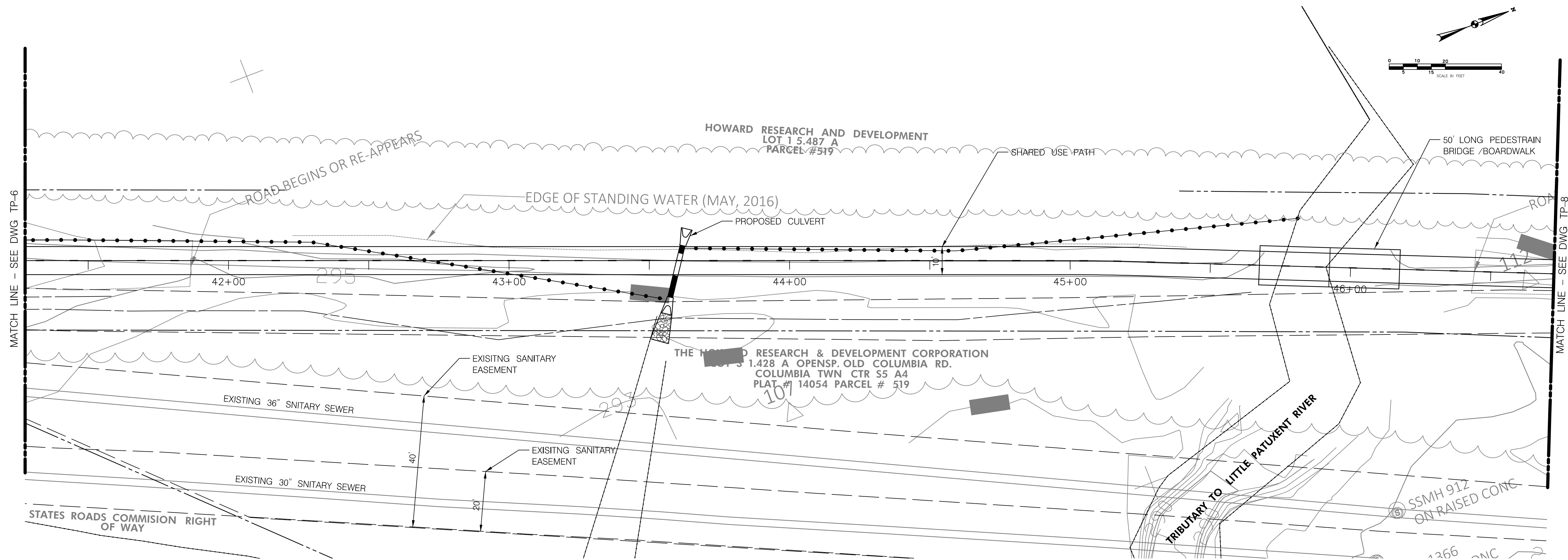
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0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DISCIPLINE
TRAIL PLAN AND PROFILE
STA 36+00 TO 41+25

SHEET	XX OF XXX
DWG	TP-6
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____

DSGN	CO				
DR	RH				
CHK	JC				
APVD	MRAB	NO.	DATE	REVISION	BY



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ACCORDINGLY.
0" 1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

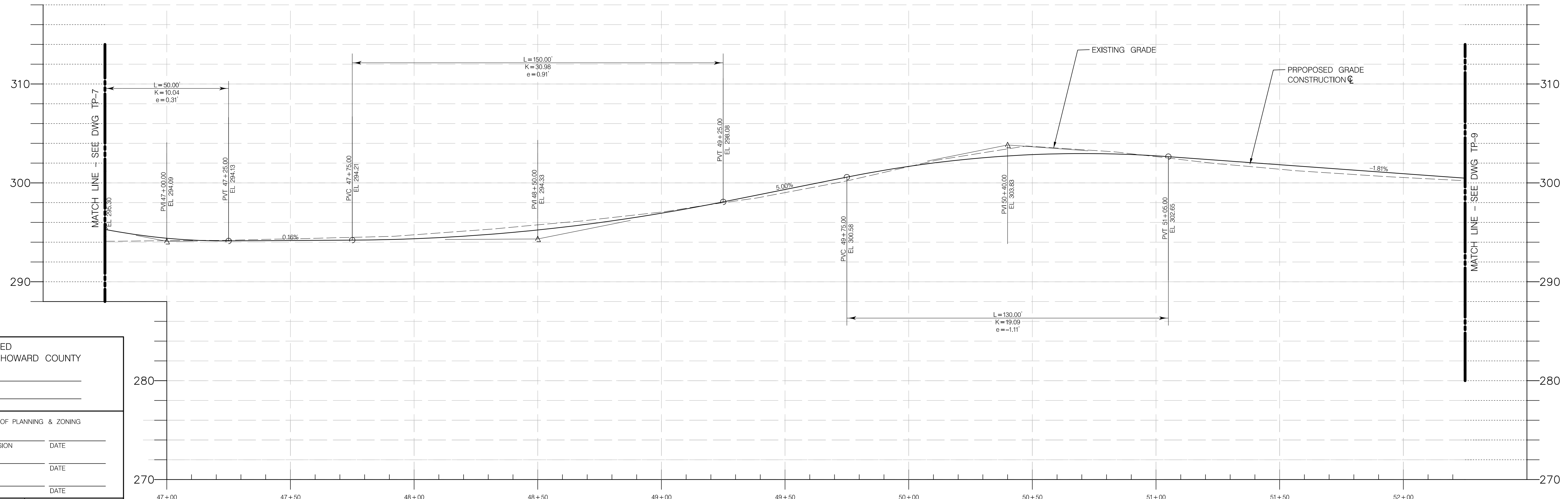
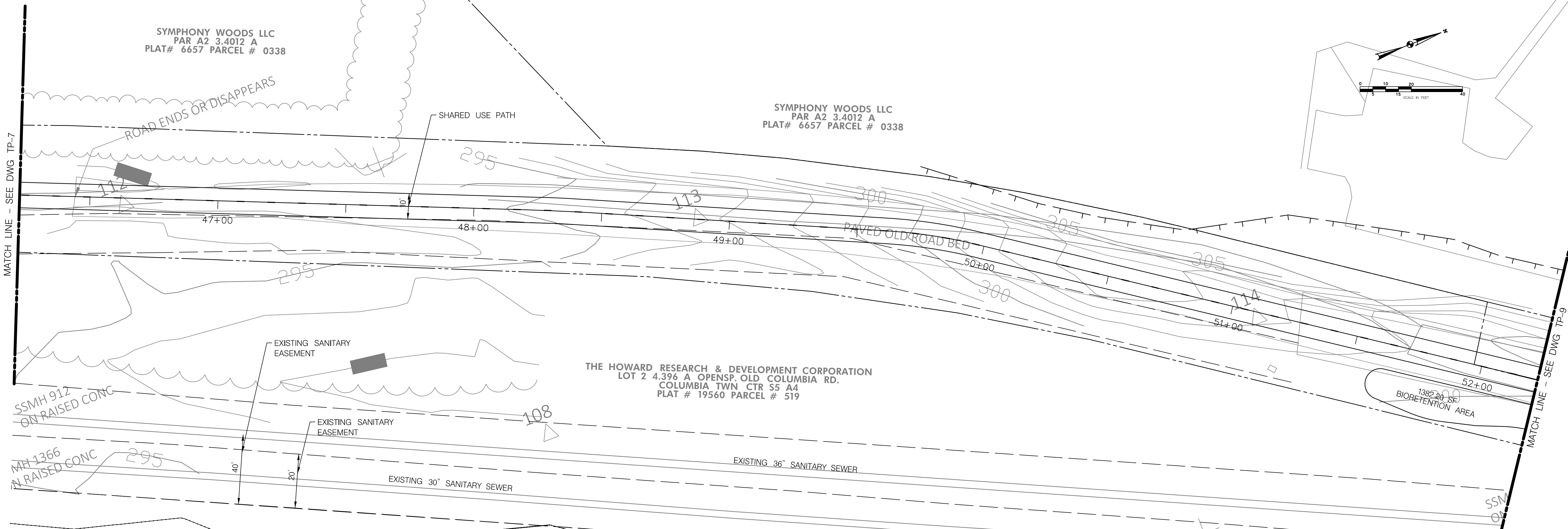
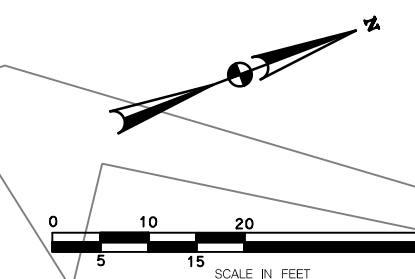
CIVIL
TRAIL PLAN AND PROFILE
STATION 41+25 TO STA 46+75

SHEET	XX OF XXX
DWG	TP-7
DATE	OCT 2016
PROJECT	5409.04

SYMPHONY WOODS LLC
PAR A2 3.4012 A
PLAT# 6657 PARCEL # 0338

SYMPHONY WOODS LLC
PAR A2 3.4012 A
PLAT# 6657 PARCEL # 0338

THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
LOT 2 4.396 A OPENSF. OLD COLUMBIA RD.
COLUMBIA TWN CTR S5 A4
PLAT # 19560 PARCEL # 519



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

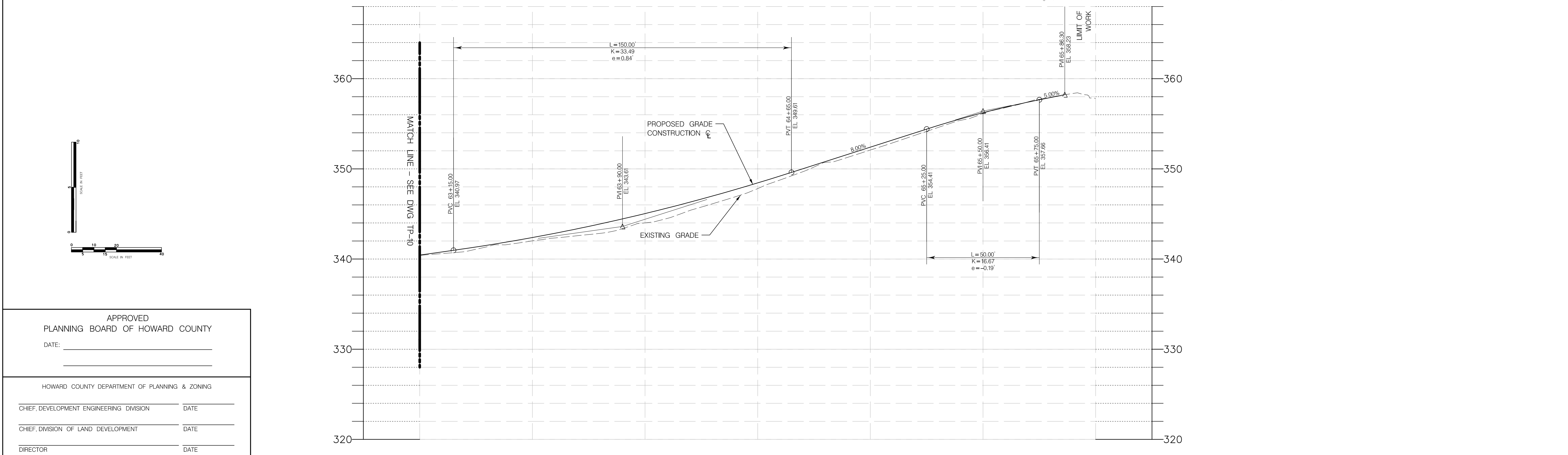
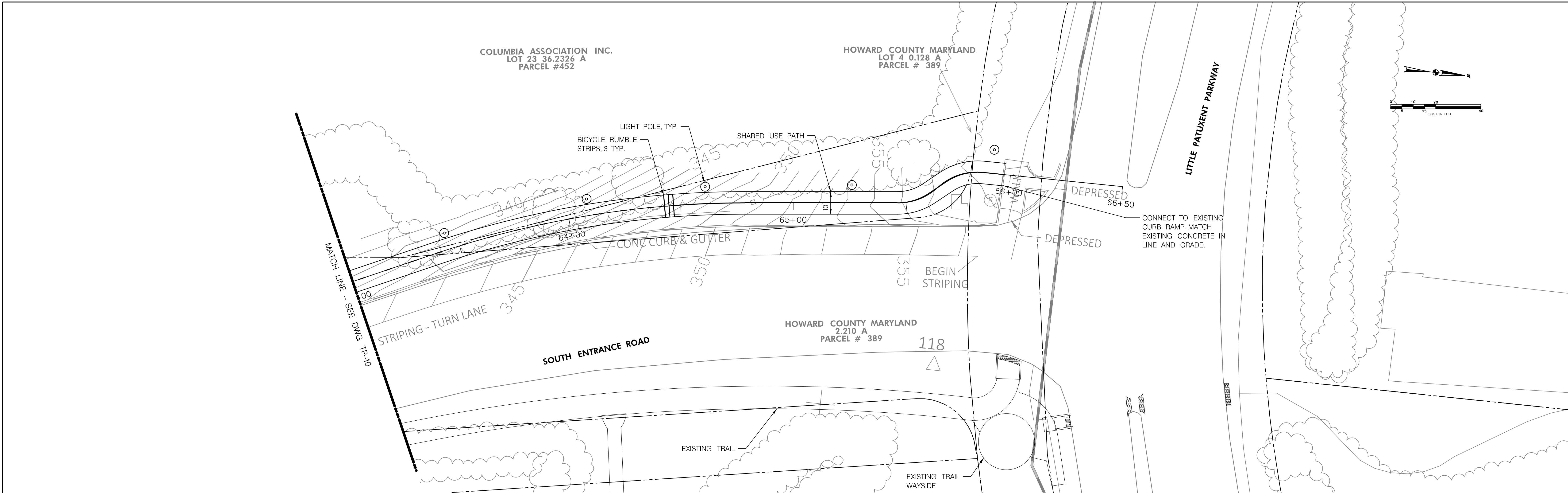
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IF BAR DOES NOT MEASURE
ONE INCH, ADJUST SCALES
ACCORDINGLY.
0" 1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL	SHEET	XX OF XXX
TRAIL PLAN AND PROFILE STA 46+75 TO STA 52+25	DWG	TP-8
	DATE	OCT 2016
	PROJECT	5409.04




APPROVED PLANNING BOARD OF HOWARD COUNTY	
DATE: _____	
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE _____
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE _____
DIRECTOR	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. _____, EXPIRATION DATE: _____.	

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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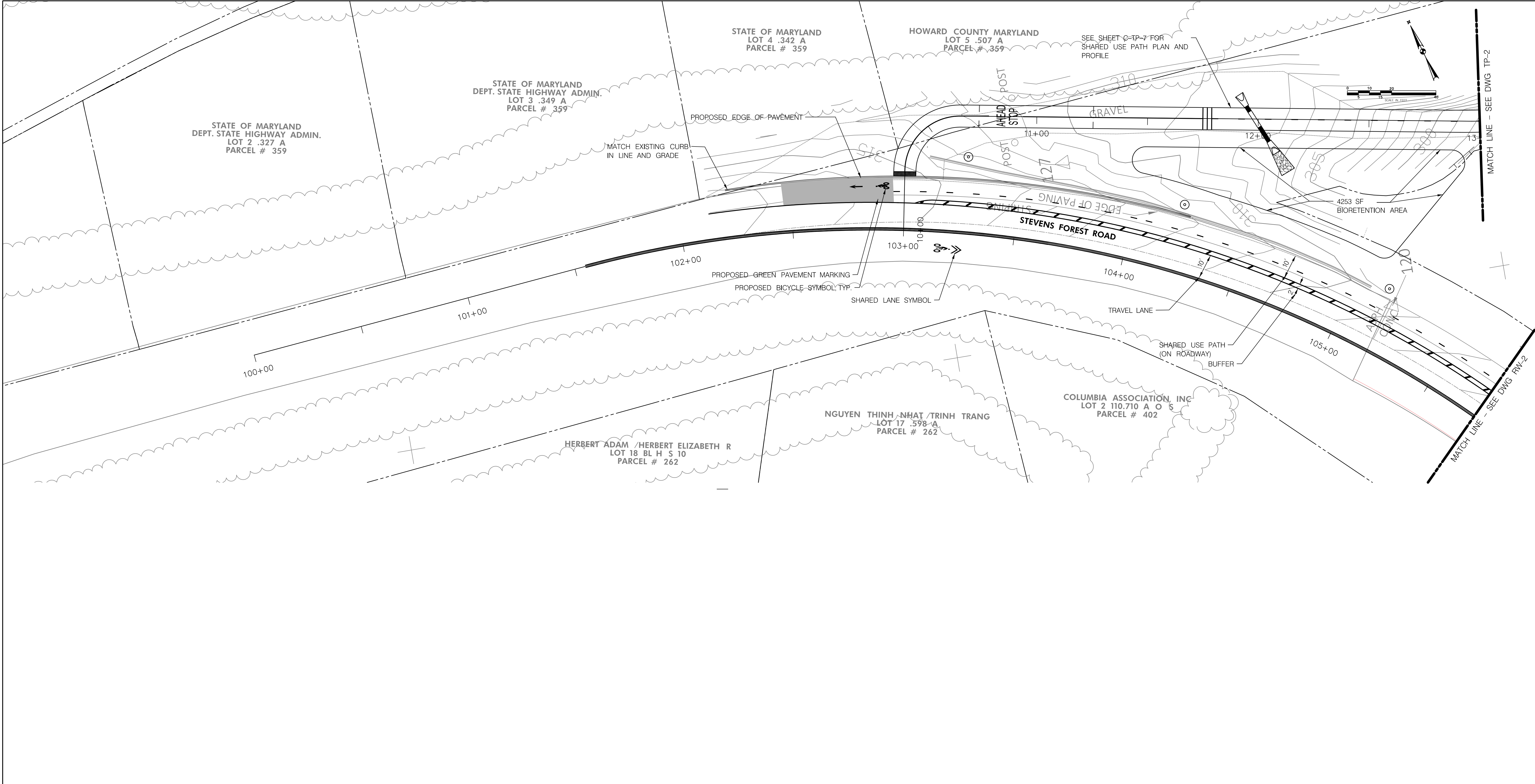
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0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
TRIAL PLAN AND PROFILE
STA 63+00 TO STA 66+50

SHEET	XX OF XXX
DWG	TP-11
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____ EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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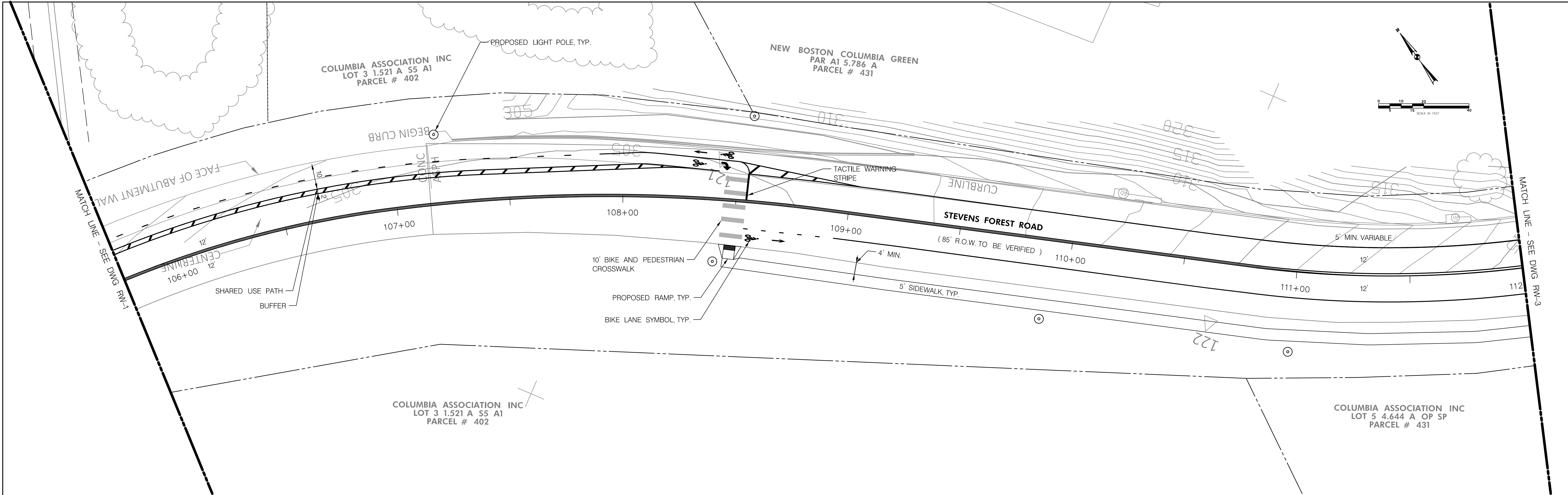
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0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
ROADWAY PLAN
STA 100+00 TO STA 105+75

SHEET	RW-1
DWG	RW-1
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____
CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____
DIRECTOR _____ DATE _____

PROFESSIONAL CERTIFICATION

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DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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0"  1"

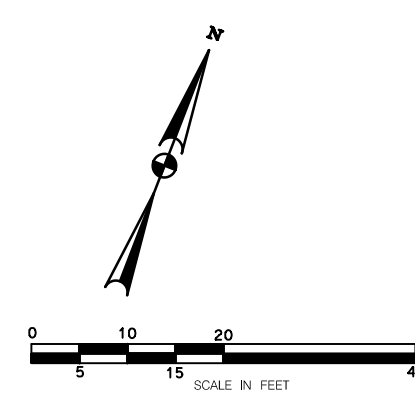
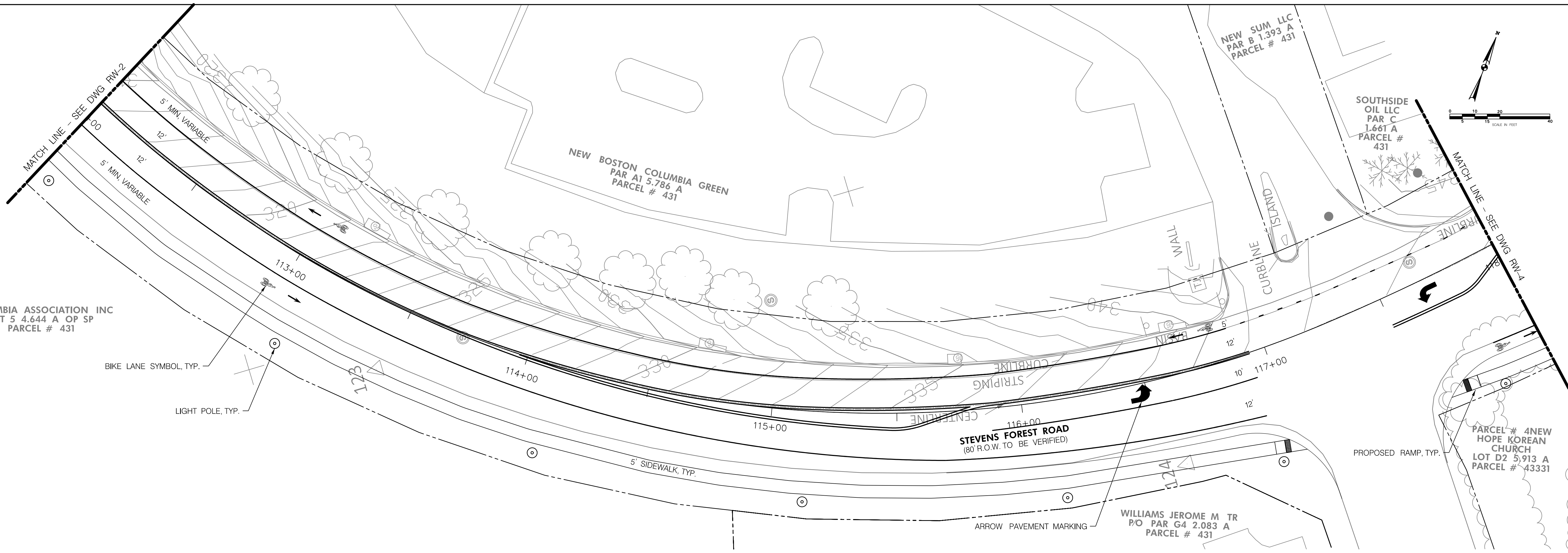
STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DISCIPLINE

ROADWAY PLAN
STA 105+75 TO STA 112+00

SHEET	XX OF XXX
DWG	RW-2
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____

DSGN	CO					
DR	RH					
CHK	JC					
APVD	MRAB	NO.	DATE	REVISION	BY	APVD

**TooleDesignGroup**
8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MD 20910
PHONE: (301) 927-1900 FAX: (301) 927-2800
www.tooledesign.com
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

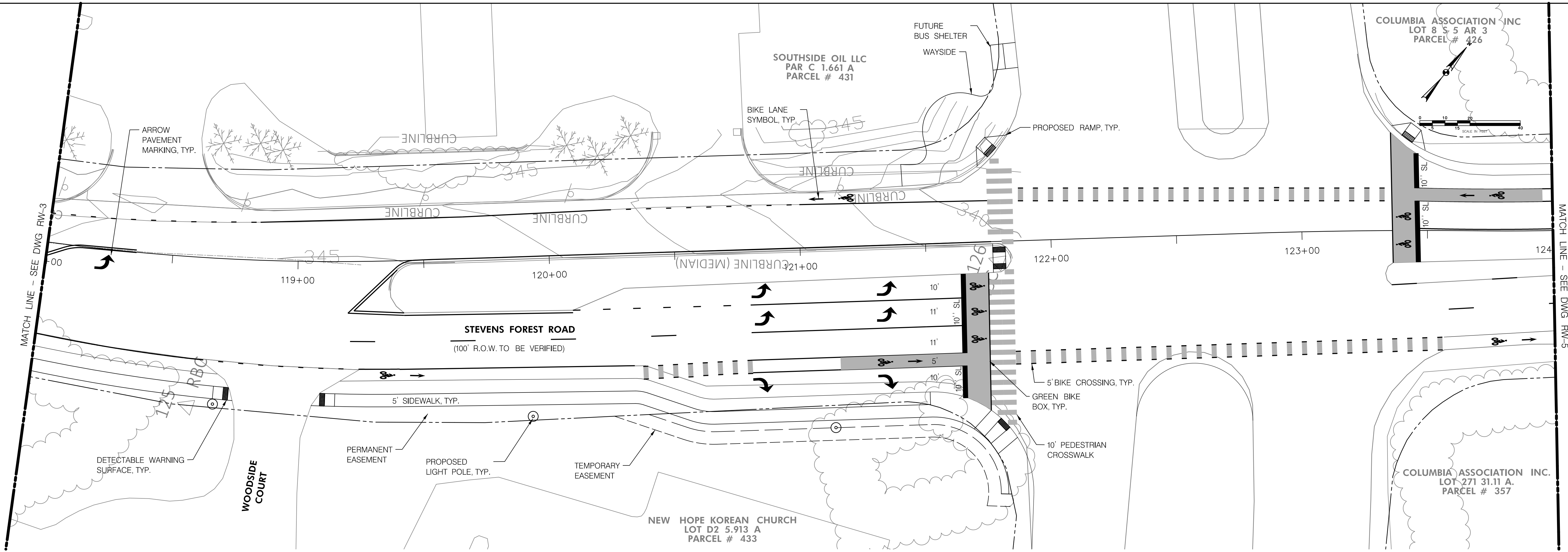
REUSE OF DOCUMENTS
ALL DRAWINGS ARE INSTRUMENTS
OF PROFESSIONAL SERVICE FOR THIS
PROJECT. REUSE OR ALTERATION
WITHOUT TDG'S WRITTEN PERMISSION
IS AT THE USER'S SOLE RISK.

