MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MACARTHUR BOULEVARD
BIKEWAY PHASE III

OBERLIN AVENUE TO
DISTRICT CITY LINE

C. I. P. PROJECT NO. 502109

70% DESIGN SUBMISSION

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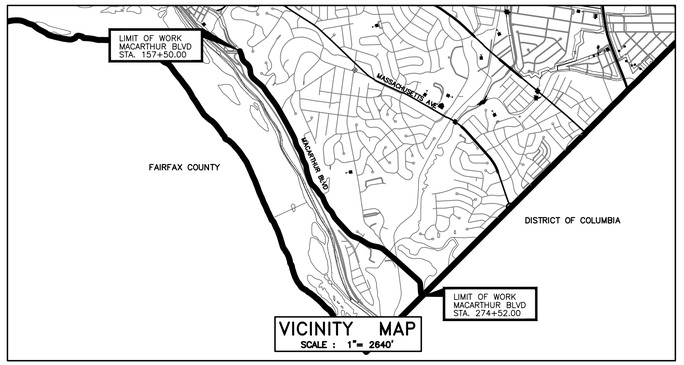
* – DENOTES PLANS ARE UNDER DEVELOPMENT FOR FUTURE SUBMISSIONS



VICINITY MAP
SCALE : 1"= 2640'

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION MAINTENANCE CERTIFICATION

I HEREBY CERTIFY THAT THE DEPARTMENT OF TRANSPORTATION WILL ASSUME MAINTENANCE RESPONSIBILITIES FOR ALL STORMWATER MANAGEMENT FACILITIES AS LISTED AND SHOWN, HEREON, IN ACCORDANCE WITH THE MEMORANDUM OF UNDERSTANDING BETWEEN THIS DEPARTMENT AND THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DATED SEPTEMBER 1, 1986. IF, FOR ANY REASON, FUTURE IMPROVEMENTS TO THE ROADWAY ARE PLANNED THAT WOULD IMPACT ANY OF THE STORMWATER MANAGEMENT FACILITIES INCLUDED HEREIN, THIS DEPARTMENT WILL NOTIFY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DURING THE PLANNING OR EARLY DESIGN STAGE FOR SUCH IMPROVEMENTS.

DATE

TIMOTHY CUPPLES, P.E.
CHIEF, DIVISION OF
TRANSPORTATION ENGINEERING

OWNER'S CERTIFICATION

I HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

DATE

TIMOTHY CUPPLES, P.E.
CHIEF, DIVISION OF
TRANSPORTATION ENGINEERING

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL," MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES EXECUTIVE REGULATIONS 5-90, 7-02AM AND 36-90, AND MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION "STORM DRAIN CRITERIA" DATED AUGUST, 1988.

DATE

MICHAEL ROTHENHEBER, P.E.
MD. REGISTRATION NO. 18589

CERTIFICATION OF THE QUANTITIES

I HEREBY CERTIFY THAT THE ESTIMATED TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO 4,093 CUBIC YARDS OF EXCAVATION, 3,418 CUBIC YARDS OF FILL AND THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE 406,850 SQUARE FEET OR 9.34 ACRES.

DATE

MICHAEL ROTHENHEBER, P.E.
MD. REGISTRATION NO. 18589

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. 18589 EXPIRATION DATE 02/10/2024

DATE

MICHAEL ROTHENHEBER, P.E.
MD. REGISTRATION NO. 18589

THE FOLLOWING MONTGOMERY COUNTY STANDARDS ARE REQUIRED FOR THIS PROJECT:

MC-100.01 - COMBINATION CONCRETE CURB AND GUTTER - TYPE A
MC-110.01 - RESIDENTIAL SIDEWALK
MC-301.01 - RESIDENTIAL DRIVEWAY

THE MOST CURRENT VERSION OF THESE STANDARDS CAN BE ACCESSED AT:
https://www.montgomerycountymd.gov/dot-dte/common/standards.html

THE FOLLOWING MARYLAND STATE HIGHWAY DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED FOR THIS PROJECT:

MD-655.40 - DETECTABLE WARNING SURFACES

FOR ALL SHA STANDARDS REFERRED TO ON THE PLANS, THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT:
http://apps.roads.maryland.gov/businesswithsha/bizStdsSpecs/desManualStdPub/publicationsonline/ohd/bookstd/index.asp

ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE TIME OF CONSTRUCTION.

RELATED REQUIRED PERMITS

To be completed by the consultant and placed on the first sheet of the Sediment Control / Stormwater Management plan set for **all** projects.

IT IS THE RESPONSIBILITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT

TYPE OF PERMIT	REQD	NOT REQD	PERMIT #	EXPIRATION DATE	WORK RESTRICTION DATES
MCDPS Floodplain District		X			
WATERWAYS/WETLAND(S):					
a. Corps of Engineers		X			
b. MDE		X			
c. MDE Water Quality Certification		X			
MDE Dam Safety		X			
DNR Roadside Tree Care Permit	X			Approval Date	
DPS Roadside Tree Protection Plan	X			Approval Date	
N.P.D.E.S. NOTICE OF INTENT	X				DATE FILED
OTHERS (Please List):					

JUNE 2014

TREE CANOPY REQUIREMENTS TABLE

To be completed by the consultant and placed on the first sheet of the Sediment Control / Stormwater Management plan set for all projects.

Exempt: Yes ☐ No ☒ If exempt under Section 55-5 of the Code, please check the applicable exemption category below.

Total Property Area	Total Disturbed Area
473,940 square feet	406,850 square feet

Shade Trees Required	Shade Trees Proposed to be Planted
153	0

Fee in Lieu (Trees Required – Trees Planted) x $250	$ 38,250

Required Number of Shade Trees

Area (sq. ft.) of the Limits of Disturbance FROM	TO	Number of Shade Trees Required
1	6,000	3
6,001	8,000	6
8,001	12,000	9
12,001	14,000	12
14,001	40,000	15

If the square footage of the limits of disturbance is more than 40,000, then the number of shade trees required must be calculated using the following formula:

(Number of Square Feet in Limits of Disturbance ÷ 40,000) × 15

EXEMPTION CATEGORIES:

☐ 55-5(a) any activity that is subject to Article II of Chapter 22A;
☐ 55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A;
☐ 55-5(f) any activity conducted by the County Parks Department;
☐ 55-5(g) routine or emergency maintenance of an existing stormwater management facility, including an existing access road, if the person performing the maintenance has obtained all required permits;
☐ 55-5(h) any stream restoration project if the person performing the work has obtained all necessary permits;
☐ 55-5(i) cutting or clearing any tree to comply with applicable provisions of any federal, state, or local law governing safety of dams;
☐ OTHER: Specify per Section 55-5 of the Code.

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MDCPS ACCESS PERMIT.

Stormwater Management:

Reviewed Date

Approved Date

SM FILE #

Sediment Control Technical Requirements:

Reviewed Date

Approved Date

Administrative Requirements:

Reviewed Date

SEDIMENT CONTROL PERMIT NO.

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.

DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.

OWNER/ADDRESS:
MONTGOMERY COUNTY DEPARTMENT
OF TRANSPORTATION
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MD 20878

CONTACT:
YASAMIN ESMAILI, CPM
PROJECT MANAGER
DESIGN SECTION
DIVISION OF TRANSPORTATION ENGINEERING
240-777-7726

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

GN-01
TITLE SHEET

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109 SHEET 1 of 156

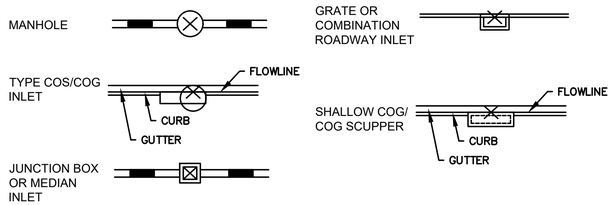
ABBREVIATIONS

A.A.S.H.T.O.	American Association of State Highway Transportation Officials	LP	Low Point	SSD	Stopping Sight Distance
		LT	Left	SSF	Super Silt Fence
APPROX.	Approximate	MAX.	Maximum	STD.	Standard
B or B/L	Baseline	MOD.	Modified	SO.	Single Opening
C.C.	Center of Curve	MIN.	Minimum	S.Y.	Square Yards
C or C/L	Centerline	N	North	SWM	Stormwater Management
C.I.P.	Cast Iron Pipe	NB	Northbound	SW	Sidewalk
C.M.P.	Corrugated Metal Pipe	NE	Northeast	T	Tangent
C.O.	Cleanout	N.T.S.	Not To Scale	T	Telephone
COMB.	Combination	O.C.	On Center	T.C.P.	Terra Cotta Pipe
CONC.	Concrete	P.C.	Point of Curvature	TYP.	Typical
CONSTR.	Construction	P.C.C.	Point of Compound Curve	U.P.	Utility Pole
C.P.P.	Corrugated Polyethylene Pipe	P/C	Point of Grown	VAR.	Varies
D.B.H.	Diameter Breast Height	PGA	Point of Grade Application	V.C.L.	Vertical Curve Length
DC	Degree of Curve	P/GE	Profile Grade Elevation	W	Water
D.H.V.	Design Hour Volume	P.G.E.	Profile Ground Elevation	W	West
D.I.	Drop Inlet	P.G.L.	Profile Grade Line	WB	Westbound
DIA.	Diameter	P/GL	Profile Ground Line		
D.O.	Double Opening	P/R	Point of Rotation		
E	East	P.I.	Point of Intersection		
E	Electric	P.O.C.	Point on Curve		
E	External Distance	P.O.T.	Point on Tangent		
EA.	Each	PROP.	Proposed		
E.B.	Eastbound	PT.	Point		
ELEV.	Elevation	P.T.	Point of Tangency		
E.R.C.C.P.	Elliptical Reinforced Cement Concrete Pipe	P.V.C.	Point of Vertical Curve		
ES	End Section	PVC	Polyvinyl Chloride		
EX. or EXIST.	Existing	PVI	Point of Intersection		
FT	Feet	R	Radius		
F or FL	Flowline	RET. WALL	Retaining Wall		
FWD	Forward	RT	Right		
G	Gas	RW or R/W	Right of Way		
H.D.P.E.	High-Density Polyethylene	R.C.P.	Reinforced Cement Pipe		
H.E.R.C.P.	Horizontal Elliptical Reinforced Concrete Pipe	R.C.C.P.	Reinforced Cement Concrete Pipe		
HP	High Point	S	South		
HMA	Hot Mix Asphalt	SAN.	Sanitary Sewer		
HT	Height	SB	Southbound		
IN	Inch	S.D.	Storm Drain		
INV	Invert	S.E.	Superelevation		
L	Length	SF	Silt Fence		
LANDSC.	Landscaped	S.F.	Square Feet		
L.F.	Linear Feet				

LEGEND

	SIGN		HEDGE/BUSHES
MB	MAIL BOX	434.0	SPOT ELEVATION
FP	FLAG POLE	II	WOOD FENCE
LL	LANDSCAPE LIGHTING		WIRE FENCE / CHAIN LINK FENCE
	LIGHT POST		STREAM
	UTILITY POLE		INDEX CONTOUR
	GUY WIRE ANCHOR	430	INTERVAL CONTOUR
	GUY POLE	OHW	OVERHEAD WIRES
GV	GAS VALVE		ABANDONED GAS LINE
	WATER VALVE	G	EXISTING GAS LINE
W	WATER METER		PROPERTY LINE
	FIRE HYDRANT		EXISTING RIGHT OF WAY
SS	SANITARY MANHOLE	F	TOE OF FILL
D	STORM DRAIN MANHOLE	C	TOP OF CUT
	DECIDUOUS TREE		GUARDRAIL W-BEAM
		LOD	LIMIT OF DISTURBANCE
	CONIFER TREE	TCE	TEMPORARY CONSTRUCTION EASEMENT
	BUSH	RSE	REVERTIBLE SLOPE EASEMENT
		PE	PERPETUAL EASEMENT

DRAINAGE STRUCTURE STAKEOUT LOCATIONS



DRAINAGE BUBBLES

INLET ---------- I 1

MANHOLE ---------- MH 1

JUNCTION BOX ---------- JB 1

FIELD CONNECTION ---------- C 1

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

GN-02
ABBREVIATIONS AND SYMBOLS

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 2 of 156

GENERAL NOTES

1. THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE MARYLAND STATE HIGHWAY ADMINISTRATION DATED JULY 2008, ALL ERRATA AND ADDENDA THERETO, THE MARYLAND STATE HIGHWAY ADMINISTRATION BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES, WASHINGTON SUBURBAN SANITARY COMMISSION (W.S.S.C.) STANDARDS, MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION STANDARDS, AND SOIL CONSERVATION SERVICE POND CONSTRUCTION SPECIFICATIONS FOR MARYLAND.
2. FOR CONSTRUCTION, ALL HORIZONTAL SHALL BE BASED ON NAD 83/91, NAVD 88 DATUM.
3. TYPES OF STORM DRAIN STRUCTURES REFER TO THE "DESIGN STANDARDS" OF MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION, UNLESS OTHERWISE NOTED.
4. WHEN THE DROP ON THE MAIN LINE THROUGH A STORM DRAIN STRUCTURE CAN BE ACCOMMODATED BY AN INVERT SLOPE OF 1.5:1 OR FLATTER, A ROUNDED CHANNEL LINED WITH SEWER BRICK ON EDGE SHALL BE BUILT TO THE CROWN OF THE PIPES. WHEN THE INVERT SLOPES WOULD BE GREATER THAN 1.5:1 A SPECIAL INVERT SHALL BE CONSTRUCTED AS NOTED.
5. ALL STORM DRAIN PIPE SHALL BE INSTALLED WITH CLASS "C" BEDDING UNLESS OTHERWISE SPECIFIED.
6. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORM DRAIN STRUCTURES, WHEN NECESSARY, TO MEET EXISTING CONDITIONS, AS APPROVED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR.
7. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE LINES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SHOWN OR SIX (6) INCHES, WHICHEVER IS LESS, CONTACT MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR AND THE APPROPRIATE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
8. REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
9. CALL "MISS UTILITY" AT 1-800-257-7777 FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING EXCAVATION TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES.
10. CLEARING IS TO BE LIMITED TO THE "LIMIT OF GRADING" AS SHOWN ON THE PLANS.
11. ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.
12. DISTURBED AREAS ADJACENT TO ESTABLISHED LAWNS SHALL BE SODDED. OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
13. THE CONTRACTOR SHALL MAINTAIN THE APPROVED ROADSIDE TREE PERMIT FOR ANY MAINTENANCE, TREATMENT, PLANTING, REMOVAL, OR ROOT CUTTING ON TREES WITHIN THE PUBLIC RIGHT OF WAY. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES, MARYLAND FOREST, PARK AND WILDLIFE SERVICE, TELEPHONE 301-854-6060
14. THE LOCATION OF RIGHT-OF-WAY AND EASEMENT LINES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE AS TO THE ACCURACY OF SAID LOCATIONS. PLEASE REFER TO THE APPROPRIATE RIGHT-OF-WAY PLATS.
15. ALL UTILITY POLES AND GUY WIRES NOTED FOR RELOCATION SHALL BE PERFORMED BY OTHERS.
16. CONTACT THE WASHINGTON SUBURBAN SANITARY COMMISSION SYSTEM MAINTENANCE ENGINEER BEFORE EXCAVATING BENEATH OR IN THE VICINITY OF EXISTING WATER OR SEWER LINES. BACKFILL TO BE DONE UNDER SUPERVISION OF W.S.S.C. CALL 301-699-4420
17. THE CONTRACTOR SHALL INSTALL PEDESTRIAN DETECTABLE WARNING SURFACES AT ALL SIDEWALK & PEDESTRIAN CROSSINGS. LOCATIONS AS DIRECTED BY THE ENGINEER. THE WARNING SURFACES SHALL BE IN CONFORMANCE WITH ADA REQUIREMENTS AND THE PROJECT SPECIAL PROVISION.
18. THE CONTRACTOR SHALL BE AWARE THAT OVERHEAD UTILITY WIRES EXIST WITHIN THE PROJECT SITE. LOCATIONS OF WIRES SHOULD BE NOTED IN FIELD WITH SIGNAGE TO AVOID CONFLICTS DURING CONSTRUCTION.

EARTHWORK SUMMARY

			PROPOSAL QUANTITY
CLASS I EXCAVATION			
CUT (FROM CROSS SECTIONS)	4,093	CY	
PAVEMENT REMOVAL	2,495	CY	
TOPSOIL UNDER FILL	0	CY	
ROOT MAT UNDER FILL	0	CY	
PLUS CUT (FROM SWM AREA)	0	CY	
TOTAL CLASS I EXCAVATION	6,588	CY	6,588 CY
CLASS IA EXCAVATION (ESTIMATED)			
MUCK REMOVAL (IF ANY)	0	CY	
UNDERCUTTING	0	CY	
TOTAL CLASS IA EXCAVATION	0	CY	0 CY
CLASS 2 EXCAVATION			
CUT (FROM CROSS SECTIONS)	0	CY	
TOTAL CLASS 2 EXCAVATION	0	CY	0 CY
EXCAVATION AVAILABLE FOR EMBANKMENT			
TOTAL CLASS I EXCAVATION + CLASS 2 EXCAVATION	6,588	CY	
MINUS:			
TOPSOIL (REMOVED IN CUT)	0	CY	
TOPSOIL (REMOVED UNDER FILL)	0	CY	
ROOT MAT (REMOVED IN CUT)	0	CY	
ROOT MAT (REMOVED IN FILL)	0	CY	
CUT ADJUSTED	6,588	CY	
CUT DENSIFIED (x 0.83)	5,468	CY	
TOTAL EXCAVATION AVAILABLE FOR EMBANKMENT	5,468	CY	
EMBANKMENT REQUIRED			
FILL (FROM CROSS SECTIONS)	2,905	CY	
REFILL FOR TOPSOIL UNDER FILL	0	CY	
REFILL FOR ROOT MAT UNDER FILL	0	CY	
FILL (FROM SWM AREA)	0	CY	
TOTAL	2,905	CY	
MINUS EXCAVATION AVAILABLE FOR EMBANKMENT	(5,468)	CY	
ADJUSTED TOTAL	(2,563)	CY	
PLUS DENSIFICATION FACTOR (x 1.20)	(3,075)	CY	
MINUS SELECT BORROW	0	CY	
COMMON BORROW	0	CY	0 CY
SELECT BORROW	0	CY	0 CY

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

GN-03
NOTES & EARTHWORK SUMMARY
MACARTHUR BOULEVARD
BIKEWAY PHASE III

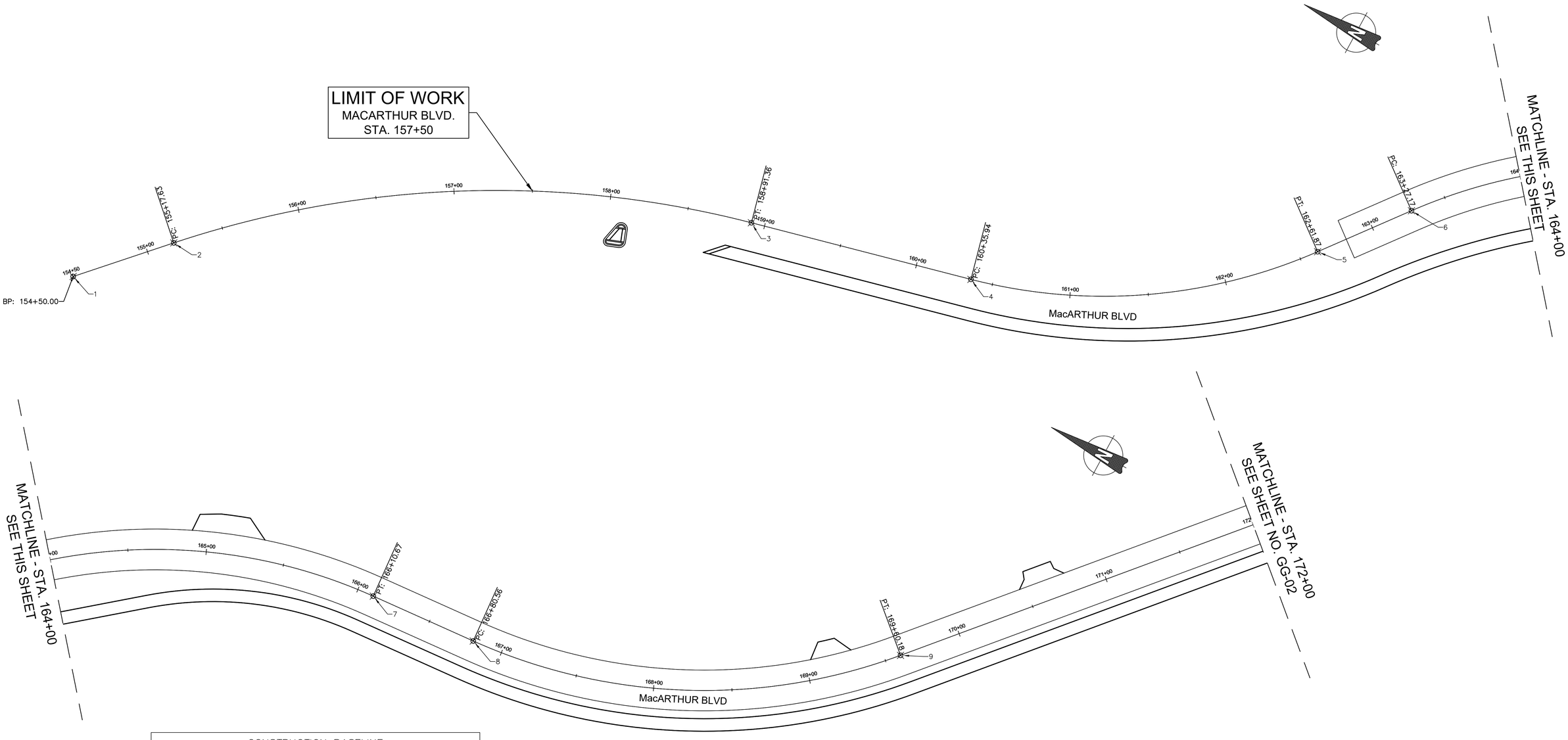
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 3 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pGN_MacArthur_General Notes.dwg LAYOUT NAME: GN-03 PLOTTED: Friday, June 17, 2022 - 4:03pm USER: AHavener



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
1	154+50.00	00.00	150.32	473023.5117	1273444.0156	POB
2	155+17.63	00.00	150.00	472977.3531	1273493.4438	PC
3	158+91.36	00.00	150.64	472659.7085	1273680.4556	PT
4	160+35.94	00.00	151.40	472519.4370	1273715.4693	PC
5	162+61.87	00.00	151.37	472333.5323	1273836.4370	PT
6	163+27.17	00.00	151.36	472293.4114	1273887.9533	PC
7	166+10.67	00.00	151.13	472050.7321	1274018.0800	PT
8	166+80.56	00.00	151.12	471981.0399	1274023.3356	PC
9	169+60.18	00.00	150.27	471737.1811	1274145.2575	PT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

GG-01
GRADES AND GEOMETRICS

MACARTHUR BOULEVARD BIKEWAY PHASE III

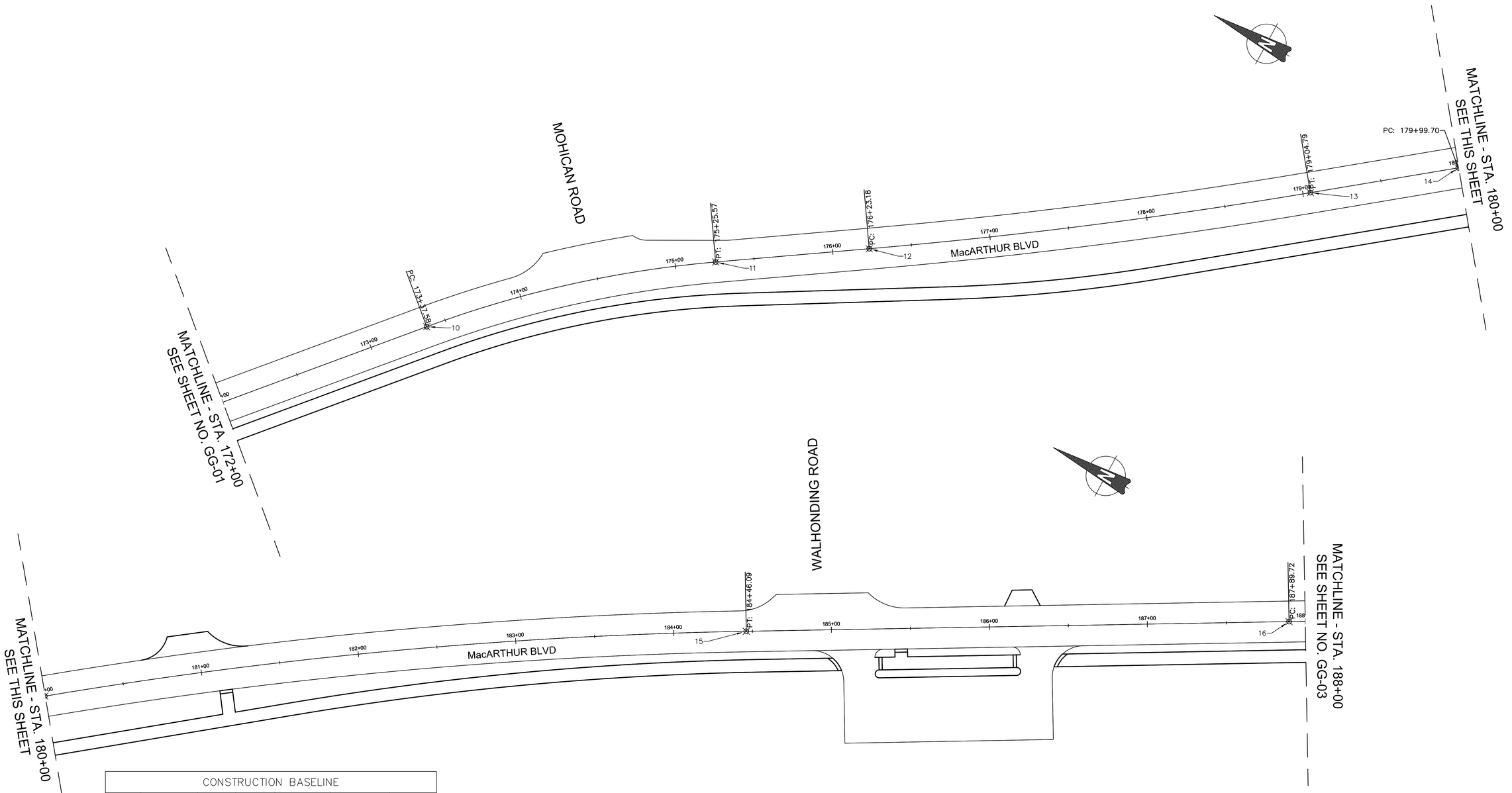
0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 4 of 156



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
10	173+37.58	00.00	150.94	471488.6630	1274429.2842	PC
11	175+25.57	00.00	150.87	471347.4700	1274552.5461	PT
12	176+23.18	00.00	151.20	471266.0047	1274606.3183	PC
13	179+04.79	00.00	151.03	471037.4760	1274770.7282	PT
14	179+99.70	00.00	150.67	470962.7215	1274829.2110	PC
15	184+46.09	00.00	150.91	470592.0096	1275077.1422	PT
16	187+89.72	00.00	150.46	470292.9620	1275246.4164	PC

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

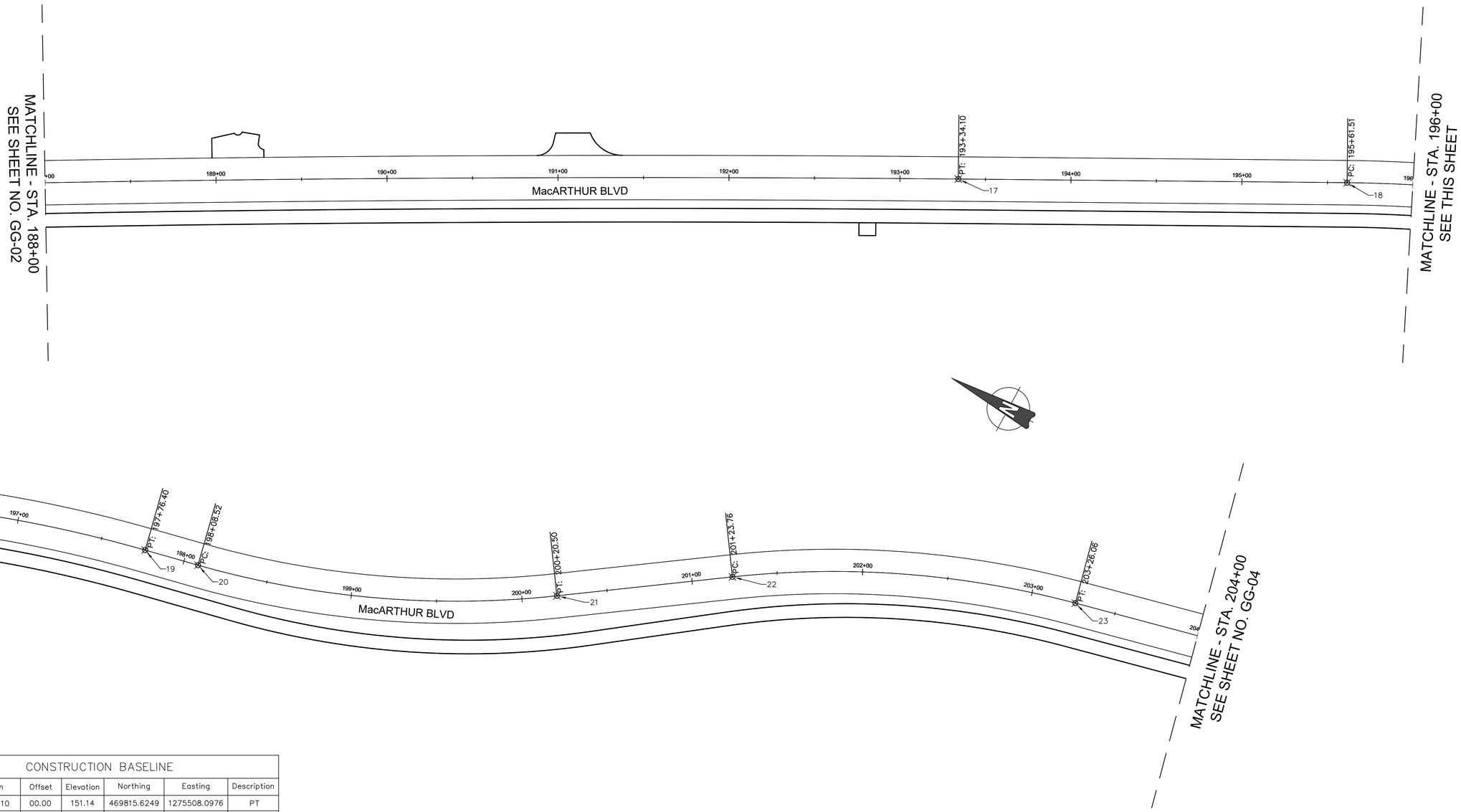
GG-02
GRADES AND GEOMETRICS
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 5 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pGG_MacArthur.dwg LAYOUT NAME: GG-02 PLOTTED: Friday, June 17, 2022 - 4:04pm USER: AHavener



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
17	193+34.10	00.00	151.14	469815.6249	1275508.0976	PT
18	195+61.51	00.00	150.47	469614.7397	1275614.6956	PC
19	197+76.40	00.00	150.27	469413.7473	1275688.8739	PT
20	198+08.52	00.00	150.34	469382.4003	1275695.8589	PC
21	200+50.50	00.00	150.48	469189.3564	1275780.2109	PT
22	201+23.76	00.00	150.81	469104.3986	1275838.9170	PC
23	203+26.06	00.00	150.76	468920.7850	1275921.0803	PT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

GG-03
GRADES AND GEOMETRICS

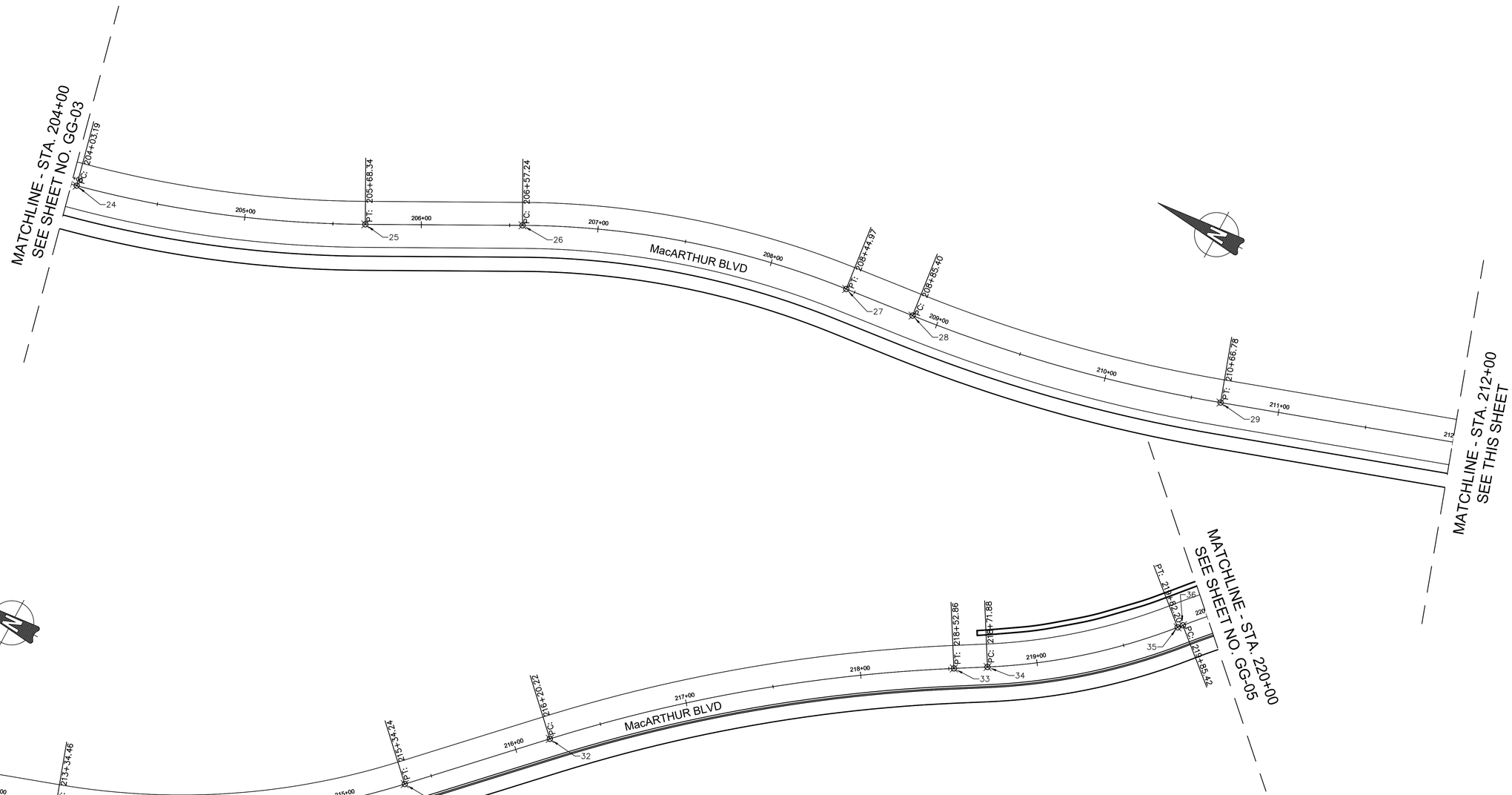
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 6 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pGG_MacArthur.dwg LAYOUT NAME: GG-03 PLOTTED: Friday, June 17, 2022 - 4:04pm USER: AHavener



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
24	204+03.19	00.00	150.48	468845.8087	1275939.1781	PC
25	205+68.34	00.00	149.74	468691.8879	1275997.7984	PT
26	206+57.24	00.00	150.11	468613.4883	1276039.7091	PC
27	208+44.97	00.00	150.18	468435.3691	1276095.4316	PT
28	208+85.40	00.00	150.00	468395.2122	1276100.0888	PC
29	210+66.78	00.00	149.72	468218.6212	1276139.9781	PT
30	213+34.46	00.00	150.17	467965.2829	1276226.4284	PC
31	215+34.24	00.00	149.80	467797.9839	1276332.2243	PT
32	216+20.22	00.00	149.88	467738.0190	1276393.8331	PC
33	218+52.86	00.00	149.67	467556.1315	1276537.8381	PT
34	218+71.88	00.00	149.68	467539.8202	1276547.6251	PC
35	219+82.20	00.00	149.74	467456.0007	1276618.6084	PT
36	219+85.42	00.00	149.73	467453.9096	1276621.0616	PC

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

GG-04
GRADES AND GEOMETRICS

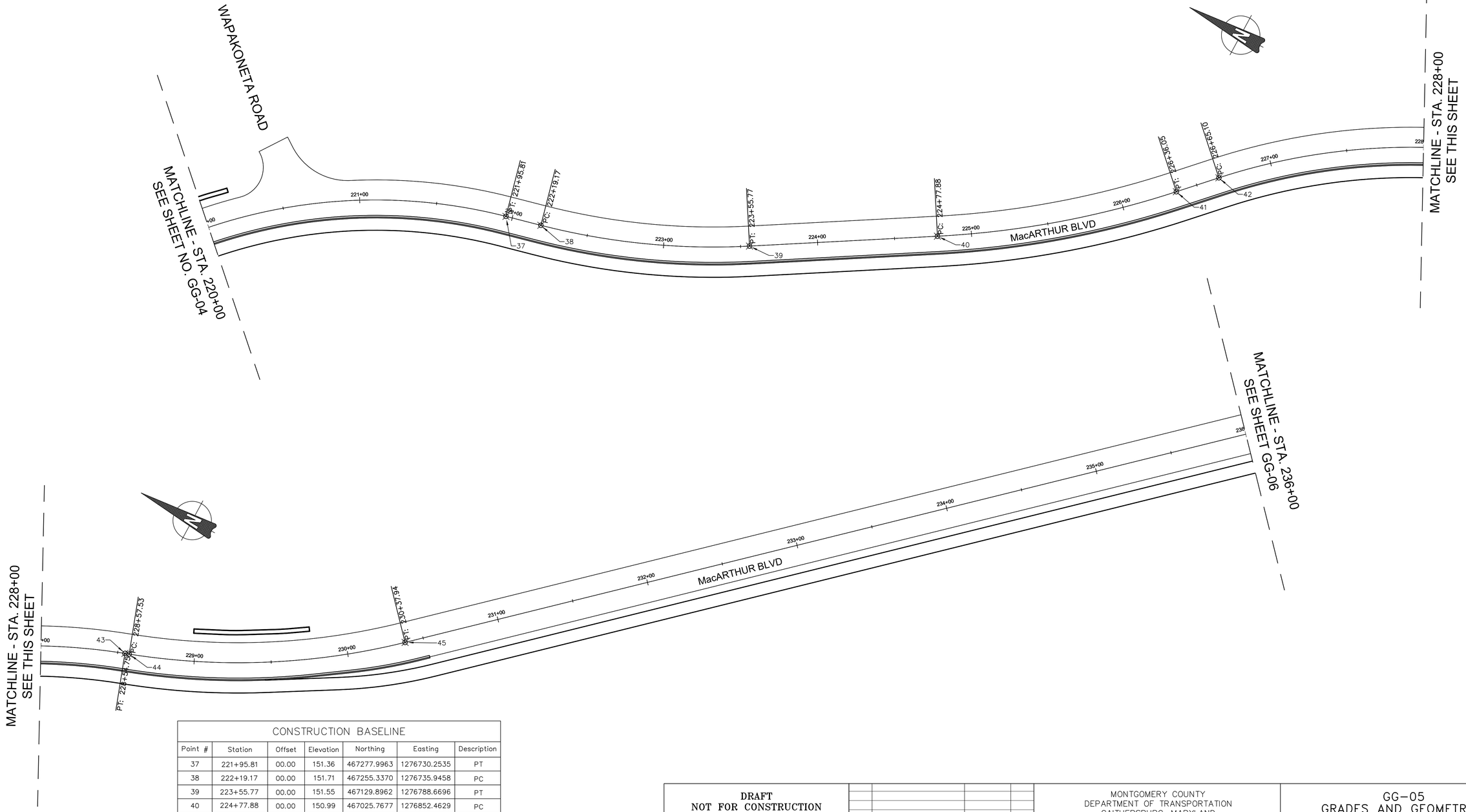
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 7 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pGG_MacArthur.dwg LAYOUT NAME: GG-04 PLOTTED: Friday, June 17, 2022 – 4:04pm USER: AHavener



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
37	221+95.81	00.00	151.36	467277.9963	1276730.2535	PT
38	222+19.17	00.00	151.71	467255.3370	1276735.9458	PC
39	223+55.77	00.00	151.55	467129.8962	1276788.6696	PT
40	224+77.88	00.00	150.99	467025.7677	1276852.4629	PC
41	226+36.05	00.00	150.17	466903.2800	1276951.8124	PT
42	226+65.10	00.00	150.14	466883.3251	1276972.9123	PC
43	228+54.75	00.00	150.31	466725.7816	1277075.2797	PT
44	228+57.53	00.00	150.31	466723.1544	1277076.2066	PC
45	230+37.94	00.00	150.64	466569.4160	1277168.2788	PT

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

GG-05
GRADES AND GEOMETRICS

MACARTHUR BOULEVARD BIKEWAY PHASE III

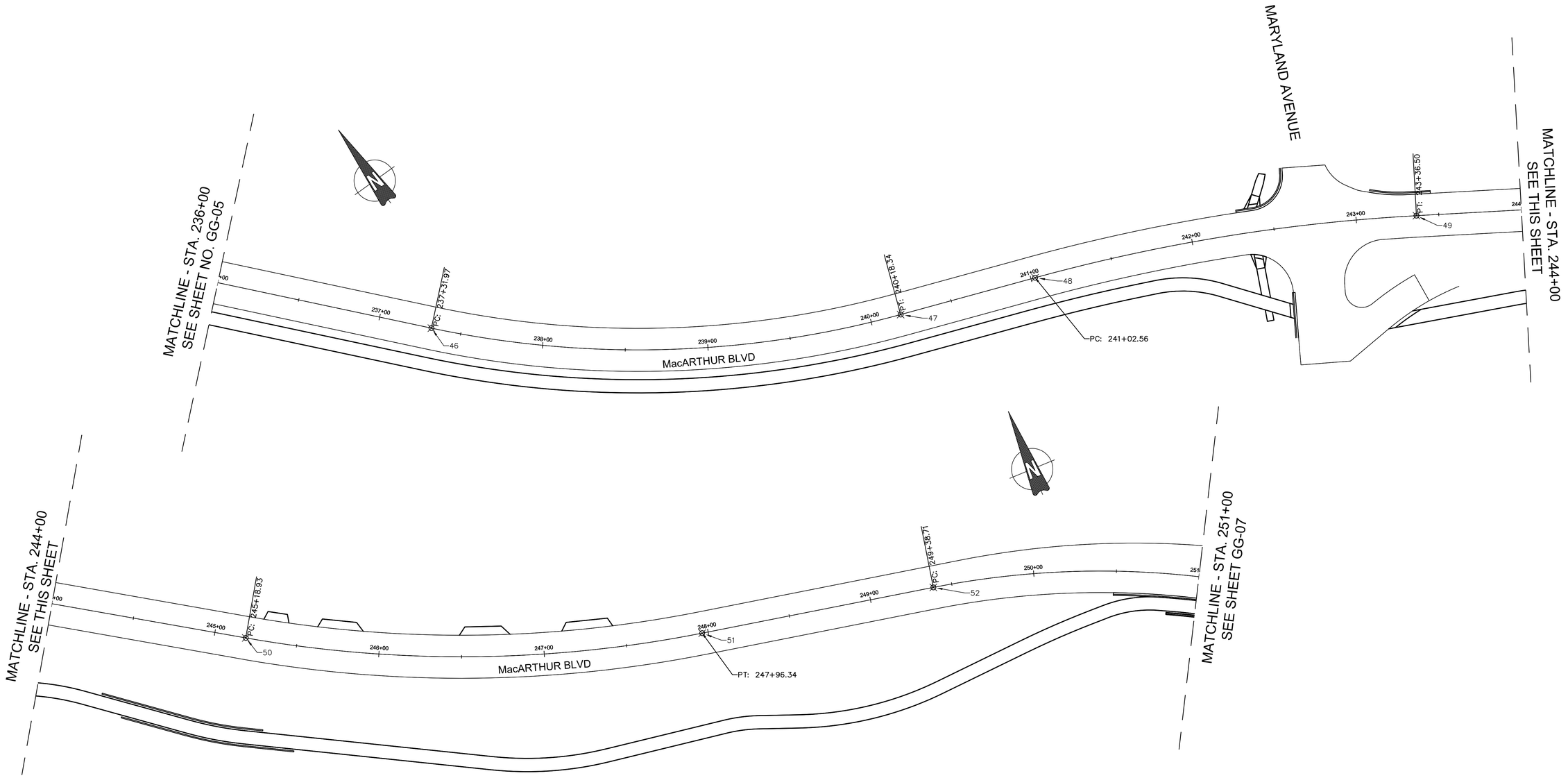
0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 8 of 156



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
46	237+31.97	00.00	150.72	466056.9206	1277636.2831	PC
47	240+18.34	00.00	150.51	465898.6083	1277871.6559	PT
48	241+02.56	00.00	150.64	465869.4552	1277950.6718	PC
49	243+36.50	00.00	150.65	465765.8409	1278159.9137	PT
50	245+18.93	00.00	156.08	465667.9900	1278313.8853	PC
51	247+96.34	00.00	172.72	465565.3753	1278569.9192	PT
52	249+38.71	00.00	182.27	465537.6146	1278709.5592	PC

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NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

GG-06
GRADES AND GEOMETRICS

MACARTHUR BOULEVARD BIKEWAY PHASE III

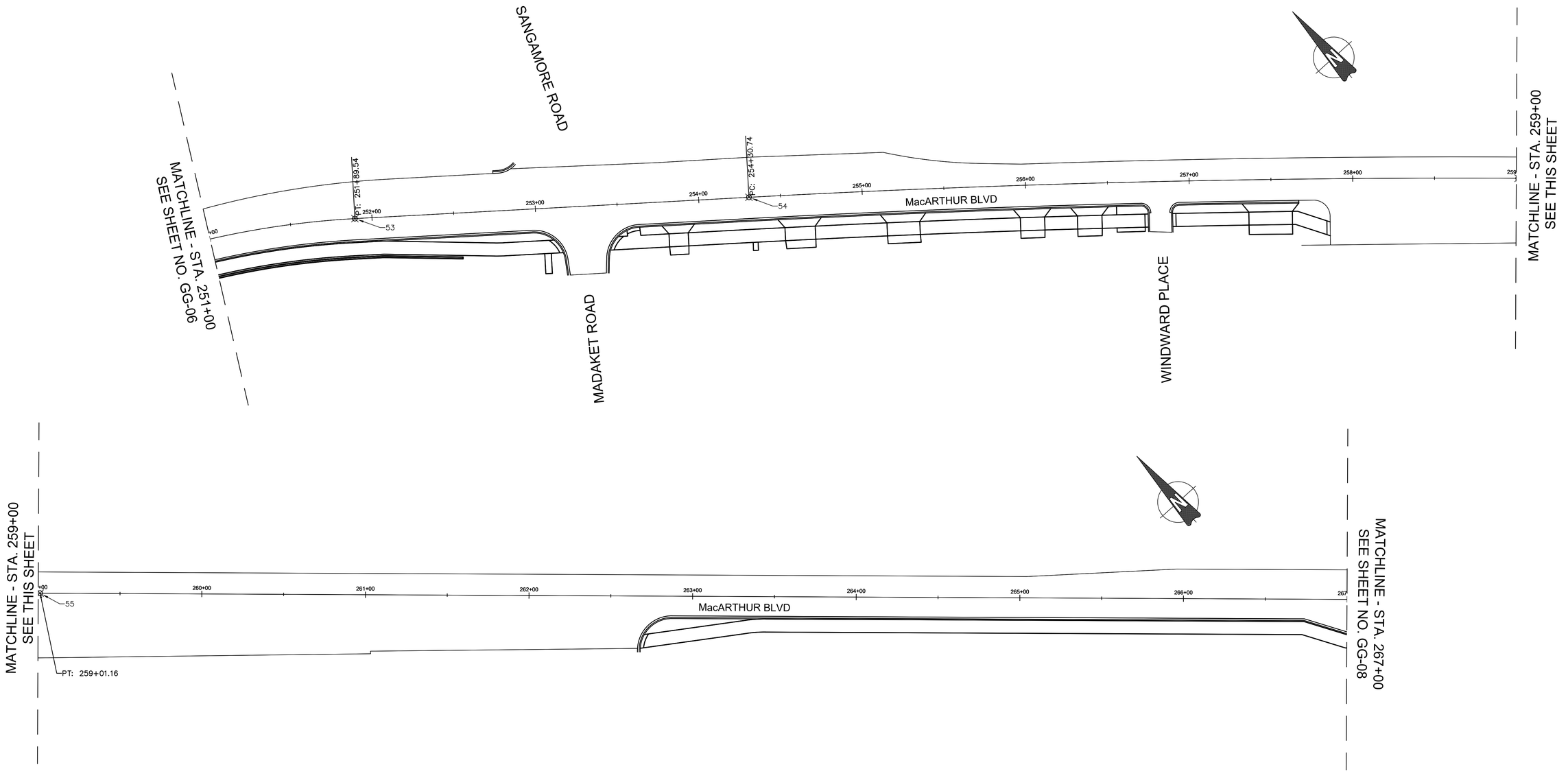
0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 9 of 156



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
53	251+89.54	00.00	198.18	465432.3898	1278934.5735	PT
54	254+30.74	00.00	206.79	465280.9859	1279122.3374	PC
55	259+01.16	00.00	213.65	464975.1108	1279479.6419	PT

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NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

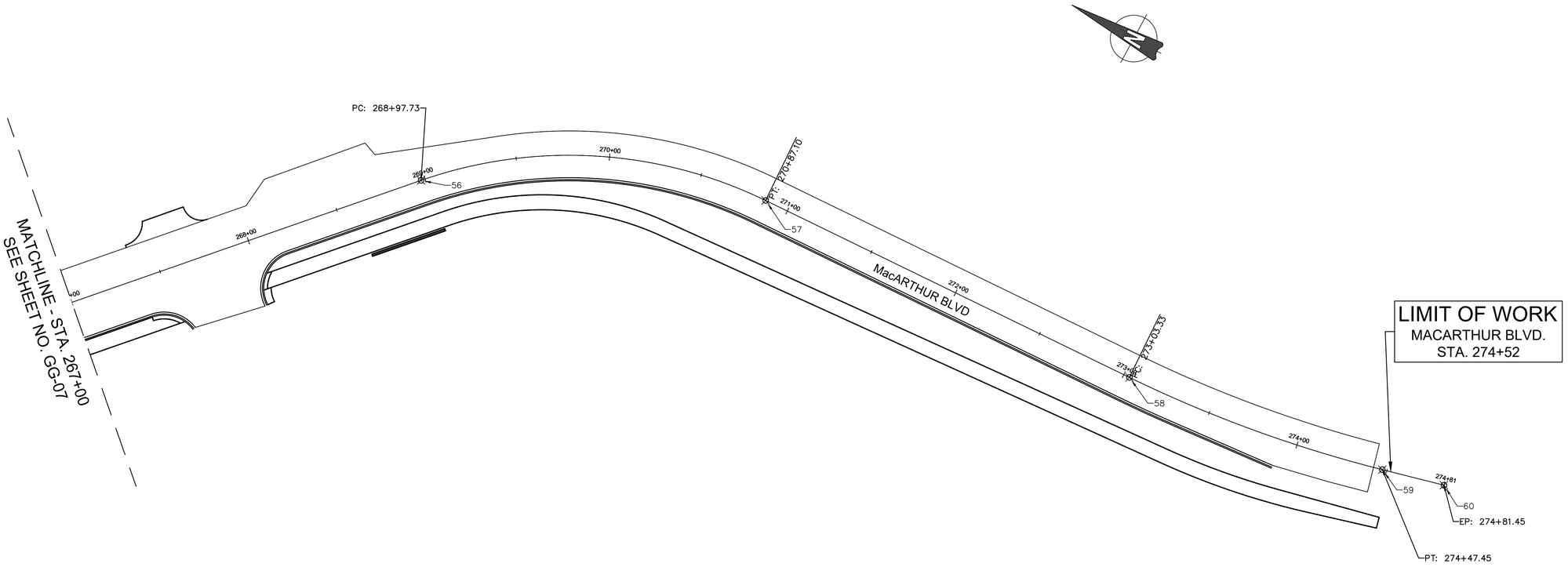
Designed by: ADH Drawn by: KTL Checked by: JJR

GG-07
GRADES AND GEOMETRICS
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 10 of 156



CONSTRUCTION BASELINE						
Point #	Station	Offset	Elevation	Northing	Easting	Description
56	268+97.73	00.00	187.27	464305.0449	1280217.3228	PC
57	270+87.10	00.00	174.19	464138.0375	1280295.7181	PT
58	273+03.33	00.00	165.13	463922.0163	1280305.3086	PC
59	274+47.45	00.00	162.07	463779.7130	1280326.4237	PT
60	247+81.45	00.00	MATCH EX.	463746.7704	1280334.8440	POE

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NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

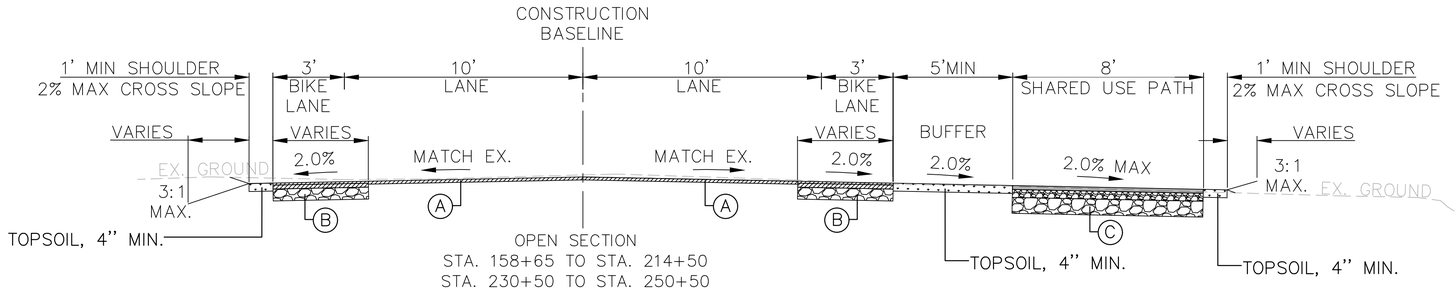
GG-08
GRADES AND GEOMETRICS
MACARTHUR BOULEVARD BIKEWAY PHASE III

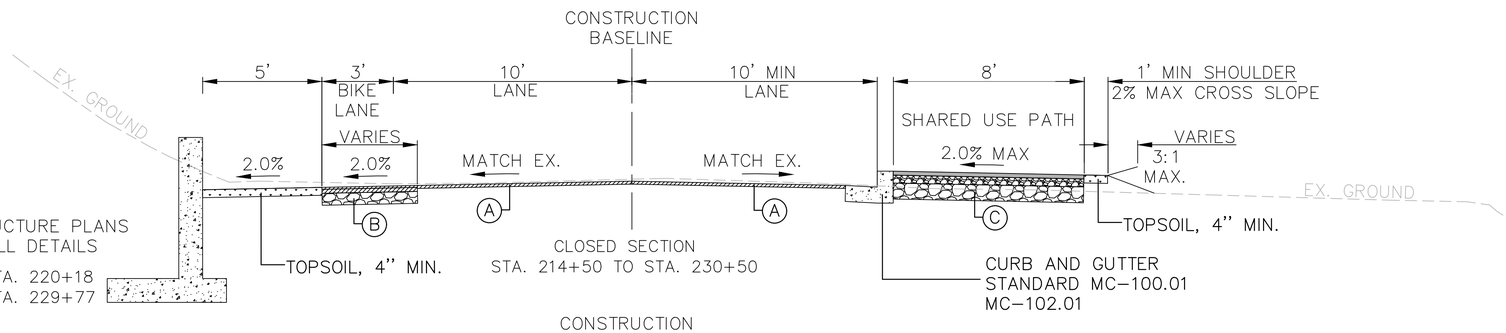
0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 11 of 156

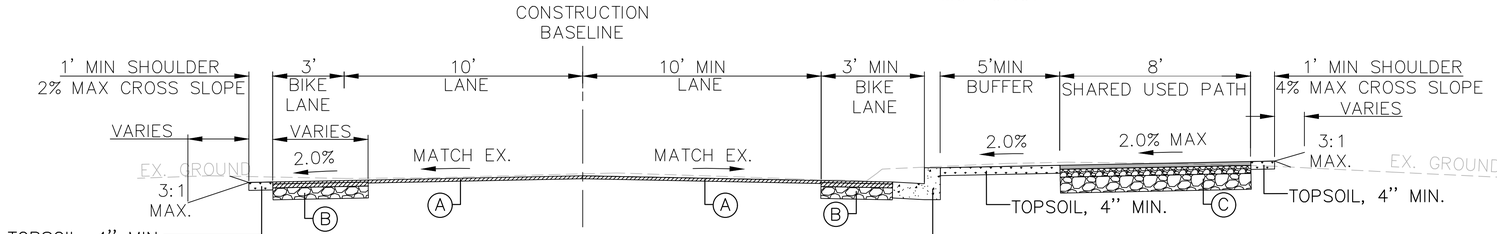
FILE NAME: C:\pwworking\jmt\d0320713\pGG_MacArthur.dwg LAYOUT NAME: GG-08 PLOTTED: Friday, June 17, 2022 - 4:04pm USER: AHavener

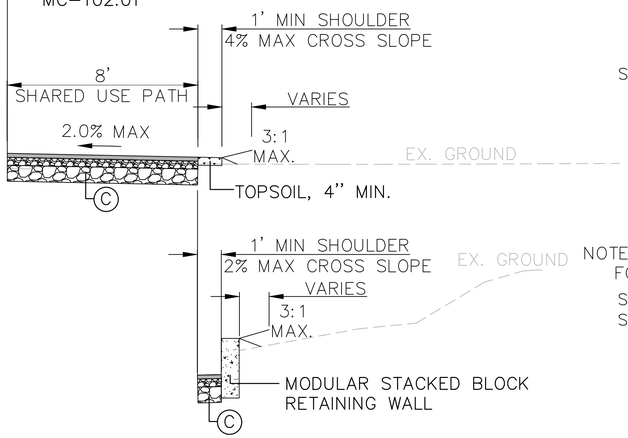




NOTE: REFER TO STRUCTURE PLANS FOR RETAINING WALL DETAILS

STA. 218+67 TO STA. 220+18
STA. 228+99 TO STA. 229+77

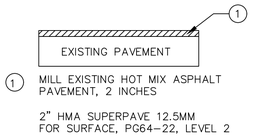




STA. 262+87 TO STA. 267+38

NOTE: REFER TO STRUCTURE PLANS FOR RETAINING WALL DETAILS

STA. 250+82 TO STA. 252+54
STA. 268+60 TO STA. 269+02

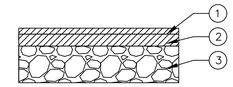


1 MILL EXISTING HOT MIX ASPHALT PAVEMENT, 2 INCHES

2" HMA SUPERPAVE 12.5MM FOR SURFACE, PG64-22, LEVEL 2

(A) MILL/OVERLAY DETAIL

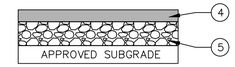
NTS



1 3" HMA SUPERPAVE 12.5MM FOR SURFACE, PG64-22, LEVEL-2
2 5" HMA SUPERPAVE 12.55MM FOR BASE, PG64-22, LEVEL-2
3 12" GRADED AGGREGATE BASE COURSE

(B) FULL DEPTH PAVEMENT DETAIL

NTS



4 2" ASPHALT
5 4" CR-6 GRADED AGGREGATE BASE COURSE

(C) SHARED USE PATH DETAIL

NTS



1 3" HMA SUPERPAVE 12.5MM FOR SURFACE, PG64-22, LEVEL 2
2 3" HMA SUPERPAVE 19.0MM FOR BASE, PG64-22, LEVEL 2

IMPERVIOUS PAVEMENT DETAIL – DRIVEWAYS

NTS

NOTES:
1. MAXIMUM ALLOWABLE TRAIL CROSS SLOPE IS 2.0% MAX. FOR ADA COMPLIANCE, WITH ZERO CONSTRUCTION TOLERANCE TO EXCEED 2.0%.

