



# ABBREVIATIONS

A.A.S.H.T.O. .... American Association of State Highway Transportation Officials	IN ..... Inch	R.O.D. .... Rock Quality Designation
ADT..... Average Daily Traffic	I.S.T..... Inlet Sediment Trap	R.M..... Rootmat
AHD..... Ahead	INV..... Invert	S..... South
APPROX..... Approximate	J.B..... Junction Box	SAN..... Sanitary Sewer
q or B/L..... Baseline	K ..... K Inlet	SB or S/B... Southbound
BGE or BG&E. Baltimore Gas and Electric	L ..... Length	SBD..... Sandbag Diversion
BIT..... Bituminous	LA ..... Lane	SCE..... Stabilized Construction Entrance
B.C..... Bituminous Concrete	LF ..... Linear Feet	S.D..... Storm Drain
B.M..... Bench Mark	L.L..... Liquid Limit	S.D.D..... Surface Drain Ditch
BOT..... Bottom	LOD..... Limit of Disturbance	S/E..... Super Elevation
C.C..... Center of Curve	LP ..... Low Point	SE ..... Southeast
CATV..... Cable Television	L.P..... Light Pole	SF ..... Silt Fence
C.B.R..... California Bearing Ratio	LT..... Left	S.F..... Square Feet
CIP..... Cast Iron Pipe	MAC..... Macadam	SHT..... Sheet
Q or C/L..... Centerline	M.C..... Moisture Content	SP..... Sump Pit
C&G..... Curb and Gutter	MAX..... Maximum	S.P.P..... Structural Plate Pipe
CL..... Class	M.D.D..... Maximum Dry Content	S.P.T..... Standard Penetration Testing
CLF..... Chainlink Fence	MH..... Manhole	SSMH..... Sanitary Sewer Manhole
CMP..... Corrugated Metal Pipe	MUTCD..... Manual on Uniform Traffic Control Devices	SSF..... Super Silt Fence
C.O..... Cleanout	MOD..... Modified	STD..... Standard
COMB..... Combination	MIN..... Minimum	STA..... Station
CONC..... Concrete	N..... North	SO..... Single Opening
CONSTR..... Construction	N.B..... Northbound	S.Y..... Square Yards
COR..... Corner	NE ..... Northeast	SW ..... Southwest
CORR..... Correction	N.P..... Non-Plastic	SWM..... Stormwater Management
CT..... Court	NO..... Number	T..... Tangent
DC..... Degree of Curve	O.C..... On Center	T or TEL..... Telephone
D.H.V..... Design Hourly Volume	OHE..... Overhead Electric	T.C..... Top of Cover
D.I..... Drop Inlet	O.M..... Optimum Moisture	TCE..... Temporary Construction Easement
DIA..... Diameter	PAV'T..... Pavement	T.G..... Top of Grate
DIR ..... Direction	P.C..... Point of Curvature	T or TL..... Traverse Line
DP..... Diversion Pipe	P.C.C..... Point of Compound Curvature	T.M..... Top of Manhole
E..... East	P/C..... Point of Crown	TRAV..... Traverse
E or ELEC..... Electric	P/GE..... Profile Grade Elevation	TS ..... Temporary Swale
E..... External Distance	P.G.E..... Profile Ground Elevation	T.S..... Top of Slab
EA..... Each	P.G.L..... Profile Grade Line	T.S..... Topsoil
E.B..... Eastbound	P/GL..... Profile Ground Line	TYP..... Typical
ELEV..... Elevation	P/R..... Point of Rotation	U.D..... Under Drain
E.R.C.C.P..... Elliptical Reinforced Cement Concrete Pipe	PL ..... Place	U.G..... Underground
ES..... End Section	P.I..... Plasticity Index	UNK..... Unknown
ESC..... Erosion and Sediment Control	P.I..... Point of Intersection	U.P..... Utility Pole
EX. or EXIST..... Existing	P.O.C..... Point On Curve	U.S.D.A..... United States Department of Agriculture
FT..... Feet/Foot	P.O.T..... Point On Tangent	VCL ..... Vertical Clearance
F or FL..... Flowline	PROP..... Proposed	V.C.L..... Vertical Curve Length
F.B.D..... Flat Bottom Ditch	P.R.C..... Point of Reverse Curve	W ..... Water
F.H..... Fire Hydrant	PT..... Point	W ..... West
FO ..... Fiber Optic	P.T..... Point of Tangency	W.B..... Westbound
FWD..... Forward	P.V.C..... Point of Vertical Curve	WB..... Wetland Buffer
G ..... Gas	PVC..... Polyvinyl Chloride	W.M..... Water Meter
G.V..... Gas Valve	PVI..... Point of Vertical Intersection	W.S..... Wrapped Steel
H.B..... Handbox	PVRC..... Point of Vertical Reverse Curve	WUS..... Waters of the United States
H.D.P..... High Density Polyethylene	PVT..... Point of Vertical Tangency	W.V..... Water Valve
HDWL..... Headwall	R ..... Radius	
H.E.R.C.P..... Horizontal Elliptical Reinforced Concrete Pipe	R.F..... Rock Fragments	
HP..... High Point	RD ..... Road	
HS..... High School	RT ..... Right	
	RW or R/W..... Right of Way	
	R.C.P..... Reinforced Cement Pipe	
	R.C.C.P..... Reinforced Cement Concrete Pipe	

## SYMBOLS / LINESYLES LEGEND

EXISTING SIGN .....	BASE LINE OR SURVEY LINE .....
EXISTING PIPE /CULVERT .....	EXISTING INDEX CONTOUR .....
EXISTING RIGHT OF WAY LINE .....	EXISTING INTERVAL CONTOUR .....
EXISTING ROADWAY .....	PROPOSED INDEX CONTOUR .....
EXISTING FENCE .....	PROPOSED INTERVAL CONTOUR .....
EXISTING W-BEAM .....	PROPOSED W BEAM .....
EX. UTILITY POLE .....	PROPOSED BORING TARGET .....
EX. UNDERGROUND ELECTRIC .....	PROPOSED TEST HOLE TARGET .....
EX. UNDERGROUND CABLE TV .....	PROPOSED RIPRAP .....
EX. UNDERGROUND TELEPHONE .....	EXISTING INLET .....
EX. UNDERGROUND GAS .....	HEDGE /TREE LINE .....
EX. UNDERGROUND SANITARY .....	BUSH /TREE .....
EX. UNDERGROUND WATER .....	CONIFEROUS TREE .....
EX. ROADWAY LIGHTING .....	EX. STORM DRAIN MANHOLE .....
EX. SANITARY MANHOLE .....	
EX. FIRE HYDRANT .....	
EX. WATER METER .....	
EX. HANDBOX .....	
EX. COMMUNICATIONS BOX .....	

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



Whitman, Reardon & Associates, LLP  
801 South Carolina Street, Baltimore, Maryland 21231

DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

LEGEND AND ABBREVIATIONS

CAPITAL PROJECT CONTRACT NO. T7108

CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5

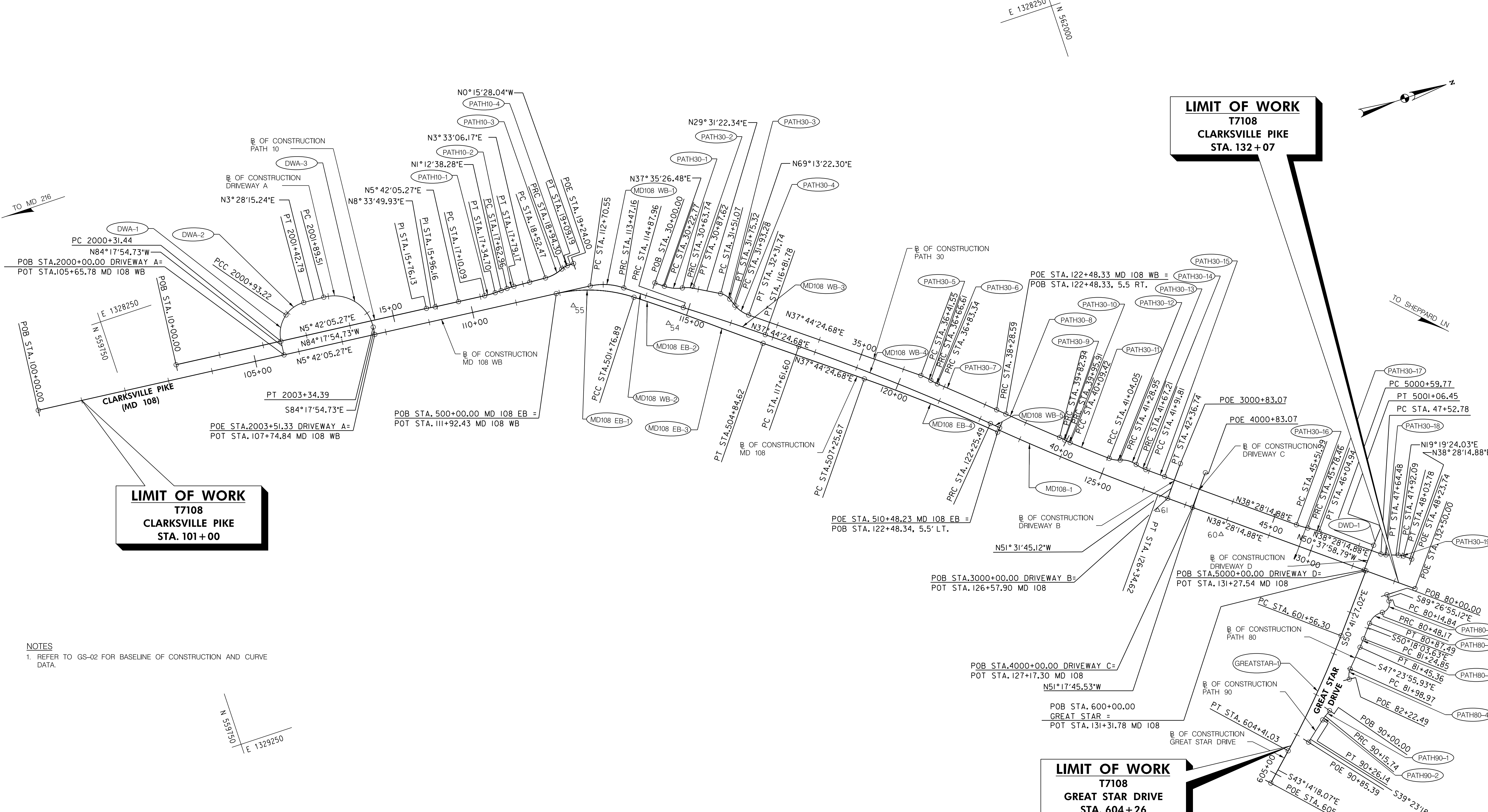
HOWARD COUNTY, MARYLAND

DWG.  
LG 01

SCALE  
NONE

SHEET  
2 OF 45

TRAVERSE POINTS			
POINT NO.	NORTH	EAST	ELEVATION
54	560,958.9052	1,328,655.1955	481.26
55	560,768.7620	1,328,550.1712	483.06
60	561,987.1331	1,329,496.8935	486.21
61	561,869.1233	1,329,400.3285	485.13

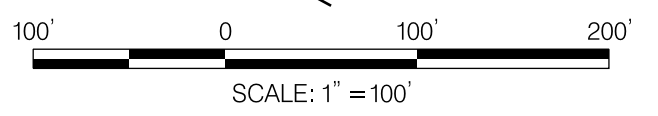


NOTES  
 1. REFER TO GS-02 FOR BASELINE OF CONSTRUCTION AND CURVE DATA.

**LIMIT OF WORK**  
 T7108  
 CLARKSVILLE PIKE  
 STA. 101+00

**LIMIT OF WORK**  
 T7108  
 CLARKSVILLE PIKE  
 STA. 132+07

**LIMIT OF WORK**  
 T7108  
 GREAT STAR DRIVE  
 STA. 604+26



"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
 CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY:  
  
**Whitman, Reardon & Associates, LLP**  
 801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SRS				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

GEOMETRIC LAYOUT

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
 CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
 PRELIMINARY SUBMITTAL (30%)  
 ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. GS 01  
 SCALE 1" = 100'  
 SHEET 3 OF 45

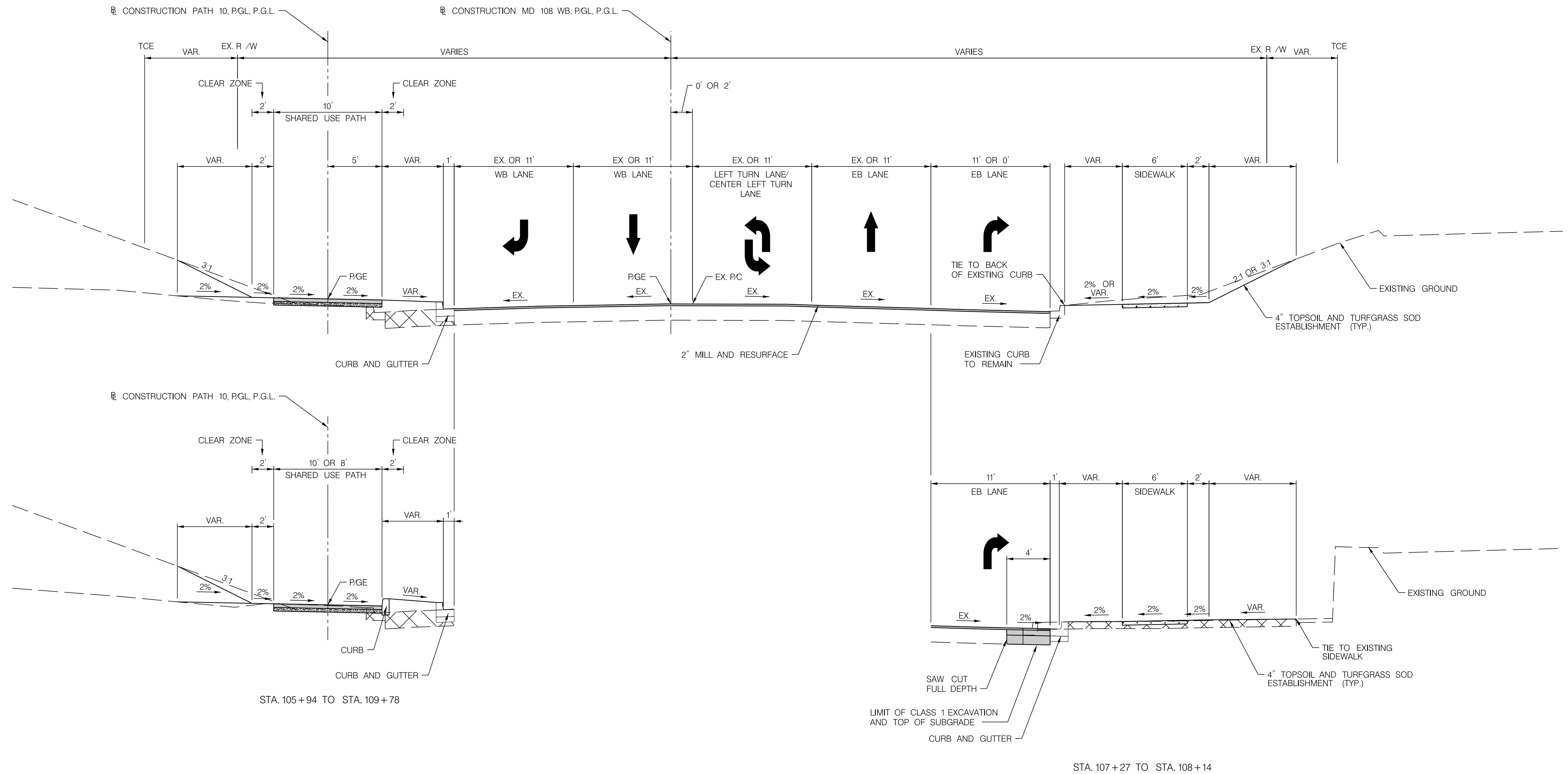
N:\2020-021\CAD\DWG\GS-P001\_302020.dwg  
 June 26, 2020

CURVE	POINT NO.	STATION	NORTH	EAST	BEARING
<b>SECTION OF CONSTRUCTION MD 108 WB</b>					
MD108WB-1	POB	100+00.00	559554.6390	1328394.1002	N 5°42'05.27" E
	PC	112+70.55	560818.9028	1328520.3232	
	PI	113+09.88	560858.0422	1328524.2308	
MD108WB-2	PRC	113+47.16	560889.1473	1328548.3063	N 37°44'23.84" E
	PI	114+17.57	560944.8291	1328591.4041	
MD108WB-3	PRC	114+87.96	561002.0692	1328632.4095	N 35°37'00.74" E
	PI	115+84.88	561080.8583	1328688.8520	
MD108WB-4	PT	116+81.78	561157.5020	1328748.1750	N 37°44'24.68" E
	PC	117+61.60	561220.6209	1328797.0295	
	PI	119+93.70	561404.1668	1328939.0956	
MD108WB-5	PRC	122+25.49	561574.2221	1329097.0610	N 42°53'21.09" E
	PI	122+36.91	561582.5869	1329104.8311	
POE	122+48.33	561590.9851	1329112.5652	N 42°38'32.45" E	
<b>SECTION OF CONSTRUCTION MD 108 EB</b>					
MD108EB-1	POB	500+00.00	560741.1742	1328512.5628	N 5°42'05.27" E
	PI	500+90.62	560831.3505	1328521.5659	
MD108EB-2	PCC	501+76.89	560904.2810	1328575.3615	N 36°24'48.57" E
	PI	502+66.37	560976.2881	1328628.4759	
MD108EB-3	PRC	503+55.81	561045.6943	1328684.9465	N 39°07'57.70" E
	PI	504+20.22	561095.6550	1328725.9558	
	PT	504+84.62	561146.5887	1328765.0190	N 37°44'24.68" E
MD108EB-4	PC	507+25.67	561337.2093	1328912.5610	
	PI	508+87.05	561464.8252	1329011.3368	
	POE	510+48.23	561583.5335	1329120.6567	N 42°38'32.45" E
<b>SECTION OF CONSTRUCTION MD 108</b>					
MD108-1	POB	122+48.34	561587.2593	1329116.6109	N 42°38'32.45" E
	PI	124+41.57	561729.3948	1329247.5052	
	POE	132+50.00	561880.6754	1329367.7134	N 38°28'14.88" E
<b>SECTION OF CONSTRUCTION GREAT STAR</b>					
GREATSTAR-1	POB	600+00.00	562269.9123	1329677.0027	S 50°41'27.02" E
	PC	601+56.30	562170.8946	1329797.9392	
	PI	602+98.86	562080.5802	1329908.2458	
	PT	604+41.03	561976.7216	1330005.9065	S 43°14'18.07" E
	POE	605+23.29	561916.7908	1330062.2608	
<b>SECTION OF CONSTRUCTION DRIVEWAY A</b>					
DWA-1	POB	2000+00.00	560117.6157	1328450.3073	N 84°17'54.73" W
	PC	2000+31.44	560120.7395	1328419.0194	
	PI	2000+64.21	560123.9944	1328386.4174	
DWA-2	PCC	2000+93.22	560150.1260	1328366.6529	N 37°06'06.44" W
	PI	2001+19.10	560170.7628	1328351.0444	
DWA-3	PT	2001+42.79	560196.5902	1328352.6109	N 3°28'15.24" E
	PC	2001+89.51	560243.2252	1328355.4395	
	PI	2002+83.09	560336.6274	1328361.1046	
	PT	2003+34.39	560327.3313	1328454.2154	S 84°17'54.73" E
POE	2003+51.33	560325.6478	1328471.0770		
<b>SECTION OF CONSTRUCTION DRIVEWAY B</b>					
DWB-1	POB	3000+00.00	561898.8994	1329382.1943	N 51°31'45.12" W
	POE	3000+83.07	561950.5800	1329317.1548	
<b>SECTION OF CONSTRUCTION DRIVEWAY C</b>					
DWC-1	POB	4000+00.00	561945.4073	1329419.1497	N 51°17'45.53" W
	POE	4000+83.07	561997.3527	1329354.3206	
<b>SECTION OF CONSTRUCTION DRIVEWAY D</b>					
DWD-1	POB	5000+00.00	562266.5942	1329674.3661	N 50°37'58.79" W
	PC	5000+59.77	562304.5071	1329628.1559	
	PI	5000+83.11	562319.3126	1329610.1102	
	POE	5001+06.45	562334.8501	1329592.6907	N 48°16'06.04" W

CURVE	POINT NO.	STATION	NORTH	EAST	BEARING
<b>SECTION OF CONSTRUCTION PATH 10</b>					
PATH10-1	POB	10+00.00	559880.6909	1328394.8289	N 5°42'05.27" E
	PI	15+76.13	560453.9734	1328452.0649	N 8°33'49.93" E
	PC	15+96.16	560473.7751	1328455.0468	N 5°42'05.27" E
PATH10-2	PC	17+10.09	560587.1417	1328466.3652	
	PI	17+22.41	560599.4009	1328467.5892	
	PT	17+34.70	560611.7183	1328467.3289	N 1°12'38.28" W
PATH10-3	PC	17+62.96	560639.9785	1328466.7317	
	PI	17+71.07	560648.0855	1328466.5603	
	PT	17+79.17	560656.1786	1328467.0627	N 3°33'06.17" E
PATH10-4	PC	18+52.47	560729.3307	1328471.6031	
	PI	18+73.81	560750.6370	1328472.9256	
	PRC	18+94.30	560770.0399	1328464.0241	N 24°38'39.04" W
PATH10-5	PI	19+01.86	560776.9139	1328460.8705	
	PT	19+09.19	560784.4767	1328460.8365	N 0°15'28.04" W
	POE	19+24.00	560799.2852	1328460.7699	
<b>SECTION OF CONSTRUCTION PATH 30</b>					
PATH30-1	POB	30+00.00	560958.7759	1328559.6181	N 37°35'26.48" E
	PC	30+22.77	560976.8175	1328573.5073	
	PI	30+43.66	560993.3712	1328586.2511	
PATH30-2	PRC	30+63.74	561013.9463	1328589.8695	N 9°58'27.48" E
	PI	30+75.80	561025.8228	1328591.9582	
	PT	30+87.62	561036.3158	1328597.9004	N 29°31'22.34" E
PATH30-3	PC	31+51.07	561091.5219	1328629.1636	
	PI	31+63.70	561102.5166	1328635.3899	
	PT	31+75.32	561106.9987	1328647.2034	N 69°13'22.30" E
PATH30-4	PC	31+93.28	561113.3711	1328663.9990	
	PI	32+13.01	561120.3702	1328682.4465	
	PT	32+31.74	561135.9731	1328694.5232	N 37°44'24.68" E
PATH30-5	PC	36+41.55	561460.0446	1328945.3575	
	PI	36+54.14	561470.0027	1328953.0651	
	PRC	36+66.61	561477.8559	1328962.9088	N 51°25'03.52" E
PATH30-6	PI	36+75.00	561483.0854	1328969.4639	
	PRC	36+83.34	561489.3824	1328975.0016	N 41°19'43.98" E
PATH30-7	PI	37+55.97	561543.9218	1329022.9644	
	PRC	38+28.59	561597.1350	1329072.3944	N 42°53'21.09" E
PATH30-8	PI	39+05.77	561653.6811	1329124.9204	
	PRC	39+82.94	561711.7421	1329175.7668	N 41°12'35.91" E
PATH30-9	PI	39+89.43	561716.6296	1329180.0470	
	PRC	39+95.91	561720.9521	1329184.8970	N 48°17'28.05" E
PATH30-10	PI	40+02.67	561725.4506	1329189.9443	
	PCC	40+09.42	561730.5591	1329194.3731	N 40°55'21.68" E
PATH30-11	PI	40+56.73	561766.3131	1329225.3689	
	PCC	41+04.05	561802.6180	1329255.7175	N 39°53'36.30" E
PATH30-12	PI	41+16.72	561812.3374	1329263.8423	
	PRC	41+28.95	561824.6317	1329266.8967	N 13°57'08.03" E
PATH30-13	PI	41+48.89	561843.9799	1329271.7036	
	PRC	41+67.21	561855.7541	1329287.7918	N 53°48'04.98" E
PATH30-14	PI	41+79.58	561863.0616	1329297.7767	
	PCC	41+91.81	561872.6828	1329305.5567	N 38°57'35.96" E
PATH30-15	PI	42+14.28	561890.1501	1329319.6812	
	PT	42+36.74	561907.7374	1329333.6562	N 38°28'14.88" E
	PC	45+51.99	562154.5510	1329529.7752	
PATH30-16	PI	45+65.24	562164.9308	1329538.0231	
	PRC	45+78.46	562176.3086	1329544.8287	N 30°53'08.67" E
	PI	45+91.72	562187.6863	1329551.6343	
PATH30-17	PT	46+04.94	562198.0661	1329559.8822	N 38°28'14.88" E
	PC	47+52.78	562313.8157	1329651.8572	
	PI	47+58.68	562318.4375	1329655.5298	
PATH30-18	PT	47+64.48	562324.0083	1329657.4832	N 19°19'24.03" E
	PC	47+92.09	562350.0618	1329666.6189	
	PI	47+97.99	562355.6325	1329668.5723	
PATH30-19	PT	48+03.78	562360.2543	1329672.2448	N 38°28'14.88" E
	POE	48+23.74	562375.8821	1329684.6627	

CURVE	POINT NO.	STATION	NORTH	EAST	BEARING
<b>SECTION OF CONSTRUCTION PATH 80</b>					
PATH80-1	POB	80+00.00	562297.7334	1329742.8755	S 89°26'55.12" E
	PC	80+14.84	562297.5906	1329757.7148	
	PI	80+36.85	562297.3788	1329779.7208	
PATH80-2	PRC	80+48.17	562275.4933	1329777.4120	S 6°01'19.76" E
	PI	80+69.58	562254.1981	1329775.1654	
	PT	80+87.49	562240.5203	1329791.6411	S 50°18'03.63" E
PATH80-3	PC	81+24.85	562216.6553	1329820.3877	
	PI	81+35.11	562210.1022	1329828.2812	
	PT	81+45.36	562203.1578	1329835.8329	S 47°23'55.93" E
PATH80-4	PC	81+98.97	562166.8715	1329875.2924	
	PI	82+11.19	562158.5977	1329884.2897	
	POE	82+22.49	562157.7239	1329896.4817	S 85°54'03.26" E
<b>SECTION OF CONSTRUCTION PATH 90</b>					
PATH90-1	POB	90+00.00	562093.3766	1329949.2272	
	PI	90+07.87	562087.0883	1329953.9661	
PATH90-2	PRC	90+15.74	562080.4383	1329958.1825	S 32°22'36.56" E
	PI	90+20.95	562076.0403	1329960.9711	
	PT	90+26.14	562072.0156	1329964.2757	S 39°23'18.71" E
	POE	90+85.39	562026.2228	1330001.8749	

CURVE DATA						
CURVE	DELTA	Dc	R	L	T	E
MD108 WB-1	32°02' 18.57" RT	41°49' 18.25"	137.00'	76.61'	39.33'	5.53'
MD108 WB-2	2°07' 23.10" LT	1°30' 28.02"	3800.00'	140.81'	70.41'	0.65'
MD108 WB-3	2°07' 23.93" RT	1°05' 43.88"	5230.00'	193.82'	96.92'	0.90'
MD108 WB-4	5°08' 56.42" RT	1°06' 35.83"	5162.00'	463.89'	232.10'	5.22'
MD108 WB-5	0°14' 48.64" LT	1°04' 51.79"	5300.00'	22.83'	11.42'	0.01'
MD108 EB-1	30°42' 43.30" RT	17°21' 44.49"	330.00'	176.89'	90.63'	12.22'
MD108 EB-2	2°43' 09.14" RT	1°31' 11.22"	3770.00'	178.92'	89.48'	1.06'
MD108 EB-3	1°23' 33.02" LT	1°04' 51.79"	5300.00'	128.81'	64.41'	0.39'
MD108 EB-4	4°54' 07.78" RT	1°31' 11.22"	3770.00'	322.56'	161.38'	3.45'
MD108-1	4°10' 17.57" LT	1°04' 47.75"	5305.00'	386.28'	193.22'	3.52'
GREATSTAR-1	7°27' 08.94" RT	2°37' 02.79"	2189.00'	284.72'	142.56'	4.64'
DWA-1						