BAR SHOWN BELOW IS ONE
INCH ON ORIGINAL DRAWING.
IF BAR DOES NOT MEASURE
ONE INCH, ADJUST SCALES
ACCORDINGLY.
0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
ROADWAY PLAN
STA 112+00 TO STA 118+00

SHEET	XX OF XXX
DWG	RW-3
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

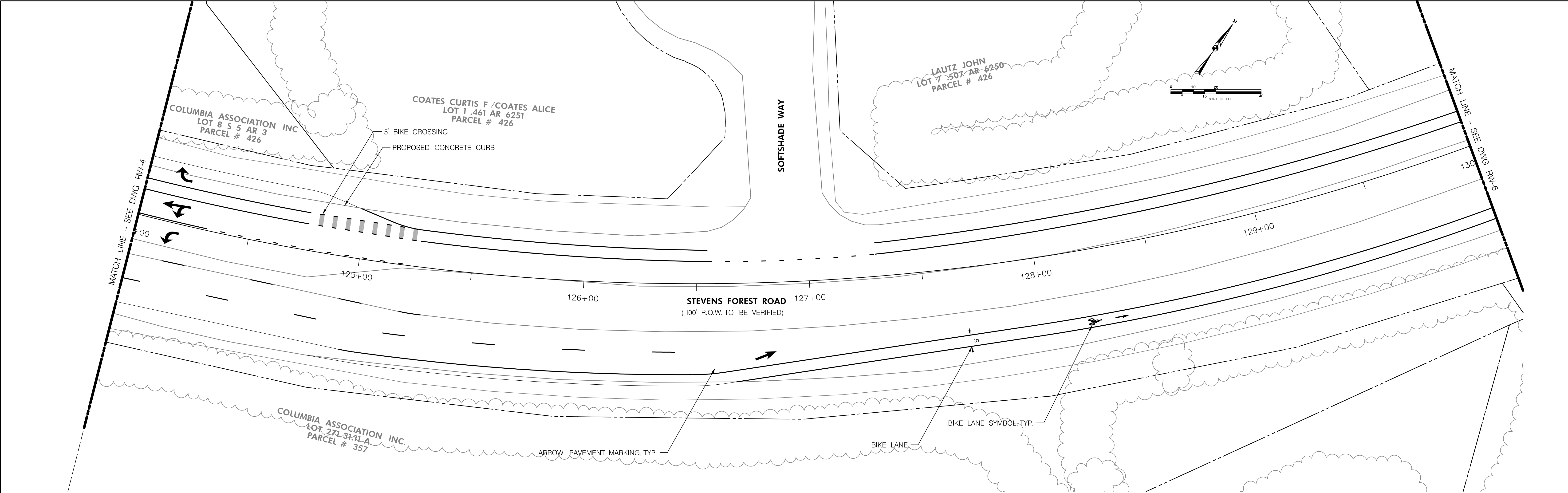
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IF BAR DOES NOT MEASURE
ONE INCH, ADJUST SCALES
ACCORDINGLY.
0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
ROADWAY PLAN
STA 118+00 TO STA 124+00

SHEET	XX OF XXX
DWG	RW-4
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____, EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

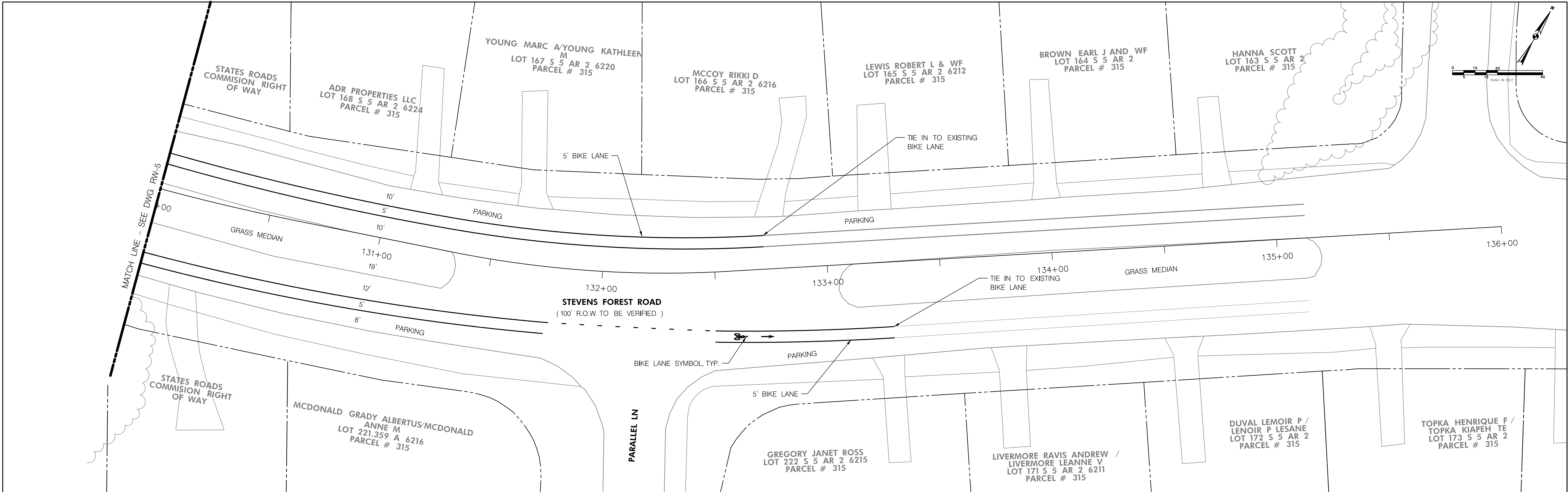
REUSE OF DOCUMENTS
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0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
ROADWAY PLAN
STA 124+00 TO STA 130+00

SHEET	XX OF XXX
DWG	RW-5
DATE	OCT 2016
PROJECT	5409.04



APPROVED PLANNING BOARD OF HOWARD COUNTY	
DATE: _____	
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE _____
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE _____
DIRECTOR	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. _____ EXPIRATION DATE: _____.	


DSGN	CO				
DR	RH				
CHK	JC				
APVD	MRAB	NO.	DATE	REVISION	BY APVD



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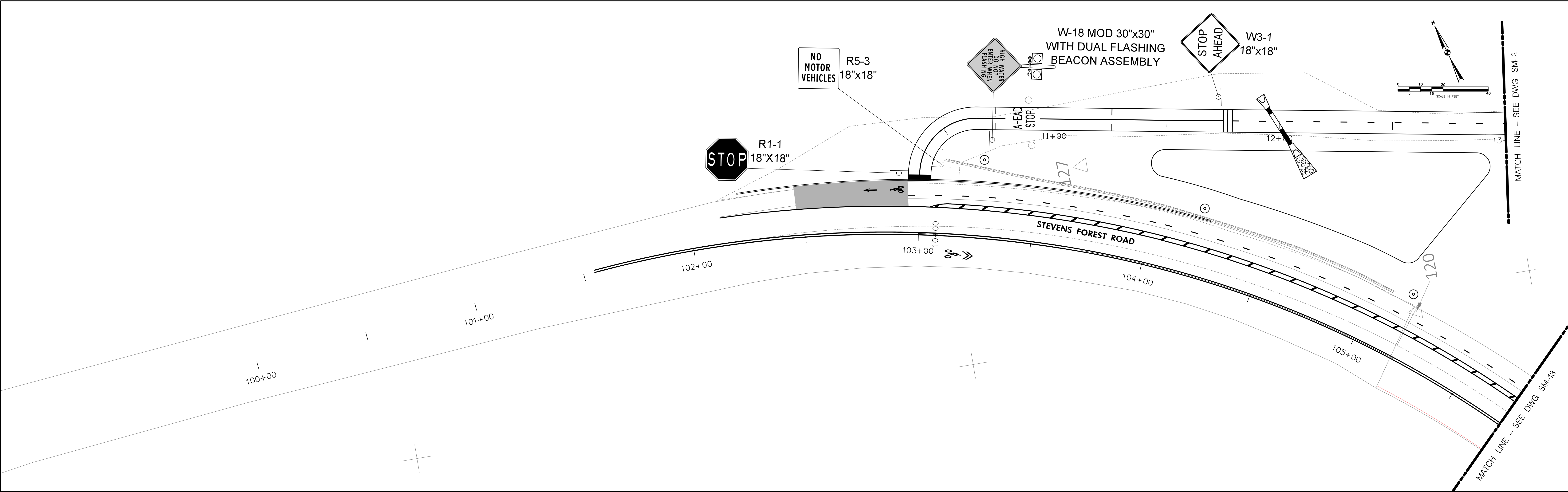
REUSE OF DOCUMENTS
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0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
ROADWAY PLAN
STA 130+00 TO STA 136+00

SHEET	XX OF XXX
DWG	RW-6
DATE	OCT 2016
PROJECT	5409.04



APPROVED PLANNING BOARD OF HOWARD COUNTY	
DATE: _____	

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE _____
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE _____
DIRECTOR	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. _____ EXPIRATION DATE: _____.	


DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	



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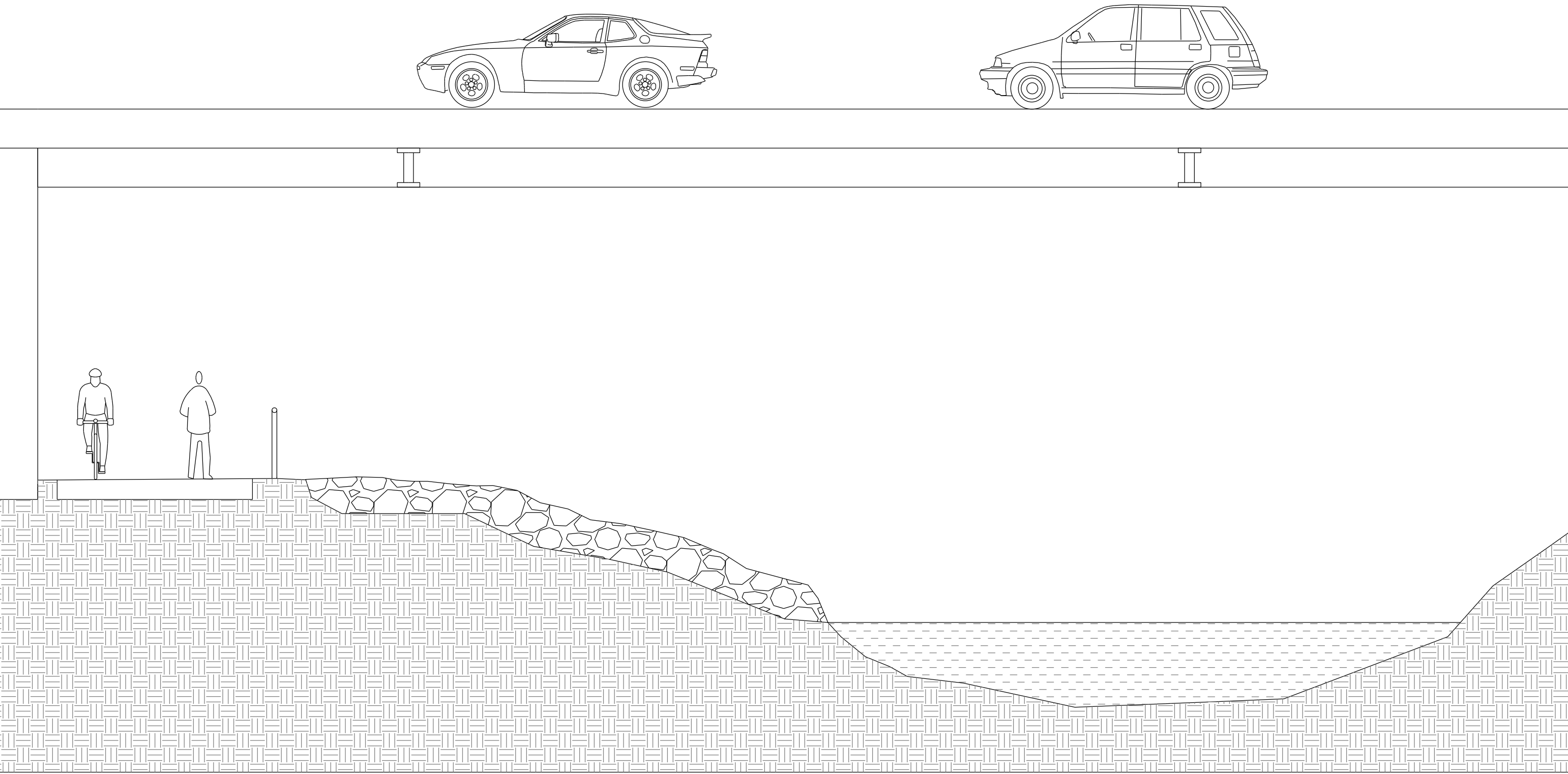
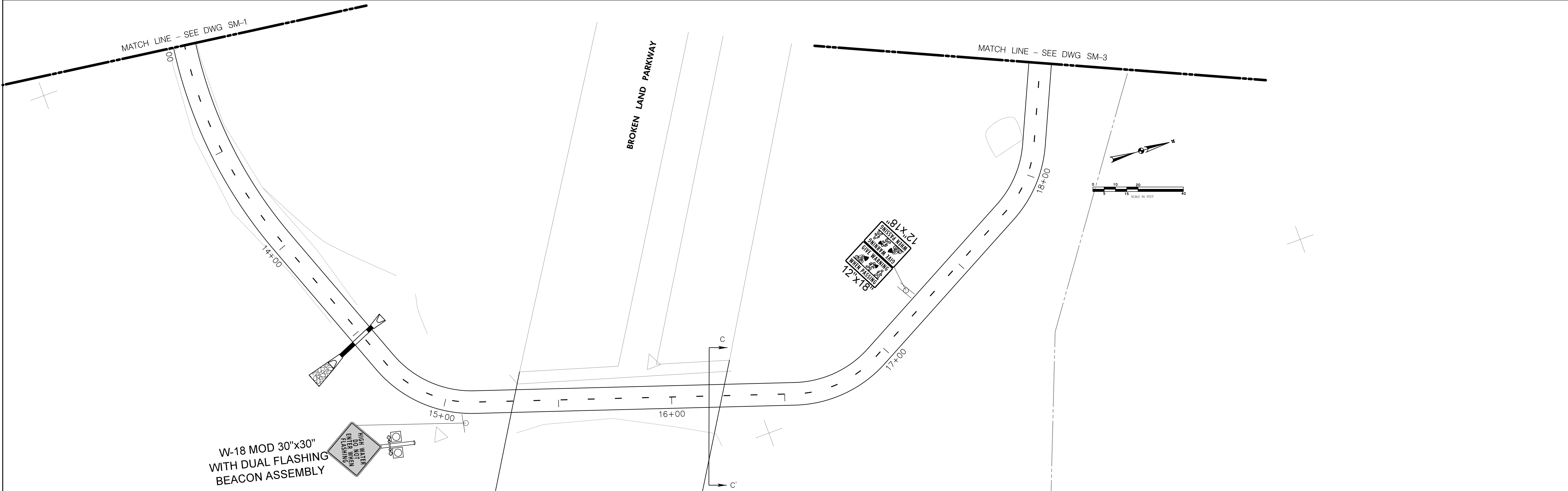
REUSE OF DOCUMENTS
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0'  1'

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
SIGNING AND MARKING PLAN
STA 10+00 TO STA 13+00

SHEET	XX OF XXX
DWG	SM-1
DATE	OCT 2016
PROJECT	5409.04




APPROVED PLANNING BOARD OF HOWARD COUNTY	
DATE: _____	
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE _____
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE _____
DIRECTOR	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. _____ EXPIRATION DATE: _____.	

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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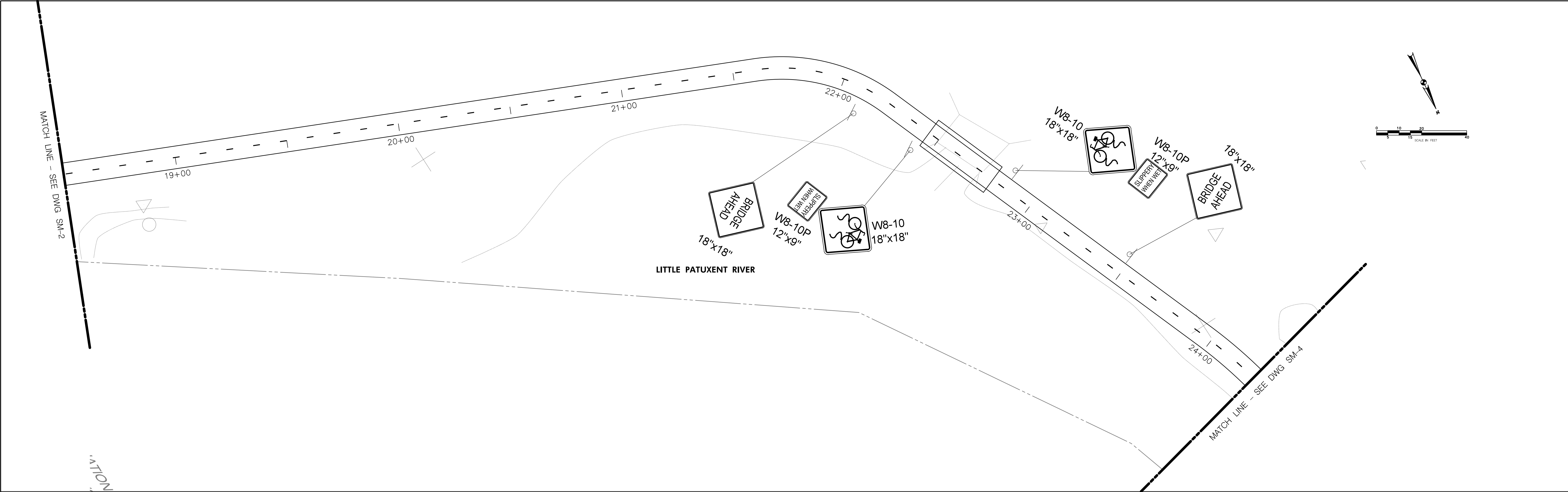
REUSE OF DOCUMENTS
ALL DRAWINGS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THIS PROJECT. REUSE OR ALTERATION WITHOUT TDG'S WRITTEN PERMISSION IS AT THE USER'S SOLE RISK.

BAR SHOWN BELOW IS ONE INCH ON ORIGINAL DRAWING. IF BAR DOES NOT MEASURE ONE INCH, ADJUST SCALES ACCORDINGLY.
0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
SIGNING AND MARKING PLAN
STA 13+00 TO STA 18+50

SHEET	XX OF XXX
DWG	SM-2
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____ EXPIRATION DATE: _____.


DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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BAR SHOWN BELOW IS ONE INCH ON ORIGINAL DRAWING. IF BAR DOES NOT MEASURE ONE INCH, ADJUST SCALES ACCORDINGLY.

0'  1"

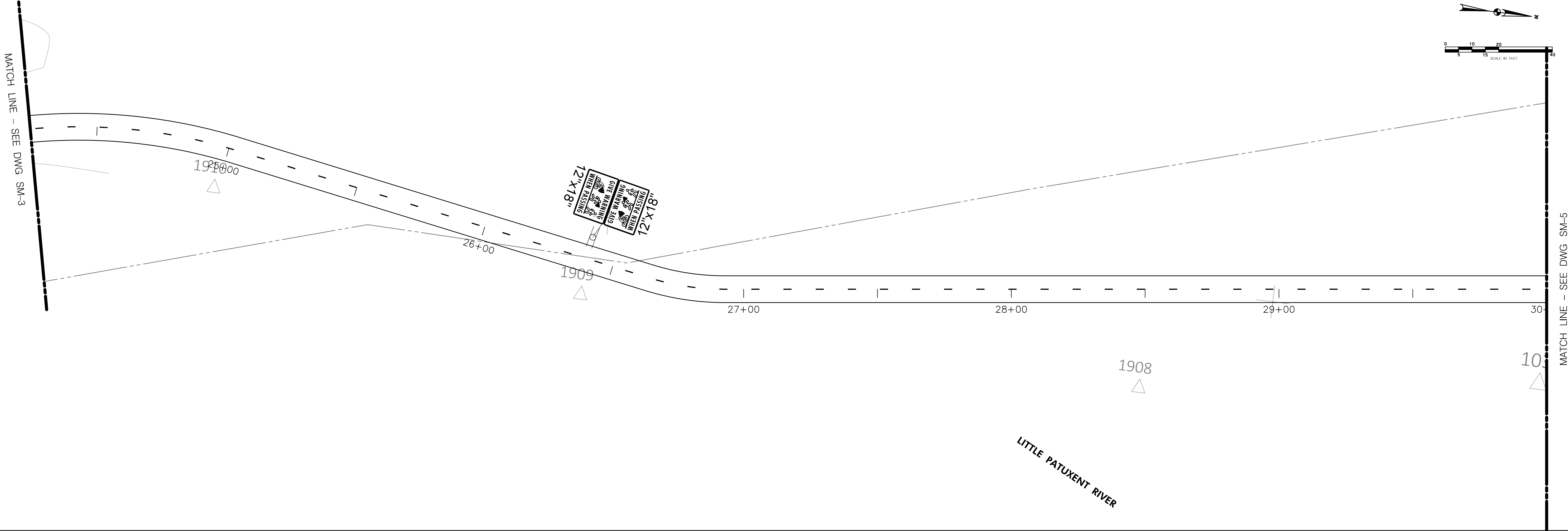
STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL

SIGNING AND MARKING PLAN
STA 18+50 TO STA 24+25

SHEET	XX OF XXX
DWG	SM-3
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____.


DSGN	CO					
DR	RH					
CHK	JC					
APVD	MRAB	NO.	DATE	REVISION	BY	APVD



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REUSE OF DOCUMENTS

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PROJECT. REUSE OR ALTERATION
WITHOUT TDG'S WRITTEN PERMISSION
IS AT THE USER'S SOLE RISK.

BAR SHOWN BELOW IS ONE
INCH ON ORIGINAL DRAWING.
IF BAR DOES NOT MEASURE
ONE INCH, ADJUST SCALES
ACCORDINGLY.
0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL

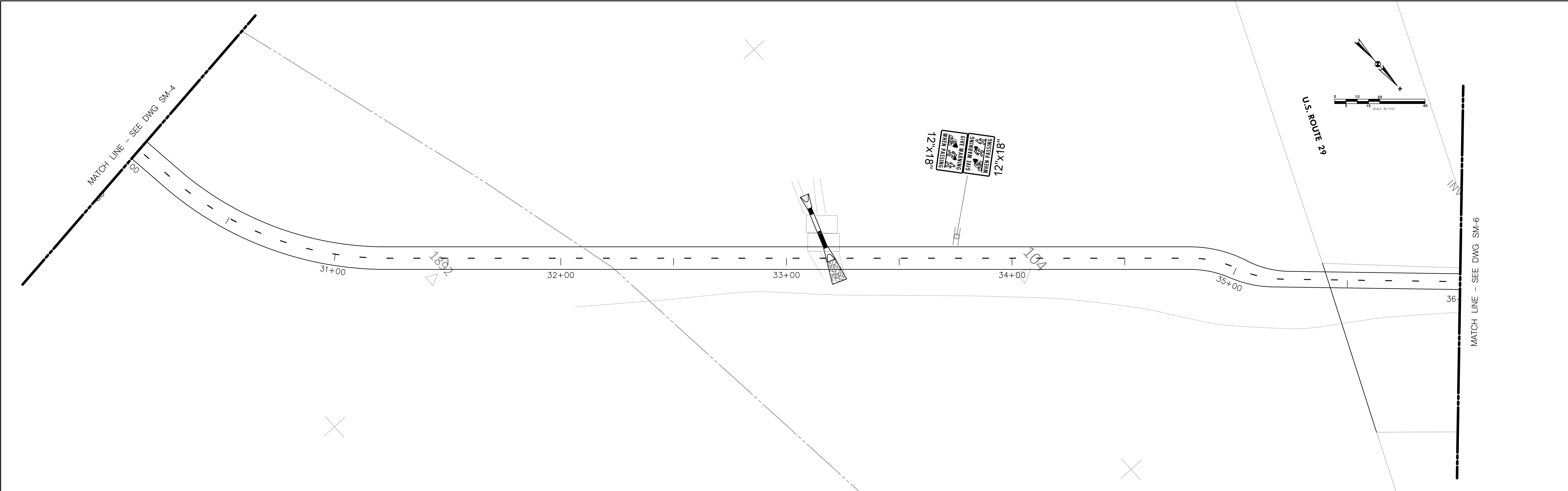
SIGNING AND MARKING PLAN
STA 24+25 TO STA 30+00

SHEET XX OF XXX

DWG SM-4

DATE OCT 2016

PROJECT 5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____, EXPIRATION DATE: _____.


DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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REUSE OF DOCUMENTS

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0"  1"

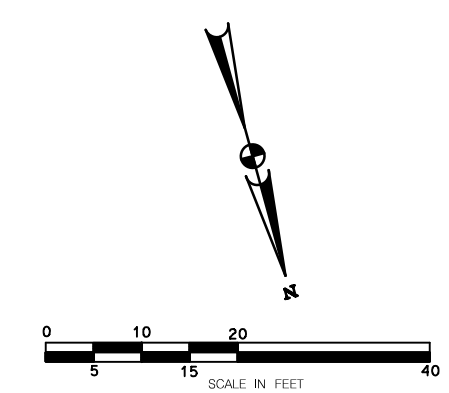
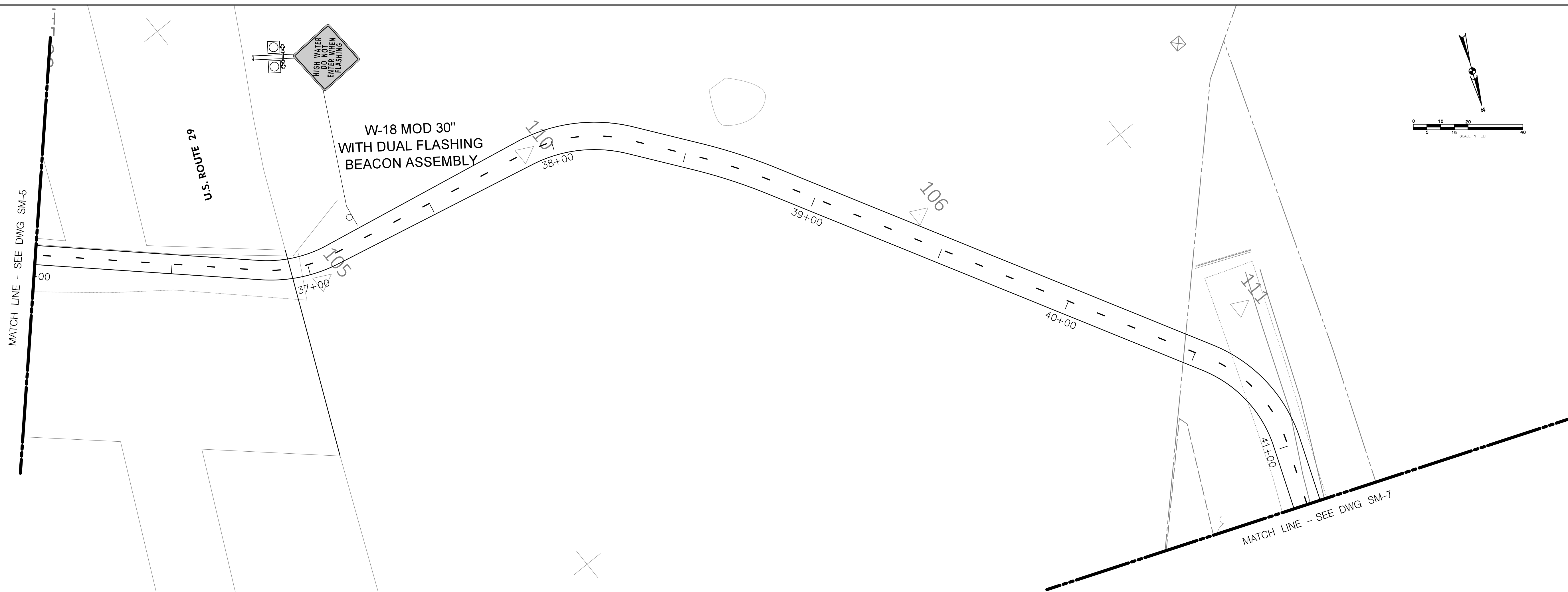
STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL

SIGNING AND MARKING PLAN
STA 30+00 TO STA 36+00

SHEET	XX OF XXX
DWG	SM-5
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____,
EXPIRATION DATE: _____.

DSGN	CO					
DR	RH					
CHK	JC					
APVD	MRAB	NO.	DATE	REVISION	BY	APVD

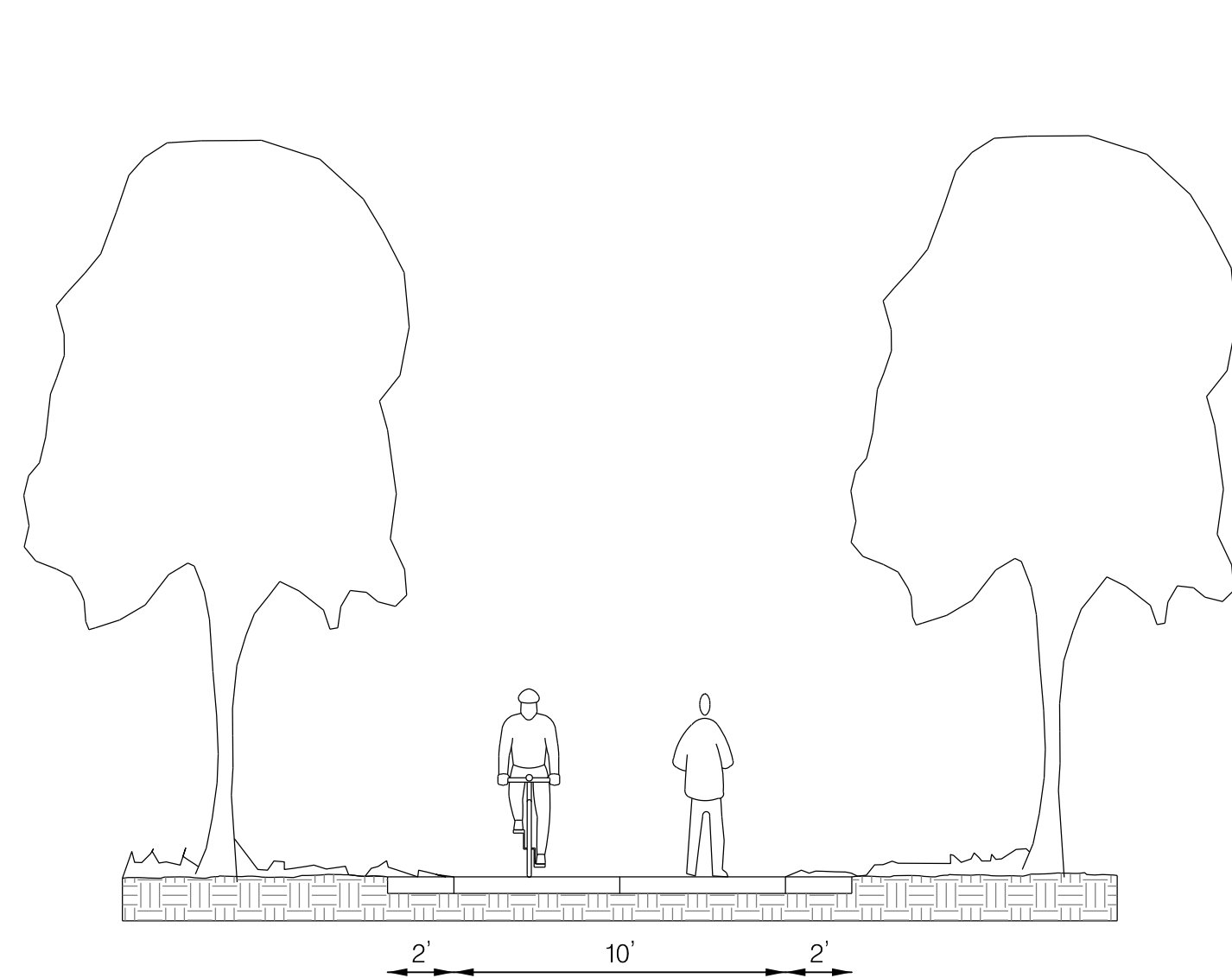
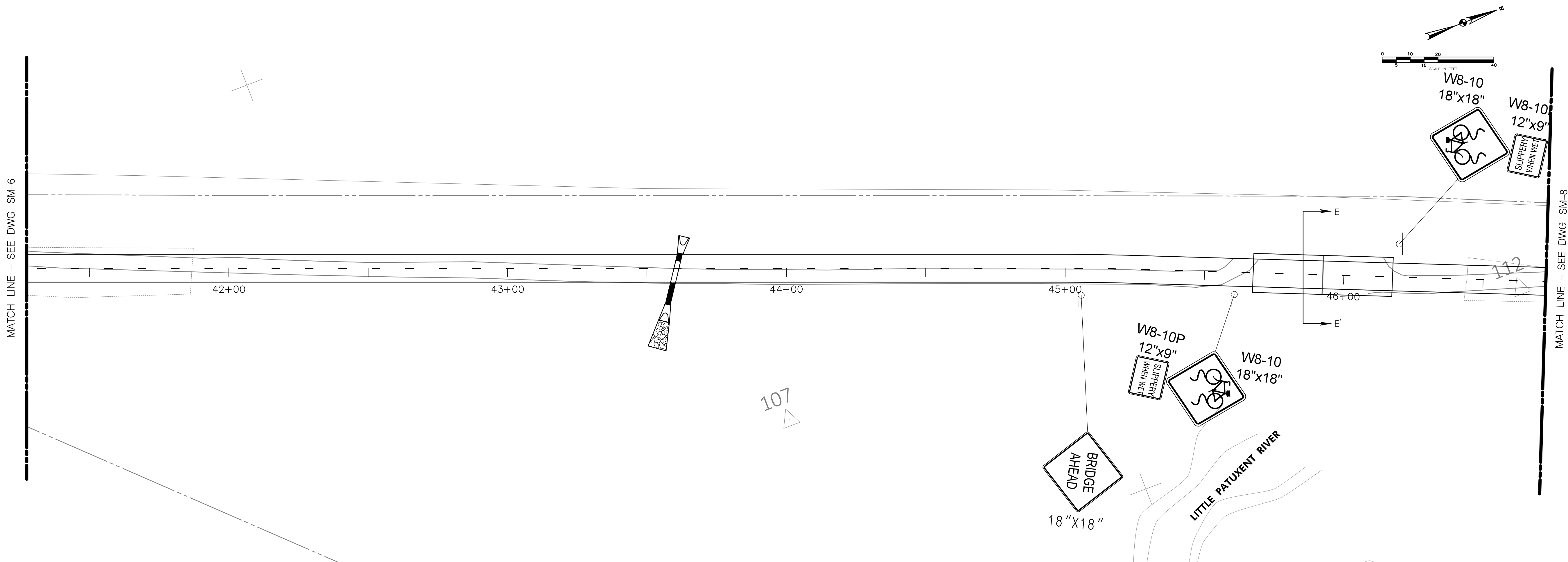


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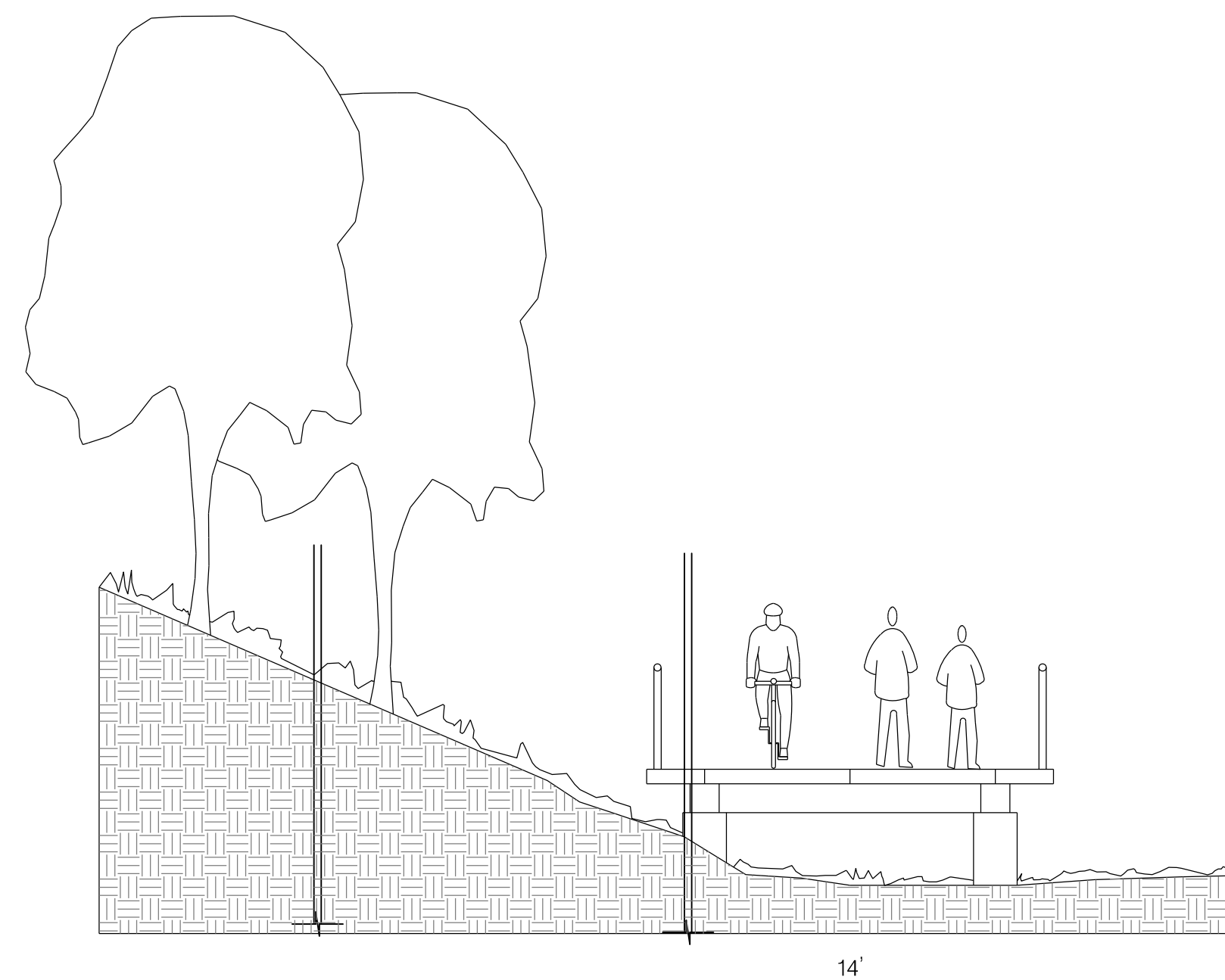
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

REUSE OF DOCUMENTS	BAR SHOWN BELOW IS ONE INCH ON ORIGINAL DRAWING. IF BAR DOES NOT MEASURE ONE INCH, ADJUST SCALES ACCORDINGLY.
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STEVENS FOREST TO DOWNTOWN COLUMBIA SHARED USE PATH DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	CIVIL SIGNING AND MARKING PLAN STA 36+00 TO STA 41+25	SHEET XX OF XXX DWG SM-6 DATE OCT 2016 PROJECT 5409.04
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SECTION D - D'



SECTION E - E'

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	



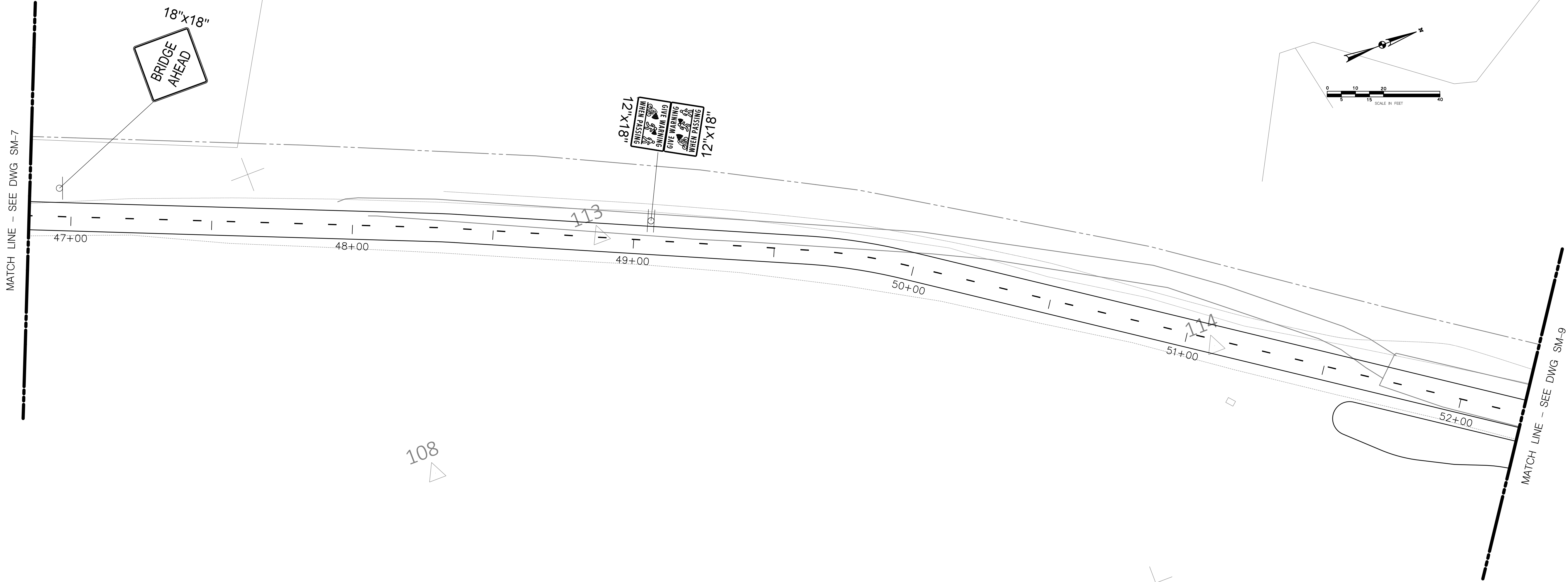
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IF BAR DOES NOT MEASURE
ONE INCH, ADJUST SCALES
ACCORDINGLY.
0" 1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
SIGNING AND MARKING PLAN
STA 41+25 TO STA 46+75

SHEET	XX OF XXX
DWG	SM-7
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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PHONE: (301) 927-1900 FAX: (301) 927-2800
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REUSE OF DOCUMENTS
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ONE INCH, ADJUST SCALES
ACCORDINGLY.
0"  1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL		SHEET	XX OF XXX
SIGNING AND MARKING PLAN STA 46+75 TO STA 52+25		DWG	SM-8
		DATE	OCT 2016
		PROJECT	5409.04

MATCH LINE - SEE DWG SM-8

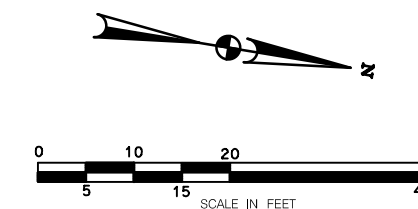
W-18 MOD 30"x30"
WITH DUAL FLASHING
BEACON-ASSEMBLY

NO
MOTOR
VEHICLES
24"x24"

R5-3

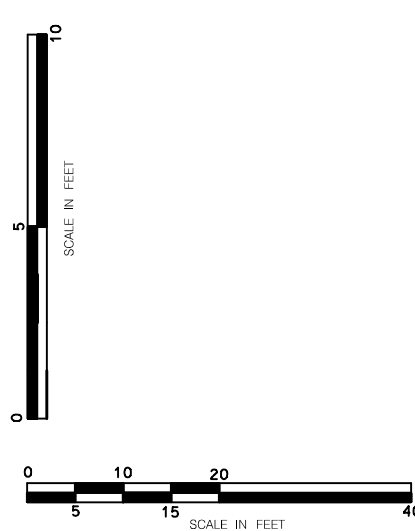
12"x18"

81"x12"



MATCH LINE - SEE DWG SM-10

SOUTH ENTRANCE ROAD



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____,
EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

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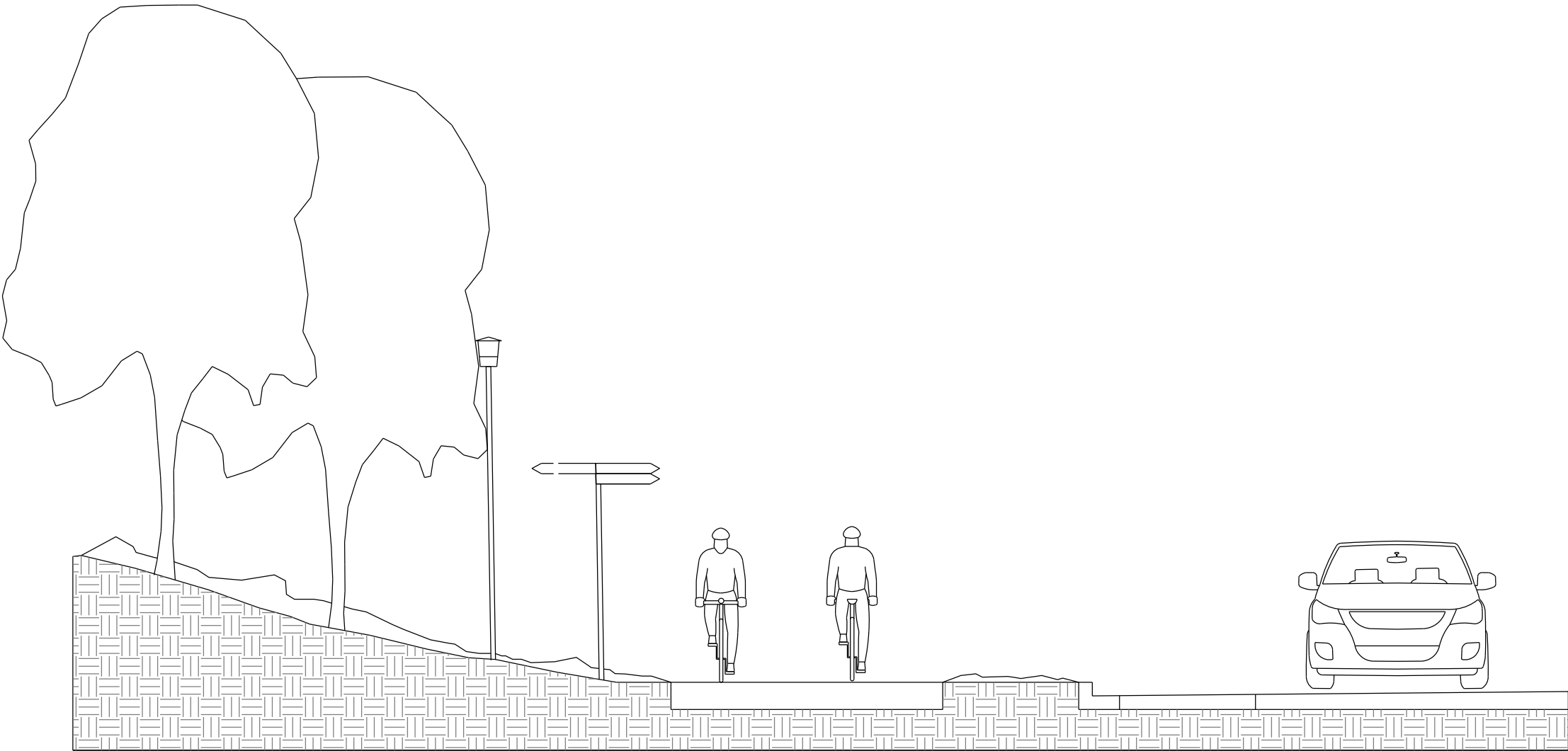
REUSE OF DOCUMENTS
ALL DRAWINGS ARE INSTRUMENTS
OF PROFESSIONAL SERVICE FOR THIS
PROJECT. REUSE OR ALTERATION
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ONE INCH, ADJUST SCALES
ACCORDINGLY.
0' 1'

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
SIGNING AND MARKING PLAN
STA 52+25 TO STA 57+75

SHEET	XX OF XXX
DWG	SM-9
DATE	OCT 2016
PROJECT	5409.04



SECTION F - F'

MATCH LINE - SEE DWG SM-9

58+00

59+00

SOUTH ENTRANCE ROAD

SWIFT STREAM PLACE

SYMPHONY WOODS DRIVE

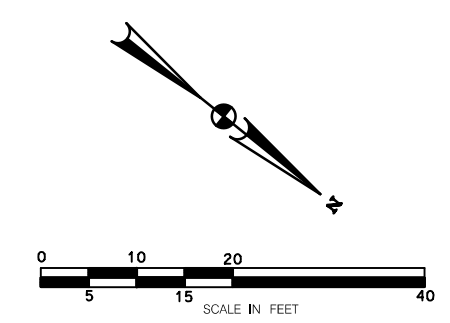
60+00

61+00

62+00

63+00

MATCH LINE - SEE DWG SM-11



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____


DIRECTOR _____ DATE _____

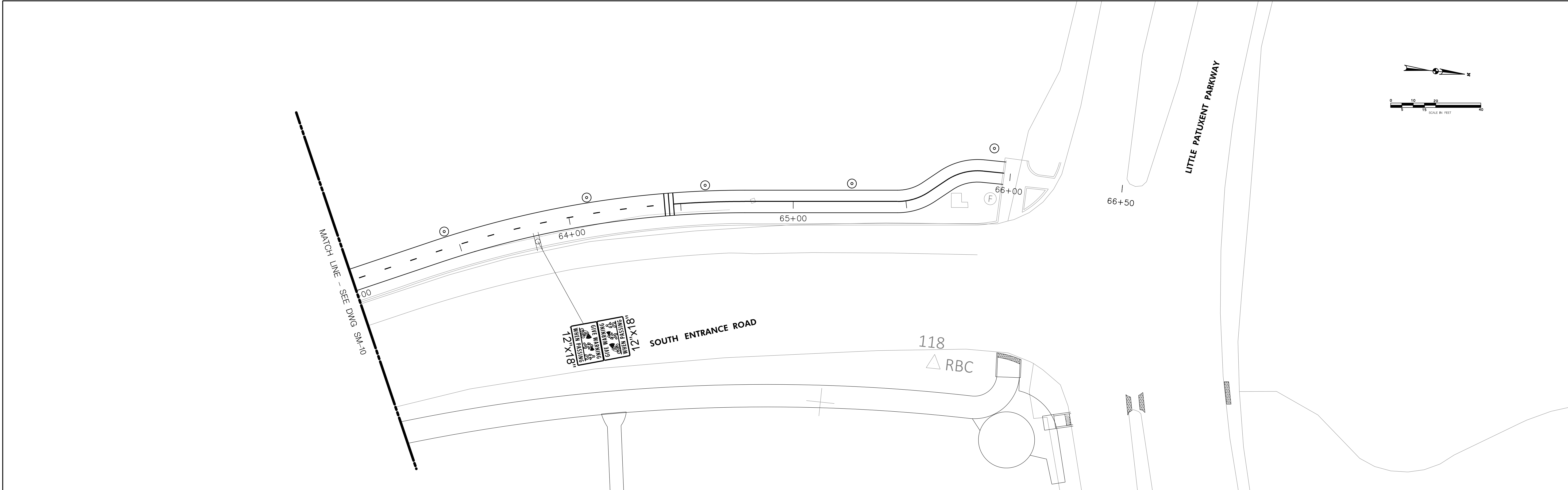
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS
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ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MARYLAND,
LICENSE NO. _____,
EXPIRATION DATE: _____.