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: KTL Checked by: JJR

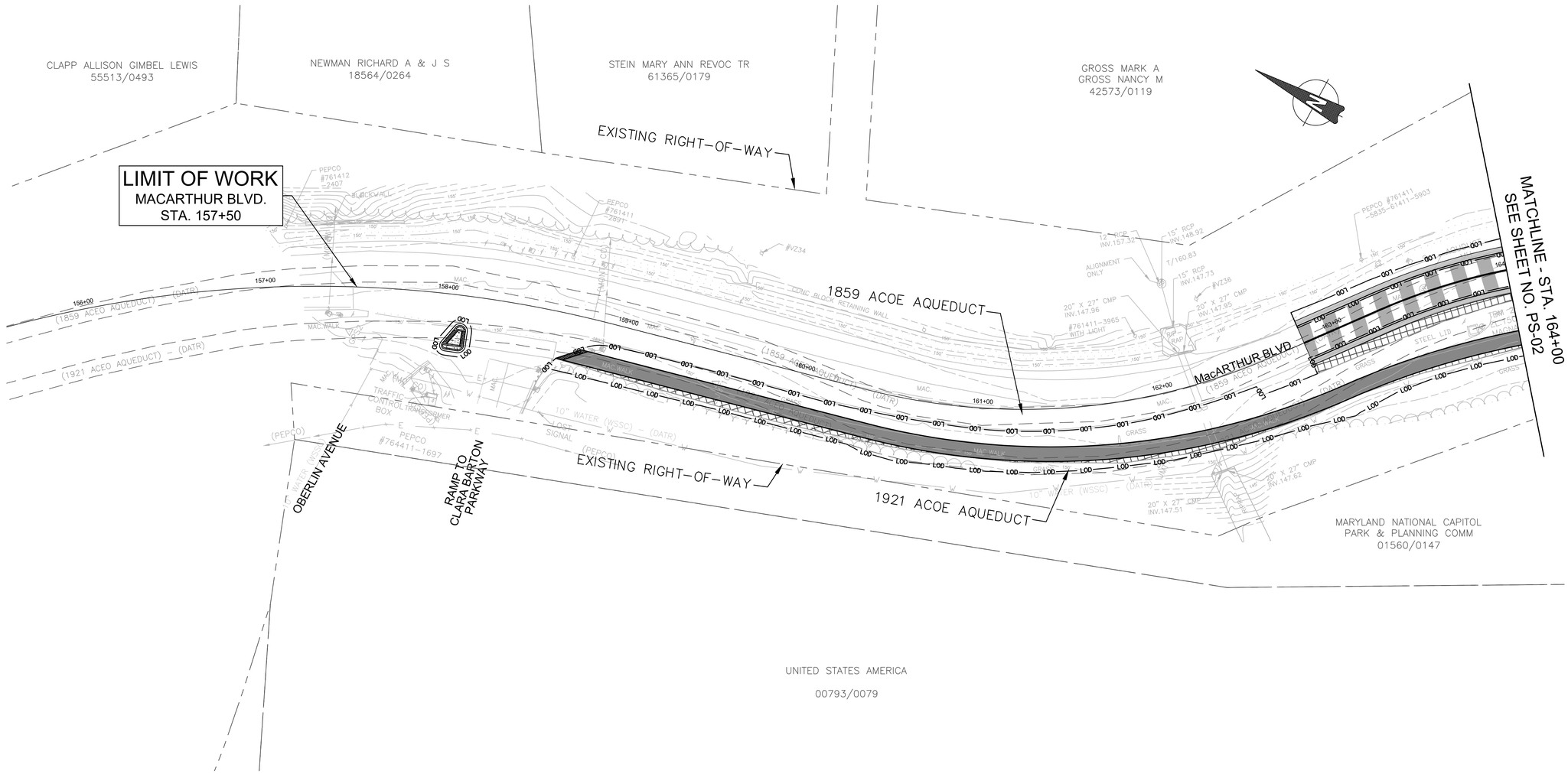
TS-01
TYPICAL SECTIONS
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 12 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHT_TypicalSections_PlanSet.dwg LAYOUT NAME: TS-01 PLOTTED: Friday, June 17, 2022 - 4:06pm USER: AHavener



SHARED USE PATH		
QUANTITY	FROM	TO
4,269 SF	158+70 RT	164+00 RT

RESIDENTIAL SIDEWALK MC-110.01		
QUANTITY	FROM	TO
86 SF	158+00 RT	158+12 RT

DETECTABLE WARNING SURFACE MD-655.40		
QUANTITY	STATION	WIDTH
19 SF	158+05 RT	10.0'
16 SF	158+10 RT	8.0'
30 SF	158+76 LT	15.0'

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
1,547 SF	158+67 RT	164+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
2,128 SF	162+82	164+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
482 SF	162+82 LT	164+00 LT
464 SF	162+82 RT	164+00 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL-IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD — LIMIT OF DISTURBANCE

NOTES:
1. MAXIMUM ALLOWABLE TRAIL CROSS SLOPE IS 2.0% MAX. FOR ADA COMPLIANCE, WITH ZERO CONSTRUCTION TOLERANCE TO EXCEED 2.0%.
2. COORDINATION WITH US ARMY CORPS OF ENGINEERS WILL BE REQUIRED FOR ANY WORK ABOVE OR NEAR THE HISTORIC AQUEDUCTS TO MINIMIZE DISTURBANCE AND AVOID IMPACT.

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS-01
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 13 of 156

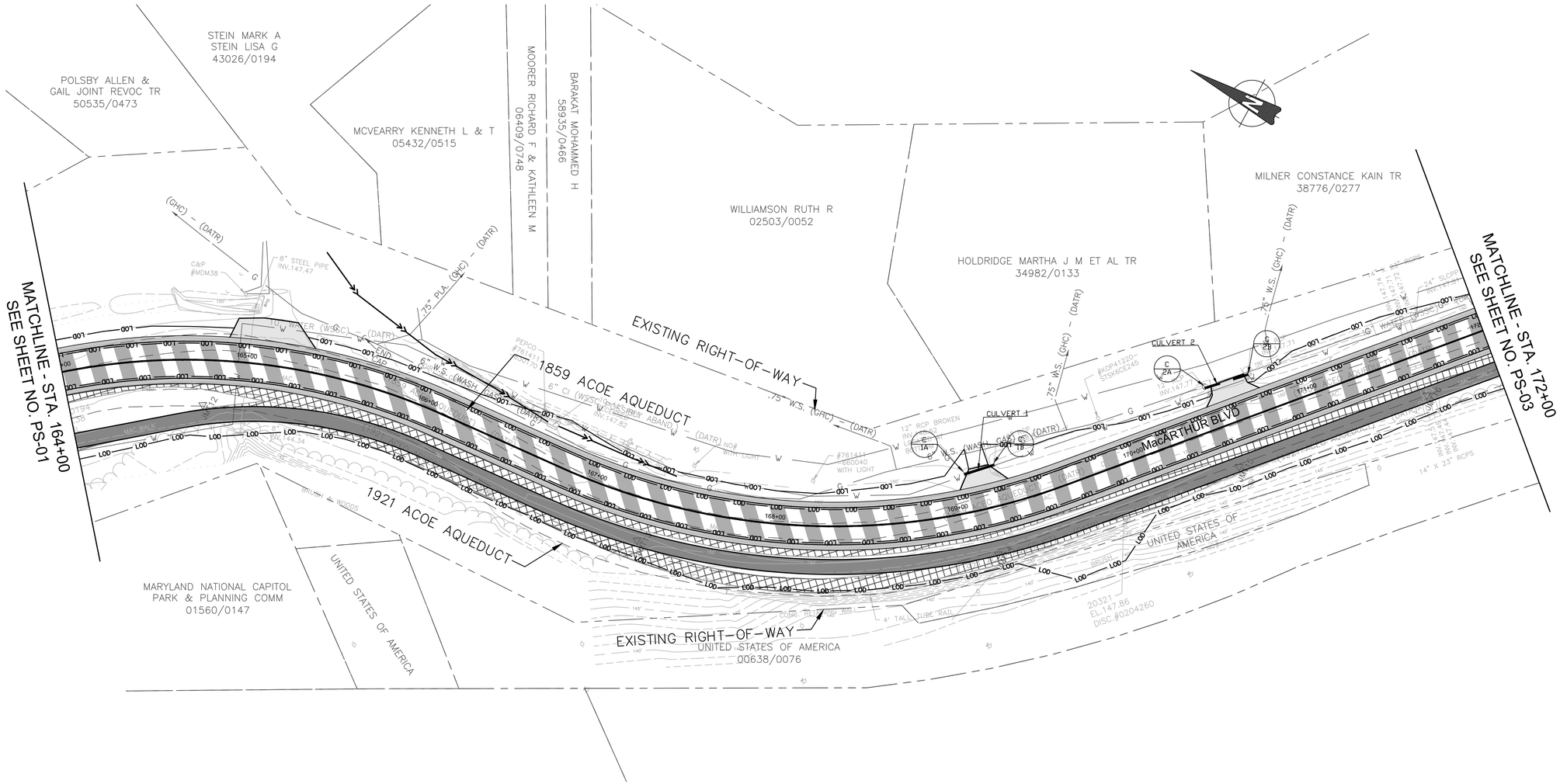
SHARED USE PATH		
QUANTITY	FROM	TO
6,402 SF	164+00 RT	172+00 RT

RESIDENTIAL DRIVEWAY MC – 301.01		
QUANTITY	STATION	WIDTH
51 SY	165+09 LT	32.0'
21 SY	169+16 LT	11.0'
25 SY	170+61 LT	16.0'

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
6,017 SF	164+00 RT	172+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
14,400 SF	164+00	172+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,193 SF	164+00 LT	172+00 LT
3,207 SF	164+00 RT	172+00 RT



LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD — LIMIT OF DISTURBANCE

NOTES:
1. MAXIMUM ALLOWABLE TRAIL CROSS SLOPE IS 2.0% MAX. FOR ADA COMPLIANCE, WITH ZERO CONSTRUCTION TOLERANCE TO EXCEED 2.0%.
2. COORDINATION WITH US ARMY CORPS OF ENGINEERS WILL BE REQUIRED FOR ANY WORK ABOVE OR NEAR THE HISTORIC AQUEDUCTS TO MINIMIZE DISTURBANCE AND AVOID IMPACT.

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS–02
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

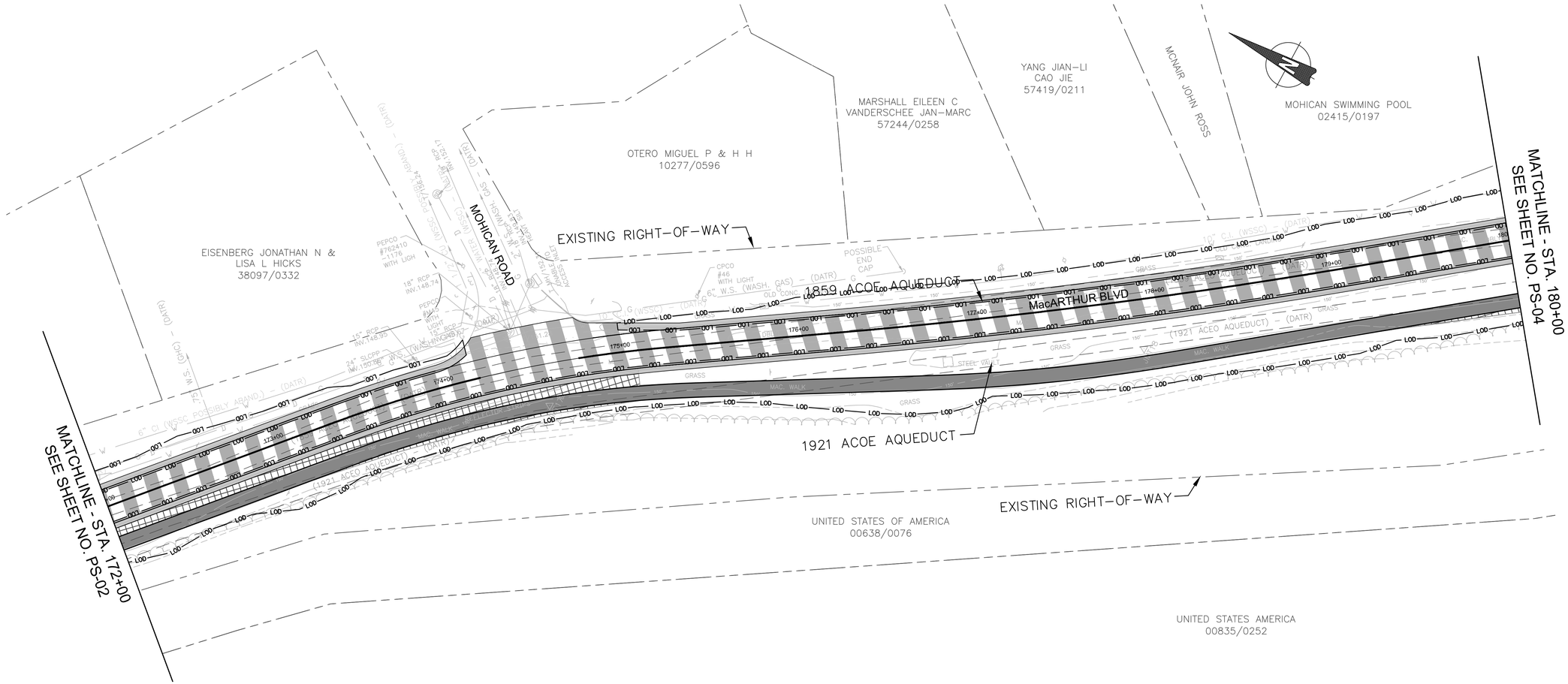
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 14 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHD–0001_MacArthur.dwg LAYOUT NAME: PS–02 PLOTTED: Friday, June 17, 2022 – 4:59pm USER: AHavener



SHARED USE PATH		
QUANTITY	FROM	TO
6,376 SF	172+00 RT	180+00 RT

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
1,973 SF	172+00 RT	180+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
15,576 SF	172+00	180+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
872 SF	172+00 LT	174+16 LT
2,000 SF	175+00 LT	180+00 LT
3,192 SF	172+00 RT	180+00 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL-IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD LIMIT OF DISTURBANCE

NOTES:
1. MAXIMUM ALLOWABLE TRAIL CROSS SLOPE IS 2.0% MAX. FOR ADA COMPLIANCE, WITH ZERO CONSTRUCTION TOLERANCE TO EXCEED 2.0%.
2. COORDINATION WITH US ARMY CORPS OF ENGINEERS WILL BE REQUIRED FOR ANY WORK ABOVE OR NEAR THE HISTORIC AQUEDUCTS TO MINIMIZE DISTURBANCE AND AVOID IMPACT.

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS-03
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 15 of 156

SHARED USE PATH		
QUANTITY	FROM	TO
4,081 SF	180+00 RT	185+03 RT
688 SF	185+32 RT	186+15 RT
1,238 SF	186+43 RT	188+00 RT

RESIDENTIAL DRIVEWAY MC – 301.01		
QUANTITY	STATION	WIDTH
52 SY	180+95 LT	26.0'
20 SY	186+21 LT	13.0'

DETECTABLE WARNING SURFACE MD–655.40		
QUANTITY	STATION	WIDTH
16 SF	181+14 RT	8.0'
20 SF	185+02 RT	11.0'
16 SF	185+32 LT	8.0'
16 SF	185+44 RT	8.0'
16 SF	186+15 LT	8.0'
20 SF	186+45 LT	11.0'

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
1,362 SF	180+00 RT	185+06 RT
844 SF	185+51 RT	188+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
21,895 SF	180+00	188+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
260 SF	180+00 LT	180+65 LT
1,296 SF	181+29 LT	184+51 LT
558 SF	186+60 LT	188+00 LT
1,942 SF	180+00 RT	184+87 RT
1,371 SF	185+06 RT	185+53 RT
563 SF	186+59 RT	188+00 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD LIMIT OF DISTURBANCE

MATCHLINE - STA. 180+00
SEE SHEET NO. PS-03

MATCHLINE - STA. 188+00
SEE SHEET NO. PS-05

MOHICAN SWIMMING POOL
02415/0197

MOHICAN SWIMMING POOL INC
03356/0560

EXISTING RIGHT–OF–WAY

WALHONDING ROAD

MacARTHUR BLVD

1859 ACOE AQUEDUCT

1921 ACOE AQUEDUCT

CULVERT 3

7025 MACARTHUR LLC
38575/0446

HAZEN ROBERT M REV TR
HAZEN MARGARET H REV TR
45390/0475

STRUNNIKOV ALEXANDER V &
NATALIA V STRUNNIKOVA
32027/0447

UNITED STATES OF AMERICA
00638/0076

UNITED STATES AMERICA
00835/0252

NOTES:
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DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS–04
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 16 of 156

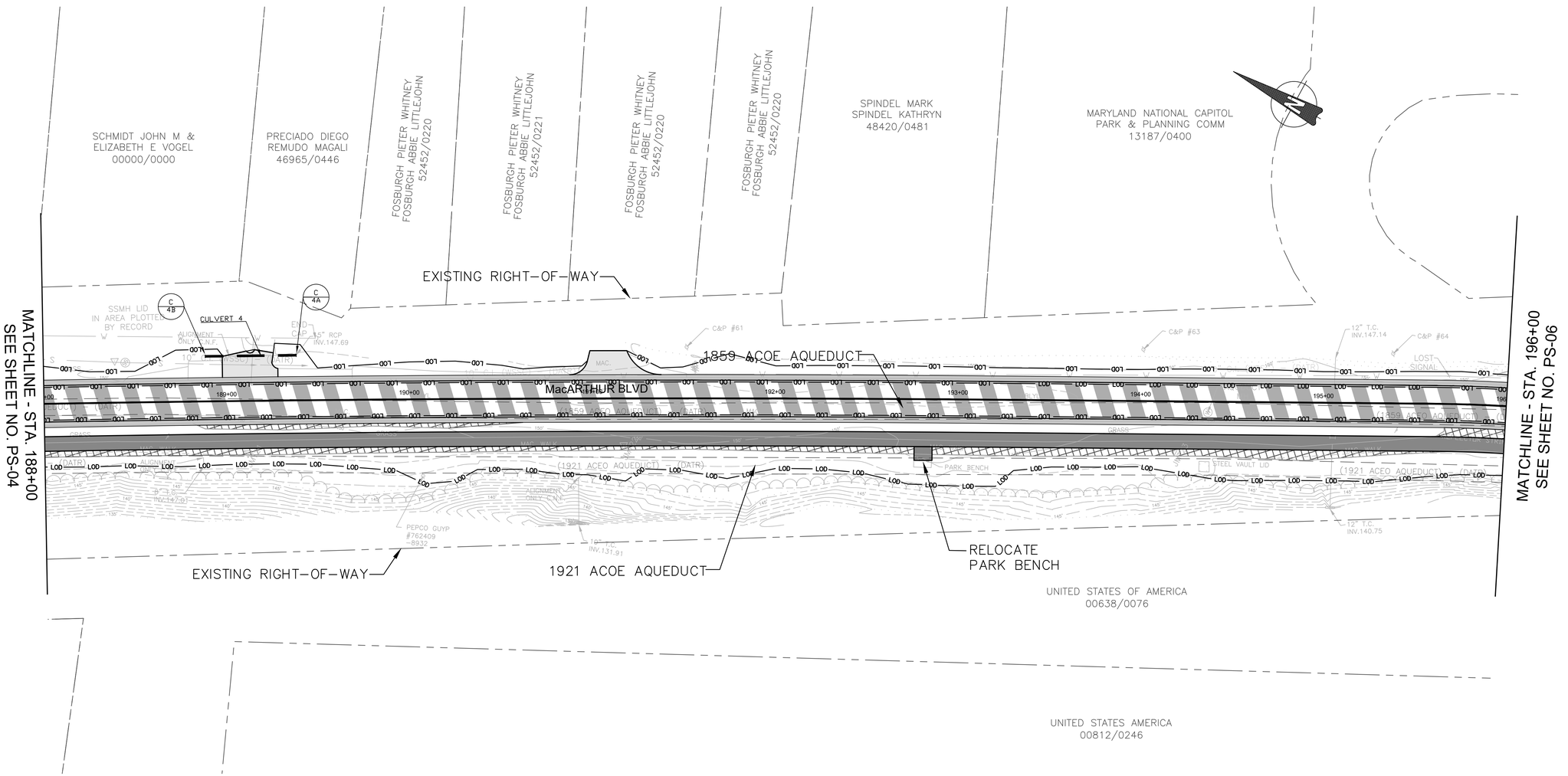
SHARED USE PATH		
QUANTITY	FROM	TO
6,461 SF	188+00 RT	196+00 RT

RESIDENTIAL DRIVEWAY MC – 301.01		
QUANTITY	STATION	WIDTH
43 SY	189+12 LT	30.0'
41 SY	191+09 LT	20.0'

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
3,122 SF	188+00 RT	196+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
14,400 SF	188+00	196+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,203 SF	188+00 LT	196+00 LT
3,197 SF	188+00 RT	196+00 RT



LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD — LIMIT OF DISTURBANCE

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

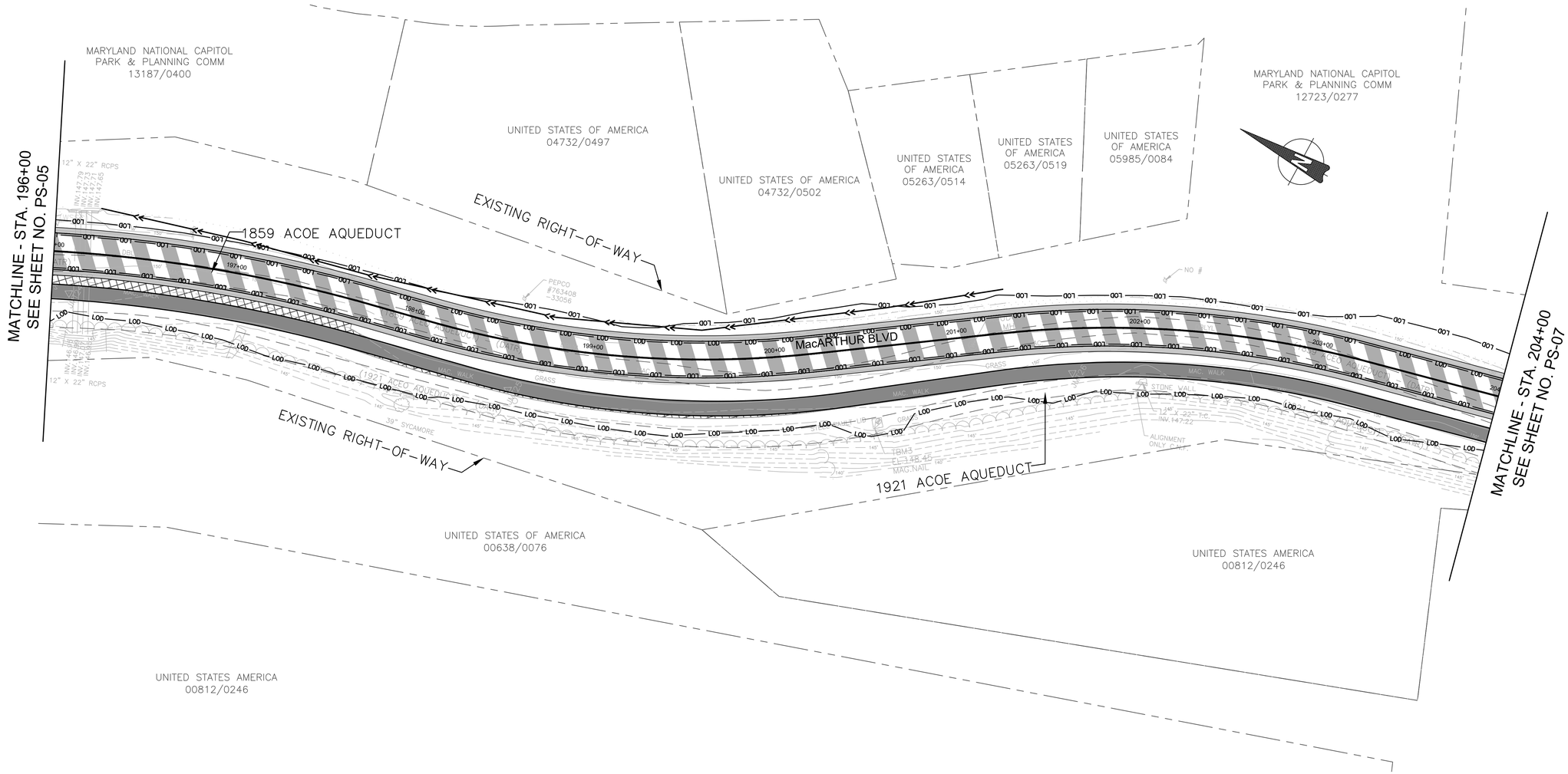
PS–05
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 17 of 156



SHARED USE PATH		
QUANTITY	FROM	TO
6,374 SF	196+00 RT	204+00 RT

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
1,174 SF	196+00 RT	201+14 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
14,440 SF	196+00	204+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,209 SF	196+00 LT	204+00 LT
3,191 SF	196+00 RT	204+00 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD — LIMIT OF DISTURBANCE

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

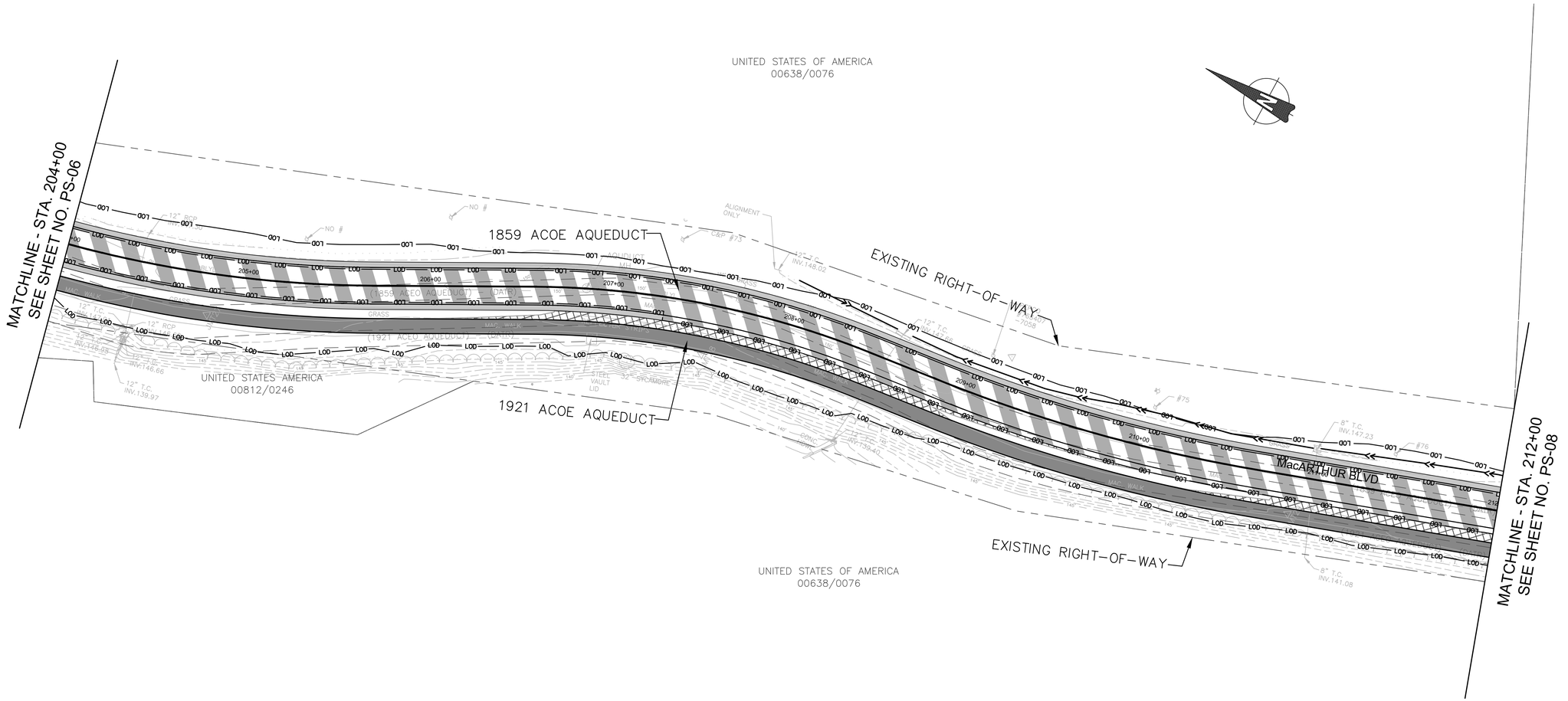
PS–06
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 18 of 156



SHARED USE PATH		
QUANTITY	FROM	TO
6,416 SF	204+00 RT	212+00 RT

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
2,047 SF	205+92 RT	212+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
16,283 SF	204+00	212+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,196 SF	204+00 LT	212+00 LT
1,321 SF	204+00 RT	207+29 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL-IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
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DRAFT
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

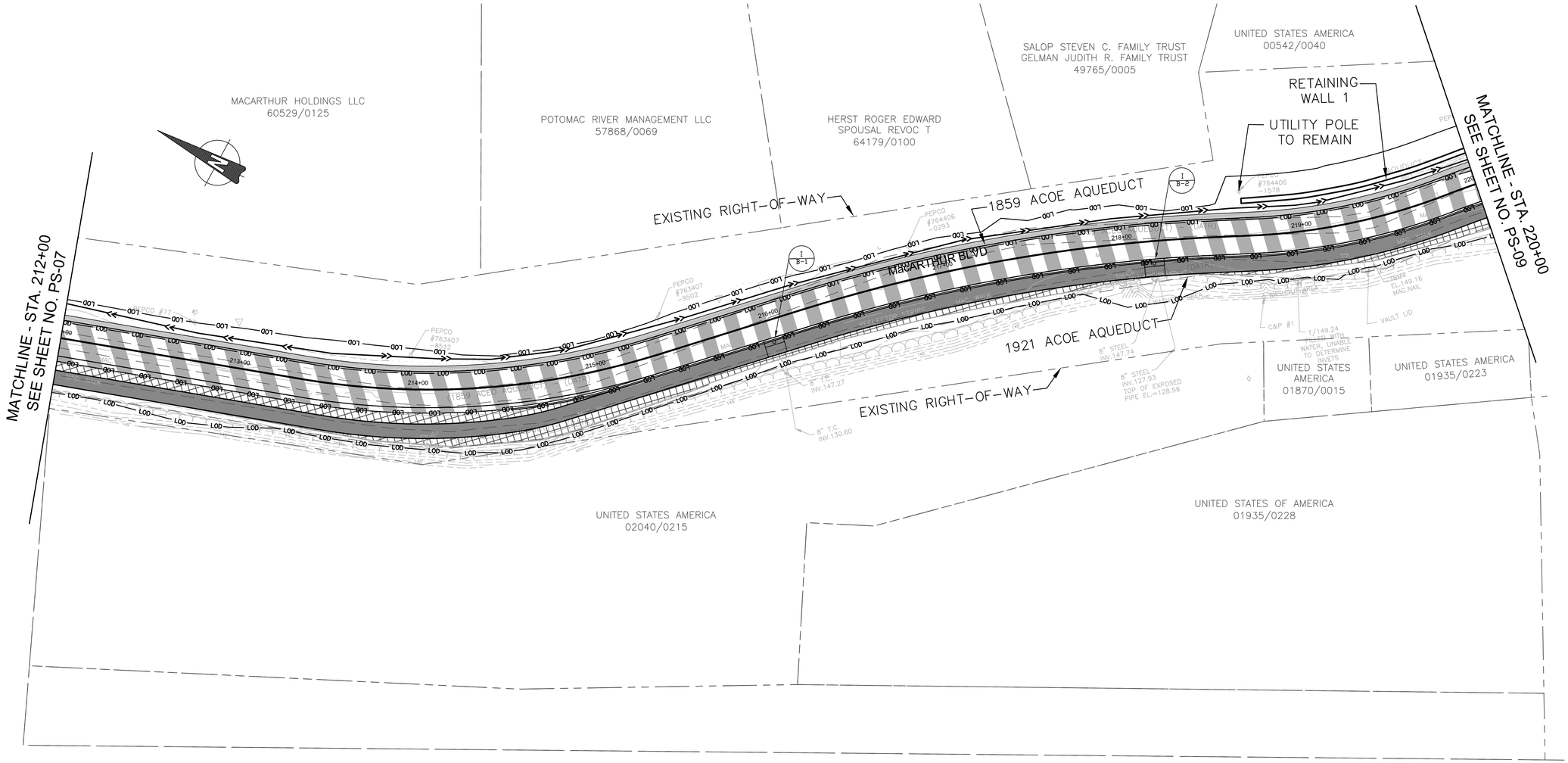
PS-07
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 19 of 156



SHARED USE PATH		
QUANTITY	FROM	TO
6,484 SF	212+00 RT	220+00 RT

COMBINATION CONCRETE CURB AND GUTTER – TYPE A MC-100.01		
QUANTITY	FROM	TO
552 LF	214+50 RT	220+00 RT

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
3,790 SF	212+00 RT	220+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
16,054 SF	212+00	220+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,192 SF	212+00 LT	220+00 LT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD LIMIT OF DISTURBANCE

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DRAFT
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS–08
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 20 of 156

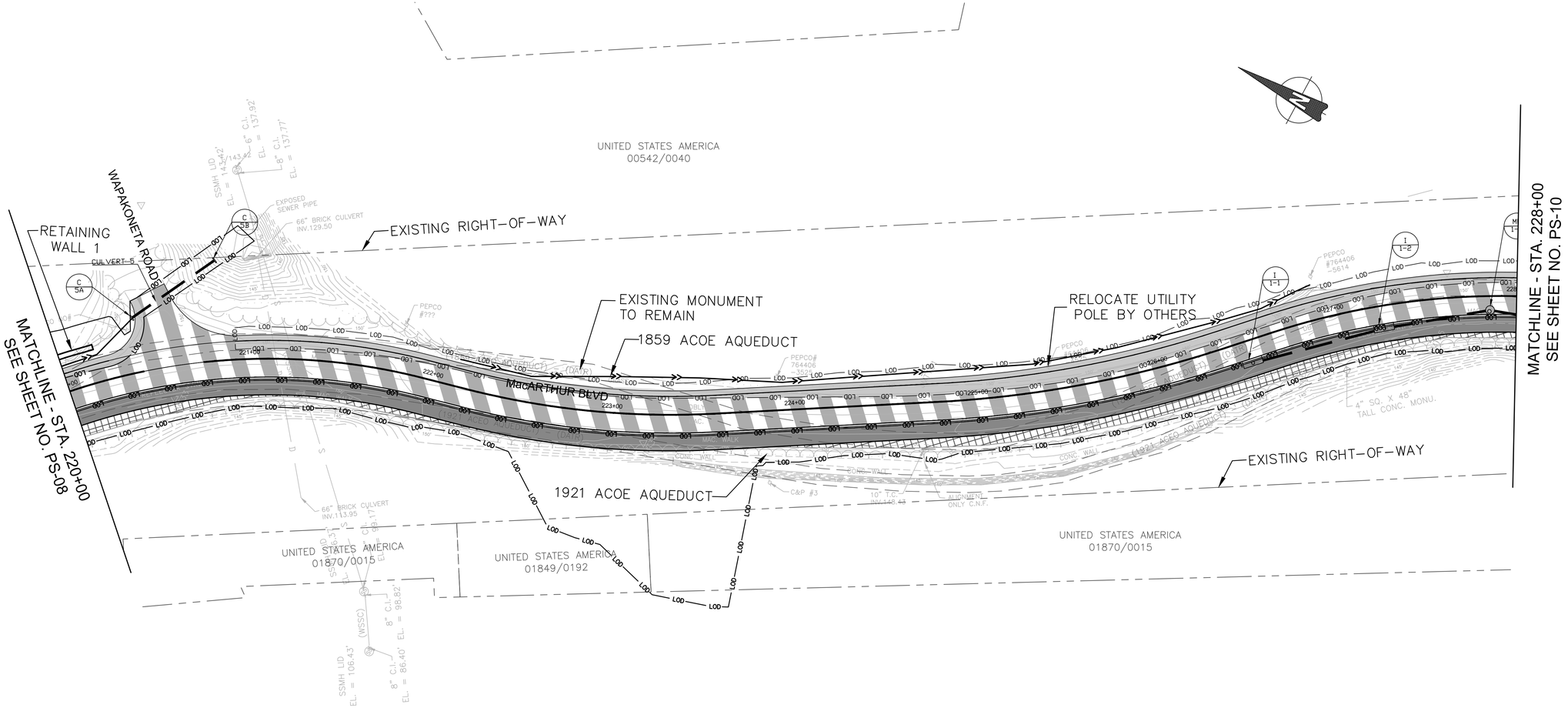
SHARED USE PATH		
QUANTITY	FROM	TO
6,357 SF	220+00 RT	228+00 RT

COMBINATION CONCRETE CURB AND GUTTER – TYPE A MC–100.01		
QUANTITY	FROM	TO
796 LF	220+00 RT	228+00 RT

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
2,662 SF	220+00 RT	228+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
14,092 SF	220+00	228+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
371 SF	220+00 LT	220+47 LT
4,855 SF	220+92 LT	228+00 LT



LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- —LOD— LIMIT OF DISTURBANCE

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GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

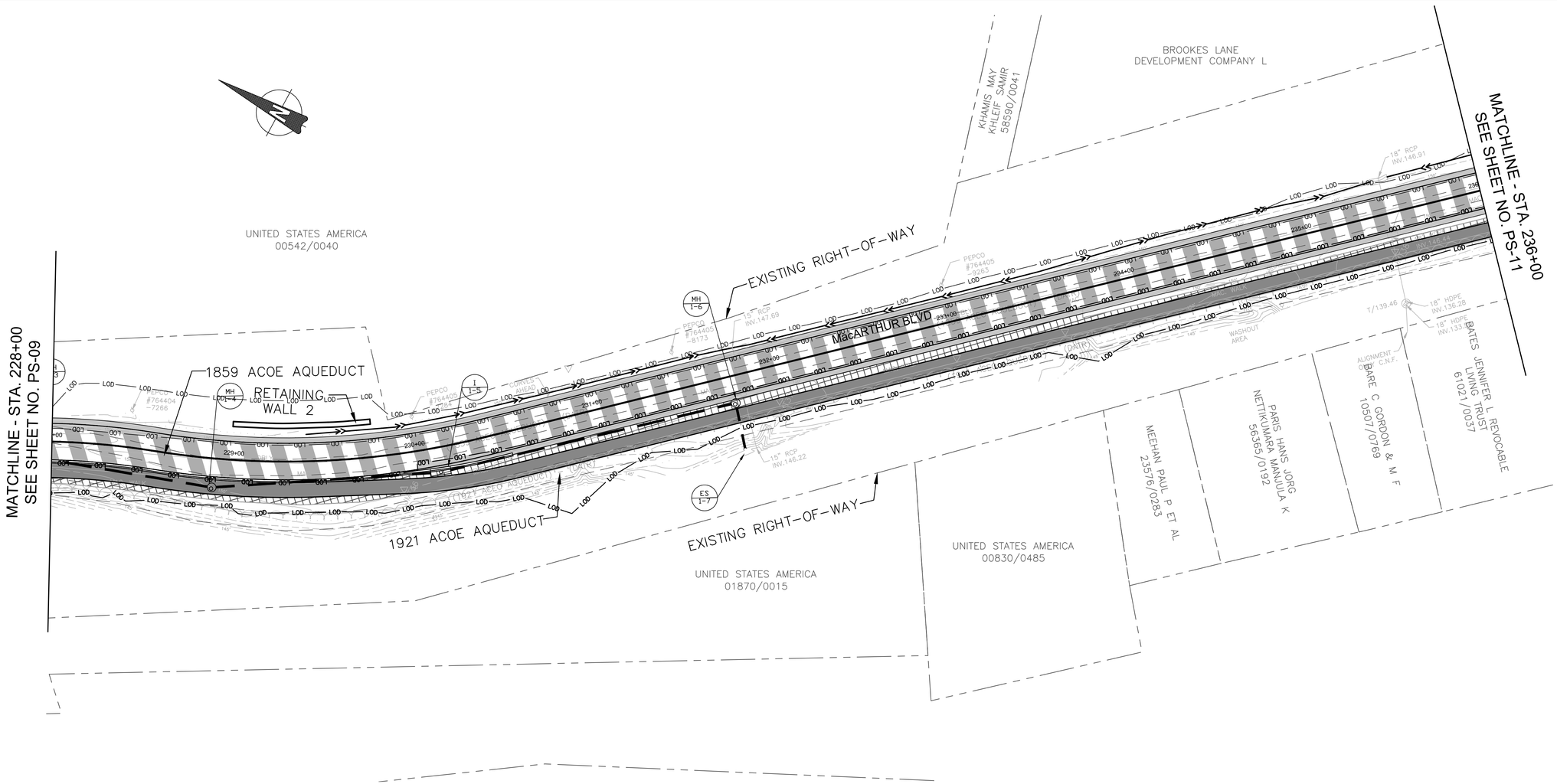
PS–09
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 21 of 156



SHARED USE PATH		
QUANTITY	FROM	TO
6,439 SF	228+00 RT	236+00 RT

COMBINATION CONCRETE CURB AND GUTTER – TYPE A MC-100.01		
QUANTITY	FROM	TO
254 LF	228+00 RT	230+51 RT

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
3,055 SF	228+00 RT	236+00 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
14,423 SF	228+00	236+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,304 SF	228+00 LT	236+00 LT
2,395 SF	230+00 RT	236+00 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD LIMIT OF DISTURBANCE

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

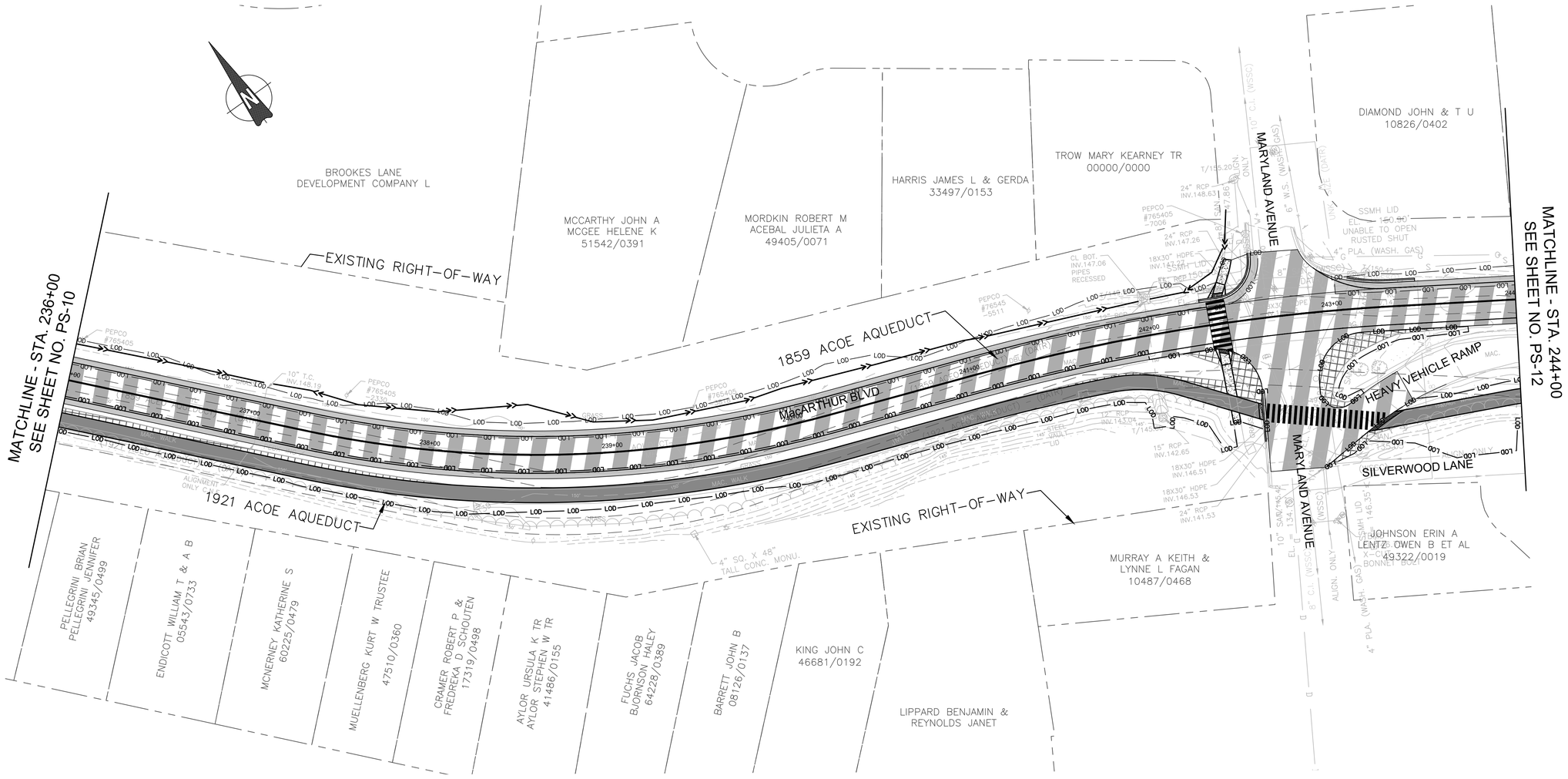
Designed by: ADH Drawn by: ADH Checked by: JJR

PS-10
ROADWAY PLAN
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 22 of 156



SHARED USE PATH		
QUANTITY	FROM	TO
5,324 SF	236+00 RT	242+53 RT
583 SF	243+19 RT	244+00 RT

RESIDENTIAL SIDEWALK MC-110.01		
QUANTITY	FROM	TO
107 SF	242+34 LT	242+49 RT
157 SF	242+34 RT	242+42 RT

COMBINATION CONCRETE CURB AND GUTTER - TYPE A MC-100.01		
QUANTITY	FROM	TO
43 LF	242+29 LT	242+58 RT
37 LF	243+09 LT	243+46 LT
27 LF	242+57 RT	242+55 RT

DETECTABLE WARNING SURFACE MD-655.40		
QUANTITY	STATION	WIDTH
11 SF	242+40 LT	5.0'
11 SF	242+39 RT	5.0'
17 SF	242+53 RT	9.0'
37 SF	243+28 RT	9.0'

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
1,031 SF	236+00 RT	242+57 RT
710 SF	242+88 RT	243+73 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
19,640 SF	236+00	244+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
2,690 SF	236+00 LT	242+63 LT
526 SF	243+02 LT	244+00 LT
2,407 SF	236+00 RT	241+97 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL-IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD LIMIT OF DISTURBANCE

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS-11
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 23 of 156

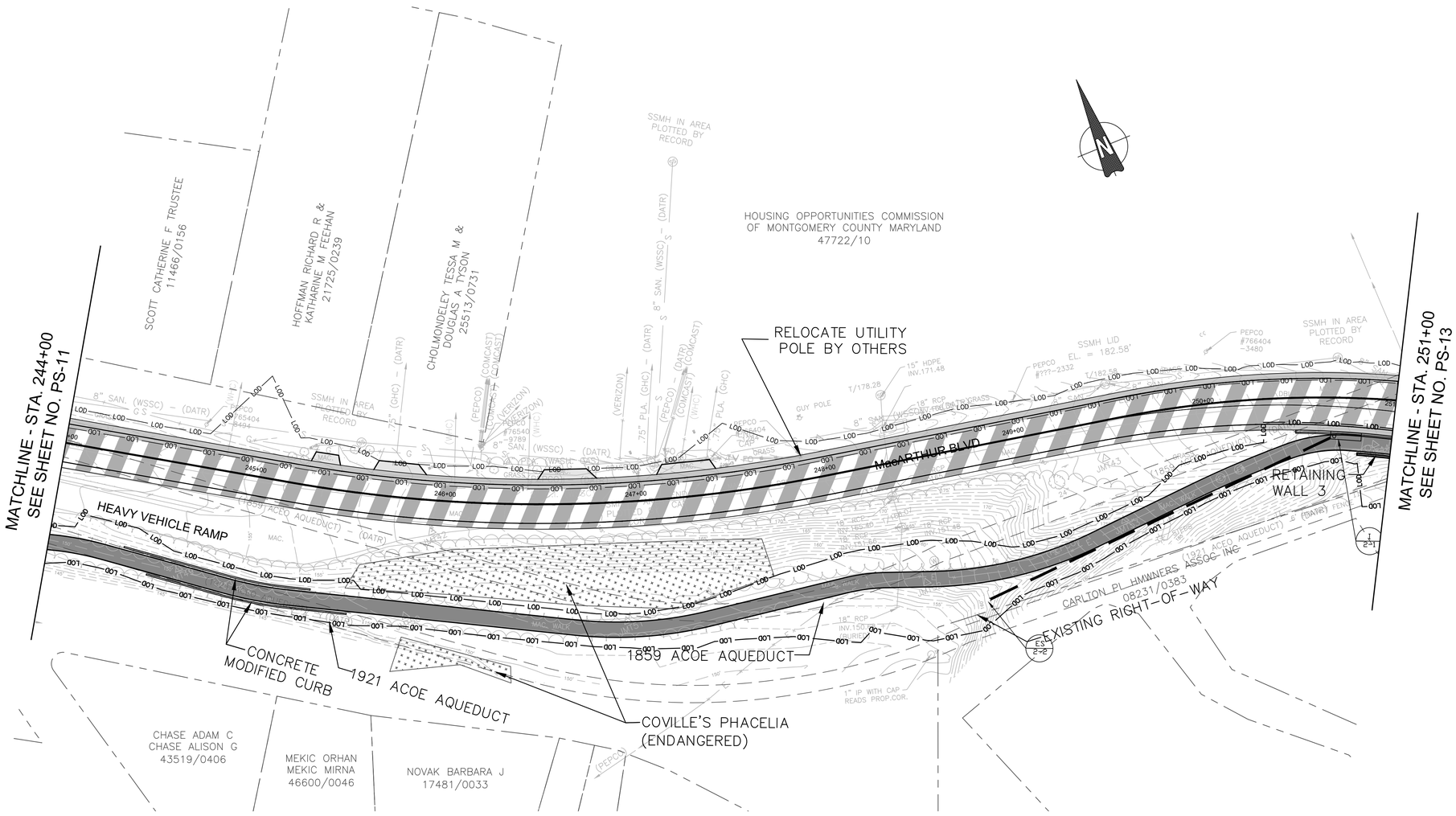
SHARED USE PATH		
QUANTITY	FROM	TO
5,769 SF	244+00 RT	251+00 RT