MD 108  
STA. 101+00 TO STA. 111+92

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



Whitman, Requardt & Associates, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
TYPICAL SECTION

CAPITAL PROJECT CONTRACT NO. D7108

CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5

HOWARD COUNTY, MARYLAND

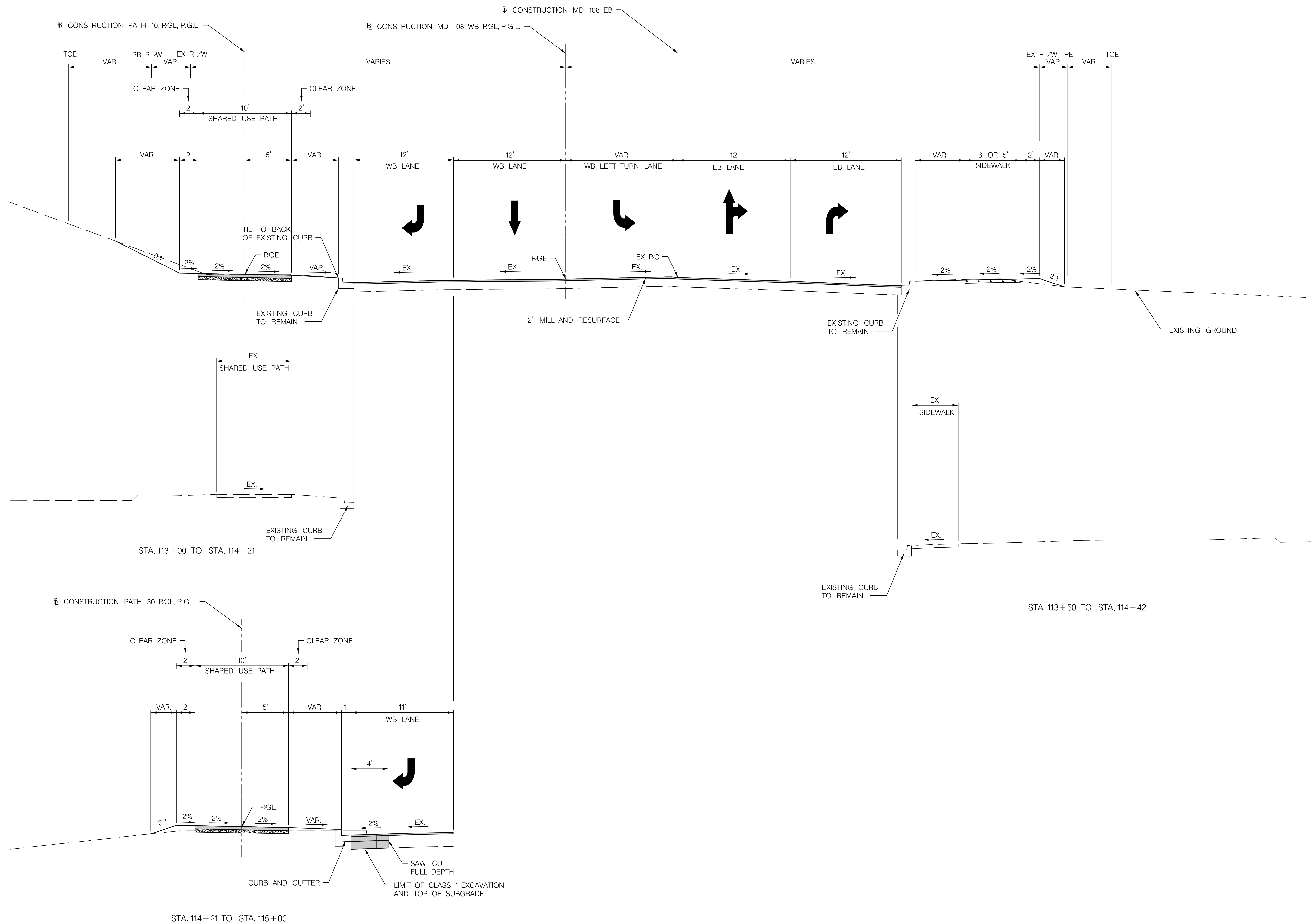
DWG.  
HT 01

SCALE  
1" = 5'

SHEET  
5 OF 45

N:\3202-021\CADD\PHD-X001\_32020201.dgn  
June 26, 2020

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE



MD 108  
STA. 111+92 TO STA. 115+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



Whitman, Requardt & Associates, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
TYPICAL SECTION

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5  
HOWARD COUNTY, MARYLAND

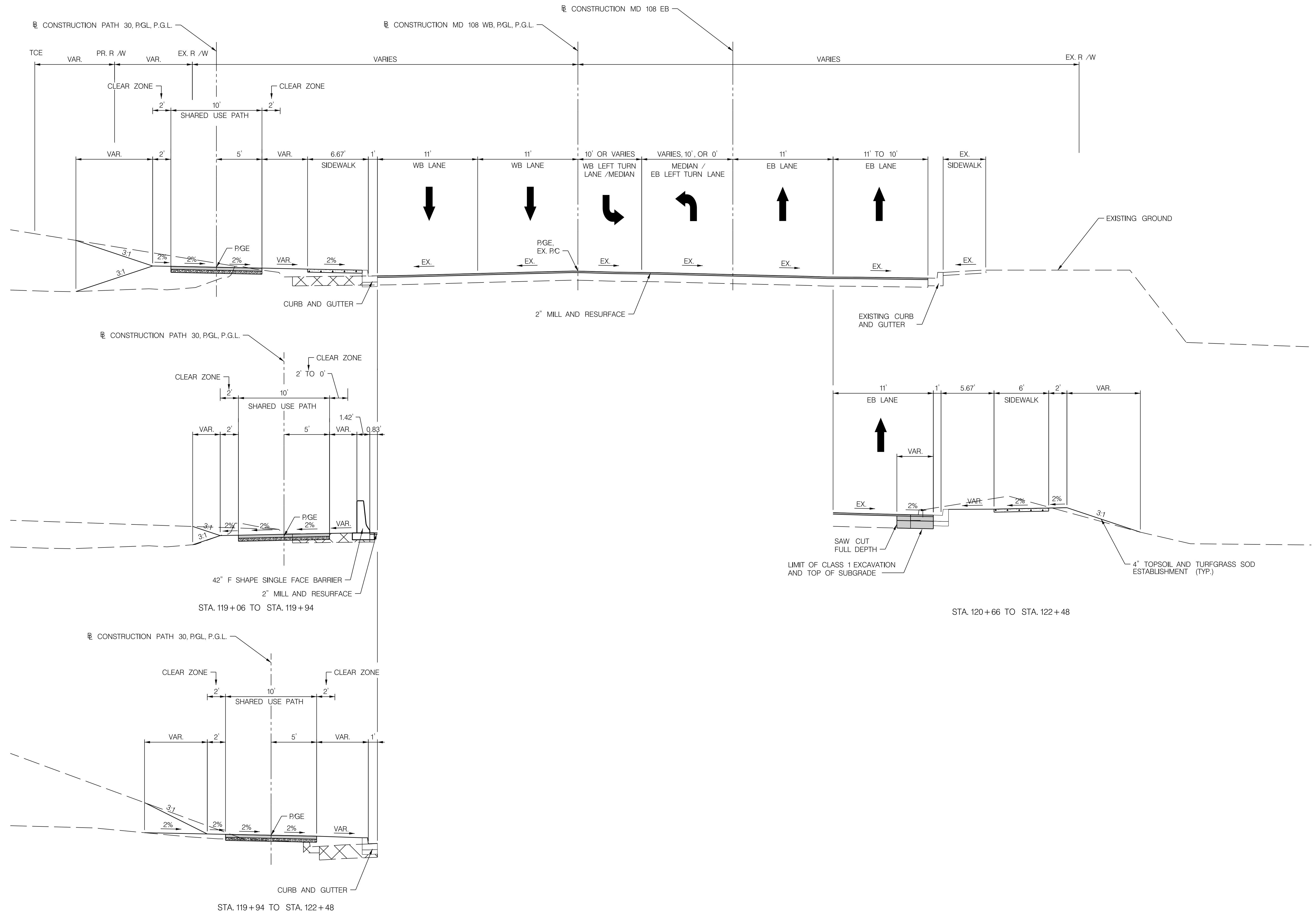
DWG.  
HT 02

SCALE  
1" = 5'

SHEET  
6 OF 45

N:\3202-021\CAD\DWG\HT-002\_3202021.dwg  
June 26, 2020

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_



"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_

CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY :



**Whitman, Reardon & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

CLARKSVILLE PIKE  
TYPICAL SECTION

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

MD 108

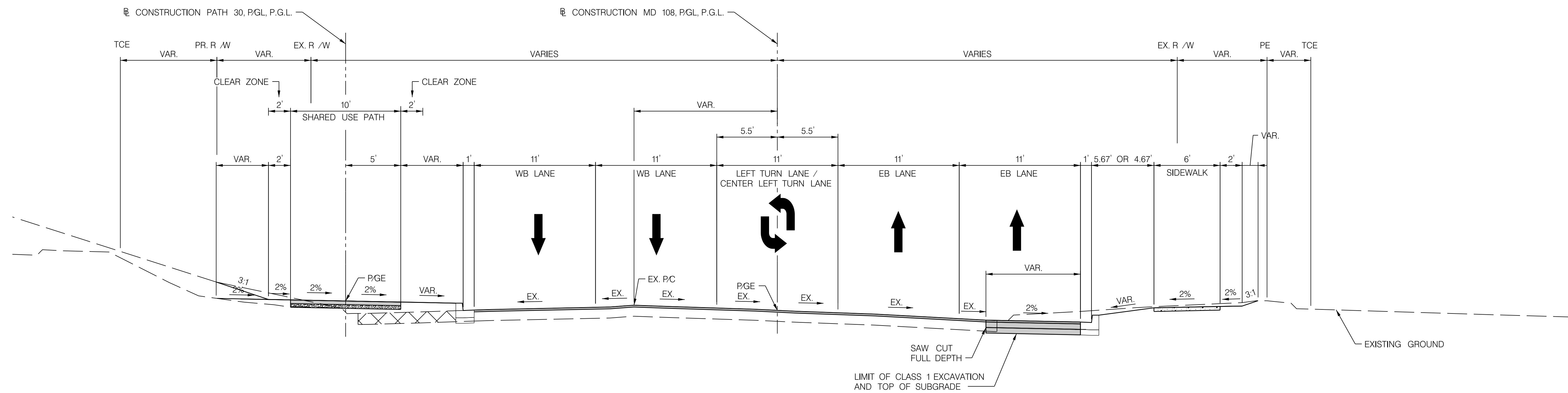
STA. 115+00 TO STA. 116+82  
STA. 119+06 TO STA. 122+48

DWG.  
HT 03

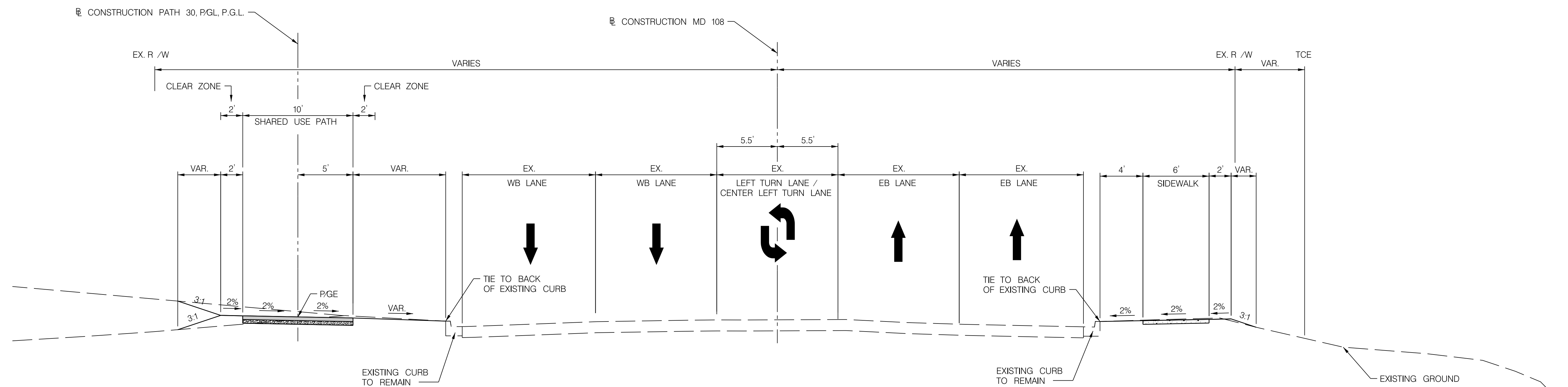
SCALE  
1" = 5'

SHEET  
7 OF 45

N:\3202-021\CADD\PH-1003\_32020201.dgn June 26, 2020



MD 108  
STA. 122+48 TO STA. 127+00



MD 108  
STA. 127+00 TO STA. 132+07

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_

CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
TYPICAL SECTION

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

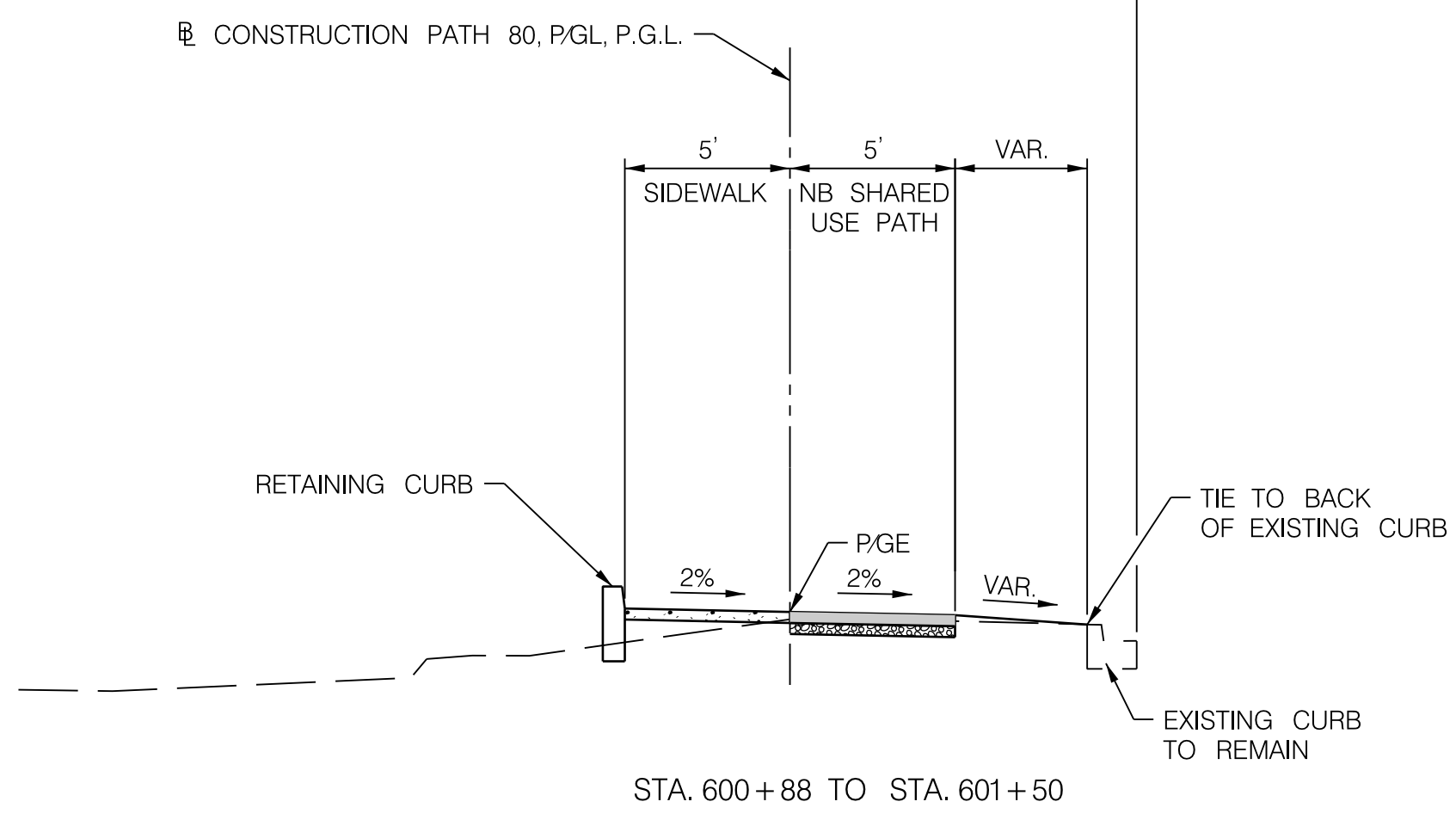
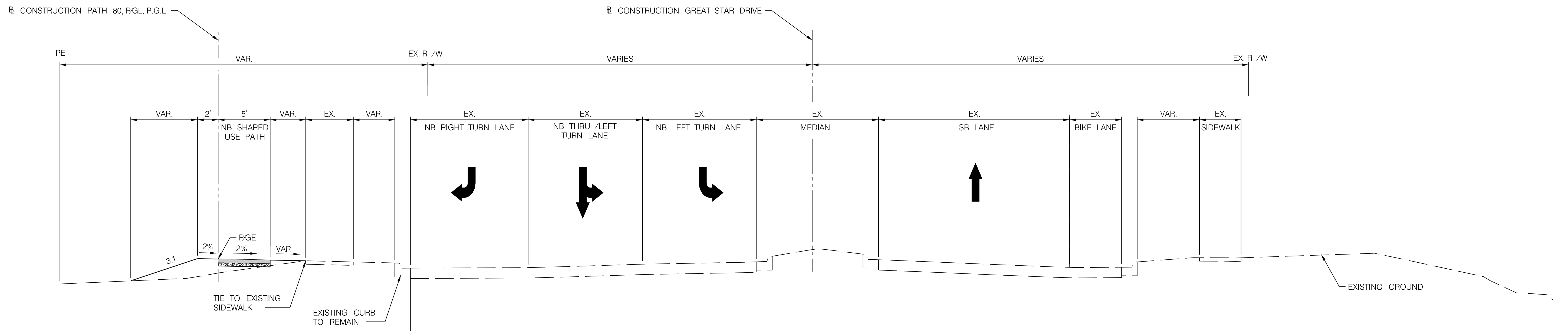
DWG.  
HT 04

SCALE  
1" = 5'

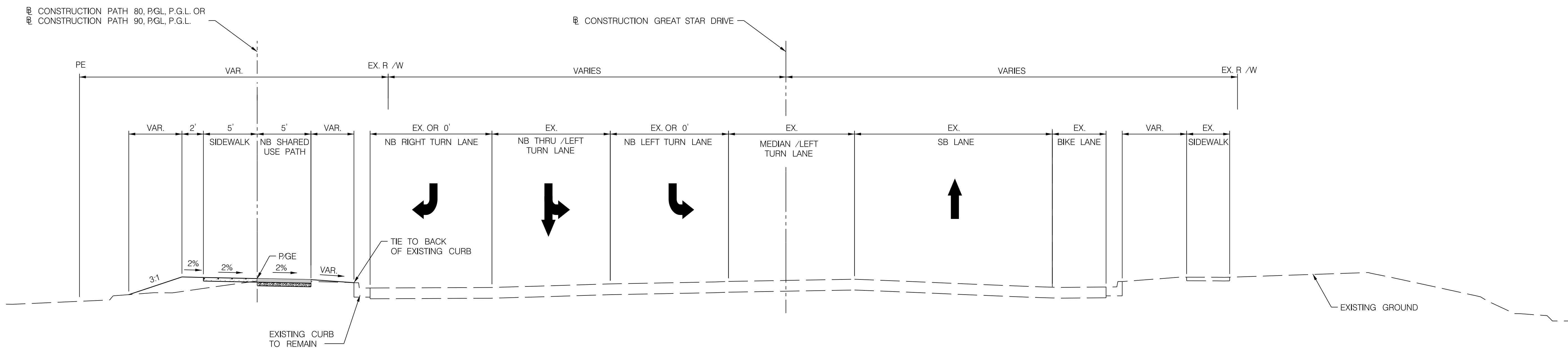
SHEET  
8 OF 45

N:\3202-021\CADD\PHD-X004\_32020201.dgn  
June 26, 2020





GREAT STAR DRIVE  
STA. 600+28 TO STA. 601+50



GREAT STAR DRIVE  
STA. 601+50 TO STA. 604+26

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_ CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_ CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

GREAT STAR DRIVE  
TYPICAL SECTION

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
HT 05

SCALE  
1" = 5'

SHEET  
9 OF 45

N:\3202-021\CADD\PHD-X06\_32020201.dgn June 26, 2020

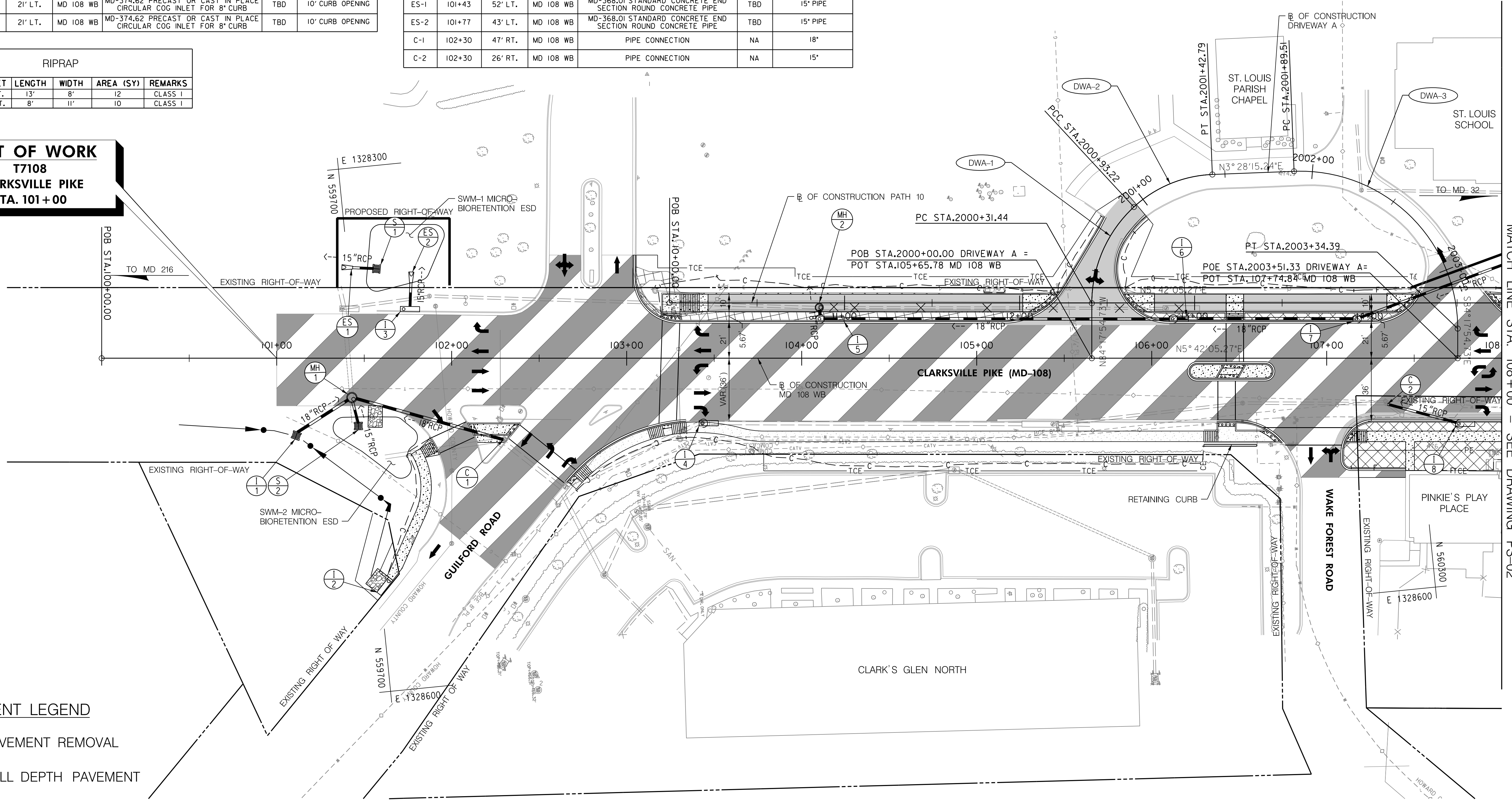
STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
I-1	101+11	44' RT.	MD 108 WB	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	DOUBLE OPENING
I-2	101+63	131' RT.	MD 108 WB	MD-374.68 PRECAST OR CAST IN PLACE COG OPENING FOR 8" CURB	TBD	10' CURB OPENING
I-3	101+76	27' LT.	MD 108 WB	MD-374.66 PRECAST OR CAST IN PLACE SHALLOW COG INLET	TBD	10' CURB OPENING
I-4	103+44	36' RT.	MD 108 WB	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET FOR 8" CURB	TBD	10' CURB OPENING
I-5	104+11	21' LT.	MD 108 WB	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET FOR 8" CURB	TBD	15' CURB OPENING
I-6	106+12	21' LT.	MD 108 WB	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET FOR 8" CURB	TBD	10' CURB OPENING
I-7	107+17	21' LT.	MD 108 WB	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET FOR 8" CURB	TBD	10' CURB OPENING

STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
I-8	107+76	36' RT.	MD 108 WB	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET FOR 8" CURB	TBD	10' CURB OPENING
MH-1	101+43	22' RT.	MD 108 WB	MD-384.03 60" DIAMETER PRECAST MANHOLE FOR 27" TO 36" PIPES	TBD	.
MH-2	104+10	29' LT.	MD 108 WB	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES	TBD	.
S-1	101+57	51' LT.	MD 108 WB	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	.
S-2	101+47	39' RT.	MD 108 WB	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	.
ES-1	101+43	52' LT.	MD 108 WB	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15" PIPE
ES-2	101+77	43' LT.	MD 108 WB	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15" PIPE
C-1	102+30	47' RT.	MD 108 WB	PIPE CONNECTION	NA	18"
C-2	102+30	26' RT.	MD 108 WB	PIPE CONNECTION	NA	15"

PIPE SCHEDULE							
FROM	TO	SIZE	TYPE	LENGTH	INV. IN	INV. OUT	REMARKS
I-1	MH-1	18"	RCP, CLASS IV	35'	TBD	TBD	.
S-2	MH-1	15"	RCP, CLASS IV	13'	TBD	TBD	.
C-1	MH-1	18"	RCP, CLASS IV	88'	TBD	TBD	.
S-1	ES-1	15"	RCP, CLASS IV	12'	TBD	TBD	.
I-3	ES-2	15"	RCP, CLASS IV	14'	TBD	TBD	.
I-5	MH-2	18"	RCP, CLASS IV	4'	TBD	TBD	.
I-6	I-5	18"	RCP, CLASS IV	198'	TBD	TBD	.
I-7	I-6	18"	RCP, CLASS IV	101'	TBD	TBD	.
S-3	I-7	15"	RCP, CLASS IV	106'	TBD	TBD	.
I-8	C-2	15"	RCP, CLASS IV	4'	TBD	TBD	.