DSGN	CO						
DR	RH						
CHK	JC						
APVD	MRAB	NO.	DATE	REVISION	BY	APVD	

**TooleDesignGroup**
8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MD 20910
PHONE: (301) 927-1900 FAX: (301) 927-2800
www.tooledesign.com
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

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APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: _____


HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
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CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____
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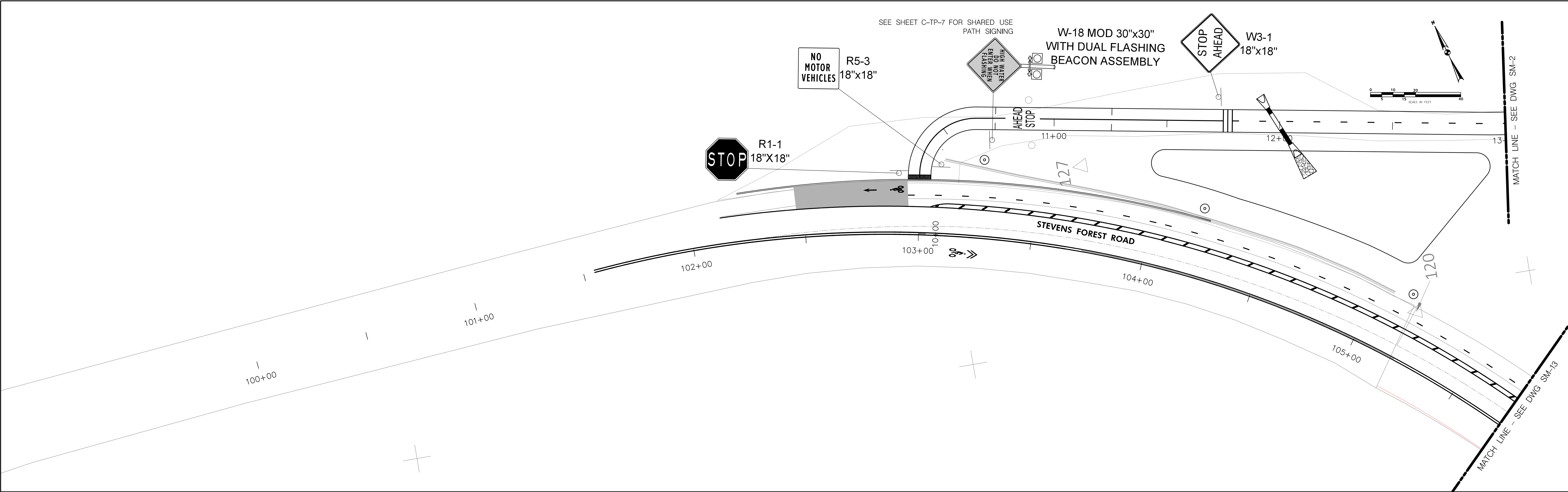
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0"  1"

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SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
SIGNING AND MARKING PLAN
STA 63+00 TO STA 66+00

SHEET	XX OF XXX
DWG	SM-11
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

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DIRECTOR _____ DATE _____

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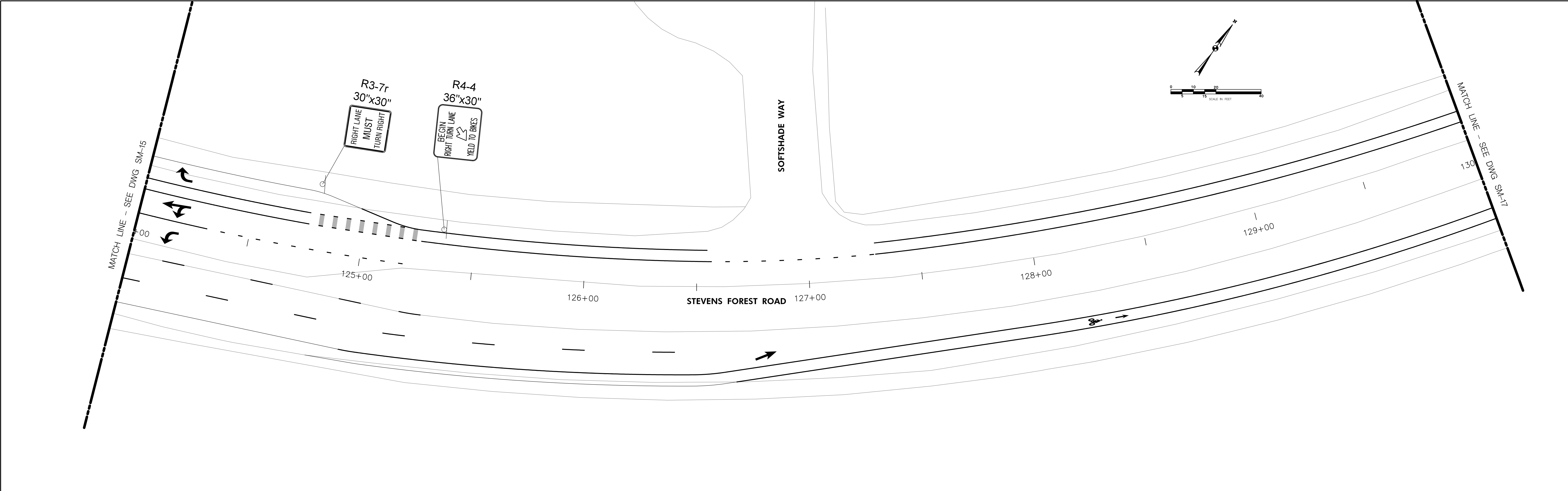
STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL

SIGNING AND MARKING PLAN
STA 100+00 TO STA 105+75

SHEET	XX OF XXX
DWG	SM-12
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

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CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ DATE _____

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DR	RH					
CHK	JC					
APVD	MRAB	NO.	DATE	REVISION	BY	APVD

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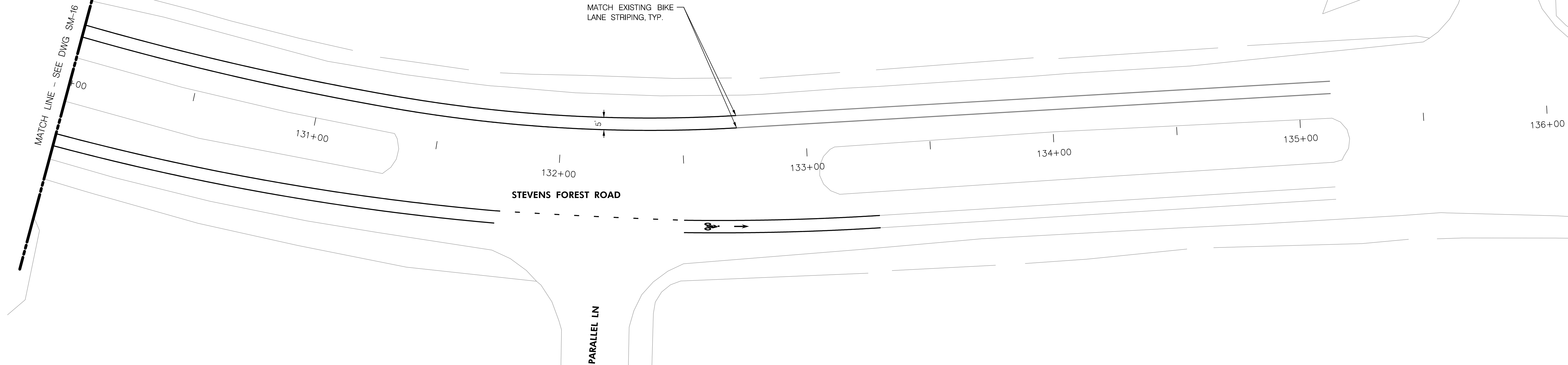
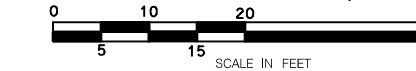
STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL

SIGNING AND MARKING PLAN
STA 124+00 TO STA 130+00

SHEET	XX OF XXX
DWG	SM-16
DATE	OCT 2016
PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

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DIRECTOR _____ DATE _____

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CHK	JC					
APVD	MRAB	NO.	DATE	REVISION	BY	APVD



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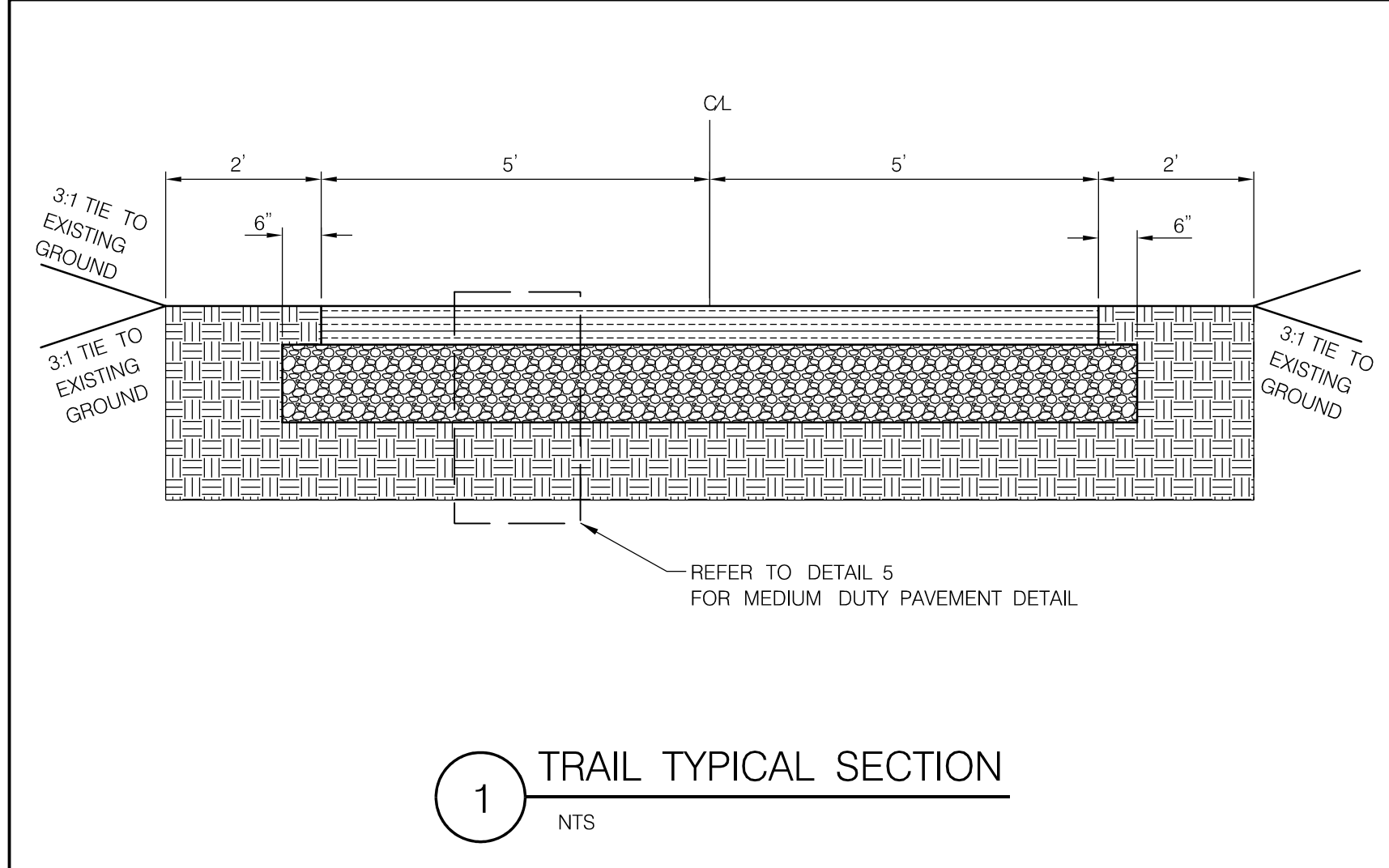
STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

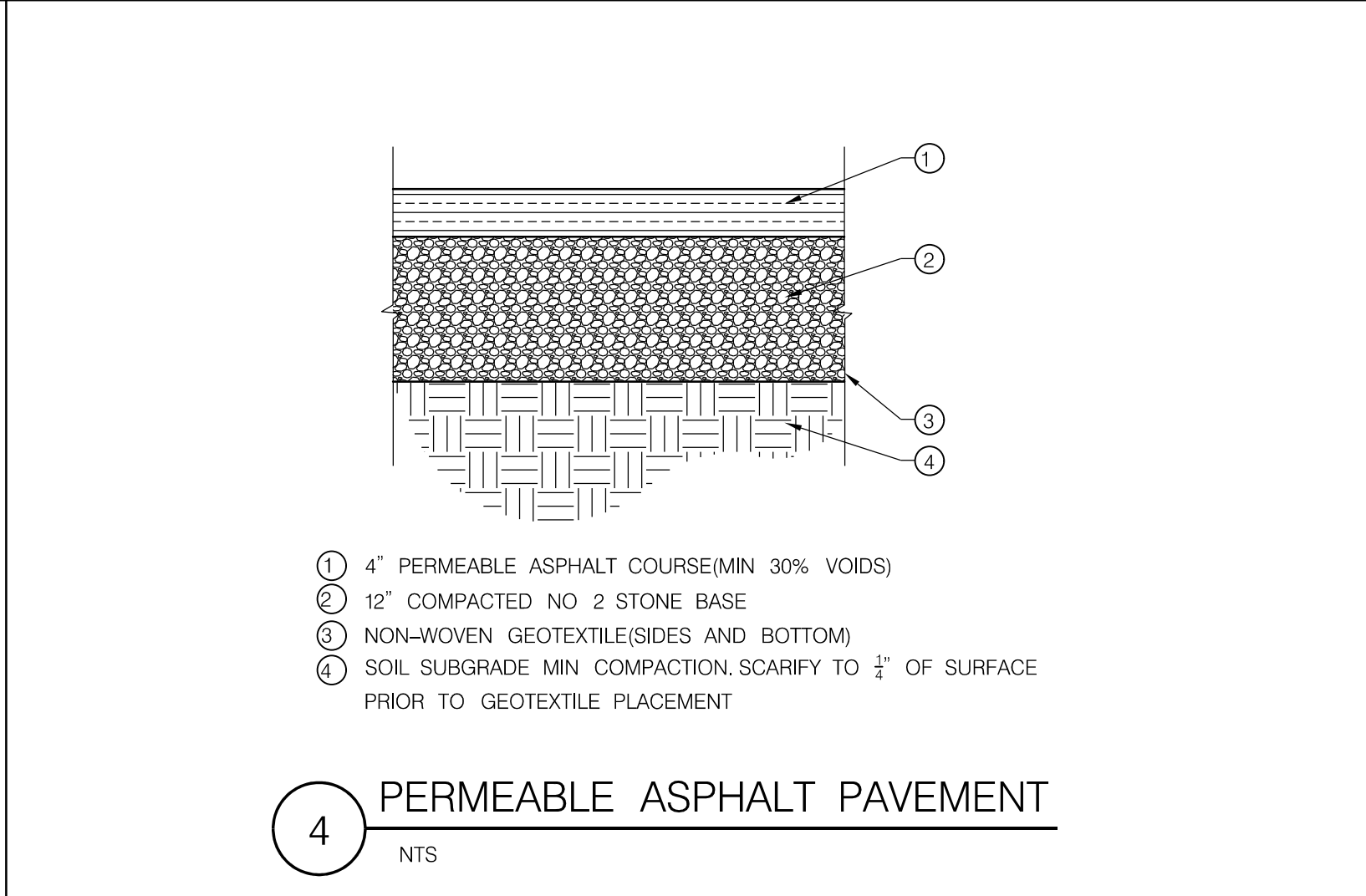
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SIGNING AND MARKING PLAN
STA 130+00 TO STA 136+00

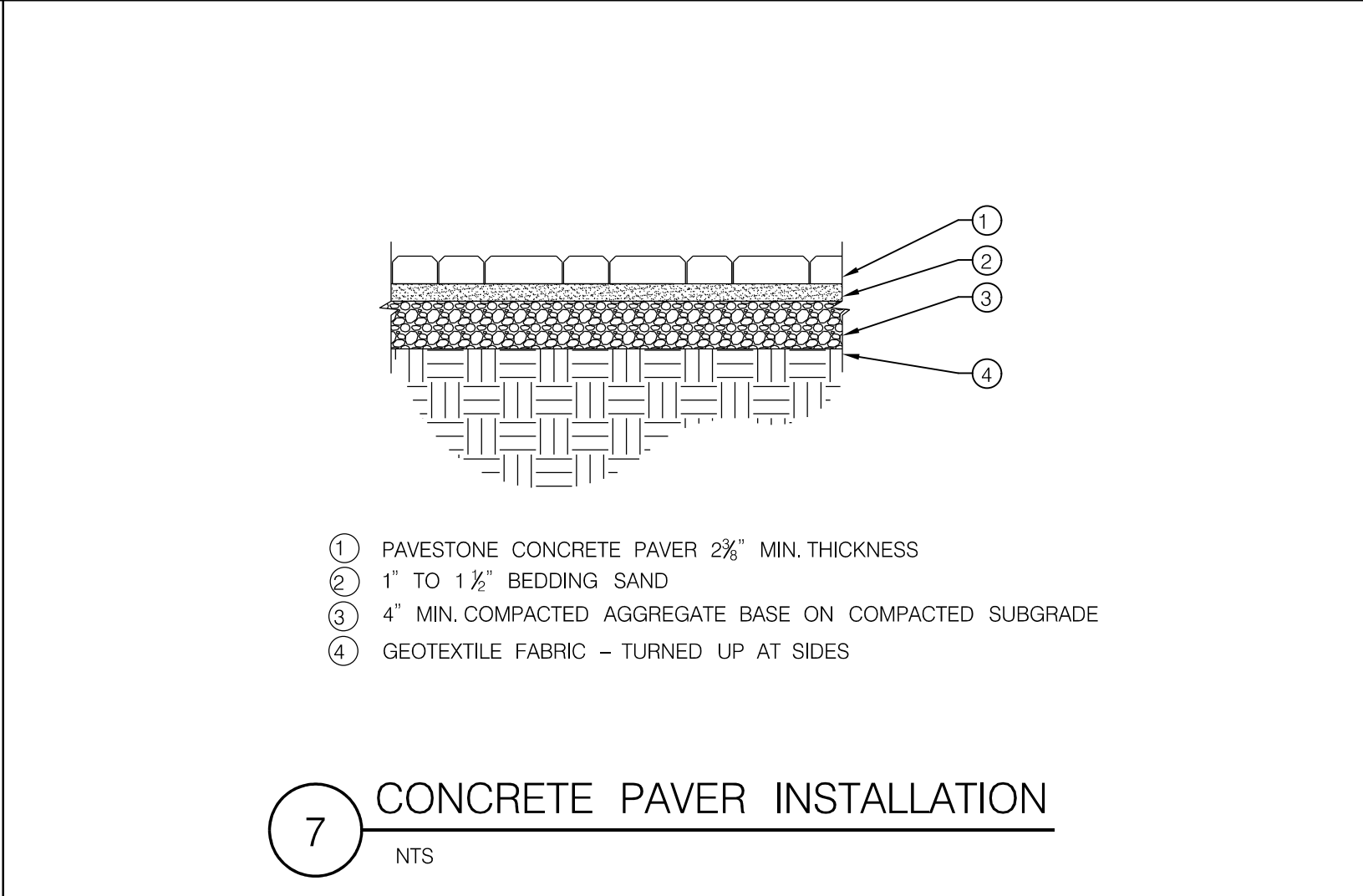
SHEET	XX OF XXX
DWG	SM-17
DATE	OCT 2016
PROJECT	5409.04