COMBINATION CONCRETE CURB AND GUTTER – TYPE A MC–100.01		
QUANTITY	FROM	TO
50 LF	250+48 RT	251+00 RT

RESIDENTIAL DRIVEWAY MC – 301.01		
QUANTITY	STATION	WIDTH
8 SY	245+36 LT	12.0'
14 SY	245+74 LT	21.0'
15 SY	246+63 LT	22.0'
16 SY	247+28 LT	25.0'

MILL AND OVERLAY		
QUANTITY	FROM	TO
15,118 SF	244+00	251+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,265 SF	244+00 LT	251+00 LT
270 SF	250+31 RT	251+00 RT



LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS–12
ROADWAY PLAN

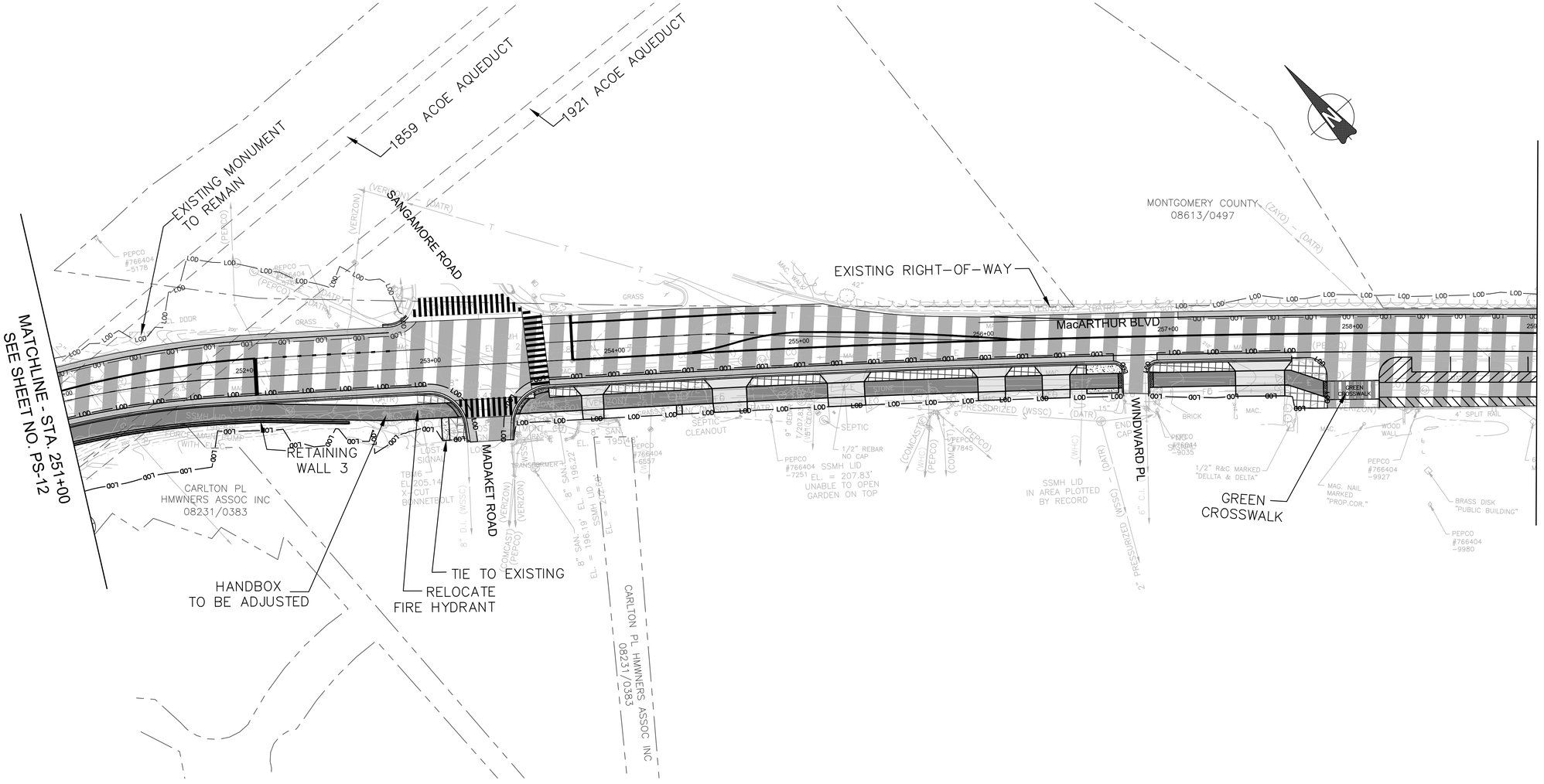
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 24 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHD–0001_MacArthur.dwg LAYOUT NAME: PS–12 PLOTTED: Friday, June 17, 2022 – 5:04pm USER: AHavener



SHARED USE PATH		
QUANTITY	FROM	TO
1,664 SF	251+00 RT	253+13 RT
1,958 SF	253+47 RT	256+73 RT
530 SF	256+91 RT	257+84 RT

RESIDENTIAL SIDEWALK MC-110.01		
QUANTITY	FROM	TO
49 SF	253+04 RT	253+08 RT
15 SF	254+32 RT	254+35 RT
136 SF	256+55 RT	256+74 RT

DETECTABLE WARNING SURFACE MD-655.40		
QUANTITY	STATION	WIDTH
20 SF	253+11 RT	10.0'
20 SF	253+49 RT	10.0'
16 SF	253+59 RT	8.0'
16 SF	256+72 RT	8.0'
16 SF	256+92 RT	8.0'
17 SF	257+84 LT	8.0'

RESIDENTIAL DRIVEWAY MC - 301.01		
QUANTITY	STATION	WIDTH
26 SY	253+87 RT	12.0'
39 SY	254+61 RT	19.0'
42 SY	255+25 RT	20.0'
31 SY	256+04 RT	15.0'
31 SY	256+39 RT	15.0'
58 SY	257+50 RT	27.0'

COMBINATION CONCRETE CURB AND GUTTER - TYPE A MC-100.01		
QUANTITY	FROM	TO
234 LF	251+00 RT	253+18 RT
14 LF	252+75 LT	252+88 LT
365 LF	253+42 RT	256+75 RT
93 LF	256+89 RT	257+67 RT

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
133 SF	252+92 RT	253+17 RT
983 SF	253+43 RT	256+55 RT
589 SF	256+89 RT	257+86 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
25,230 SF	251+00	259+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
913 SF	251+00 LT	252+94 LT
779 SF	257+06 LT	259+00 LT
957 SF	251+00 RT	253+23 RT
1,402 SF	253+37 RT	256+70 RT
292 SF	256+94 RT	257+67 RT

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL-IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
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DRAFT
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JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS-13
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 25 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHD-0001_MacArthur.dwg LAYOUT NAME: PS-13 PLOTTED: Friday, June 17, 2022 - 5:04pm USER: AHavener

SHARED USE PATH		
QUANTITY	FROM	TO
3,445 SF	262+70 RT	267+00 RT

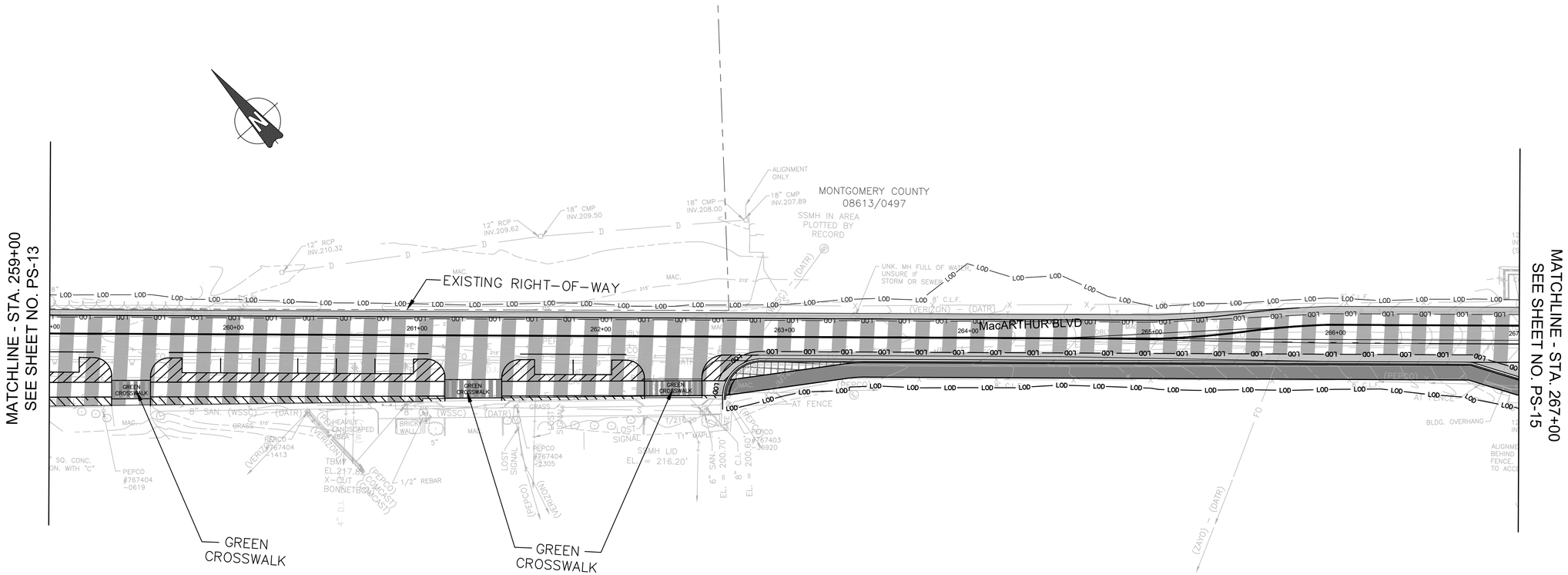
COMBINATION CONCRETE CURB AND GUTTER – TYPE A MC–100.01		
QUANTITY	FROM	TO
446 LF	262+67 RT	267+00 RT

DETECTABLE WARNING SURFACE MD–655.40		
QUANTITY	STATION	WIDTH
18 SF	262+71 RT	9.0'

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
286 SF	262+71 RT	263+45 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
24,669 SF	259+00	267+00

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
3,201 SF	259+00 LT	267+00 LT
1,795 SF	262+62 RT	267+00 RT



LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD — LIMIT OF DISTURBANCE

NOTES:
1. MAXIMUM ALLOWABLE TRAIL CROSS SLOPE IS 2.0% MAX. FOR ADA COMPLIANCE, WITH ZERO CONSTRUCTION TOLERANCE TO EXCEED 2.0%.
2. COORDINATION WITH US ARMY CORPS OF ENGINEERS WILL BE REQUIRED FOR ANY WORK ABOVE OR NEAR THE HISTORIC AQUEDUCTS TO MINIMIZE DISTURBANCE AND AVOID IMPACT.

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS–14
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 26 of 156

SHARED USE PATH		
QUANTITY	FROM	TO
359 SF	267+00 LT	267+51 LT
5,017 SF	268+01 LT	274+52 LT

RESIDENTIAL SIDEWALK MC–110.01		
QUANTITY	FROM	TO
31 SF	267+99 RT	268+03 RT

COMBINATION CONCRETE CURB AND GUTTER – TYPE A MC–100.01		
QUANTITY	FROM	TO
63 LF	267+00 RT	267+57 RT
599 LF	267+98 RT	273+91 RT

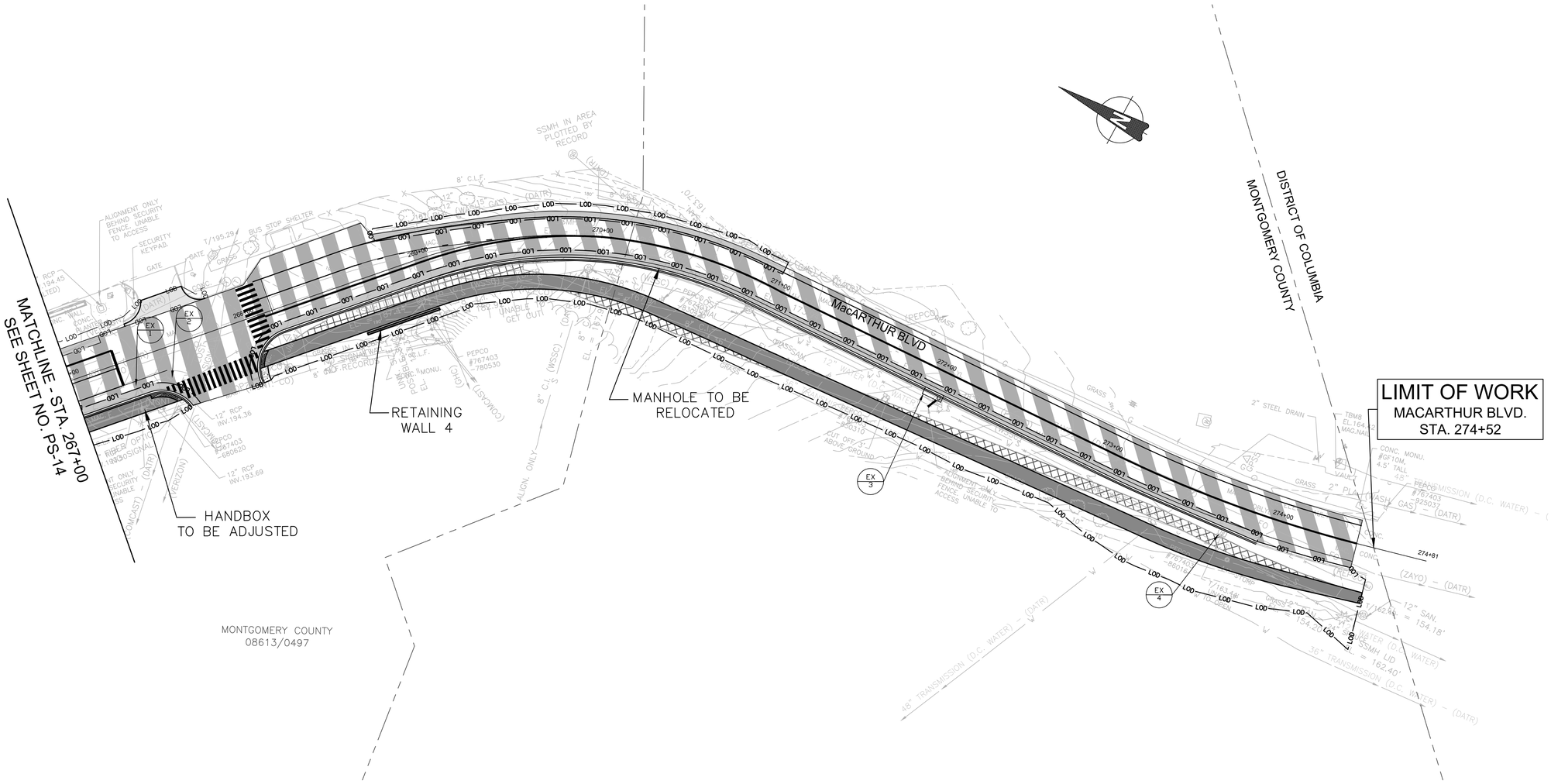
DETECTABLE WARNING SURFACE MD–655.40		
QUANTITY	STATION	WIDTH
33 SF	267+45 RT	15.0'
19 SF	268+03 RT	10.0'

RESIDENTIAL DRIVEWAY MC – 301.01		
QUANTITY	STATION	WIDTH
34 SY	267+61 LT	23.0'

REMOVE EXISTING PAVEMENT		
QUANTITY	FROM	TO
2,361 SF	268+19 RT	274+38 RT

MILL AND OVERLAY		
QUANTITY	FROM	TO
18,330 SF	267+00	274+43

FULL DEPTH PAVEMENT		
QUANTITY	FROM	TO
87 SF	267+00 LT	267+22 LT
917 SF	268+79 LT	270+99 LT
270 SF	267+00 RT	267+62 RT
2,425 SF	267+93 RT	273+92 RT



LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED MILL AND OVERLAY
- PROPOSED PAVEMENT REMOVAL
- PROPOSED ASPHALT PATH/TRAIL–IMPERVIOUS
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE PATH
- LOD — LIMIT OF DISTURBANCE

NOTES:
1. MAXIMUM ALLOWABLE TRAIL CROSS SLOPE IS 2.0% MAX. FOR ADA COMPLIANCE, WITH ZERO CONSTRUCTION TOLERANCE TO EXCEED 2.0%.
2. COORDINATION WITH US ARMY CORPS OF ENGINEERS WILL BE REQUIRED FOR ANY WORK ABOVE OR NEAR THE HISTORIC AQUEDUCTS TO MINIMIZE DISTURBANCE AND AVOID IMPACT.

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

PS–15
ROADWAY PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

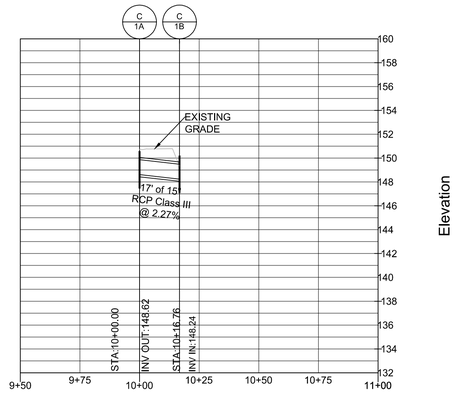
0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 27 of 156

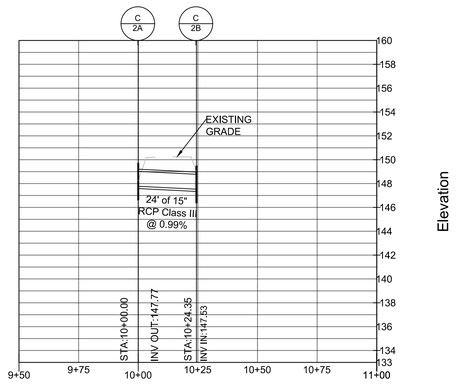
Culvert 1 at STA 169+00

NOTE: STATIONING REFERS TO ROADWAY CENTERLINE



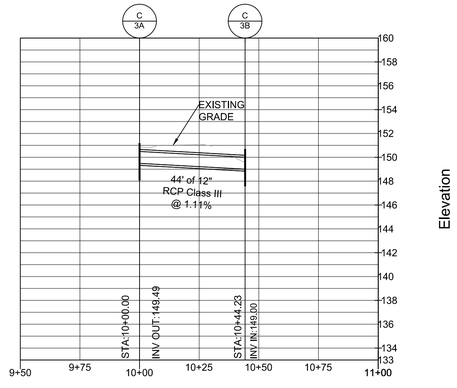
Culvert 2 at STA 170+50

NOTE: STATIONING REFERS TO ROADWAY CENTERLINE



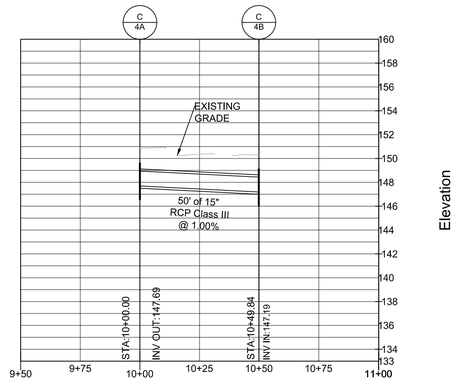
Culvert 3 at STA 181+00

NOTE: STATIONING REFERS TO ROADWAY CENTERLINE



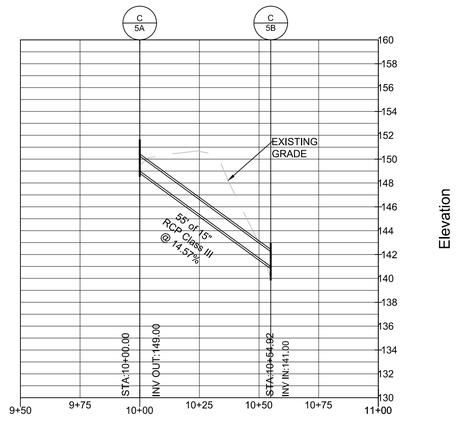
Culvert 4 at STA 189+00

NOTE: STATIONING REFERS TO ROADWAY CENTERLINE



Culvert 5 at STA 220+50

NOTE: STATIONING REFERS TO ROADWAY CENTERLINE



SCALE: HORIZONTAL: 1"=30', VERTICAL: 1"=5'

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ALB Drawn by: ALB Checked by: WRB

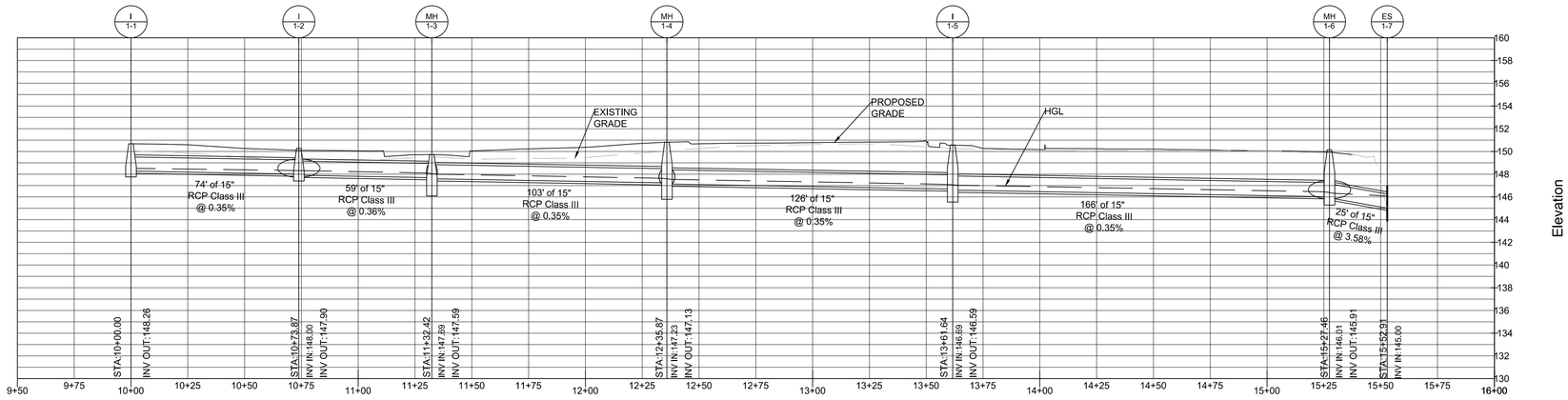
DP-01
DRAINAGE PROFILES
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

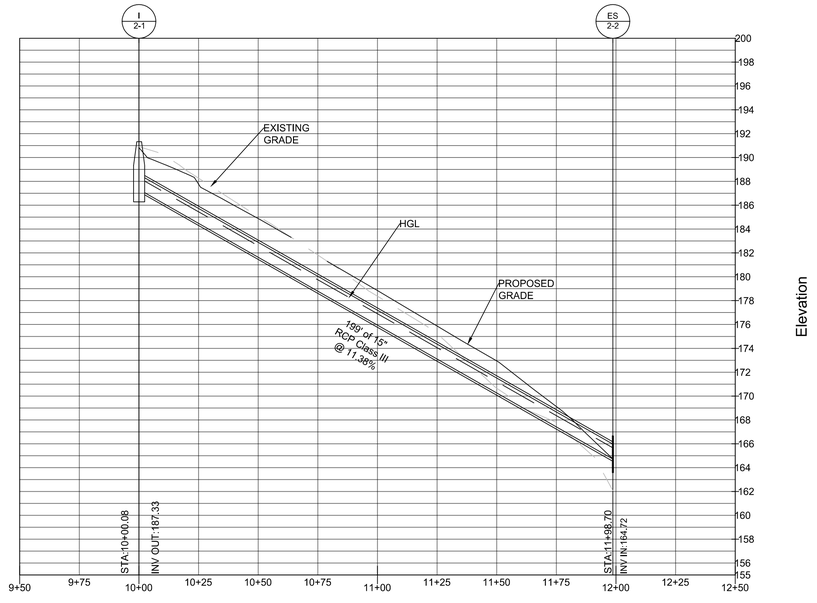
SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 28 of 156

Storm Sewer System 1



Storm Sewer System 2



SCALE: HORIZONTAL: 1"=30', VERTICAL: 1"=5'

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ALB Drawn by: ALB Checked by: WRB

DP-02
DRAINAGE PROFILES
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 29 of 156

STORM DRAIN STRUCTURE SCHEDULE				
NO.	STATION	OFFSET	TYPE	STD. NO.
C-1A	169+07	21 LT	C -15"	MD-354.01
C-1B	169+25	22 LT	C -15"	MD-354.01
C-2A	170+49	23 LT	C -15"	MD-354.01
C-2B	170+73	22 LT	C -15"	MD-354.01
C-3A	180+75	24 LT	C -12"	MD-354.01
C-3B	181+20	28 LT	C -12"	MD-354.01
C-4B	188+88	25 LT	C -15"	MD-354.01
C-4A	189+38	25 LT	C -15"	MD-354.01
I-B-1	215+97	10 RT	10' COS	MD-374.61
I-B-2	218+11	10 RT	10' COS	MD-374.61
C-5A	220+42	29 LT	C -15"	MD-354.01
C-5B	220+86	54 LT	C -15"	MD-354.01
I-1-1	226+44	10 RT	10' COS	MD-374.61
I-1-2	227+20	10 RT	10' COS	MD-374.61
MH-1-3	227+85	5 RT	A	MC-510.01
MH-1-4	228+90	14 RT	A	MC-510.01
I-1-5	230+06	11 RT	10' COS	MD-374.61
MH-1-6	231+77	12 RT	A	MC-510.01
ES-1-7	231+77	40 RT	15" RCP	MD-368.01
I-2-1	250+67	13 RT	10' COG	MD-374.61
ES-2-2	248+71	80 RT	15" RCP	MD-368.01
EX-1	267+32	14 RT	J	MC-506.01
EX-2	267+52	14 RT	J	MC-506.01
EX-3	272+95	12 RT	10' COG	MD-374.61
EX-4	273+50	14 RT	10' COG	MD-374.61

STORM DRAIN PIPE SCHEDULE			
FROM	TO	SIZE & TYPE	LENGTH
I-1-1	I-1-2	15" RCP	74'
I-1-2	MH-1-3	15" RCP	59'
MH-1-3	MH-1-4	15" RCP	104'
MH-1-4	I-1-5	15" RCP	126'
I-1-5	MH-1-6	15" RCP	166'
MH-1-6	ES-1-7	15" RCP	26'
I-2-1	ES-2-2	15" RCP	200'

CULVERT SCHEDULE				
NO.	STATION	OFFSET	SIZE & TYPE	LENGTH
1	169+17	21 LT	15" RCP	17'
2	170+60	22 LT	15" RCP	25'
3	180+93	25 LT	Double 12" RCP	45'
4	189+11	24 LT	15" RCP	50'
5	220+42	29 LT	15" RCP	56'

DITCH LINING SCHEDULE							
FROM	TO	SS1 (H:V)	SS2 (H:V)	d (FT)	w (FT)	TYPE	QUANTITY (S.Y.)
STA. 165+22 LT.	STA. 167+42 LT.	2	2	1.3	0	GRASS	110
STA. 201+28 LT.	STA. 196+04 LT.	2	2	1.9	0	GRASS	367
STA. 208+00 LT.	STA. 208+57 LT.	2	2	1.2	0	GRASS	29
STA. 211+00 LT	STA. 208+58 LT.	2	2	2.6	0	GRASS	203
STA. 213+47 LT.	STA. 211+00 LT.	2	2	2.4	0	GRASS	180
STA. 213+50 LT.	STA. 220+25 LT.	2	2	2.4	0	GRASS	600
STA. 222+11 LT.	STA. 227+00 LT.	2	2	1.6	0	GRASS	270
STA. 227+00 LT.	STA. 227+23 LT.	2	2	1.0	0	RIPRAP	6
STA. 229+77 LT.	STA. 231+85 LT.	2	2	2.1	0	GRASS	150
STA. 233+55 LT.	STA. 231+89 LT.	2	2	1.5	0	GRASS	97
STA. 233+56 LT.	STA. 235+46 LT.	2	2	1.2	0	GRASS	84
STA. 235+95 LT.	STA. 235+52 LT.	2	2	1.1	0	GRASS	22
STA. 235+96 LT.	STA. 237+00 LT.	2	2	1.5	0	GRASS	52
STA. 237+58 LT.	STA. 237+04 LT.	2	2	1.1	0	GRASS	27
STA. 237+59 LT.	STA. 241+97 LT.	2	2	1.7	0	GRASS	294
STA. 242+44 LT.	STA. 242+00 LT.	2	2	1.6	0	GRASS	33

STA. 166+22 To 167+42, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
166+00 LT	150.69	27	LT
167+00 LT	150.29	26	LT
167+42 LT	150.16	24	LT

STA. 201+28 To 196+04, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
200+00	149.49	22	LT
199+00	149.09	17	LT
198+00	148.69	17	LT
197+00	148.29	38	LT
196+04	147.87	25	LT

STA. 208+00 To 208+57, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
208+57	147.94	19	LT

STA. 211+00 To 208+58, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
210+00	148.99	19	LT
209+00	148.98	19	LT
208+58	148.98	19	LT

STA. 213+47 To 211+00, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
213+00	148.82	18	LT
212+00	148.79	19	LT
211+00	148.76	15	LT

STA. 213+50 To 220+25, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
214+00	149.63	20	LT
215+00	149.53	15	LT
216+00	149.43	15	LT
217+00	149.33	15	LT
218+00	149.23	15	LT
219+00	149.13	15	LT
220+25	149.00	20	LT

STA. 222+11 To 227+00, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
223+00	151.15	20	LT
224+00	150.97	15	LT
225+00	150.31	15	LT
226+00	150.00	14	LT
227+00	145.76	36	LT

STA. 227+00 To 227+23, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
227+23	138.35	57	LT

STA. 229+77 To 231+85, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
230+00	150.28	13	LT
231+00	150.08	13	LT
231+85	149.91	16	LT

STA. 233+55 To 231+89, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
233+00	150.55	13	LT
231+89	149.91	15	LT

STA. 233+56 To 235+46, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
234+00	150.00	17	LT
235+00	149.42	18	LT
235+46	147.76	19	LT

STA. 235+95 To 235+52, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
235+52	147.53	20	LT

STA. 235+96 To 237+00, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
237+00	149.00	21	LT

STA. 237+58 To 237+04, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset(LF)	LT/RT
237+04	149.00	21	LT

STA. 237+59 To 241+97, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
238+00	149.59	19	LT
239+00	149.39	16	LT
240+00	149.19	19	LT
241+00	148.99	16	LT
241+97	148.8	24	LT

STA. 242+44 To 242+00, LT. - Triangular Bottom Ditch			
Sta.	Ditch Inv. (ft)	Offset (LF)	LT/RT
242+00	148.93	23	LT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ALB Drawn by: ALB Checked by: WRB

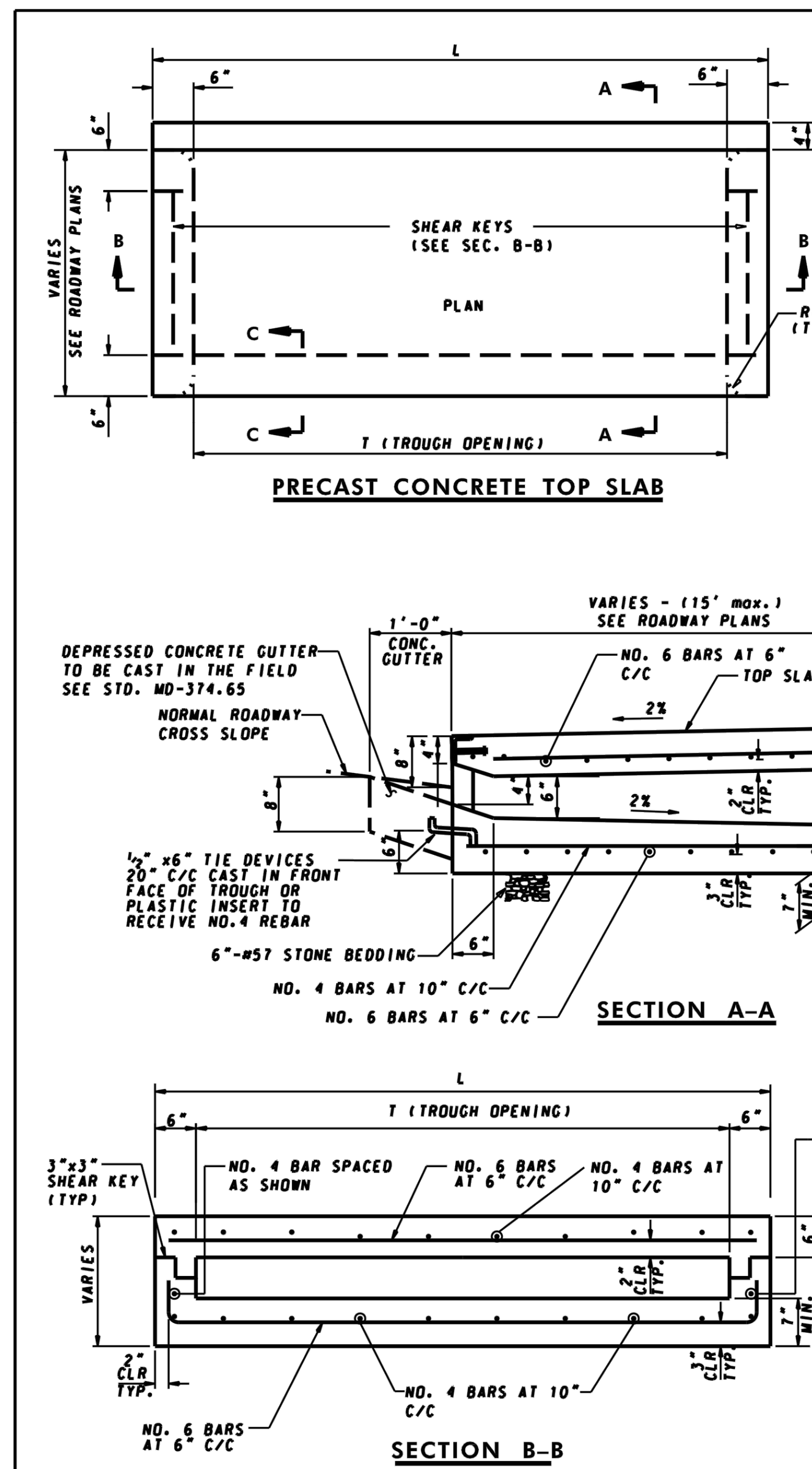
DS-01
DRAINAGE SCHEDULES
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 30 of 156

FILE NAME: C:\pwworking\jmt\d0320788\pDS-0001_MacArthur.dwg LAYOUT NAME: Schedules PLOTTED: Friday, June 17, 2022 - 9:52am USER: ABrady



SLAB TYPE	L	T
I	6'-0"	5'-0"
II	11'-0"	10'-0"

NOTE: FOR 6" CURB, SEE NOTE 4 BELOW.

NOTES:

1. CONCRETE SHALL BE MIX # 6 (4500 PSI).
2. REINFORCEMENT STEEL SHALL MEET THE REQUIREMENTS OF ASTM A615, GRADE 60.
3. ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123.
4. FOR 6" CURB, REFER TO MD 374.55-01, SECTIONS C-C AND D-D.
5. EROSION PROTECTION TO BE PAID FOR SEPARATELY.

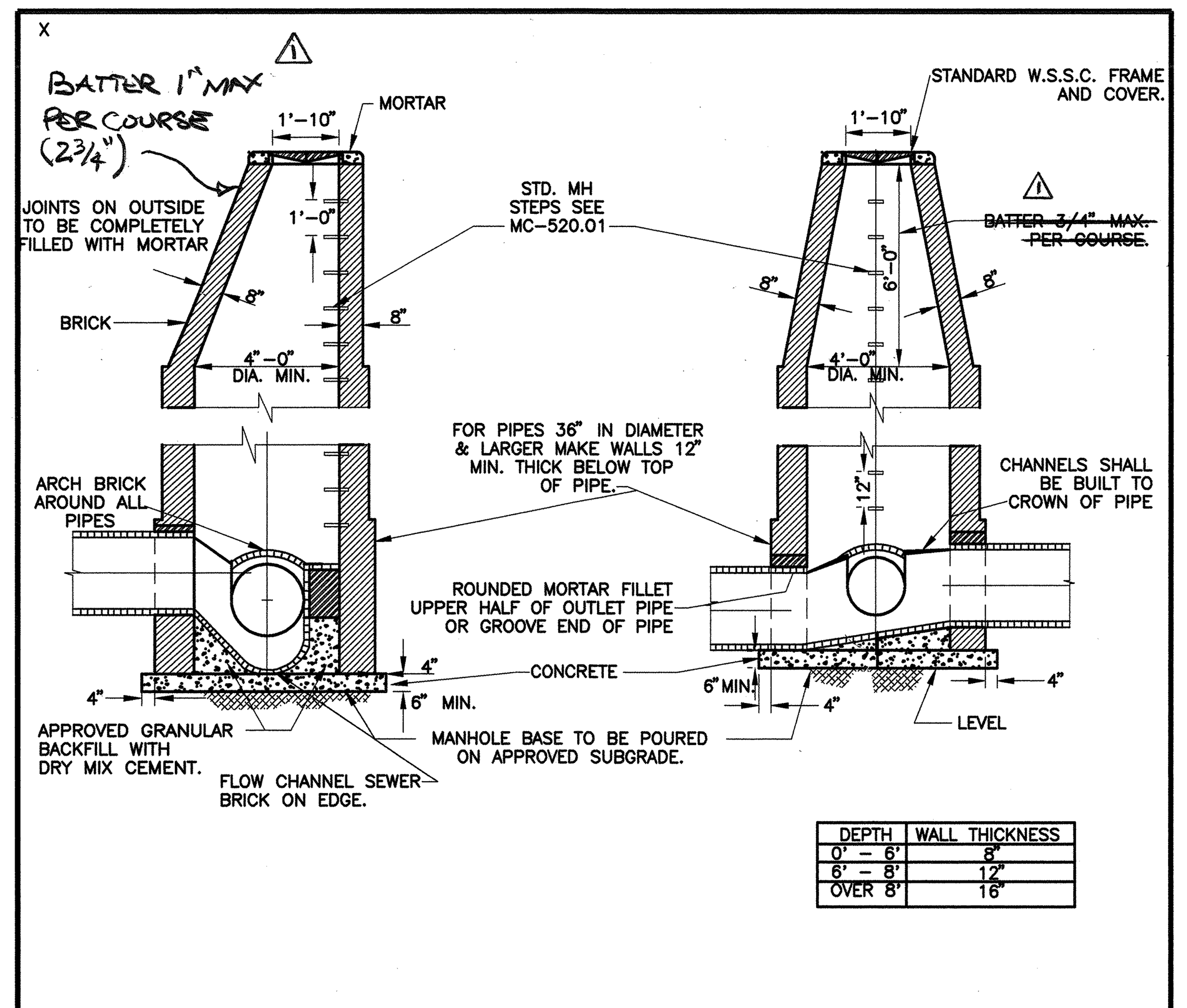
SPECIFICATION 305 | CATEGORY CODE ITEMS | APPROVED Kirk G. McClelland, DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS: APPROVAL 12-19-01; REVISED 1-9-08 | APPROVAL • FEDERAL HIGHWAY ADMINISTRATION: APPROVAL 7-15-02; REVISED 11-26-07

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST OR CAST-IN-PLACE COG /COS OPENING FOR 8" CURB 5' OR 10' ONLY

STANDARD NO. MD 374.68



DEPTH	WALL THICKNESS
0' - 6'	8"
6' - 8'	12"
OVER 8'	16"

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
3. PARGE OUTSIDE WALLS.
4. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270 TYPE M.
5. f'c =3,500 P.S.I. at 28 DAYS.
6. FOR PIPES LARGER THAN 30" PROVIDE STEPS IN CHANNELS OF STRUCTURES. SEE STANDARD DETAIL STANDARD MC-520.02.

P:\DOTSTD\MC51001 7-12-94 8:41:15 am EST

APPROVED JAN 5/96 DATE

DIRECTOR, DEPT. OF TRANS.

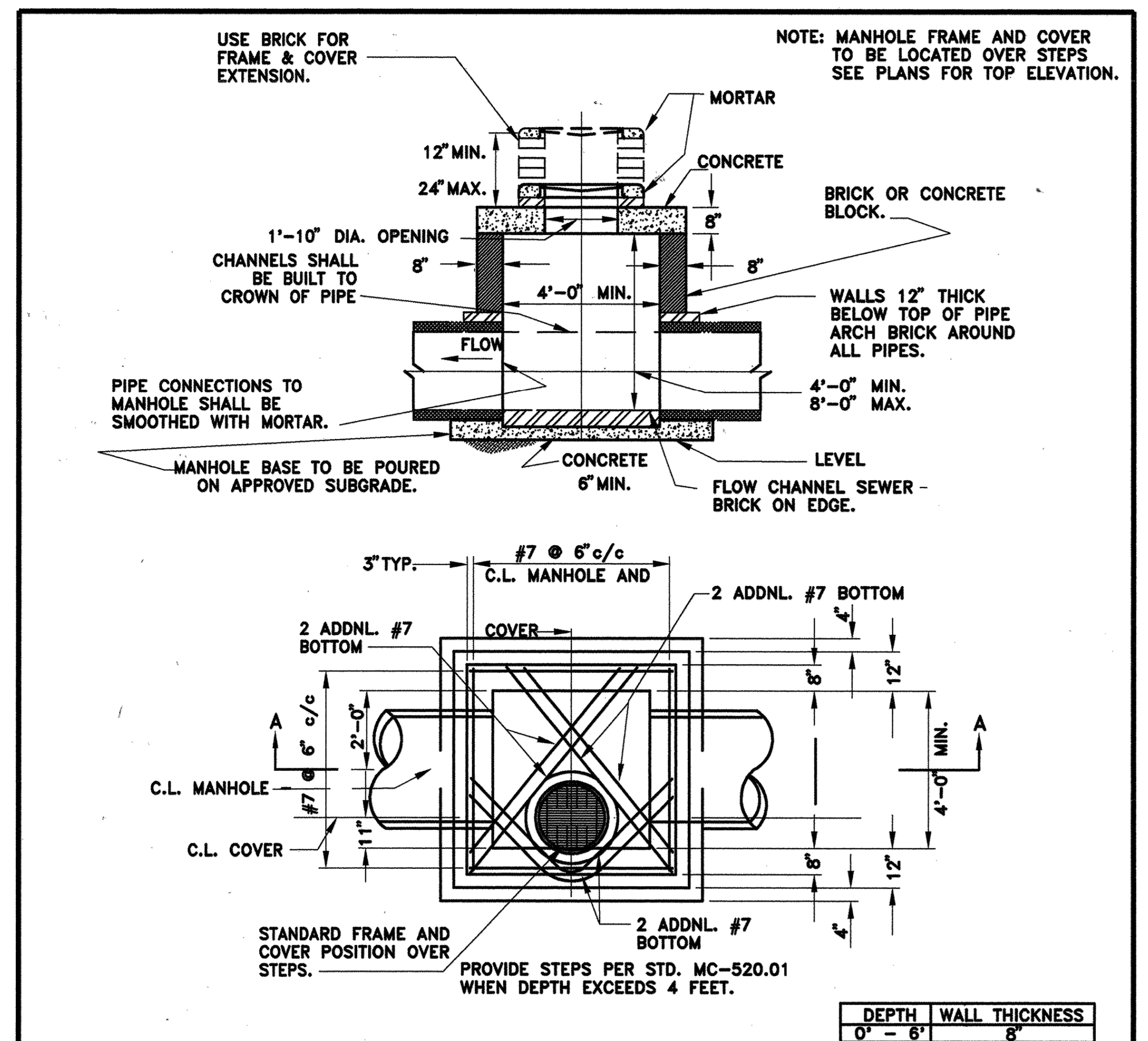
CHIEF, DIV. OF ENG. SERVICES

REVISED: ⚠ CORRECTED MAX BATTER 6/25/12

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

"A" MANHOLE

STANDARD NO. MC-510.01



DEPTH	WALL THICKNESS
0' - 6'	8"
6' - 8'	12"

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
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P:\DOTSTD\MC51001 7-12-94 8:41:15 am EST

APPROVED JAN 5/96 DATE

DIRECTOR, DEPT. OF TRANS.

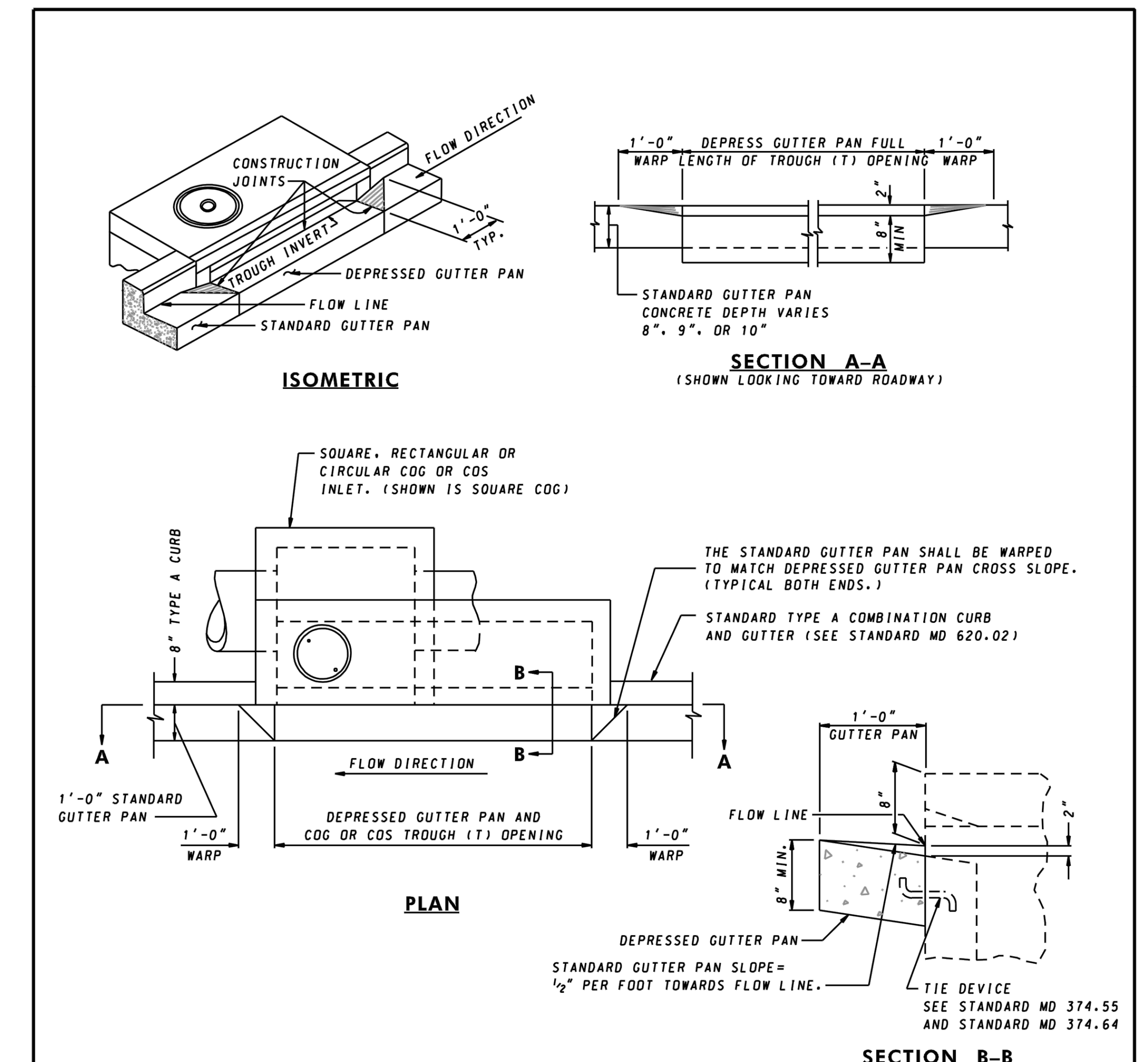
CHIEF, DIV. OF ENG. SERVICES

REVISED

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

"B" MANHOLE

STANDARD NO. MC-515.01



DETAILS FOR COG AND COS INLETS ARE SHOWN ON THE FOLLOWING STANDARDS

MD 374.51 PRECAST OR CAST IN PLACE SQUARE AND RECTANGULAR COG INLETS 5', 10', 15', & 20'
MD 374.55 PRECAST CONCRETE TROUGH INLET SLABS AND ADJUSTMENT COLLAR FOR COG AND COS INLETS
MD 374.61 PRECAST OR CAST IN PLACE SQUARE AND RECTANGULAR COS INLETS 5', 10', 15', & 20'
MD 374.62 PRECAST CIRCULAR COG INLETS 5', 10', 15', & 20'
MD 374.63 PRECAST CIRCULAR COS INLETS 5', 10', 15', & 20'
MD 374.64 ALTERNATE PRECAST TROUGHS FOR COG AND COS INLETS

NOTES

1. COST OF DEPRESSED CONCRETE GUTTER PAN IS INCIDENTAL TO THE COST OF THE INLET.
2. STANDARD TYPE A COMBINATION CURB AND GUTTER PAID FOR SEPARATELY.