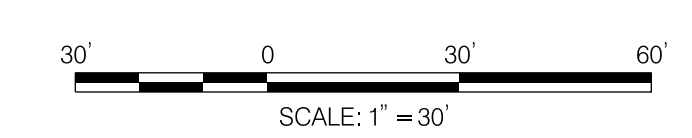
RIPRAP					
STATION	OFFSET	LENGTH	WIDTH	AREA (SY)	REMARKS
101+56	33' RT.	13'	8'	12	CLASS 1
101+58	127' RT.	8'	11'	10	CLASS 1

**LIMIT OF WORK**  
**T7108**  
**CLARKSVILLE PIKE**  
**STA. 101+00**



PAVEMENT LEGEND	
	PAVEMENT REMOVAL
	FULL DEPTH PAVEMENT
	FINE MILL AND OVERLAY
	ASPHALT SHARED USE PATH
	CONCRETE SIDEWALK

CURVE DATA						
CURVE	DELTA	Dc	R	L	T	E
DWA-1	47° 11' 48.29" RT	76° 23' 39.74"	75.00'	61.78'	32.77'	6.84'
DWA-2	40° 34' 21.67" RT	81° 51' 04.01"	70.00'	49.57'	25.87'	4.63'
DWA-3	92° 13' 50.03" RT	63° 39' 43.12"	90.00'	144.88'	93.57'	39.83'



"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_"

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_ CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_

CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_ CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY:

**Whitman, Reardon & Associates, LLP**  
 801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SRS					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

ROADWAY PLAN

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108

CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. PS 01

SCALE 1" = 30'

SHEET 10 OF 45

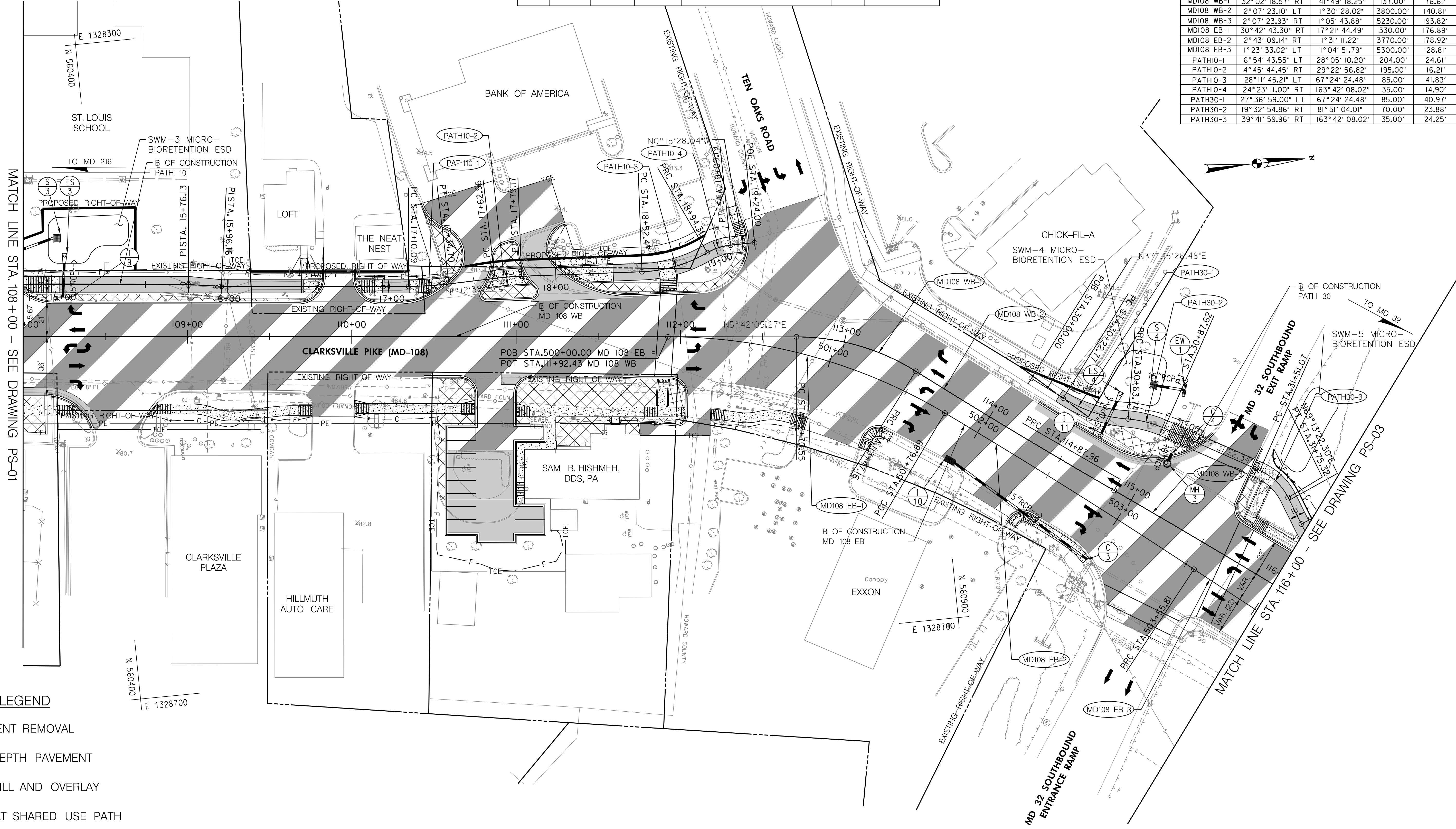
N:\2020-021\CADD\PHD-001\_32020201.dgn June 26, 2020

STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
I-9	108+24	21' LT.	MD 108 WB	MD-374.66 PRECAST OR CAST IN PLACE SHALLOW COG INLET	TBD	10' CURB OPENING
I-10	113+93	37' RT.	MD 108 WB	MD-374.70 PRECAST STANDARD TYPE S INLET DOUBLE GRATE TANDEM	TBD	CURVED-VANE GRATE
I-11	114+62	23' LT.	MD 108 WB	MD-374.66 PRECAST OR CAST IN PLACE SHALLOW COG INLET	TBD	5' CURB OPENING
MH-3	115+08	30' LT.	MD 108 WB	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES	TBD	.
S-3	108+20	60' LT.	MD 108 WB	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	NO OPENING

STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
S-4	114+78	68' LT.	MD 108 WB	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	.
EW-1	114+95	74' LT.	MD 108 WB	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15" PIPE
ES-3	108+25	45' LT.	MD 108 WB	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15" PIPE
ES-4	114+62	48' LT.	MD 108 WB	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15" PIPE
C-3	114+95	45' RT.	MD 108 WB	PIPE CONNECTION	NA	15" PIPE
C-4	115+07	37' LT	MD 108 WB	PIPE CONNECTION	NA	18" PIPE TO PIPE

PIPE SCHEDULE							
FROM	TO	SIZE	TYPE	LENGTH	INV. IN	INV. OUT	REMARKS
I-9	ES-3	15"	RCP, CLASS IV	21'	TBD	TBD	.
I-10	C-3	15"	RCP, CLASS IV	100'	TBD	TBD	.
I-11	ES-4	15"	RCP, CLASS IV	22'	TBD	TBD	.
S-4	EW-1	15"	RCP, CLASS IV	18'	TBD	TBD	.
MH-3	C-4	18"	RCP, CLASS IV	6'	TBD	TBD	.

CURVE DATA						
CURVE	DELTA	Dc	R	L	T	E
MD108 WB-1	32° 02' 18.57" RT	41° 49' 18.25"	137.00'	76.61'	39.33'	5.53'
MD108 WB-2	2° 07' 23.10" LT	1° 30' 28.02"	3800.00'	140.81'	70.41'	0.65'
MD108 WB-3	2° 07' 23.93" RT	1° 05' 43.88"	5230.00'	193.82'	96.92'	0.90'
MD108 EB-1	30° 42' 43.30" RT	17° 21' 44.49"	330.00'	176.89'	90.63'	12.22'
MD108 EB-2	2° 43' 09.14" RT	1° 31' 11.22"	3770.00'	178.92'	89.48'	1.06'
MD108 EB-3	1° 23' 33.02" LT	1° 04' 51.79"	5300.00'	128.81'	64.41'	0.39'
PATH10-1	6° 54' 43.55" LT	28° 05' 10.20"	204.00'	24.61'	12.32'	0.37'
PATH10-2	4° 45' 44.45" RT	29° 22' 56.82"	195.00'	16.21'	8.11'	0.17'
PATH10-3	28° 11' 45.21" LT	67° 24' 24.48"	85.00'	41.83'	21.35'	2.64'
PATH10-4	24° 23' 11.00" RT	163° 42' 08.02"	35.00'	14.90'	7.56'	0.81'
PATH30-1	27° 36' 59.00" LT	67° 24' 24.48"	85.00'	40.97'	20.89'	2.53'
PATH30-2	19° 32' 54.86" RT	81° 51' 04.01"	70.00'	23.88'	12.06'	1.03'
PATH30-3	39° 41' 59.96" RT	163° 42' 08.02"	35.00'	24.25'	12.64'	2.21'



- PAVEMENT LEGEND**
- PAVEMENT REMOVAL
  - FULL DEPTH PAVEMENT
  - FINE MILL AND OVERLAY
  - ASPHALT SHARED USE PATH
  - CONCRETE SIDEWALK

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_"

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_

CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY:

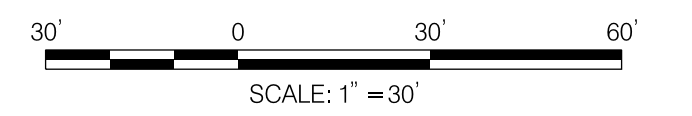
**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP			
DRN: SRS			
CHK: BRT			
DATE: 06/2020	BY	NO.	REVISION

ROADWAY PLAN

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND



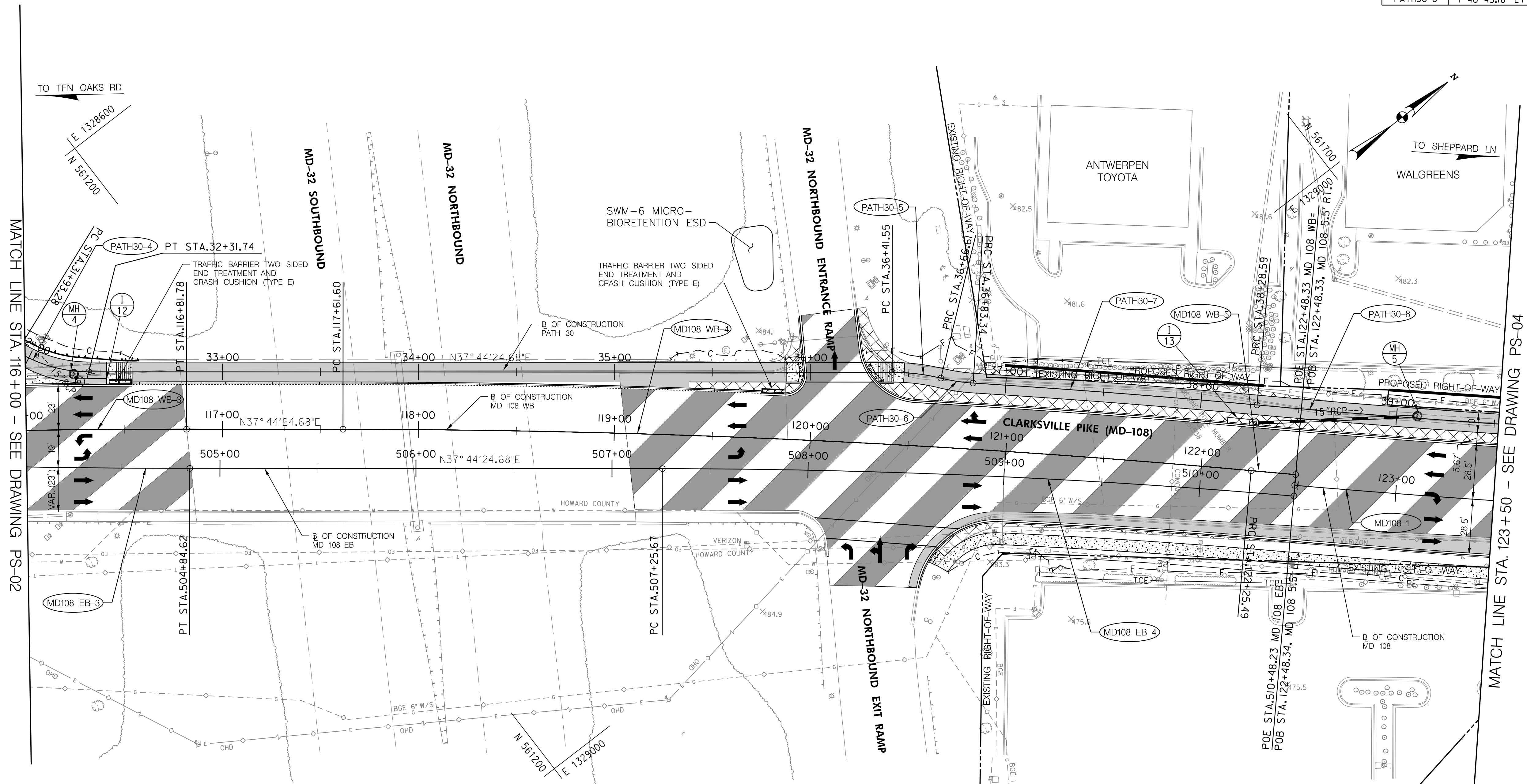
DWG. PS 02  
SCALE 1" = 30'  
SHEET 11 OF 45

N:\2020-021\CADD\PHD-P002\_30202021.dgn June 26, 2020

STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
I-12	I16+28	23' LT.	MD 108 WB	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET FOR 8" CURB	TBD	15' CURB OPENING
I-13	I22+25	23' LT.	MD 108 WB	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET FOR 8" CURB	TBD	15' CURB OPENING
MH-4	I16+25	28' LT.	MD 108 WB	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12' TO 24' PIPES	TBD	-
MH-5	I23+08	40' LT.	MD 108	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12' TO 24' PIPES	TBD	-

PIPE SCHEDULE							
FROM	TO	SIZE	TYPE	LENGTH	INV. IN	INV. OUT	REMARKS
I-12	MH-4	15'	RCP, CLASS IV	2'	TBD	TBD	-
I-13	MH-5	15'	RCP, CLASS IV	80'	TBD	TBD	-

CURVE DATA						
CURVE	DELTA	Dc	R	L	T	E
MD108 WB-3	2°07' 23.93" RT	1°05' 43.88"	5230.00'	193.82'	96.92'	0.90'
MD108 WB-4	5°08' 56.42" RT	1°06' 35.83"	5162.00'	463.89'	232.10'	5.22'
MD108 WB-5	0°14' 48.64" LT	1°04' 51.79"	5300.00'	22.83'	11.42'	0.01'
MD108 EB-3	1°23' 33.02" LT	1°04' 51.79"	5300.00'	128.81'	64.41'	0.39'
MD108 EB-4	4°54' 07.78" RT	1°31' 11.22"	3770.00'	322.56'	161.38'	3.45'
MD108-1	4°10' 17.57" LT	1°04' 47.75"	5305.00'	386.28'	193.22'	3.52'
PATH30-4	31°28' 57.63" LT	81°51' 04.01"	70.00'	38.46'	19.73'	2.73'
PATH30-5	13°40' 38.85" RT	54°34' 02.67"	105.00'	25.07'	12.59'	0.75'
PATH30-6	10°05' 19.54" LT	60°18' 40.85"	95.00'	16.73'	8.39'	0.37'
PATH30-7	1°33' 37.11" RT	1°04' 27.22"	5333.67'	145.25'	72.63'	0.49'
PATH30-8	1°40' 45.18" LT	1°05' 16.67"	5266.33'	154.34'	77.18'	0.57'



PAVEMENT LEGEND

- PAVEMENT REMOVAL
- FULL DEPTH PAVEMENT
- FINE MILL AND OVERLAY
- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



Whitman, Requardt & Associates, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SRS					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

ROADWAY PLAN

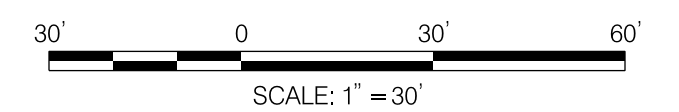
CAPITAL PROJECT CONTRACT NO. D7108

CLARKVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5

HOWARD COUNTY, MARYLAND



DWG.  
PS 03

SCALE  
1" = 30'

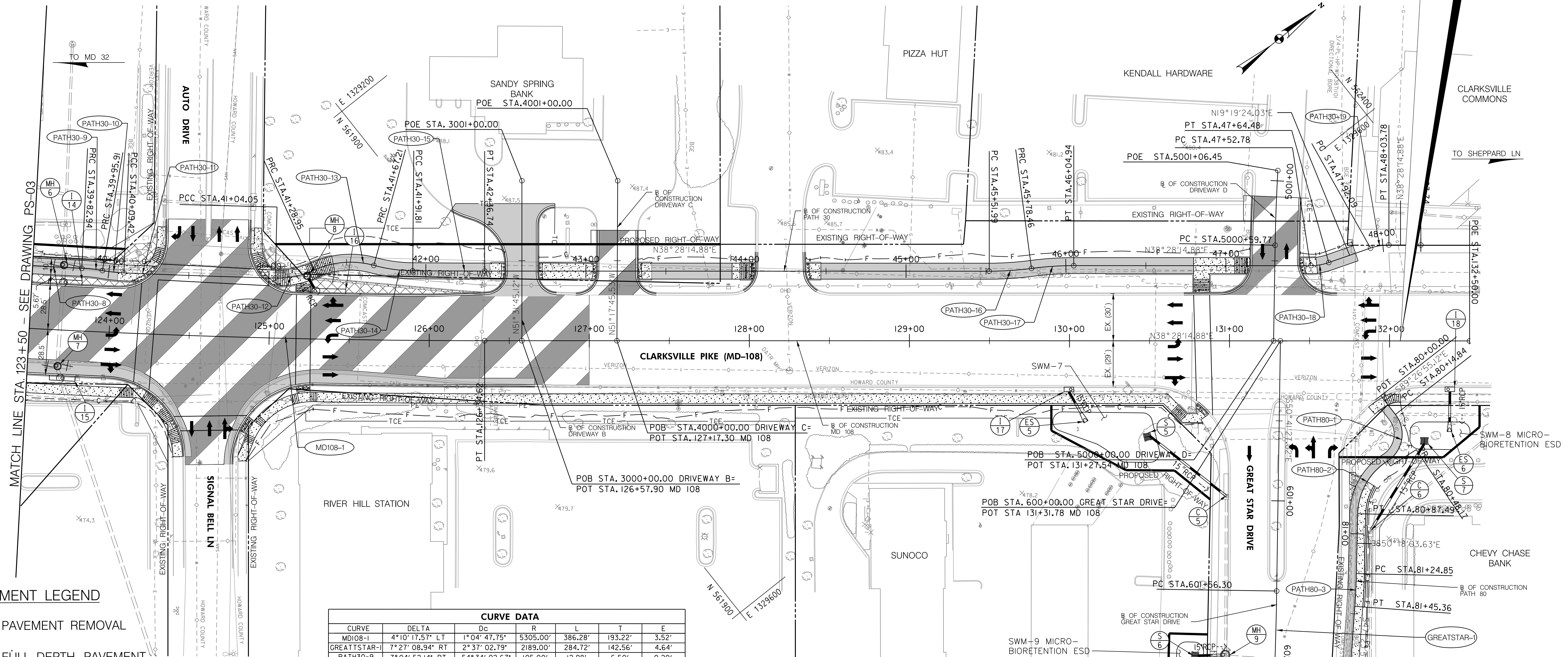
SHEET  
12 of 45

STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
I-14	I23+70	29' LT.	MD 108	MD-374.63 PRECAST OR CAST IN PLACE CIRCULAR COS INLET	TBD	20' CURB OPENING
I-15	I23+71	29' RT.	MD 108	MD-374.63 PRECAST OR CAST IN PLACE CIRCULAR COS INLET	TBD	15' CURB OPENING
I-16	I25+29	29' RT.	MD 108	MD-374.62 PRECAST OR CAST IN PLACE CIRCULAR COG INLET	TBD	20' CURB OPENING
I-17	I23+00	29' RT.	MD 108	MD-374.66 PRECAST OR CAST IN PLACE SHALLOW COG INLET	TBD	5' CURB OPENING
I-18	I32+38	29' RT.	MD 108	MD-374.66 PRECAST OR CAST IN PLACE SHALLOW COG INLET	TBD	5' CURB OPENING
MH-6	I23+70	41' LT.	MD 108	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES	TBD	.
MH-7	I23+69	23' RT.	MD 108	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES	TBD	.
MH-8	I25+23	39' LT.	MD 108	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES	TBD	.

STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
MH-9	601+97	31' RT.	GREAT STAR DR.	MD-384.01 48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES	TBD	.
S-5	130+49	60' RT.	MD 108	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	.
S-6	601+98	50' RT.	GREAT STAR DR.	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	.
S-7	132+22	63' RT.	MD 108	MD-378.11 PRECAST STANDARD DOUBLE OPENING TYPE K INLET OPEN-END GRATE	TBD	.
ES-5	130+07	45' RT.	MD 108	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15" PIPE
ES-6	132+38	50' RT.	MD 108	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15" PIPE
C-5	600+97	33' RT.	MD 108	PIPE CONNECTION	NA	15" PIPE
C-6	601+17	58' LT.	MD 108	PIPE CONNECTION	NA	15" PIPE

PIPE SCHEDULE							
FROM	TO	SIZE	TYPE	LENGTH	INV. IN	INV. OUT	REMARKS
I-16	MH-8	15"	RCP, CLASS IV	8'	TBD	TBD	.
I-17	ES-5	15"	RCP, CLASS IV	16'	TBD	TBD	.
S-5	C-5	15"	RCP, CLASS IV	61'	TBD	TBD	.
S-6	MH-9	15"	RCP, CLASS IV	15'	TBD	TBD	.
S-7	C-6	15"	RCP, CLASS IV	63'	TBD	TBD	.
I-18	ES-6	15"	RCP, CLASS IV	19'	TBD	TBD	.

**LIMIT OF WORK**  
 T7108  
 CLARKSVILLE PIKE  
 STA. 132+07



**PAVEMENT LEGEND**

[Symbol]	PAVEMENT REMOVAL
[Symbol]	FULL DEPTH PAVEMENT
[Symbol]	FINE MILL AND OVERLAY
[Symbol]	ASPHALT SHARED USE PATH
[Symbol]	CONCRETE SIDEWALK

**CURVE DATA**

CURVE	DELTA	Dc	R	L	T	E
MD108-1	4°10'17.57" LT	1°04'47.75"	5305.00'	386.28'	193.22'	3.52'
GREATSTAR-1	7°27'08.94" RT	2°37'02.79"	2189.00'	284.72'	142.56'	4.64'
PATH30-9	7°04'52.14" RT	54°34'02.67"	105.00'	12.98'	6.50'	0.20'
PATH30-10	7°22'06.37" LT	54°34'02.67"	105.00'	13.50'	6.76'	0.22'
PATH30-11	1°01'45.38" LT	1°05'15.43"	5268.00'	94.64'	47.32'	0.21'
PATH30-12	25°56'28.27" LT	104°10'26.92"	55.00'	24.90'	12.67'	1.44'
PATH30-13	39°50'56.95" RT	104°10'26.92"	55.00'	38.25'	19.94'	3.50'
PATH30-14	14°50'29.02" LT	60°18'40.85"	95.00'	24.61'	12.37'	0.80'
PATH30-15	0°29'21.08" LT	1°05'19.89"	5262.00'	44.93'	22.46'	0.05'
PATH30-16	7°35'06.20" LT	28°38'52.40"	200.00'	26.48'	13.26'	0.44'
PATH30-17	7°35'06.20" RT	28°38'52.40"	200.00'	26.48'	13.26'	0.44'
PATH30-18	19°08'50.85" LT	163°42'08.02"	35.00'	11.70'	5.90'	0.49'
PATH30-19	19°08'50.85" RT	163°42'08.02"	35.00'	11.70'	5.90'	0.49'
PATH80-1	95°28'14.89" RT	286°28'44.03"	20.00'	33.32'	22.01'	9.74'
PATH80-2	56°19'23.40" LT	143°14'22.02"	40.00'	39.32'	21.41'	5.37'
PATH80-3	2°54'07.70" RT	14°08'49.58"	405.00'	20.51'	10.26'	0.13'

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_"

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND.

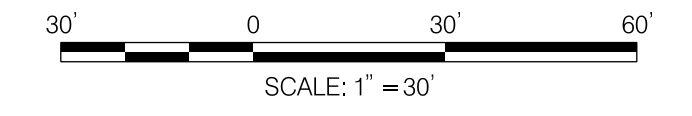
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
 CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY:  
  
**Whitman, Requardt & Associates, LLP**  
 801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SRS					
CHK: BRT					
DATE: 06/2020	BY NO.	REVISION	DATE	ADC MAP NO. 4933	GRID NO. K7

ROADWAY PLAN

CAPITAL PROJECT CONTRACT NO. D7108  
 CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
 PRELIMINARY SUBMITTAL (30%)  
 ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

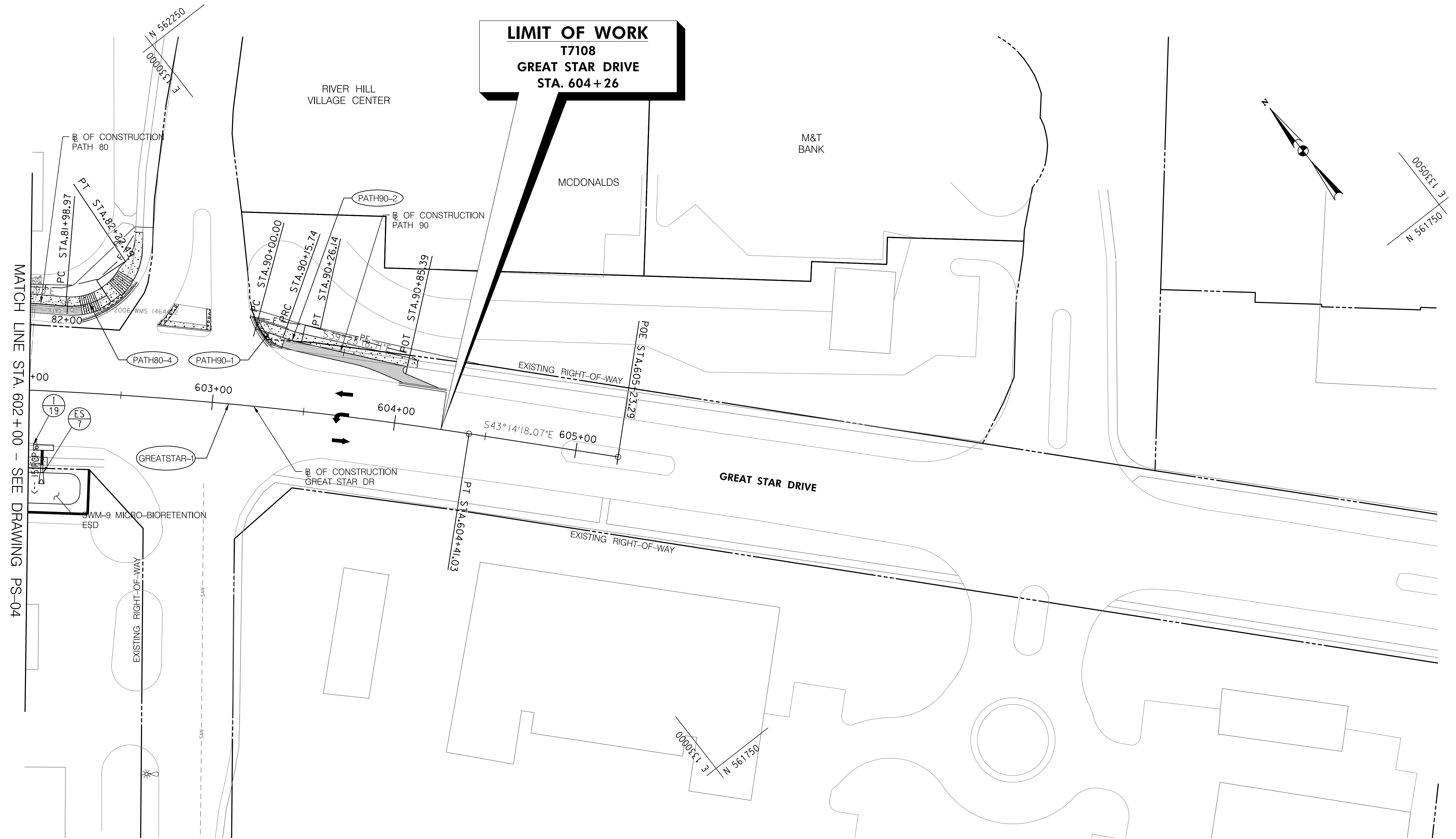


DWG. PS 04  
 SCALE 1" = 30'  
 SHEET 13 of 45

N:\2020-021\CADD\PHD-P004\_30202021.dgn  
 June 26, 2020

STRUCTURE SCHEDULE						
NO.	STATION	OFFSET	BASELINE	MD STANDARD NO., TYPE	EL.	REMARKS
I-19	602+09	29' RT.	GREAT STAR DR.	MD-374.66 PRECAST OR CAST IN PLACE SHALLOW COB INLET	TBD	10' CURB OPENING
ES-7	602+09	45' RT.	GREAT STAR DR.	MD-368.01 STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE	TBD	15' PIPE