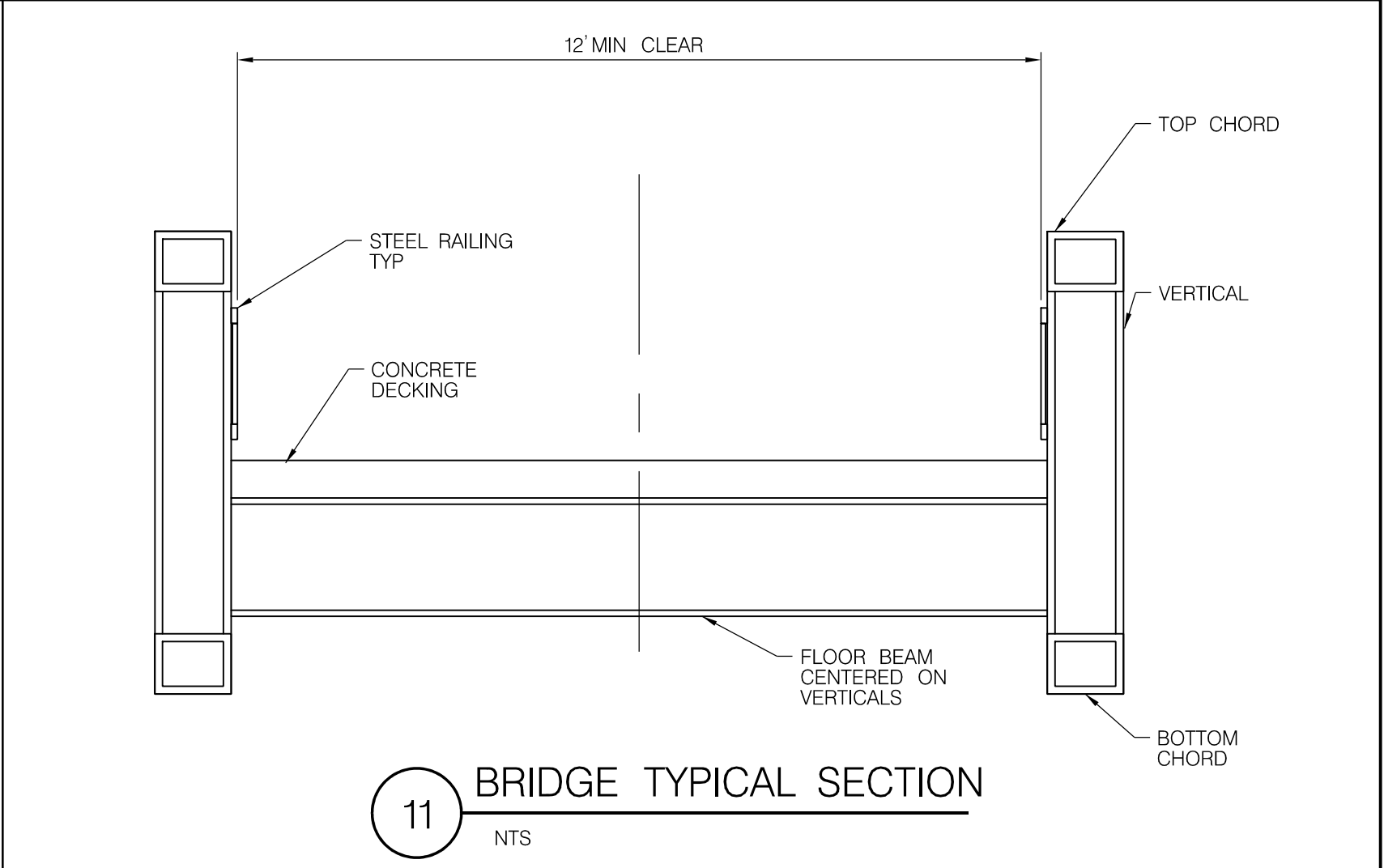
1 TRAIL TYPICAL SECTION
NTS



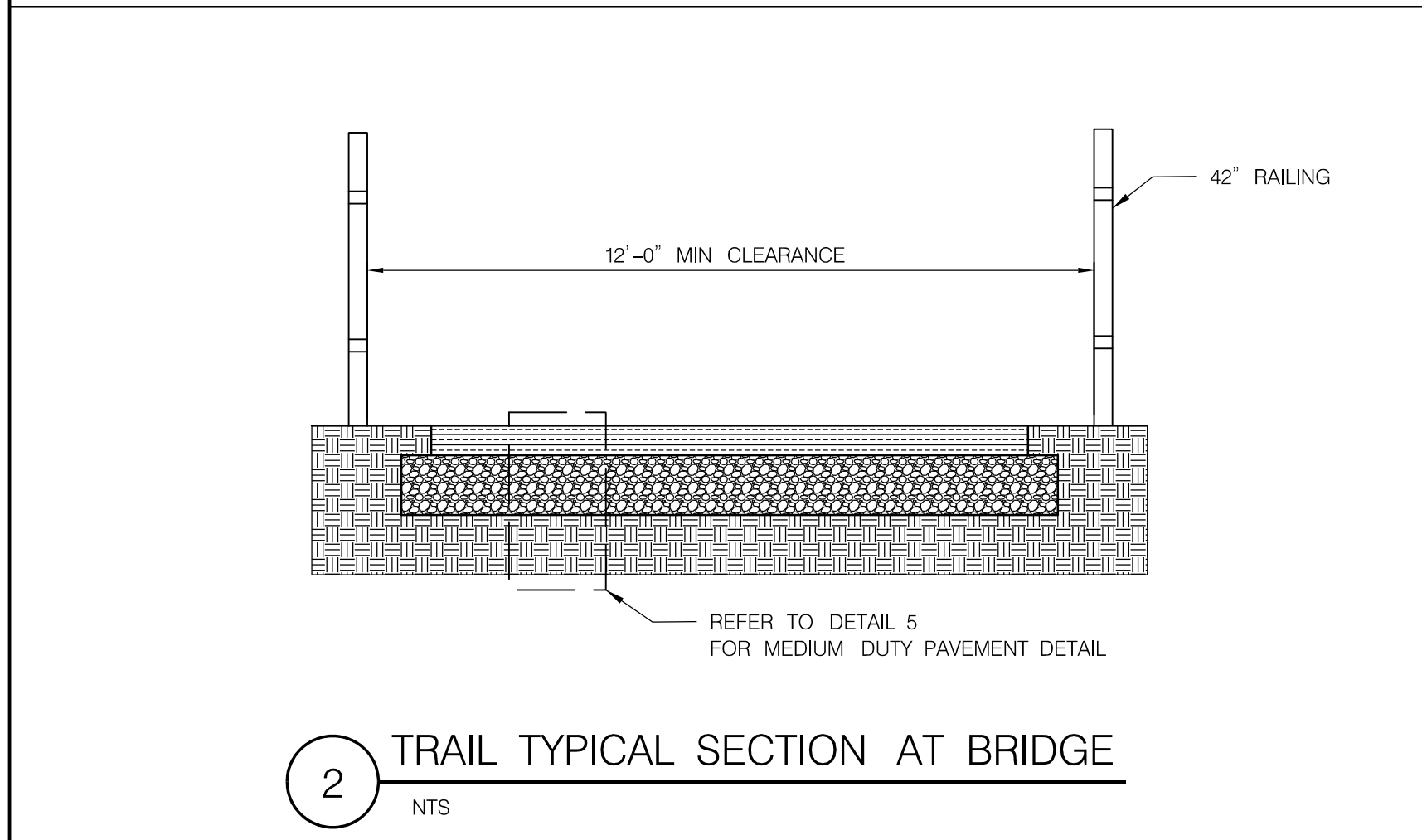
4 PERMEABLE ASPHALT PAVEMENT
NTS



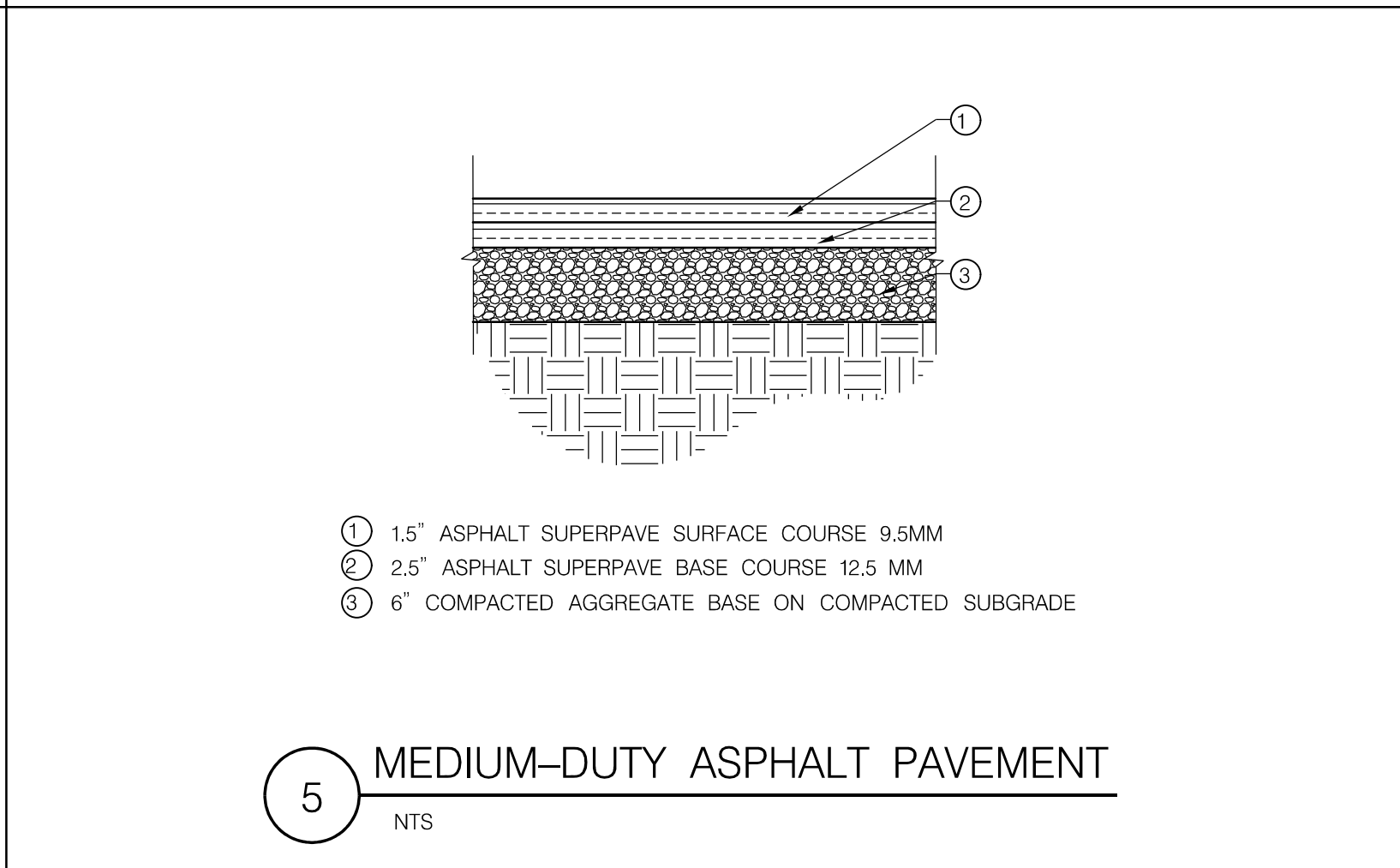
7 CONCRETE PAVER INSTALLATION
NTS



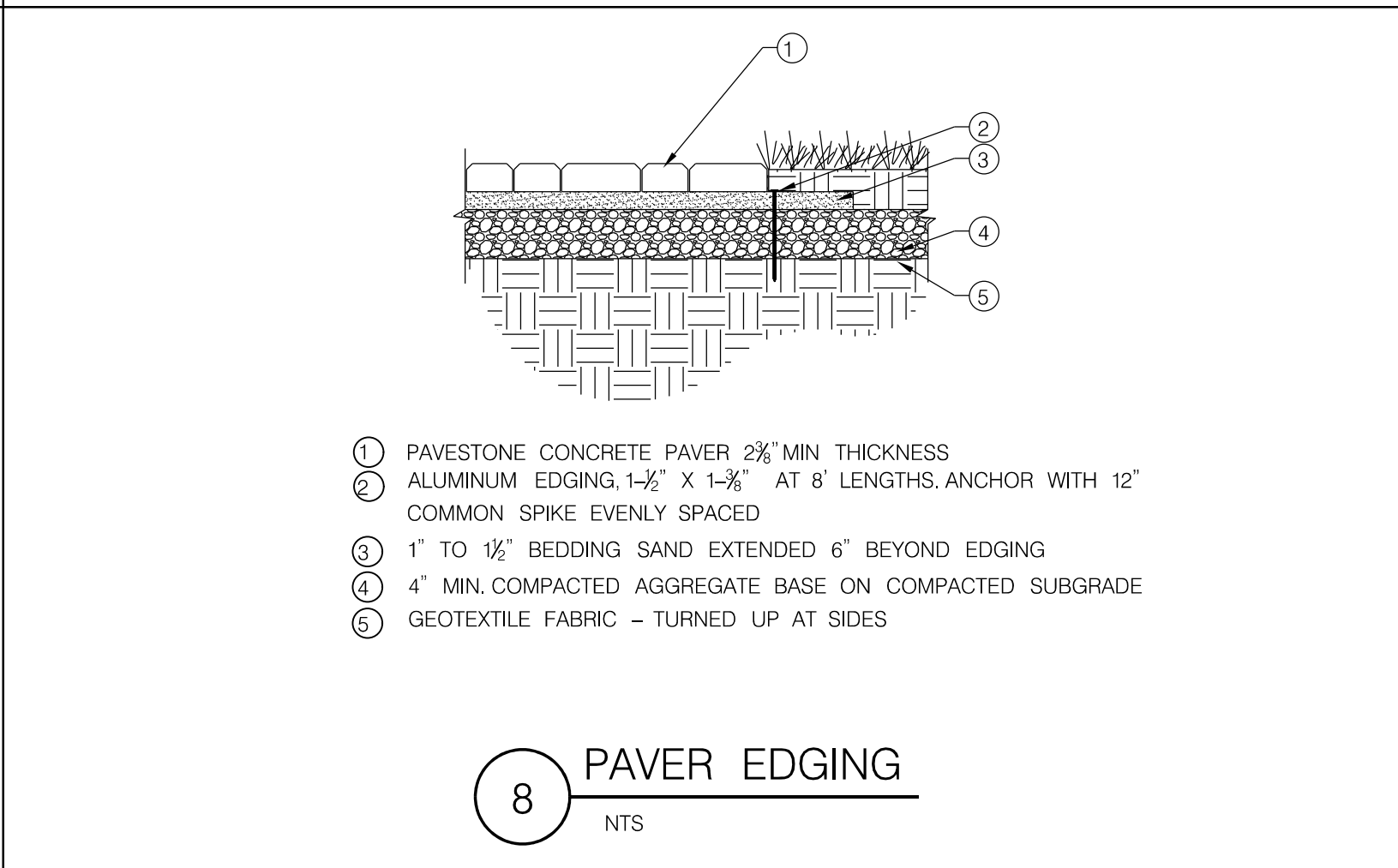
11 BRIDGE TYPICAL SECTION
NTS



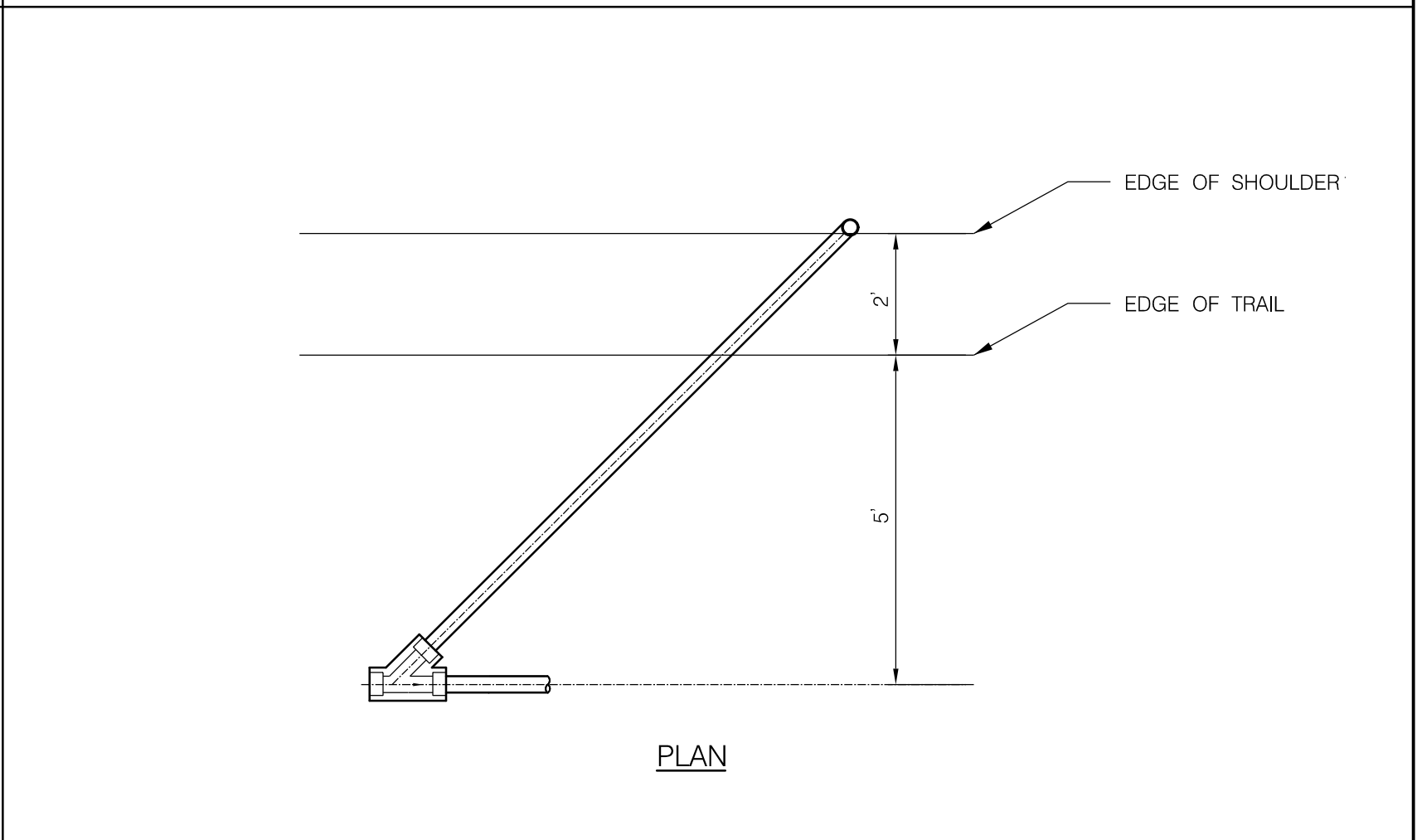
2 TRAIL TYPICAL SECTION AT BRIDGE
NTS



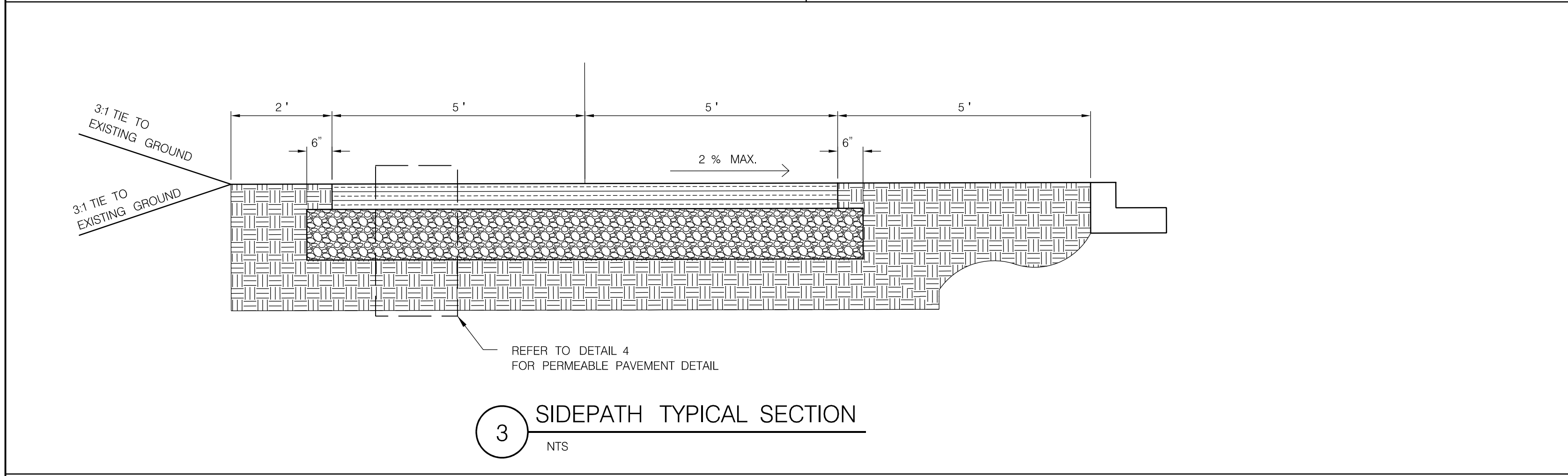
5 MEDIUM-DUTY ASPHALT PAVEMENT
NTS



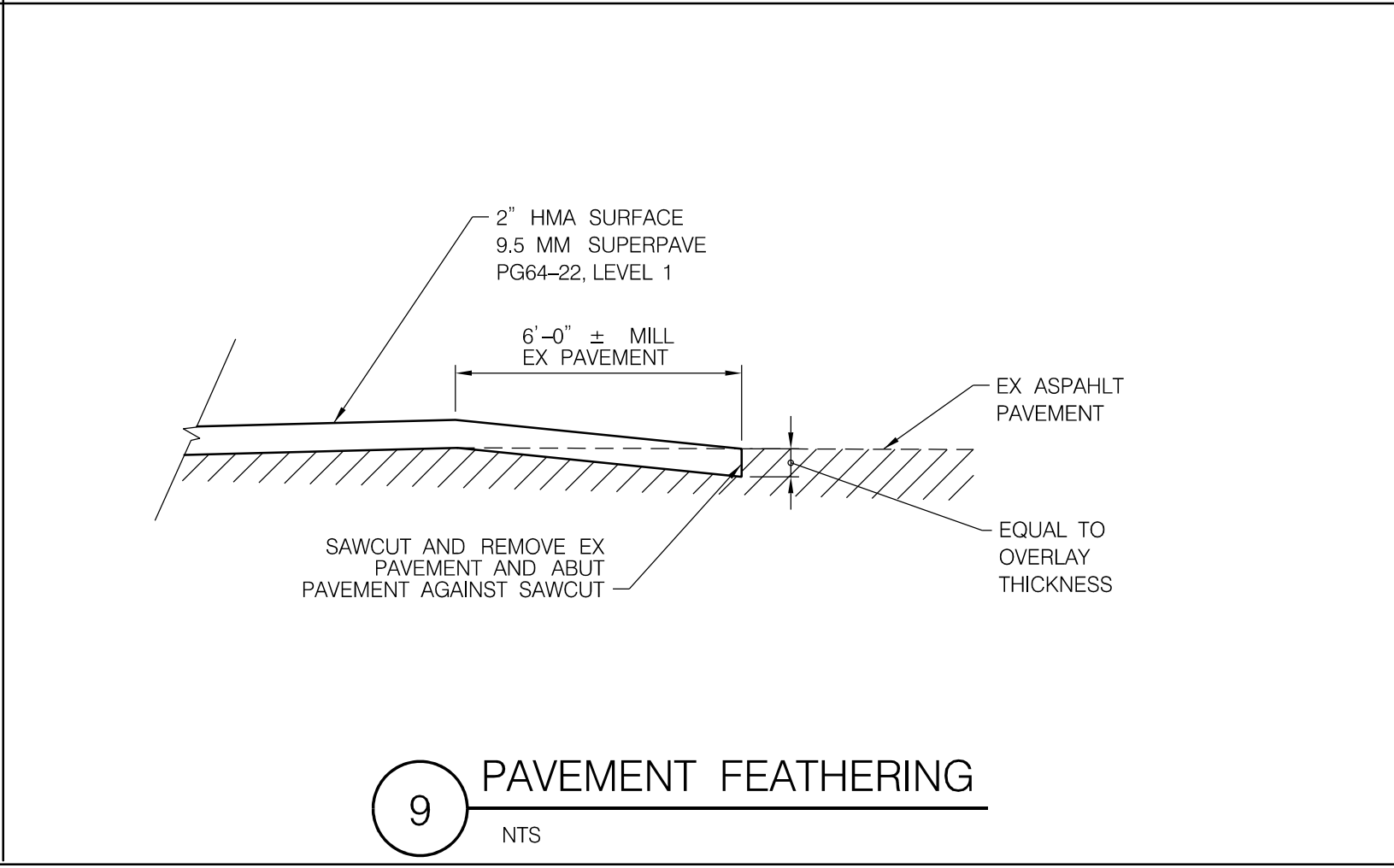
8 PAVER EDGING
NTS



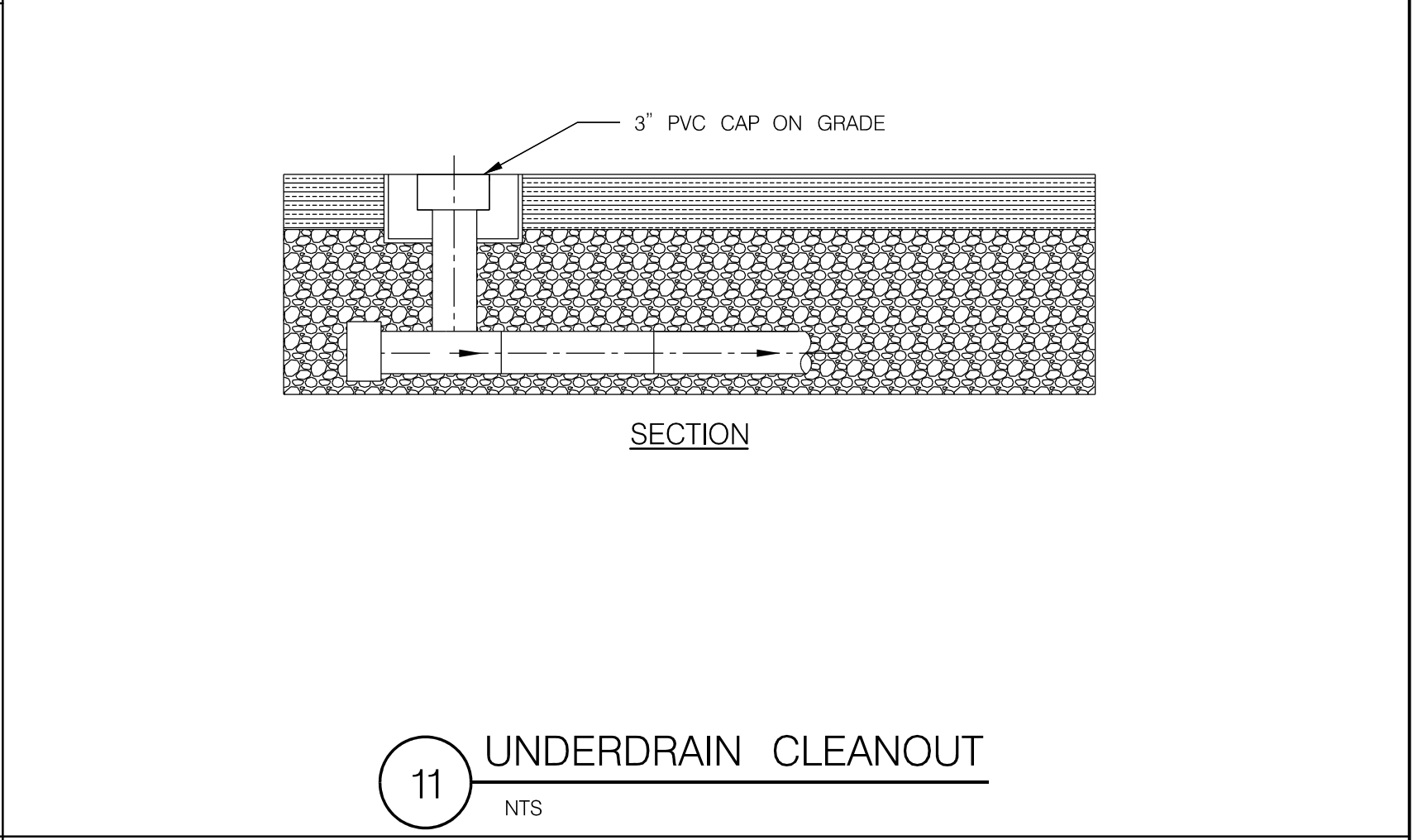
PLAN



3 SIDEPATH TYPICAL SECTION
NTS



9 PAVEMENT FEATHERING
NTS



11 UNDERDRAIN CLEANOUT
NTS

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____
CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____
DIRECTOR _____ DATE _____

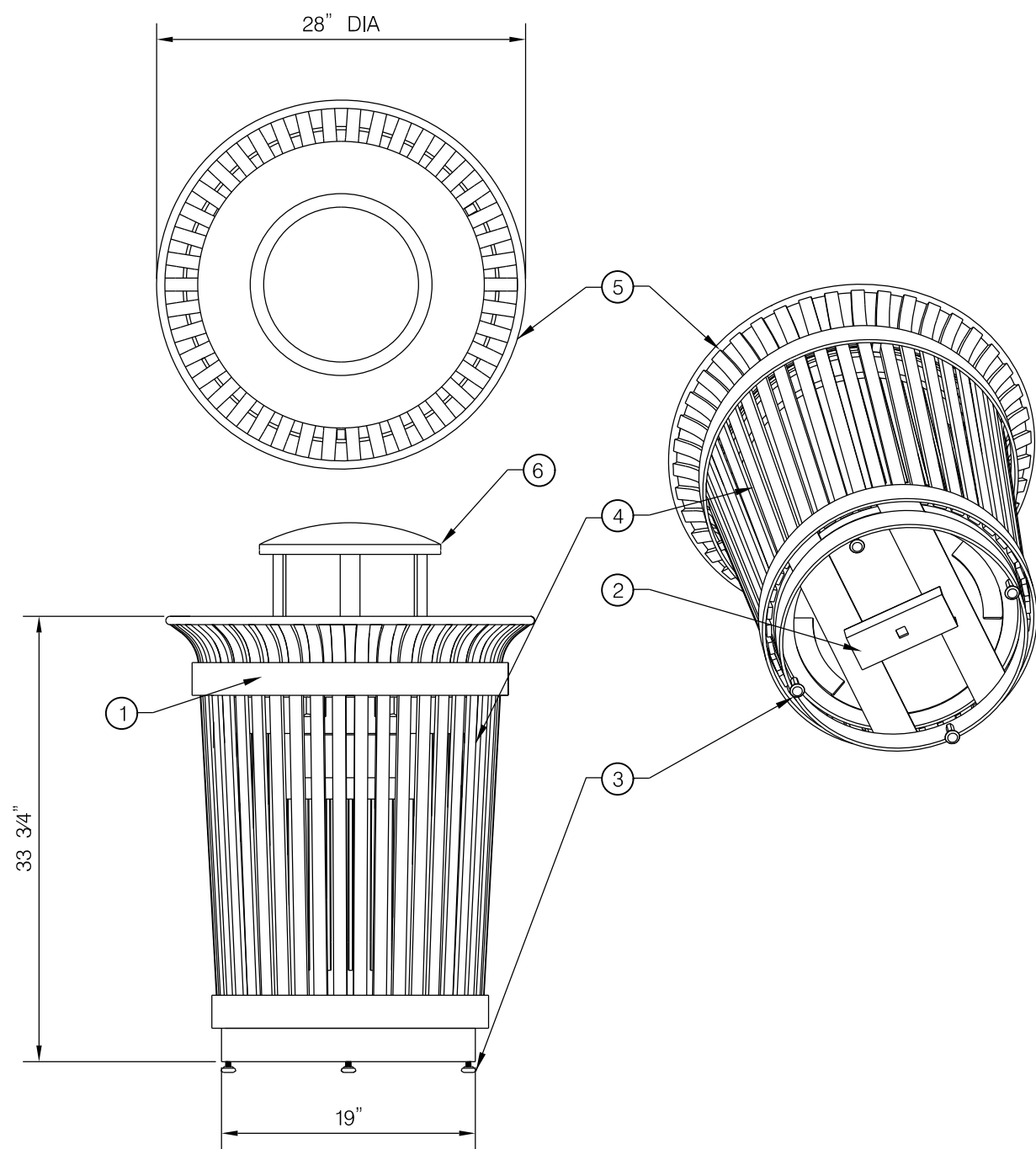
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LICENSE NO. _____
EXPIRATION DATE: _____

1 PERMEABLE ASPHALT
2 NO. 2 STONE
3 SOIL SUBGRADE
4 UNDERDRAIN (3") TO BE PROVIDED AS NEEDED OR PLANS AT INTERSECTIONS AND LOW POINTS IN PATH PROFILE, REFER TO DETAIL 11.