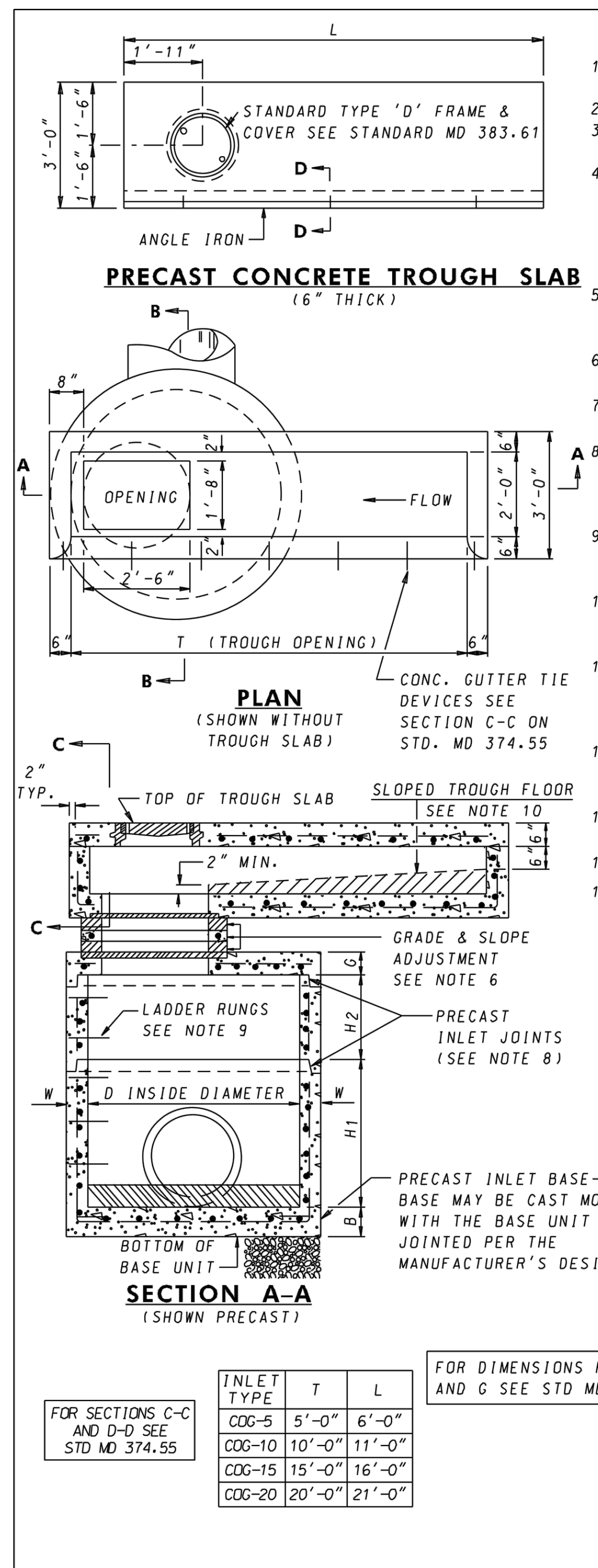
SPECIFICATION | CATEGORY CODE ITEMS | APPROVED Kirk G. McClelland, DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS: APPROVAL 2-22-91; REVISED 10-1-01 | APPROVAL • FEDERAL HIGHWAY ADMINISTRATION: APPROVAL 1-2-91

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

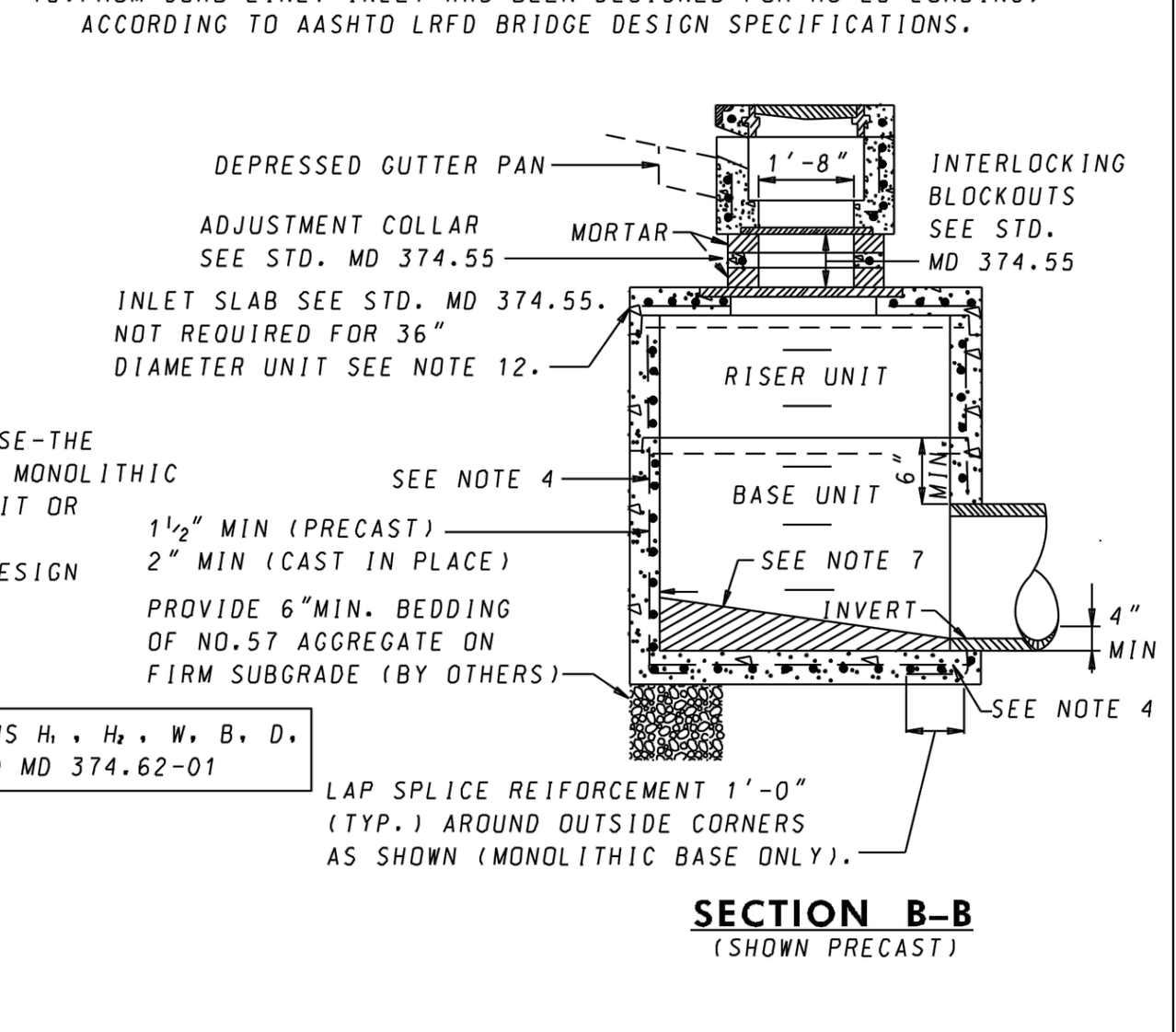
DEPRESSED CONCRETE GUTTER PAN FOR COG AND COS INLETS

STANDARD NO. MD 374.65



NOTES

1. THIS STANDARD TO BE USED WITH TYPE A COMBINATION CURB AND GUTTER ONLY.
2. CURB OPENINGS SHALL NOT ENCROACH ON CROSSWALK AREAS.
3. CONCRETE SHALL BE MIX. NO.6(4500 PSI) FOR PRECAST UNITS AND CONCRETE MIX NO.3(3500 PSI) FOR CAST IN PLACE UNITS.
4. INLET MAY BE PRECAST OR CAST IN PLACE. REINFORCEMENT SHALL BE EITHER WELDED WIRE FABRIC (PRECAST) OR REINFORCING BARS (CAST IN PLACE)AND SHALL CONFORM TO THE AREAS GIVEN UNDER IN THE CHART ON STD MD 374.62-01. WALL REINFORCEMENT SHALL BE CENTERED AT THE MIDDLE OF THE WALL. BASE REINFORCEMENT SHALL HAVE 1½" COVER (PRECAST) AND 2" COVER (CAST IN PLACE) FROM THE TOP OF THE BASE.
5. ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER AFTER WELDING IN ACCORDANCE WITH ASTM A 123. SEE STDS. MD 374.55 & 374.64.
6. GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
7. A CONCRETE OR BRICK CHANNEL WHICH SLOPES AT LEAST 2 IN./FT. TOWARD OUTLET SHALL BE PROVIDED IN THE FIELD.
8. PRECAST INLET JOINTS-THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING THE MANUFACTURERS RECOMMENDED ASTM OR AASHTO APPROVED SEALANT.
9. LADDER RUNGS SHALL BE PLACED IN VERTICAL ALIGNMENT AT 1'-3" C/C. RUNGS SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR MD 383.92. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
10. SLOPED TROUGH FLOOR TO BE CONSTRUCTED IN THE FIELD USING BRICK OR CONCRETE AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS.WHEN SLOPED TROUGH FLOOR IS USED, ROUGHEN PRECAST TROUGH FLOOR.
11. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 6'-2" MEASURED FROM THE PIPE INVERT TO THE TOP OF THE TROUGH SLAB. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 6'-2" INCLUDING ALL APPURTENANCES.
12. INLET SLAB NOT REQUIRED FOR 36" DIAMETER INLET. TROUGH SITS DIRECTLY ON TOP OF THE CIRCULAR UNIT. MORTAR AREA BETWEEN THE OUTSIDE WALLS OF THE TROUGH AND THE UNIT WALL.
13. SEE STD. MD 374.64 FOR ALTERNATE PRECAST COG TROUGHS AND STD. MD 374.65 FOR DEPRESSED GUTTER PAN DETAILS.
14. BASE UNIT WALLS MAY TAPER PER MANUFACTURER'S DESIGN.
15. FROM CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.



FOR SECTIONS C-C AND D-D SEE STD MD 374.55

INLET TYPE	T	L
COG-5	5'-0"	6'-0"
COG-10	10'-0"	11'-0"
COG-15	15'-0"	16'-0"
COG-20	20'-0"	21'-0"

FOR DIMENSIONS H₁, H₂, W, B, D, AND G SEE STD MD 374.62-01

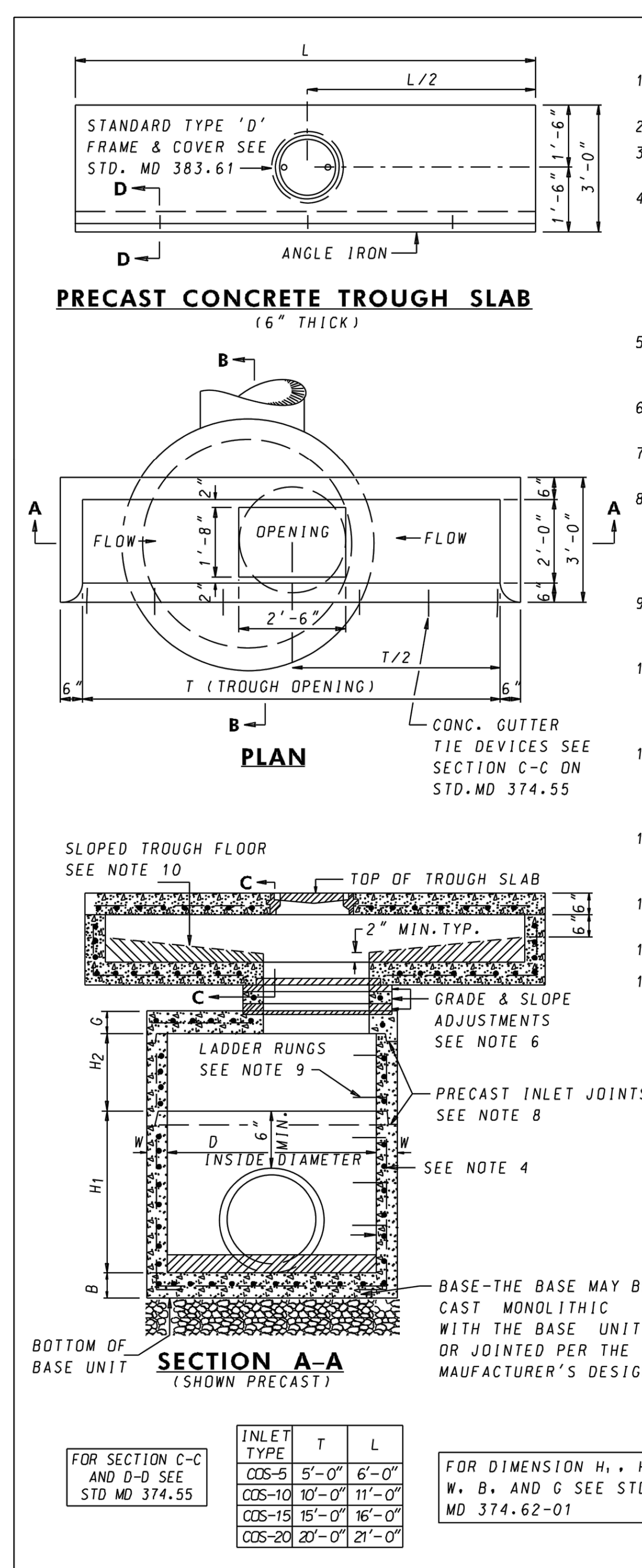
SPECIFICATION 305 | CATEGORY CODE ITEMS | APPROVED, DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS: APPROVAL 2-22-91; REVISED 8-3-10; REVISED 10-7-14; REVISED - | APPROVAL • FEDERAL HIGHWAY ADMINISTRATION: APPROVAL 1-2-91; REVISED 7-26-10; REVISED 9-29-14

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST OR CAST IN PLACE CIRCULAR COG INLETS 5', 10', 15', & 20'

STANDARD NO. MD 374.62



NOTES

1. THIS STANDARD TO BE USED WITH TYPE A COMBINATION CURB AND GUTTER ONLY.
2. CURB OPENING SHALL NOT ENCROACH ON CROSSWALK AREAS.
3. CONCRETE TO BE MIX NO.6 (4500 PSI) FOR PRECAST UNITS AND CONCRETE MIX NO.3 (3500 PSI) FOR STRUCTURES CAST IN PLACE.
4. INLET MAY BE PRECAST OR CAST IN PLACE. REINFORCEMENT SHALL BE EITHER WELDED WIRE FABRIC (PRECAST) OR REINFORCING BARS (CAST IN PLACE) AND SHALL CONFORM TO THE AREAS AND SPACING GIVEN IN THE TABLE ON STD MD 374.62-01. WALL REINFORCEMENT SHALL BE CENTERED AT THE MIDDLE OF THE WALL. BASE REINFORCEMENT SHALL HAVE 1½" COVER (PRECAST) AND 2" COVER (CAST IN PLACE) FROM THE TOP OF THE BASE.
5. ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123. SEE STDS. MD 374.55 & 374.64.
6. GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
7. A CONCRETE OR BRICK CHANNEL WHICH SLOPES AT LEAST 2 IN./FT. TOWARD OUTLET SHALL BE PROVIDED IN THE FIELD.
8. PRECAST INLET JOINTS- THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING THE MANUFACTURERS RECOMMENDED ASTM OR AASHTO APPROVED SEALANT.
9. LADDER RUNGS SHALL BE PLACED IN VERTICAL ALIGNMENT AT 1'-3" C/C RUNG TYPE SHALL BE IN ACCORDANCE WITH STDS. MD 383.91 OR MD 383.92. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
10. SLOPED TROUGH FLOOR TO BE CONSTRUCTED IN THE FIELD USING BRICK OR CONCRETE AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED, ROUGHEN PRECAST TROUGH FLOOR.
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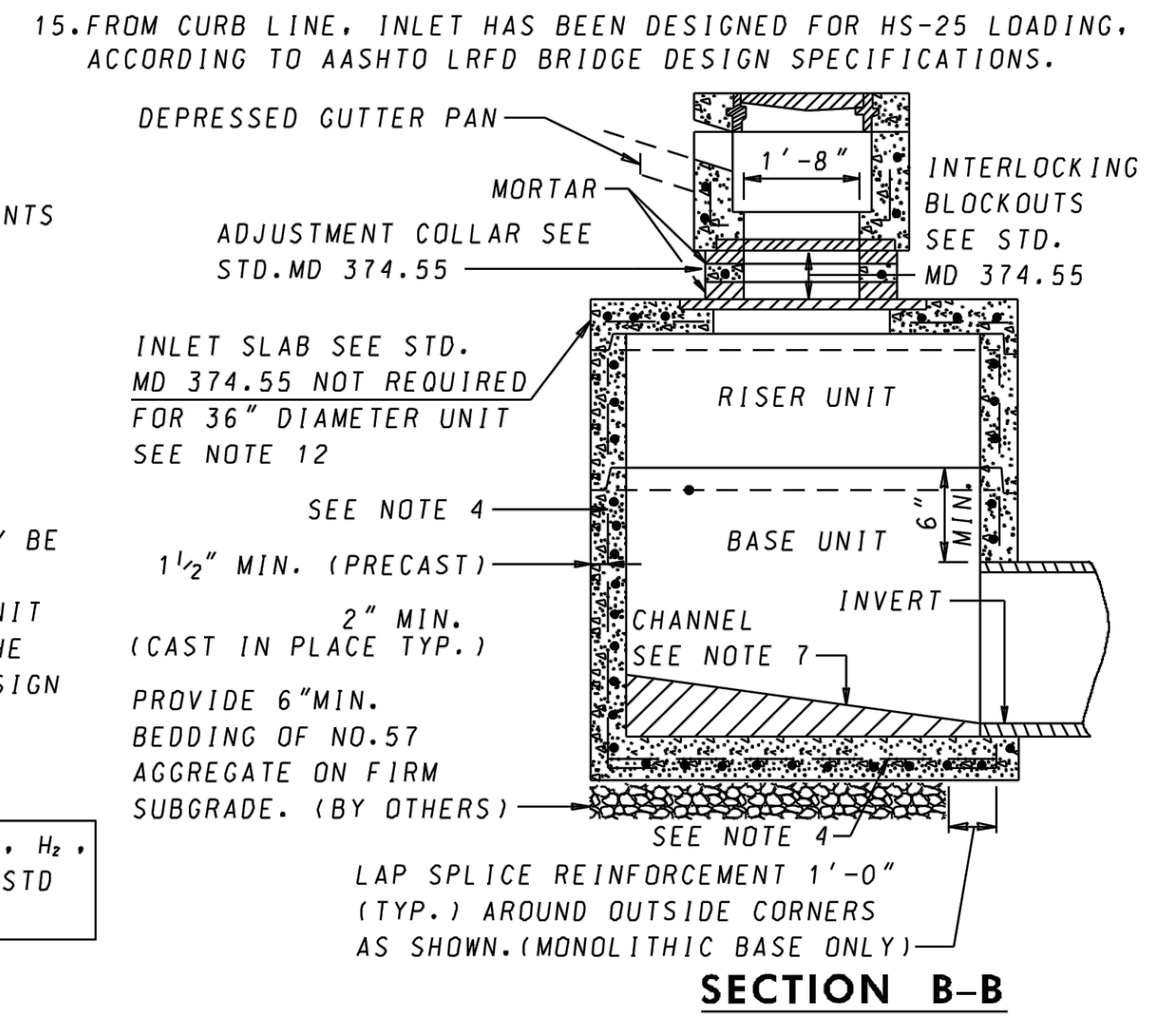

FOR SECTION C-C AND D-D SEE STD MD 374.55

INLET TYPE	T	L
COS-5	5'-0"	6'-0"
COS-10	10'-0"	11'-0"
COS-15	15'-0"	16'-0"
COS-20	20'-0"	21'-0"

FOR DIMENSION H₁, H₂, W, B, AND G SEE STD MD 374.62-01

SPECIFICATION | CATEGORY CODE ITEMS | APPROVED, DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS: APPROVAL 2-22-91; REVISED 8-3-10; REVISED 10-7-14 | APPROVAL • FEDERAL HIGHWAY ADMINISTRATION: APPROVAL 1-2-91; REVISED 7-26-10; REVISED 9-29-14

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST OR CAST IN PLACE CIRCULAR COS INLETS 5', 10', 15, & 20'

STANDARD NO. MD 374.63

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ALB Drawn by: ALB Checked by: WRB

DS-02
DRAINAGE DETAILS

MACARTHUR BOULEVARD
BIKEWAY PHASE III

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 31 of 156

FILE NAME: C:\pwworking\jmt\d0320788\pDS-0002_MacArthur.dwg LAYOUT NAME: Details PLOTTED: Friday, June 17, 2022 - 9:07am USER: ABrady

EROSION AND SEDIMENT CONTROL – GENERAL NOTES

STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. The permittee shall notify the Department of Permitting Services (DPS) forty–eight (48) hours before commencing any land disturbing activity and, unless waived by the Department, shall be required to hold a pre–construction meeting between them or their representative, their engineer and an authorized representative of the Department.

2. The permittee must obtain inspection and approval by DPS at the following points:

   A. At the required pre–construction meeting.

   B. Following installation of sediment control measures and prior to any other land disturbing activity.

   C. During the installation of a sediment basin or stormwater management structure at the required inspection points (see Inspection Checklist on plan). Notification prior to commencing construction is mandatory.

   D. Prior to removal or modification of any sediment control structure(s).

   E. Prior to final acceptance.

3. The permittee shall construct all erosion and sediment control measures per the approved plan and construction sequence, shall have them inspected and approved by the Department prior to beginning any other land disturbances, shall ensure that all runoff from disturbed areas is directed to the sediment control devices, and shall not remove any erosion or sediment control measure without prior permission from the Department.

4. The permittee shall protect all points of construction ingress and egress to prevent the deposition of materials onto traversed public thoroughfare(s). All materials deposited onto public thoroughfare(s) shall be removed immediately.

5. The permittee shall inspect periodically and maintain continuously in effective operating condition, all erosion and sediment control measures until such time as they are removed with prior permission from the Department. The permittee is responsible for immediately repairing or replacing any sediment control measures which have been damaged or removed by the permittee or any other person.

6. Following initial soil disturbance or re–disturbance, permanent or temporary stabilization must be completed within:

   a) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes and all slopes steeper than 3 horizontal to 1 vertical (3:1); and

   b) Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.

   All areas disturbed outside of the perimeter sediment control system must be minimized and stabilized immediately. Maintenance must be performed as necessary to ensure continued stabilization.

7. The permittee shall apply sod, seed and anchored straw mulch, or other approved stabilization measures to all disturbed areas within seven (7) calendar days after stripping and grading activities have ceased on that area. Maintenance shall be performed as necessary to ensure continued stabilization. Active construction areas such as borrow or stockpile areas, roadway improvements, and areas within fifty (50) feet of a building under construction may be exempt from this requirement, provided that erosion and sediment control measures are installed and maintained to protect those areas.

8. Prior to removal of sediment control measures, the permittee shall stabilize all contributory disturbed areas with required soil amendments and topsoil, using sod or an approved permanent seed mixture and an approved anchored mulch. Wood fiber mulch may only be used in seeding season when the slope does not exceed 10% and grading has been done to promote sheet flow drainage. Areas brought to finished grade during the seeding season shall be permanently stabilized within seven (7) calendar days of establishment. When property is brought to finished grade during the months of November through February, and permanent stabilization is found to be impractical, an approved temporary seed and straw anchored mulch shall be applied to disturbed areas. The final permanent stabilization of such property shall be completed prior to the following April 15.

9. The site permit, work, materials, approved SC/SM plans, and test reports shall be available at the site for inspection by duly authorized officials of Montgomery County.

10. Surface drainage flows over unstabilized cut and fill slopes shall be controlled by either preventing drainage flows from traversing the slopes or by installing mechanical devices to lower the water down slope without causing erosion. Dikes shall be installed and maintained at the top of cut or fill slopes until the slope and drainage area to it are fully stabilized, at which time they must be removed and final grading done to promote sheet flow drainage. Mechanical devices must be provided at points of concentrated flow where erosion is likely to occur.

11. Permanent swales or other points of concentrated water flow shall be stabilized within 3 calendar days of establishment with sod or seed with an approved erosion control matting or by other approved stabilization measures.

12. Sediment control devices shall be removed, with permission of the Department, within thirty (30) calendar days following establishment of permanent stabilization in all contributory drainage areas. Stormwater management structures used temporarily for sediment control shall be converted to the permanent configuration within this time period as well.

13. No permanent cut or fill slope with a gradient steeper than 3:1 will be permitted in lawn maintenance areas or on residential lots. A slope gradient of up to 2:1 will be permitted in non– maintenance areas provided that those areas are indicated on the erosion and sediment control plan with a low–maintenance ground cover specified for permanent stabilization. Slope gradient steeper than 2:1 will not be permitted with vegetative stabilization.

14. The permittee shall install a splashblock at the bottom of each downspout unless the downspout is connected by a drain line to an acceptable outlet.

15. For finished grading, the permittee shall provide adequate gradients so as to prevent water from standing on the surface of lawns more than twenty–four (24) hours after the end of a rainfall, except in designated drainage courses and swale flow areas, which may drain as long as forty–eight (48) hours after the end of a rainfall.

16. Sediment traps or basins are not permitted within 20 feet of a building which is existing or under construction. No building may be constructed within 20 feet of a sediment trap or basin.

17. All inlets in non–sump areas shall have asphalt berms installed at the time of base paving establishment.

18. The sediment control inspector has the option of requiring additional sediment control measures, as deemed necessary.

19. All trap elevations are relative to the outlet elevation, which must be on existing undisturbed ground.

20. Vegetative stabilization shall be performed in accordance with the Standards and Specifications for Soil Erosion and Sediment Control.

21. Sediment trap(s)/basin(s) shall be cleaned out and restored to the original dimensions when sediment has accumulated to the point of one–half (1/2) the wet storage depth of the trap/basin (1/4 the wet storage depth for ST–III) or when required by the sediment control inspector.

22. Sediment removed from traps/basins shall be placed and stabilized in approved areas, but not within a floodplain.

23. All sediment basins and traps must be surrounded with a welded wire safety fence. The fence must be at least 42 inches high, have posts spaced no farther apart than 8 feet, have mesh openings no greater the two inches in width and four inches in height, with a minimum of 14 gauge wire. Safety fence must be maintained in good condition at all times.

24. No excavation in the areas of existing utilities is permitted unless their location has been determined. Call "Miss Utility" at 1–800–257–7777, 48 hours prior to the start of work.

25. Off–site spoil or borrow areas must have prior approval by DPS.

26. Sediment trap/basin dewatering for cleanout or repair may only be done with the DPS inspector's permission. The inspector must approve the dewatering method for each application. The following methods may be considered:

   A. Pump discharge may be directed to another on–site sediment trap or basin, provided it is of sufficient volume and the pump intake is floated to prevent agitation or suction of deposited sediments; or

   B. the pump intake may utilize a Removable Pumping Station and must discharge into an undisturbed area through a non–erosive outlet; or

   C. the pump intake may be floated and discharge into a Dirt Bag (12 oz. non–woven fabric), or approved equivalent, located in an undisturbed buffer area.

   Remember: Dewatering operation and method must have prior approval by the DPS inspector.

27. The permittee must notify the Department of all utility construction activities within the permitted limits of disturbance prior to the commencement of those activities.

28. Topsoil must be applied to all pervious areas within the limits of disturbance prior to permanent stabilization in accordance with MDE "Standards and Specifications for Soil Preparation, Topsoiling, and Soil Amendments".

STANDARD SYMBOLS

AT–GRADE INLET PROTECTION	AGIP	REMOVABLE PUMPING STATION	RPS
BAFFLE BOARDS	BB	RIPRAP INFLOW PROTECTION	RRP-□
BENCHING	BENCHING	RIPRAP OUTLET SEDIMENT TRAP ST III	ST–III
CATCH BASIN INSERT	CBI	ROCK OUTLET PROTECTION 1	ROP1
CLEAR WATER DIVERSION PIPE	CWD – 12 (DESIGNATION CWD–12 REFERS TO 12 INCH CLEAR WATER DIVERSION)	ROCK OUTLET PROTECTION II	ROPII
CLEAR WATER PIPE	CWP	ROCK OUTLET PROTECTION III	ROPIII
COMBINATION INLET PROTECTION	COIP	SILT FENCE	SF
CONCRETE WASHOUT STRUCTURE	CWS	SILT FENCE ON PAVEMENT	SFOP
CURB INLET PROTECTION	CIP	SOD	
DIVERSION FENCE	DF	STABILIZED CONSTRUCTION ENTRANCE	SCE
EARTH DIKE	A–1 (PLACE DESIGNATION (A–1, B–2, etc.) ON FLOW CHANNEL SIDE OF DIKE)	STANDARD INLET PROTECTION	SIP
EMERGENCY SPILLWAY	ES	STOCKPILE AREA	
FILTER BAG	FB	STONE CHECK DAM	CD
FILTER BERM	FB–A / FB–B	STONE/RIPRAP OUTLET SEDIMENT TRAP ST II	ST–II
FILTER LOG	FL–18 (DESIGNATION FL–18 REFERS TO 18 INCH DIAMETER FILTER LOG)	SUBSURFACE DRAINS	SSD
GABION INFLOW PROTECTION	GIP	SUMP PIT	SP
GABION INLET PROTECTION	GIP	SUPER SILT FENCE	SSF
HORIZONTAL DRAW–DOWN DEVICE	HDDD	TEMPORARY ACCESS BRIDGE	TB
LIMIT OF DISTURBANCE	LOD	TEMPORARY ACCESS CULVERT	TC
MEDIAN INLET PROTECTION	MIP	TEMPORARY ASPHALT BERM	TAB
MEDIAN SUMP INLET PROTECTION	MSIP	TEMPORARY BARRIER DIVERSION	TBD
MOUNTABLE BERM	MB	TEMPORARY GABION OUTLET STRUCTURE	TGOS
PERIMETER DIKE/SWALE	PDS–1	TEMP. SOIL STABILIZATION MATTING–TYPE A	
PERM. SOIL STABILIZATION MATTING–TYPE B		TEMP. SOIL STABILIZATION MATTING–TYPE E	
PERM. SOIL STABILIZATION MATTING–TYPE C		TEMP. SOIL STABILIZATION MATTING–TYPE D	
PIPE OUTLET SEDIMENT TRAP ST I	ST–I	TEMPORARY STONE OUTLET STRUCTURE	TSOS
PIPE SLOPE DRAIN	PSD – 12 (DESIGNATION PSD–12 REFERS TO 12 INCH PIPE SLOPE DRAIN)	TEMPORARY SWALE	A–1 (PLACE DESIGNATION (A–1, B–2, etc.) ON FLOW CHANNEL SIDE OF SWALE)
PLUNGE POOL	PP	WASH RACK OPTION	WR
PORTABLE SEDIMENT TANK	PST	CHESAPEAKE BAY CRITICAL AREA	
DRAINAGE BOUNDARY		TREE PROTECTION FENCE	TPF
EXISTING CONTOURS	100	WETLAND	
PROPOSED CONTOURS	100	WETLAND BUFFER	
		100–YEAR FLOODPLAIN	

STANDARD NOTES

1. The contractor will immediately inform the county of any discrepancies found between the project plans and contract specifications.
2. For construction, all horizontal control shall be NAD 83/91 and vertical control NAVD 88.
3. Types of storm drain structures refer to the 'Design Standards' of Montgomery County Department of Transportation, unless otherwise noted.
4. Information concerning underground utilities was obtained from available records, The contractor must determine the exact location and elevations of the lines by digging test pits by hand at all utility crossings well in advance of trenching. If clearances are less than shown on this plan or six inches, whichever is less, the contractor shall contact the county.
5. Repairs to utilities or property damaged as a result of the contractor's negligence or method of operation must be made at the contractor's expense before proceeding with construction.
6. Call "Miss Utility" at 1–800–257–7777 fourty–eight (48) hours prior to beginning excavation to determine the exact location of existing utilities.
7. Clearing to be limited to the "limit of disturbance" as shown on the plans.
8. All grading shall be done in such a manner as to provide positive drainage.
9. Disturbed areas adjacent to established lawns shall be sodded. Other disturbed areas shall be seeded and mulched.
10. Any maintenance, treatment, planting, removal or root cutting on trees within the public right–of–way shall be performed in accordance with the Roadside Tree Permit requirements issued by the Department of Natural Resources – Maryland Forest, Park and Wildlife service whose telephone number is (301) 854–6060.
11. Contact the Washington Suburban Sanitary Commission system maintenance engineer before excavating beneath or in the vicinity of existing water or sewer lines. Backfill to be done under the supervision of W.S.S.C. call 301–699–4420.
12. Contact Washington gas dispatch officer at (703) 750–4831 before excavating beneath or in the vicinity of existing gas main and service laterals.
13. Prior to vegetative stabilization, all disturbed areas must be topsoiled per the Montgomery County "Standards and Specifications for topsoil".

STANDARD SEQUENCE OF CONSTRUCTION NOTES

1. Prior to clearing trees, installing sediment control measures, or grading, a preconstruction meeting must be conducted on–site with the Montgomery County Department of Permitting Services (MCDPS) sediment control inspector (240) 777–6210 (48 hours notice) and the MNCPPC, Planning Department, Plans Enforcement inspector (301) 495–4571 (48 hours notice), the Owners representative, and the site Engineer.
2. The limits of disturbance shall be field marked prior to clearing of trees, installation of sediment control measures, construction, or other land disturbing activities.
3. The permittee must obtain written approval from the MNCPPC inspector, certifying that the limits of disturbance and tree protection measures are correctly marked and installed prior to commencing any clearing.
4. Clear and grade for installation of sediment control devices.
5. Install sediment control devices. Traps and basins shall be constructed prior to construction of any earth dikes that convey drainage to a trap and/or basin.
6. Once the sediment control devices are installed, the permittee must obtain written approval from the MCDPS inspector before proceeding with any additional clearing, grubbing or grading.
7. The detailed sequence of construction by phase is presented on Sheets SC–06 thru SC–20.

NOTE 1: The permittee shall obtain written approval from MCDPS inspector, prior to the removal of any sediment control devices.

OFFSITE GRADING NOTE:
Offsite grading requires documentation of permission from owner (letter of permission on plan or recorded grading easement document submitted). Written approval for grading outside of the Right–of–Way shall be provided to the Inspector before construction is authorized to proceed.

STOCKPILE NOTE:
The Contractor shall establish staging and stockpile areas at locations approved by the Engineer. These areas shall be established such that environmentally sensitive areas are not impacted. Erosion sediment control measures such as silt fence shall be installed downgrade of the staging and stockpile areas and as directed by the Engineer, and diversions such as sandbags shall be placed upstream to prevent stormwater run–on from contacting the stockpile.

PHASED GRADING NOTE:
The contractor shall phase clearing and grading to minimize the area disturbed at a given time during connection. All areas not drainingto an approved sediment control measure shall receive same–day stabilization.

SITE INFORMATION		
DISTURBED AREA (LOD)	CUT (CY)	FILL (CY)
9.34 ac	TBD	TBD

P.E. 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. 43192 , EXPIRATION DATE: 12–19–22

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC–01
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'

DATE: JUNE 2022

CIP No. : 502109 SHEET 32 of 156

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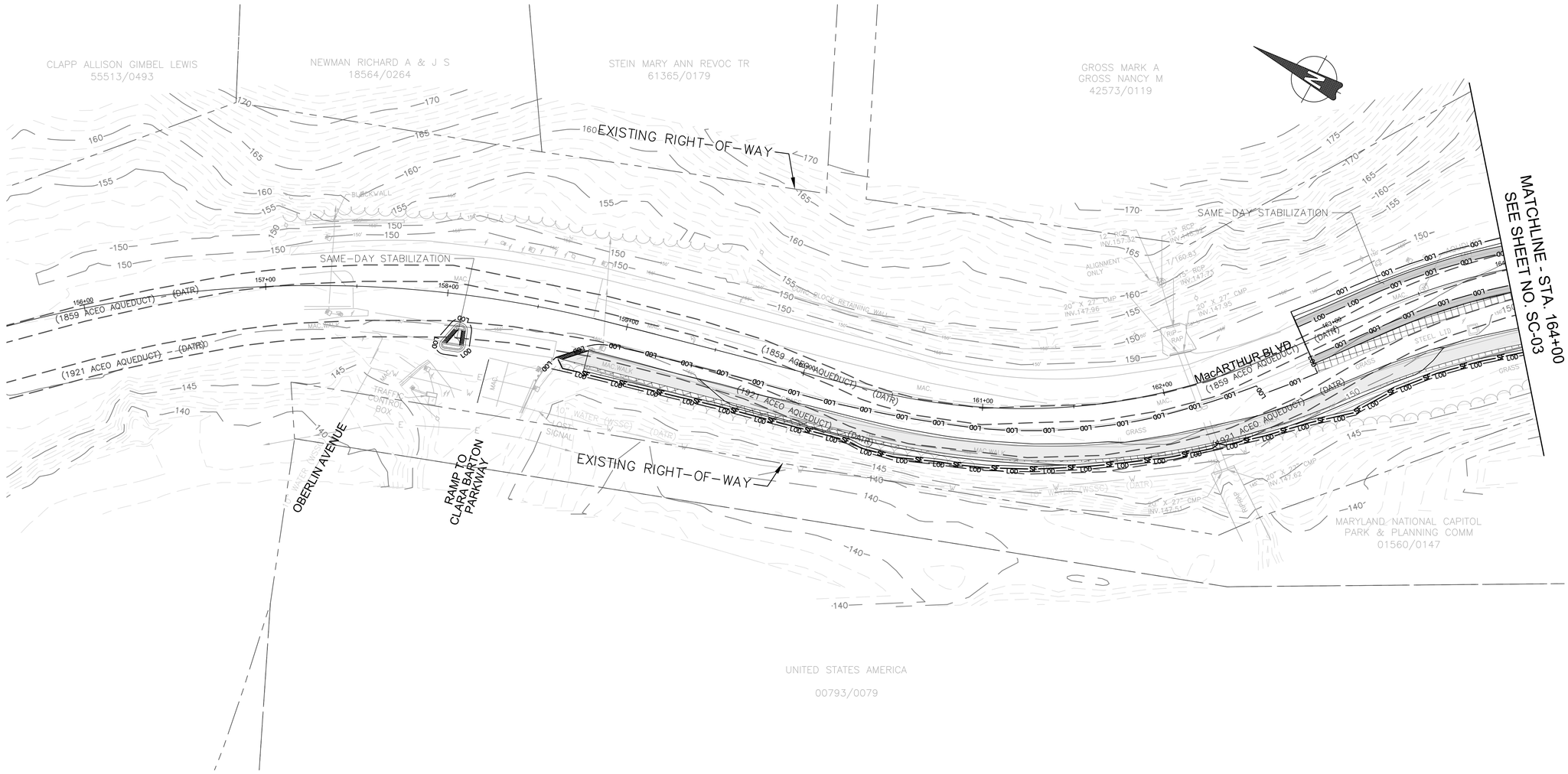

GENERAL NOTES:

1. FOLLOWING THE INSTALLATION OF SEDIMENT CONTROLS, WRITTEN APPROVAL MUST BE OBTAINED FROM THE MCDPS INSPECTOR PRIOR TO PROCEEDING WITH WORK.
2. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO A MCDPS-APPROVED SEDIMENT CONTROL DEVICE.
3. THE DEPOSITION OF ANY EARTH, GRAVEL, AND/OR OTHER MATERIAL OUTSIDE OF THE WORK AREA IS STRICTLY PROHIBITED. ALL SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS, OUTSIDE OF THE WORK AREA, MUST BE IMMEDIATELY REMOVED IF NOT DIVERTED TO A MCDPS-APPROVED SEDIMENT CONTROL DEVICE.
4. EROSION AND SEDIMENT CONTROL DEVICES AND/OR MEASURES ARE TO REMAIN IN PLACE UNTIL THEIR REMOVAL IS APPROVED IN WRITING BY THE MCDPS INSPECTOR. STABILIZE ANY DISTURBED AREAS RESULTING FROM REMOVAL OF THE SEDIMENT CONTROL DEVICES.
5. "DRY WEATHER FORECAST PER NOAA" SHALL BE CONSTRUED TO BE A FORECAST SHOWING A LIKELIHOOD OF PRECIPITATION AS BEING LESS THAN 20%.
6. AREAS OF SAME DAY STABILIZATION SHALL BE STABILIZED AS FOLLOWS: GRADED AGGREGATE BASE (OR PAVEMENT) FOR AREAS TO BE PAVED; SOIL STABILIZATION MATTING (SSM) FOR DITCHES WITHOUT BASEFLOW; AND SEED & MULCH FOR SOIL AREAS NOT IN DITCHES OR STREAMS.

LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC-02
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109 SHEET 33 of 156

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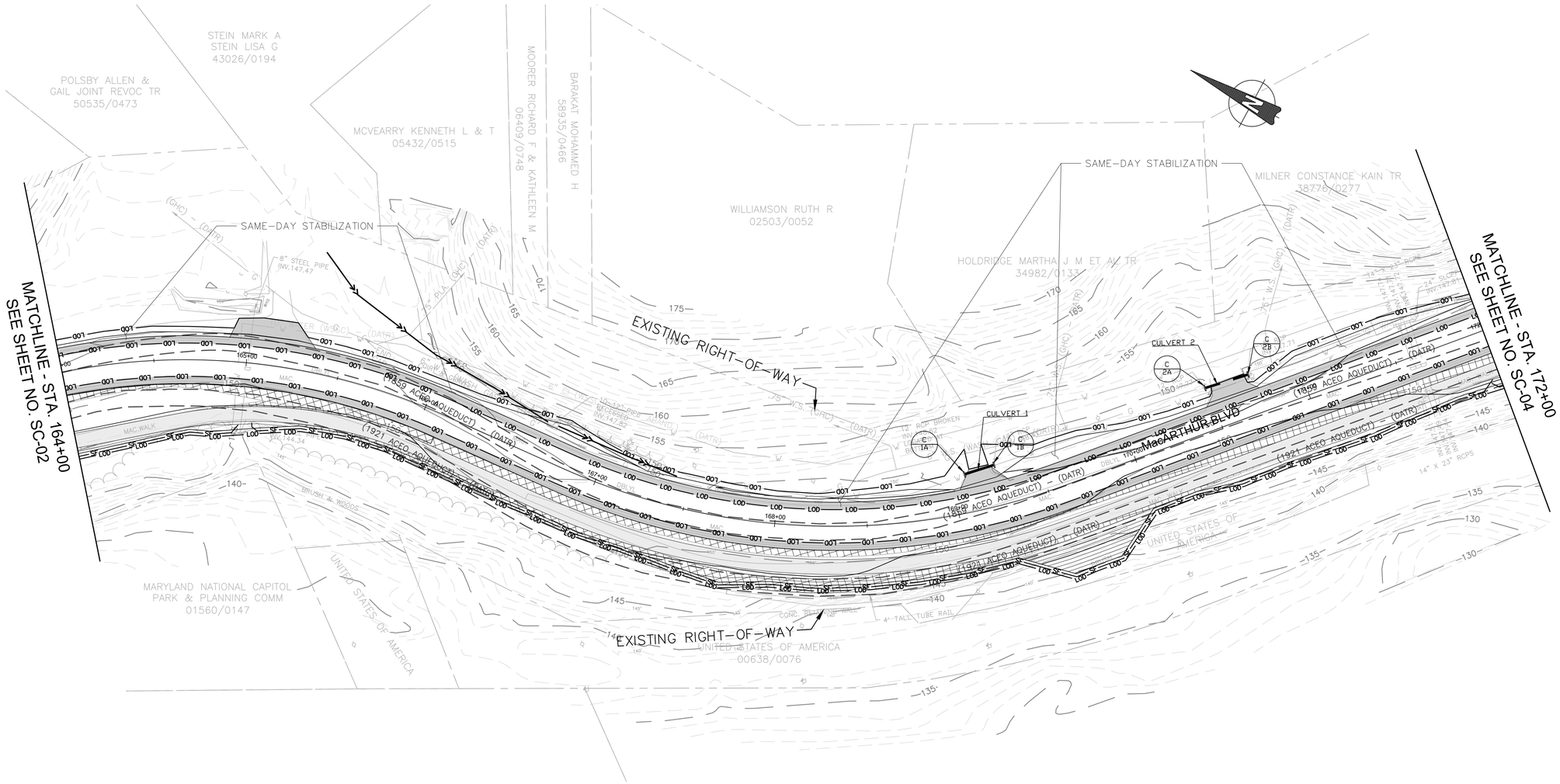

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6. AREAS OF SAME DAY STABILIZATION SHALL BE STABILIZED AS FOLLOWS: GRADED AGGREGATE BASE (OR PAVEMENT) FOR AREAS TO BE PAVED; SOIL STABILIZATION MATTING (SSM) FOR DITCHES WITHOUT BASEFLOW; AND SEED & MULCH FOR SOIL AREAS NOT IN DITCHES OR STREAMS.

LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC-03
EROSION AND SEDIMENT CONTROL

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 34 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES-P101_MacArthur.dwg LAYOUT NAME: SC-03 PLOTTED: Thursday, June 16, 2022 - 5:49pm USER: kevin



GENERAL NOTES:

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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

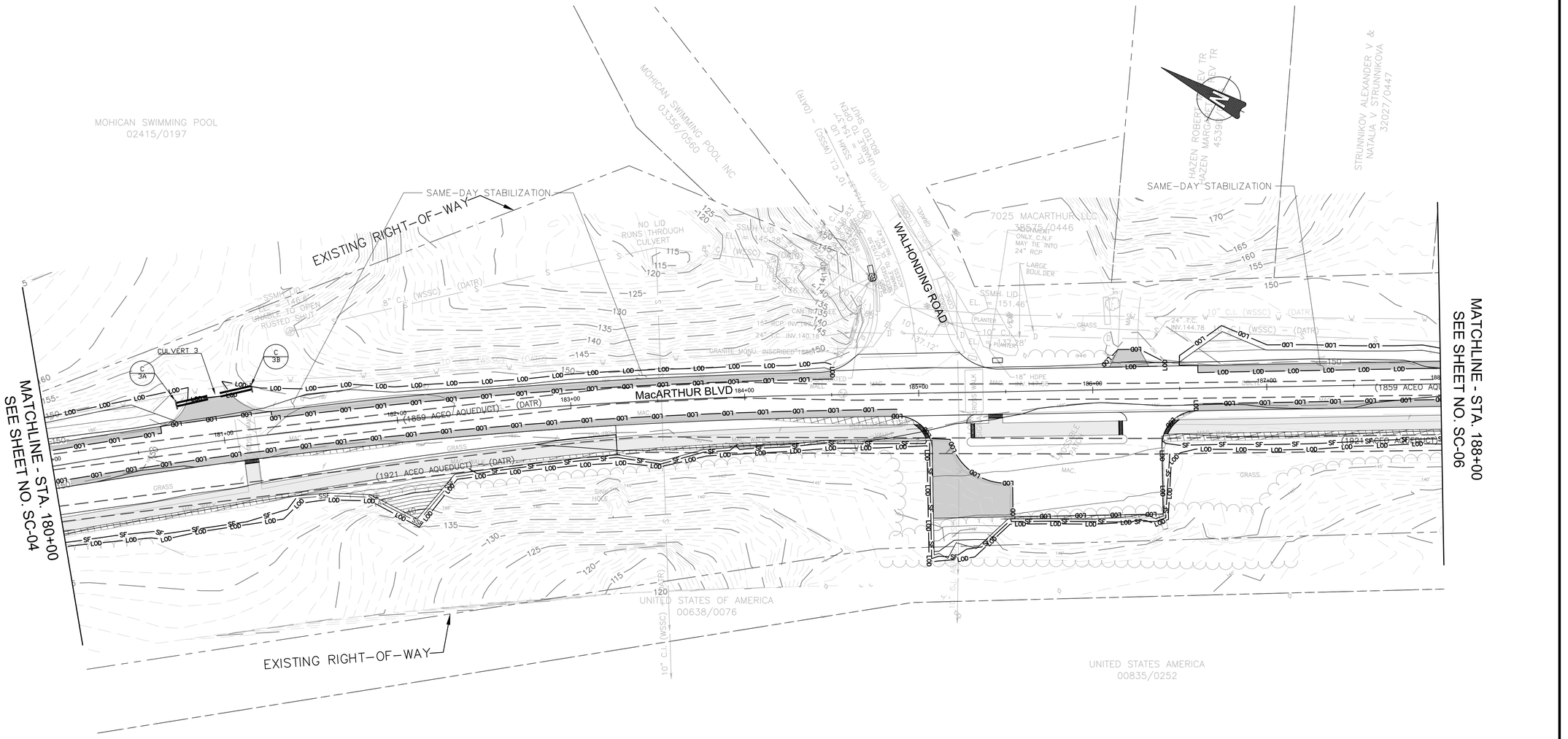
SC-04
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 35 of 156



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL–DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC–05
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD BIKEWAY PHASE III

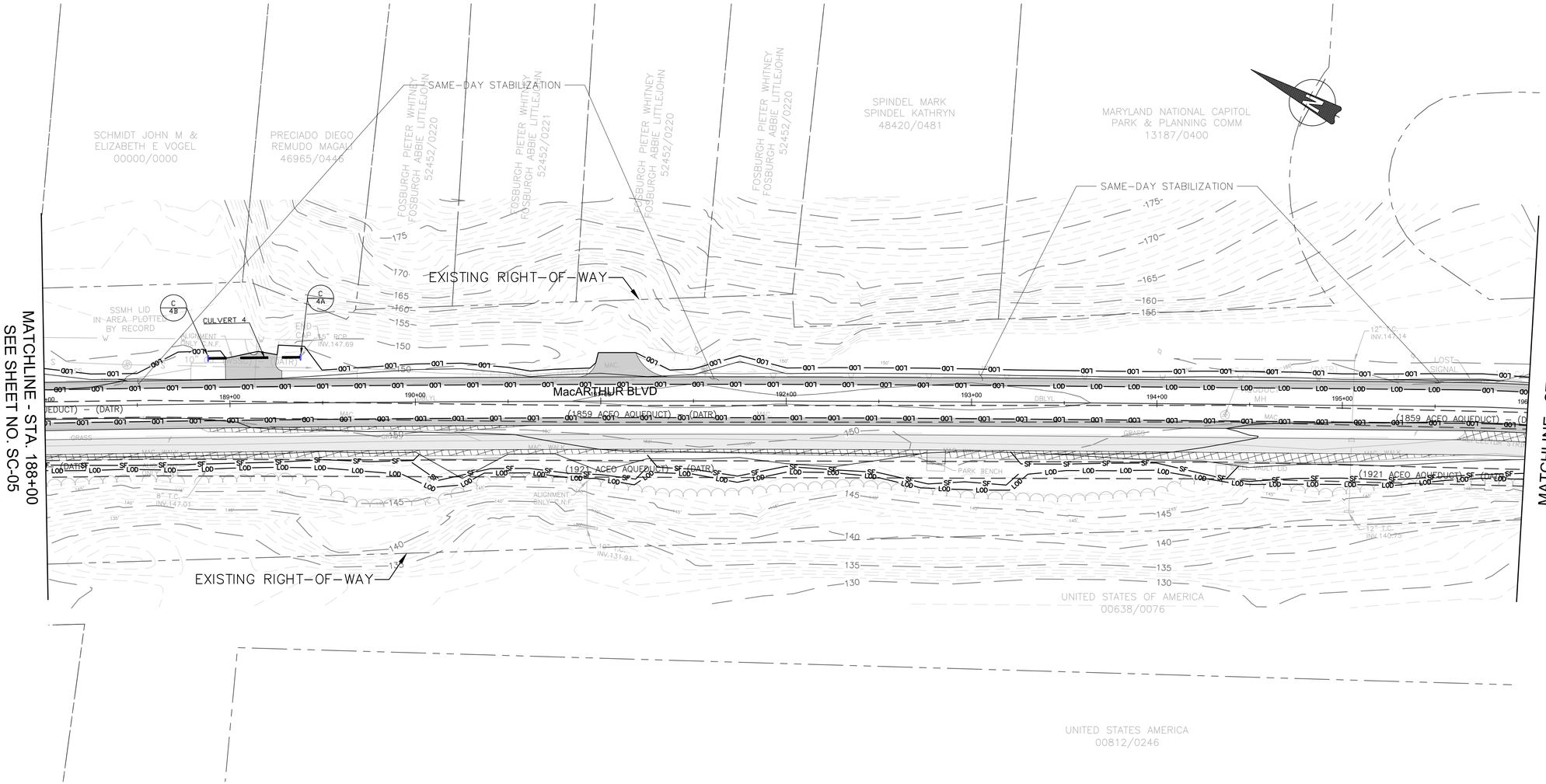
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 36 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES–P101_MacArthur.dwg LAYOUT NAME: SC–05 PLOTTED: Thursday, June 16, 2022 – 5:50pm USER: kevin



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

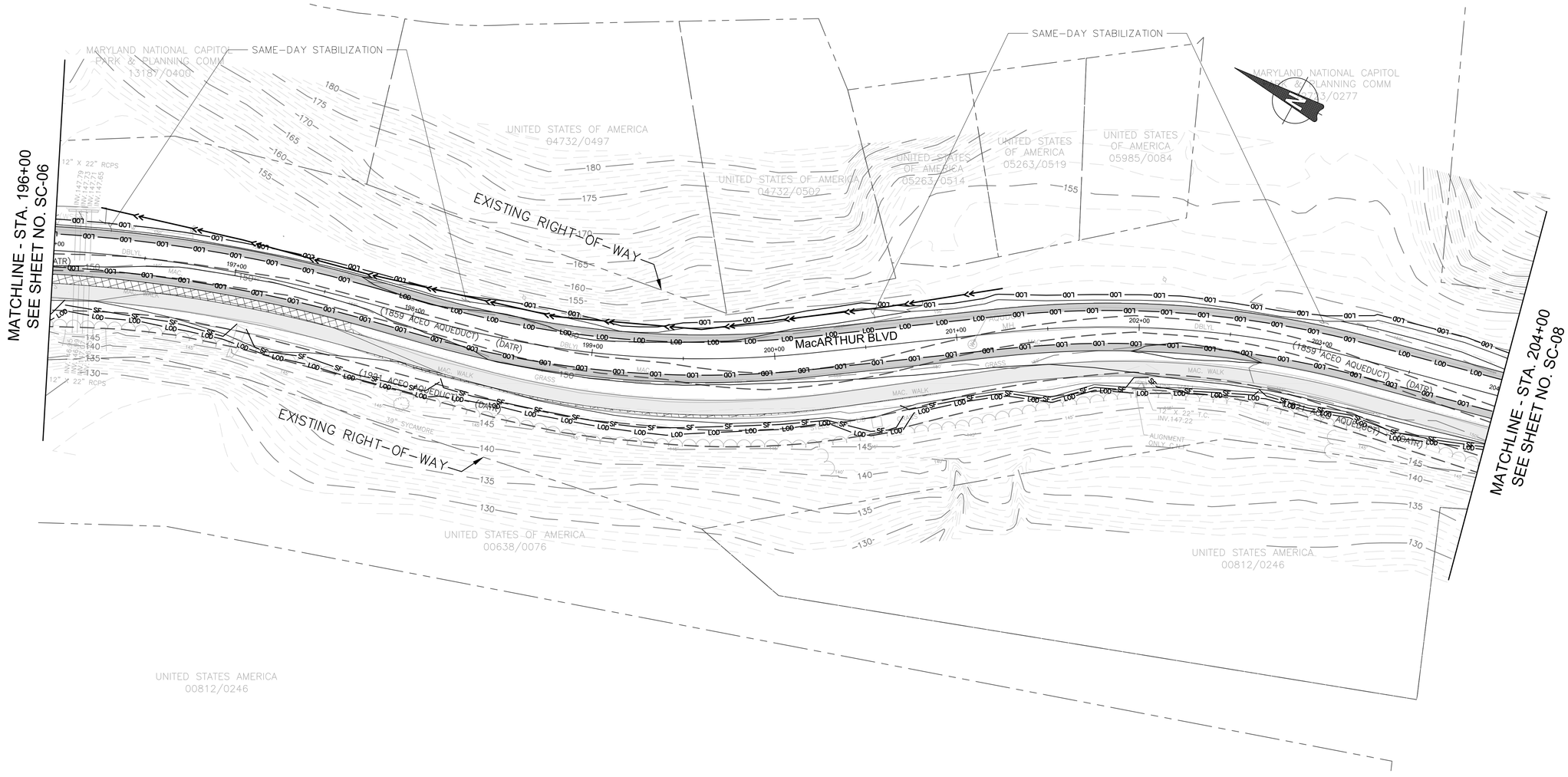
SC-06
EROSION AND SEDIMENT CONTROL

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 37 of 156



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LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

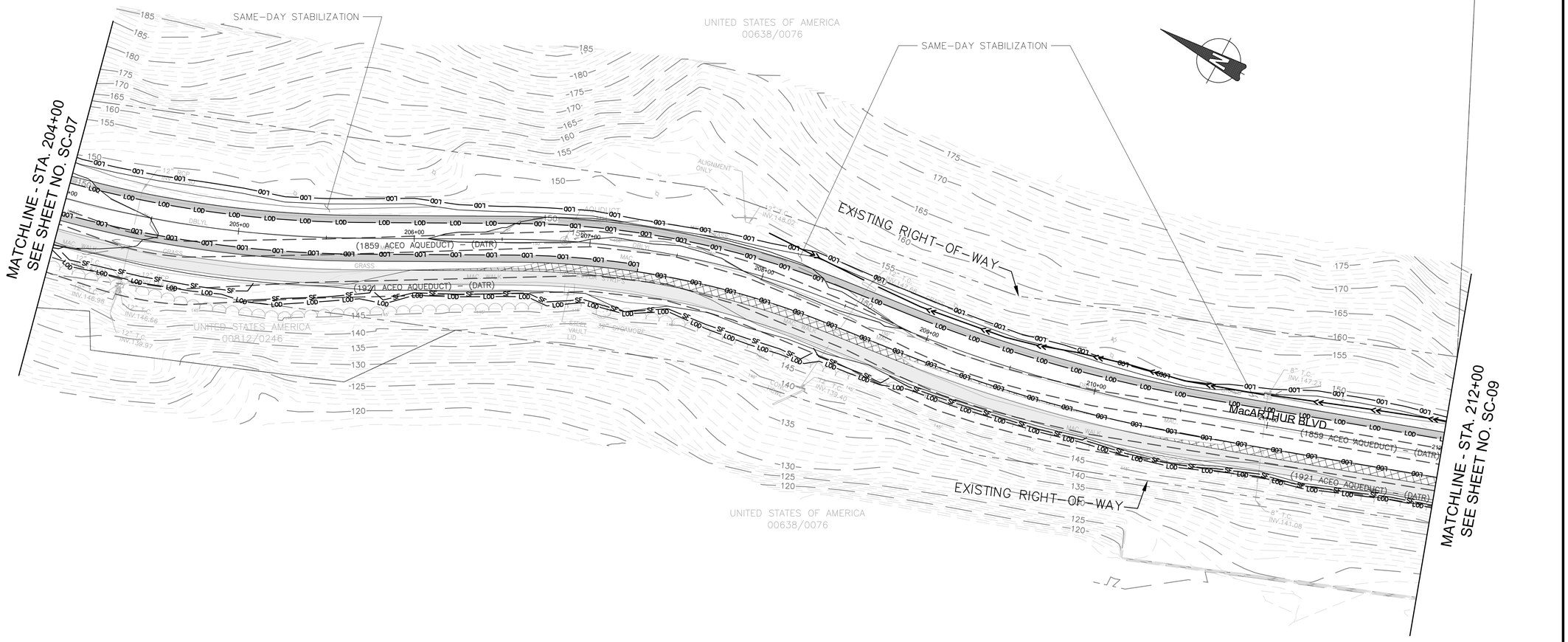
Designed by: KJS Drawn by: KJS Checked by: DZ