PIPE SCHEDULE							
FROM	TO	SIZE	TYPE	LENGTH	INV. IN	INV. OUT	REMARKS
I-19	ES-7	15"	RCP, CLASS IV	13'	TBD	TBD	

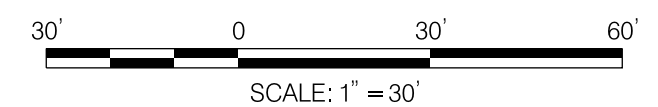


**PAVEMENT LEGEND**

- PAVEMENT REMOVAL
- FULL DEPTH PAVEMENT
- FINE MILL AND OVERLAY
- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK

CURVE DATA						
CURVE	DELTA	Dc	R	L	T	E
GREATSTAR-I	7° 27' 08.94" RT	2° 37' 02.79"	2189.00'	284.72'	142.56'	4.64'
PATH80-4	38° 30' 07.33" LT	163° 42' 08.02"	35.00'	23.52'	12.22'	2.07'
PATH90-1	4° 37' 28.77" RT	29° 22' 56.82"	195.00'	15.74'	7.87'	0.16'
PATH90-2	7° 00' 42.15" LT	67° 24' 24.48"	85.00'	10.40'	5.21'	0.16'

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_"



N:\3202-021\CADD\PHD-P005\_3202021.dgn June 26, 2020

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_

CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY:

**Whitman, Reardon & Associates, LLP**  
201 South Carolina Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SRS					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

ROADWAY PLAN

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108

CLARKVILLE - RIVER HILL STREETScape IMPROVEMENTS

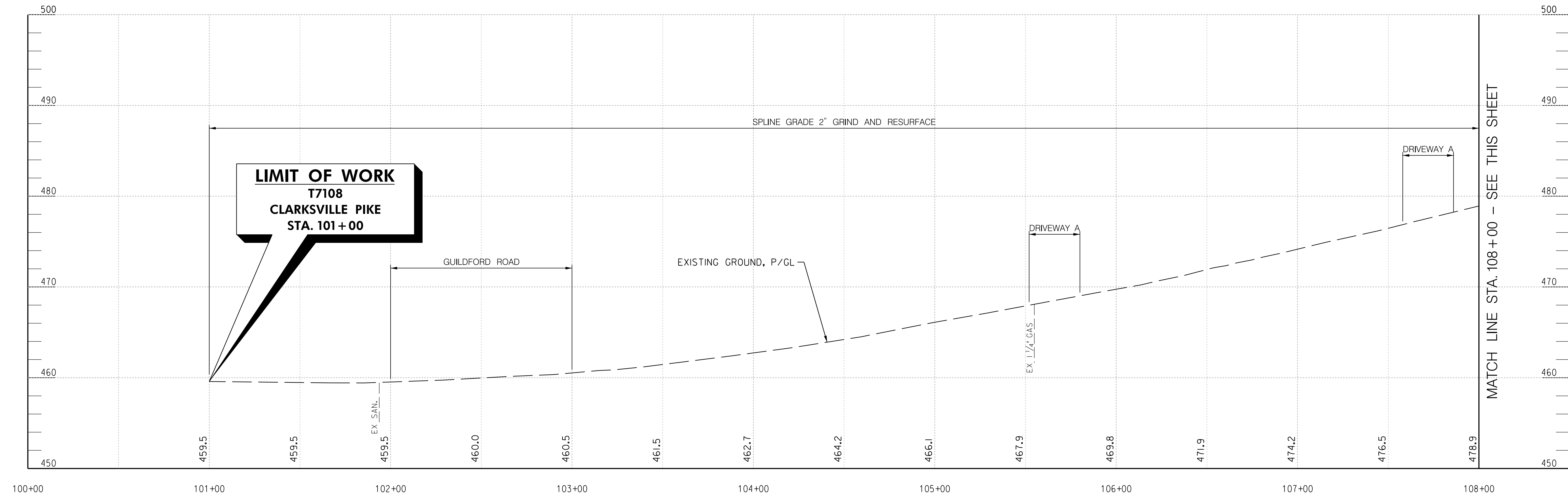
PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. PS 05

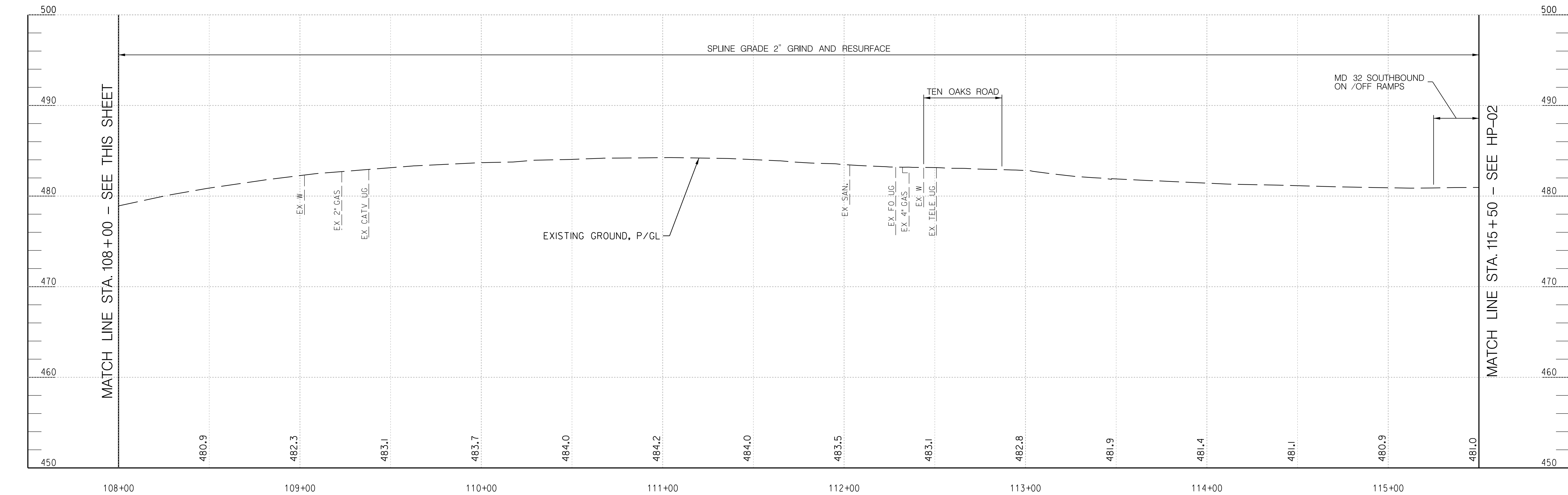
SCALE 1" = 30'

SHEET 14 OF 45



MD 108 WB

SCALE:  
H: 1" = 30'  
V: 1" = 6'



MD 108 WB

SCALE:  
H: 1" = 30'  
V: 1" = 6'

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE PROFILE

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108

CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

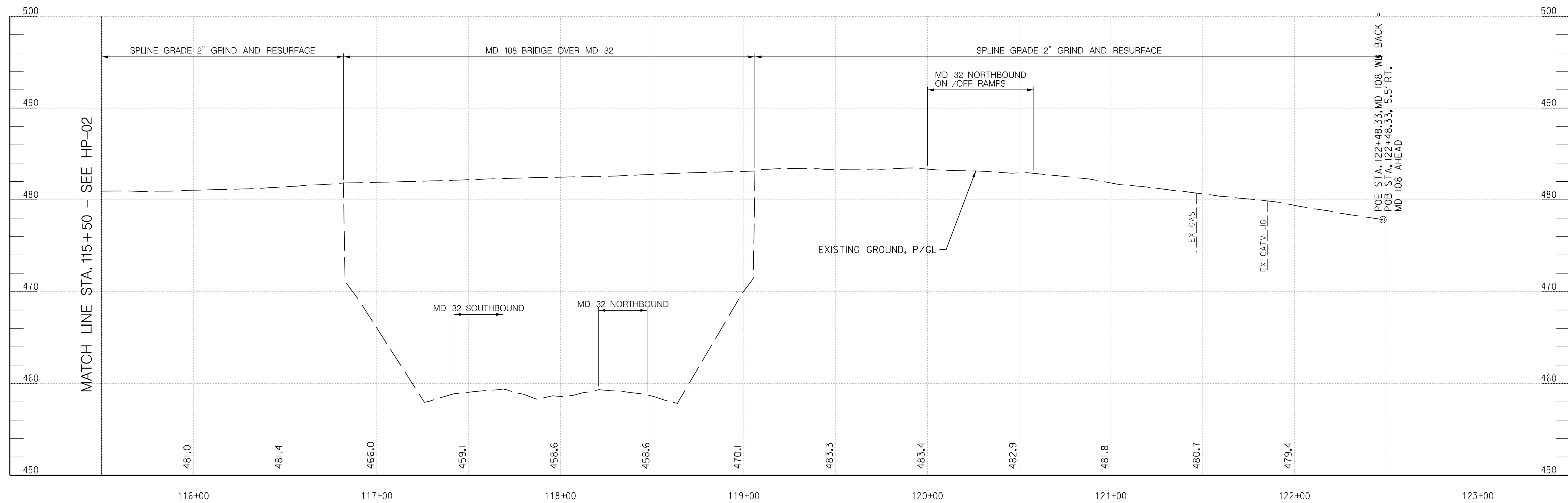
ELECTION DISTRICT 4/5

HOWARD COUNTY, MARYLAND

DWG.  
HP 01

SCALE  
1" = 30'

SHEET  
15 OF 45



MD 108 WB

SCALE:  
H: 1" = 30'  
V: 1" = 6'

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

CLARKSVILLE PIKE PROFILE

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108

CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5

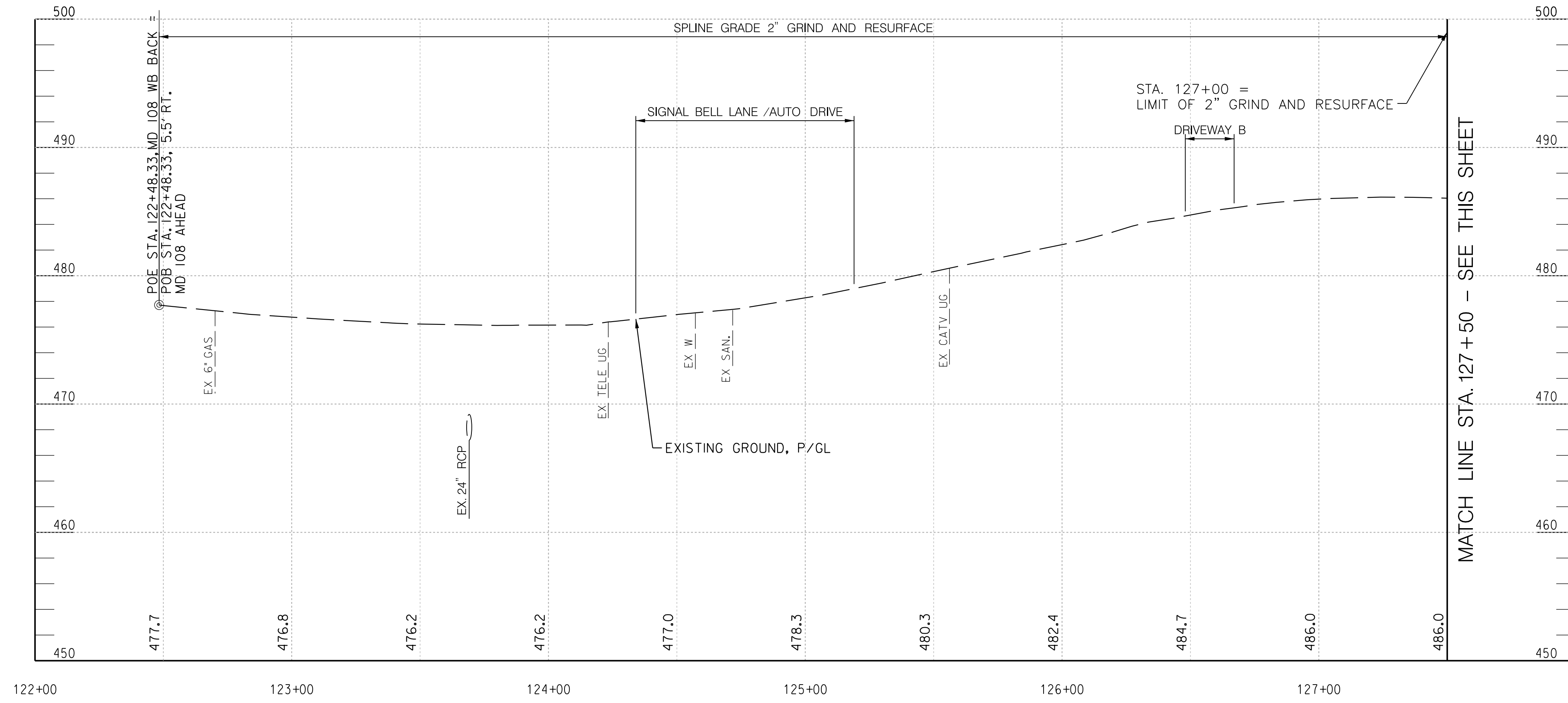
HOWARD COUNTY, MARYLAND

DWG.  
HP 02

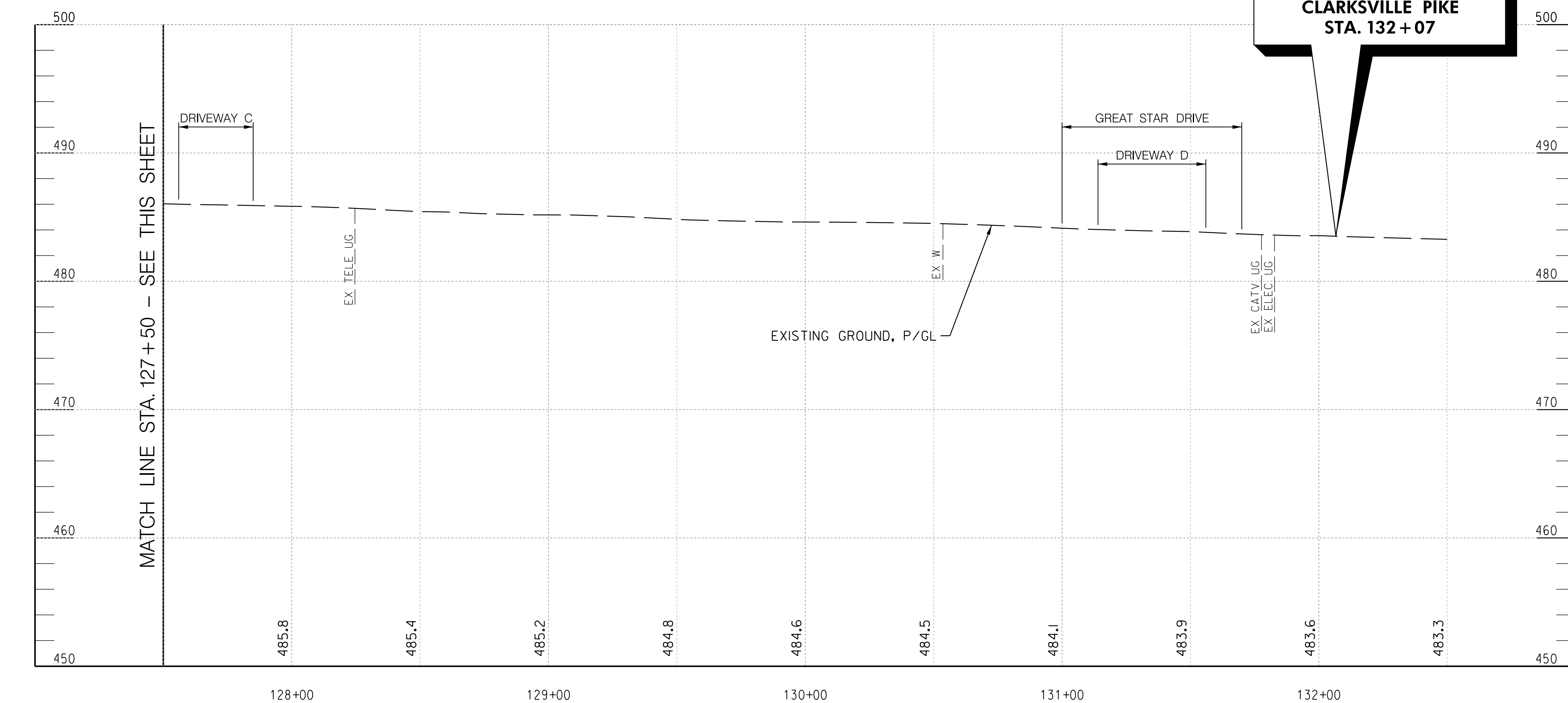
SCALE  
1" = 30'

SHEET  
16 OF 45





MD 108  
SCALE:  
H: 1" = 30'  
V: 1" = 6'



MD 108  
SCALE:  
H: 1" = 30'  
V: 1" = 6'

**LIMIT OF WORK**  
T7108  
CLARKSVILLE PIKE  
STA. 132+07

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_ CHIEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_ CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. \_\_\_\_\_ DATE \_\_\_\_\_

PREPARED BY :

**WRA**  
**Whitman, Reardon & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

CLARKSVILLE PIKE PROFILE

ADC MAP NO. 4933 GRID NO. K7

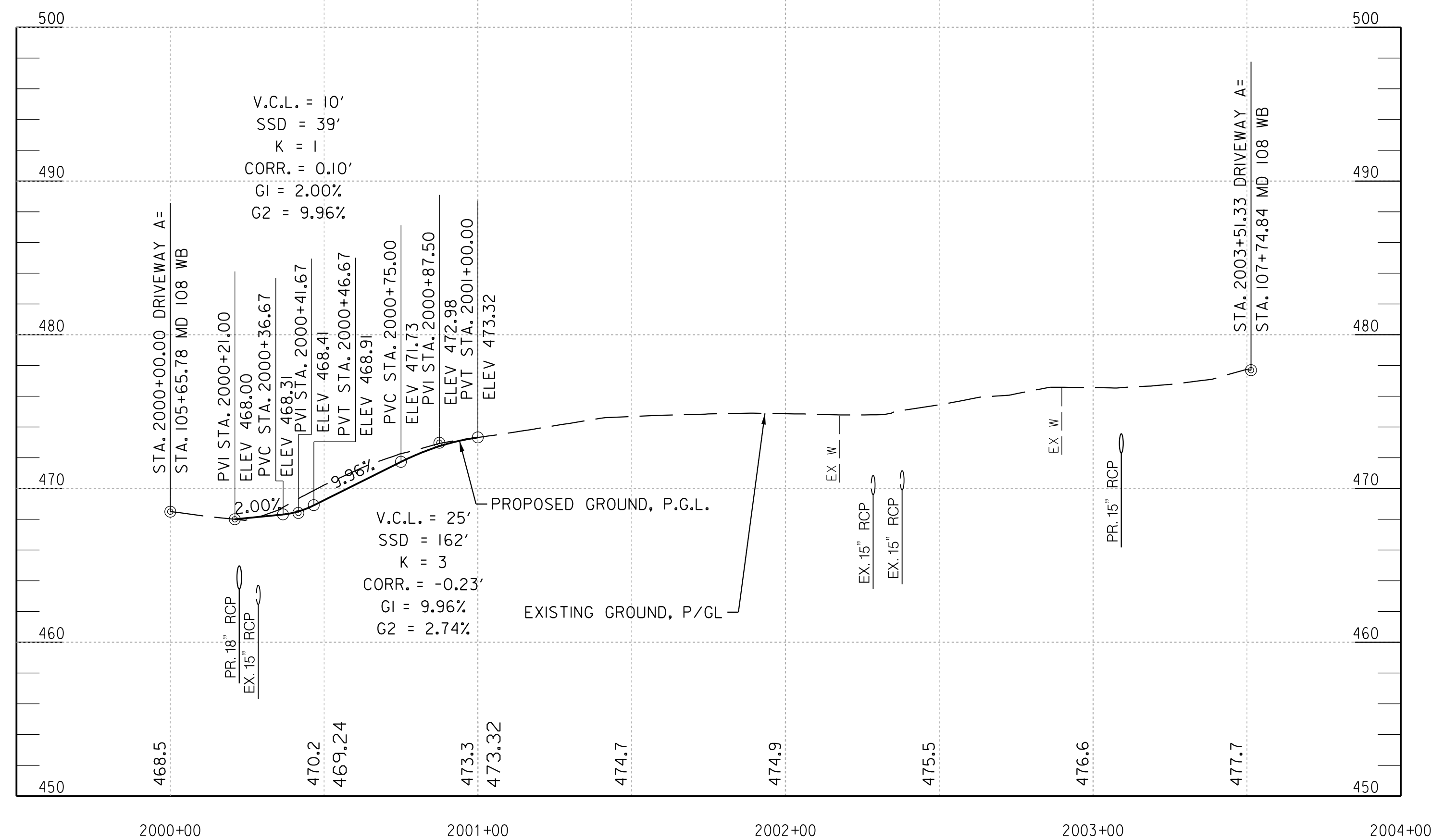
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
HP 03

SCALE  
1" = 30'

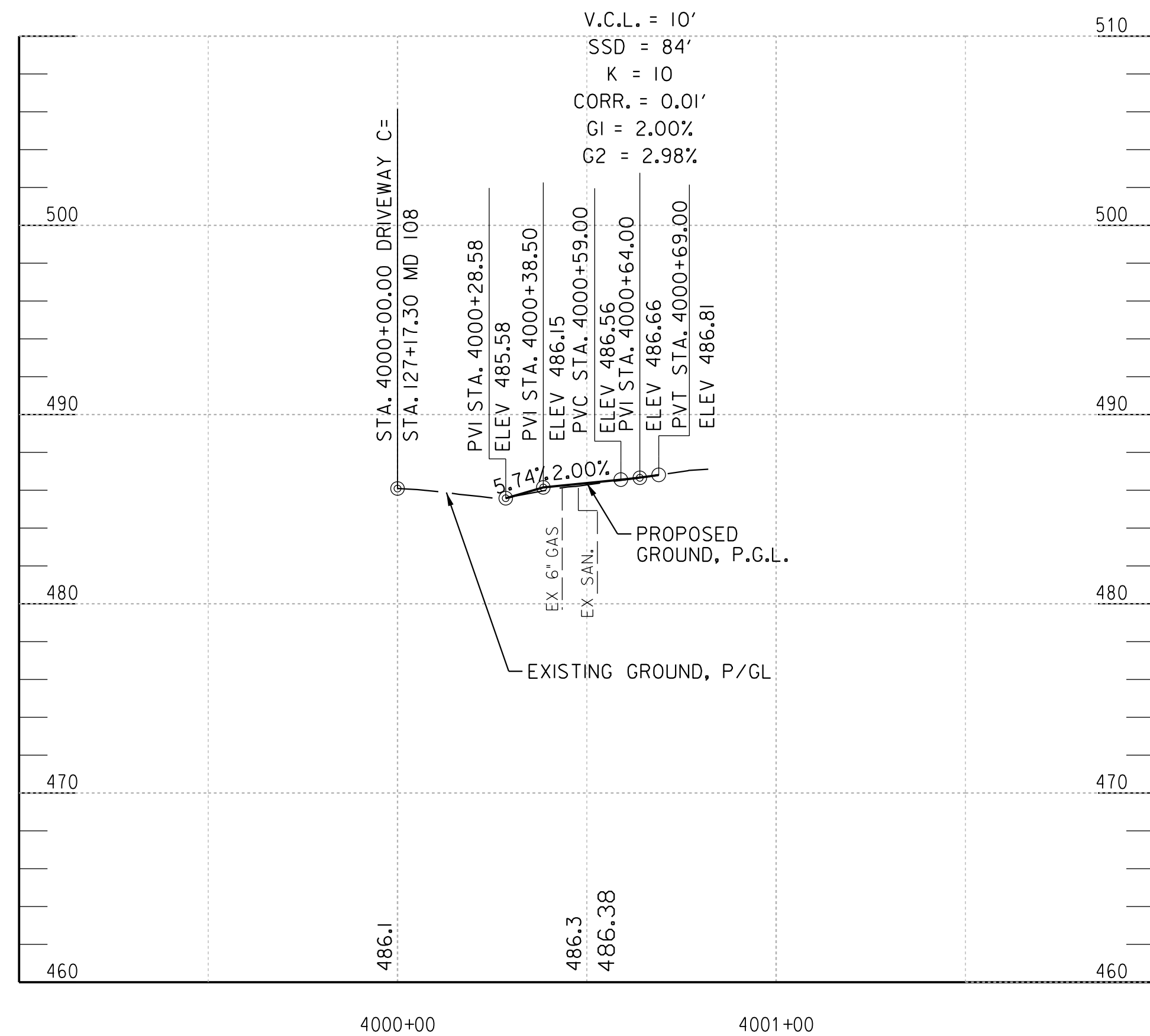
SHEET  
17 OF 45

N:\3202-021\CADD\PH-003\_3202021.dgn  
June 26, 2020



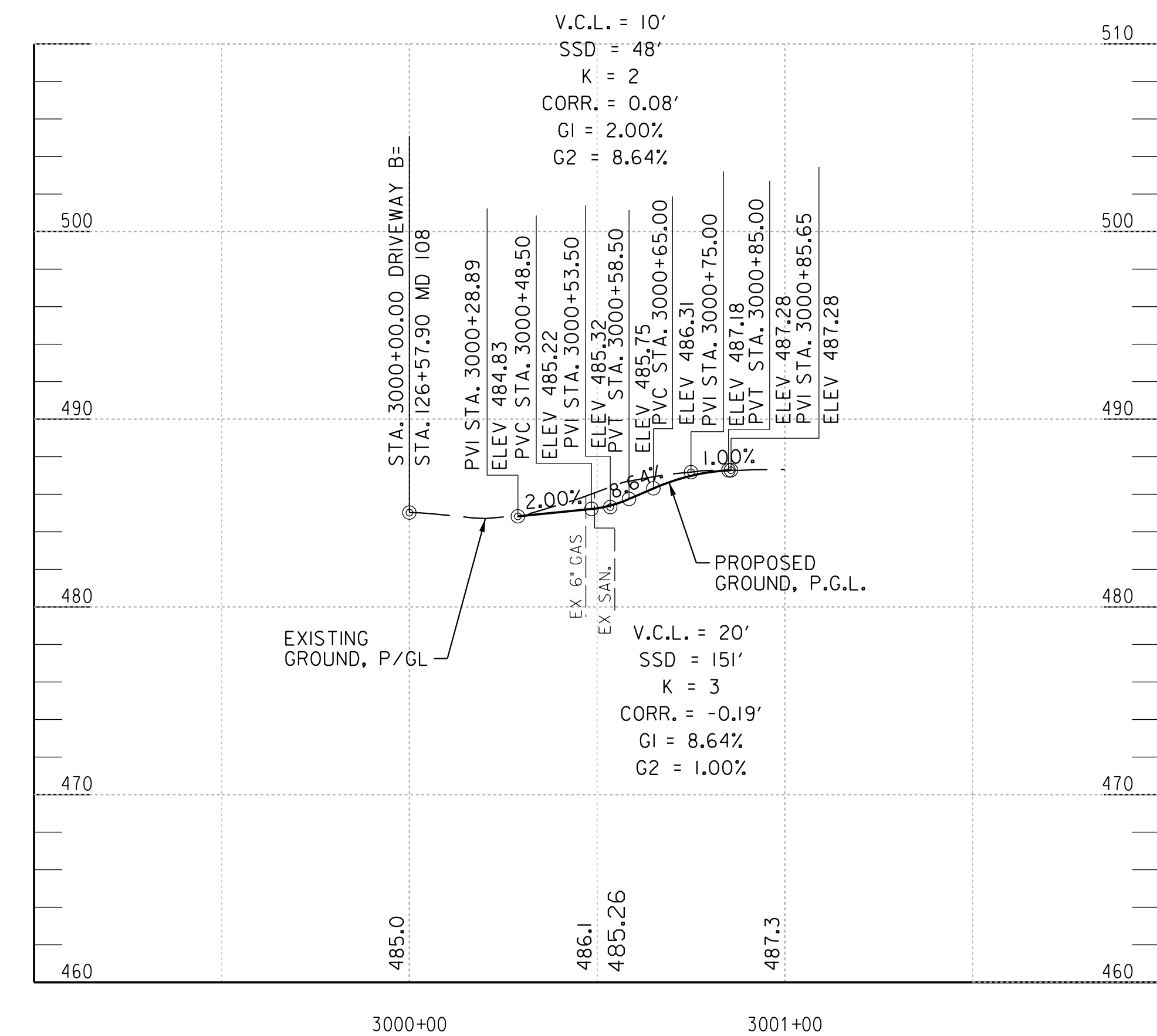
**DRIVEWAY A**

SCALE:  
H: 1" = 30'  
V: 1" = 6'