6 PERMEABLE ASPHALT PAVING ENLARGEMENT
NTS

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

- THE OWNER SHALL PERIODICALLY SWEEP (OR VACUUM POROUS CONCRETE PAVEMENT) THE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING OR COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
- THE OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE.
- THE OWNER SHALL USE DEICERS IN MODERATION. DEICERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.
- THE OWNER SHALL ENSURE SNOW PLOWING IS PERFORMED CAREFULLY WITH BLADES SET ONE INCH ABOVE THE SURFACE. PLOWED SNOW PILES AND SNOW MELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

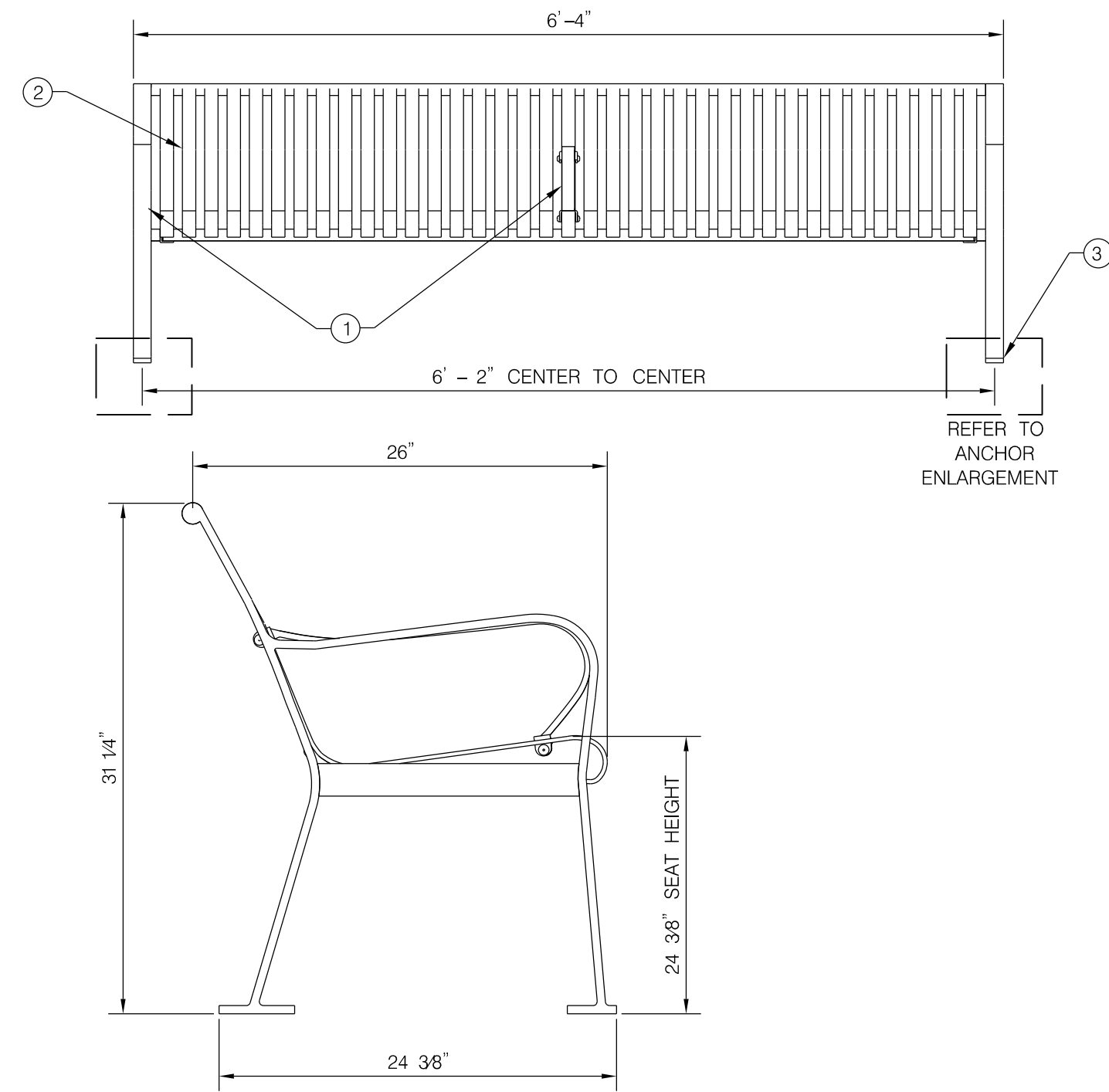


- 1 (2) 14" x 2-1/2" HORIZONTAL SOLID STEEL BANDS
2 3/4" SQUARE CENTER ANCHOR BOLT HOLE
3 (4) LEVELING FEET WITH A 3/8" DIAMETER THREADED STEEL SHAFT
4 (42) 3/8" X 1" VERTICAL SOLID STEEL BARS
5 5/8" SOLID STEEL TOP RING
6 RAIN BONNET LID

NOTES:

- MATERIALS
A. TYPE: STEELSITES 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
- 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.
- SIDE DOOR LID IS RIVETED IN PLACE.
- PRODUCT MUST BE PERMANENTLY AFFIXED TO GROUND WITH ANCHOR BOLTS.
- PLASTIC INNER LINERS ARE MOLDED ON TOOLING
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

12 TRASH RECEPTACLE
NTS

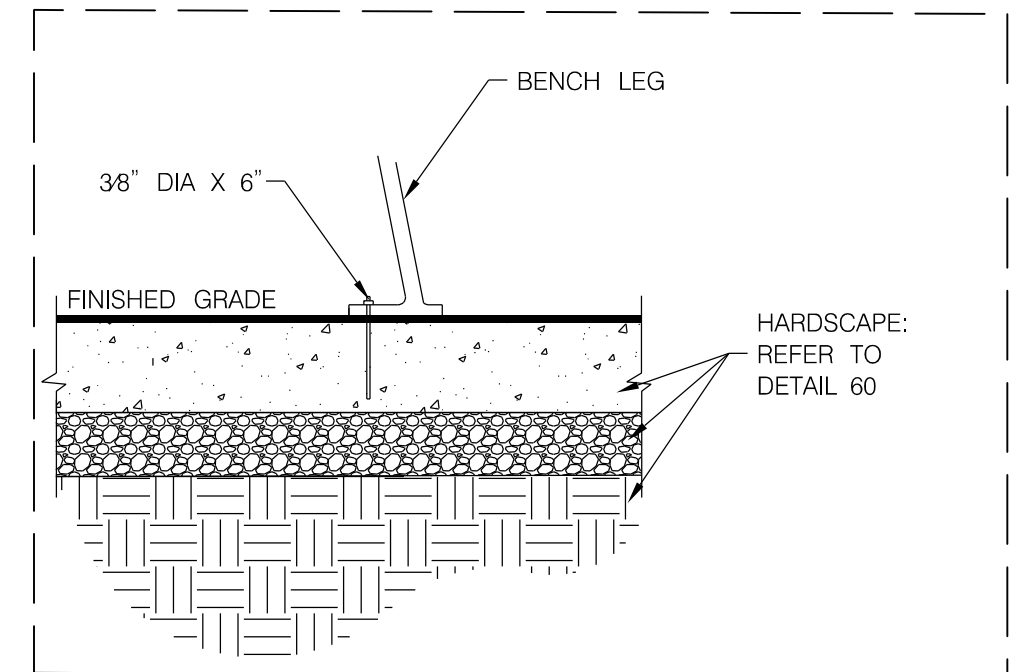


- 1 12" to 2" SOLID STEEL END AND CENTER ARMRESTS
2 (37) STEEL SLATS ARE FORMED FROM 14" X 1-1/2" SOLID STEEL BARS
3 BENCH ANCHOR: 3/8" DIA. X 6" NONCORROSIVE SLEEVE ANCHOR WITH ROUND HEAD AT EACH LEG [REFER TO ENLARGEMENT]

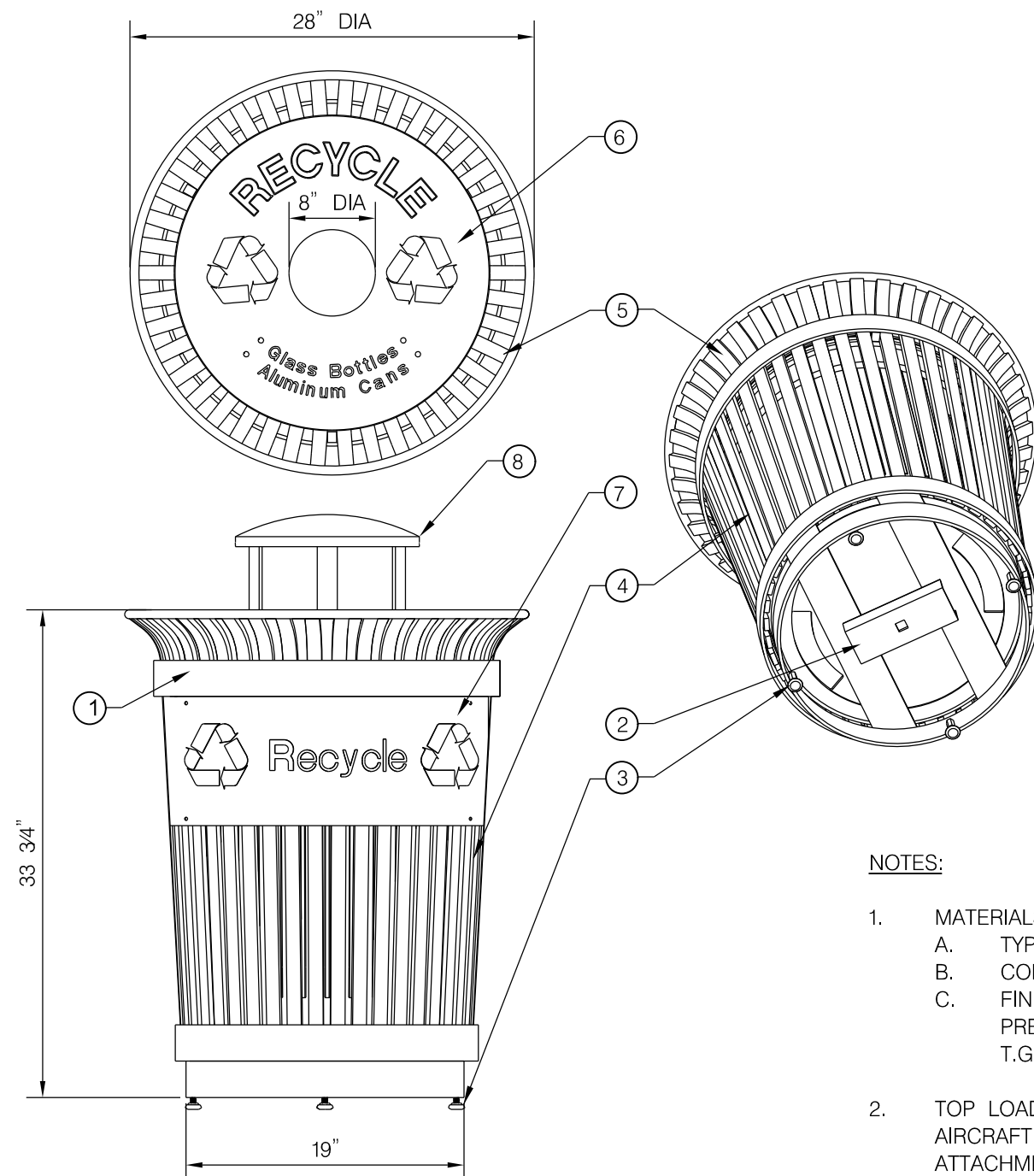
14 BENCH
NTS

NOTES:

- MATERIALS
A. TYPE: STEELSITES 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.
- 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.
- 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.
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.



ANCHOR ENLARGEMENT

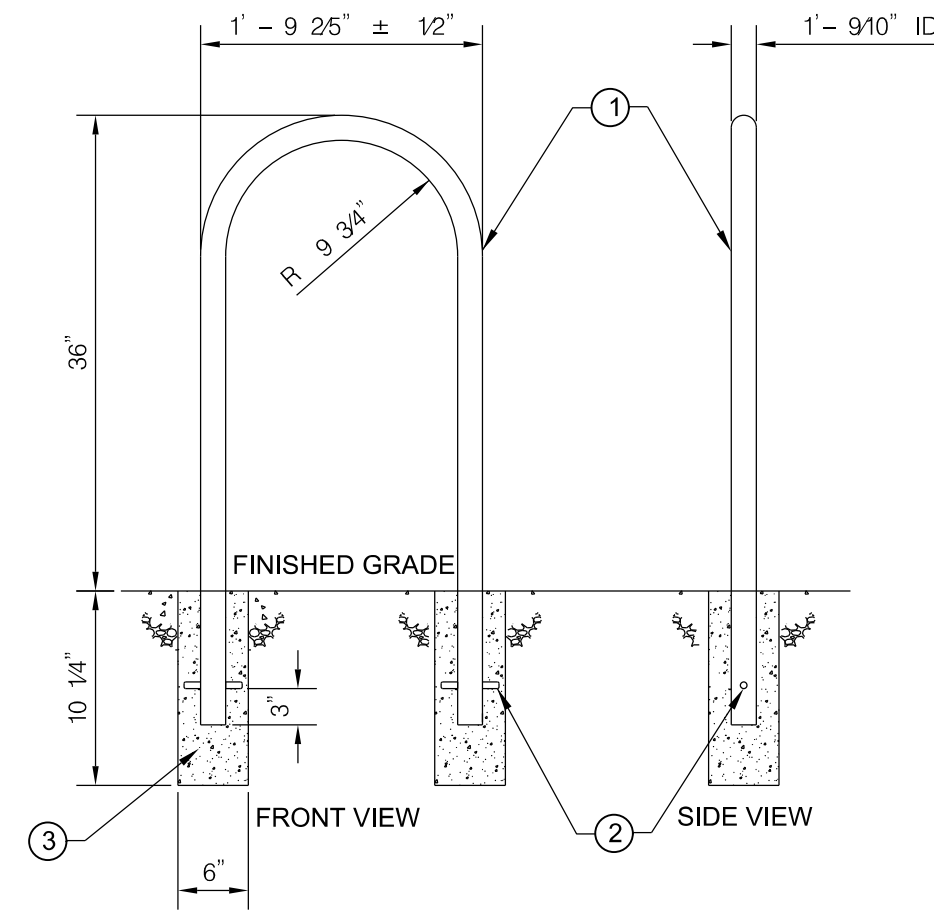


- 1 (2) 1/4" x 2-1/2" HORIZONTAL SOLID STEEL BANDS
2 3/4" SQUARE CENTER ANCHOR BOLT HOLE
3 (4) LEVELING FEET WITH A 3/8" DIAMETER THREADED STEEL SHAFT
4 (42) 3/8" X 1" VERTICAL SOLID STEEL BARS
5 5/8" SOLID STEEL TOP RING
6 RECYCLING LID WITH 18" STENCIL GAUGE
7 RECYCLING PLAQUE AFFIXED TO OUTSIDE OF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

NOTES:

- MATERIALS
A. TYPE: STEELSITES 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
- 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.
- SIDE DOOR LID IS RIVETED IN PLACE
- PRODUCT MUST BE PERMANENTLY AFFIXED TO GROUND WITH ANCHOR BOLTS
- PLASTIC INNER LINERS ARE MOLDED ON TOOLING
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

13 RECYCLING RECEPTACLE
NTS

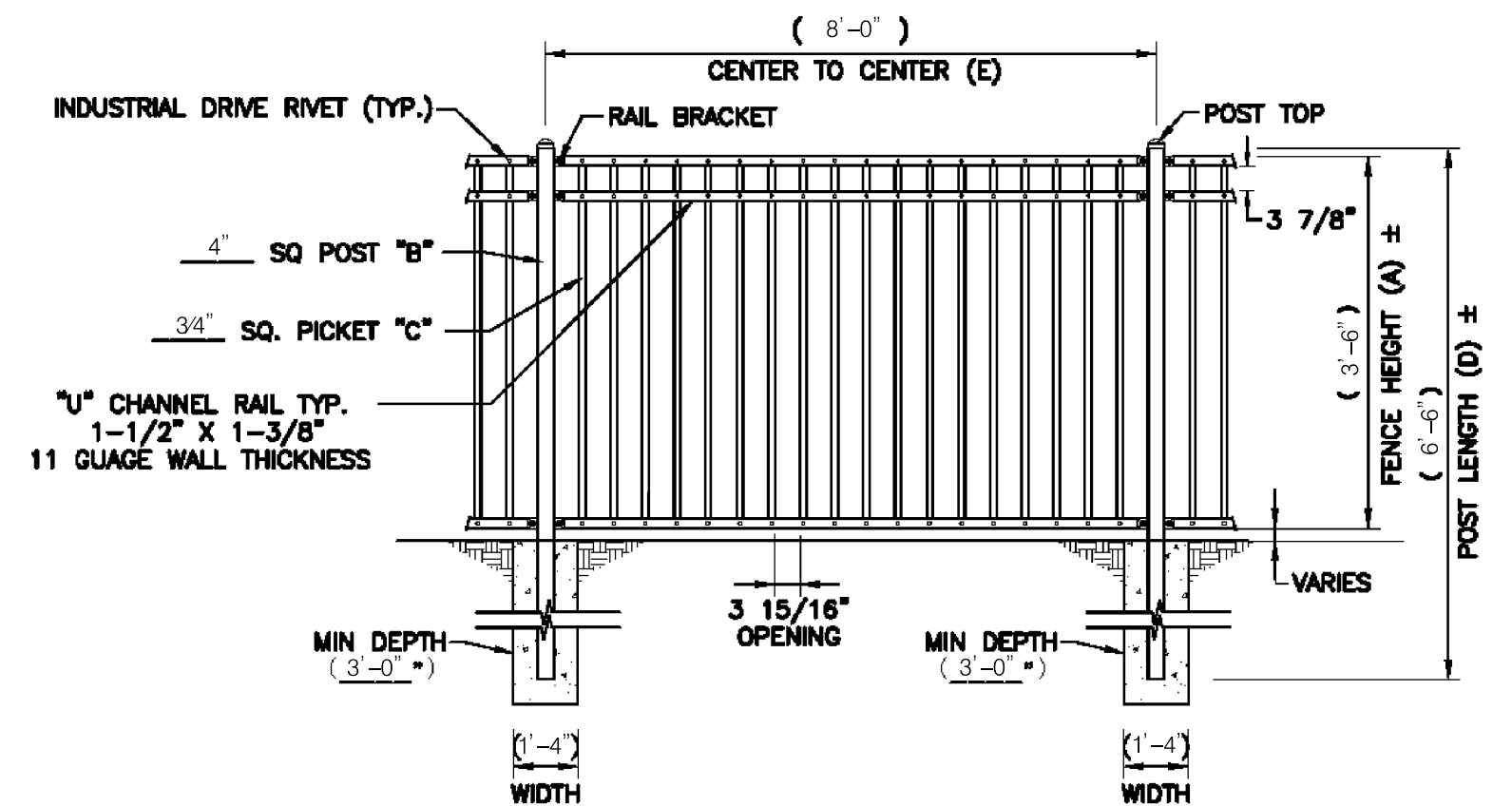


NOTES:

- 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
- PLASTIC INNER LINERS ARE MOLDED ON TOOLING
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

- 1 1 1/2" SCH. 40 PIPE (1 3/16" O.D. X 145W)
2 1/2" Ø REBAR @ 1 1/4" LG. (4) PLC'S TYP.
3 CONCRETE FOOTING 24" MIN. DEPTH

15 BICYCLE RACK
NTS



NOTES:

- FOOTING WIDTH TO BE FOUR (4) TIMES THE POST WIDTH.
- PICKETS SHALL BE SECURED TO RAILS WITH 14" ALUMINUM INDUSTRIAL DRIVE RIVETS.
- MAXIMUM RAKE APPROXIMATELY SIX (6) INCHES.
- LONG FENCE MODEL LF-R03 OR APPROVED EQUAL.

16 DECORATIVE IRON FENCE
NTS

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ DATE _____

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DR	INIT.						
CHK	INIT.						
APVD	INIT.	NO.	DATE	REVISION	BY	APVD	



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0" 1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
STANDARD DETAILS

SHEET XX OF XXX
DWG SD-2
DATE OCT 2016
PROJECT 5409.04

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 36-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 LIGHTING CIRCUITRY ARE TO BE DESIGNED, FURNISHED AND INSTALLED BY BG&E.
- THE SUITABILITY, COLOR AND TEXTURE OF LIGHTING POLES TO BE INSTALLED IN THE SHA RIGHT OF WAY SHALL BE APPROVED BEFORE INSTALLATION. THE CONTRACTOR SHALL FURNISH SAMPLES OR MAKE ARRANGEMENTS FOR INSPECTION AND APPROVAL AT THE PROJECT SITE.

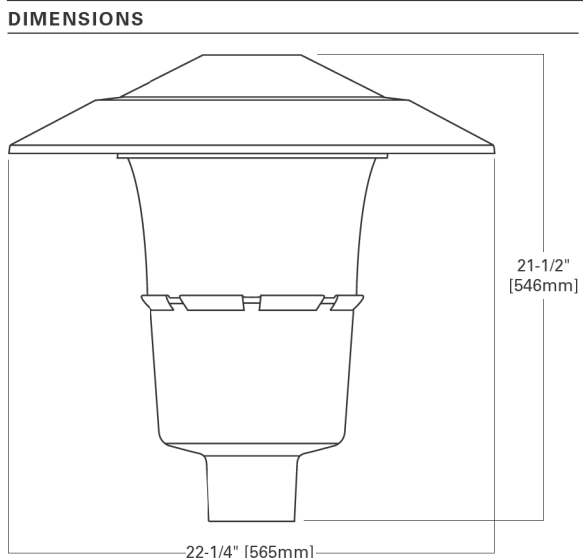
SPECIFICATION FEATURES

Construction
HOUSING + TOP: Die-cast aluminum housing with spun and stamped aluminum top. Overcenter latch for relamping and ballast power module access. Top is completely removable without the use of tools. Standard color is grey. Other finish colors available; consult your Streetworks representative. ANSI wattage/ source label.

Optical
Injection molded acrylic refractor available in symmetric or

asymmetric distributions. 4000K (+/- 275K) CCT. Minimum 70 CRI standard.
Electrical
120-277V 50/60Hz operation. 10kV /10kA common- and differential mode surge protection standard. Thermal management transfers heat rapidly away from the LED source for optimal efficiency and light output. Ambient operating temperature from -40°C to 40°C. Standard three-position tunnel type compression terminal block. 90% lumen maintenance expected at

60,000 hours. Light square is IP66 enclosure rated.
Mounting
Post top mount fits 3" O.D. tenons. Secured by square head 3/8" stainless steel mounting bolts.
Warranty
Five-year warranty.



LUMEN MAINTENANCE		
Ambient Temperature	TM-21 Lumen Maintenance (90,000 Hours)	Theoretical L70 (Hours)
40°C	>90%	>250,000

POWER AND LUMENS		
Luminaire Wattage (Nominal)	LM-79	LM-80
SYM	Lumens 3,323	LM-80 1-3-2
ASYM	Lumens 3,129	LM-80 1-3-2

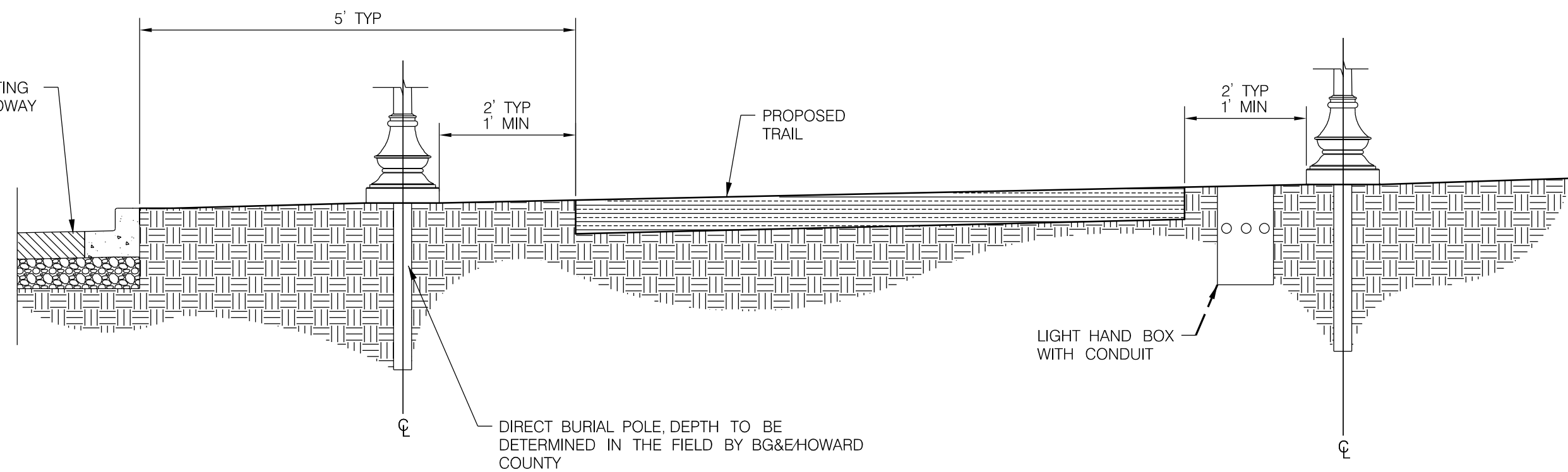


MPW
WOODBIDGE
LED
DECORATIVE POST TOP
LUMINAIRE

STREET LIGHTING – SOUTH ENTRANCE ROAD

17

NTS



NOTES:

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

LUMINAIRE SCHEDULE

TYPE	LUMINAIRE DESCRIPTION
CH COBRA HEAD (EXISTING FIXTURE)	COBRAHEAD LUMINAIRE DISTRIBUTION TYPE: III FULL CUTOFF LAMP: 250W OR 400W HPS MOUNTING HEIGHT: 30-FT FIBERGLASS POLES
PT POST TOP (PROPOSED FIXTURE)	MPW WOODBRIDGE DISTRIBUTION TYPE: SYMMETRICAL FULL TOP REFLECTOR, 53W LED POST TOP LUMINAIRE, MOUNTING HEIGHT: 12-FT BLACK FIBERGLASS POLE