SC-07
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'
DATE: JUNE 2022

CIP No.: 502109
SHEET 38 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES-P101_MacArthur.dwg LAYOUT NAME: SC-07 PLOTTED: Thursday, June 16, 2022 - 5:51pm USER: kevin



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

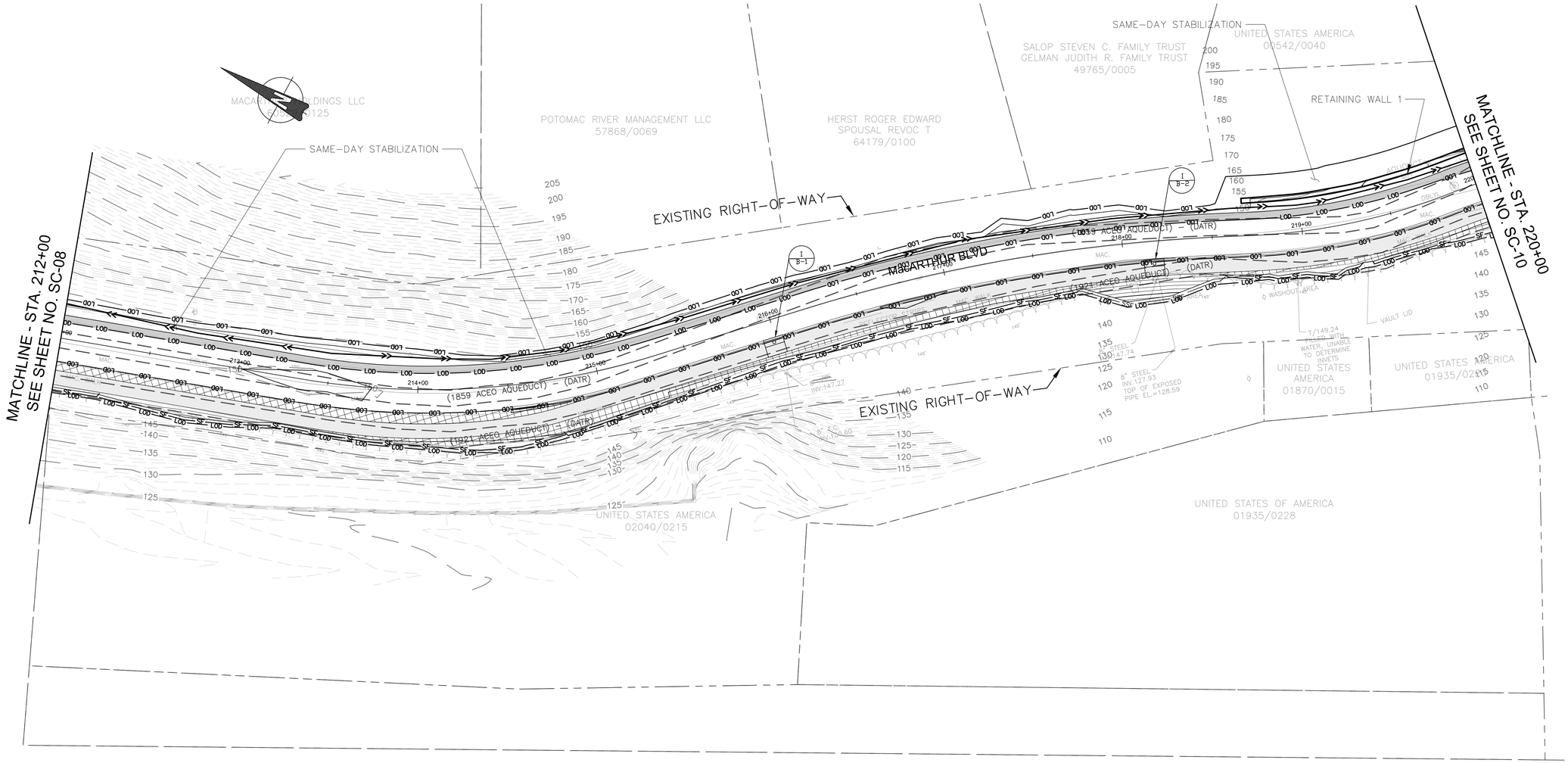
Designed by: KJS Drawn by: KJS Checked by: DZ

SC-08
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 39 of 156



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL–DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC–09
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD
BIKEWAY PHASE III

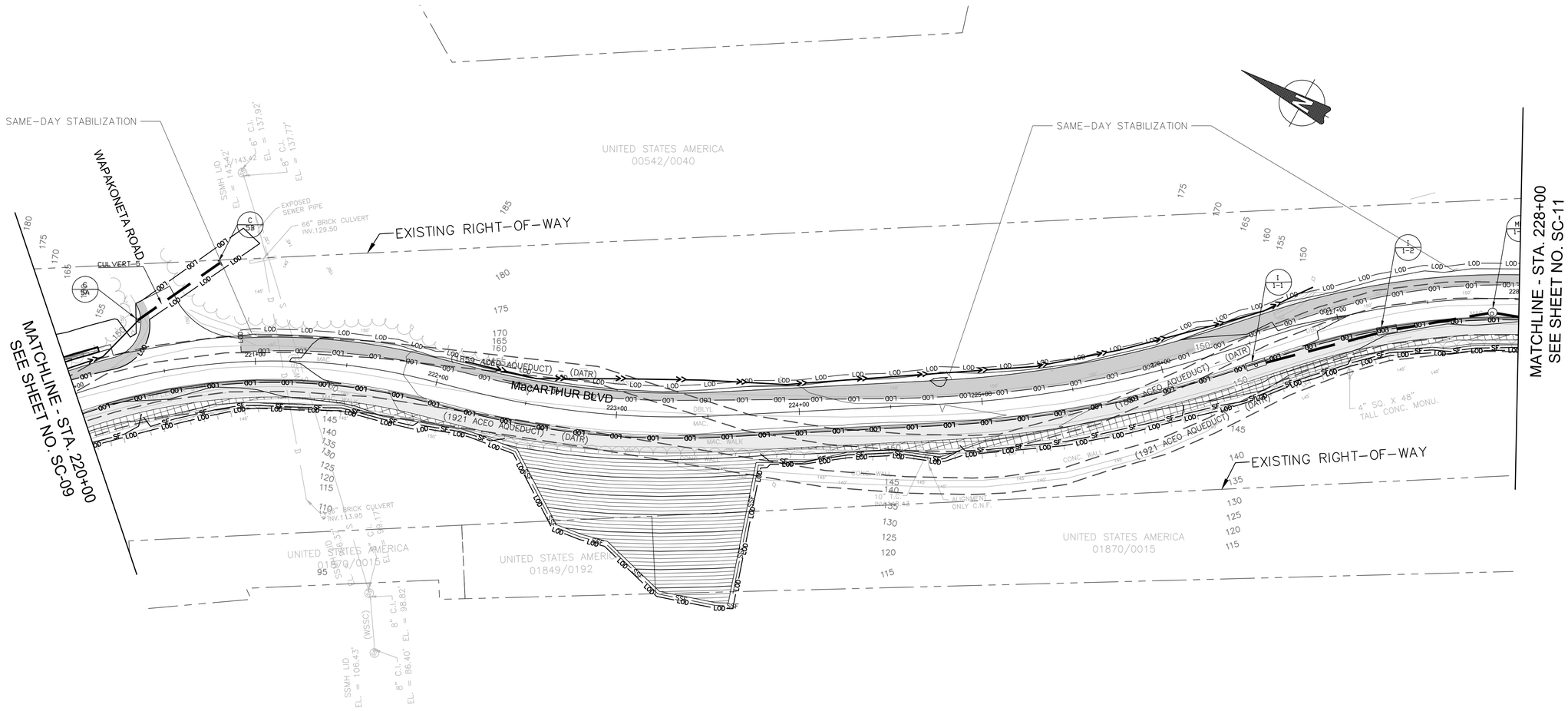
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 40 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES–P101_MacArthur.dwg LAYOUT NAME: SC–09 PLOTTED: Thursday, June 16, 2022 – 5:51pm USER: kevin



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC-10
EROSION AND SEDIMENT CONTROL

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'

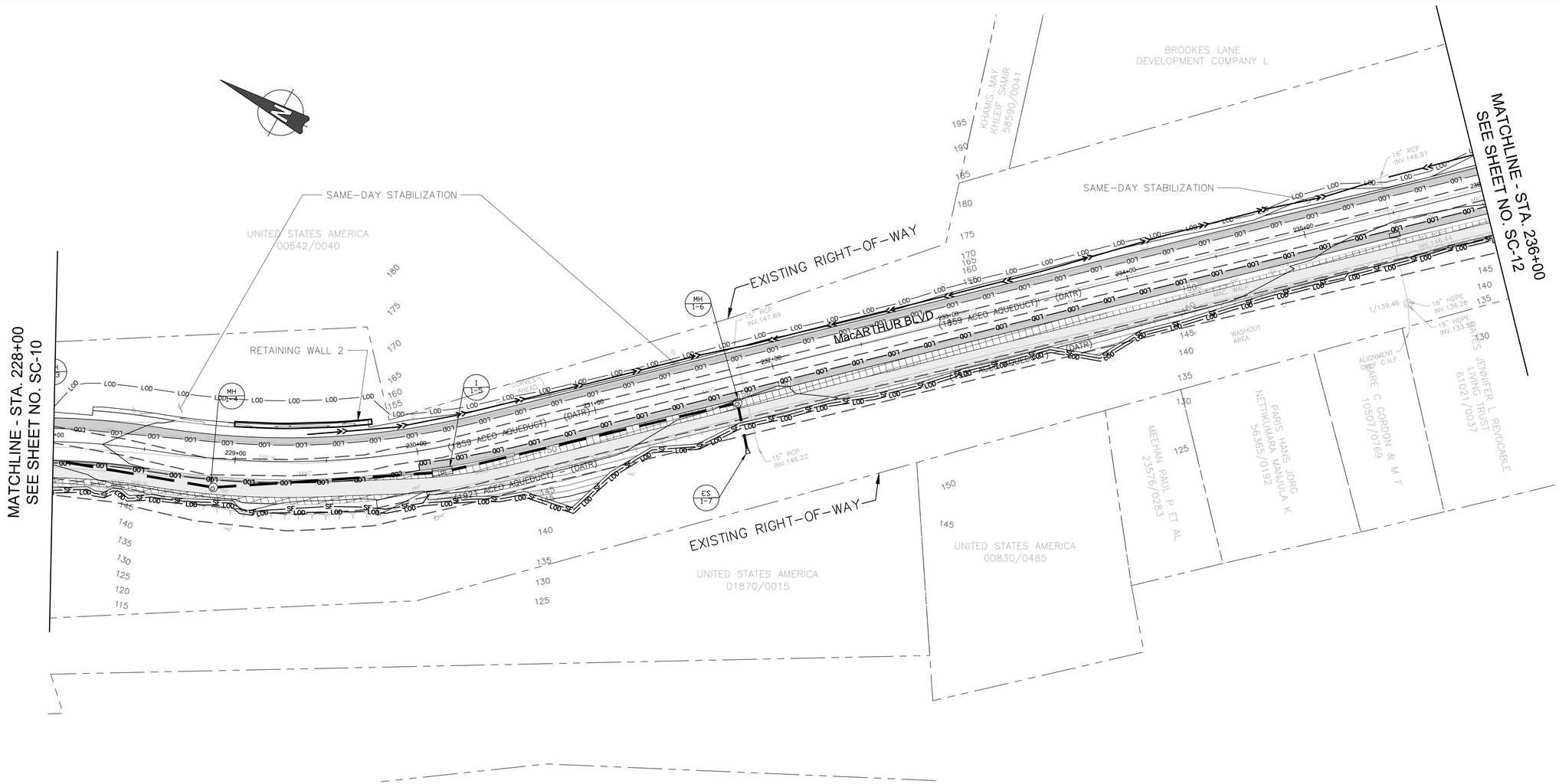
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 41 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES-P101_MacArthur.dwg LAYOUT NAME: SC-10 PLOTTED: Thursday, June 16, 2022 - 5:52pm USER: kevin



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC-11
EROSION AND SEDIMENT CONTROL

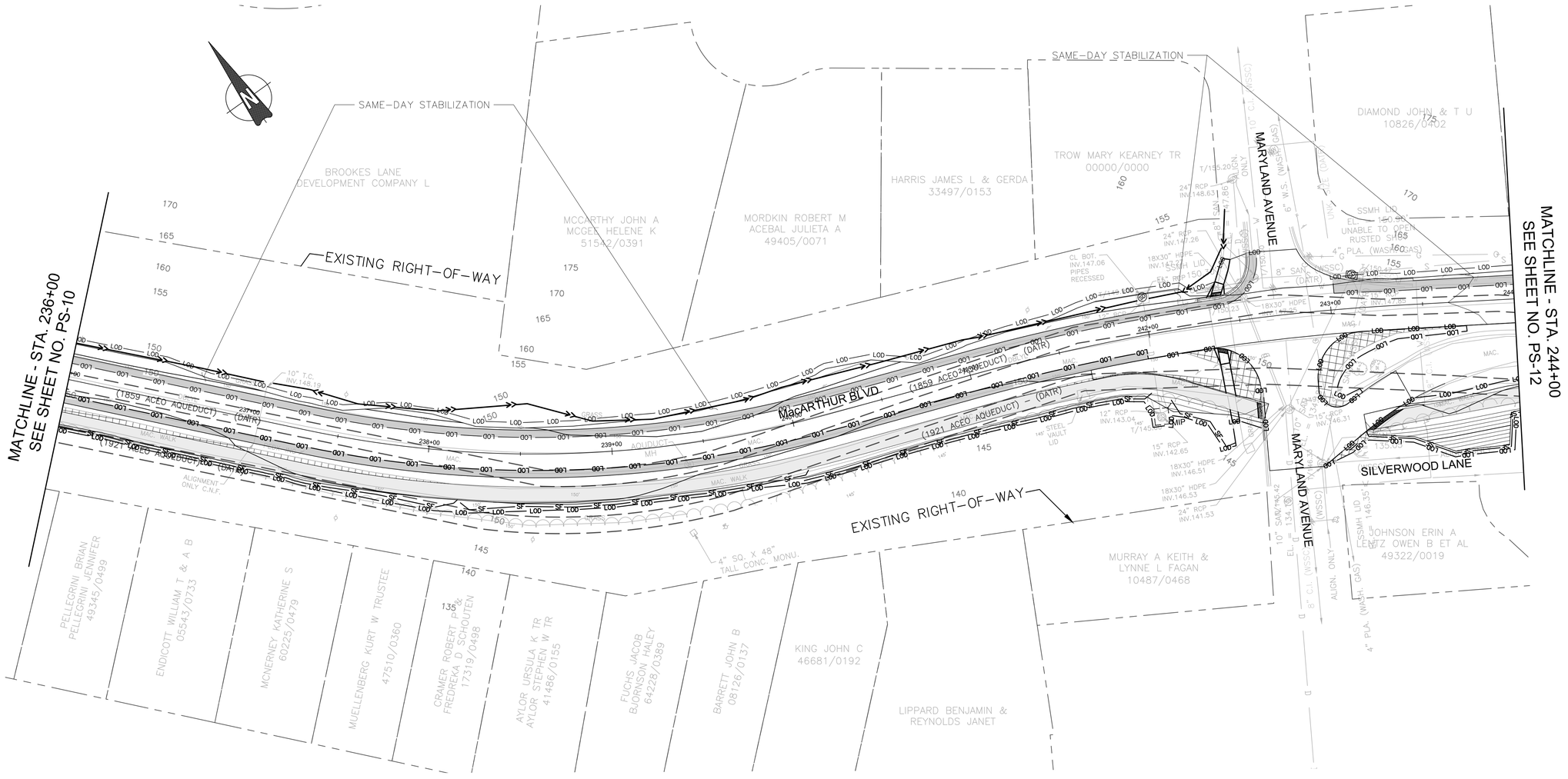
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 42 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES-P101_MacArthur.dwg LAYOUT NAME: SC-11 PLOTTED: Thursday, June 16, 2022 - 5:52pm USER: kevin



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC-12
EROSION AND SEDIMENT CONTROL

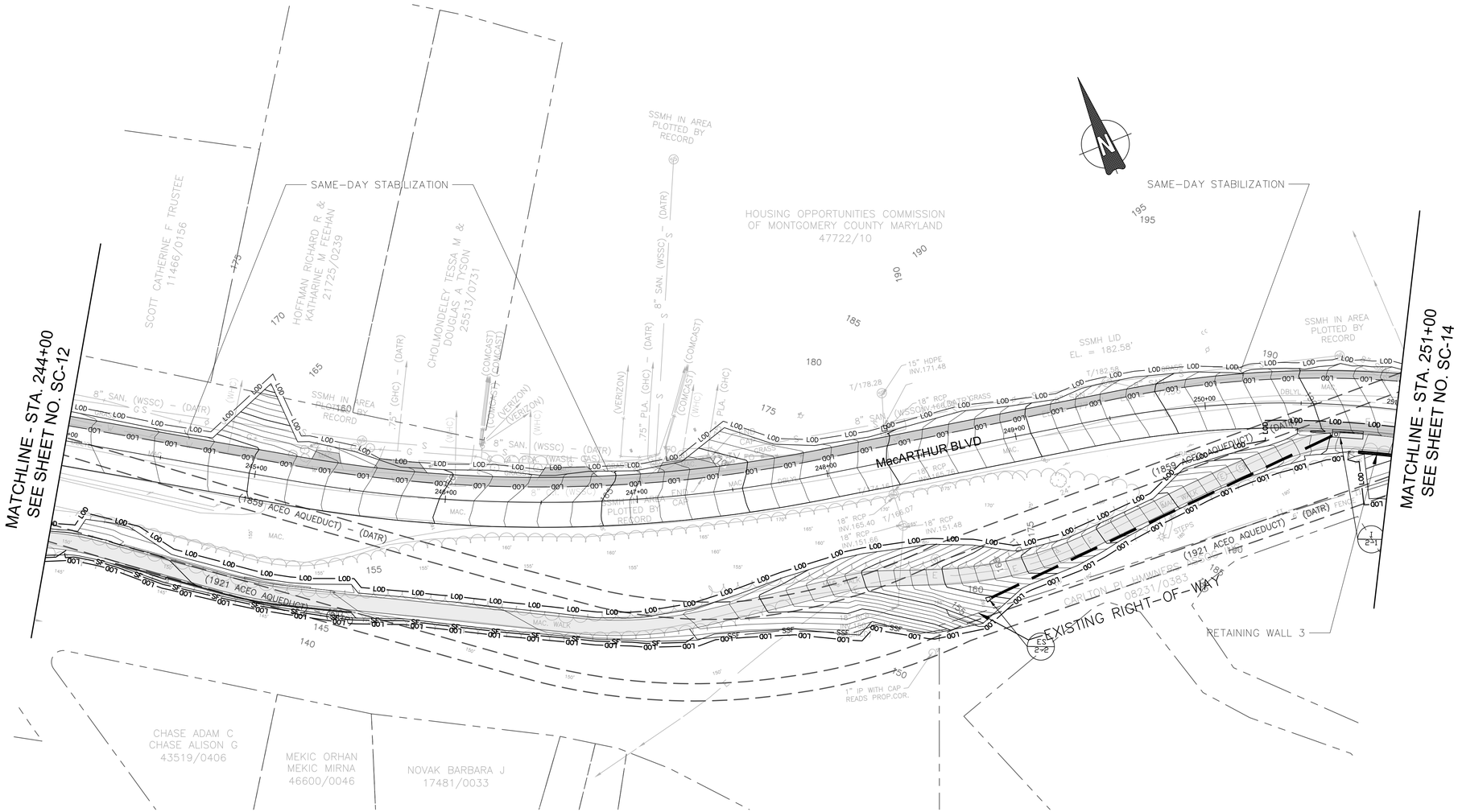
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 43 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES-P101_MacArthur.dwg LAYOUT NAME: SC-12 PLOTTED: Thursday, June 16, 2022 - 5:52pm USER: kevin



GENERAL NOTES:

1. FOLLOWING THE INSTALLATION OF SEDIMENT CONTROLS, WRITTEN APPROVAL MUST BE OBTAINED FROM THE MCDPS INSPECTOR PRIOR TO PROCEEDING WITH WORK.
2. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO A MCDPS–APPROVED SEDIMENT CONTROL DEVICE.
3. THE DEPOSITION OF ANY EARTH, GRAVEL, AND/OR OTHER MATERIAL OUTSIDE OF THE WORK AREA IS STRICTLY PROHIBITED. ALL SEDIMENT TRACKED ONTO PUBLIC RIGHT–OF–WAYS, OUTSIDE OF THE WORK AREA, MUST BE IMMEDIATELY REMOVED IF NOT DIVERTED TO A MCDPS–APPROVED SEDIMENT CONTROL DEVICE.
4. EROSION AND SEDIMENT CONTROL DEVICES AND/OR MEASURES ARE TO REMAIN IN PLACE UNTIL THEIR REMOVAL IS APPROVED IN WRITING BY THE MCDPS INSPECTOR. STABILIZE ANY DISTURBED AREAS RESULTING FROM REMOVAL OF THE SEDIMENT CONTROL DEVICES.
5. "DRY WEATHER FORECAST PER NOAA" SHALL BE CONSTRUED TO BE A FORECAST SHOWING A LIKELIHOOD OF PRECIPITATION AS BEING LESS THAN 20%.
6. AREAS OF SAME DAY STABILIZATION SHALL BE STABILIZED AS FOLLOWS: GRADED AGGREGATE BASE (OR PAVEMENT) FOR AREAS TO BE PAVED; SOIL STABILIZATION MATTING (SSM) FOR DITCHES WITHOUT BASEFLOW; AND SEED & MULCH FOR SOIL AREAS NOT IN DITCHES OR STREAMS.

LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL–DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

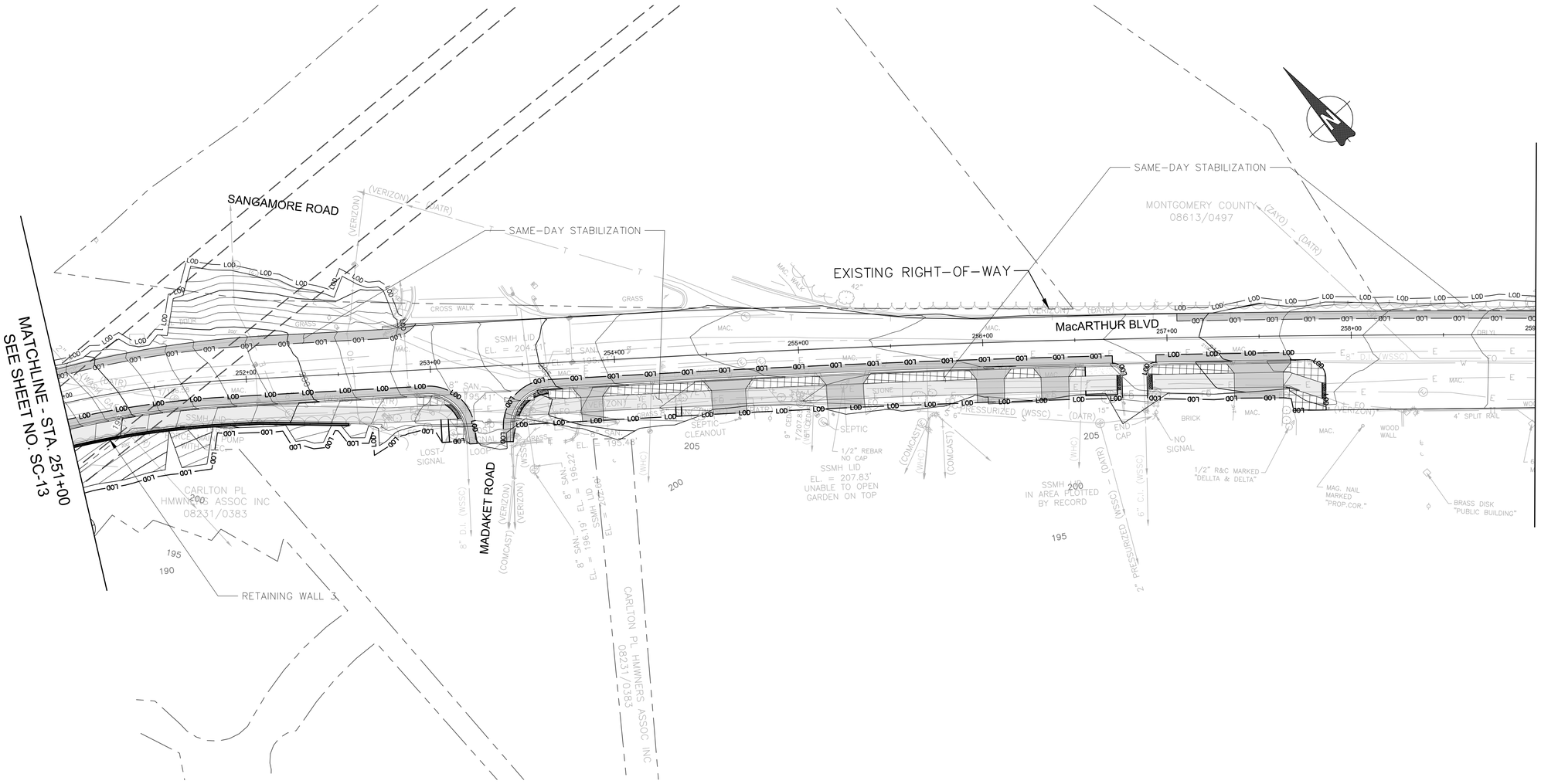
Designed by: DZ Drawn by: DZ Checked by: KJS

SC–13
EROSION AND SEDIMENT CONTROL

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 44 of 156



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD
SILT FENCE	SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

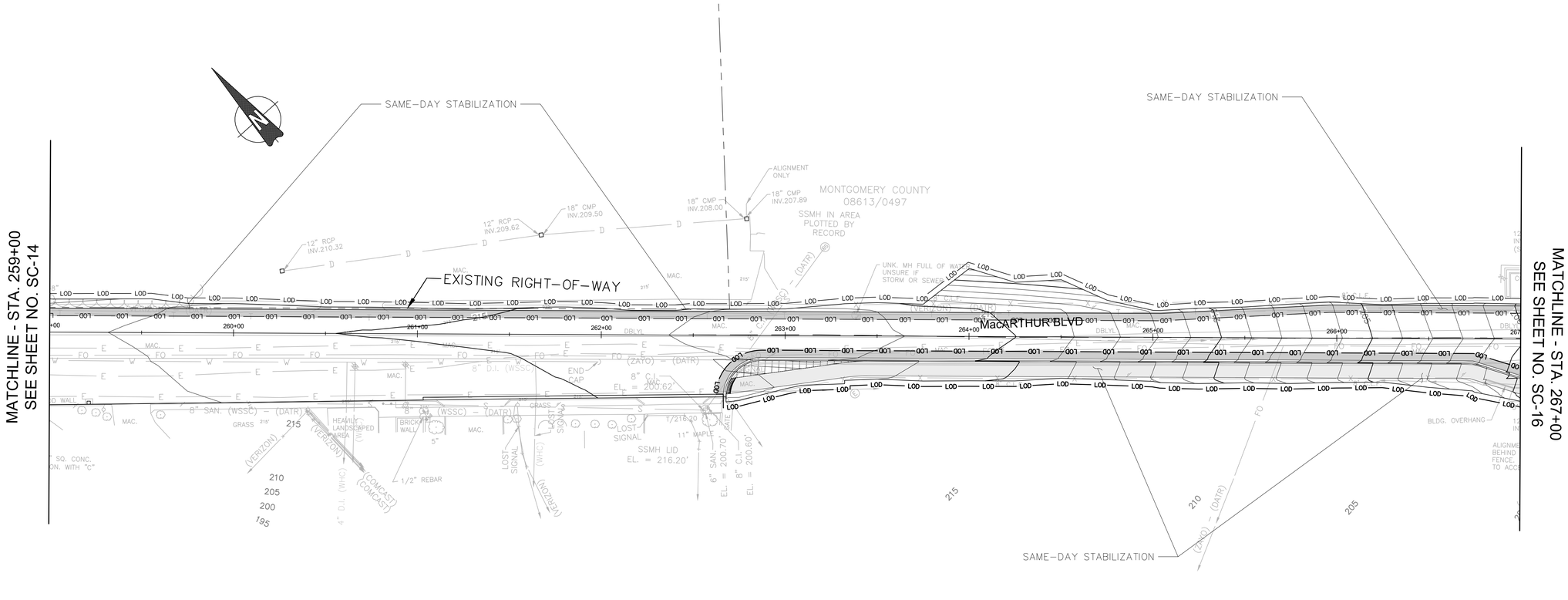
SC-14
EROSION AND SEDIMENT CONTROL

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 45 of 156



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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD
SILT FENCE	SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL-DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

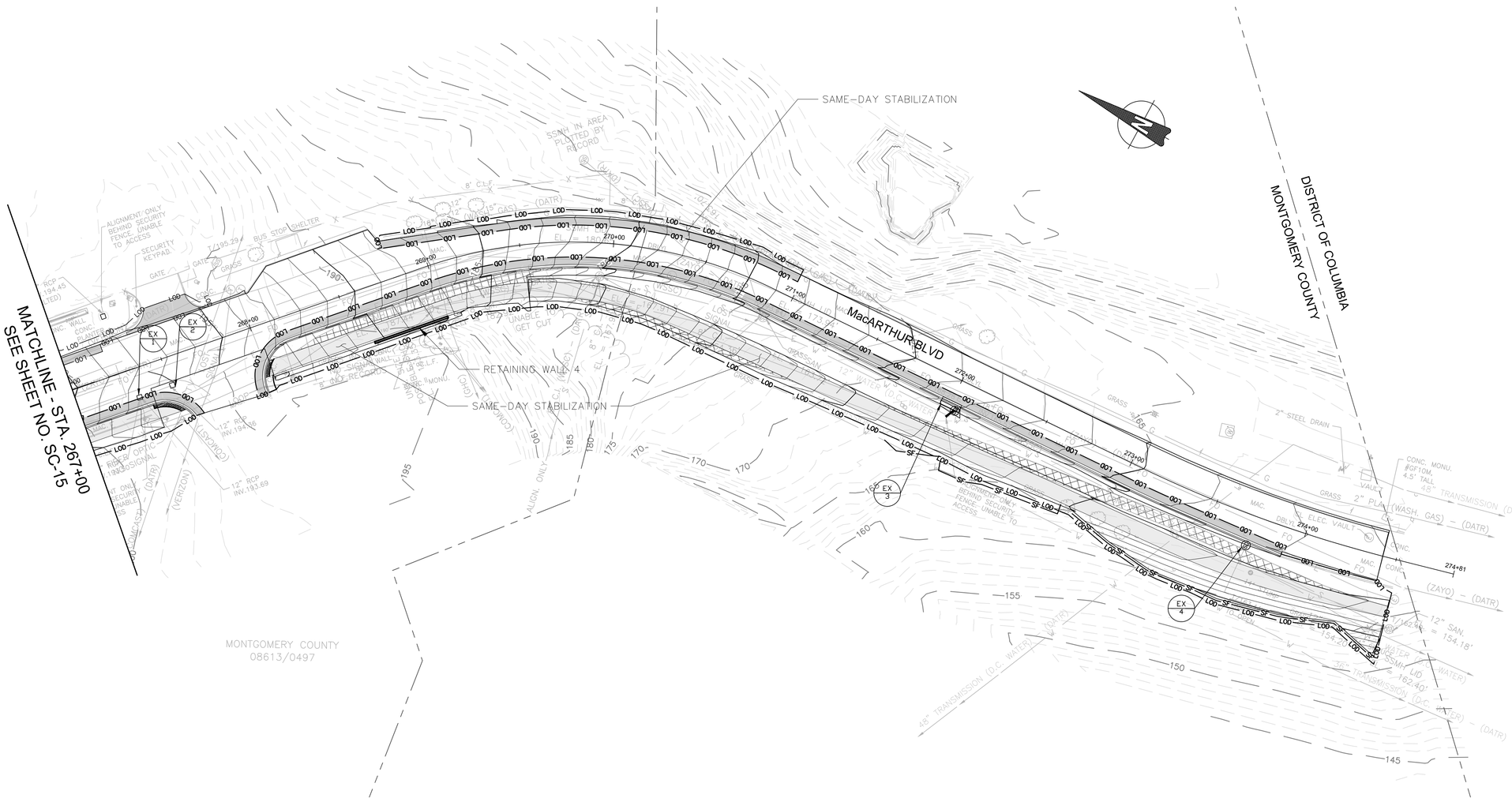
Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC-15
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'
DATE: JUNE 2022

CIP No. : 502109
SHEET 46 of 156



GENERAL NOTES:

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LEGEND

LIMIT OF DISTURBANCE (LOD)	LOD LOD
SILT FENCE	SF SF
SUPER SILT FENCE	SSF
PAVEMENT REMOVAL	
FULL–DEPTH PAVEMENT	

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC–16
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

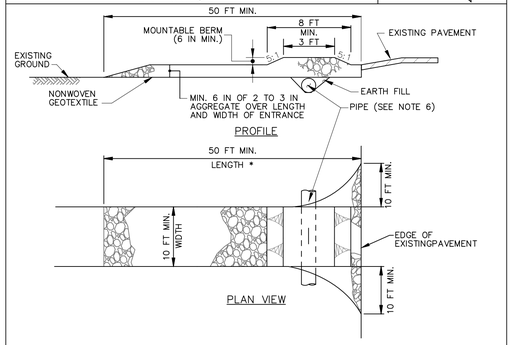
SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 47 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES–P101_MacArthur.dwg LAYOUT NAME: SC–16 PLOTTED: Thursday, June 16, 2022 – 5:53pm USER: kevin

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

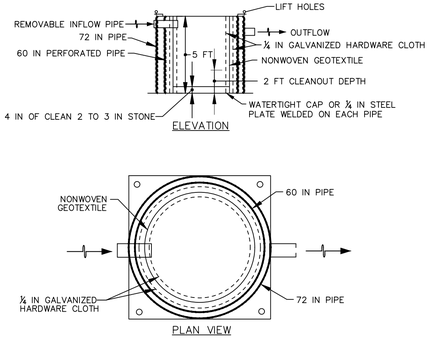
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL F-3 PORTABLE SEDIMENT TANK

STANDARD SYMBOL: PST



CONSTRUCTION SPECIFICATIONS

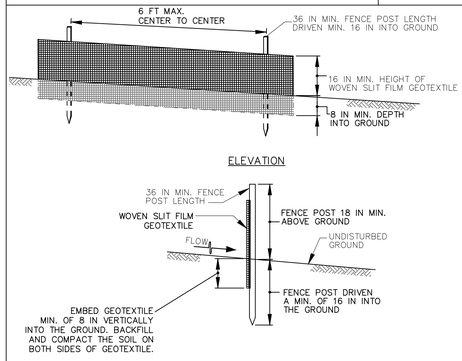
1. PROVIDE 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP CAPACITY. REQUIRED STORAGE VOLUME MAY BE ATTAINED BY PLACEMENT OF TANKS IN PARALLEL WITH INFLOW EVENLY DISTRIBUTED AMONG TANKS. OVERTOPPING OF TANKS IS NOT PERMITTED.
2. USE 60 INCH CORRUGATED METAL OR PLASTIC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER FOR THE INNER PIPE. LINE PIPE WITH NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS, SANDWICHED BETWEEN, AND ATTACHED TO, ¼ INCH HARDWARE CLOTH.
3. OVERLAP GEOTEXTILE 8 INCHES MINIMUM AT VERTICAL SEAM AND AT THE BOTTOM PLATE.
4. ANCHOR GEOTEXTILE AT BOTTOM OF TANK WITH 4 INCHES OF 2 TO 3 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE.
5. USE 72 INCH CORRUGATED METAL OR PLASTIC OUTER PIPE WITH PERMANENT OUTFLOW PIPE WITH INVERT LOWER THAN INFLOW PIPE
6. INFLOW PIPE MUST DISCHARGE INTO INNER PIPE AND BE REMOVABLE.
7. PLACE TANK ON LEVEL SURFACE AND DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
8. A PORTABLE SEDIMENT TANK REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT FROM INNER PIPE WHEN IT REACHES TWO FEET IN DEPTH. IF SYSTEM CLOGS, PULL OUT INNER PIPE, REMOVE ACCUMULATED SEDIMENT, AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF



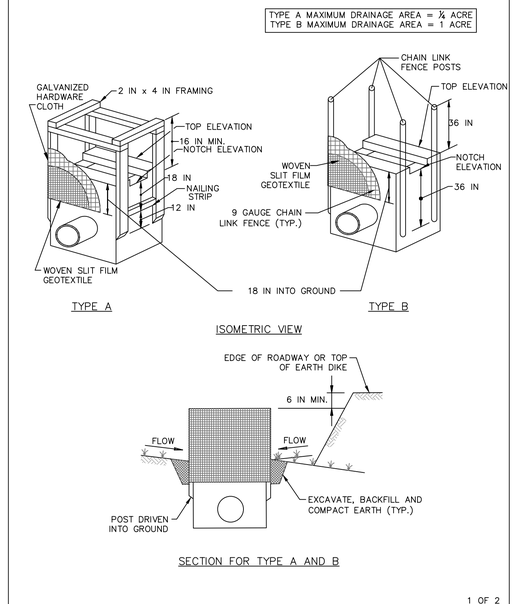
1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP



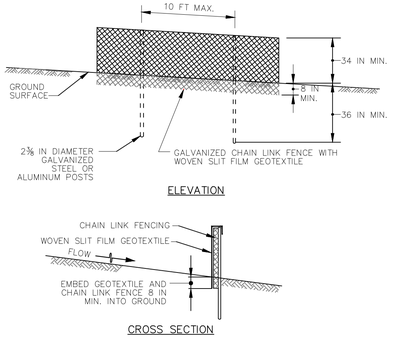
1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H–1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ X 1¾ ± 1/16 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID–SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H–1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

CONSTRUCTION SPECIFICATIONS

1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS.
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
3. FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH ½ INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

   FOR TYPE B, USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DRAFT
NOT FOR CONSTRUCTION

RJM ENGINEERING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KJS Drawn by: KJS Checked by: DZ

SC–17 DETAILS
EROSION AND SEDIMENT CONTROL
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

DATE: JUNE 2022

CIP No. : 502109 SHEET 48 of 156

FILE NAME: C:\pwworking\jmt\d0322029\pES–D001_MacArthur.dwg LAYOUT NAME: SC–17 PLOTTED: Thursday, June 16, 2022 – 5:54pm USER: kevin

CRITERIA

THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT:

DESIGN

MDOT SHA – "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2011 EDITION AND SUBSEQUENT REVISIONS. (MdMUTCD)

A A S H T O – "HIGHWAY SAFETY DESIGN AND OPERATIONS GUIDE" –1997

A A S H T O – "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES AND TRAFFIC SIGNALS", 2001 EDITION (CATEGORY II FOR ALL OVERHEAD AND CANTILEVER SIGN STRUCTURES).

MATERIALS AND CONSTRUCTION

MDOT SHA – "STANDARD SPECIFICATIONS FOR CONSTRUCTION & MATERIALS", 2021 EDITION AND SUBSEQUENT SUPPLEMENTS.

DESIGN WIND

100 MPH – WOOD SUPPORTS
10 YEAR RECURRENCE INTERVAL

100 MPH – GROUND MOUNT SIGN STEEL SUPPORTS
10 YEAR RECURRENCE INTERVAL

100 MPH – OVERHEAD AND CANTILEVER STRUCTURES
50 YEAR RECURRENCE INTERVAL

} ALL DISTRICTS

DESIGN STRESS

SOIL BEARING PRESSURE – S = 3,000 P.S.F. (ASSUMED)
SEE MATERIAL & CONSTRUCTION ABOVE AND SPECIAL PROVISIONS FOR DESIGN STRESSES FOR STRUCTURAL STEEL, ALUMINUM, REINFORCING STEEL AND CONCRETE.

CHAMFER

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" X 3/4" CHAMFER.

CLASSIFICATION OF SIGNS

SIGNS ARE DIVIDED INTO TWO (2) GENERAL CATEGORIES.

1. GUIDE SIGNS
   - A) STRUCTURAL TYPES
     - OH – OVERHEAD
     - C – CANTILEVER
     - GM – GROUND MOUNT, BREAKAWAY OR NON–BREAKWAY
     - BM – BRIDGE MOUNTED
   - B) PANELS
     - MATERIAL – EXTRUDED ALUMINUM
     - COPY – DIRECT APPLIED
       1) HIGH INTENSITY (NEW SIGNS AND REVISIONS TO EXISTING SIGNS)

2. STANDARD SIGNS (REGULATORY, WARNING, ETC.)
   - A) STRUCTURAL TYPES
     - WOOD SUPPORTS
     - SQUARE TUBE
   - B) PANELS
     - MATERIAL – SHEET ALUMINUM
     - COPY – DIRECT APPLIED

IDENTIFICATION OF SIGNS AND PANELS

GUIDE SIGNS

EACH GUIDE SIGN IS IDENTIFIED BY A SIGN NUMBER ON THE PLANS AND IN THE TABULATIONS. (GM–1, GM–2, GM–3, etc)
SIGNS ON STRUCTURES ARE IDENTIFIED WITH A NUMBER AND WHERE VARIATIONS OCCUR, A LOWER CASE LETTER. (OH–1a, OH–1b, OH–1c)

STANDARD SIGNS

STANDARD SIGNS ARE IDENTIFIED BY PANEL NUMBERS AND ARE CLASSIFIED AS FOLLOWS
- R – REGULATORY
- W – WARNING
- M – ROUTE MARKERS AND ACCESSORIES
- D – DESTINATION AND MILEAGE PANELS
- S – SCHOOL

PANELS SHALL BE DESIGNATED TO AGREE WITH MARYLAND STANDARD SIGN BOOK. EACH STANDARD SIGN IS IDENTIFIED FIRST BY THE SHEET NUMBER, THEN BY THE NUMERICAL ORDER OF THE SIGN AS IT APPEARS ON THE PLAN.
FOR EXAMPLE SHEET SN 2.1–101,102,103, ETC. SHEET SN 2.2–201,202,203,ETC.

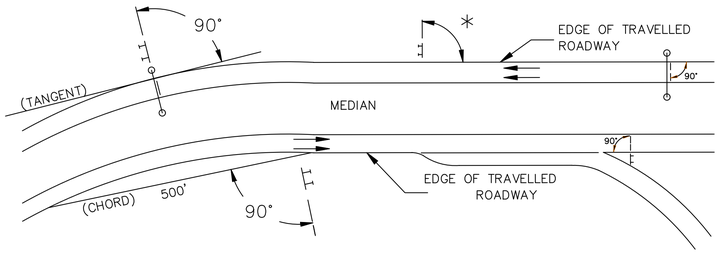
PANEL LAYOUT AND ALPHABETS

1. GUIDE SIGN PANEL LAYOUTS ARE BASED ON THE A.A.S.H.T.O. MANUALS NOTED ABOVE.
2. STANDARD SIGN PANEL LAYOUTS ARE BASED ON THE MdMUTCD WITH SPECIFICATIONS DETAILED IN THE MARYLAND STATE HIGHWAY ADMINISTRATION PUBLICATION, "STANDARD SIGN BOOK", AVAILABLE ONLINE @ https: /www.marylandroads.com/businesswithsha/ bizStdsSpecs/desManualStdPub/publicationsonline/oots/internet_signbook.asp

REFLECTORIZATION

BACKGROUNDS, BORDERS, TEXTS AND ALL OTHER ELEMENTS OF SIGN PANELS SHALL BE REFLECTORIZED EXCEPT WHERE NOTED. REFER TO PROJECT REQUIREMENTS FOR MORE DETAIL.

ORIENTATION OF SIGN FACES



* UNDER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN – 93^ AWAY FROM THE ROAD TO AVOID SPECULAR REFLECTION AS INDICATED IN 813.03 OF THE MARYLAND STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.

OVER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN – 90^

SIGN LOCATIONS

1. GUIDE SIGNS ARE LOCATED ON THE PLANS BY DIMENSION TO SURVEY STATIONS, OR WHEN NECESSARY, TO IDENTIFIABLE PHYSICAL FEATURES.
2. ALL CHANGES IN THE LOCATIONS OF SIGNS AS SHOWN ON THE PLAN SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

EXISTING UTILITIES

THE ENGINEER DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION SHOWN ON THE PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING FACILITIES WHICH MIGHT BE AFFECTED BY THIS WORK OR HIS OPERATION.

ROADSIDE SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANEL SO FACE IS PLUMB.
2. HORIZONTAL ALIGNMENT (SEE DIAGRAM ABOVE)
   - A) ON STRAIGHT ROADWAY SECTIONS, ANGLE OF SIGN FACE TO ROADWAY VARIES WITH DISTANCE FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN – SEE DIAGRAM.
   - B) ON THE INSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL MAKES AN ANGLE OF 90^ WITH A CHORD BETWEEN A POINT ON NEAR EDGE OF PAVEMENT AT SIGN LOCATION AND A POINT ON EDGE OF PAVEMENT 500' IN ADVANCE OF SIGN.
   - C) ON THE OUTSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT THE SIGN LOCATION.
   - D) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.

OVERHEAD SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANELS FOR ALL OVERHEAD STRUCTURES SO THAT PANEL FACE IS PLUMB.
2. OVERHEAD SIGN STRUCTURES SHALL NOT BE ERECTED WITHOUT ATTACHING LUMINAIRES, SUPPORTS, AND/OR SIGNS.
3. HORIZONTAL ALIGNMENT
   - A) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE NORMAL EDGE OF ROADWAY, IF ON A STRAIGHT ROADWAY SECTION.
   - B) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT SIGN LOCATION, IF ON A HORIZONTAL CURVE.
   - C) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.
4. VERTICAL CLEARANCE
   - A) OVERHEAD SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17'–9" FROM ROADWAY TO THE BOTTOM OF LIGHT FIXTURES. ALL LIGHT FIXTURES ARE TO BE AT THE SAME ELEVATION.
   - B) IF THE CONTRACTOR CANNOT OBTAIN 17'–9" (SEE 3A) CLEARANCE, HE IS TO CEASE WORK AND CONTACT THE PROJECT ENGINEER FOR FURTHER INSTRUCTIONS. THE PROJECT ENGINEER MAY CONTACT THE TRAFFIC ENGINEERING DESIGN DIVISION FOR ASSISTANCE.
   - C) ON ALL OVERHEAD SIGNS, THE MINIMUM CLEARANCE TO BOTTOM OF SIGN: 20'–9".

PROJECT REQUIREMENTS

ALL NEW SIGNS ON THIS PROJECT SHALL BE FABRICATED FROM SHEETING WHICH MEETS ALL OF THE FOLLOWING REQUIREMENTS, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER:

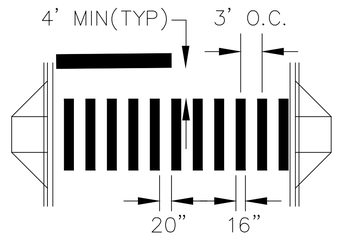
1. SHEETING SHALL MEET THE REQUIREMENTS OF SECTIONS 813 AND 950.03 OF MDSHA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JULY 2021) AND SUBSEQUENT REVISIONS
2. LISTED ON MDSHA OFFICE OF TRAFFIC AND SAFETY'S QUALIFIED PRODUCTS LIST (QPL)

PROJECT REQUIREMENTS CONT'D

3. THE FOLLOWING TYPES OF SHEETING SHALL BE USED FOR THE SPECIFIED SIGN CLASSIFICATIONS
   - A) GUIDE, EXIT GORE, AND GENERAL INFORMATION SIGNS– RETROREFLECTIVE SHEETING FOR GUIDE SIGNS, EXIT GORE, AND GENERAL INFORMATION (INCLUDES WHITE ON GREEN, WHITE ON BLUE, WHITE ON BROWN AND THE REVERSE OF THESE COLORS) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX LEGEND ON ASTM TYPE IX BACKGROUND. REGULATORY AND WARNING MESSAGES WITHIN GUIDE SIGNS SHALL BE NON–REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING.
   - B) WARNING SIGNS – RETROREFLECTIVE SHEETING FOR BLACK ON FLUORESCENT YELLOW WARNING SIGNS SHALL BE NON–REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING. REGULATORY MESSAGES WITHIN WARNING SIGNS SHALL FOLLOW THE GUIDELINES FOR REGULATORY SIGNS.
   - C) SCHOOL SIGNS – RETROREFLECTIVE SHEETING FOR SCHOOL SIGNS (BLACK ON FLUORESCENT YELLOW AND BLACK ON FLUORESCENT YELLOW GREEN) SHALL BE NON–REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING. REGULATORY MESSAGES WITHIN SCHOOL SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.
   - D) REGULATORY SIGNS –FALL INTO THREE SUBCATEGORIES:
     - i. REGULATORY SIGNS (STOP, YIELD, DO NOT ENTER AND WRONG WAY) RETROREFLECTIVE SHEETING FOR THESE SIGNS AND THEIR SUPPLEMENTAL PANELS (INCLUDES WHITE ON RED AND RED ON WHITE) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX SHEETING.
     - ii. ALL R7 AND R8 SERIES PARKING RELATED SIGNS AND THEIR SUPPLEMENTAL PANELS, NO TRESPASSING SIGNS, AND SIGNS DIRECTED AT PEDESTRIANS AND BICYCLISTS ONLY (INCLUDES RED ON WHITE, GREEN ON WHITE, BLUE ON WHITE, BLACK ON WHITE AND THE REVERSE OF THESE COLORS) SHALL BE ASTM TYPE I LEGEND ON ASTM TYPE I BACKGROUND.
     - iii. ALL OTHER REGULATORY SIGNS – RETROREFLECTIVE SHEETING FOR THESE SIGNS AND THEIR SUPPLEMENTAL PANELS (INCLUDES BLACK ON WHITE) SHALL BE NON–REFLECTIVE BLACK LEGEND ON ASTM TYPE IV BACKGROUND. WHERE RED IS SPECIFIED, OR WHERE THE COLOR OF THE SIGN IS WHITE ON BLACK, THE LEGEND SHALL BE ASTM TYPE IV RETROREFLECTIVE SHEETING ON NON–REFLECTIVE BLACK BACKGROUND. WARNING MESSAGES WITHIN REGULATORY SIGNS SHALL FOLLOW THE GUIDELINES FOR WARNING SIGNS.
   - E) ROUTE MARKERS –RETROREFLECTIVE SHEETING FOR ROUTE MARKERS (INCLUDES BLACK ON WHITE , GREEN ON WHITE, WHITE ON GREEN, WHITE ON RED/BLUE) SHALL MEET THE REQUIREMENTS OF GUIDE SIGNS ABOVE WHEN SPECIFIED AS THE LEGEND OF A GUIDE SIGN. RETROREFLECTIVE SHEETING FOR ALL INDEPENDENT ROUTE MARKERS AND THEIR AUXILIARY PANELS SHALL BE ASTM TYPE IV AND/OR NON–REFLECTIVE BLACK LEGEND ON ASTM TYPE IV BACKGROUND.
   - F) LOGOS AND/OR GRAPHICS –WITHIN SIGNS SHALL FOLLOW THE GUIDELINES FOR THE RESPECTIVE SIGN CLASSIFICATION UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.
   - G) CIVIL DEFENSE SIGNS AND OTHER SIGNS – NOT SPECIFICALLY FALLING INTO ONE OF THE CATEGORIES ABOVE, SHALL FOLLOW THE GUIDELINES FOR THE SIGN CLASSIFICATION THAT MOST CLOSELY MATCHES THE COLOR(S) OF THE PROPOSED SIGN.