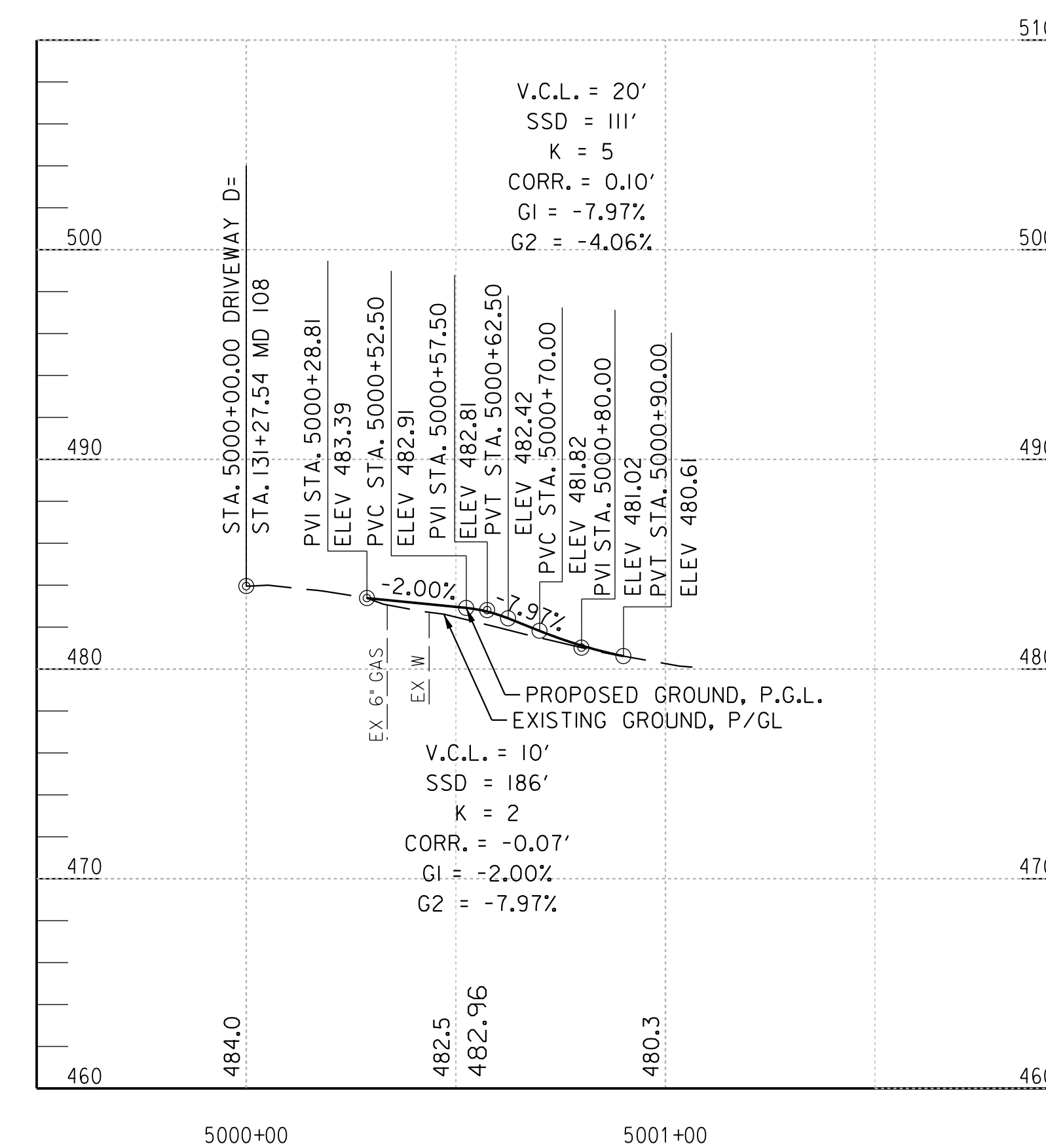
**DRIVEWAY C**

SCALE:  
H: 1" = 30'  
V: 1" = 6'



**DRIVEWAY B**

SCALE:  
H: 1" = 30'  
V: 1" = 6'



**DRIVEWAY D**

SCALE:  
H: 1" = 30'  
V: 1" = 6'

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES: SEP			
DRN: SEP			
CHK: BRT			
DATE: 06/2020	BY	NO.	REVISION

DRIVEWAY PROFILES

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108

CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

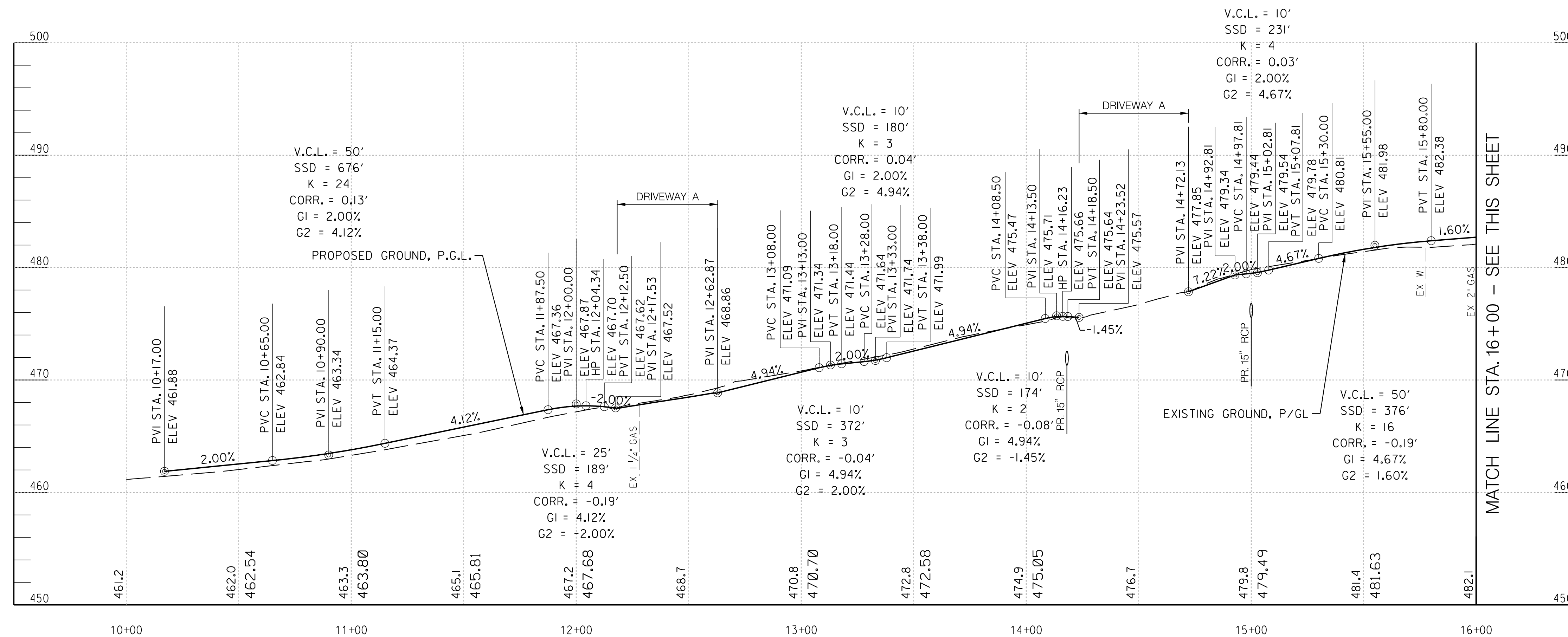
ELECTION DISTRICT 4/5

HOWARD COUNTY, MARYLAND

DWG.  
HP 04

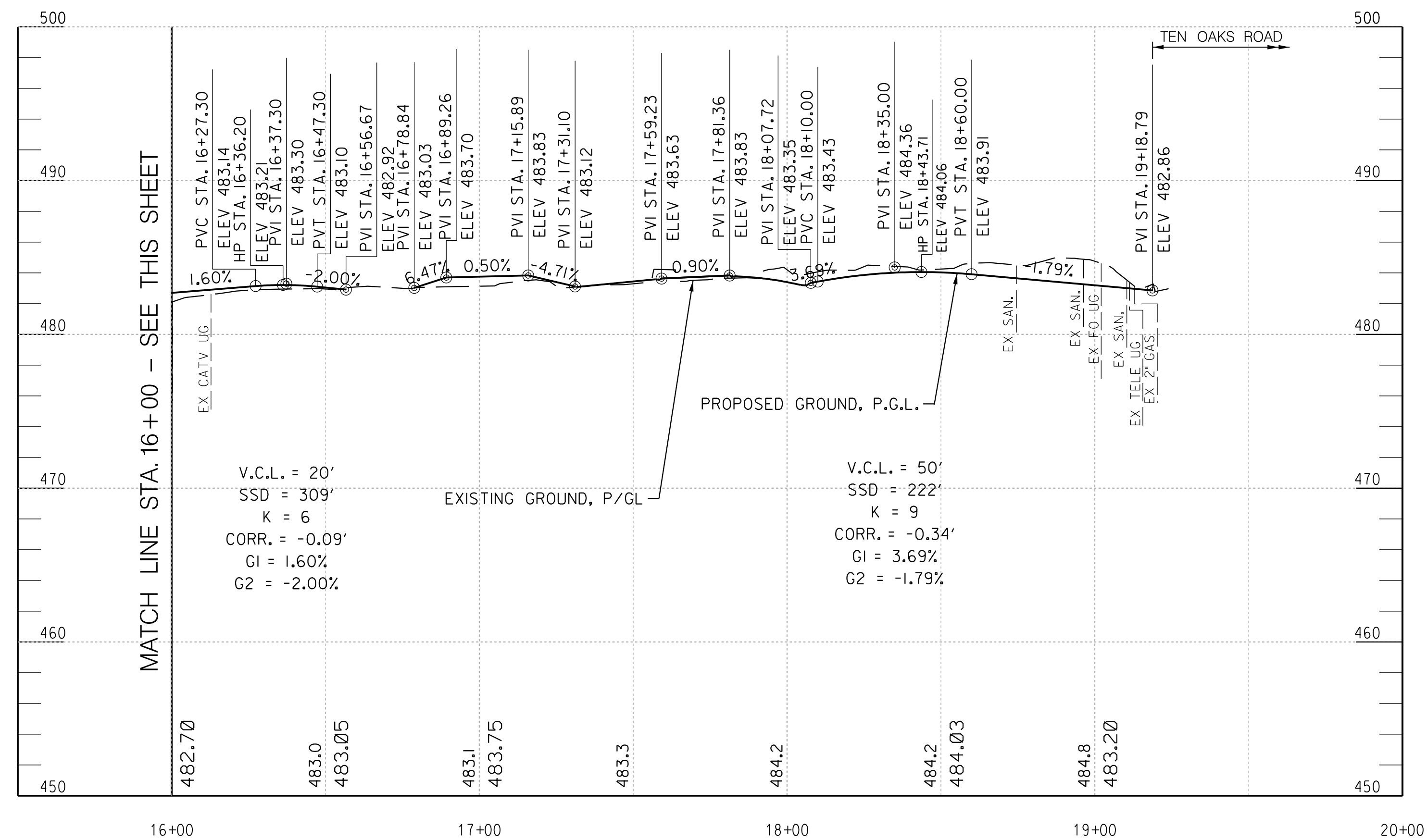
SCALE  
1" = 30'

SHEET  
18 OF 45



CLARKVILLE PIKE SHARED USE PATH

SCALE:  
H: 1" = 30'  
V: 1" = 6'



CLARKVILLE PIKE SHARED USE PATH

SCALE:  
H: 1" = 30'  
V: 1" = 6'

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



Whitman, Requardt & Associates, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

SHARED USE PATH PROFILES

CAPITAL PROJECT CONTRACT NO. D7108

CLARKVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5

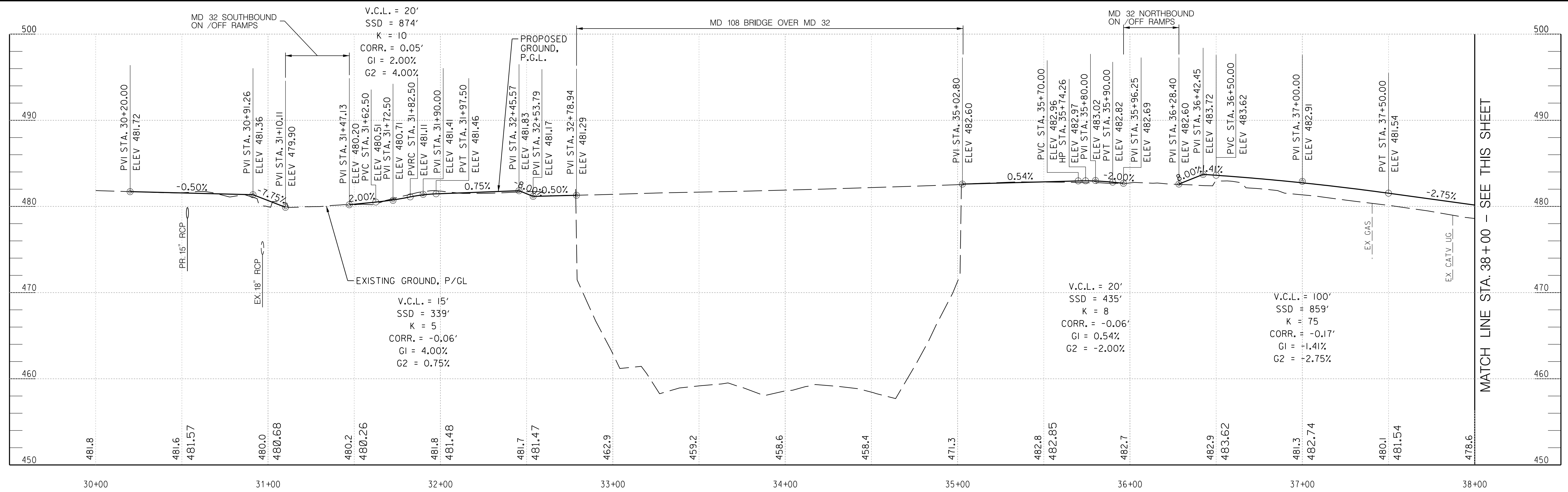
HOWARD COUNTY, MARYLAND

DWG.  
HP 05

SCALE  
1" = 30'

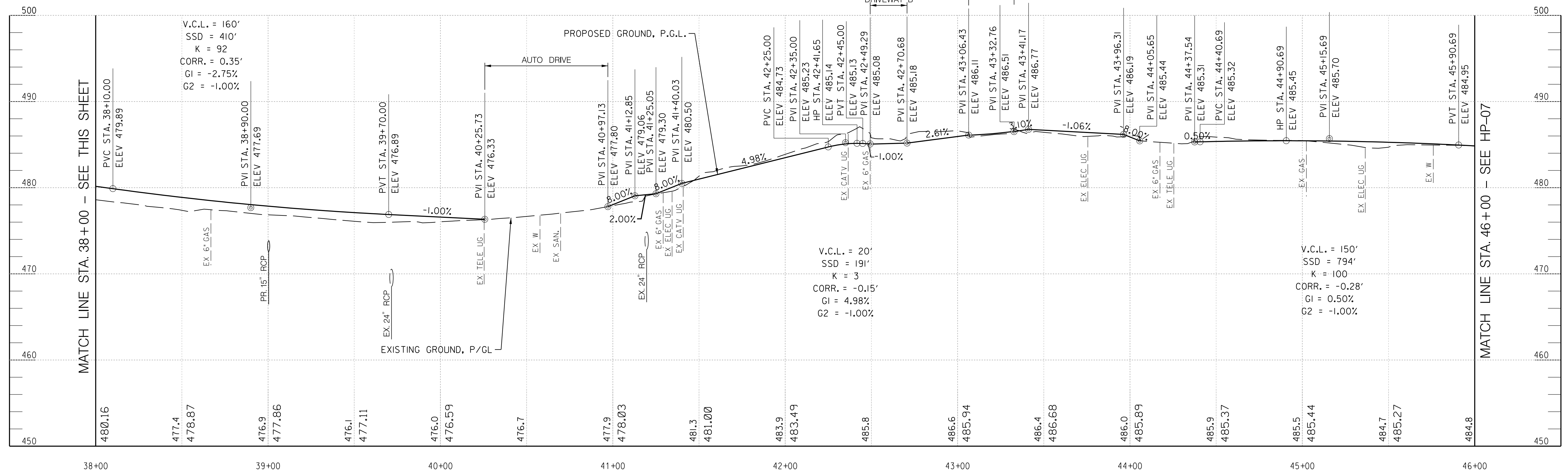
SHEET  
19 OF 45

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE



CLARKVILLE PIKE SHARED USE PATH

SCALE:  
H: 1" = 30'  
V: 1" = 6'



CLARKVILLE PIKE SHARED USE PATH

SCALE:  
H: 1" = 30'  
V: 1" = 6'

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY:

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

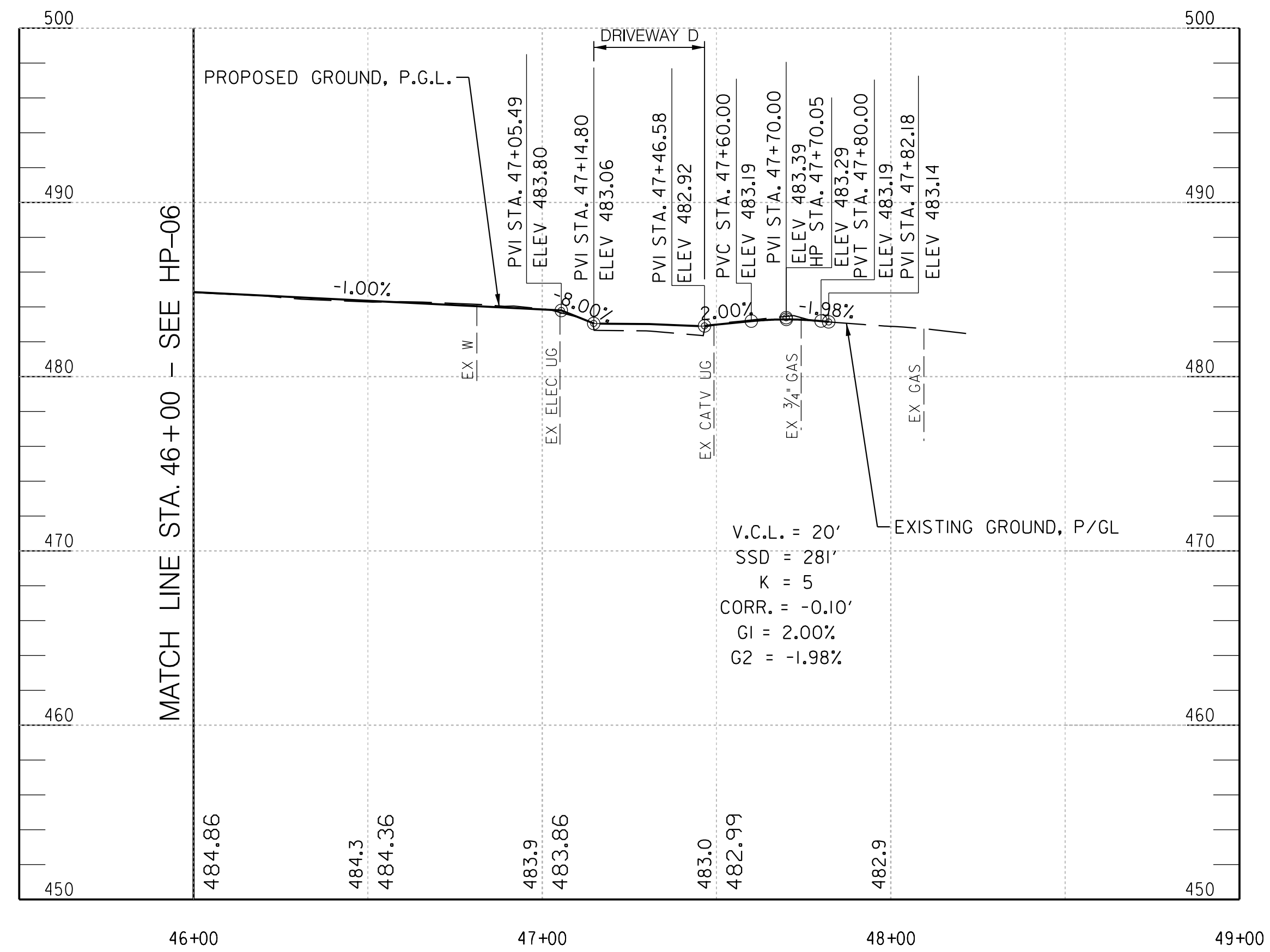
SHARED USE PATH PROFILES

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5  
HOWARD COUNTY, MARYLAND

DWG.  
HP 06  
SCALE  
1" = 30'  
SHEET  
20 OF 45

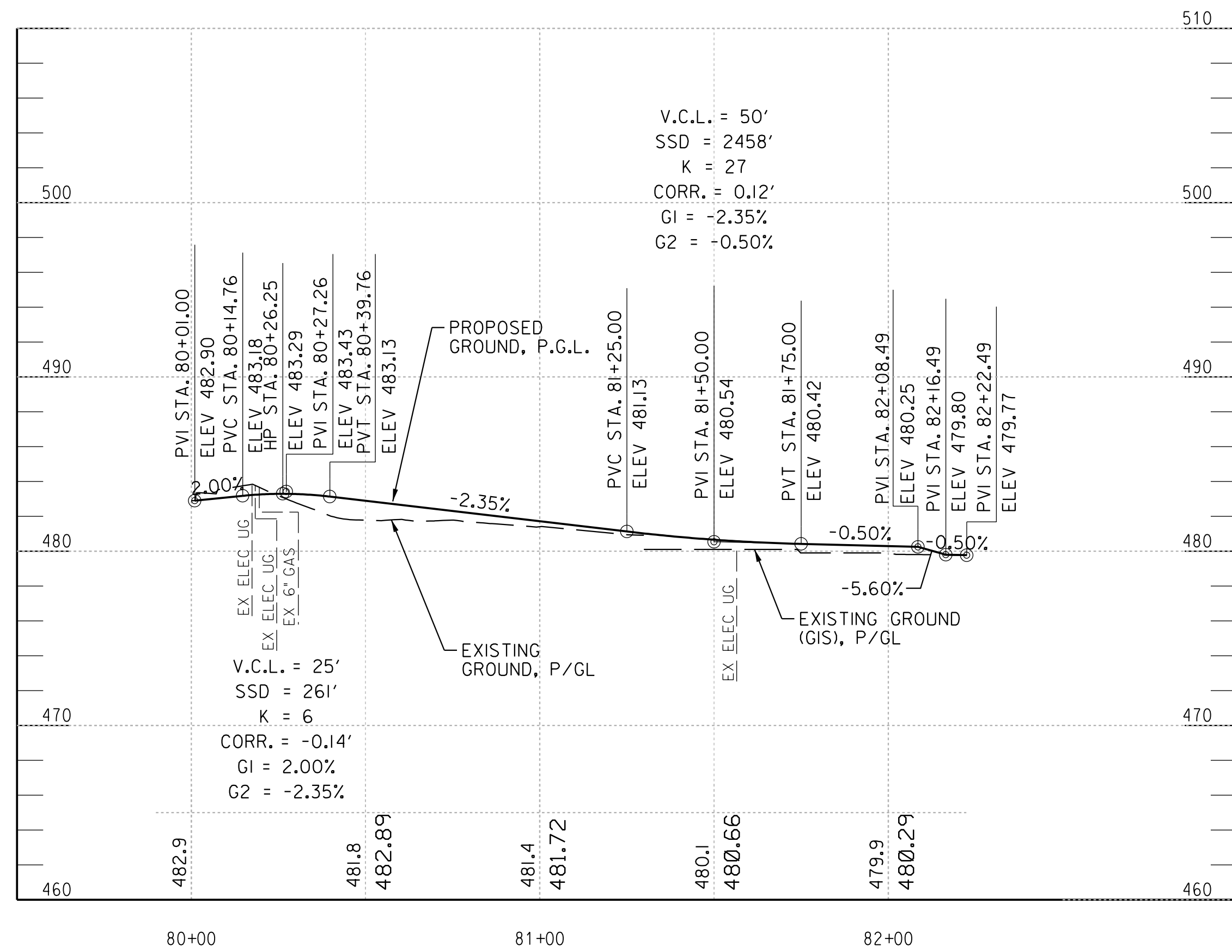
N:\2020-021\CADD\HP-006\_3020201.dgn  
June 26, 2020

DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV.	DATE



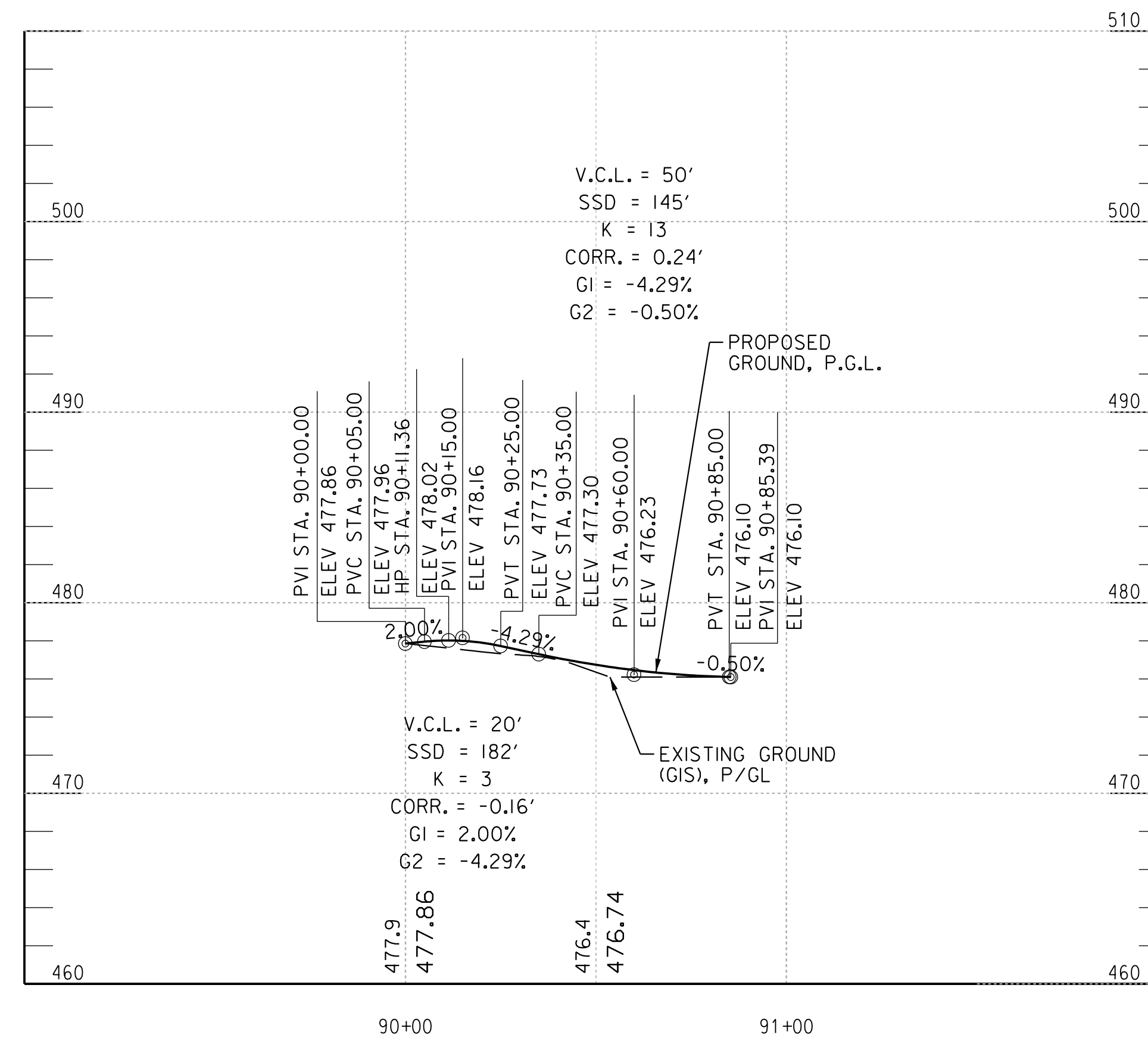
CLARKVILLE PIKE SHARED USE PATH

SCALE:  
H: 1" = 30'  
V: 1" = 6'