LIGHT POLE PLACEMENT DETAIL

18

NTS

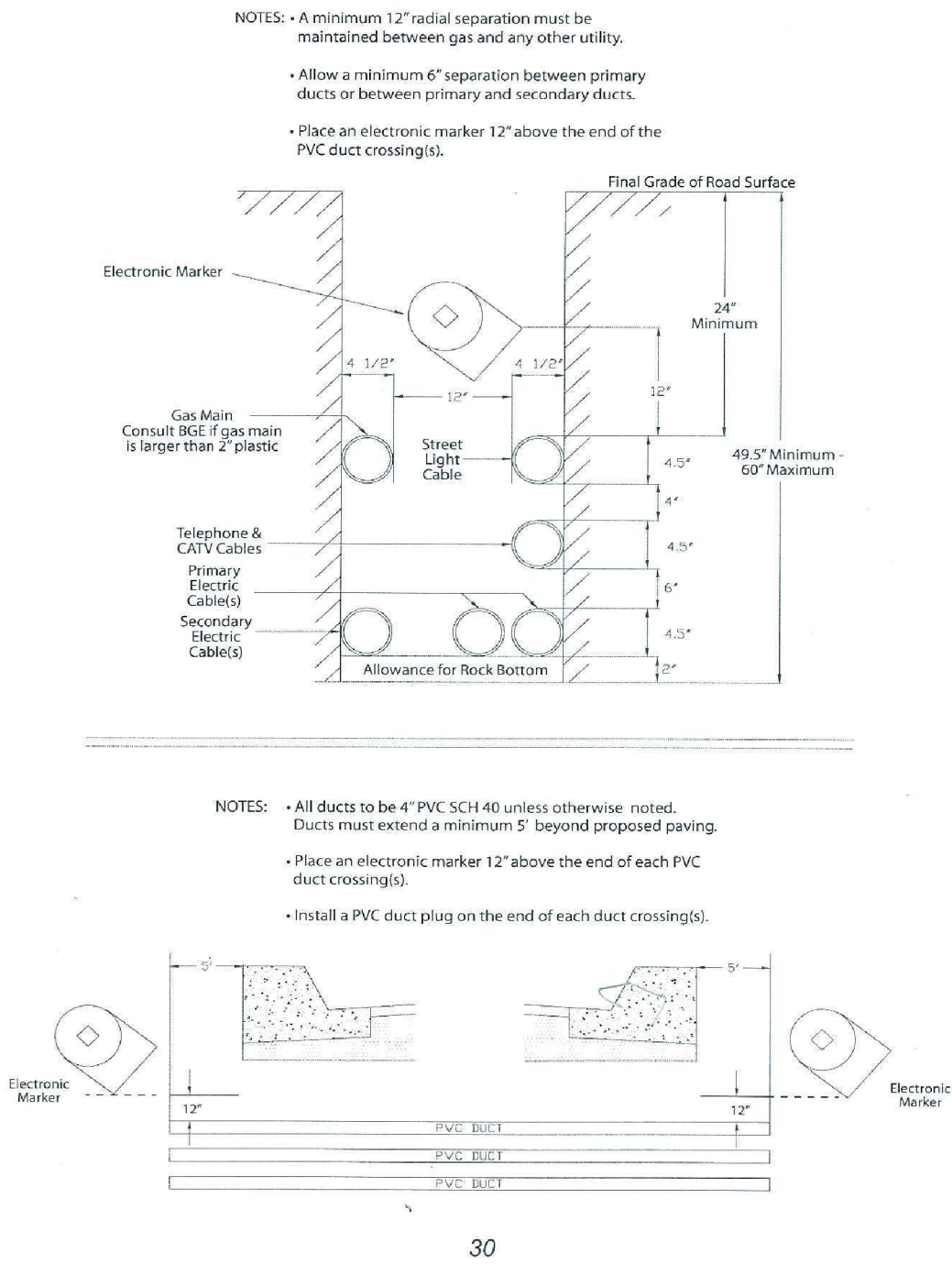
LIGHTING SPECIFICATIONS AND ILLUSTRATIONS

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

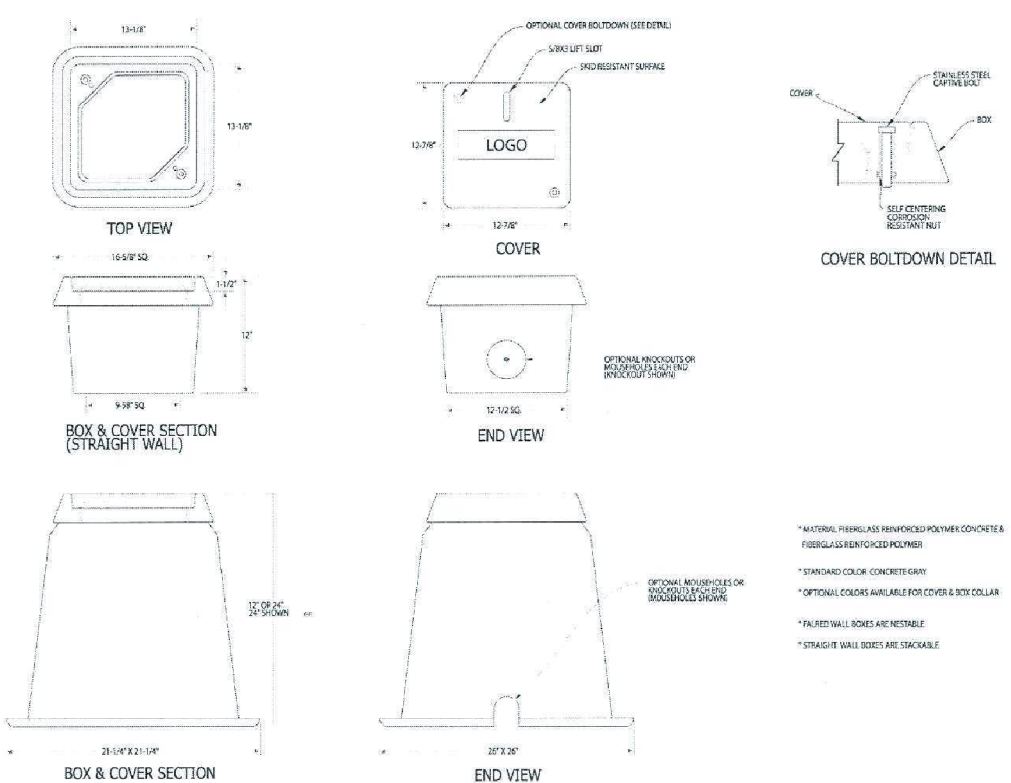


LIGHTING SPECIFICATIONS AND ILLUSTRATIONS

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

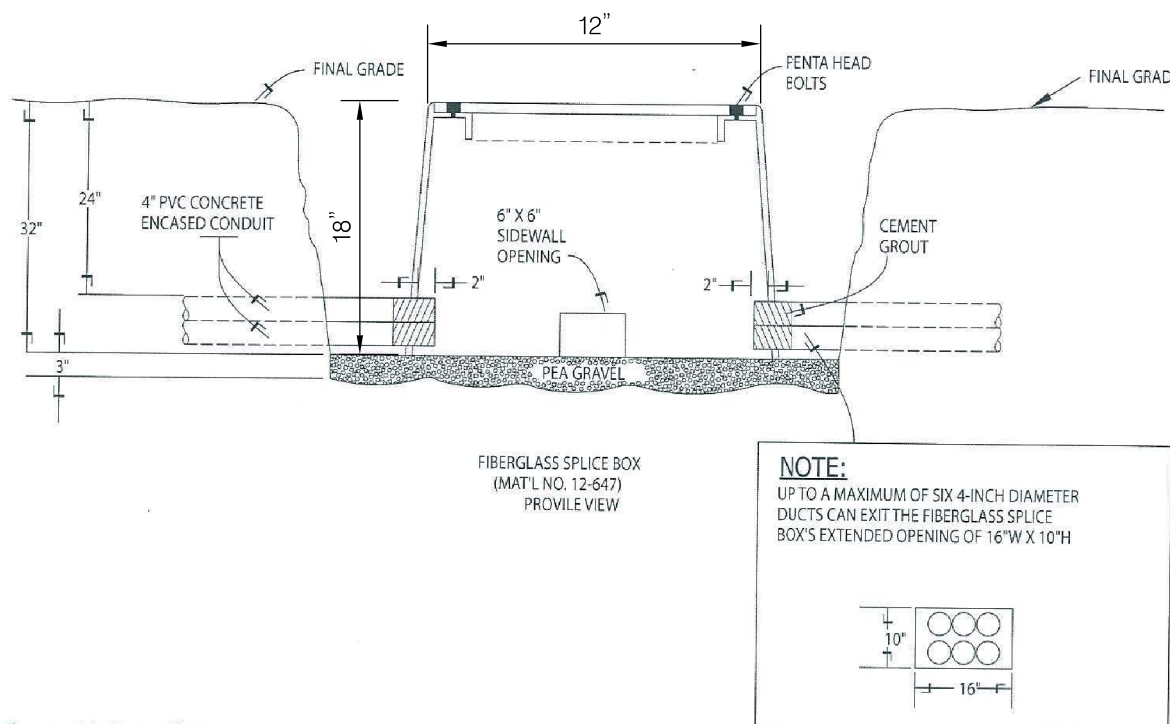
- Drill a 7/8" pilot hole with a carbide tipped drill.
- Drill hole using a hole saw. A diamond tipped hole saw will be able to cut more holes than a regular hole saw.
- Holes cut in the enclosure should not exceed more than 25% of the area of each sidewall and should not be cut into a structural reinforcing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

LIGHTING SPECIFICATIONS AND ILLUSTRATIONS

3

CUSTOMER INSTALLATION OF CONDUITS (CONT'D)

Hand Box - Grass/Dirt Application



General Information

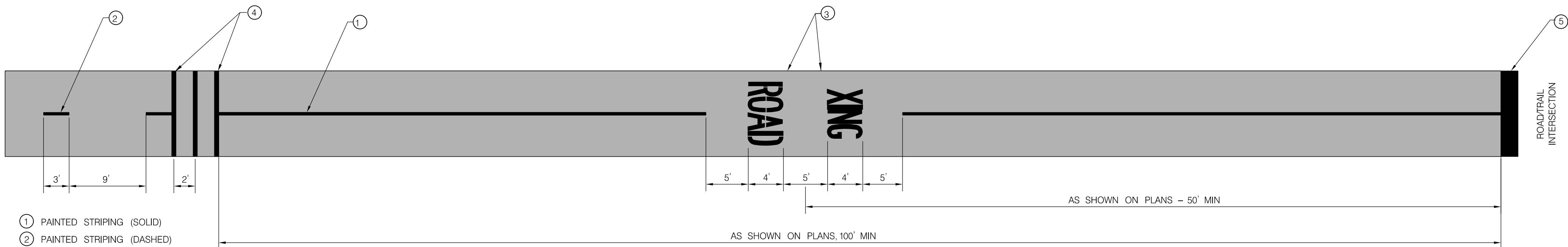
- This fiberglass splice box must be installed only in pedestrian (grassy) areas on level ground. It must not be installed on a hill or slope.
- Excavate an area 5'W x 6'L x 35" deep (minimum) for the splice box.
- Stabilize the bottom of the excavation with 3" of pea gravel. The bottom flange of the 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 18"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 pentahed bolts.

29

CONDUIT AND HAND BOX INSTALLATION

19

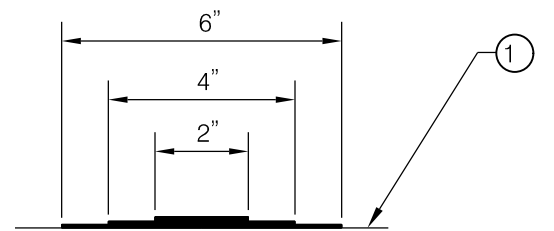
NTS



- 1 PAINTED STRIPING (SOLID)
- 2 PAINTED STRIPING (DASHED)
- 3 PAINTED "ROAD XING" PAVEMENT MARKING
- 4 (3) RUMBLE STRIPS 30" ON CENTER
- 5 12" STOP BAR (INC." STOP" MARKING DEPENDING ON TRAFFIC CONTROL)

20 TRAIL PAVEMENT MARKING SYMBOL PLACEMENT

NTS



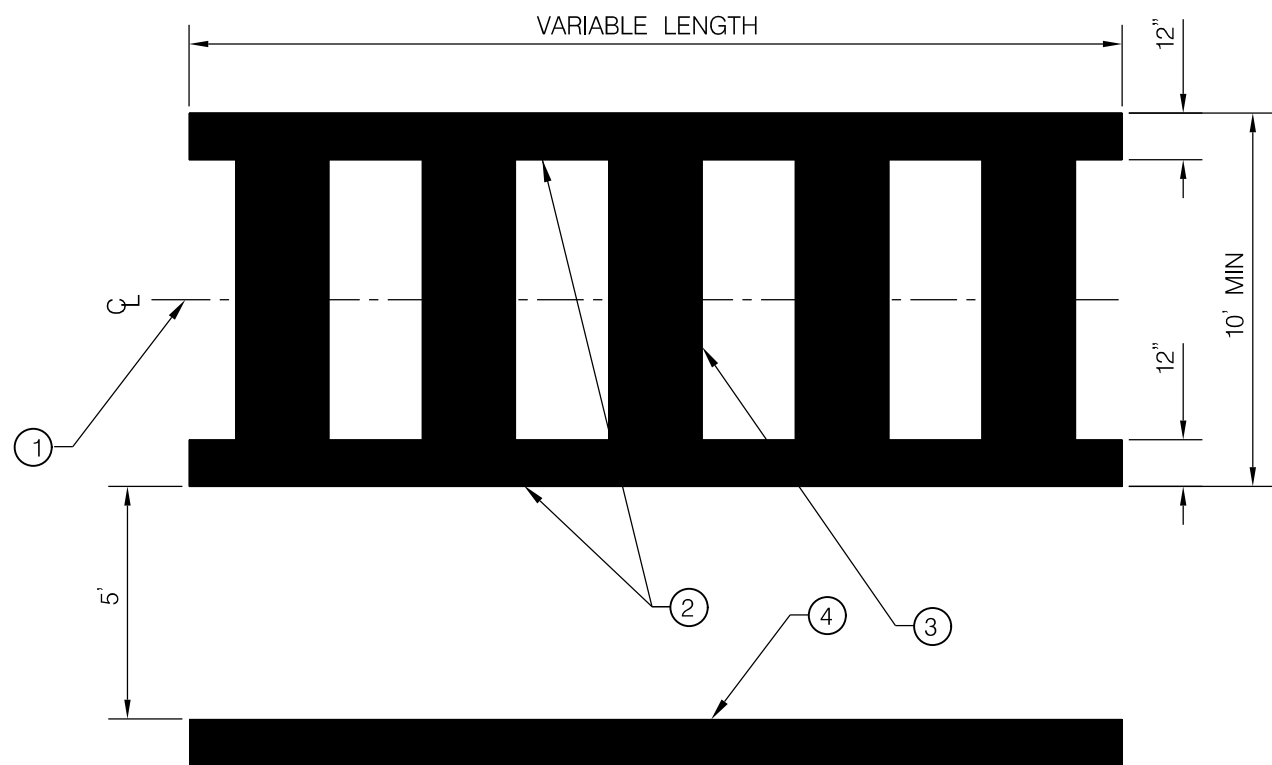
- 1 WHITE THERMOPLASTIC PAVEMENT MARKING (EACH MARKING LAYER SHALL BE 80 TO 95 MILS EACH IN ORDER TO ACHIEVE AN OVERALL RUMBLE STRIP THICKNESS OF APPROXIMATELY 1/4". REFER TO PLAN FOR SPACING LAYOUT AND LOCATION.

NOTES:

- 1. TRAFFIC CONTROL SIGNS SHOULD BE INSTALLED AT A MINIMUM 7' HEIGHT WHEN ADJACENT TO TRAIL.
- 2. SIGN POSTS: 2-PUNCH SQUARE TUBULAR POSTS.

21 BICYCLE RUMBLE STRIP

NTS



- 1 CENTERLINE OF CROSSWALK TO BE AT CENTERLINE OF PEDESTRIAN RAMPS UNLESS OTHERWISE NOTED
- 2 12" SOLID WHITE THERMOPLASTIC MARKING
- 3 24" SOLID WHITE THERMOPLASTIC MARKING
- 4 24" SOLID WHITE THERMOPLASTIC STOP BAR [MOTOR VEHICLE]

NOTES:

- 1. PEDESTRIAN CROSSWALK - TEN FEET WIDE, UNLESS OTHERWISE NOTED.
 - A. MAKE STRIPES PARALLEL TO CURB LINE OF STREET.
 - B. ALL HANDICAP RAMPS MUST BE LOCATED WITHIN A CROSSWALK, INCLUDING SIDE FLARES OF RAMPS. ONE SIDE FLARE MUST ALIGN WITH BACK EDGE OF CROSSWALK IF CROSSWALK WIDTH IS GREATER THAN FIFTEEN FEET.
 - C. CROSSWALK MARKINGS SHALL BE INSTALLED WITH PREFORMED HEAT APPLIED THERMOPLASTIC OR LIQUID THERMOPLASTIC.

22 CROSSWALK MARKING

NTS

- 1. MATERIALS
ALL THERMOPLASTIC MARKING MATERIALS SHALL CONFORM TO THE SHA MANUAL OF TECHNICAL DESIGN STANDARDS
- 2. APPLICATION METHOD
ALL PAVEMENT MARKING APPLICATION METHODS SHALL BE APPROVED BY PROJECT DESIGNER PRIOR TO START OF WORK.
- 3. PAINTED STRIPING FOR PATH
MATERIAL SPECIFICATIONS: SPRAYABLE NON TOXIC LEAD FREE WATER BOURNE PAVEMENT MARKING PER MDSHA SECTION 550 AT THICKNESS OF 18 ±1 MILS.
STRIPE WIDTH /COLOR: 4" /TRAFFIC YELLOW
STRIPE POSITION: CENTER OF PATHWAY
STRIPE CHARACTER: SMOOTH EDGE WITH CONSTANT ARC IN CURVES (NO WAVERING OR SERPENTINE APPEARANCE WILL BE ACCEPTED)
SOLID LINE: BEGINNING 150 FEET (OR PER MARKING PLANS) ON EACH SIDE OF A BRIDGE OR INTERSECTION THERE SHALL BE A SOLID LINE PATTERN
DASHED: IN PLACE OF THE DASHED PATTERN.
3" STRIPE /9" BREAK, DASHED LINE SHALL END ONE FOOT BEFORE RUMBLE STRIPS, CROSSWALKS OR OTHER PAVEMENT MARKINGS.
- 4. THERMOPLASTIC RUMBLE STRIPS
MATERIAL SPECIFICATIONS: 90 MILS BEADED
STRIPE WIDTH /COLOR: 2", 4", AND 6" WIDE /WHITE
PATTERN: THREE SEPARATE LINES BEGINNING AT 150' FROM THE CROSSING FOR THE FIRST LINE, THE NEXT TWO LINES SHALL BE PLACED 30' ON CENTER HEADING TOWARD THE INTERSECTION. EACH STRIP SHALL EXTEND THE ENTIRE WIDTH OF THE TRAIL.
- 5. PAINTED ADVANCE MARKINGS FOR PATH
MATERIAL SPECIFICATIONS: SPRAYABLE NON TOXIC LEAD FREE WATER BOURNE PAVEMENT MARKING PER MDSHA SECTION 550 AT THICKNESS OF 18 ±1 MILS.
SIZE/COLOR: 4" HEIGHT /WHITE
LETTER WIDTH/SPACING: 2" /5" SPACING
LOCATION: MINIMUM 70' FROM CONCRETE THRESHOLD OR STOP SIGN
EXAMPLE: ROAD X-ING
- 6. PAINTED STOP BAR FOR PATH
MATERIAL SPECIFICATIONS: SPRAYABLE NON TOXIC LEAD FREE WATER BOURNE PAVEMENT MARKING PER MDSHA SECTION 550 AT THICKNESS OF 18 ±1 MILS.
LENGTH/COLOR: WIDTH OF PATHWAY /WHITE
LOCATION: EVEN WITH THE STOP SIGN, NO MORE THAN 5' FROM THE ROAD THRESHOLD. AT INTERSECTIONS WITH PEDESTRIAN SIGNALS, A THERMOPLASTIC STOP BAR SHALL BE PLACED AT THE EDGE OF THE PAVEMENT WITHOUT THE WORD "STOP"
- 7. PAINTED STOP LETTERING FOR PATH
MATERIAL SPECIFICATIONS: SPRAYABLE NON TOXIC LEAD FREE WATER BOURNE PAVEMENT MARKING PER MDSHA SECTION 550 AT THICKNESS OF 18 ±1 MILS.
SIZE /COLOR: 4" /WHITE
LETTER WIDTH: 2"
LOCATION: PATH SIDE OF STOP BAR (SEE INTERSECTION LAYOUT FOR PLACEMENT)
- 8. THERMOPLASTIC CROSSWALK
MATERIAL SPECIFICATIONS: 90 MILS BEADED THERMOPLASTIC, HEAT APPLIED.
SIZE /COLOR: 12" WHITE EDGE/24" WHITE CROSS BARS
STRIPE CHARACTER: SMOOTH EDGE WITH CONSTANT ARC IN CURVES (NO WAVING, OR SERPENTINE APPEARANCE WILL BE ACCEPTED)
LOCATION: CENTERLINE OF CROSSWALK TO BE AT CENTERLINE OF PEDESTRIAN RAMPS UNLESS OTHERWISE NOTED

23 PAVEMENT MARKING SPECIFICATIONS

NTS

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____, EXPIRATION DATE: _____.

DSGN	INIT.		
DR	INIT.		
CHK	INIT.		
APVD	INIT.	NO.	DATE

REVISION

BY

APVD



REUSE OF DOCUMENTS

ALL DRAWINGS ARE INSTRUMENTS OF PROFESSIONAL SERVICE FOR THIS PROJECT. REUSE OR ALTERATION WITHOUT TDG'S WRITTEN PERMISSION IS AT THE USER'S SOLE RISK.

BAR SHOWN BELOW IS ONE INCH ON ORIGINAL DRAWING. IF BAR DOES NOT MEASURE ONE INCH, ADJUST SCALES ACCORDINGLY.
0" _____ 1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL

STANDARD DETAILS

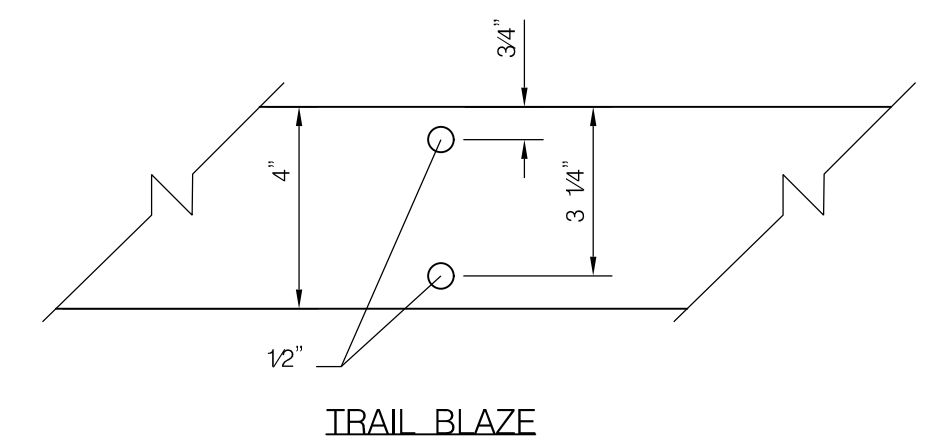
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DWG SD-4