4. THE FOLLOWING MINIMUM THICKNESS SHALL BE USED FOR THE APPROPRIATE WIDTH OF SHEET ALUMINUM BLANKS.

LONGEST DIMENSION	MINIMUM THICKNESS
UP TO 12"	0.040"
GREATER THAN 12" TO 24"	0.063"
GREATER THAN 24" TO 36"	0.080"
GREATER THAN 36" TO 48"	0.100"
OVER 48"	0.125"



LADDER BAR CROSSWALK WITH STOPBAR DETAIL

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

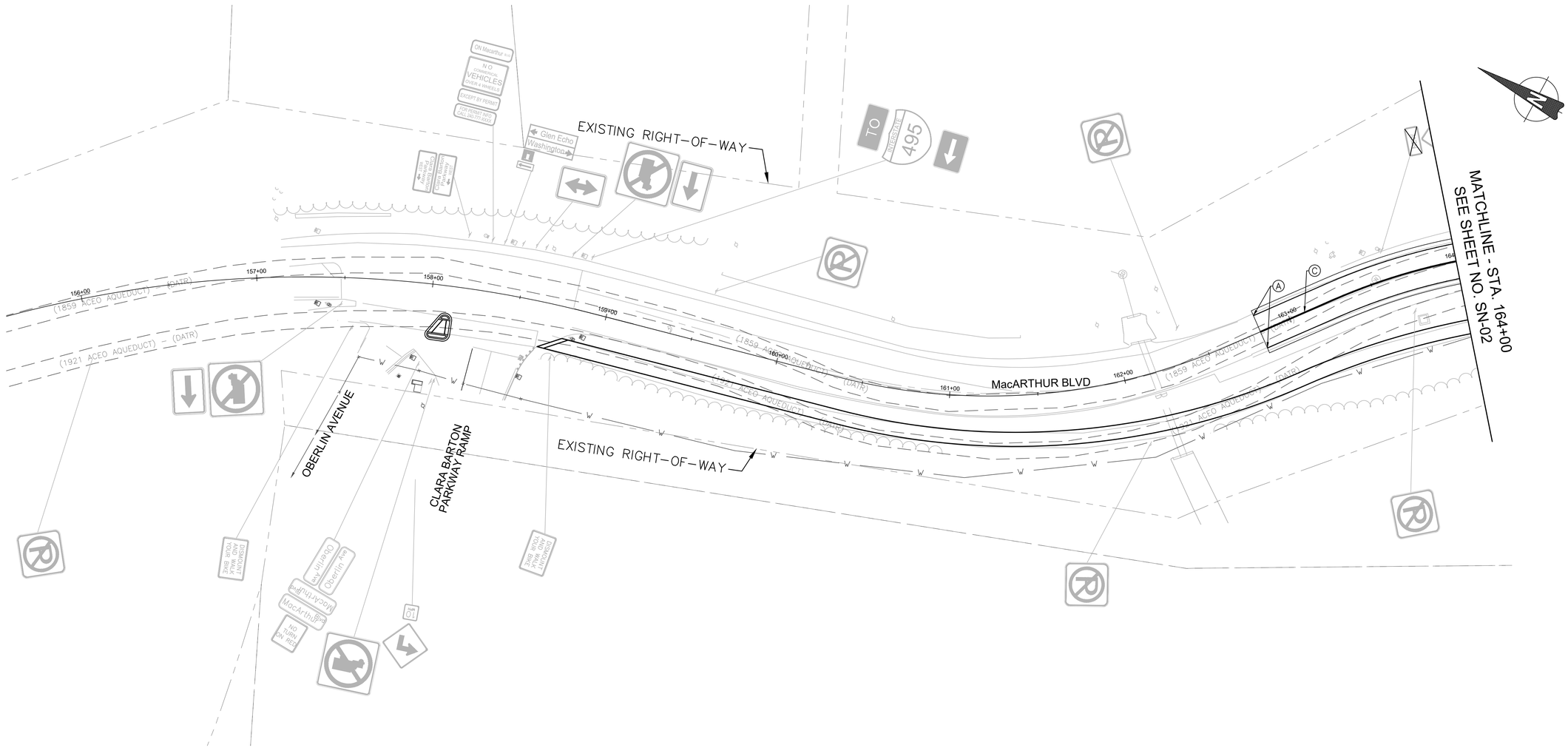
Designed by: MDS Drawn by: MDS Checked by: JMC

SN–00
SIGNING & PAVEMENT MARKING NOTES
MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'
DATE: JUNE 2022

CIP No. : 502109
SHEET 49 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN–0000 Signing General Notes_MacArthur.dwg LAYOUT NAME: SN–00 PLOTTED: Friday, June 17, 2022 – 4:16pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

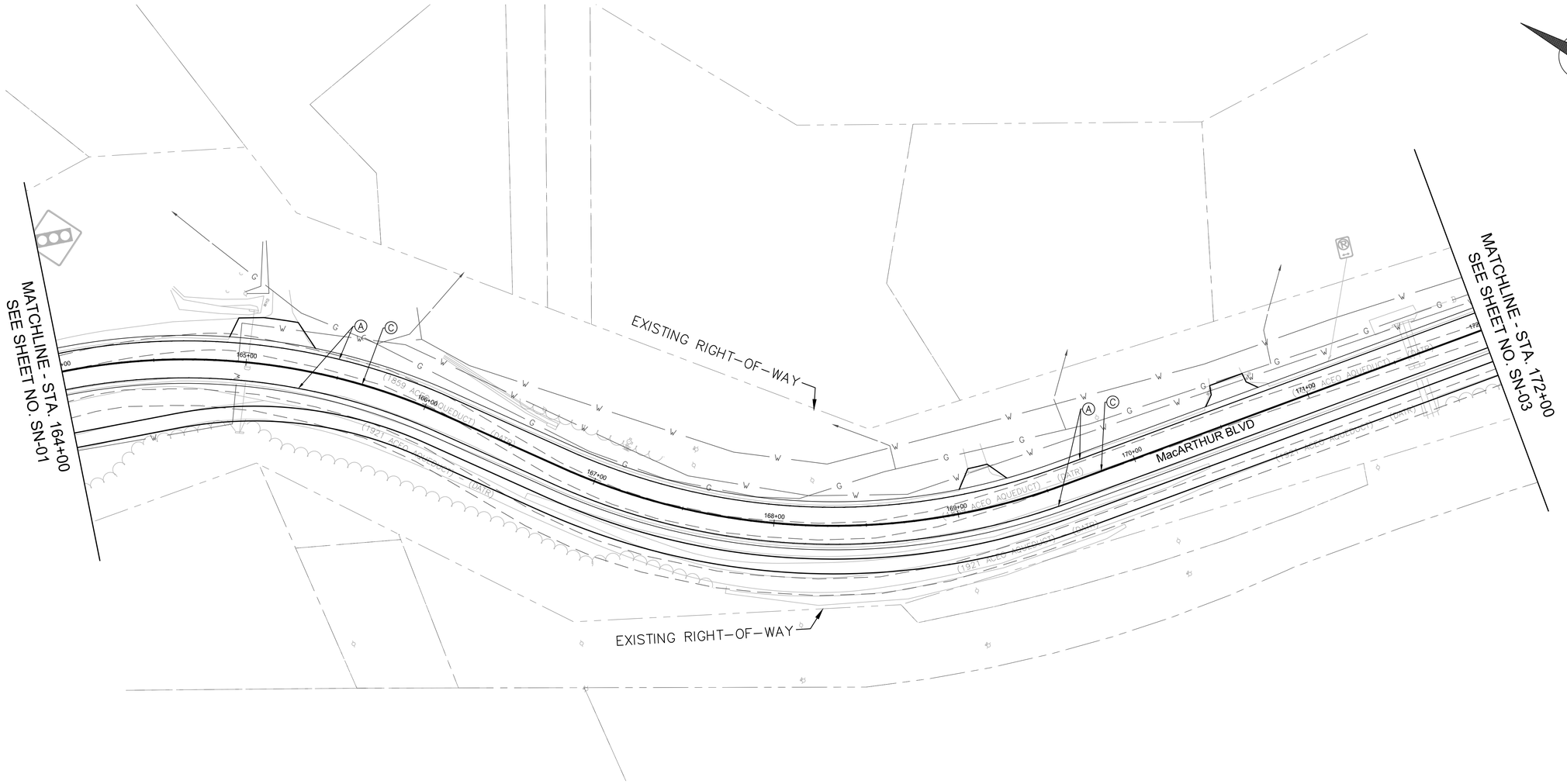
SN-01
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 50 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-01 PLOTTED: Friday, June 17, 2022 - 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

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- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

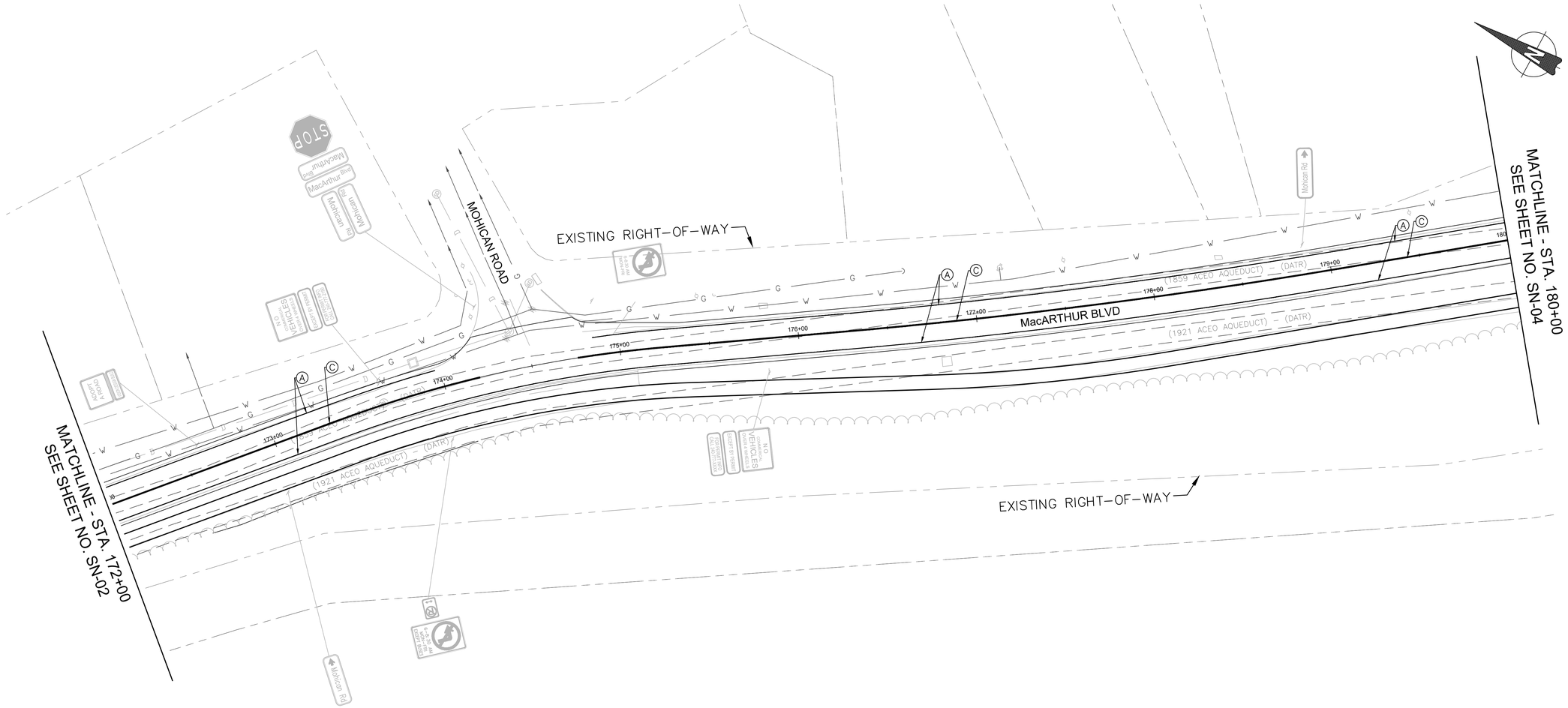
SN-02
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 51 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-02 PLOTTED: Friday, June 17, 2022 - 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

SN-03
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

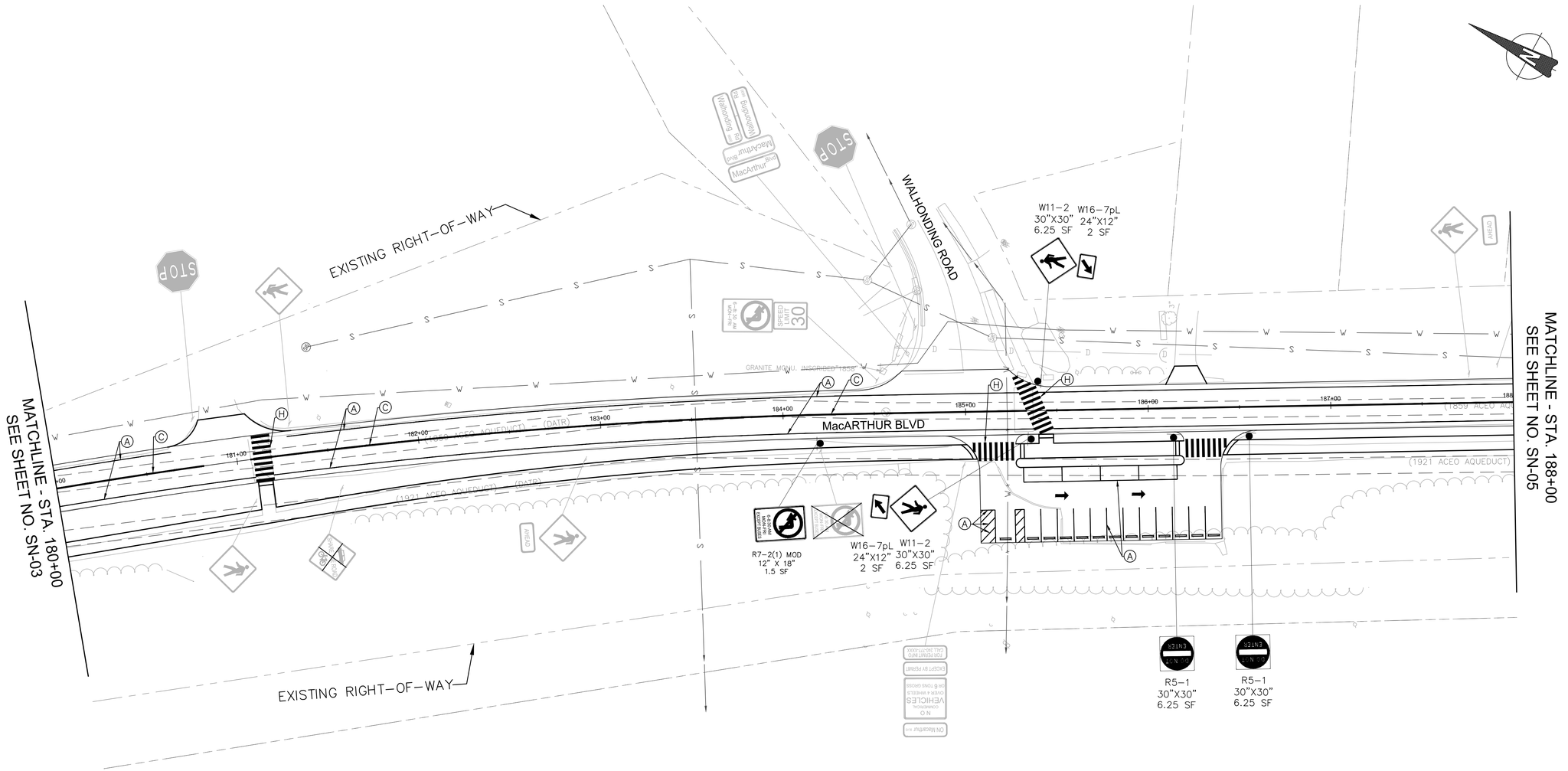
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 52 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-03 PLOTTED: Friday, June 17, 2022 - 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

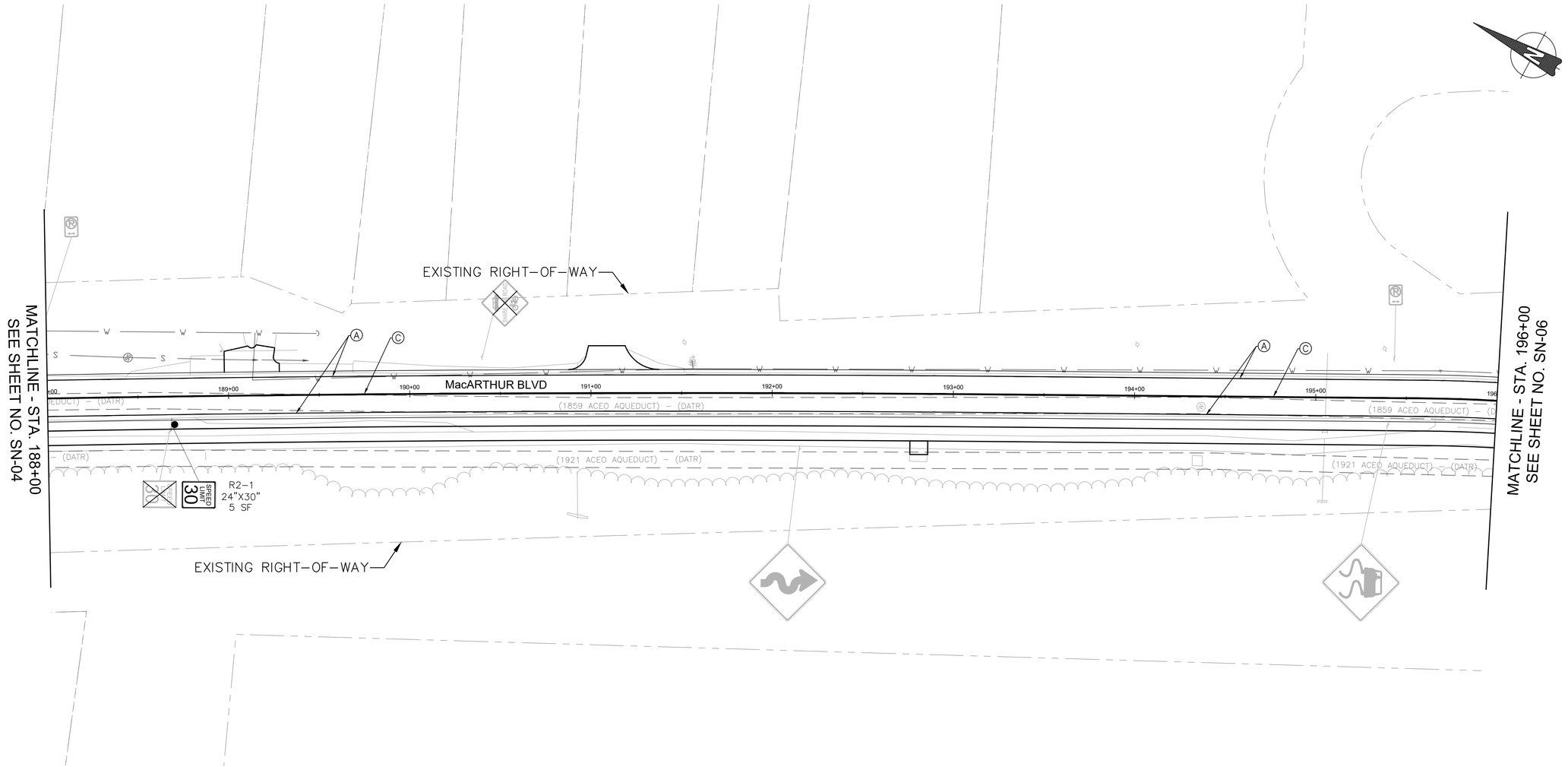
SN-04
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 53 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-04 PLOTTED: Friday, June 17, 2022 - 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

SN-05
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 54 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-05 PLOTTED: Friday, June 17, 2022 – 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

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- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

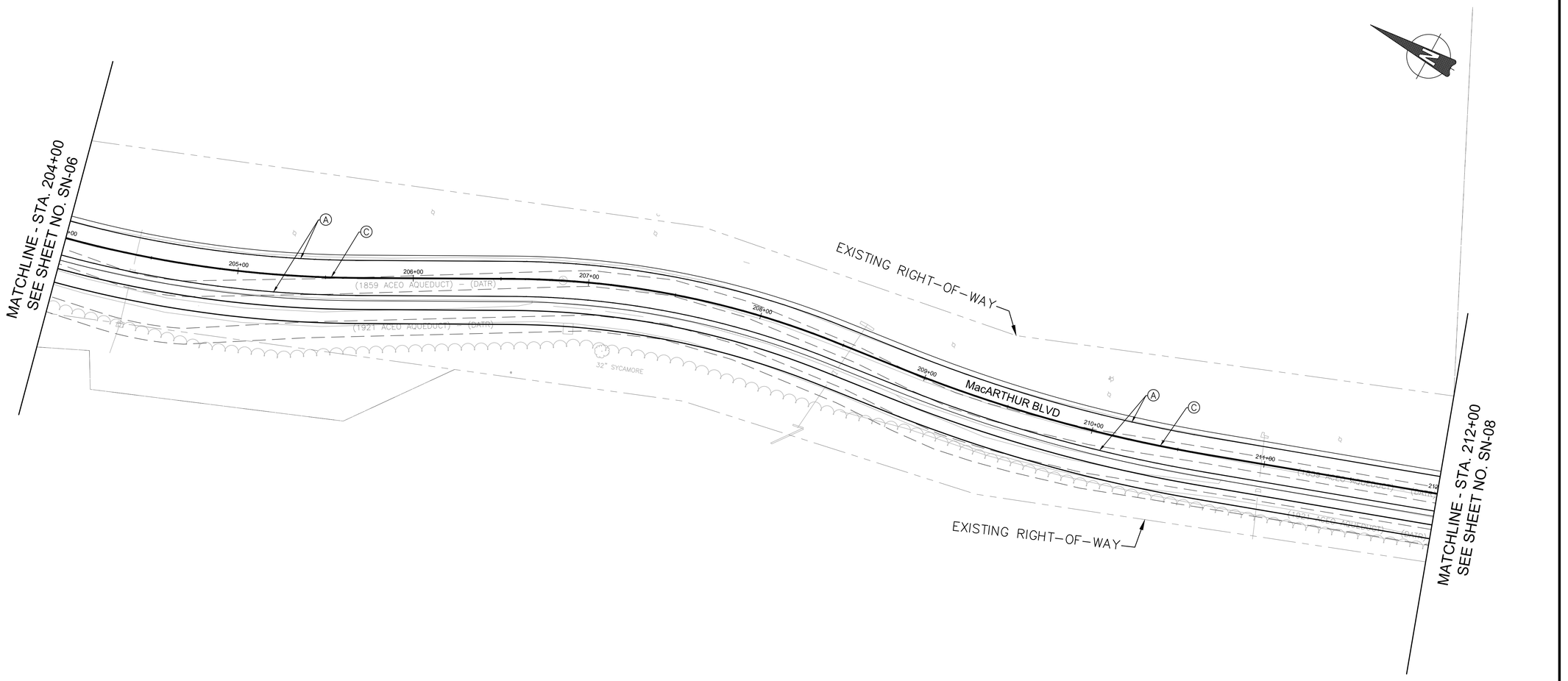
SN-06
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 55 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-06 PLOTTED: Friday, June 17, 2022 - 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

SN-07
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD
BIKEWAY PHASE III

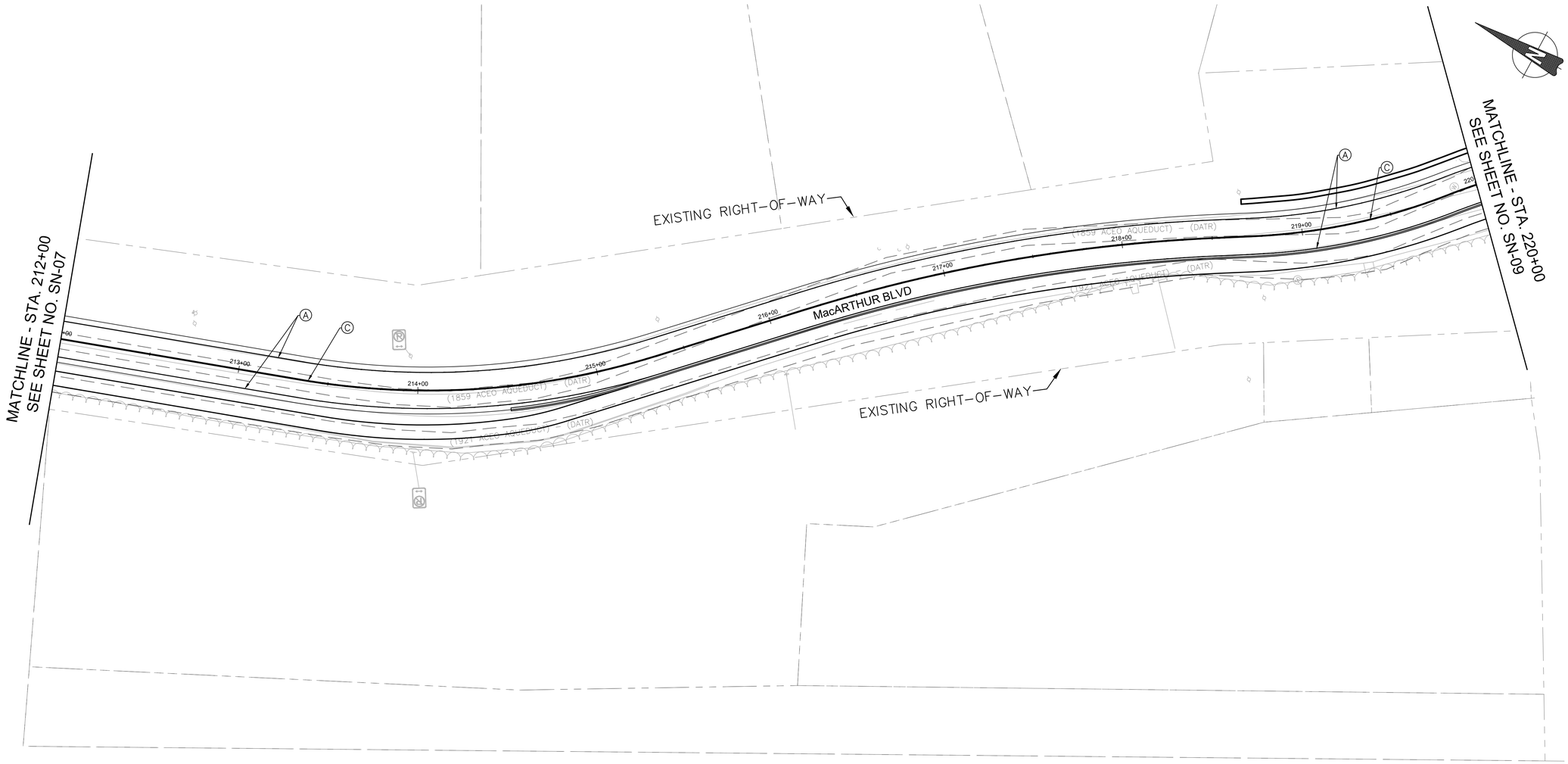
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 56 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-07 PLOTTED: Friday, June 17, 2022 - 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

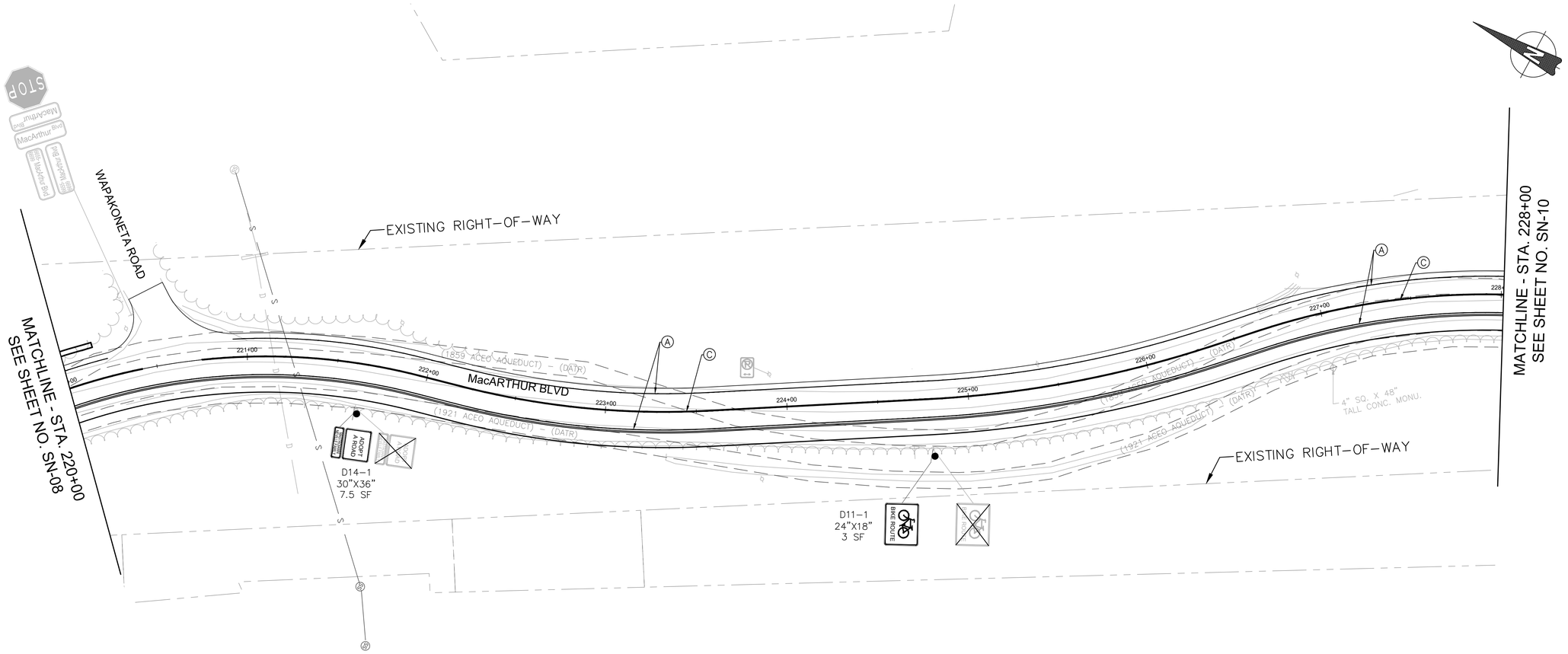
SN-08
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 57 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-08 PLOTTED: Friday, June 17, 2022 - 5:29pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

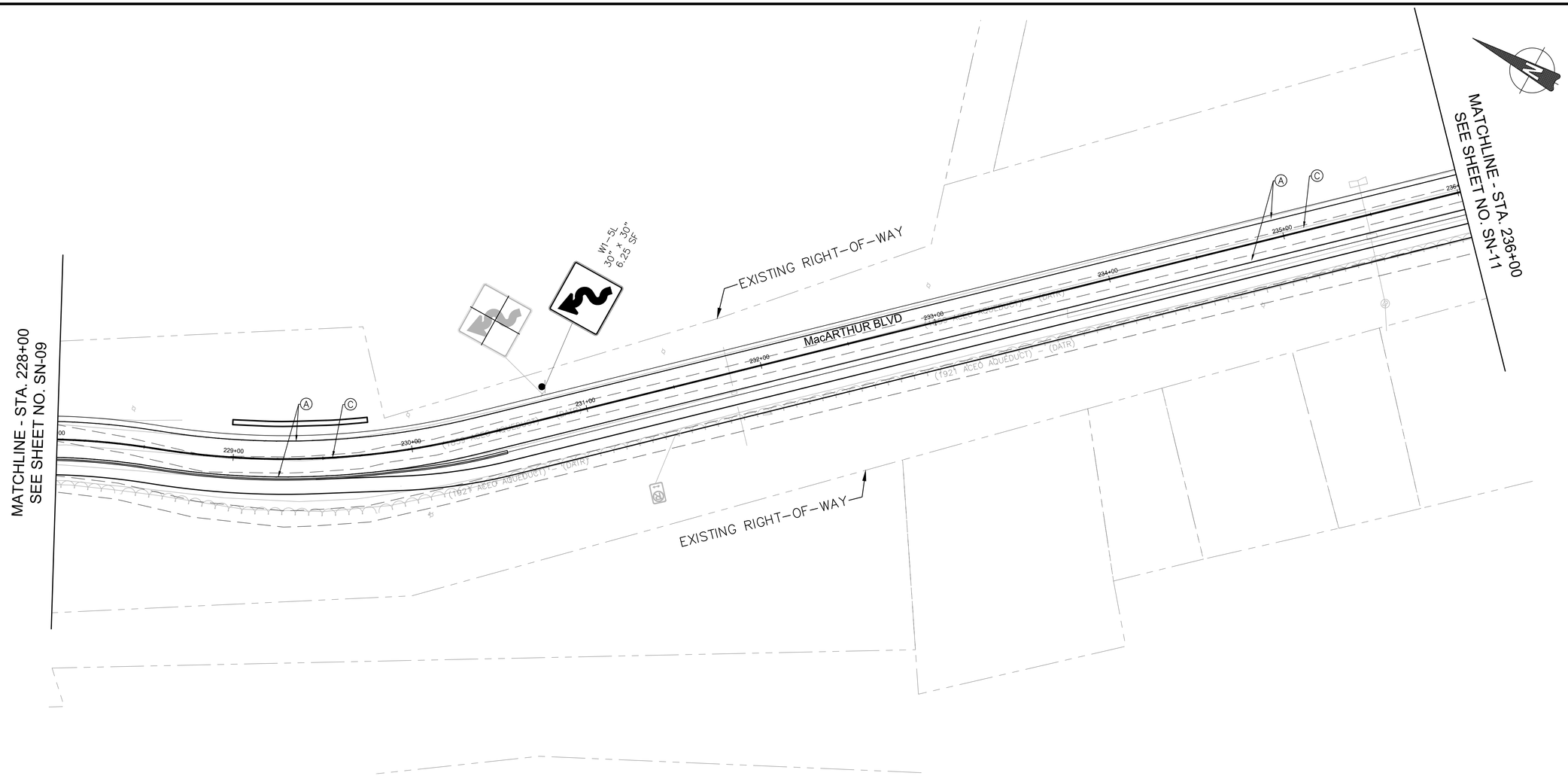
Designed by: MDS Drawn by: MDS Checked by: JMC

SN-09
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 58 of 156



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

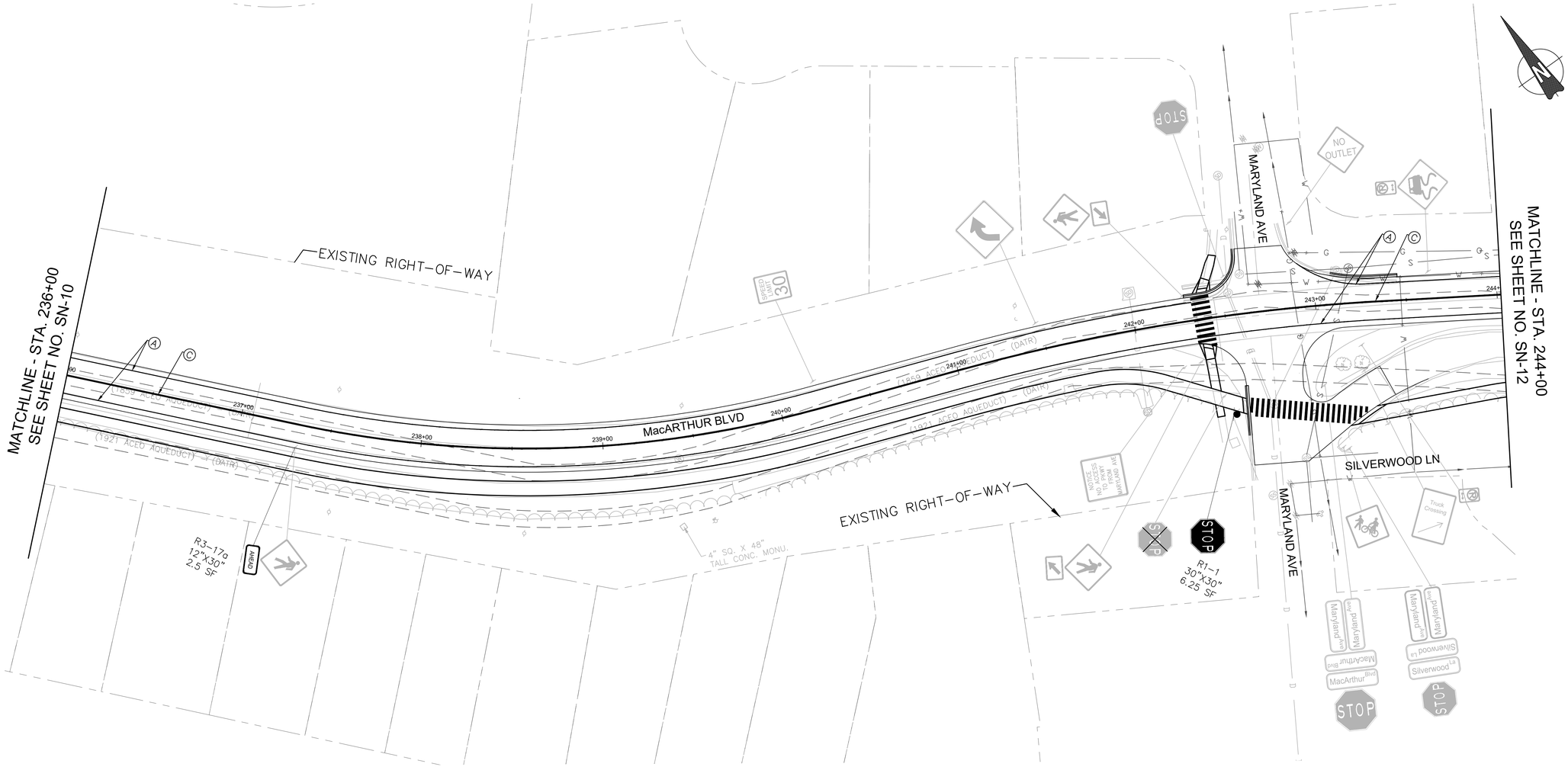
SN-10
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 59 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-10 PLOTTED: Friday, June 17, 2022 - 5:30pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

SN-11
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 60 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-11 PLOTTED: Friday, June 17, 2022 - 5:30pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

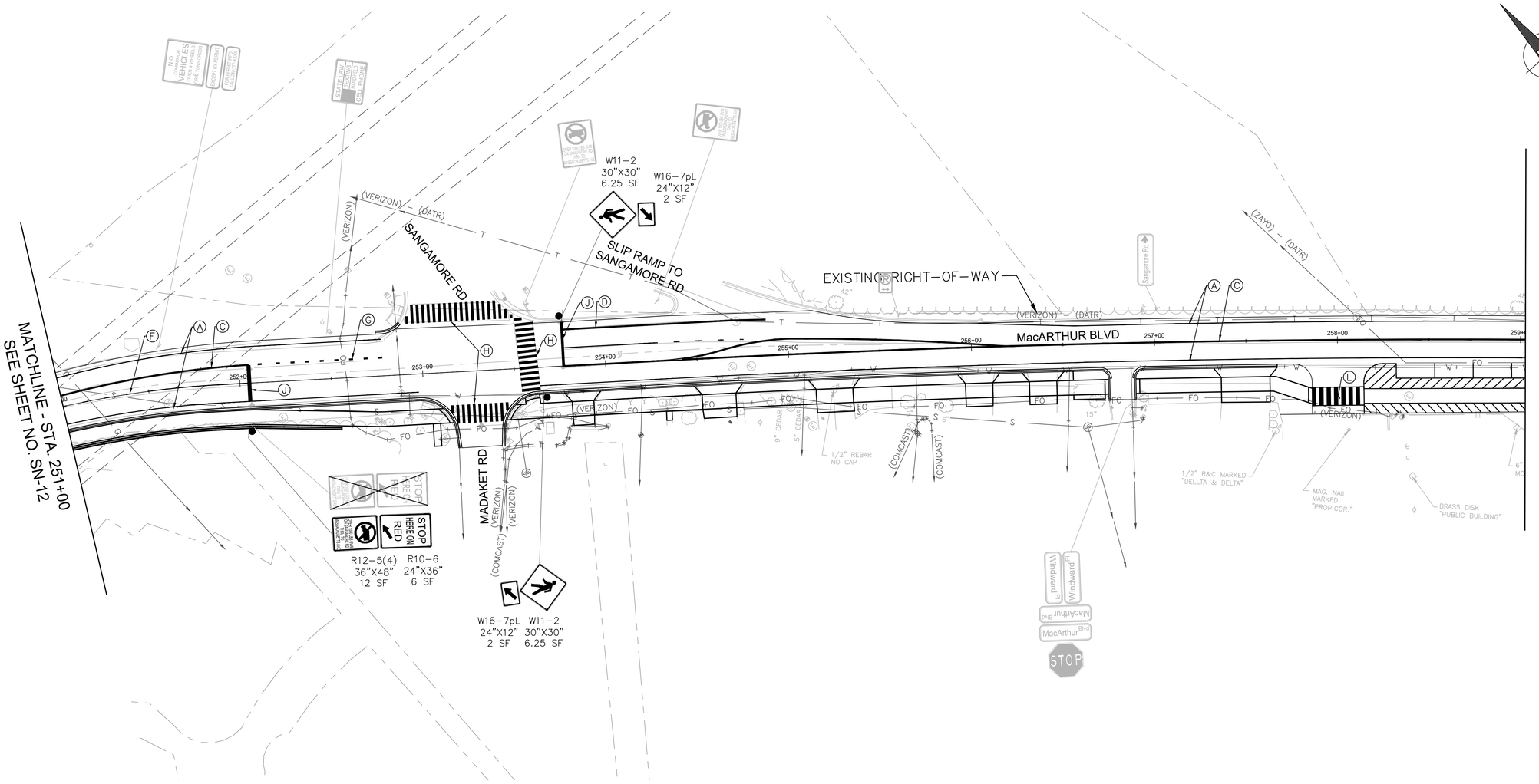
SN-12
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 61 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-12 PLOTTED: Friday, June 17, 2022 - 5:30pm USER: AHavener



SIGNING LEGEND

- STOP — EXISTING SIGN TO REMAIN
- STOP — EXISTING SIGN TO BE REMOVED
- STOP — PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (C) SOLID DOUBLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
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JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

SN–13
SIGNING & PAVEMENT MARKING

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

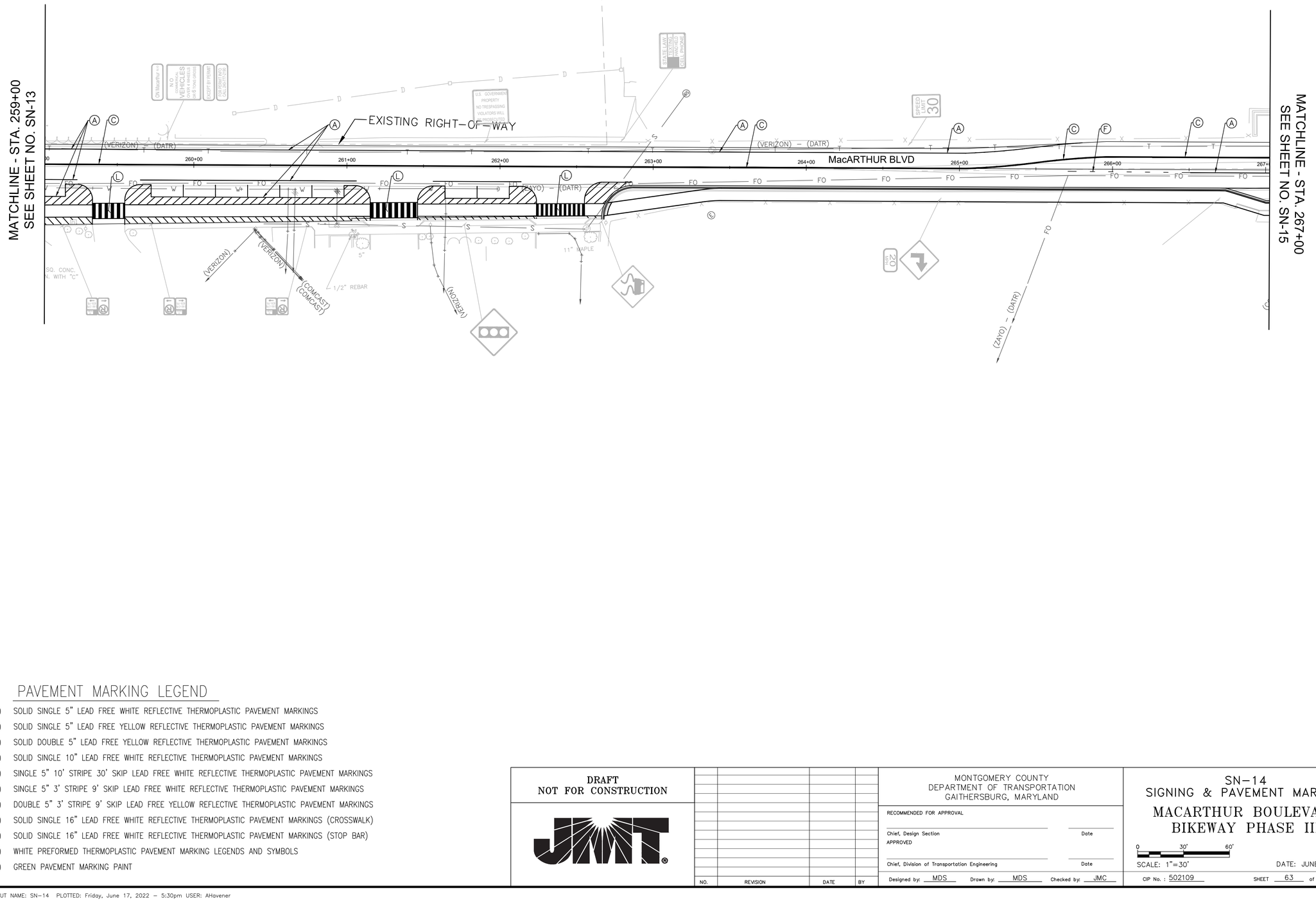
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 62 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-13 PLOTTED: Friday, June 17, 2022 – 5:30pm USER: AHavener



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

DRAFT
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

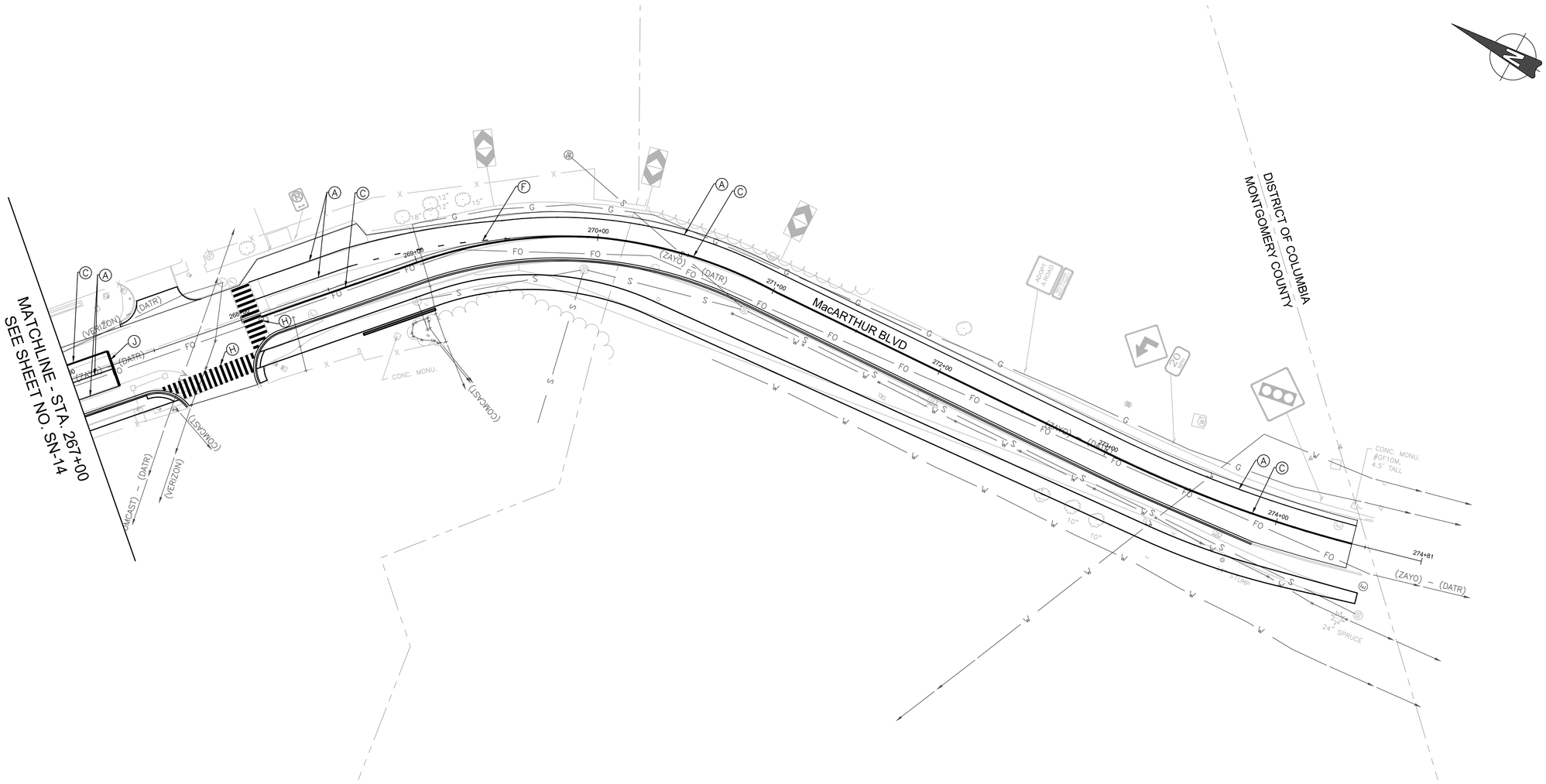
SN-14
SIGNING & PAVEMENT MARKING

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 63 of 156



SIGNING LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) SOLID SINGLE 5" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (B) SOLID SINGLE 5" LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
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- (D) SOLID SINGLE 10" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (E) SINGLE 5" 10' STRIPE 30' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (F) SINGLE 5" 3' STRIPE 9' SKIP LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (G) DOUBLE 5" 3' STRIPE 9' SKIP LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
- (H) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
- (J) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)
- (K) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (L) GREEN PAVEMENT MARKING PAINT

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
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GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

SN-15
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 64 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pSN-0001_MacArthur.dwg LAYOUT NAME: SN-15 PLOTTED: Friday, June 17, 2022 - 5:30pm USER: AHavener

PAVEMENT MARKINGS		
SHEET	REMARKS	LINEAR FEET
SN-01		
	5 INCH WHITE THERMOPLASTIC	237
	5 INCH YELLOW THERMOPLASTIC	237
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-02		
	5 INCH WHITE THERMOPLASTIC	1600
	5 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-03		
	5 INCH WHITE THERMOPLASTIC	1511
	5 INCH YELLOW THERMOPLASTIC	1688
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-04		
	5 INCH WHITE THERMOPLASTIC	1904
	5 INCH YELLOW THERMOPLASTIC	1550
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	360
SN-05		
	5 INCH WHITE THERMOPLASTIC	1600
	5 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-06		
	5 INCH WHITE THERMOPLASTIC	1600
	6 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-07		
	5 INCH WHITE THERMOPLASTIC	1600
	5 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH YELLOW THERMOPLASTIC	0
SN-08		
	5 INCH WHITE THERMOPLASTIC	1600
	5 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-09		
	5 INCH WHITE THERMOPLASTIC	1530
	5 INCH YELLOW THERMOPLASTIC	1535
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-10		
	5 INCH WHITE THERMOPLASTIC	1600
	5 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-11		
	5 INCH WHITE THERMOPLASTIC	1540
	5 INCH YELLOW THERMOPLASTIC	1590
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	310
SN-12		
	5 INCH WHITE THERMOPLASTIC	1600
	5 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
SN-13		
	5 INCH WHITE THERMOPLASTIC	1720
	5 INCH YELLOW THERMOPLASTIC	1854
	10 INCH WHITE THERMOPLASTIC	111
	16 INCH WHITE THERMOPLASTIC	445
	GREEN PAVEMENT MARKING PAINT	283

PAVEMENT MARKINGS		
SHEET	REMARKS	LINEAR FEET
SN-14		
	5 INCH WHITE THERMOPLASTIC	2825
	5 INCH YELLOW THERMOPLASTIC	1600
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	0
	GREEN PAVEMENT MARKING PAINT	833
SN-15		
	5 INCH WHITE THERMOPLASTIC	717
	5 INCH YELLOW THERMOPLASTIC	1330
	10 INCH WHITE THERMOPLASTIC	0
	16 INCH WHITE THERMOPLASTIC	310
	GREEN PAVEMENT MARKING PAINT	0
TOTALS		
	5 INCH WHITE THERMOPLASTIC	23300
	5 INCH YELLOW THERMOPLASTIC	22000
	10 INCH WHITE THERMOPLASTIC	200
	16 INCH WHITE THERMOPLASTIC	1500
	GREEN PAVEMENT MARKING PAINT	1100

SIGNING			
SHEET	REMARKS	SUPPORTS	SHEET ALUMINUM SIGN (SF)
SN-01			
SN-02			
SN-03			
SN-04	R7-2(1) MOD	SINGLE SQUARE TUBULAR	1.5
	W11-2	SINGLE SQUARE TUBULAR	6.25
	W16-7PL		2
	R5-1	SINGLE SQUARE TUBULAR	6.25
	R5-1	SINGLE SQUARE TUBULAR	6.25
	W11-2	SINGLE SQUARE TUBULAR	6.25
	W16-7PL		2
SN-05	R2-1	SINGLE SQUARE TUBULAR	5
SN-06			
SN-07			
SN-08			
SN-09	D14-1	SINGLE SQUARE TUBULAR	7.5
	D11-11	SINGLE SQUARE TUBULAR	3
SN-10	W1-5L	SINGLE SQUARE TUBULAR	6.25
SN-11	R3-17A	SINGLE SQUARE TUBULAR	2.5
	R1-1	SINGLE SQUARE TUBULAR	6.25
SN-12	CUSTOM	SINGLE SQUARE TUBULAR	10
	W11-2	SINGLE SQUARE TUBULAR	6.25
	R3-17A		2.5
SN-13	R12-5(4)	SINGLE SQUARE TUBULAR	12
	R10-6		6
	W11-2	SINGLE SQUARE TUBULAR	6.25
	W16-7PL		2
	W11-2	SINGLE SQUARE TUBULAR	6.25
	W16-7PL		2
SN-14			
SN-15			
TOTAL			115

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

SN-16
SIGNING & PAVEMENT MARKING
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 65 of 156

MAINTENANCE OF TRAFFIC NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MARYLAND STATE HIGHWAY WORK ZONE TRAFFIC CONTROL TYPICALS IN CATEGORY 1 OF THE BOOK OF STANDARDS. THE 2011 MD MUTCD AND SUBSEQUENT REVISIONS ADOPTED BY THE STATE OF MARYLAND, THESE PLANS, AND OTHER CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES. THE CONTRACTOR SHALL MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION IN ACCORDANCE WITH THE METHOD OF TRAFFIC CONTROL SHOWN ON THESE DRAWINGS, OTHER CONTRACT DOCUMENTS, AND THE 2011 MD MUTCD AND SUBSEQUENT REVISIONS.
3. ALL TEMPORARY SIGNS FOR MAINTENANCE OF TRAFFIC SHALL BE PER MONTGOMERY COUNTY STANDARD TCP-100.01 AND SECTION 4.0 SIGNS OF THE MDSHA GENERAL NOTES FOR TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS (TTCTA) AS SHOWN ON ON MDSHA STD DETAIL 104.00-06 TO MDSHA STD 104.00-08. SIGN SHALL BE MOUNTED PER SECTION 4.0 OF THE TTCTA AND AS SHOWN ON MDSHA STD 104.01-17A TO MDSHA STD 104.01-17D OR AS OTHERWISE SHOWN ON THESE PLANS OR AS DIRECTION BY THE INSPECTOR..
4. NO WORK IS TO BEGIN UNTIL ALL ADVANCE WARNING SIGNS, DRUMS, BARRIER, AND PAVEMENT MARKINGS ARE IN PLACE AND OPERATIONAL, AS APPROVED BY THE ENGINEER.
5. CONSTRUCTION WARNING SIGNS ABOUT SPECIFIC AREAS AND TYPE OF CONSTRUCTION WILL BE PLACED AS DIRECTED BY THE ENGINEER.
6. ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED THROUGHOUT THE DIRECTION OF CONSTRUCTION UNLESS A CHANGE IS SHOWN ON THE PLAN AND/OR AS DIRECTED BY THE ENGINEER.
7. UNLESS OTHERWISE SHOWN ON THE PLANS, ACCESS SHALL BE PROVIDED TO ALL DRIVEWAYS AND CROSS STREETS AT ALL TIMES.
8. FLAGGERS SHALL BE MARYLAND STATE HIGHWAY ADMINISTRATION OR AATSA APPROVED FLAGGERS AND SHALL BE USED AT THE DIRECTION OF THE MONTGOMERY COUNTY INSPECTOR.
9. RADIO COMMUNICATION SHALL BE REQUIRED BETWEEN FLAGGERS AT THE DISCRETION OF THE MONTGOMERY COUNTY INSPECTOR OR IF THE FLAGGERS CANNOT SEE EACH OTHER AND/OR THE LANE CLOSURE EXCEEDS 200 FEET.
10. THE CONTRACTOR SHALL CONTACT MONTGOMERY COUNTY TMC AT 240-777-2100, 72 HOURS PRIOR TO STARTING ALL WORK.
11. DRUMS SHALL PROTECT THE WORK ZONE DURING NON-WORK HOURS AND SHALL BE RESET ACCORDING TO THE STANDARDS LISTED IN THE SEQUENCE OF CONSTRUCTION NOTED ON THIS PLAN DURING WORK HOURS.