GREAT STAR SHARED USE PATH

SCALE:  
H: 1" = 30'  
V: 1" = 6'



SHARED USE PATH PROFILES

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

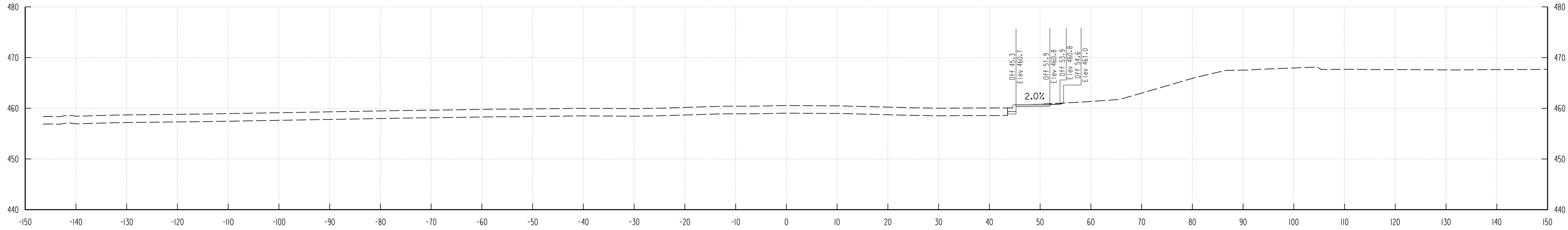
ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

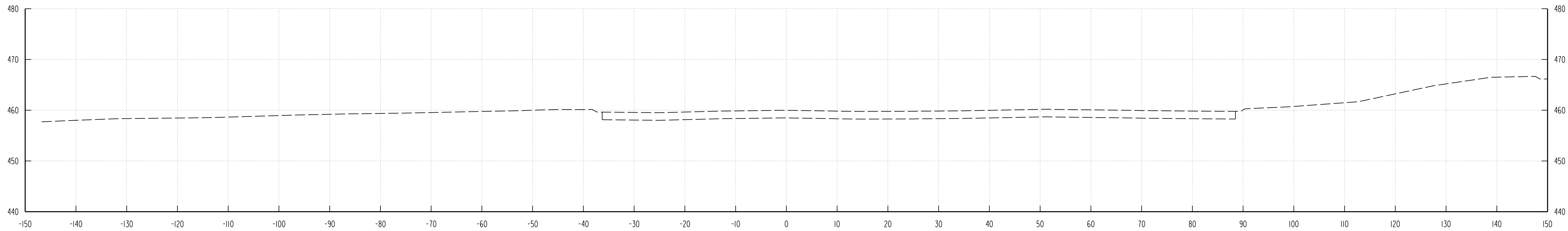
DWG.  
HP 07

SCALE  
1" = 30'

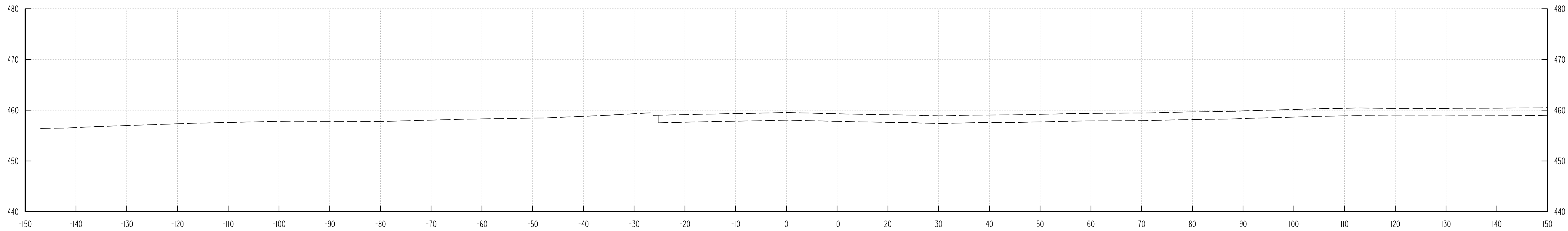
SHEET  
21 of 45



103+00



102+50



102+00

102+00 103+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5

HOWARD COUNTY, MARYLAND

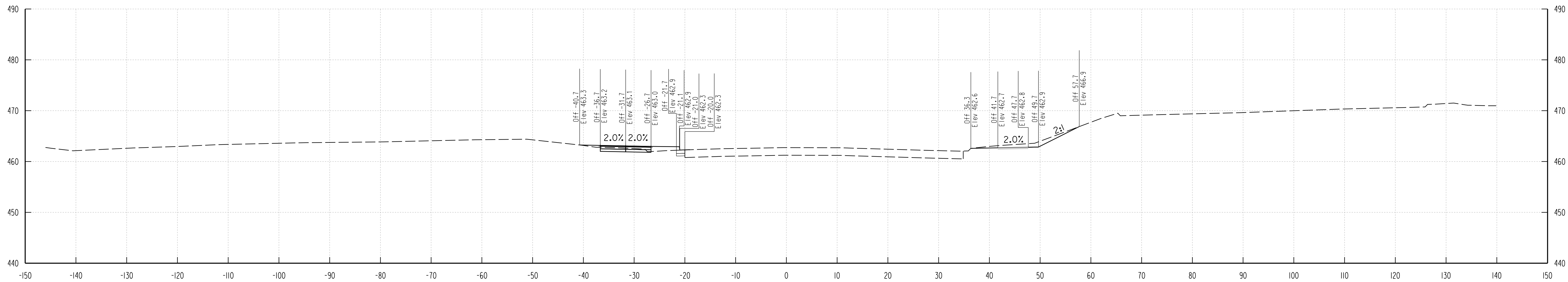
DWG.  
XS 01

SCALE  
1" = 10'

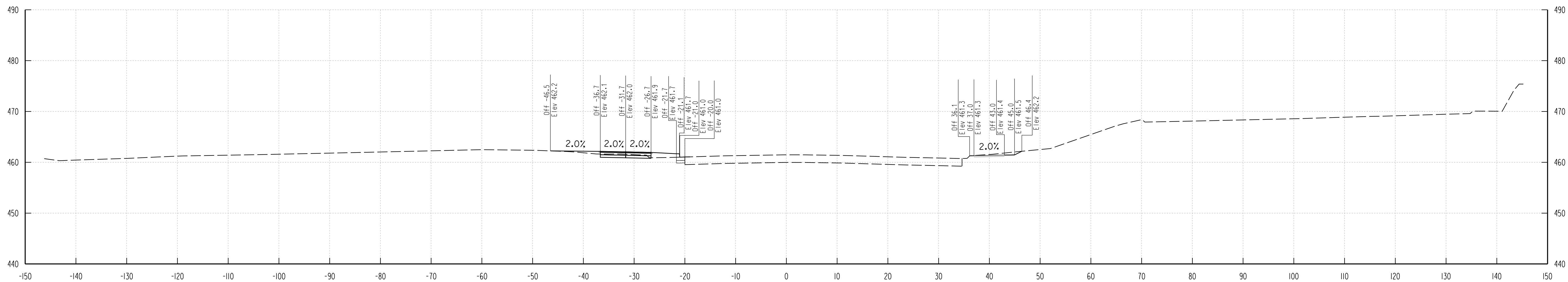
SHEET  
22 OF 45

N:\3202-021\CADD\PHC-X01\_3202021.dgn  
June 26, 2020

DIRECTOR OF PUBLIC WORKS DATE  
CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE  
CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE



104+00



103+50

103+50 104+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



Whitman, Requardt & Associates, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

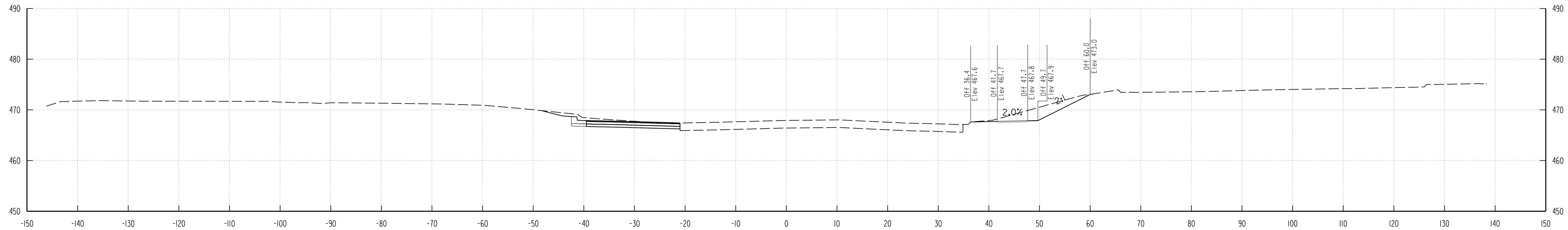
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
XS 02

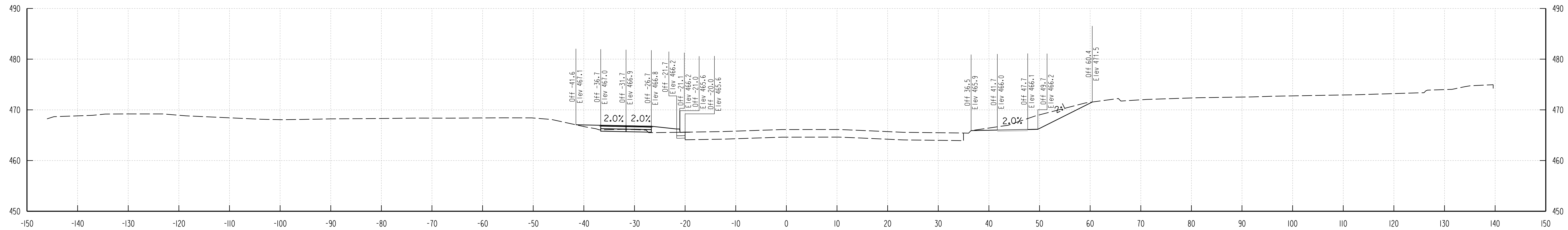
SCALE  
1" = 10'

SHEET  
23 OF 45

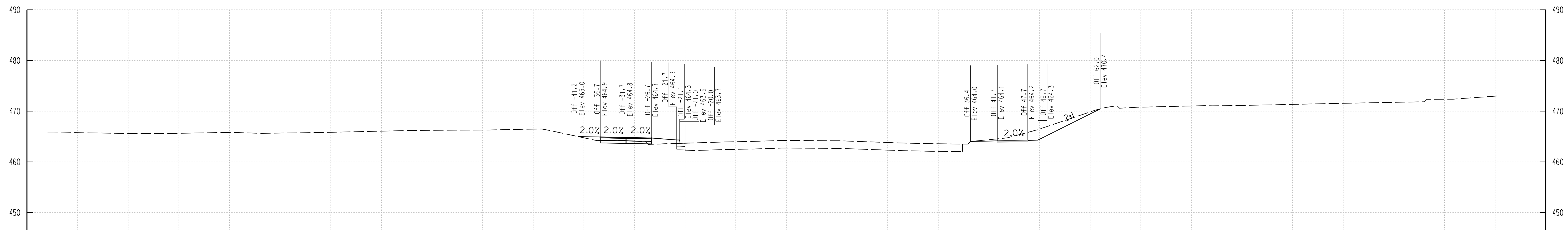
N:\32022-021\CADD\PHC-X001\_32022021.dgn  
June 26, 2020



105+50



105+00



104+50

104+50 105+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.



DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

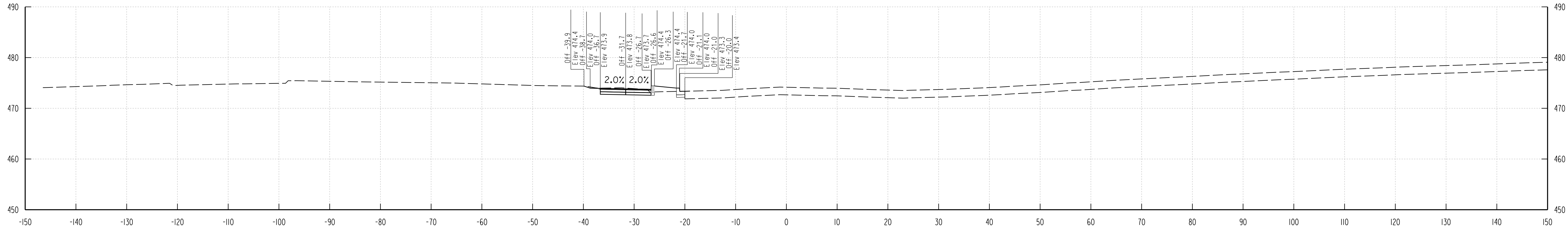
CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

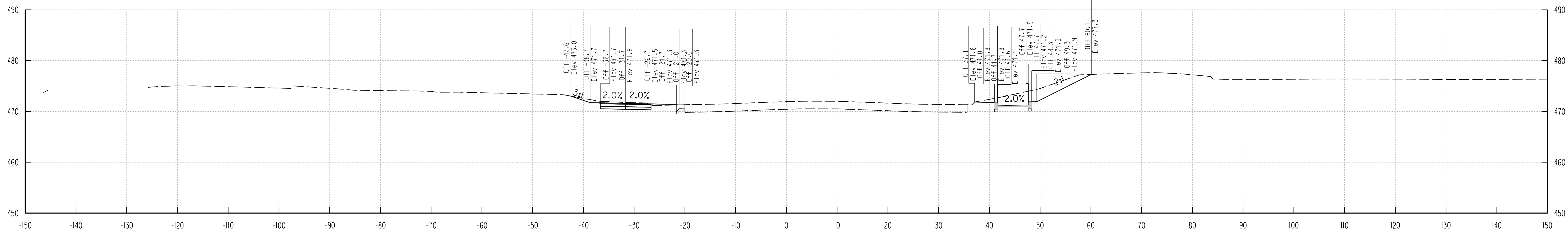
DWG. XS 03  
SCALE 1" = 10'  
SHEET 24 OF 45

N:\3202-021\CADD\PHC-X01\_3202021.dgn June 26, 2020

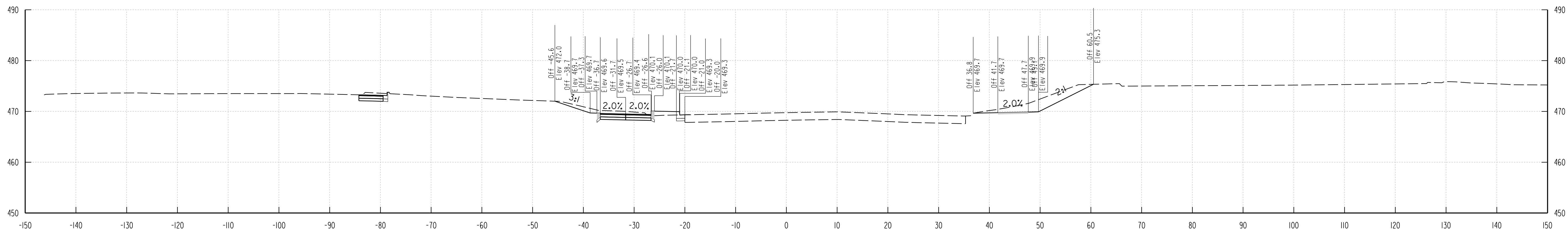




107+00



106+50



106+00

106+00 107+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108

CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

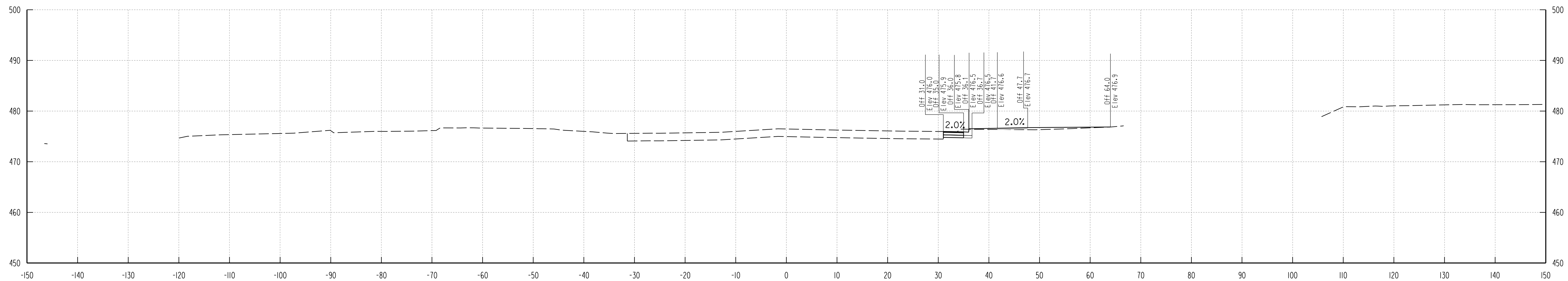
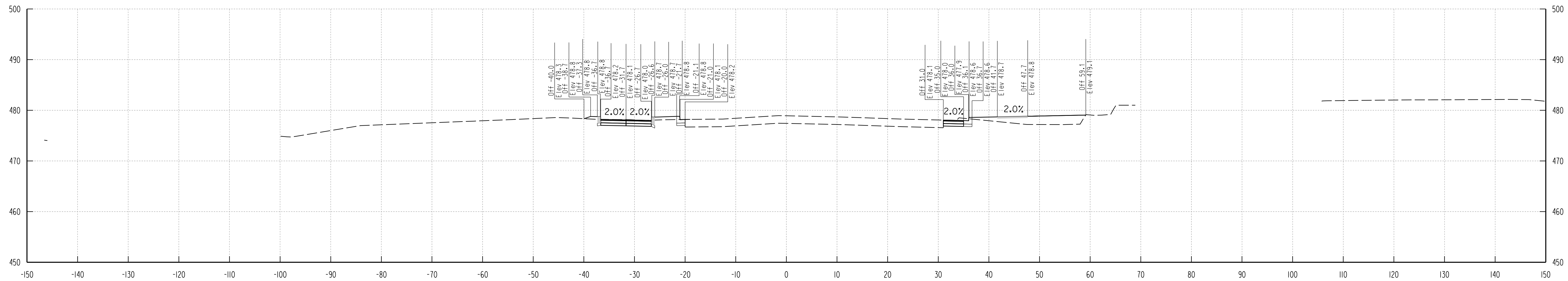
ELECTION DISTRICT 4/5

HOWARD COUNTY, MARYLAND

DWG.  
XS 04

SCALE  
1" = 10'

SHEET  
25 OF 45



"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

ADC MAP NO. 4933 GRID NO. K7

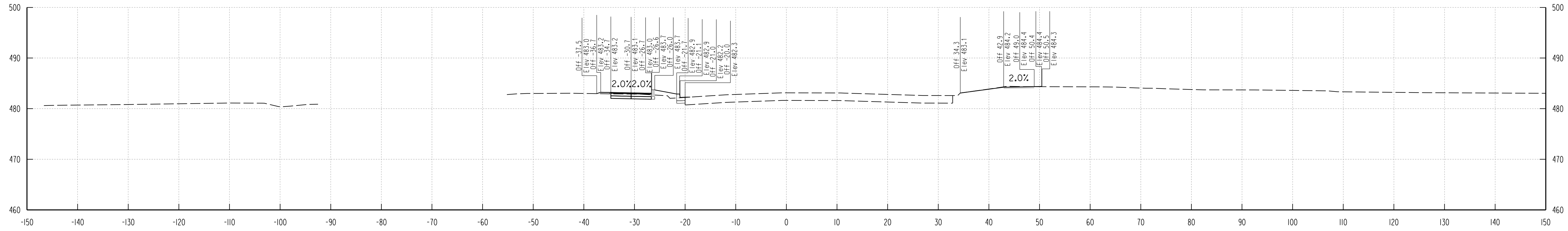
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

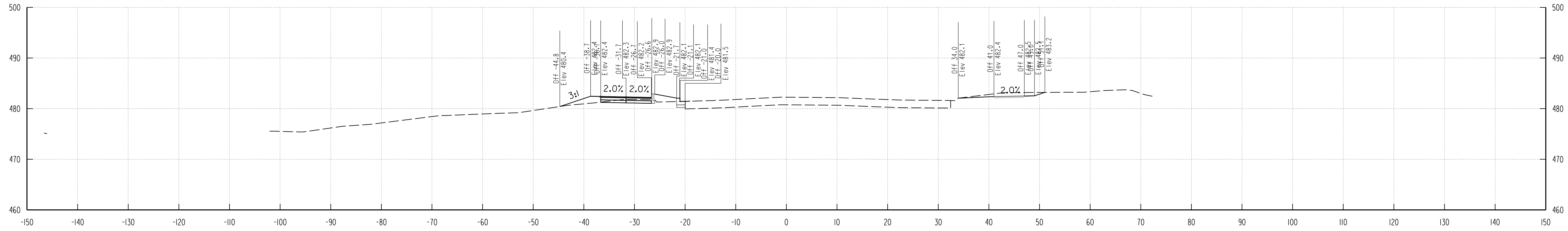
DWG.  
XS 05

SCALE  
1" = 10'

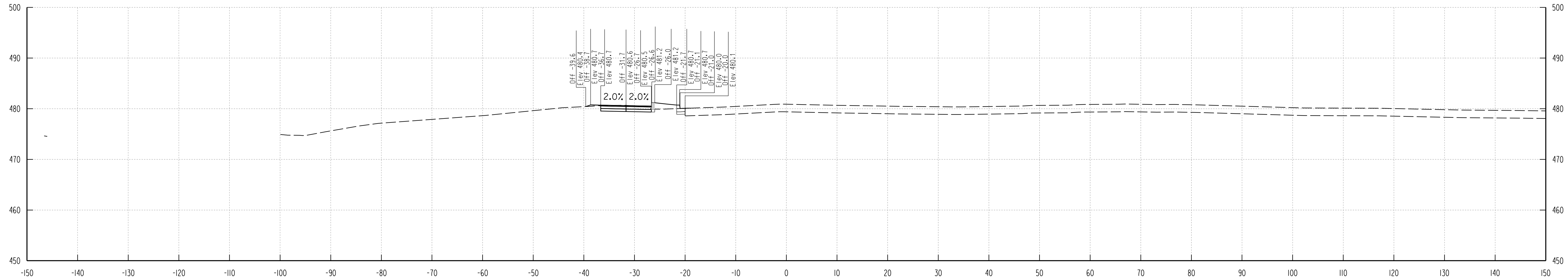
SHEET  
26 OF 45



109+50



109+00



108+50

108+50 109+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

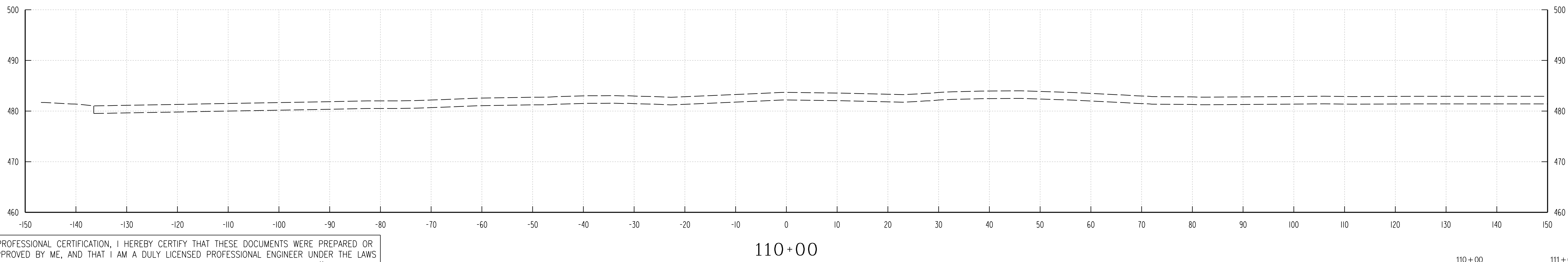
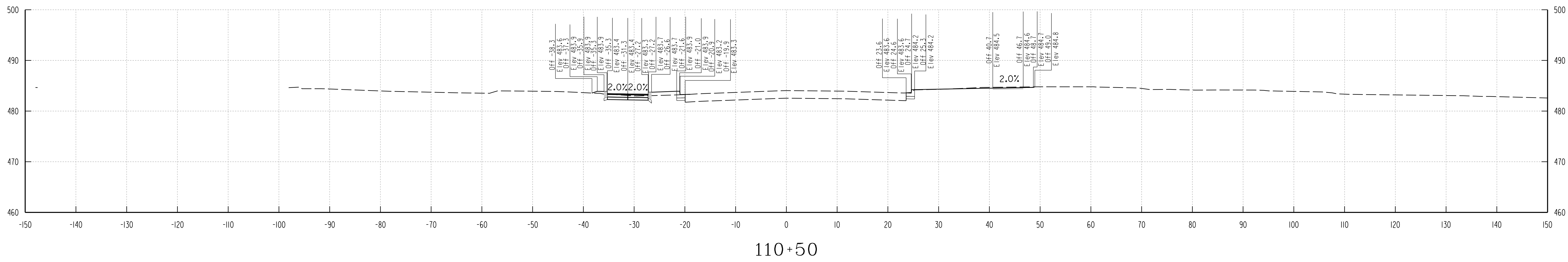
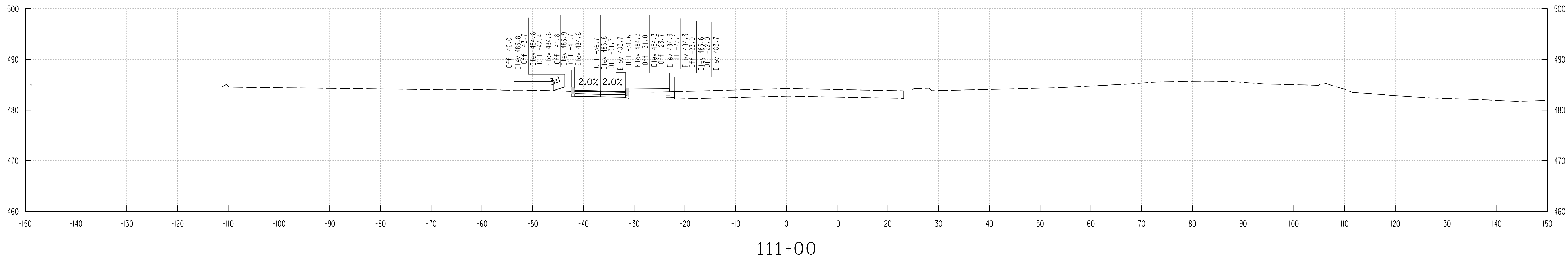
DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. XS 06  
SCALE 1" = 10'  
SHEET 27 OF 45

N:\3202-021\CADD\PHC-X01\_3202021.dgn June 26, 2020



"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

CLARKSVILLE PIKE  
CROSS SECTIONS

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

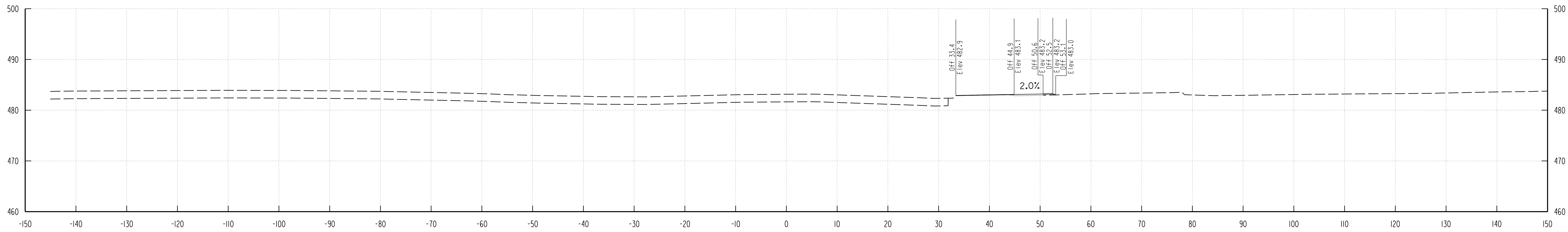
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
XS 07