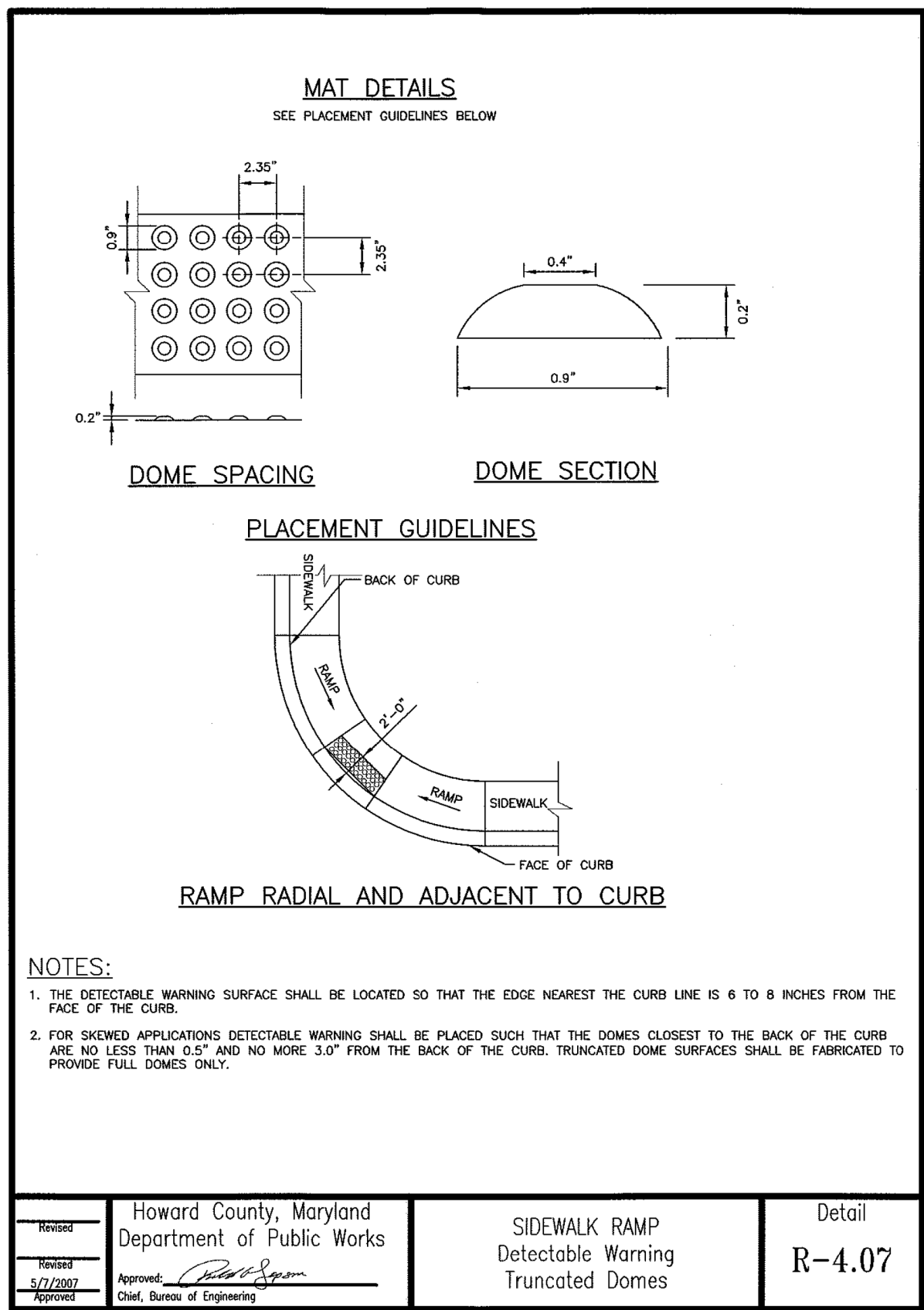
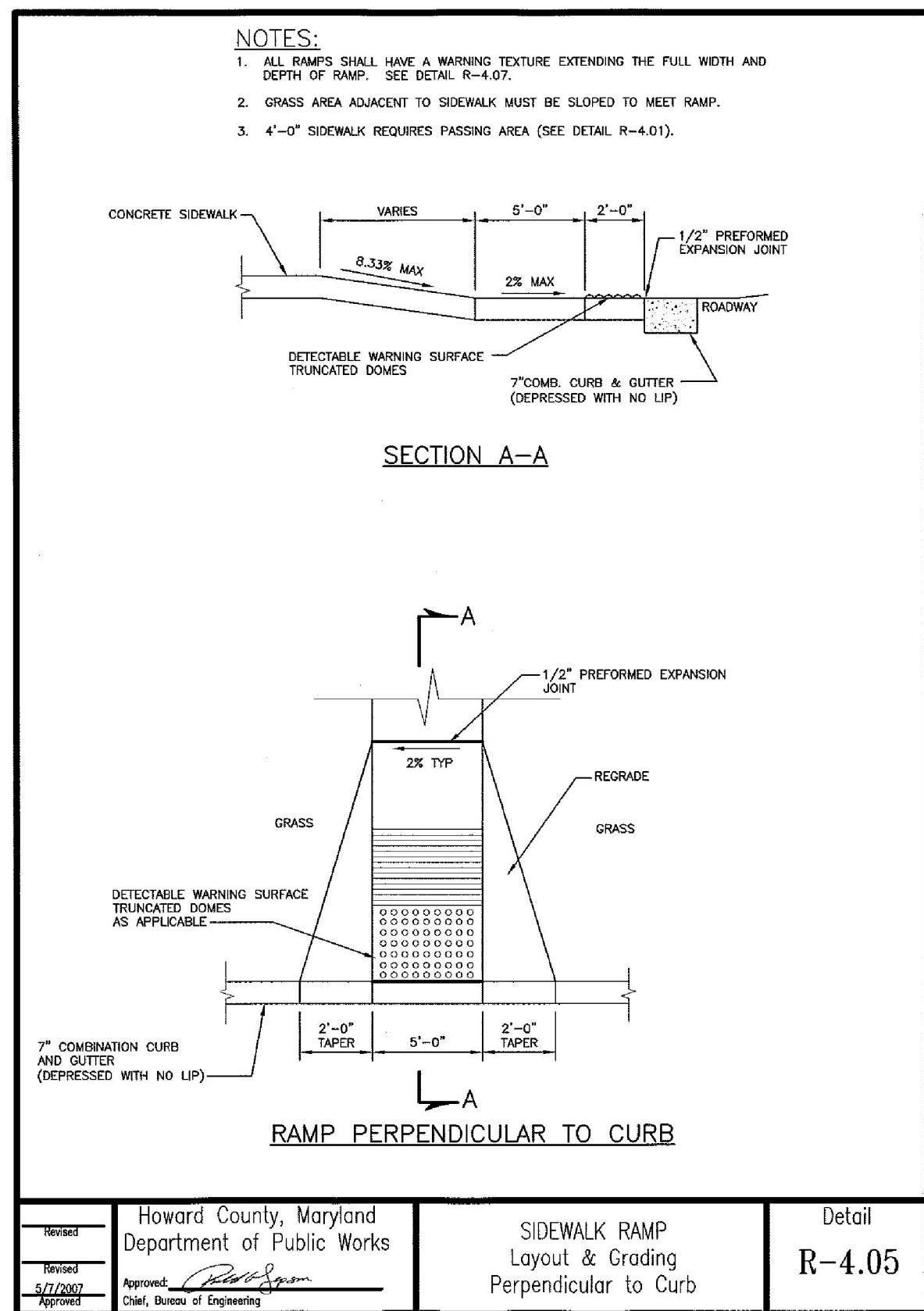
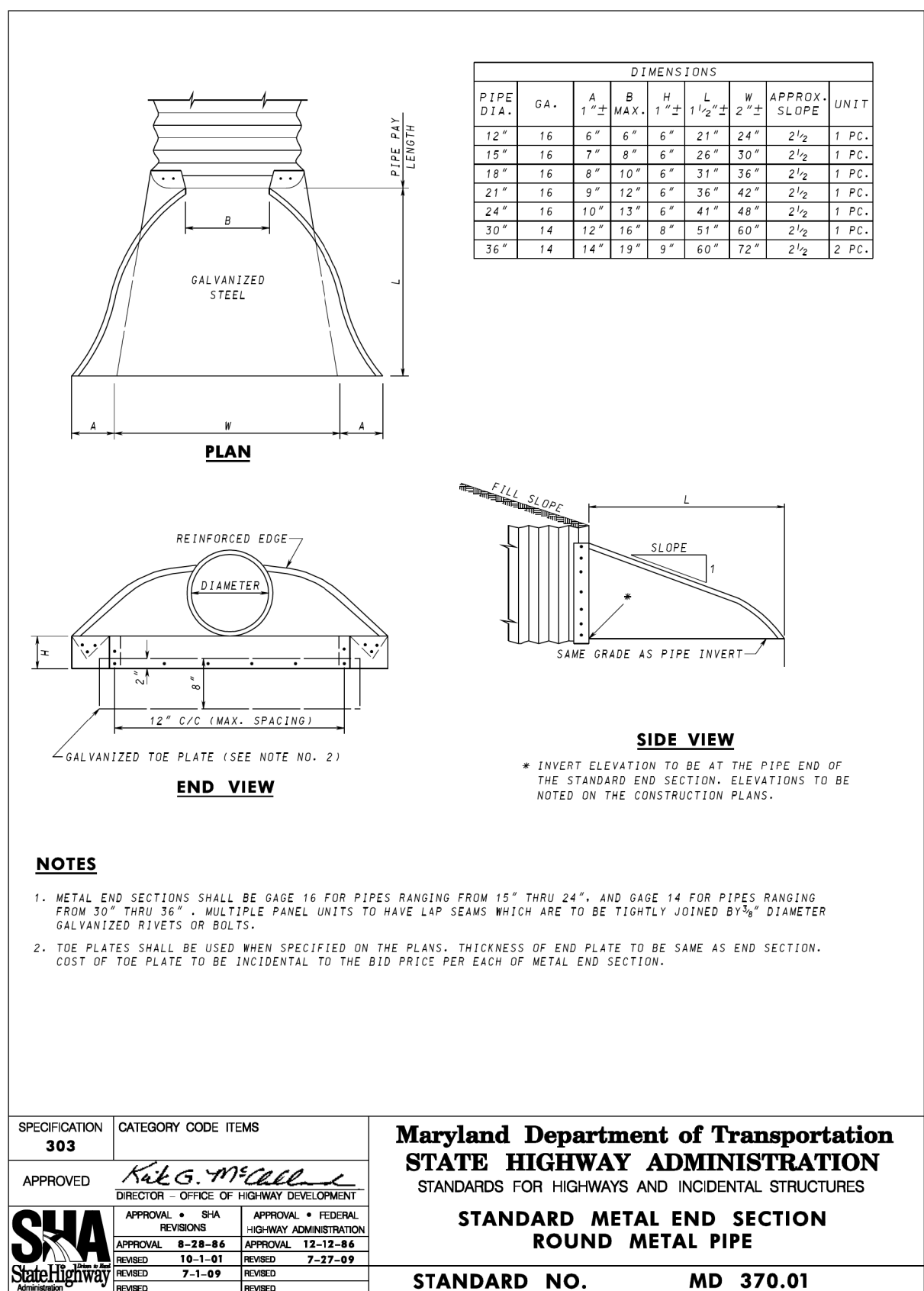
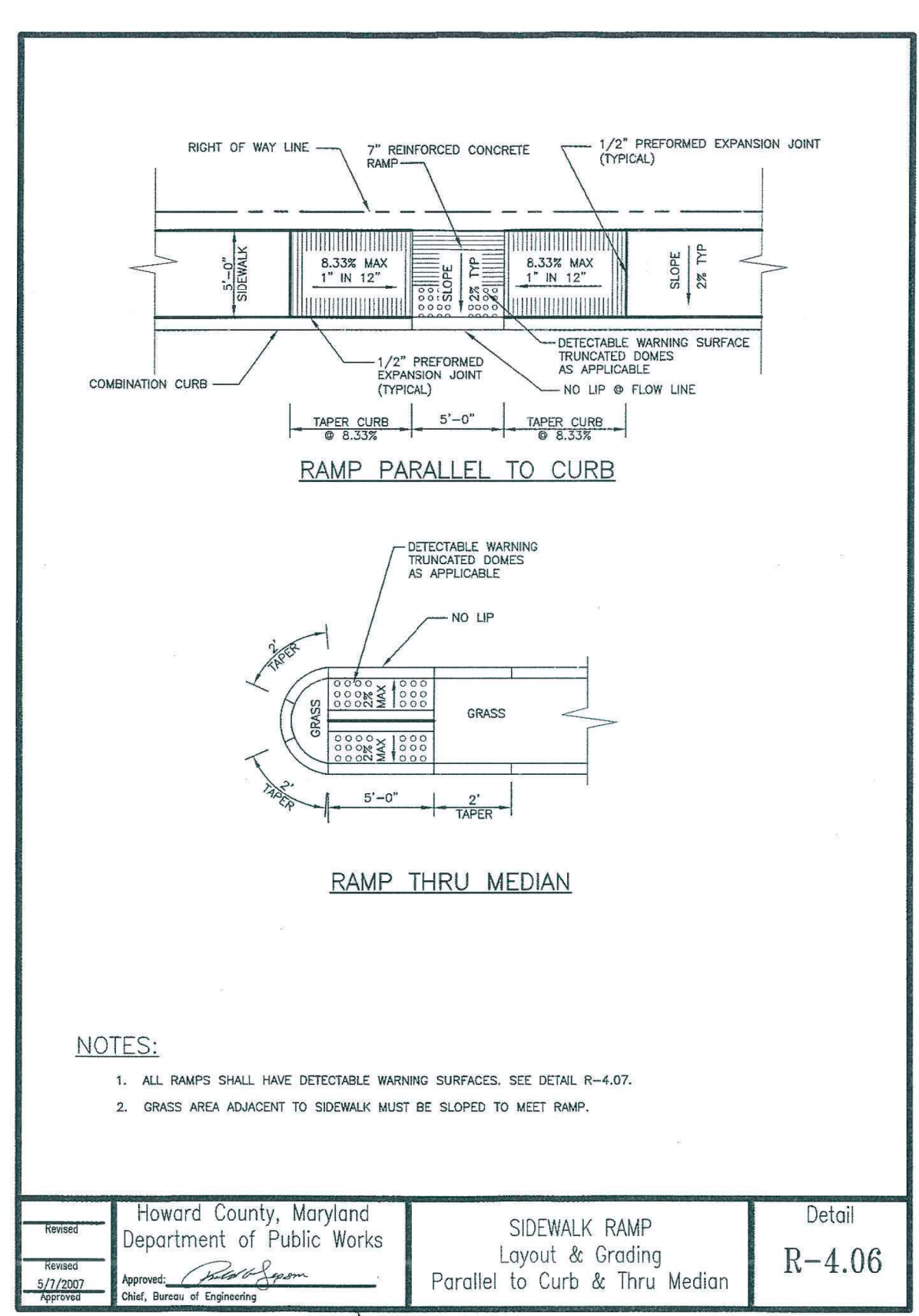
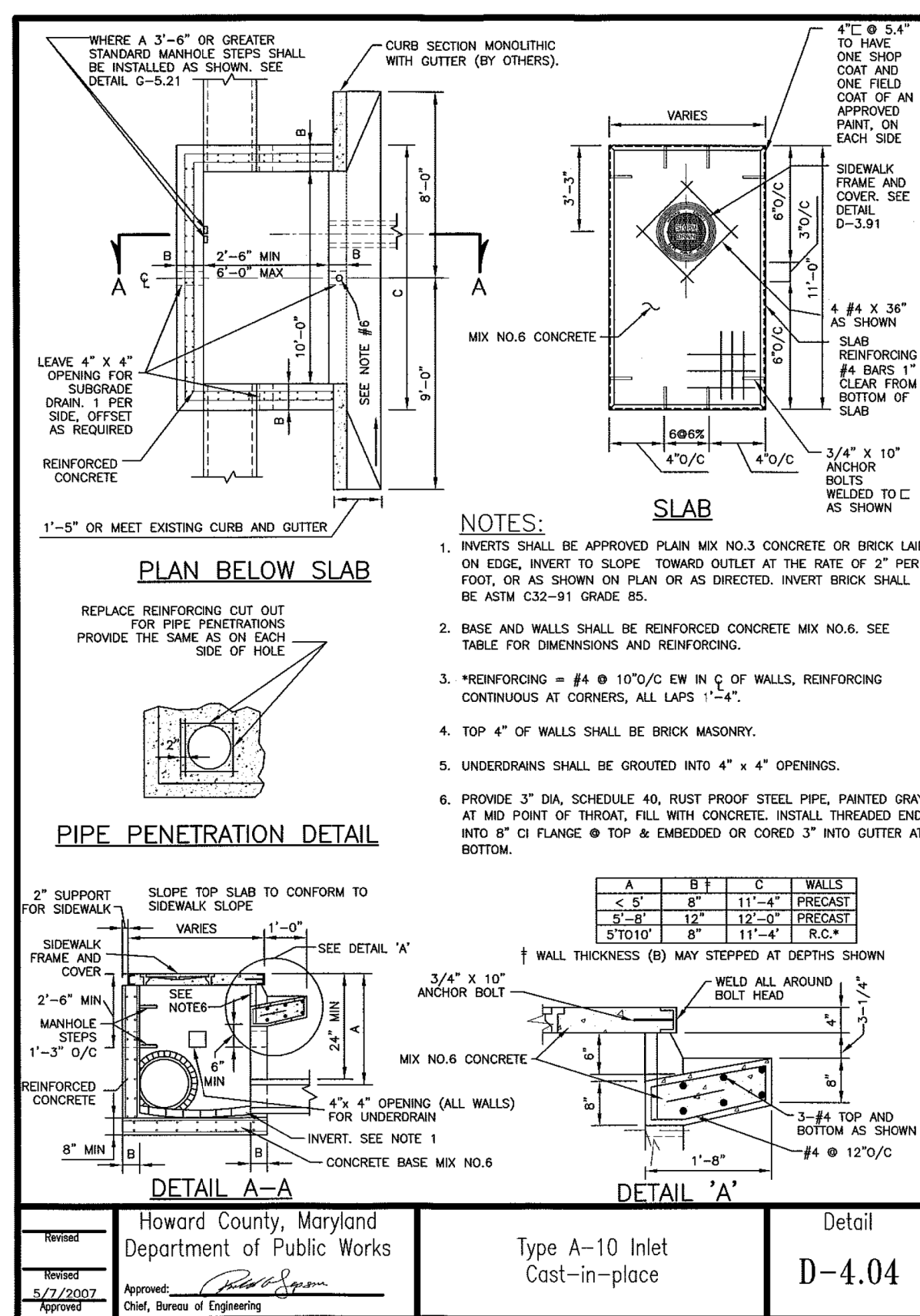
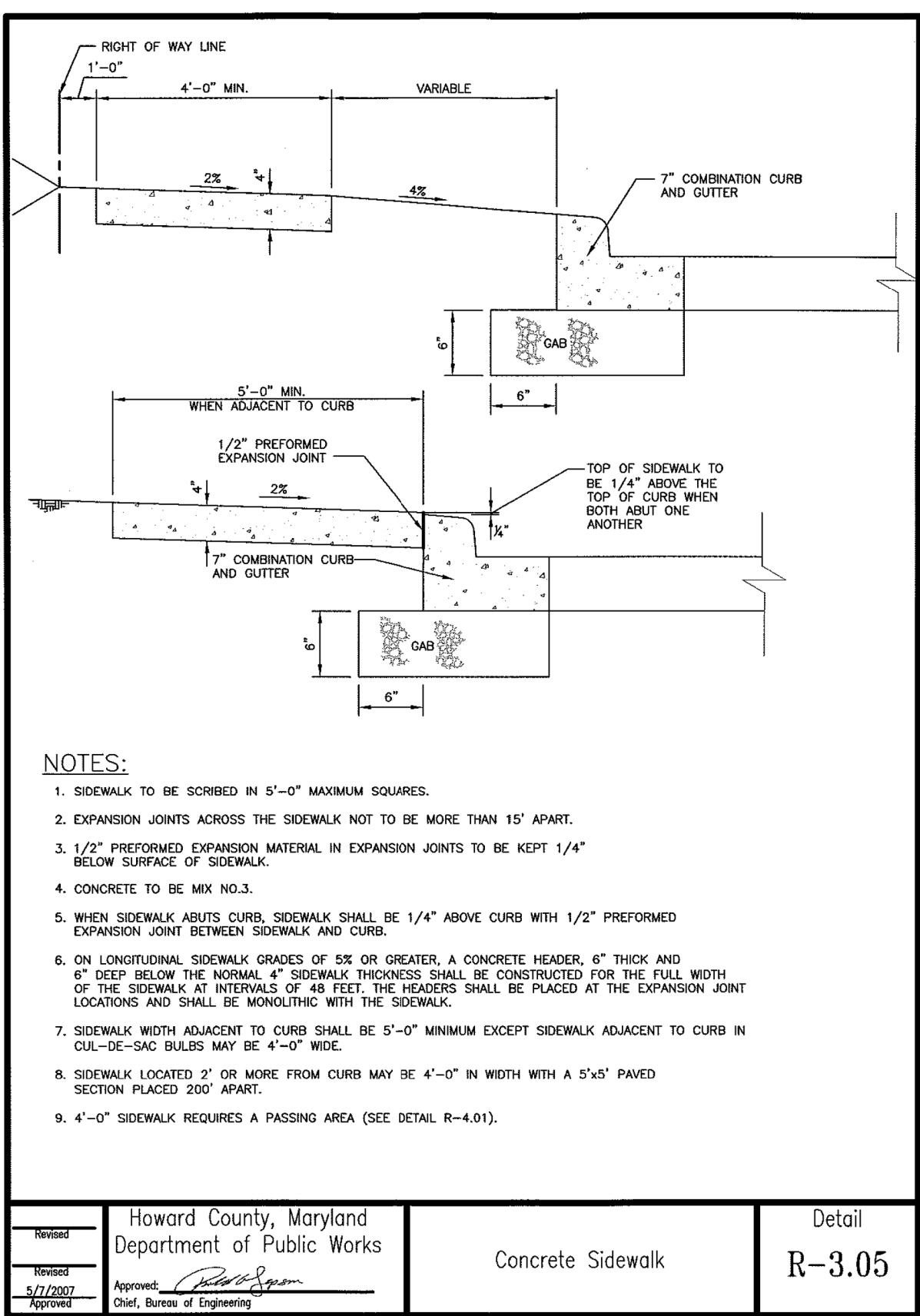
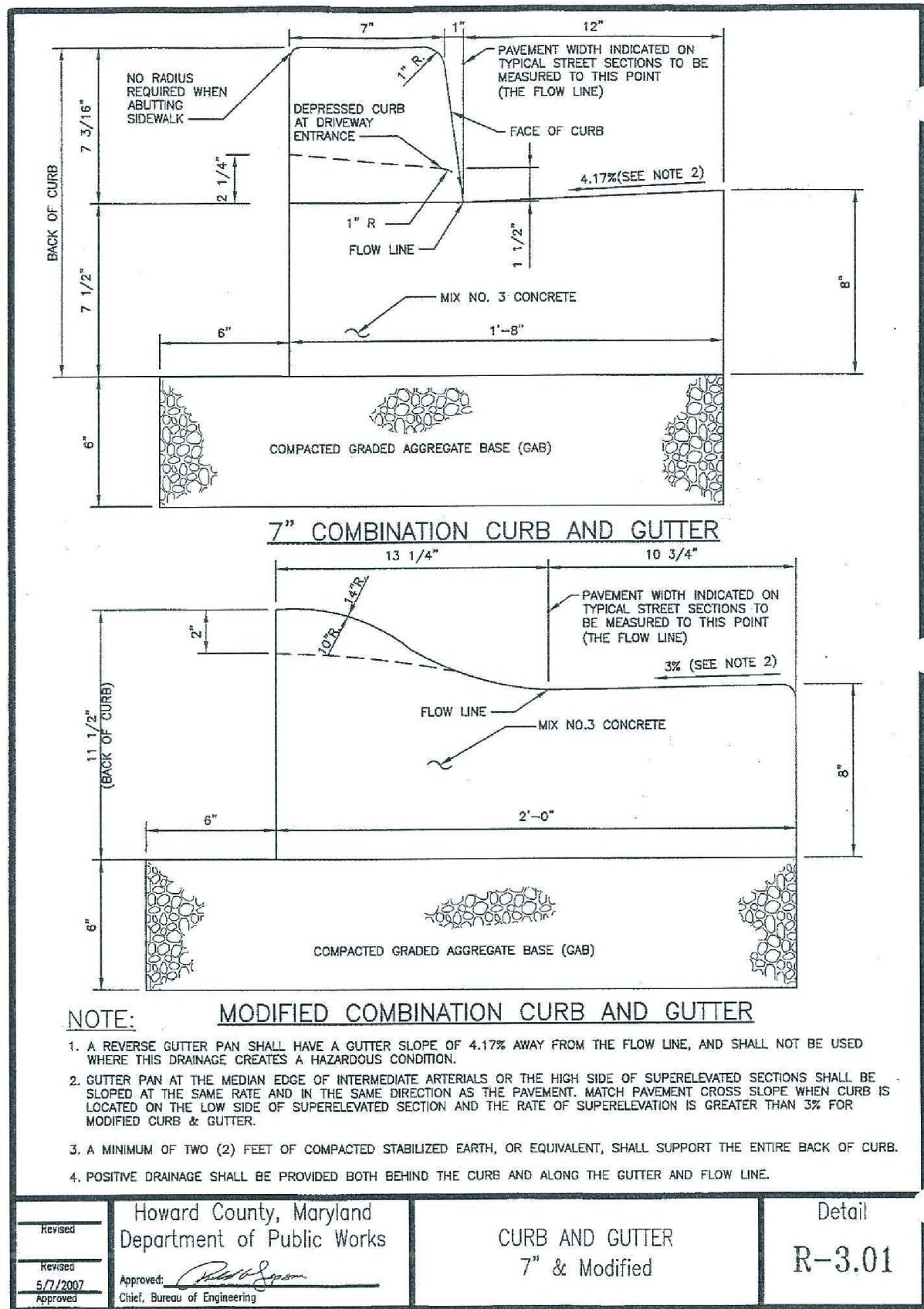
DATE OCT 2016

PROJECT 5409.04

 24 R1-1 SIGN NTS	 25 R3-7R SIGN NTS	 26 R3-17 SIGN NTS	 27 R4-4 SIGN NTS	 38 R5-1B SIGN NTS	 29 R5-3 SIGN NTS	<p>SIGN NOTES:</p> <p>1. APPLICABLE SPECIFICATIONS AND STANDARDS: MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL (MDMUTC), AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)</p> <p>2. PREPARATION:</p> <p>A. IF SITE CONDITIONS VARY FROM PLAN, CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.</p> <p>B. DIMENSIONS FOR LEGEND SIZE AND ALL RELATED DIMENSIONS FOR SIGN LAYOUT, PANEL SIZES, POST SIZES, MOUNTING DIMENSIONS ARE AS SPECIFIED IN THE PLANS.</p> <p>C. ALL GRAPHIC FORMATS: USE OF TYPOGRAPHY, COLOR, DIRECTIONAL ARROW, GRAPHICS AND PICTOGRAMS ARE AS SPECIFIED IN THE PLANS. SHOP DRAWINGS OF PROPOSED SIGN LAYOUTS SHALL BE SUBMITTED AND APPROVED PRIOR TO SIGN PANEL FABRICATION.</p> <p>D. ALL STRUCTURES SHALL BE ENGINEERED TO MEET A VARIETY OF SITE CONDITIONS. SIGNS SHALL BE ENGINEERED FOR WIND LOADS, SOIL CONDITIONS, FROST DEPTH AND STRUCTURAL INTEGRITY. SPECIAL CONDITIONS THAT ARE OUTSIDE THESE PARAMETERS ARE TO BE ENGINEERED ON A SITE-SPECIFIC BASIS. THE DESIGN OF THE STRUCTURAL REQUIREMENTS OF SPECIAL ONE-OF-A-KIND SIGNS SHALL CONFORM TO THE BASIC ASSEMBLY SPECIFICATIONS FOR SIMILAR SIGN TYPES. THE MODIFIED ASSEMBLY SHALL FULFILL THE REQUIREMENTS OF LOCAL CRITERIA FOR WIND, PRESSURE, SOIL, AND FROST DEPTH. ALL SIGN ENGINEERING AND STRUCTURAL INTEGRITY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.</p> <p>E. 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 INDICATING SIGN PLAN ID NUMBER, MANUFACTURER, DATE OF FABRICATION AND INSTALLATION DATE.</p> <p>3. FABRICATION:</p> <p>A. PROVIDE SHOP AND FABRICATION DRAWINGS FOR REVIEW AND APPROVAL DETAILING THE PROPOSED FABRICATION OF ALL SIGNS AND STRUCTURES INDICATED IN PLAN DOCUMENTS.</p> <p>B. THE CONTRACTOR SHALL PREPARE, FOR REVIEW BY THE OWNER'S REPRESENTATION'S FABRICATION SHOP DRAWINGS. UPON REVIEW OF THE SHOP DRAWINGS, THE CONTRACTOR SHALL MAKE ALL CORRECTIONS AND ADJUSTMENTS AS INDICATED AND RESUBMIT FOR REVIEW AND APPROVAL. REVISIONS TO SHOP DRAWINGS SHALL INCLUDE A REVISION DATE, FABRICATION SHOP DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:</p> <p>C. ALUMINUM PANEL, TUBULAR STEEL POSTS, MOUNTING HARDWARE AND MATERIAL FINISHES SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS HEREIN OR BY REFERENCE. ALL MATERIALS SHALL CONFORM WITH THIS SPECIFICATION OR APPROVED EQUAL.</p> <p>D. ALL SIGN USED FOR TRAFFIC CONTROL SIGNS SHALL BE MOUNTED ON 2" GALVANIZED STEEL PERFORATED ("QUICK PUNCH"), SQUARE TUBE POSTS (1/4 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL SQUARE TUBE SLEEVE (3' LONG). THE ANCHOR SHALL NOT EXTEND MORE THAN TWO QUICK PUNCH HOLES ABOVE GROUND LEVEL.</p> <p>4. INSTALLATION:</p> <p>A. ALL TRAFFIC CONTROL SIGNS LOCATED WITHIN COUNTY RIGHTS-OF-WAY ARE TO BE ARE TO BE STAKED AND BE FIELD APPROVED PRIOR TO INSTALLATION BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430).</p> <p>B. ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDMUTC).</p> <p>C. SIGN LOCATIONS SHALL 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.</p> <p>D. 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 UNCONSTRICTED 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 AND/OR COUNTY REPRESENTATIVE. IF THE SIGN CAN BE LOGICALLY MOVED, VERIFY SIGHT-LINES OF ADJUSTED LOCATIONS TO AFFIRM THAT SIGN IS STILL VISIBLE FROM THE DESIGNATED APPROACH.</p>																													
 30 W3-1 SIGN NTS	 31 W5-4A MOD SIGN NTS	 32 W8-10 SIGN NTS	 33 W8-10P SIGN NTS	 34 W11-2 SIGN NTS	 35 W11-15 SIGN NTS																														
 24 W11-15P SIGN NTS	 24 W16-7 BL SIGN NTS	 24 W18 MOD SIGN NTS	 24 CUSTOM SIGN NTS																																
<table><tr><td colspan="2">APPROVED PLANNING BOARD OF HOWARD COUNTY DATE: _____</td></tr><tr><td colspan="2">HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING</td></tr><tr><td>CHIEF, DEVELOPMENT ENGINEERING DIVISION</td><td>DATE: _____</td></tr><tr><td>CHIEF, DIVISION OF LAND DEVELOPMENT</td><td>DATE: _____</td></tr><tr><td>DIRECTOR</td><td>DATE: _____</td></tr><tr><td>PROFESSIONAL CERTIFICATION</td><td></td></tr><tr><td>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. _____ EXPIRATION DATE: _____</td><td></td></tr><tr><td>DSGN: IND</td><td></td></tr><tr><td>CHK: INIC</td><td></td></tr><tr><td>APVD: MMB</td><td></td></tr><tr><td>NO</td><td></td></tr><tr><td>DATE</td><td></td></tr><tr><td>REVISION</td><td></td></tr><tr><td>BY</td><td></td></tr><tr><td>APVD</td><td></td></tr></table>						APPROVED PLANNING BOARD OF HOWARD COUNTY DATE: _____		HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING		CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: _____	CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: _____	DIRECTOR	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. _____ EXPIRATION DATE: _____		DSGN: IND		CHK: INIC		APVD: MMB		NO		DATE		REVISION		BY		APVD	
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<div>CIVIL</div> <div>STANDARD DETAILS</div>	SHEET	XX OF XXX
	DWG	SD-6
	DATE	OCT 2016
	PROJECT	5409.04



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: _____

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE _____

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE _____

DIRECTOR _____ 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. _____
EXPIRATION DATE: _____

DSGN INIT. _____
DR INIT. _____
CHK INIT. _____
APVD INIT. _____

NO. _____ DATE _____

REVISION

BY _____

APVD _____

TooleDesignGroup
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REUSE OF DOCUMENTS
ALL DRAWINGS ARE INSTRUMENTS
OF PROFESSIONAL SERVICE FOR THIS
PROJECT. REUSE OR ALTERATION
WITHOUT TDG'S WRITTEN PERMISSION
IS AT THE USER'S SOLE RISK.

BAR SHOWN BELOW IS ONE
INCH ON ORIGINAL DRAWING.
IF BAR DOES NOT MEASURE
ONE INCH, ADJUST SCALES
ACCORDINGLY.
0" _____ 1"

STEVENS FOREST TO DOWNTOWN COLUMBIA
SHARED USE PATH
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CIVIL
STANDARD DETAILS

SHEET XX OF XXX
DWG SD-7
DATE OCT 2016
PROJECT 5409.04