SEQUENCE OF CONSTRUCTION NOTES:

1. ESTABLISH ALL NECESSARY SEDIMENT AND EROSION CONTROL MEASURES.
2. PLACE MAINTENANCE OF TRAFFIC ITEMS AS INDICATED ON THE PLANS.

STAGE ONE:

1. UTILIZE FLAGGING OPERATION TO ESTABLISH A 500' +/- WORK ZONE ALONG THE NORTH SIDE OF MACARTHUR BOULEVARD.
2. INCREMENTALLY STEP THE WORK ZONE ALONG THE CORRIDOR TO COMPLETE THE PROPOSED PAVEMENT WIDENING ALONG THE NORTH SIDE OF MACARTHUR BOULEVARD.

STAGE TWO:

1. UTILIZE FLAGGING OPERATION TO ESTABLISH A 500' +/- WORK ZONE ALONG THE SOUTH SIDE OF MACARTHUR BOULEVARD.
2. INCREMENTALLY STEP THE WORK ZONE ALONG THE CORRIDOR TO COMPLETE THE PROPOSED PAVEMENT WIDENING ALONG THE SOUTH SIDE OF MACARTHUR BOULEVARD.

STAGE THREE:

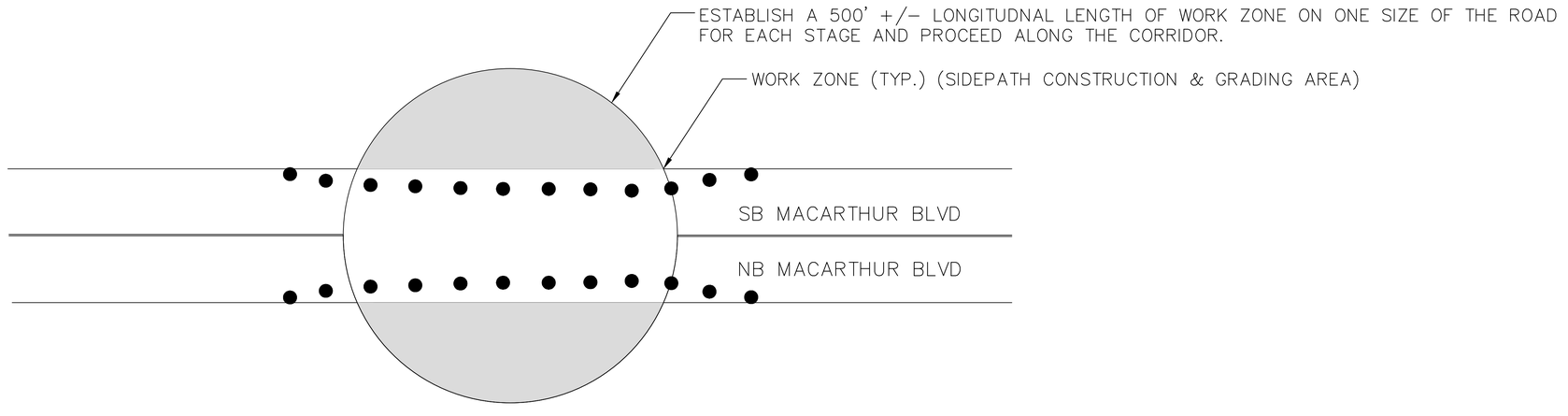
1. IMPLEMENT BICYCLE DETOUR AS SHOWN ON THE PLANS. UTILIZE FLAGGING OPERATION TO ESTABLISH A 500' +/- WORK ZONE ALONG THE SOUTH SIDE OF MACARTHUR BOULEVARD. CLOSE ASPHALT TRAIL TO PEDESTRIANS.
2. INCREMENTALLY STEP THE WORK ZONE ALONG THE CORRIDOR TO COMPLETE THE PROPOSED SIDEPATH AND ASSOCIATED IMPROVEMENTS ALONG THE SOUTH SIDE OF MACARTHUR BOULEVARD.

STAGE FOUR:

1. COMPLETE FINAL MILL AND OVERLAY TO ESTABLISH FINISHED ROADWAY SURFACE.
2. ESTABLISH FINAL SIGNING AND PAVEMENT MARKINGS.
3. STABILIZE AND CLEAN ALL CONSTRUCTION AREAS.
4. REMOVE ALL MAINTENANCE OF TRAFFIC ITEMS.

NOTE:

STAGES 2 & 3 MAY BE COMBINED ALONG THE CORRIDOR FOR EACH 500' WORK ZONE. LANE CLOSURE / FLAGGING OPERATION TO ONLY BE UTILIZED FOR STAGE 2 (ROADWAY PAVEMENT WIDENING) AND NOT STAGE 3 (SIDEPATH AND ASSOCIATED CONSTRUCTION).



DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: CJS Checked by: MJW

MT-00
MAINTENANCE OF TRAFFIC NOTES
MACARTHUR BOULEVARD
BIKEWAY PHASE III

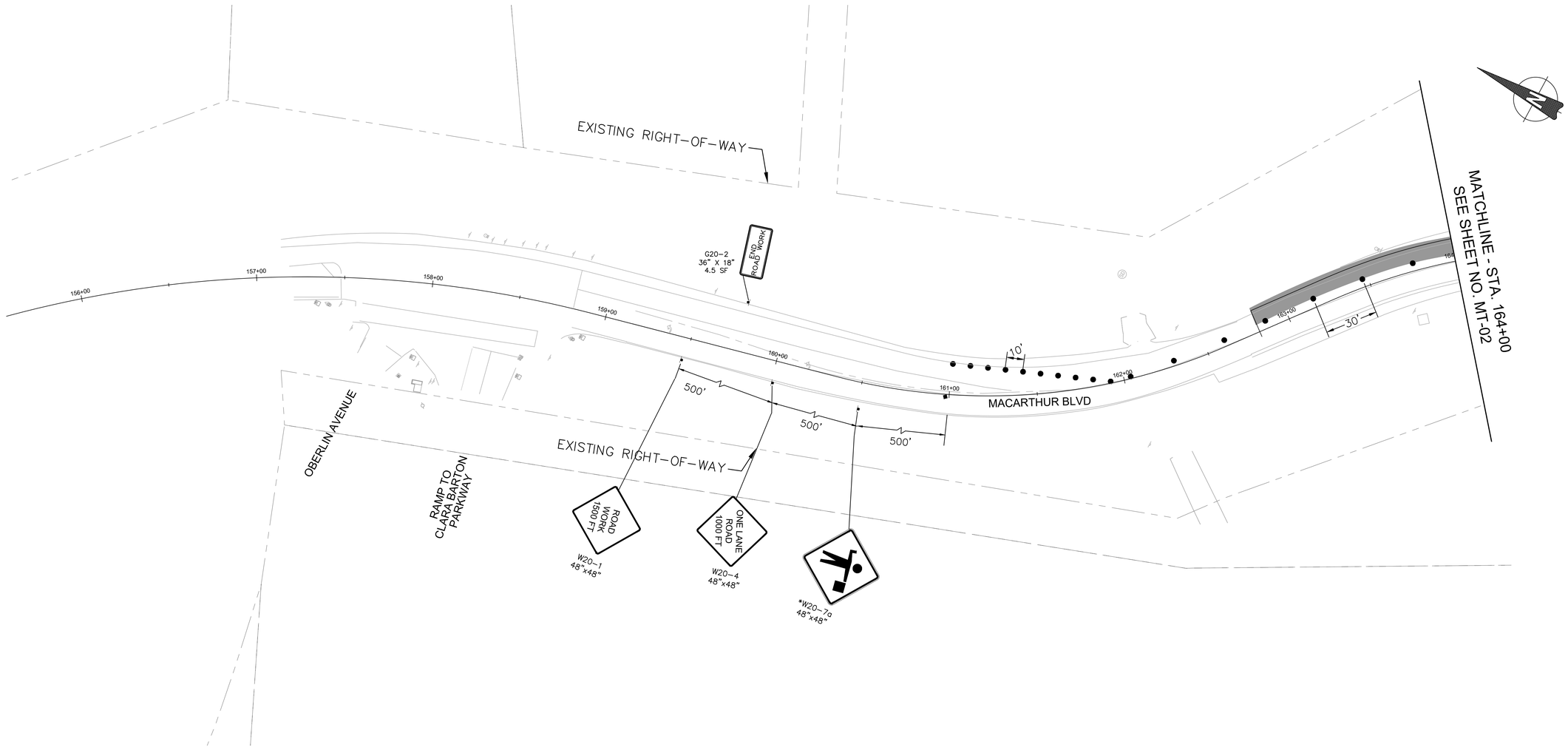
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 66 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-00 MOT General Notes_MacArthur.dwg LAYOUT NAME: MT-00 PLOTTED: Friday, June 17, 2022 - 5:36pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-01
MOT PLAN – STAGE 1
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

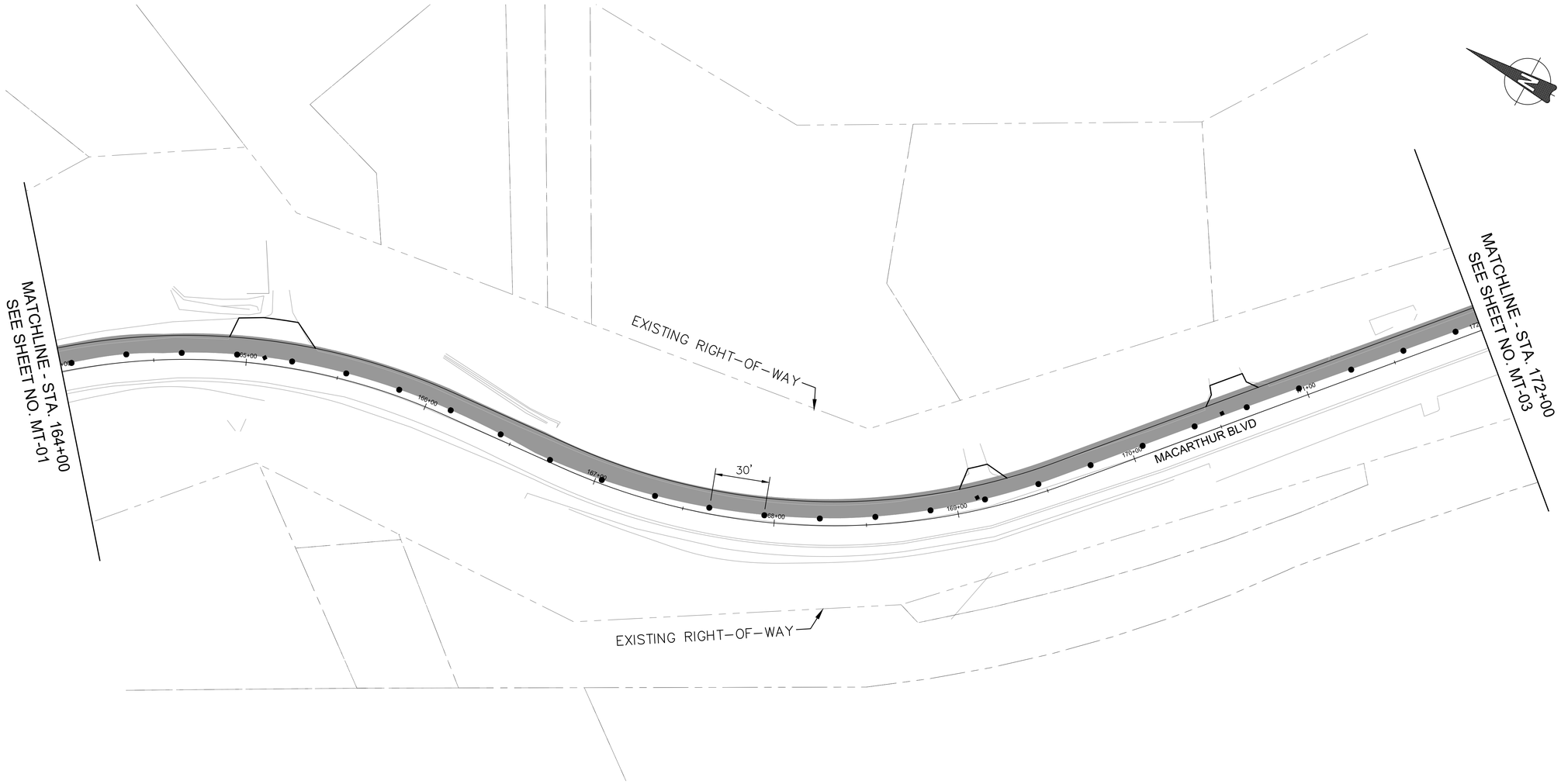
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 67 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-01 PLOTTED: Friday, June 17, 2022 – 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-02
MOT PLAN – STAGE 1

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

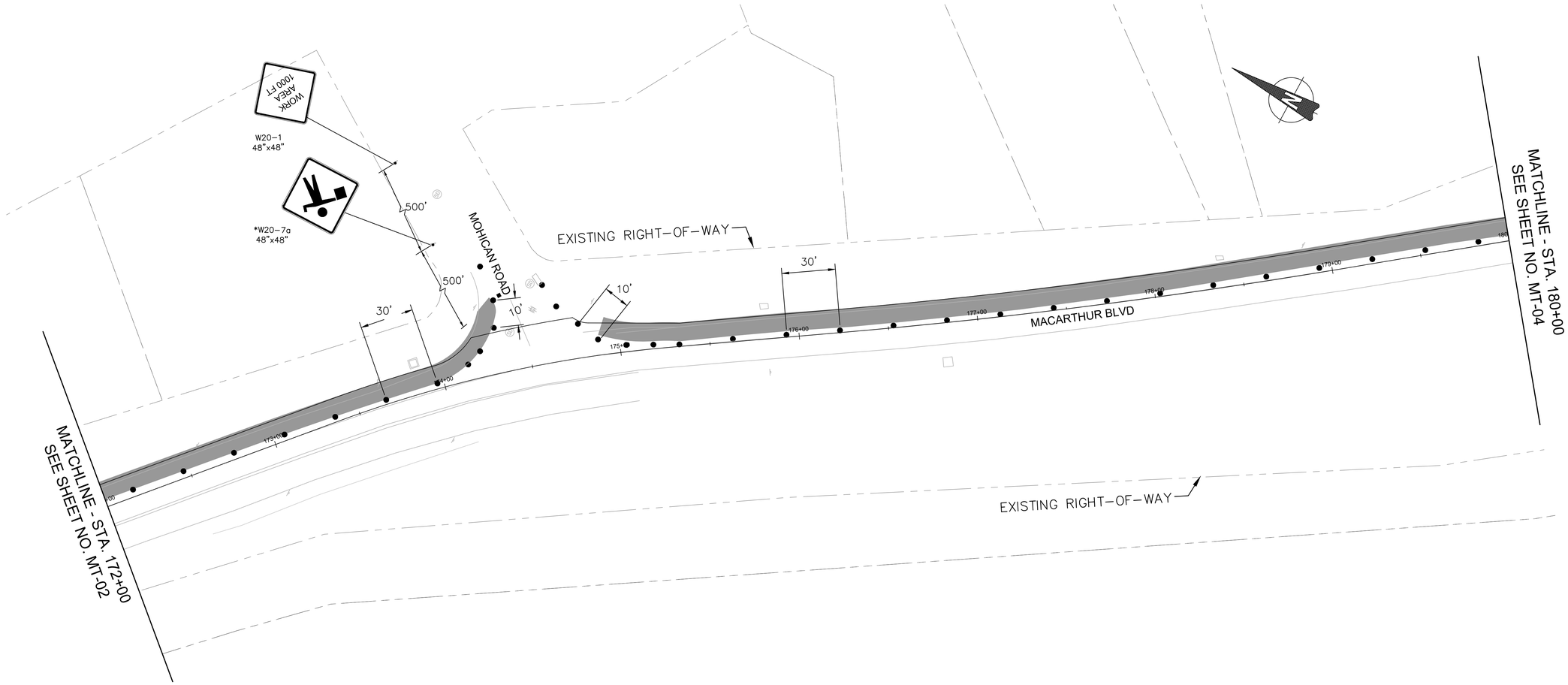
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 68 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-02 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-03
MOT PLAN – STAGE 1

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

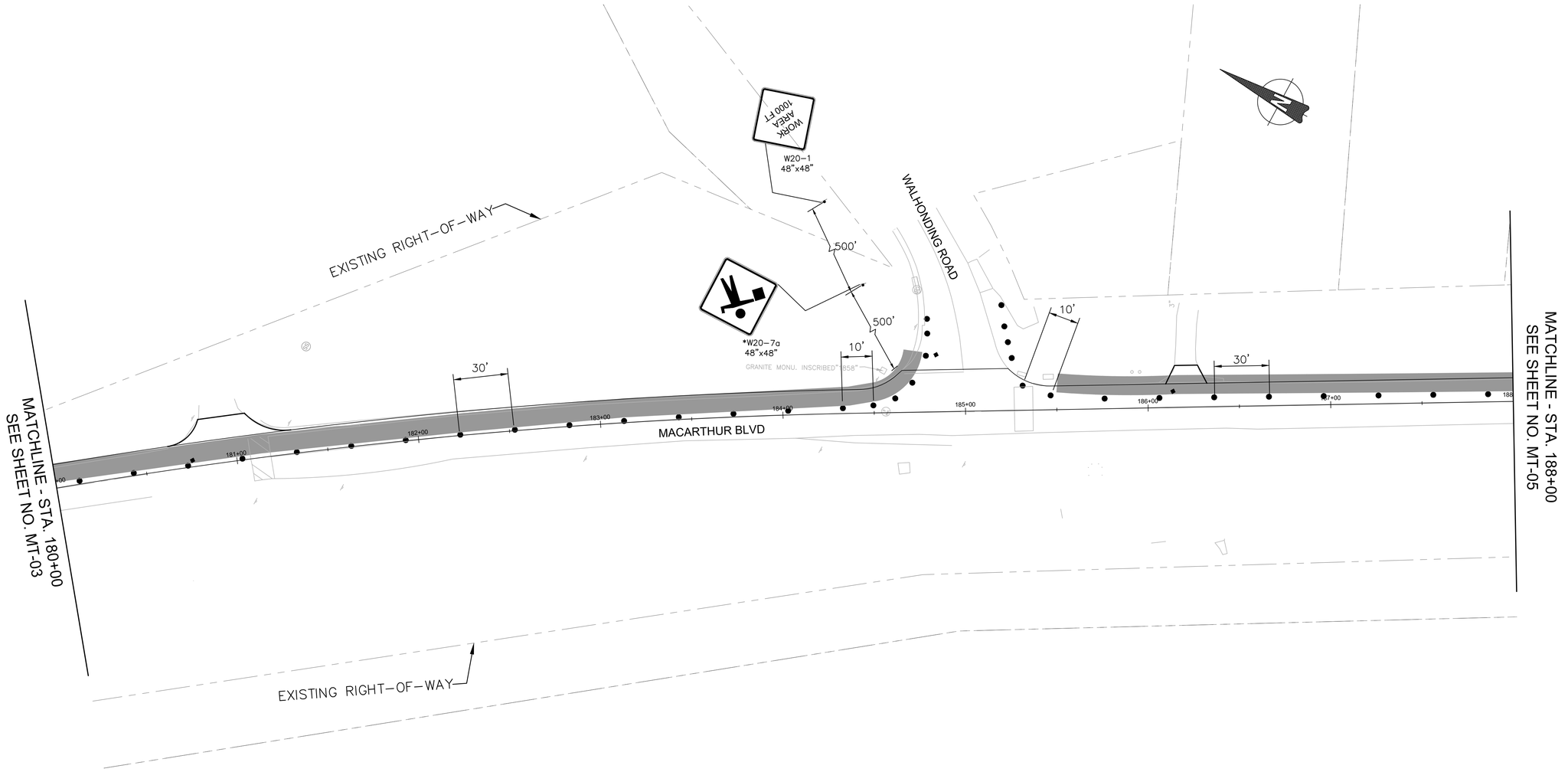
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 69 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-03 PLOTTED: Friday, June 17, 2022 – 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-04
MOT PLAN – STAGE 1
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

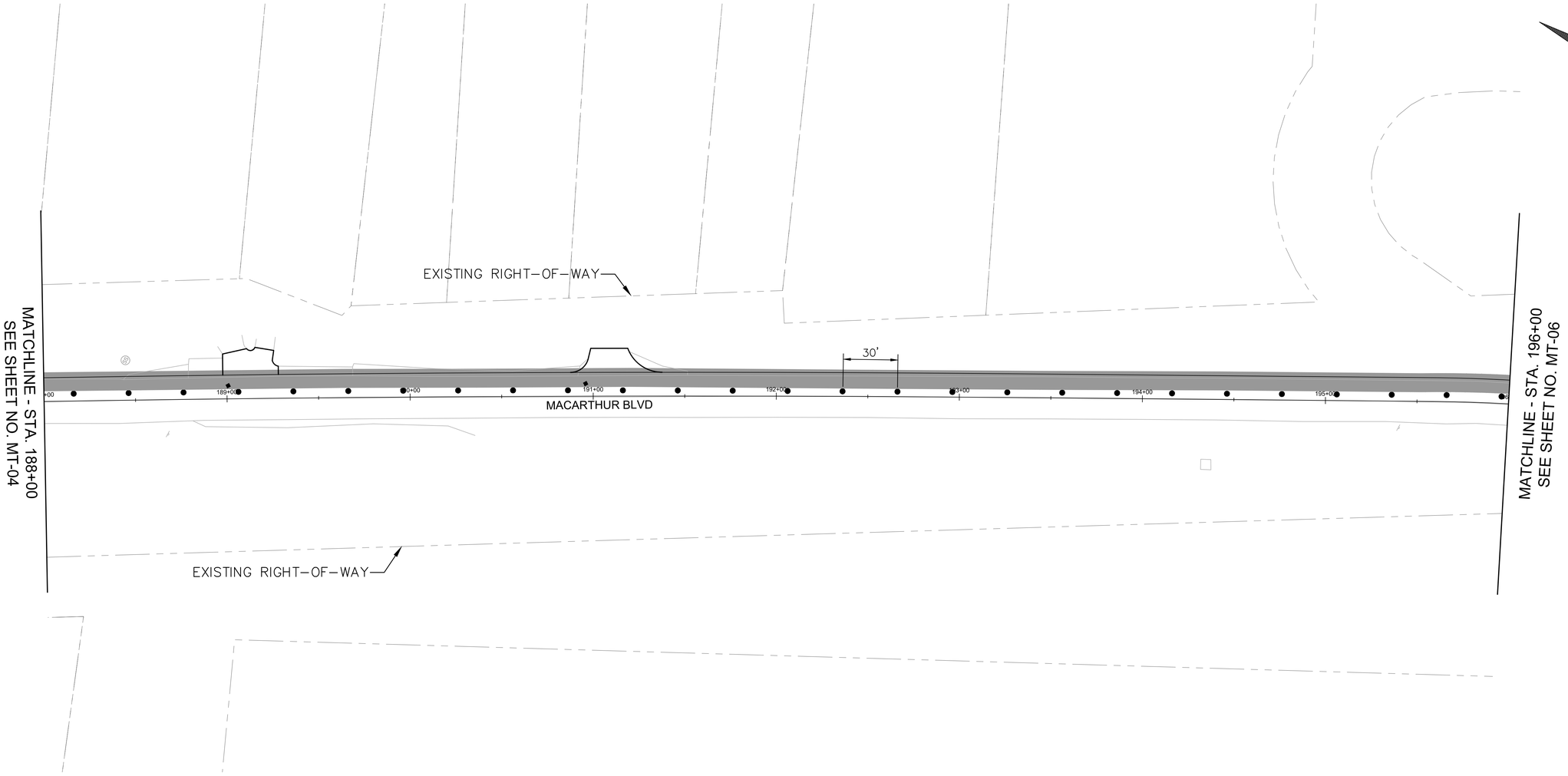
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 70 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-04 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-05
MOT PLAN – STAGE 1

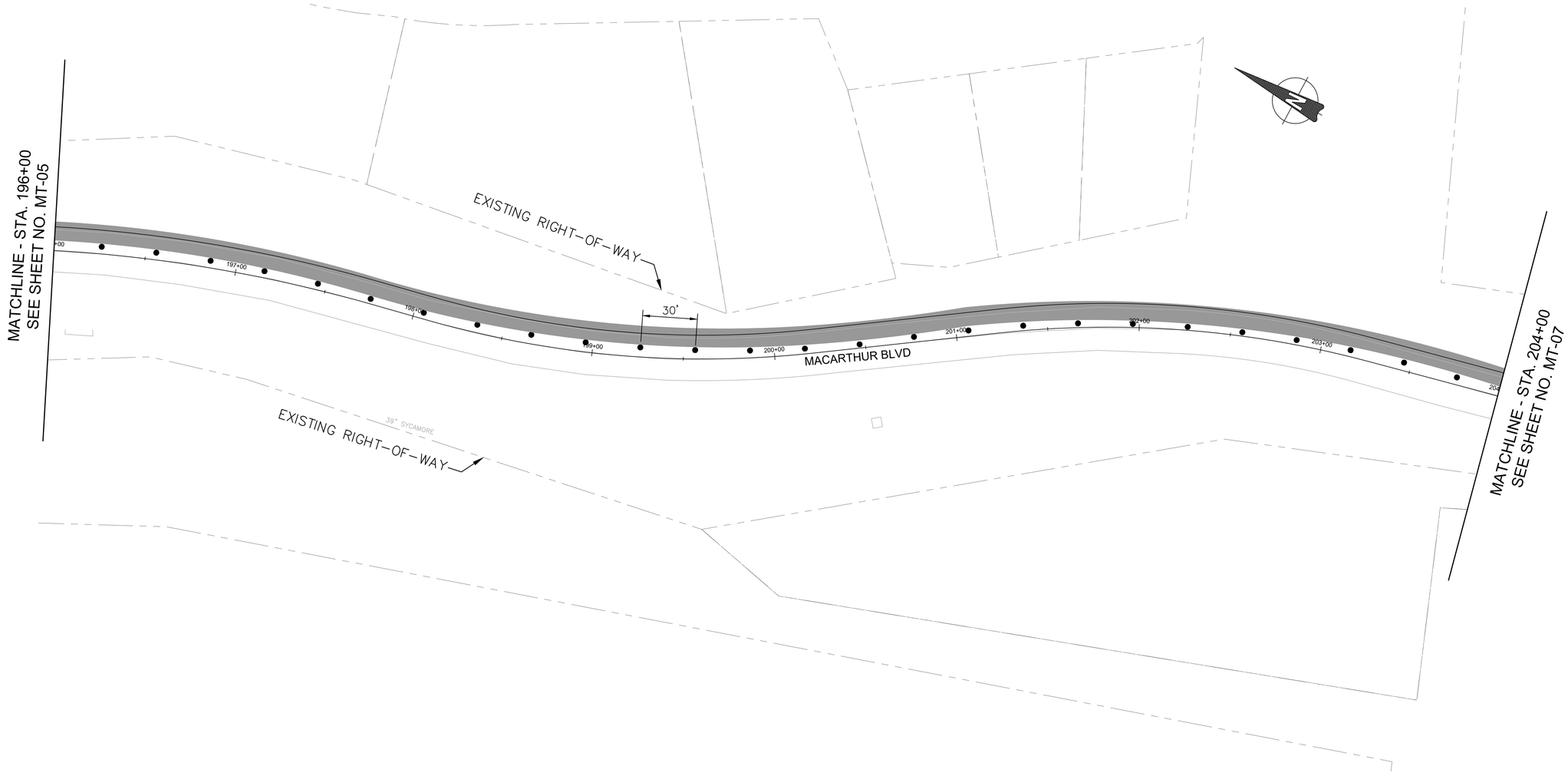
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 71 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-05 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-06
MOT PLAN – STAGE 1
MACARTHUR BOULEVARD BIKEWAY PHASE III

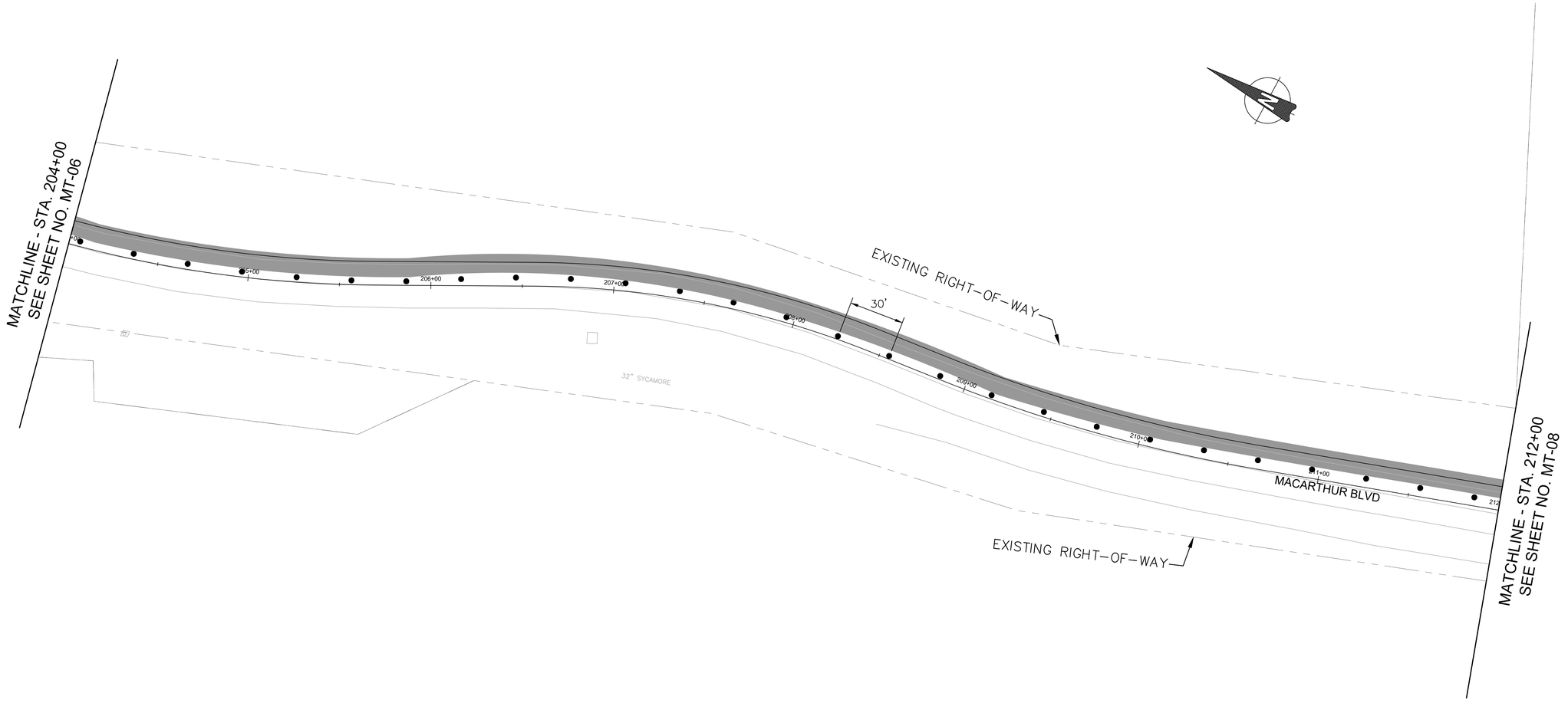
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 72 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-06 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-07
MOT PLAN – STAGE 1

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

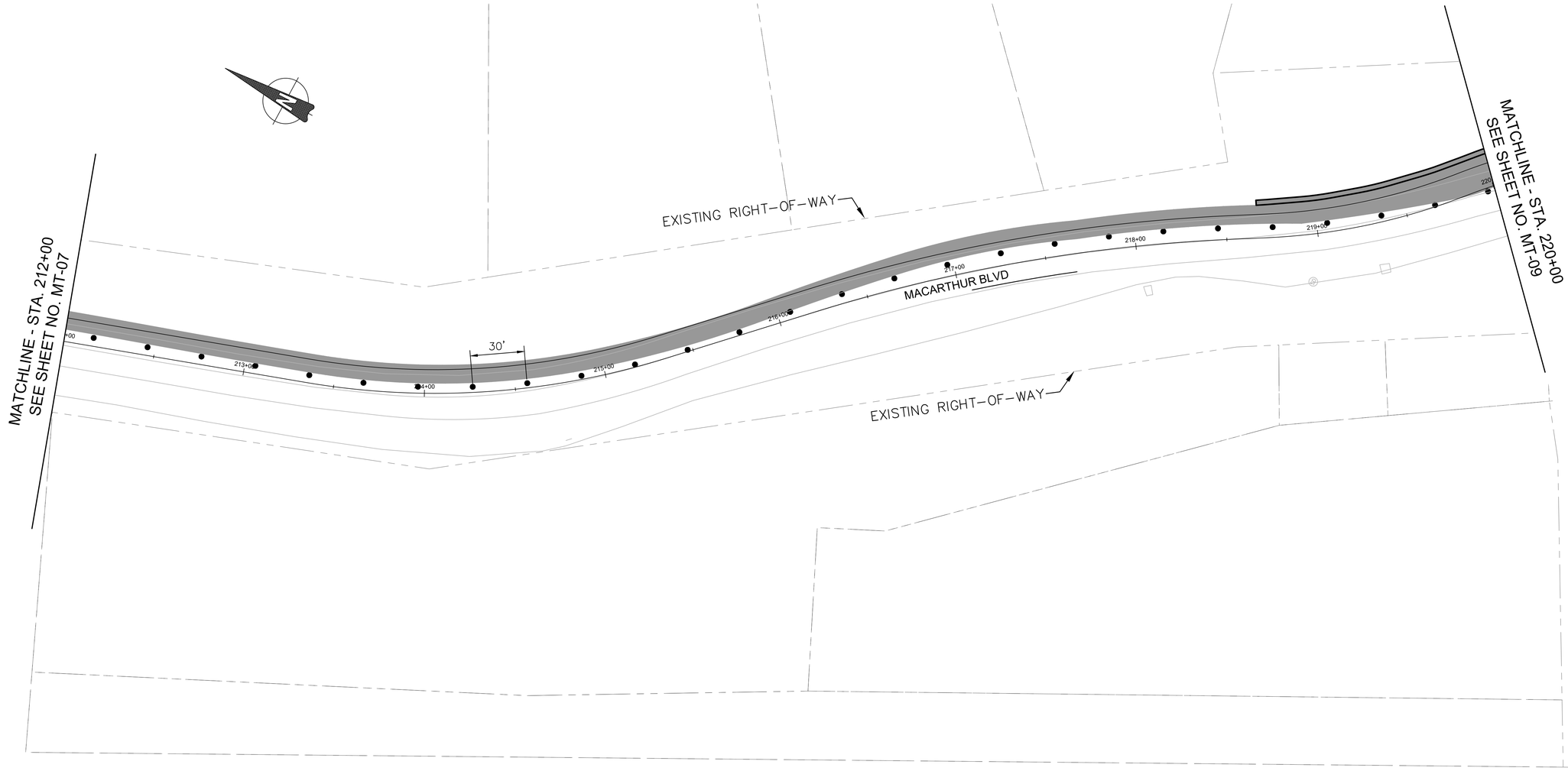
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 73 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-07 PLOTTED: Friday, June 17, 2022 – 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-08
MOT PLAN – STAGE 1

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

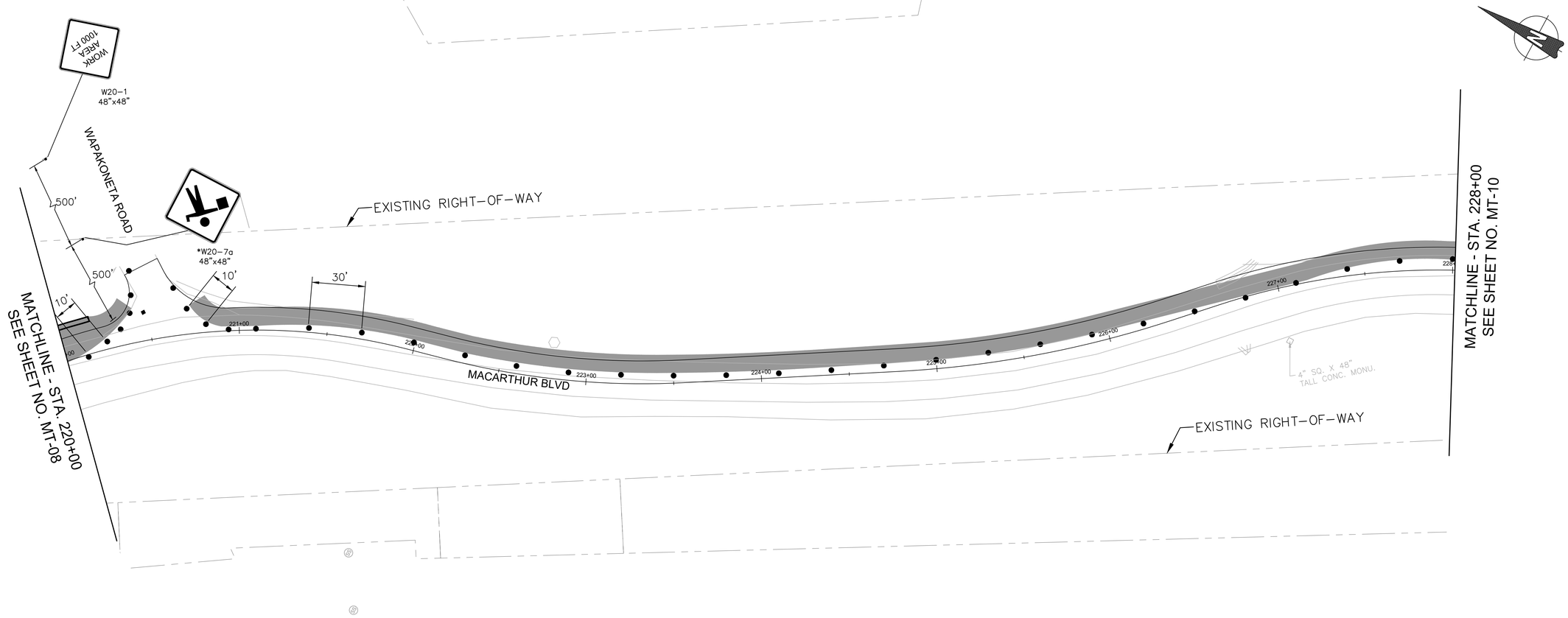
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 74 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-08 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-09
MOT PLAN – STAGE 1
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

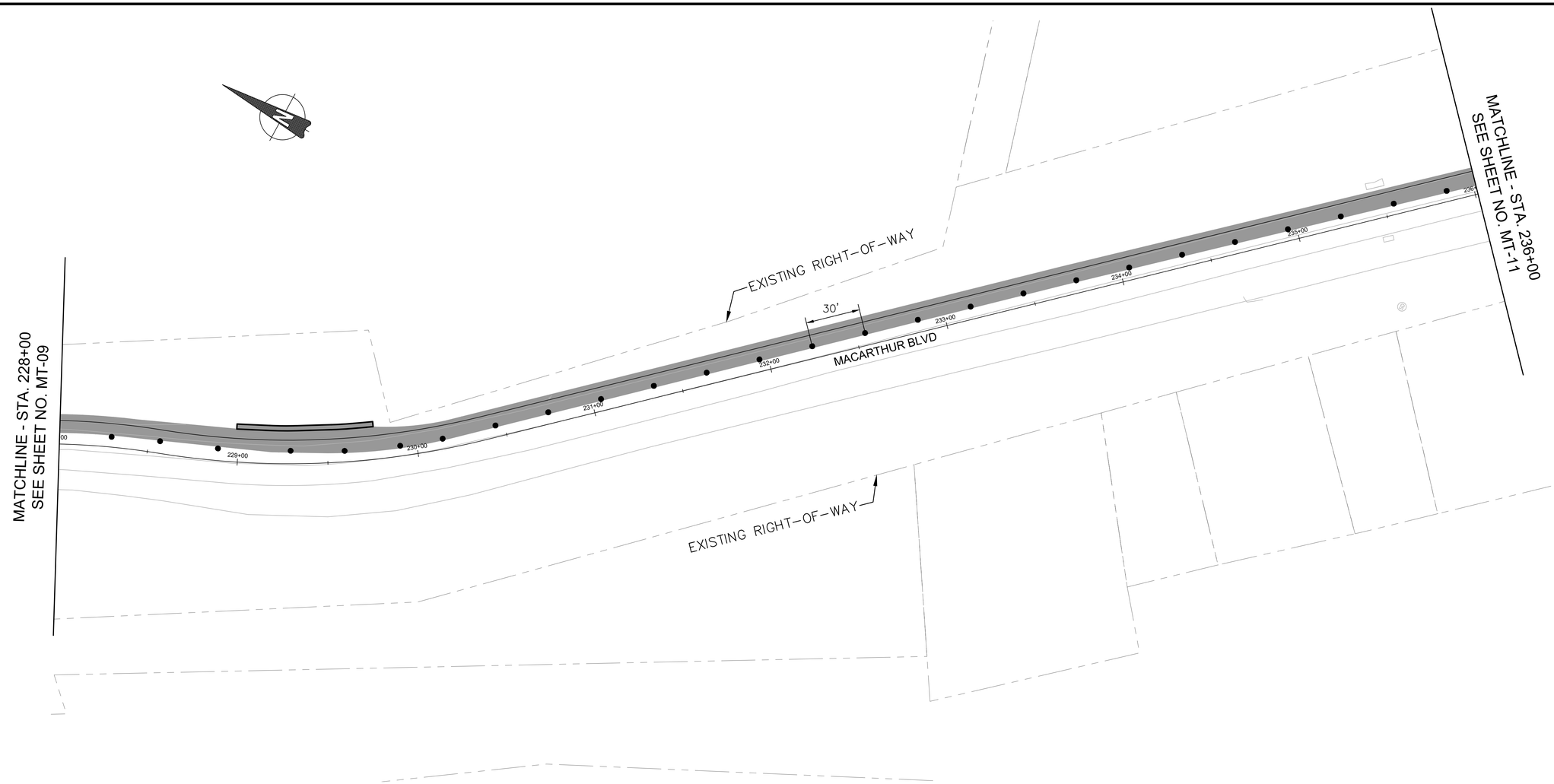
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 75 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-09 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

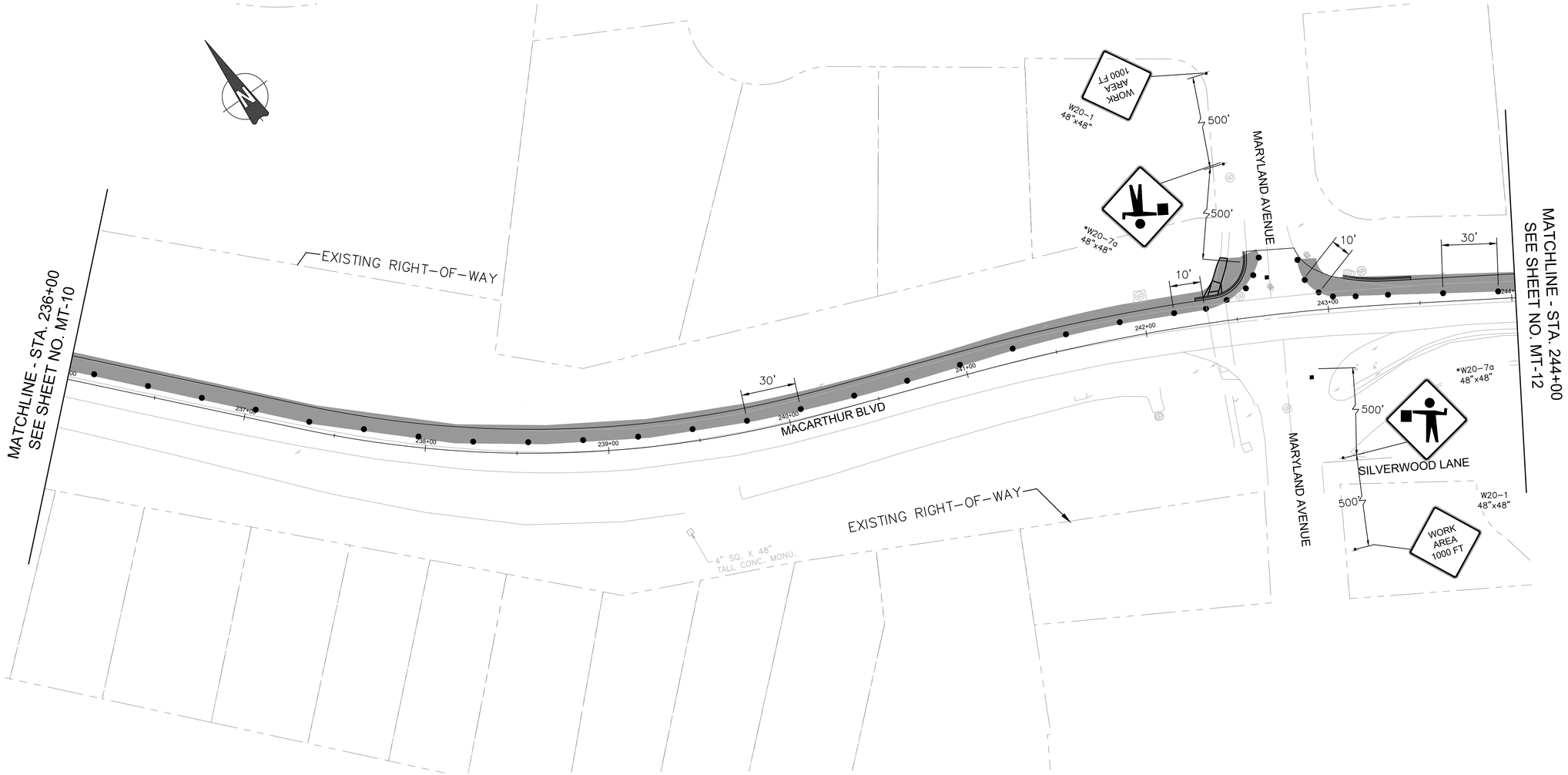
MT-10
MOT PLAN – STAGE 1
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 76 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-10 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

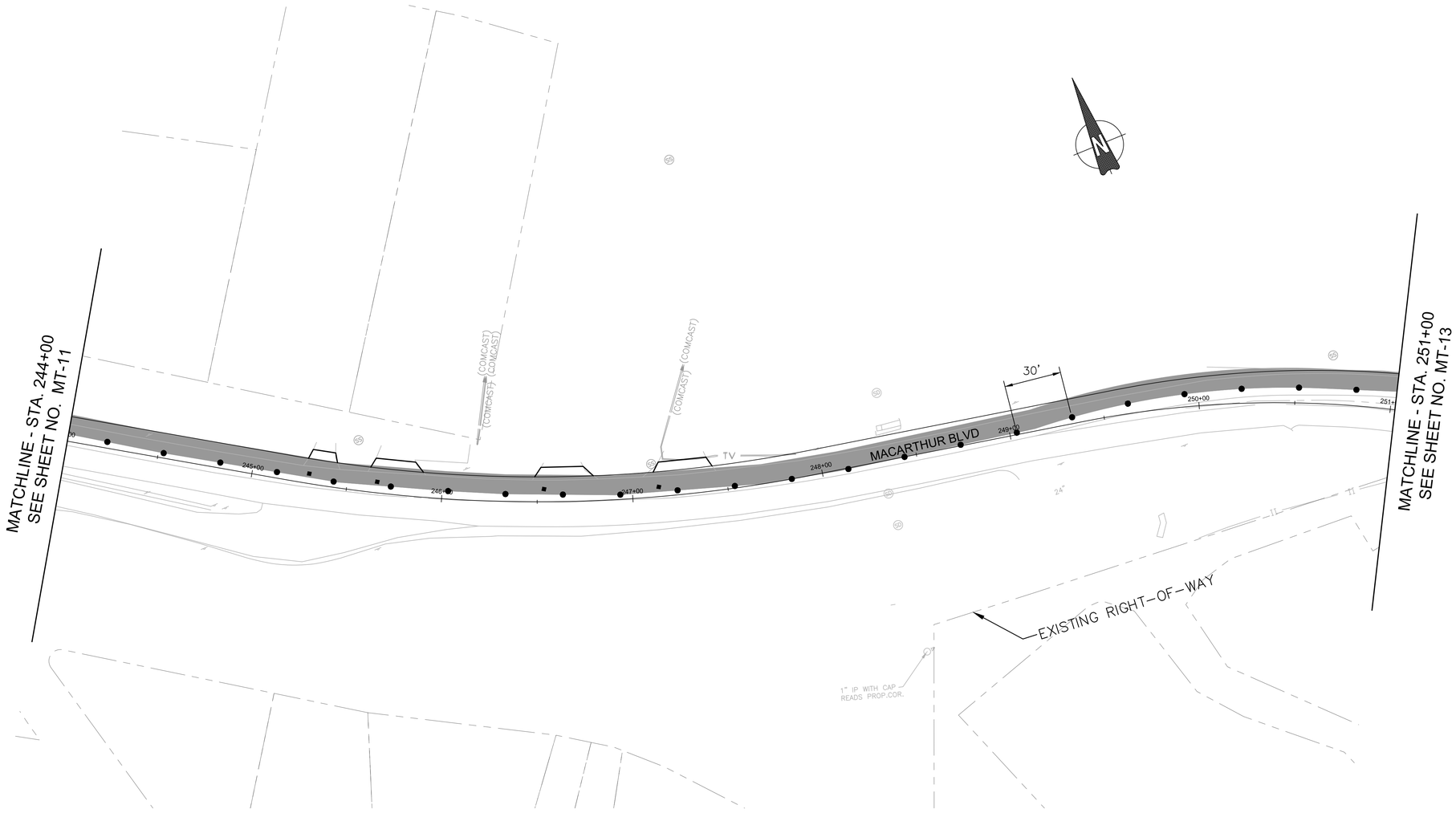
MT-11
MOT PLAN – STAGE 1
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 77 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-11 PLOTTED: Friday, June 17, 2022 – 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-12
MOT PLAN – STAGE 1

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

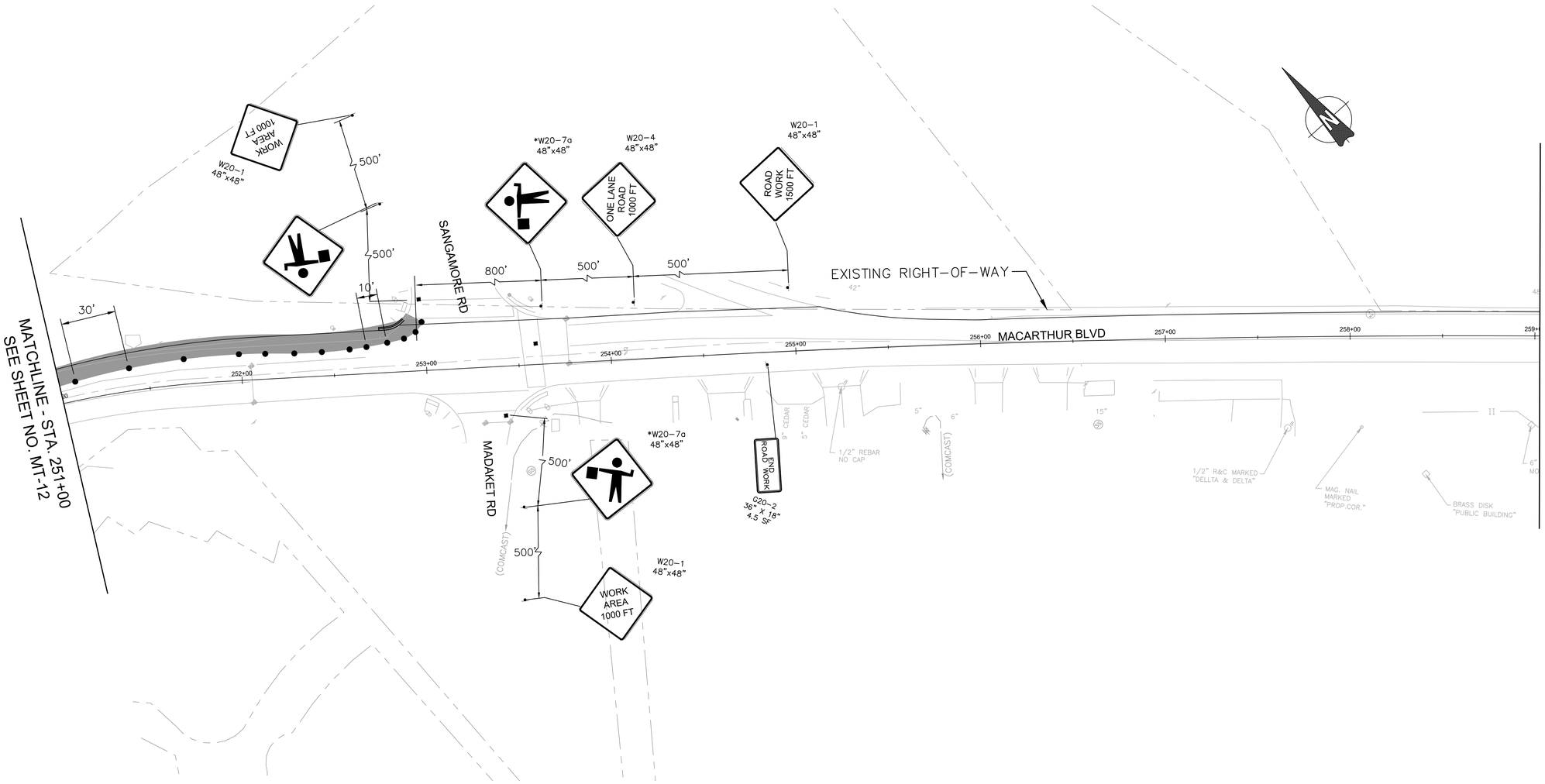
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 78 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0001_MacArthur.dwg LAYOUT NAME: MT-12 PLOTTED: Friday, June 17, 2022 - 4:19pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-13
MOT PLAN – STAGE 1