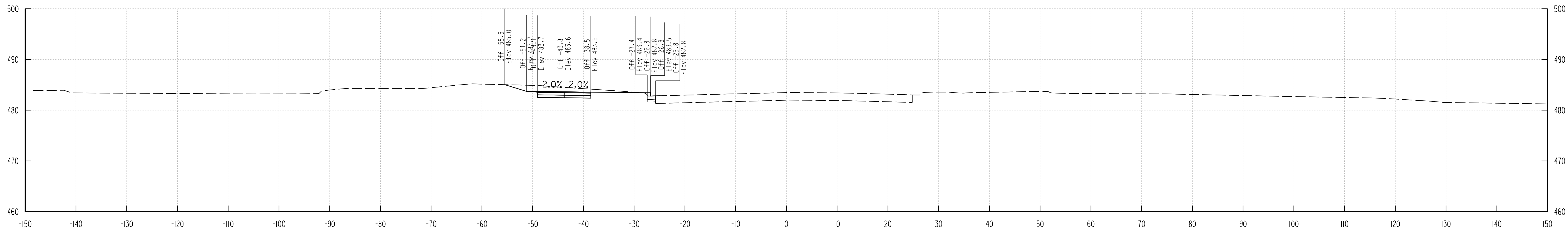
SCALE  
1" = 10'

SHEET  
28 OF 45

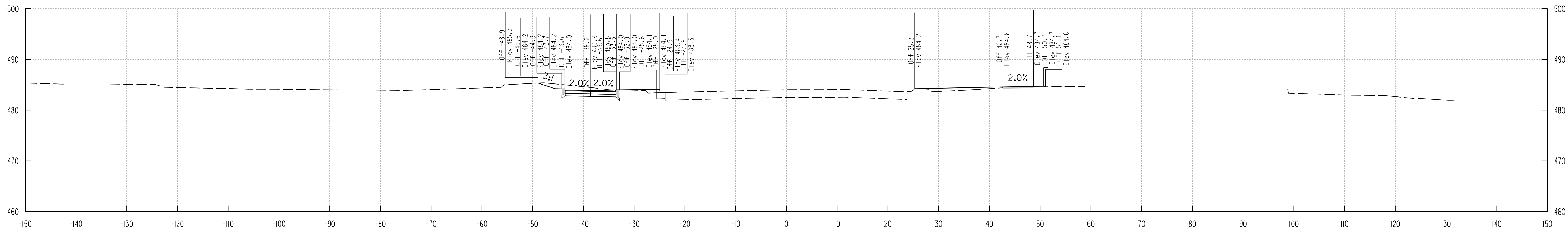
N:\3202-021\CAD\PHC-X01\_3202021.dgn June 26, 2020



112+50



112+00



111+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

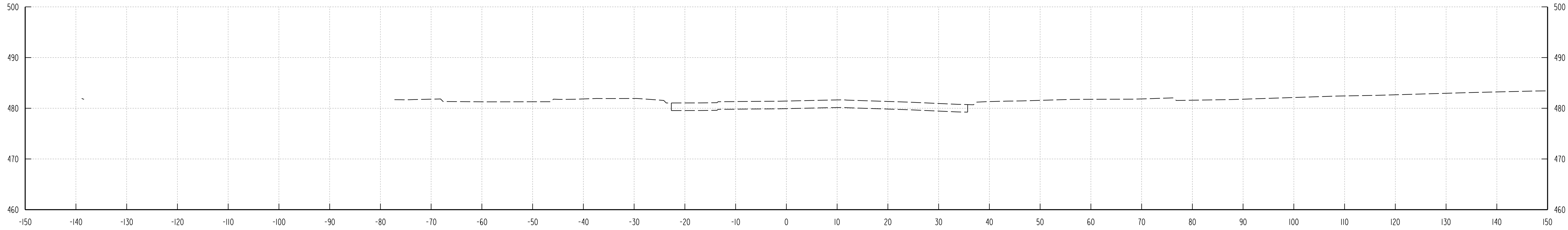
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
XS 08

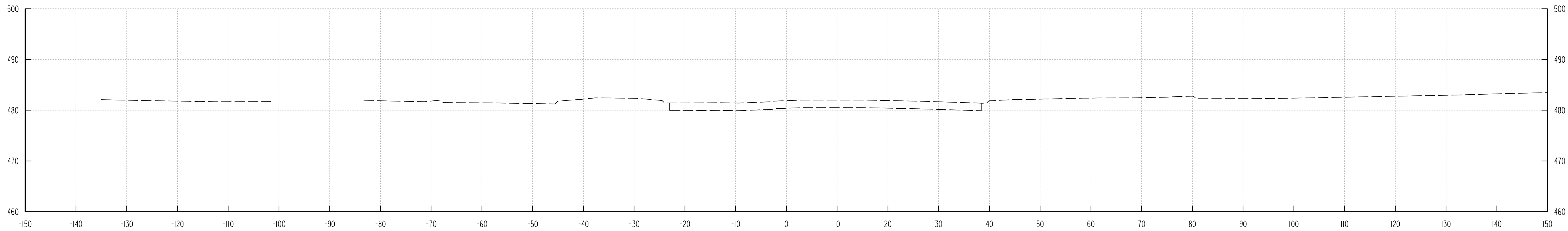
SCALE  
1" = 10'

SHEET  
29 OF 45

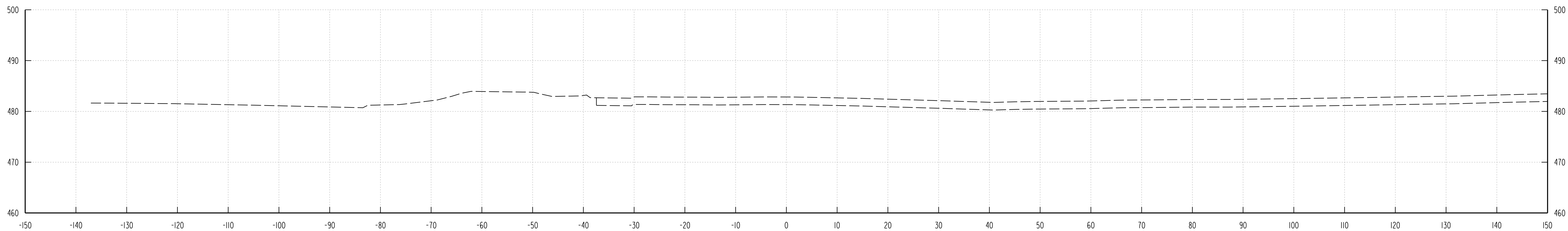
N:\3202-021\CAD\PHC-X01\_3202021.dgn  
June 26, 2020



114+00



113+50



113+00

113+00 114+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5

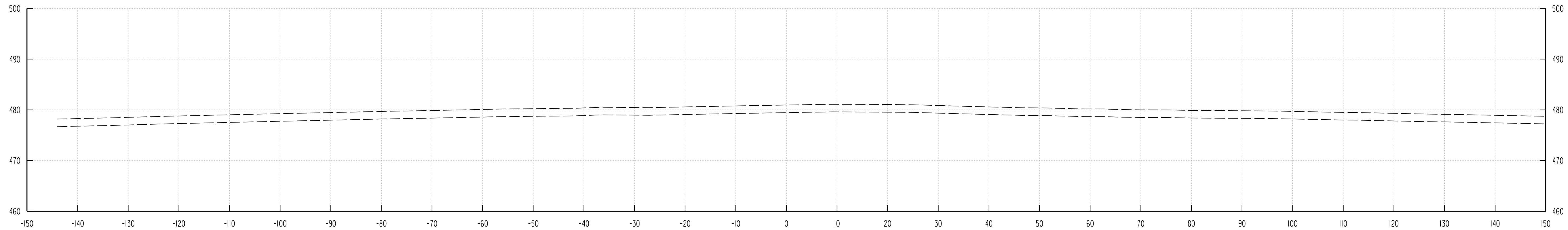
HOWARD COUNTY, MARYLAND

DWG.  
XS 09

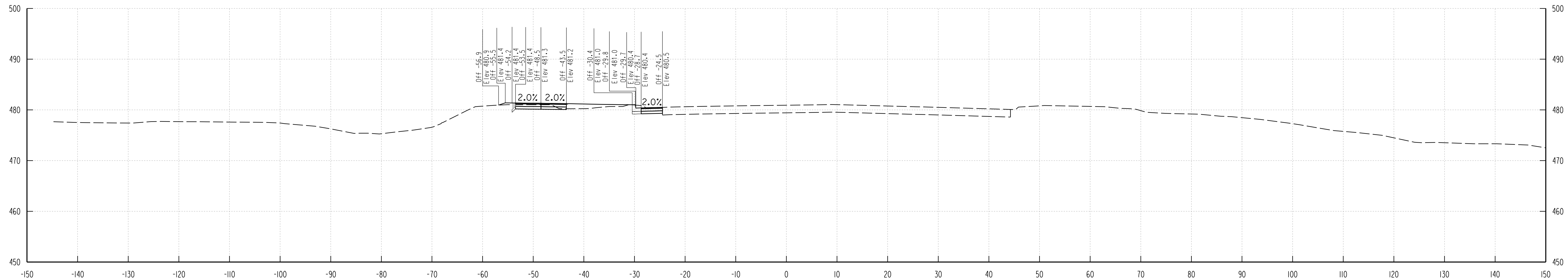
SCALE  
1" = 10'

SHEET  
30 OF 45

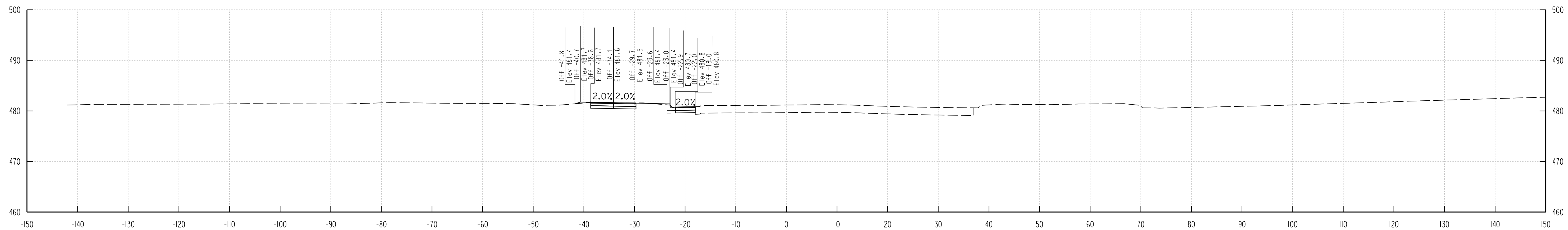
N:\3202-021\CAD\PHC-X01\_3202021.dgn June 26, 2020



115+50



115+00



114+50

114+50 115+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



Whitman, Requardt & Associates, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

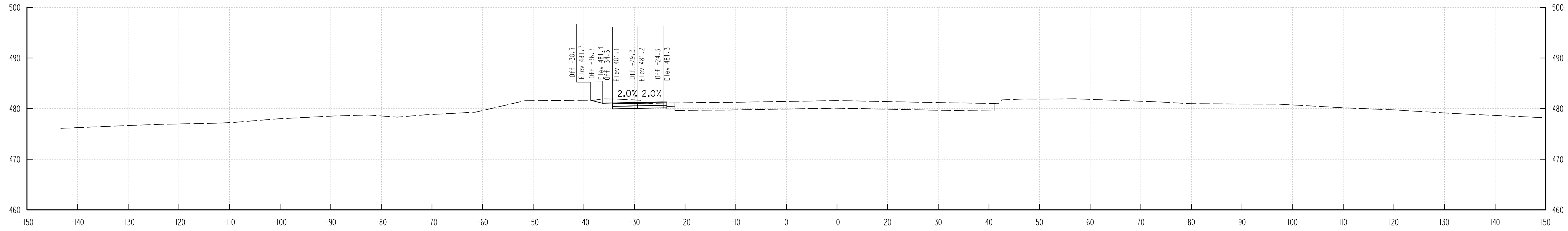
PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

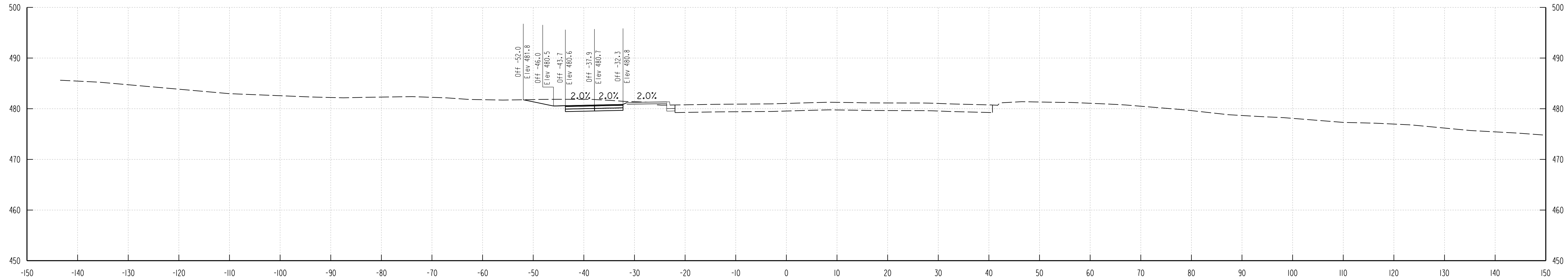
DWG.  
XS 10

SCALE  
1" = 10'

SHEET  
31 OF 45



116+50



116+00

116+00 116+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

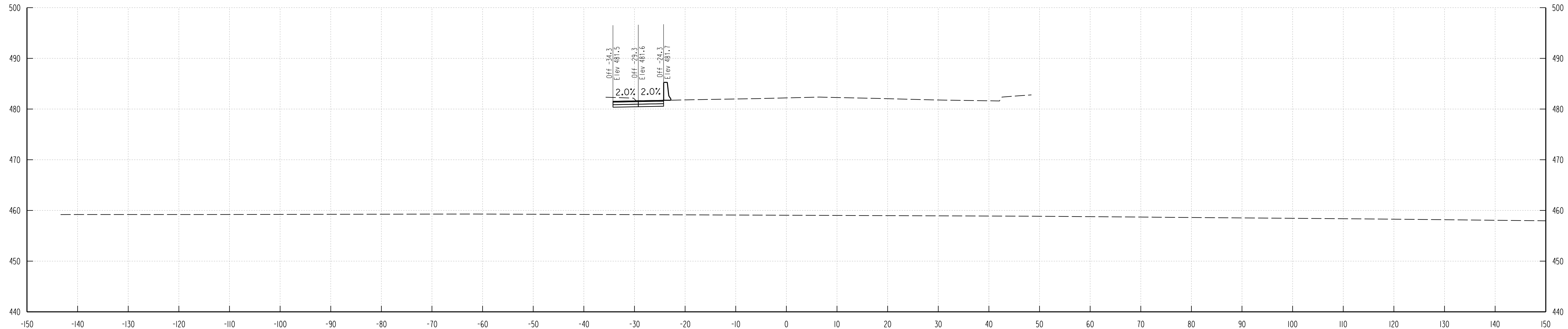
CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

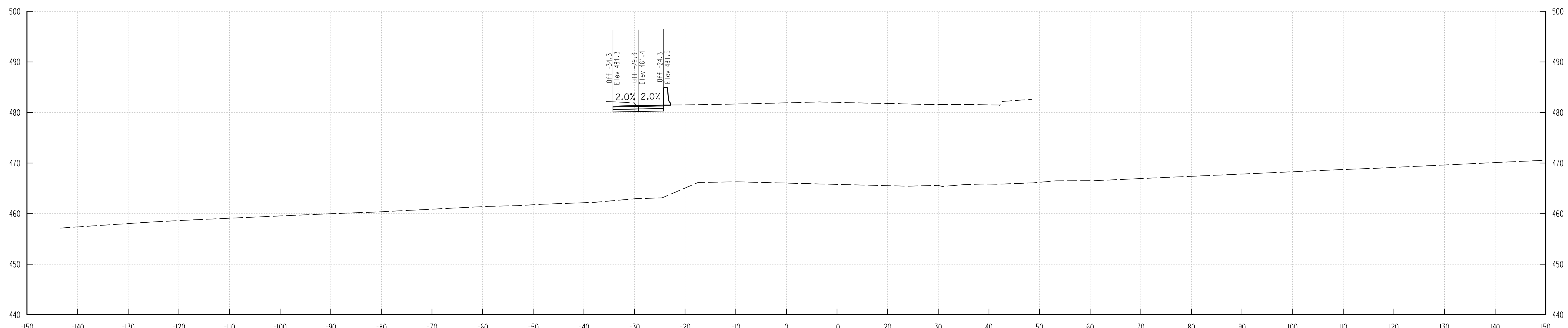
DWG. XS 11  
SCALE 1" = 10'  
SHEET 32 OF 45

N:\32022-021\CADD\PHC-X01\_32022021.dgn June 26, 2020





117+50



117+00

117+00 117+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

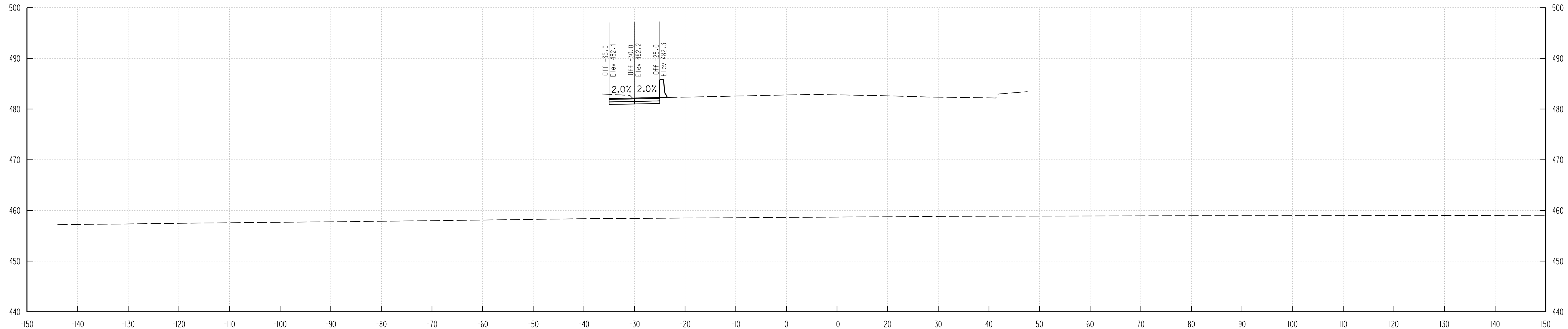
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

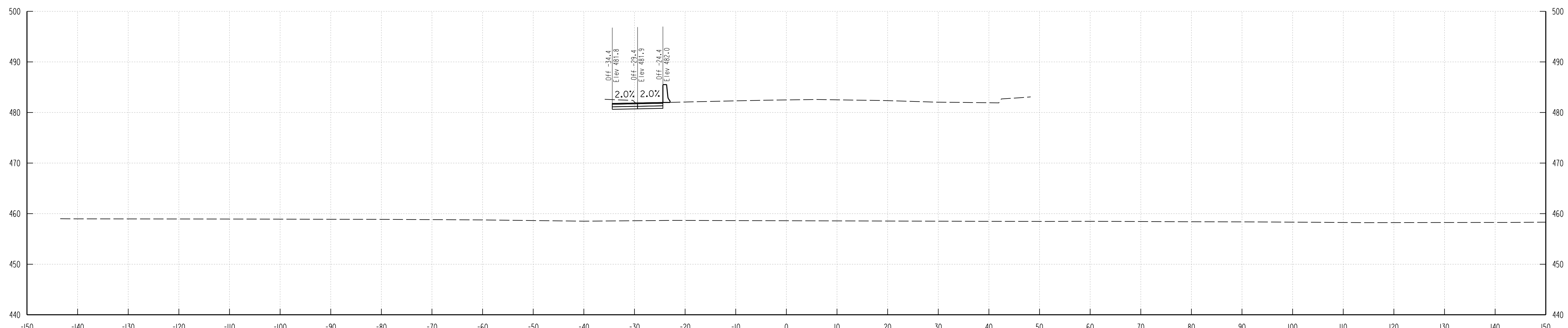
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
XS 12  
SCALE  
1" = 10'  
SHEET  
33 OF 45

N:\3202-021\CADD\PHC-X01\_3202021.dgn June 26, 2020



118+50



118+00

118+00 118+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :

**Whitman, Requard & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

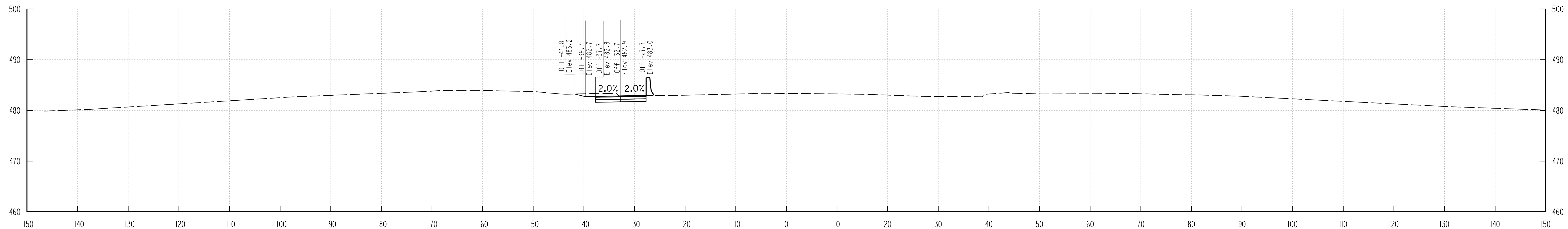
ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

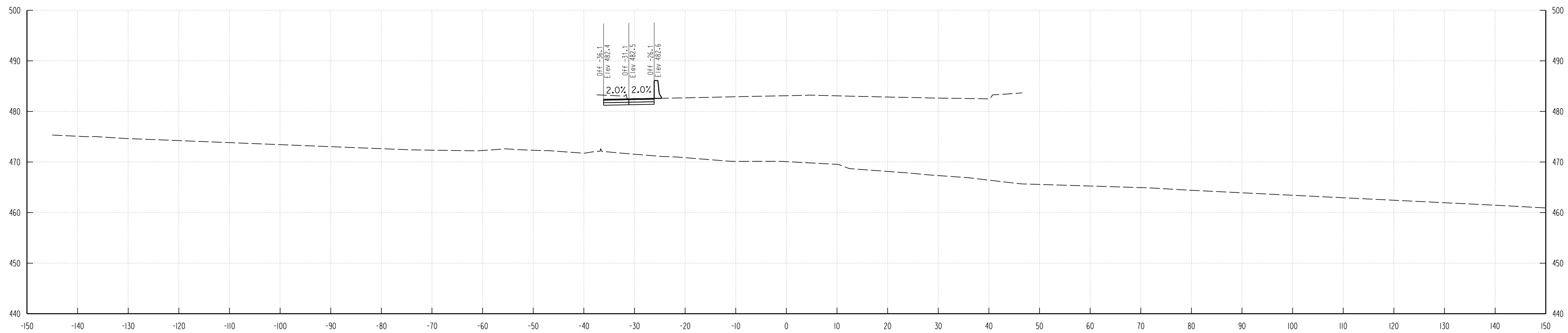
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. XS 13  
SCALE 1" = 10'  
SHEET 34 OF 45

N:\3202-021\CADD\PHC-X01\_3202021.dgn June 26, 2020



119+50



119+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

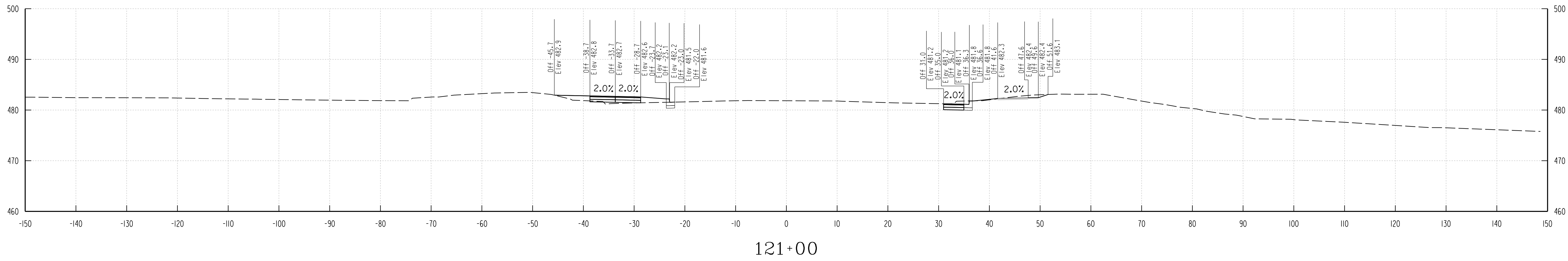
ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

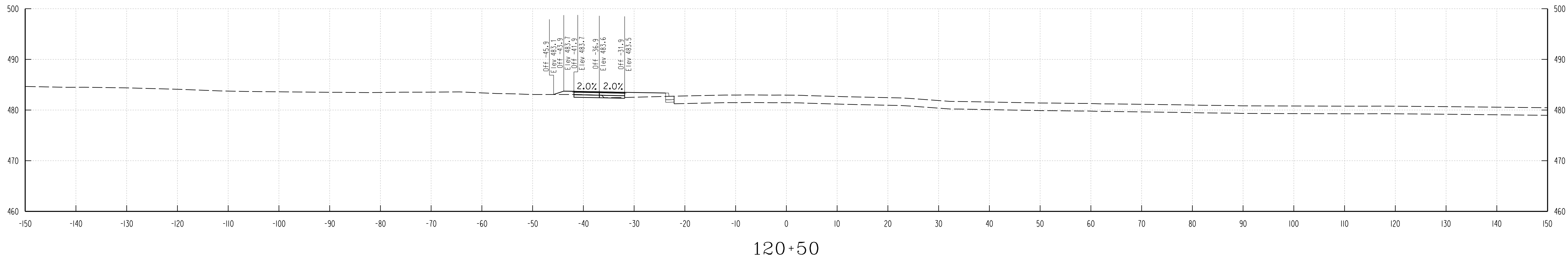
DWG.  
XS 14

SCALE  
1" = 10'

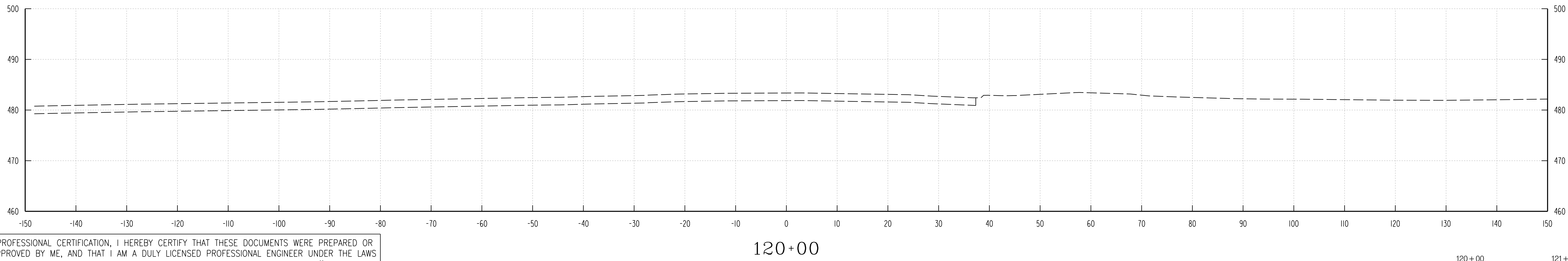
SHEET  
35 OF 45



121+00



120+50



120+00

120+00 121+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE – RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

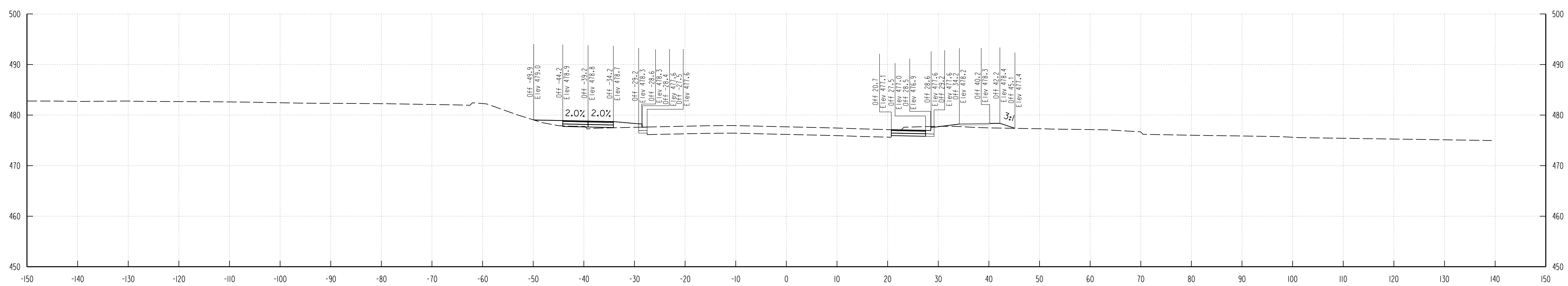
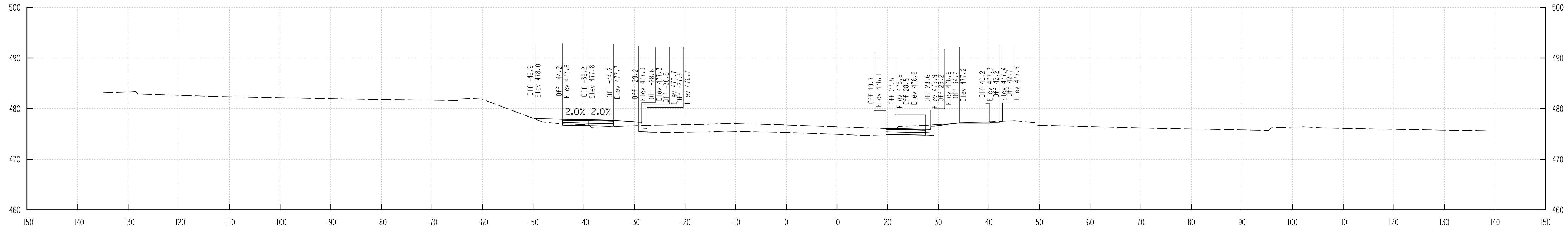
DWG.  
**XS 15**

SCALE  
1" = 10'

SHEET  
**36 OF 45**

N:\3202-021\CAD\DWG\CROSS-XS15.dwg  
June 26, 2020





"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

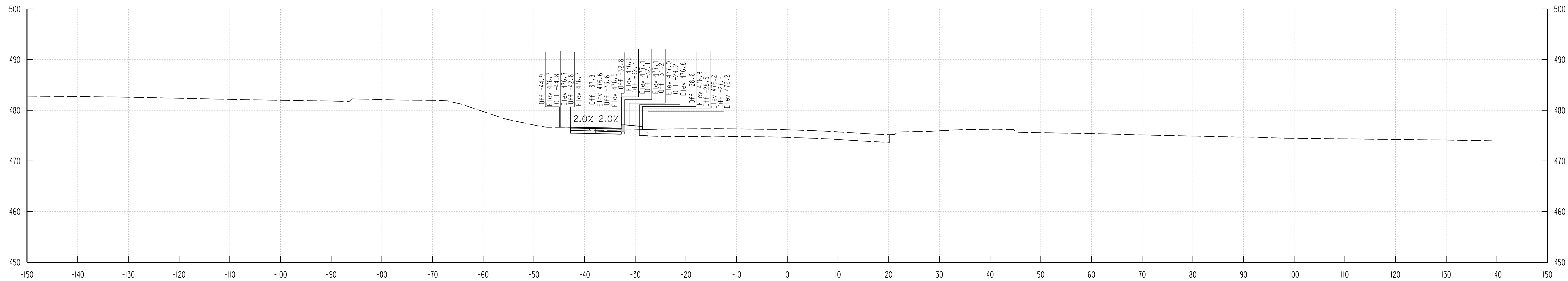
CLARKSVILLE PIKE  
CROSS SECTIONS

ADC MAP NO. 4933 GRID NO. K7

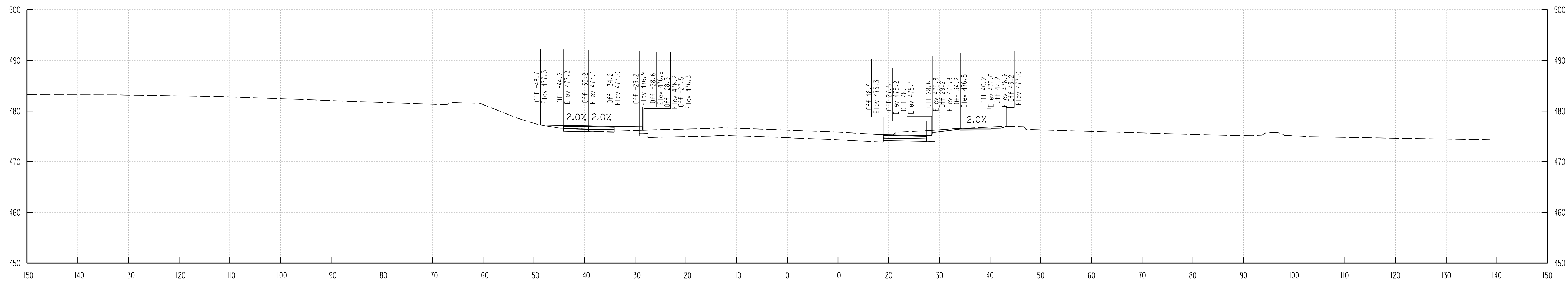
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. XS 17  
SCALE 1" = 10'  
SHEET 38 OF 45

N:\3202-021\CADD\PHC-X01\_3202021.dgn June 26, 2020



124+00



123+50

123+50 124+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

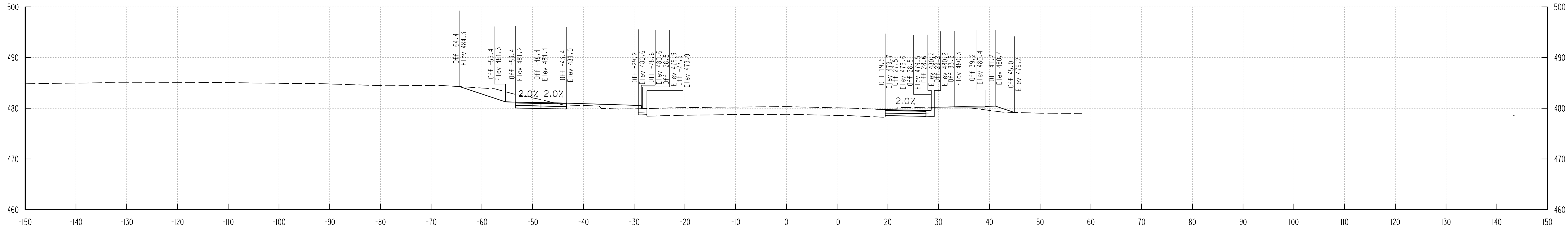
DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

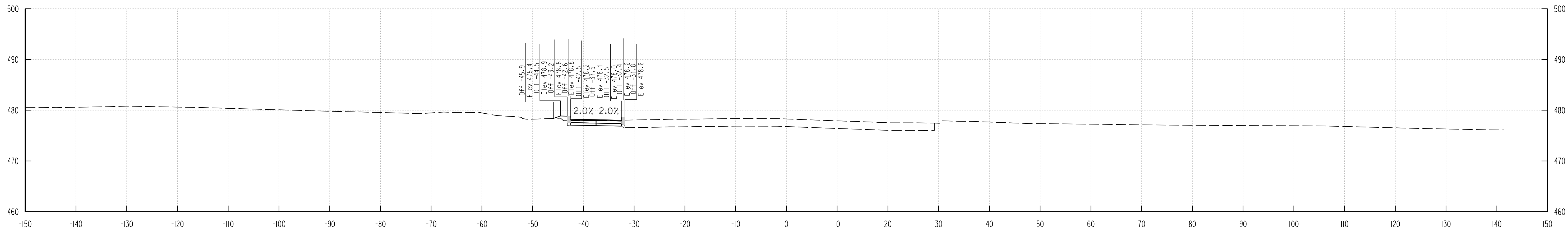
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. XS 18  
SCALE 1" = 10'  
SHEET 39 OF 45

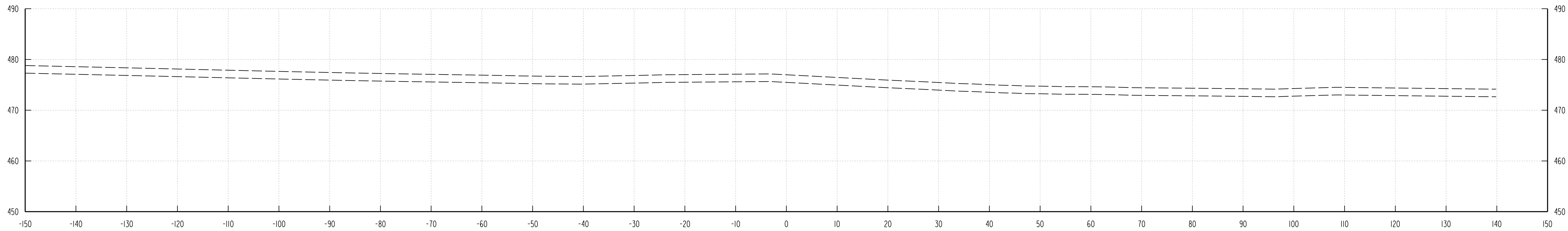
N:\3202-021\CADD\PHC-X01\_3202021.dgn June 26, 2020



125+50



125+00



124+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

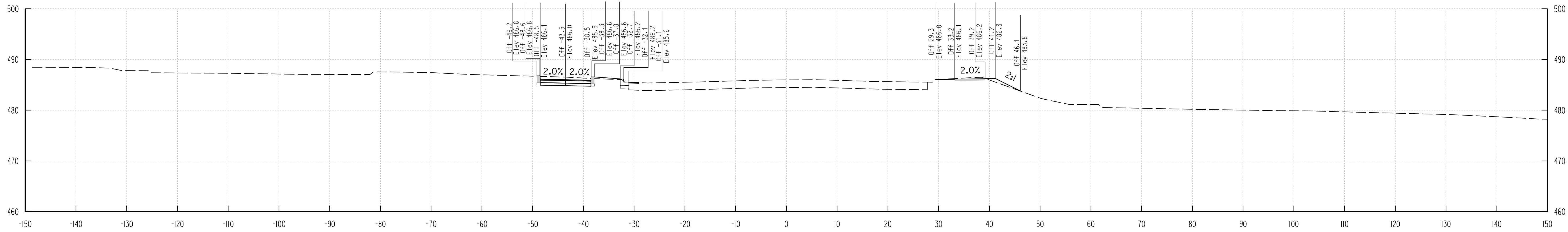
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
XS 19

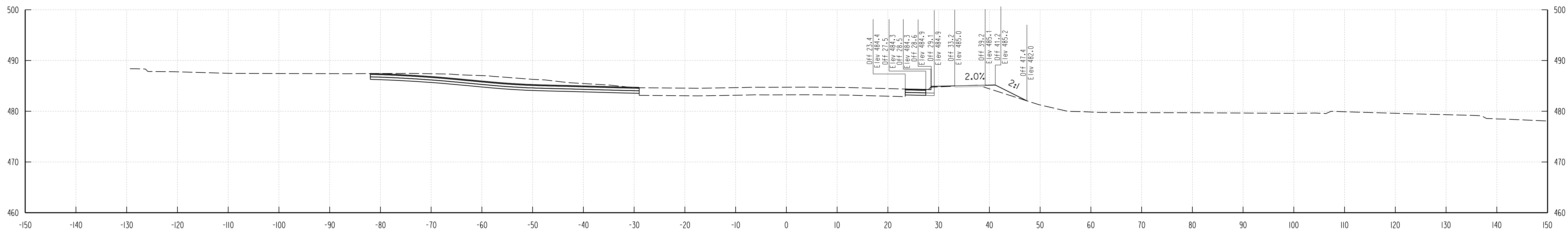
SCALE  
1" = 10'

SHEET  
40 OF 45

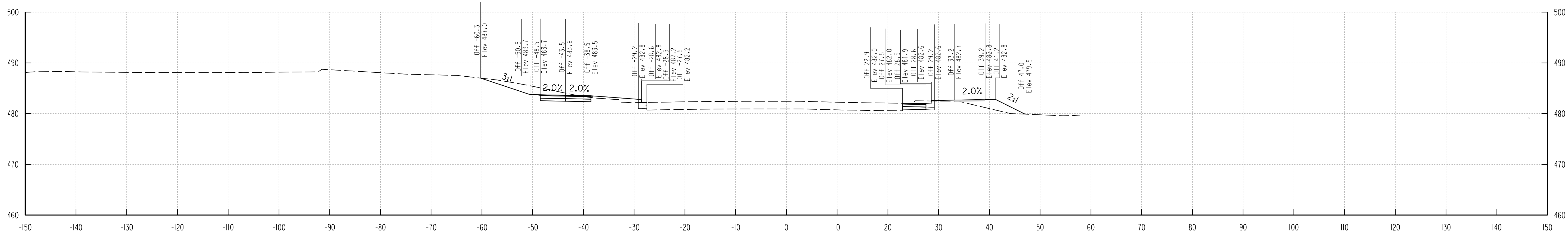




127+00



126+50



126+00

126+00 127+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES:	SEP				
DRN:	SEP				
CHK:	BRT				
DATE:	06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE – RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

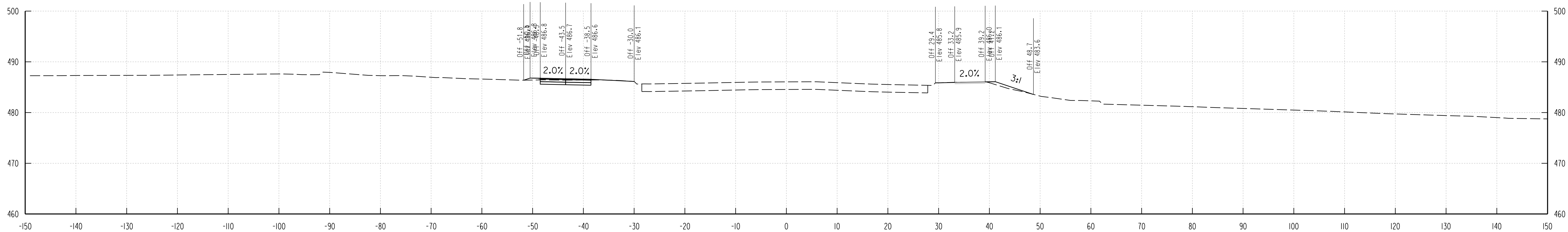
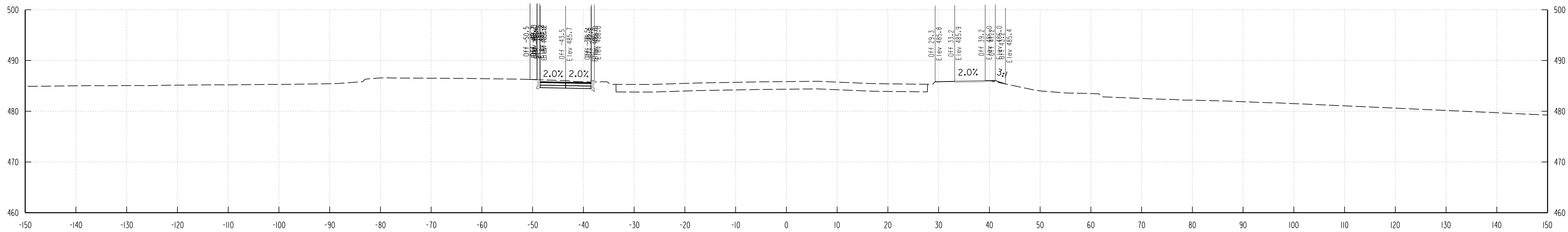
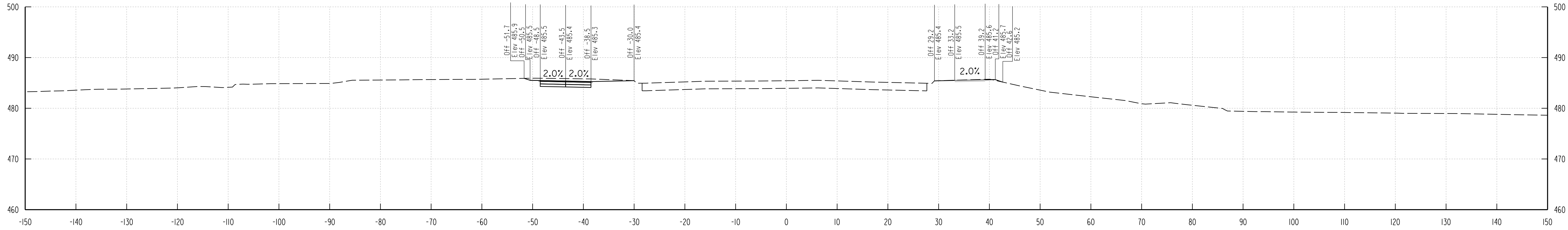
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
XS 20

SCALE  
1" = 10'

SHEET  
41 OF 45

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE



"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :



DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

CLARKSVILLE PIKE  
CROSS SECTIONS

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

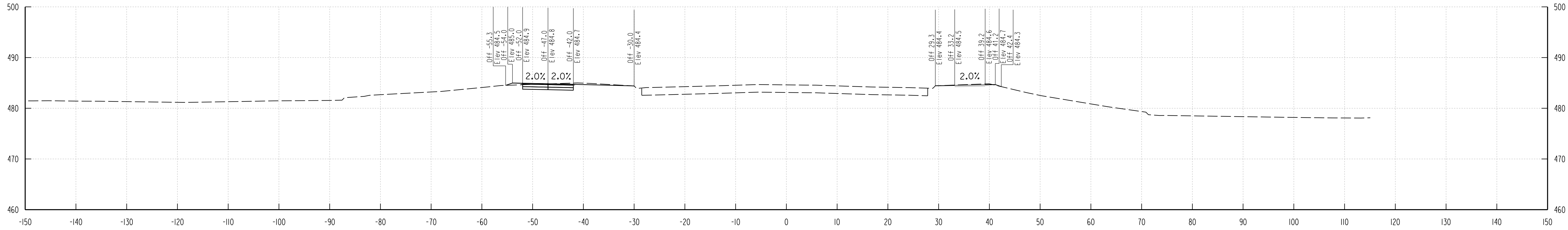
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG.  
XS 21

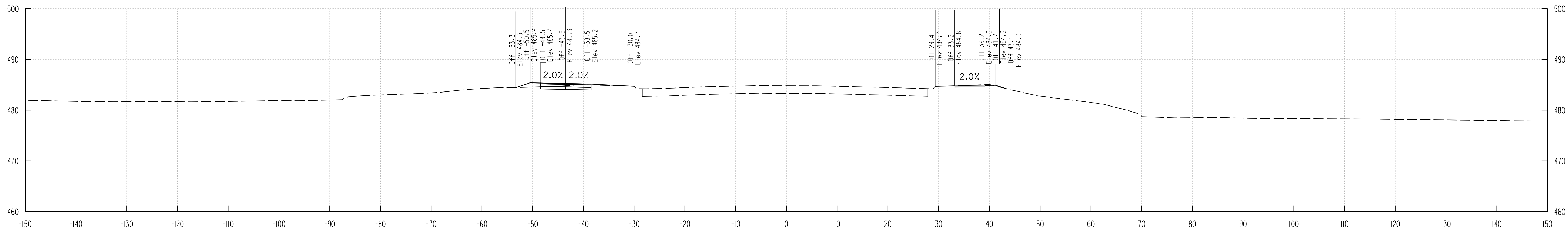
SCALE  
1" = 10'

SHEET  
42 OF 45

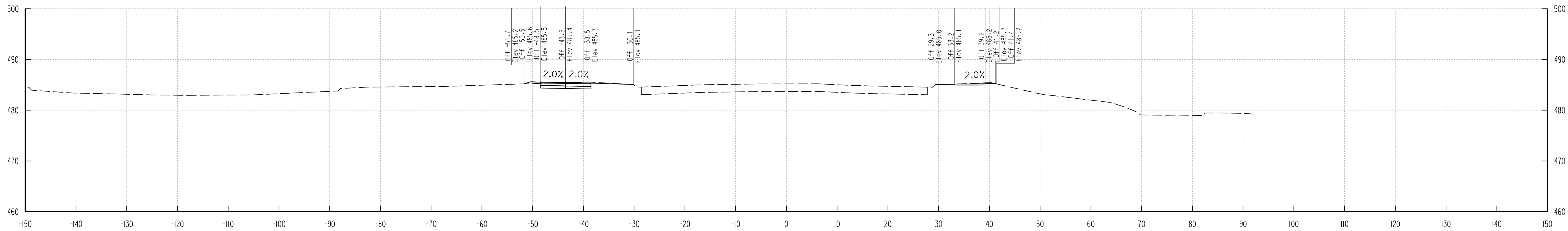
N:\3202-021\CAD\PHC-X01\_3202021.dgn June 26, 2020



130+00



129+50



129+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE

PREPARED BY :

**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP					
DRN: SEP					
CHK: BRT					
DATE: 06/2020	BY	NO.	REVISION	DATE	

CLARKSVILLE PIKE  
CROSS SECTIONS

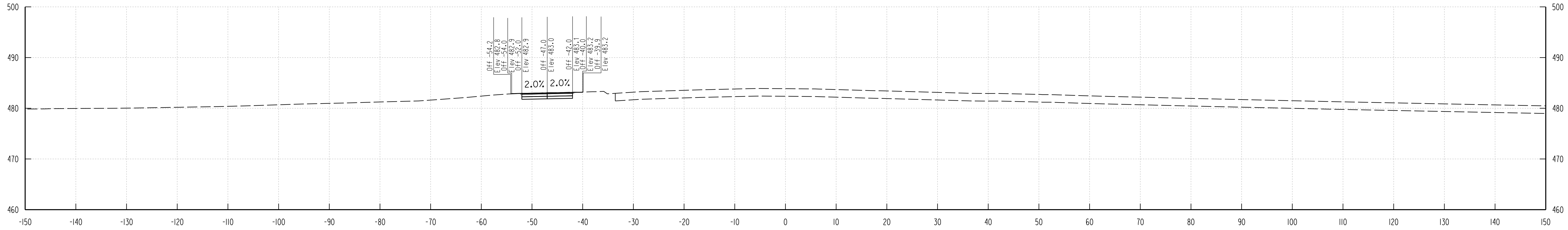
CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

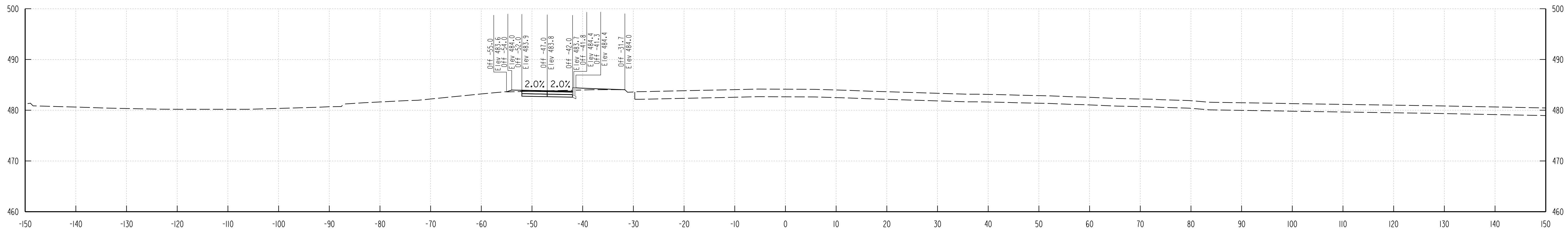
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

DWG. XS 22  
SCALE 1" = 10'  
SHEET 43 OF 45

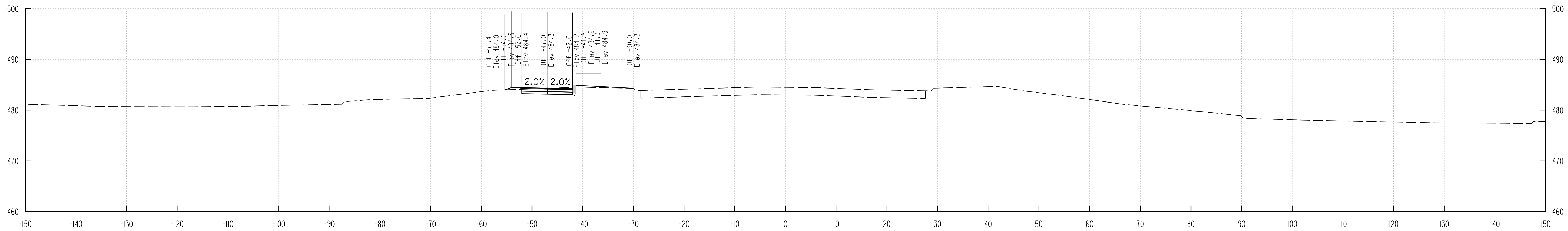
N:\32022-021\CAD\DWG-X001\_32022021.dwg  
June 26, 2020



131+50



131+00



130+50

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

PREPARED BY :



**Whitman, Requardt & Associates, LLP**  
801 South Caroline Street, Baltimore, Maryland 21231

DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS

PRELIMINARY SUBMITTAL (30%)

ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

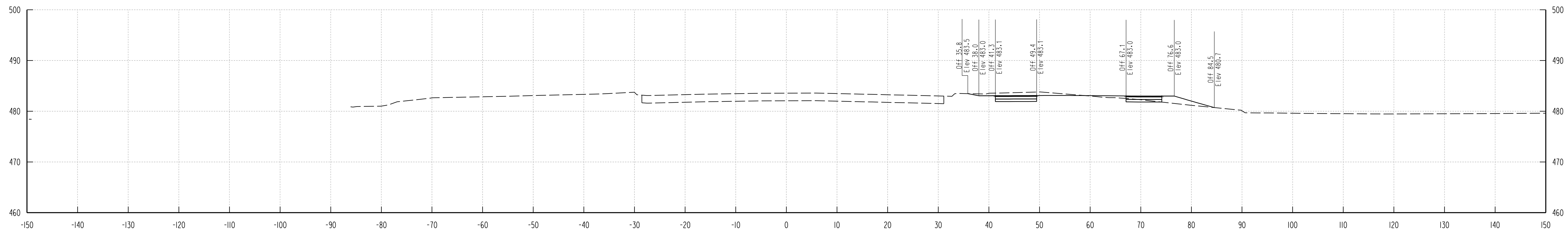
DWG.  
XS 23

SCALE  
1" = 10'

SHEET  
44 OF 45

N:\3202-021\CADD\PHC-X01\_3202021.dgn  
June 26, 2020

N:\3202-021\CAD\PHC-X01\_3202021.dgn  
June 26, 2020



132+00

132+00 132+00

"PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS 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: \_\_\_\_\_."

DWG.  
XS 24

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE \_\_\_\_\_  
CHIEF, BUREAU OF HIGHWAYS DATE \_\_\_\_\_

CHIEF, BUREAU OF ENGINEERING DATE \_\_\_\_\_  
CHIEF, TRANSPORTATION & SPECIAL PROJECTS DIV. DATE \_\_\_\_\_



DES: SEP				
DRN: SEP				
CHK: BRT				
DATE: 06/2020	BY	NO.	REVISION	DATE

CLARKSVILLE PIKE  
CROSS SECTIONS

ADC MAP NO. 4933 GRID NO. K7

CAPITAL PROJECT CONTRACT NO. D7108  
CLARKSVILLE - RIVER HILL STREETScape IMPROVEMENTS  
PRELIMINARY SUBMITTAL (30%)  
ELECTION DISTRICT 4/5 HOWARD COUNTY, MARYLAND

SCALE  
1" = 10'

SHEET  
45 OF 45