MACARTHUR BOULEVARD BIKEWAY PHASE III

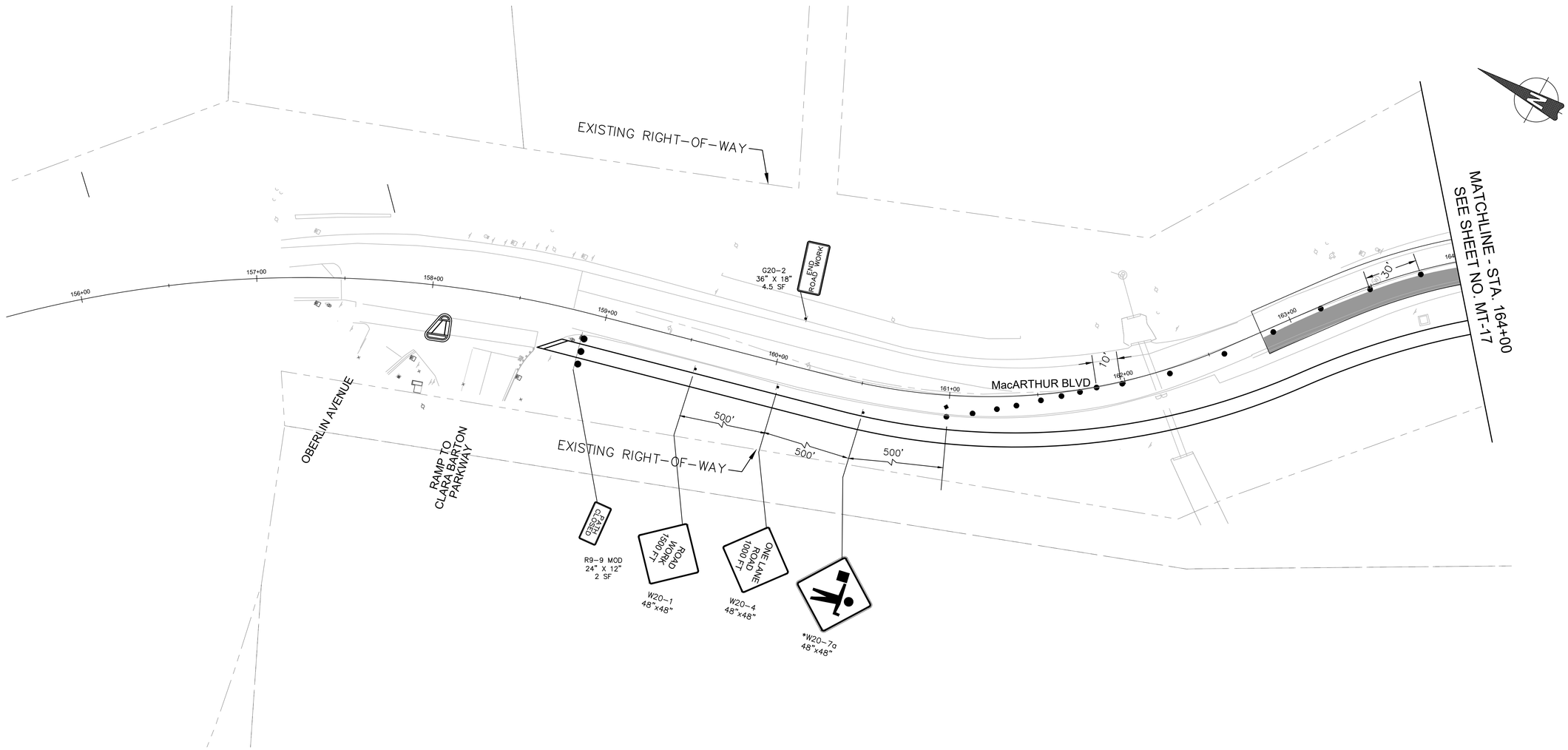
0 30' 60'

SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 79 of 156



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-16
MOT PLAN – STAGE 2
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

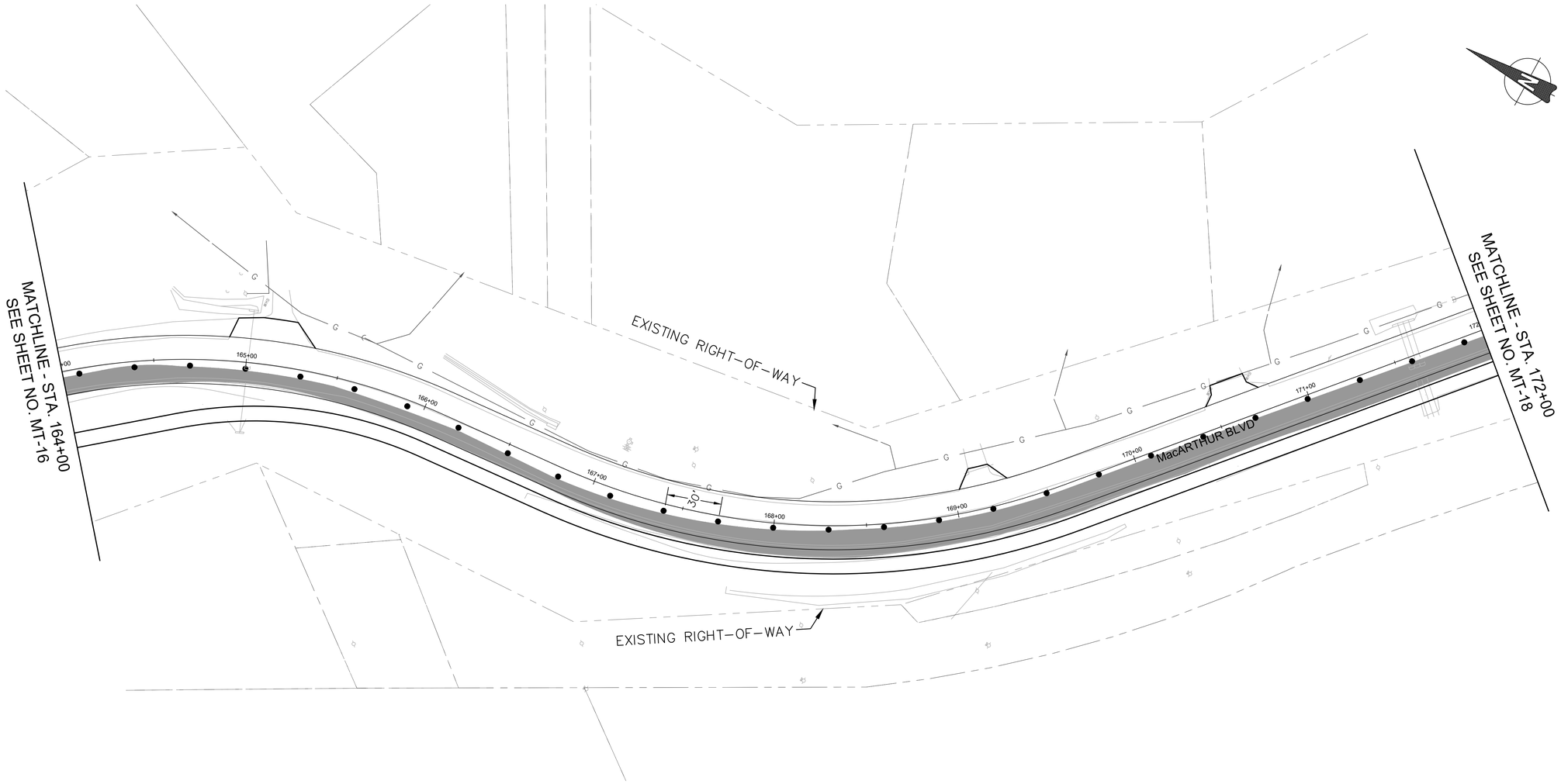
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 80 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-16 PLOTTED: Friday, June 17, 2022 - 4:20pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-17
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

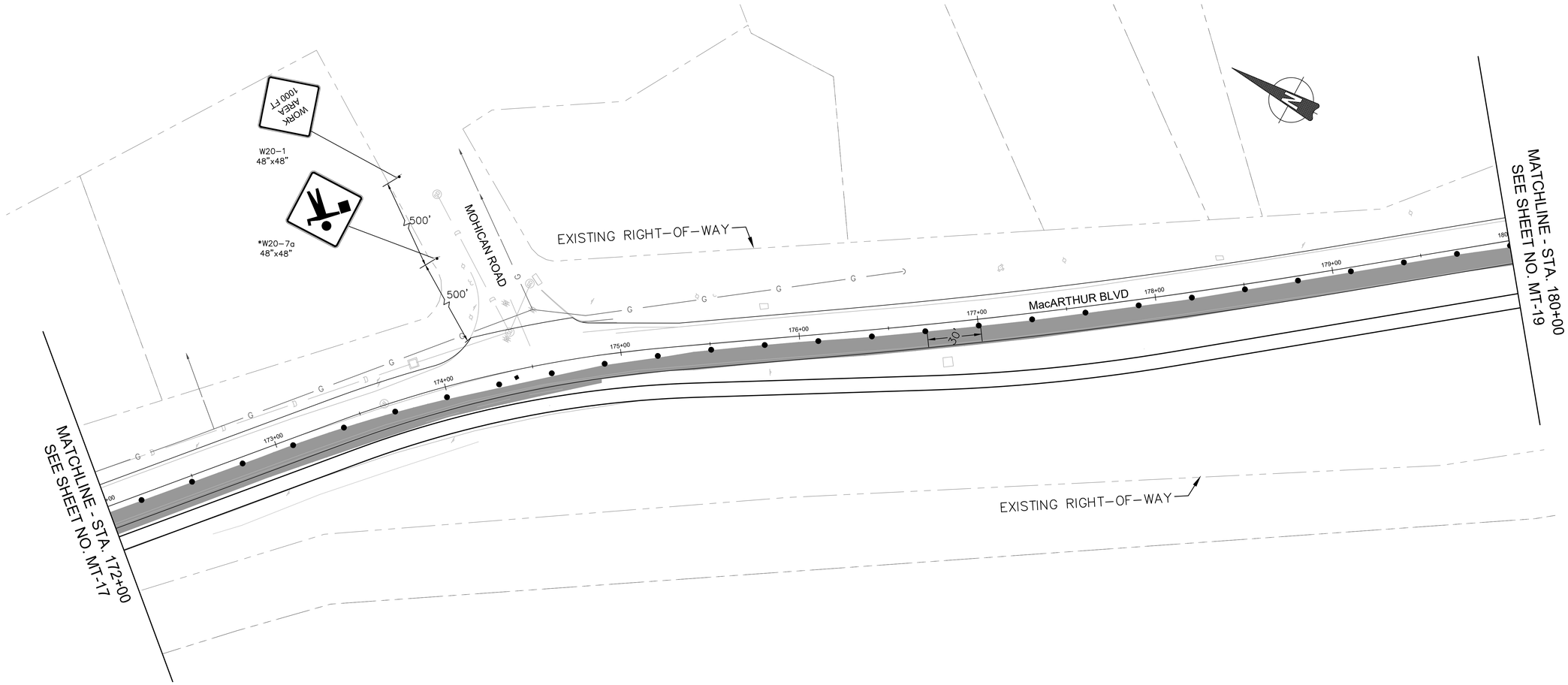
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 81 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-17 PLOTTED: Friday, June 17, 2022 - 4:20pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-18
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

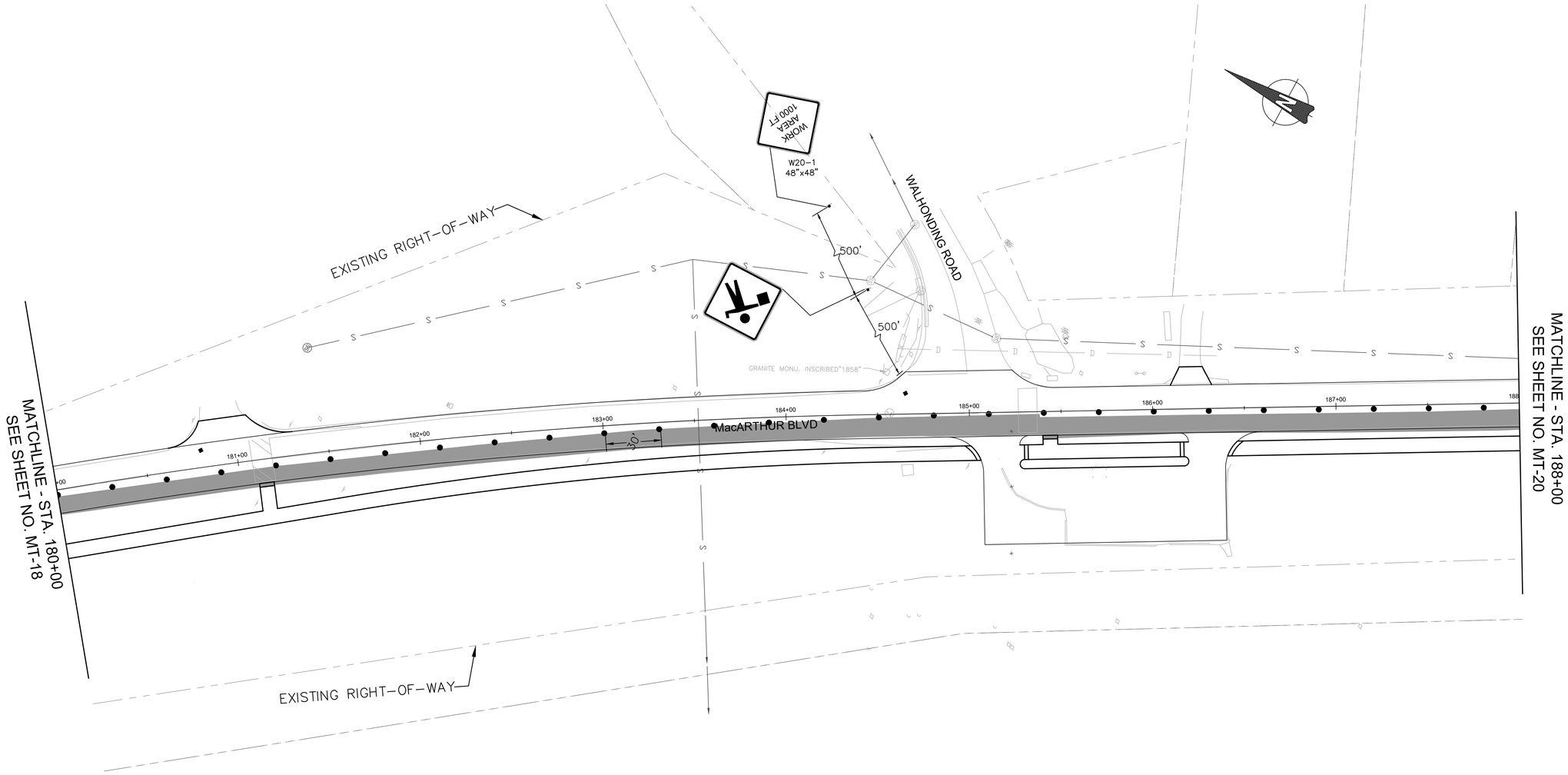
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 82 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-18 PLOTTED: Friday, June 17, 2022 – 4:20pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-19
MOT PLAN – STAGE 2
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

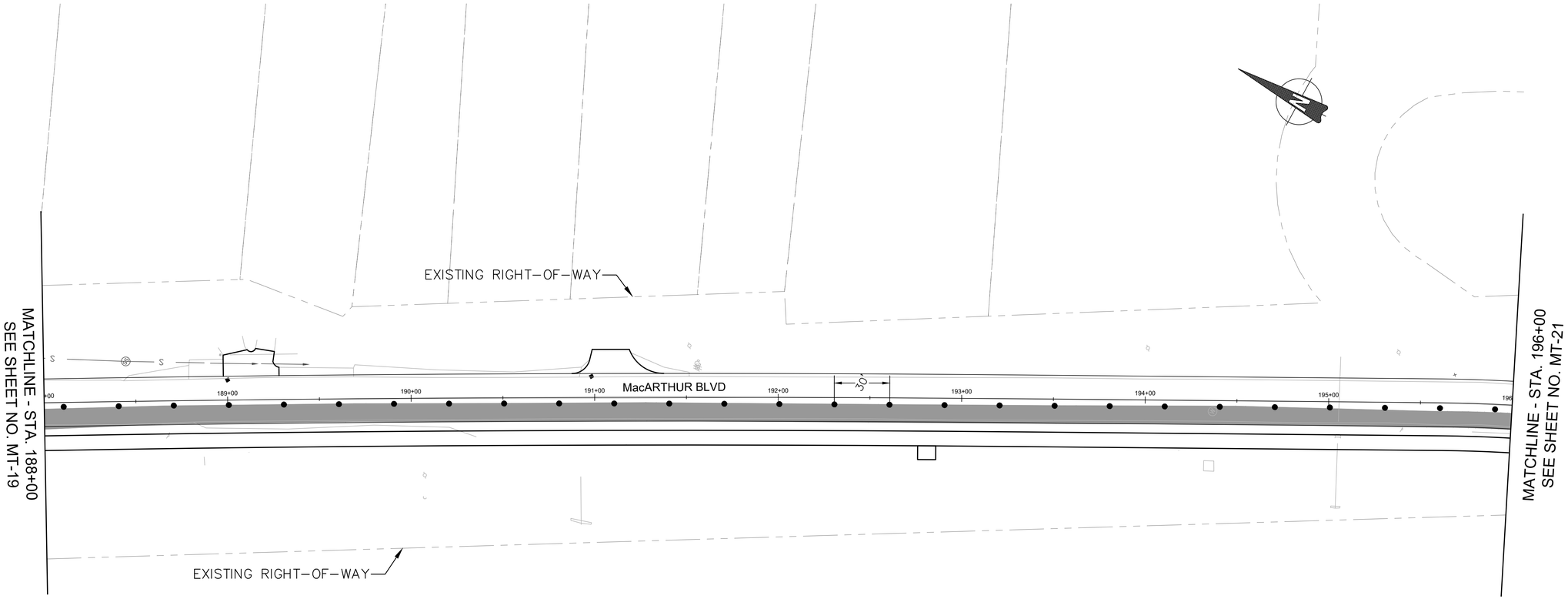
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 83 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-19 PLOTTED: Friday, June 17, 2022 - 4:20pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-20
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

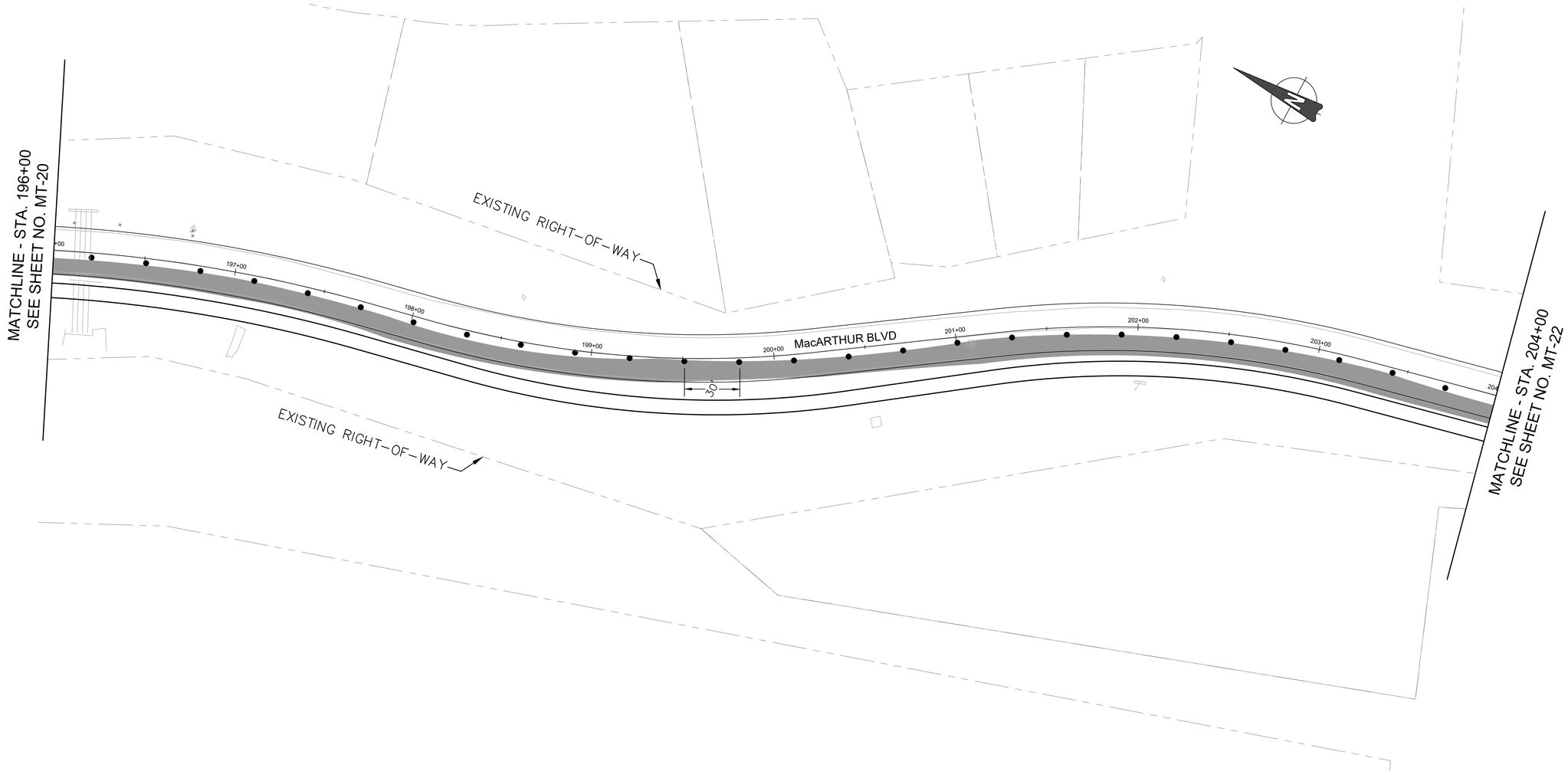
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 84 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-20 PLOTTED: Friday, June 17, 2022 – 4:20pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

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NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-21
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

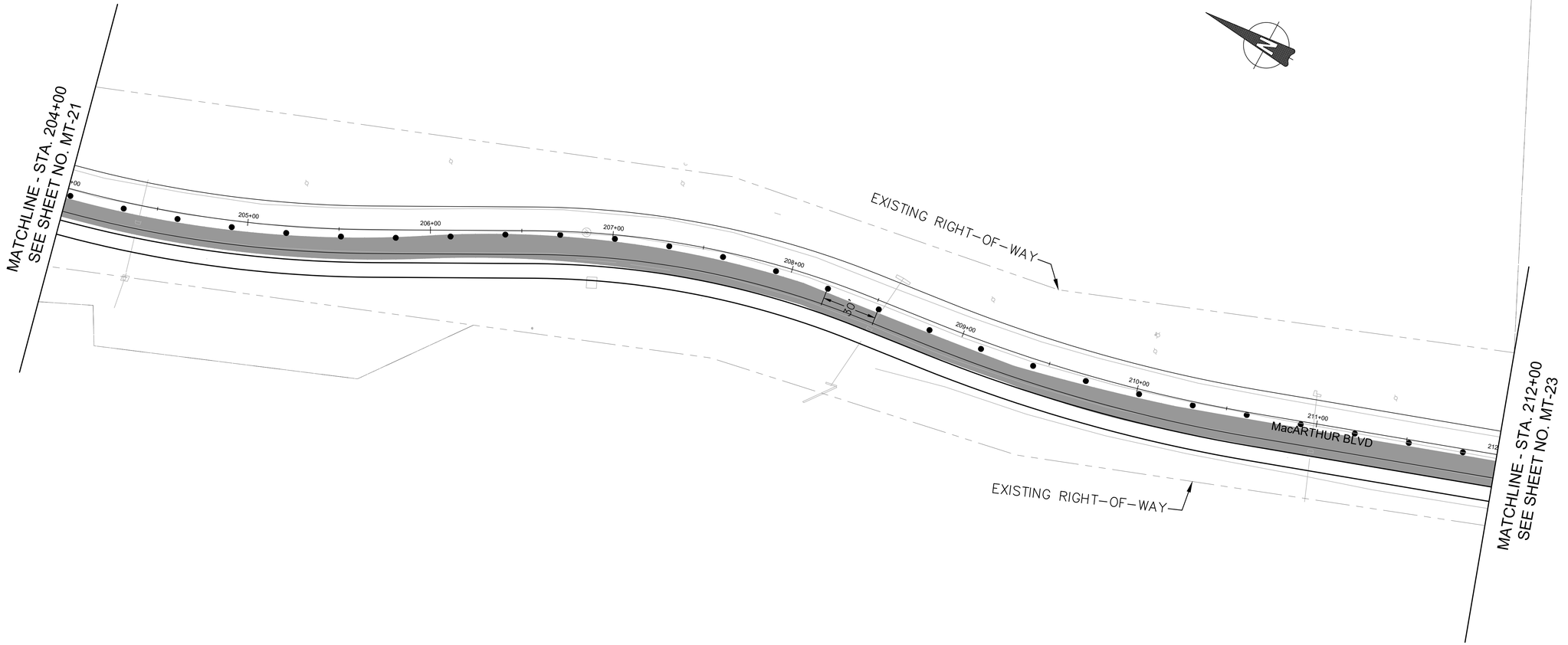
0 30' 60'
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 85 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-21 PLOTTED: Friday, June 17, 2022 - 4:20pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

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NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-22
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

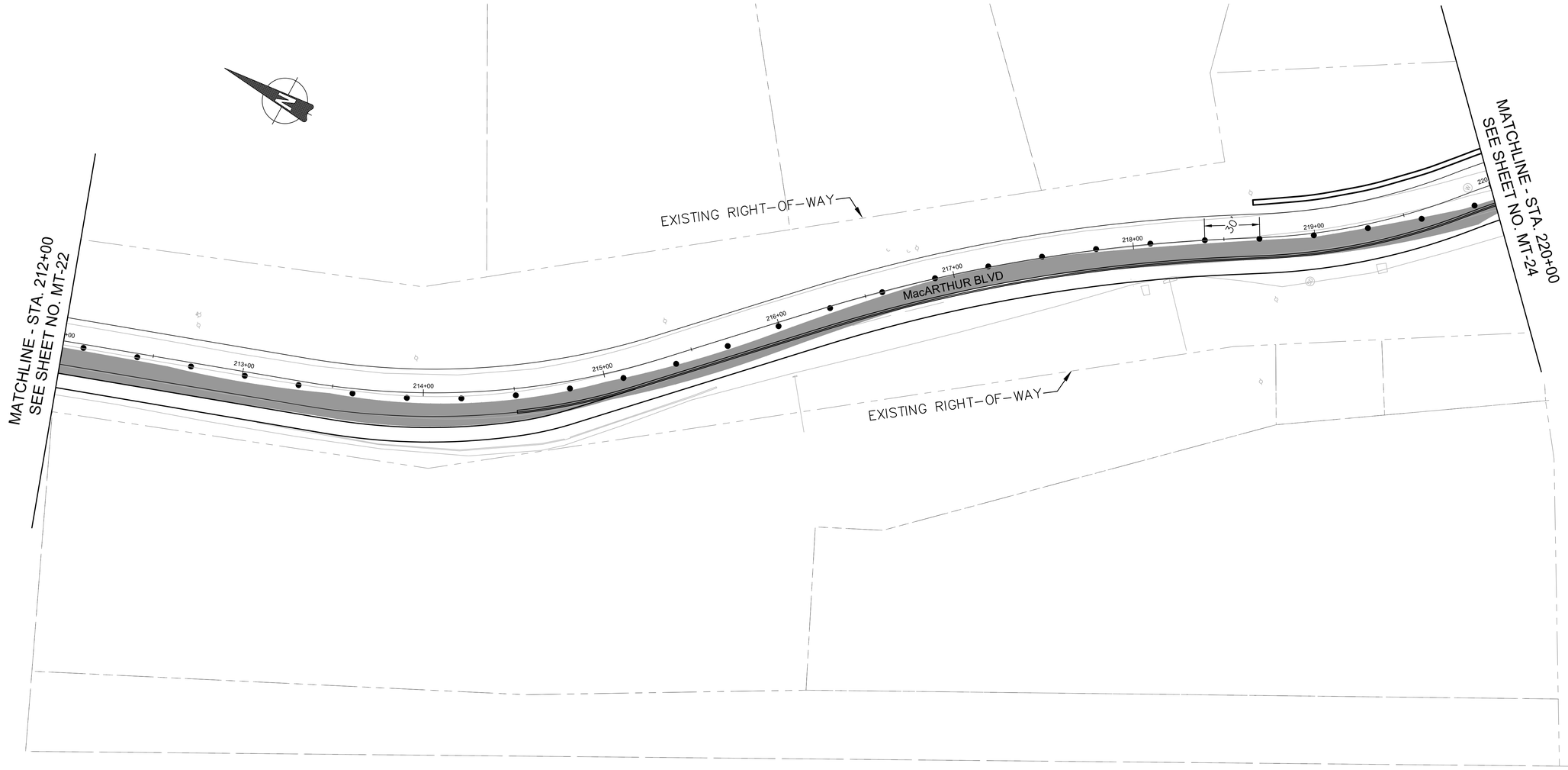
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 86 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-22 PLOTTED: Friday, June 17, 2022 – 4:21pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

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NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-23
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

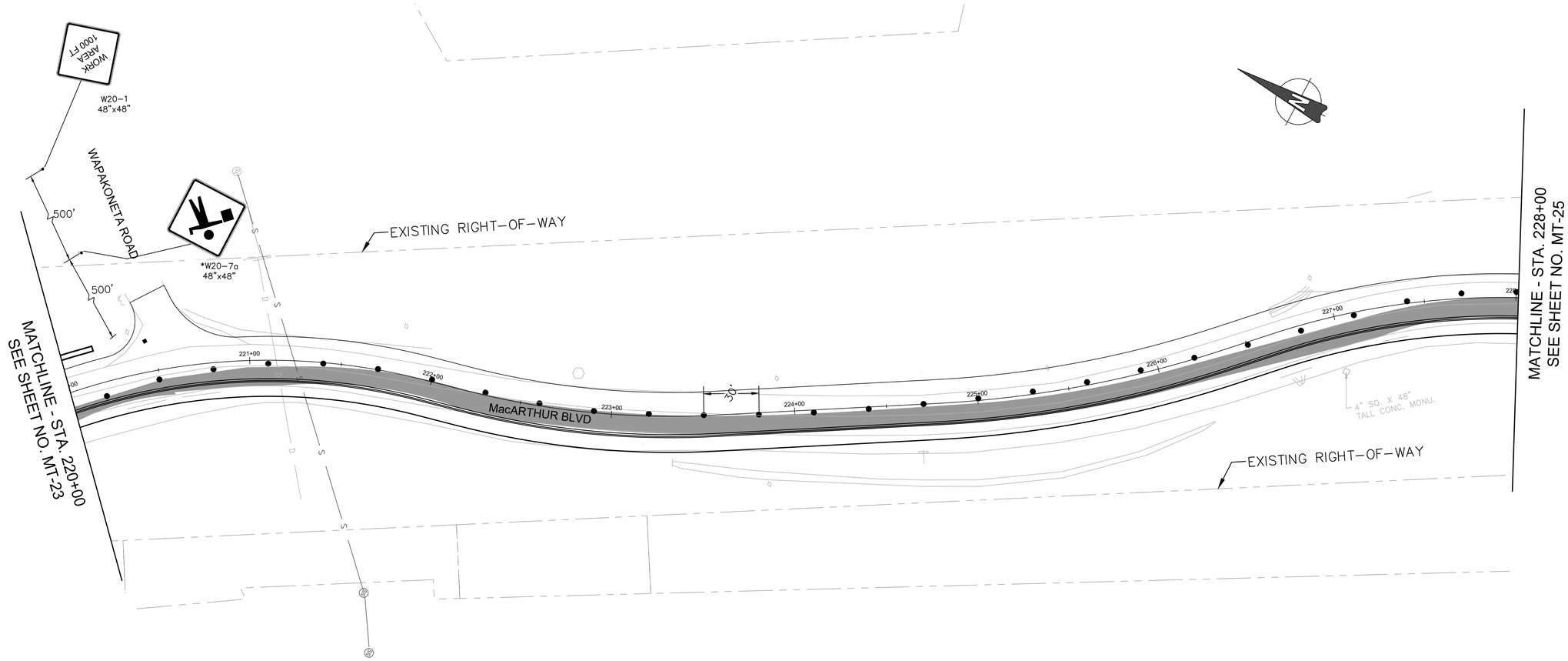
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 87 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-23 PLOTTED: Friday, June 17, 2022 – 4:21pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-24
MOT PLAN – STAGE 2
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

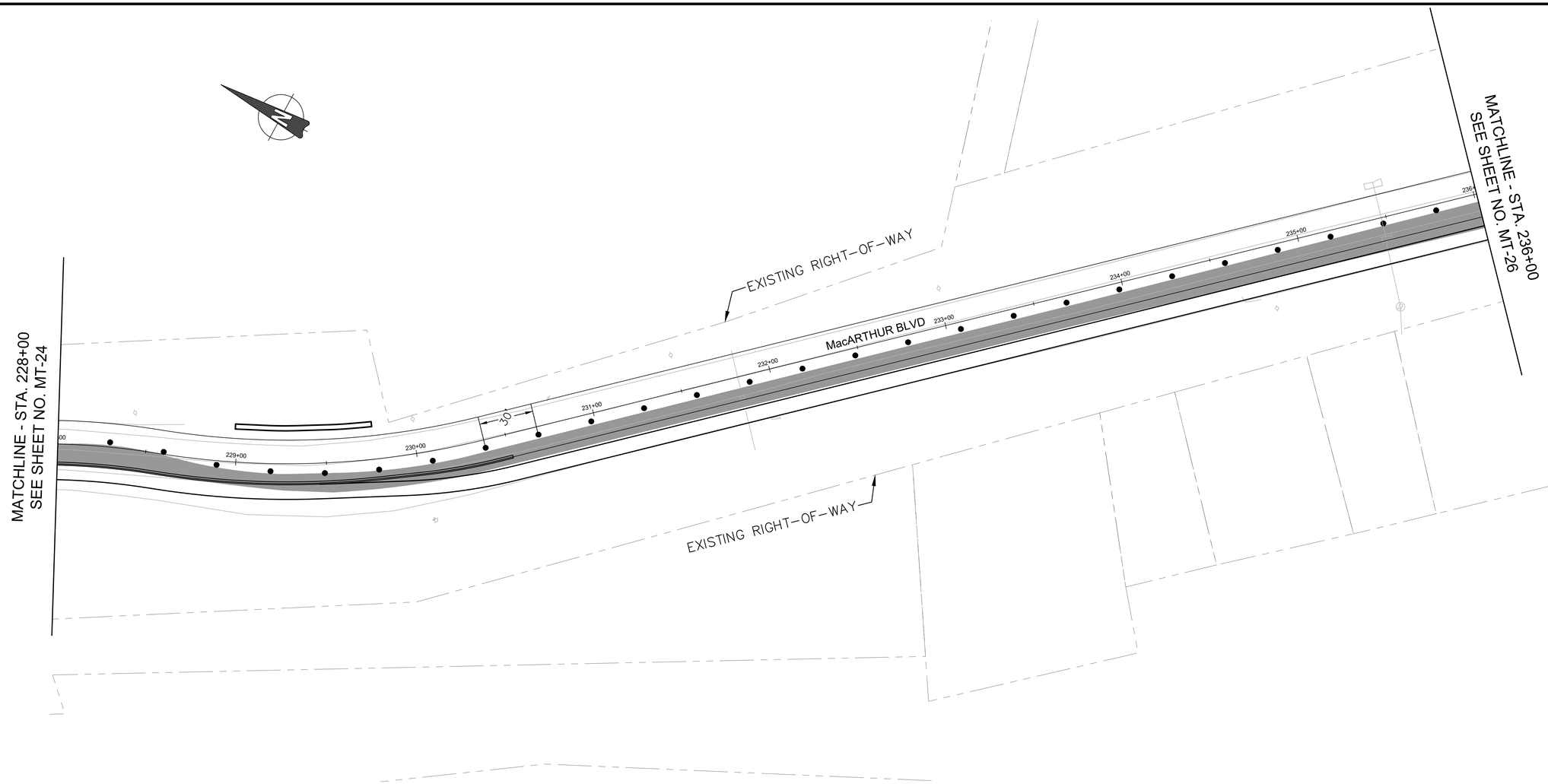
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 88 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-24 PLOTTED: Friday, June 17, 2022 - 4:21pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

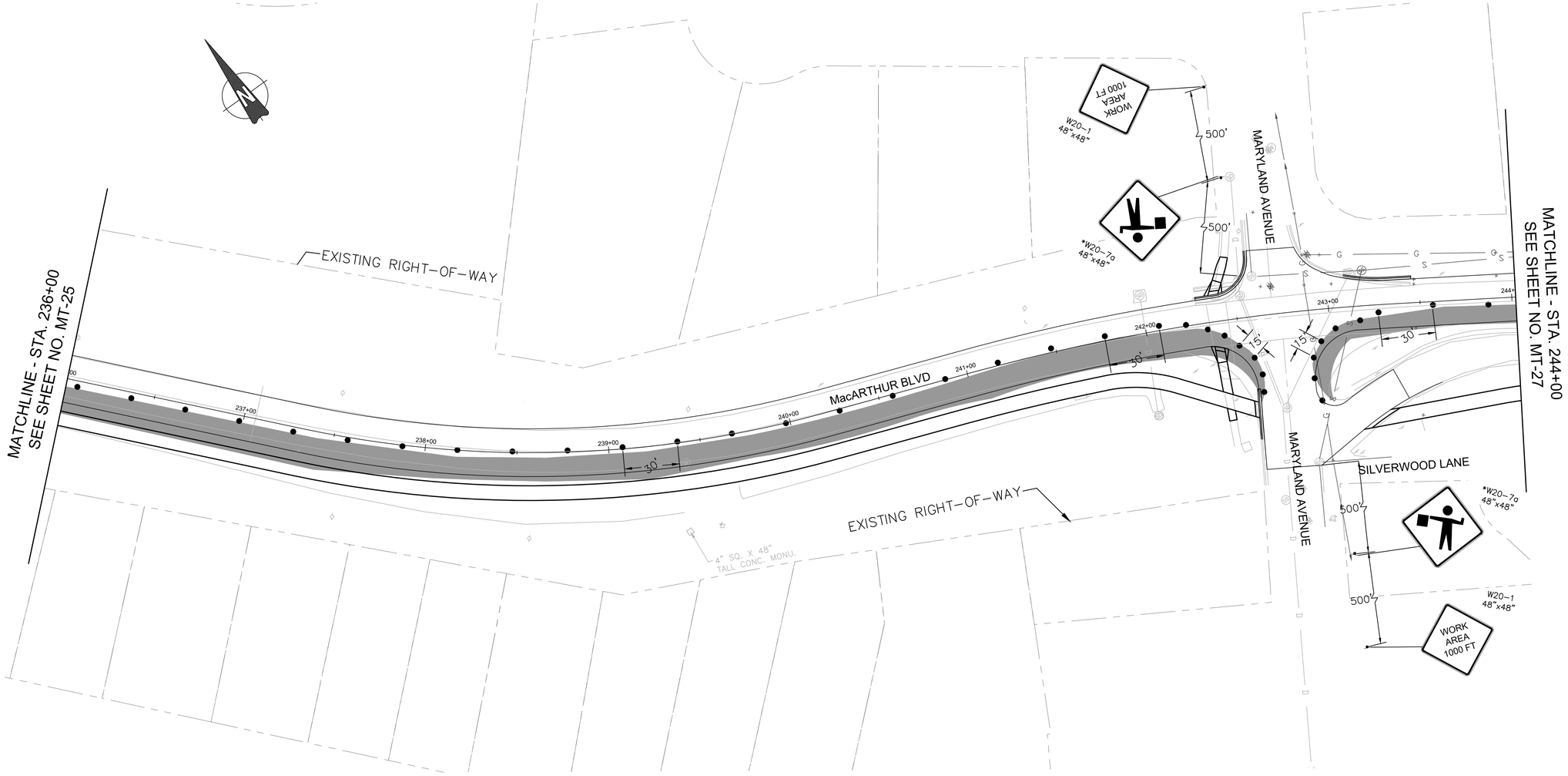
MT-25
MOT PLAN – STAGE 2
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 89 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-25 PLOTTED: Friday, June 17, 2022 - 4:21pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-26
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

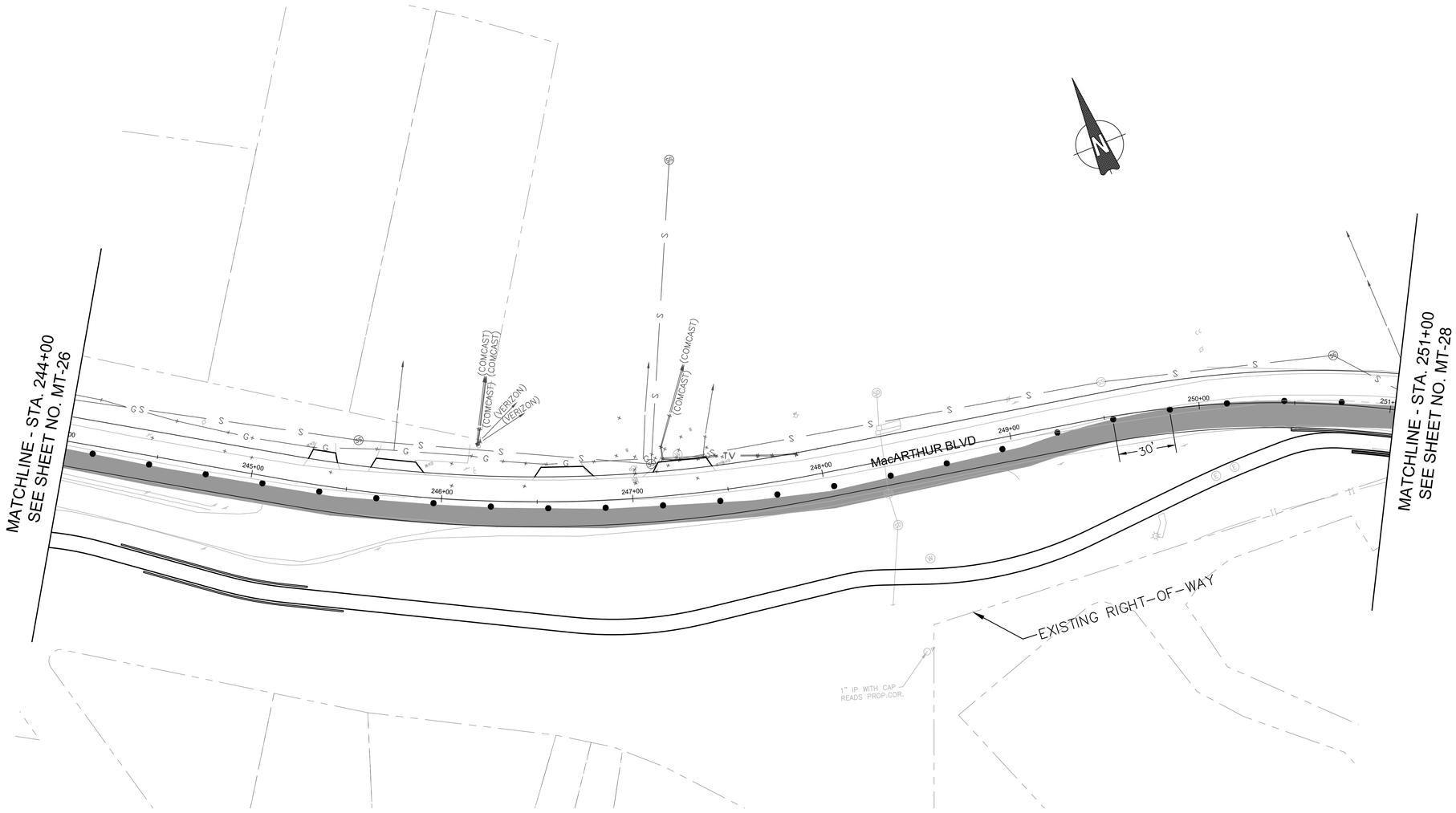
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 90 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-26 PLOTTED: Friday, June 17, 2022 - 5:57pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

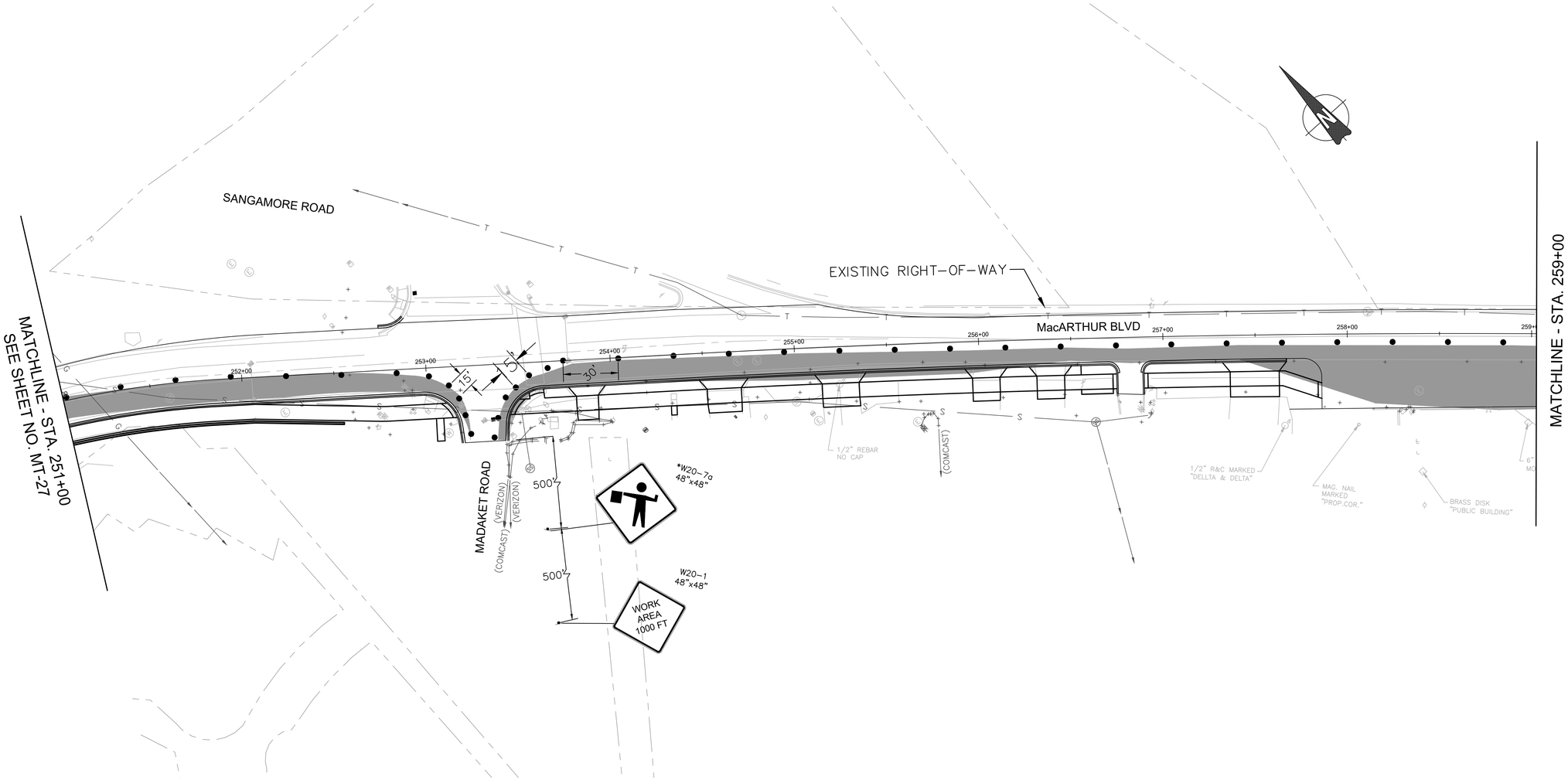
MT-27
MOT PLAN – STAGE 2
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 91 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-27 PLOTTED: Friday, June 17, 2022 - 4:21pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

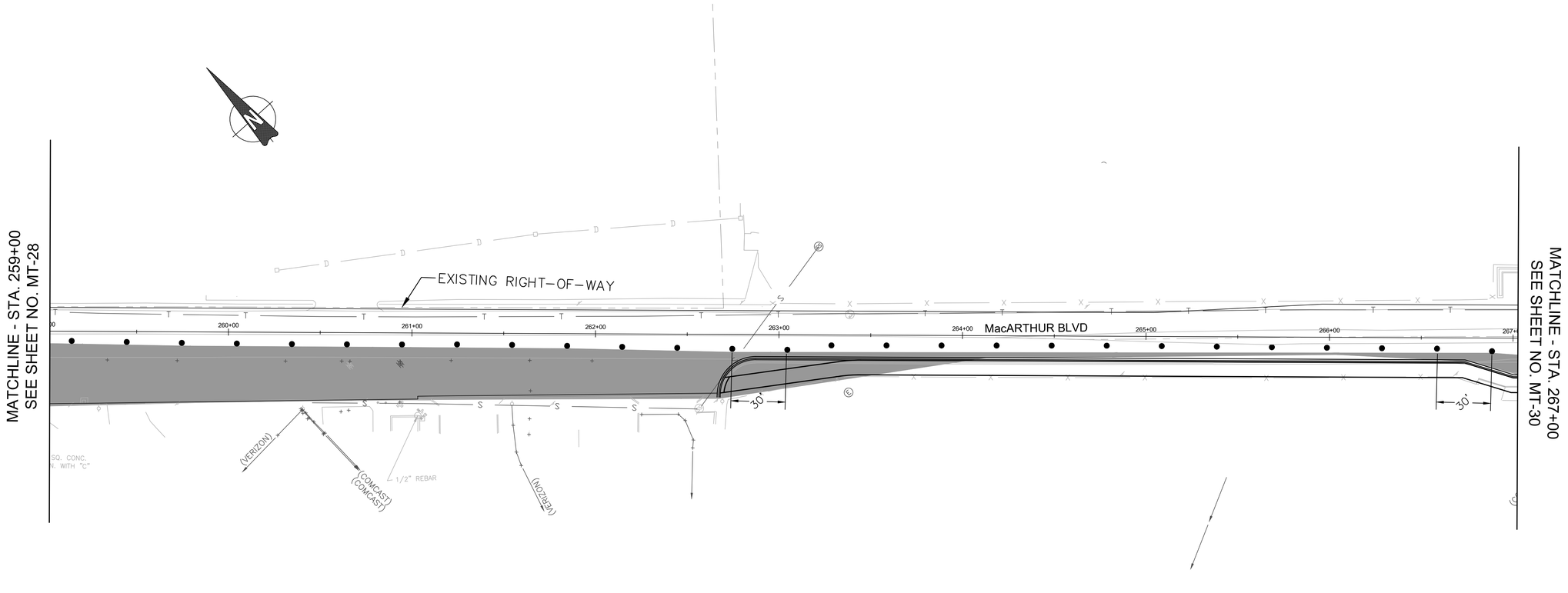
MT-28
MOT PLAN – STAGE 2
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 92 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-28 PLOTTED: Friday, June 17, 2022 - 4:21pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-29
MOT PLAN – STAGE 2

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

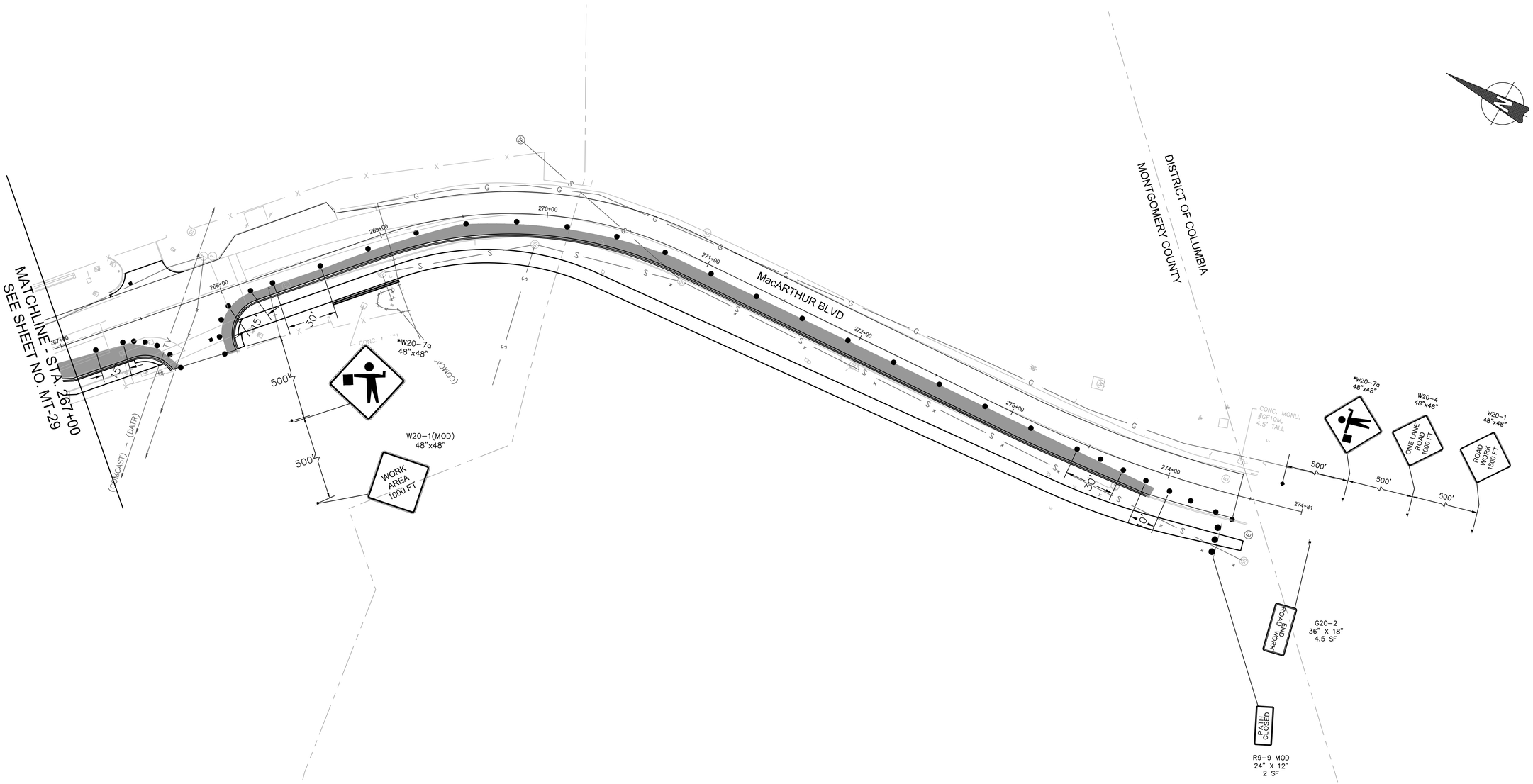
SCALE: 1"=30'

DATE: JUNE 2022

CIP No.: 502109

SHEET 93 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-29 PLOTTED: Friday, June 17, 2022 - 4:21pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- FLAGGER
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-30
MOT PLAN – STAGE 2
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

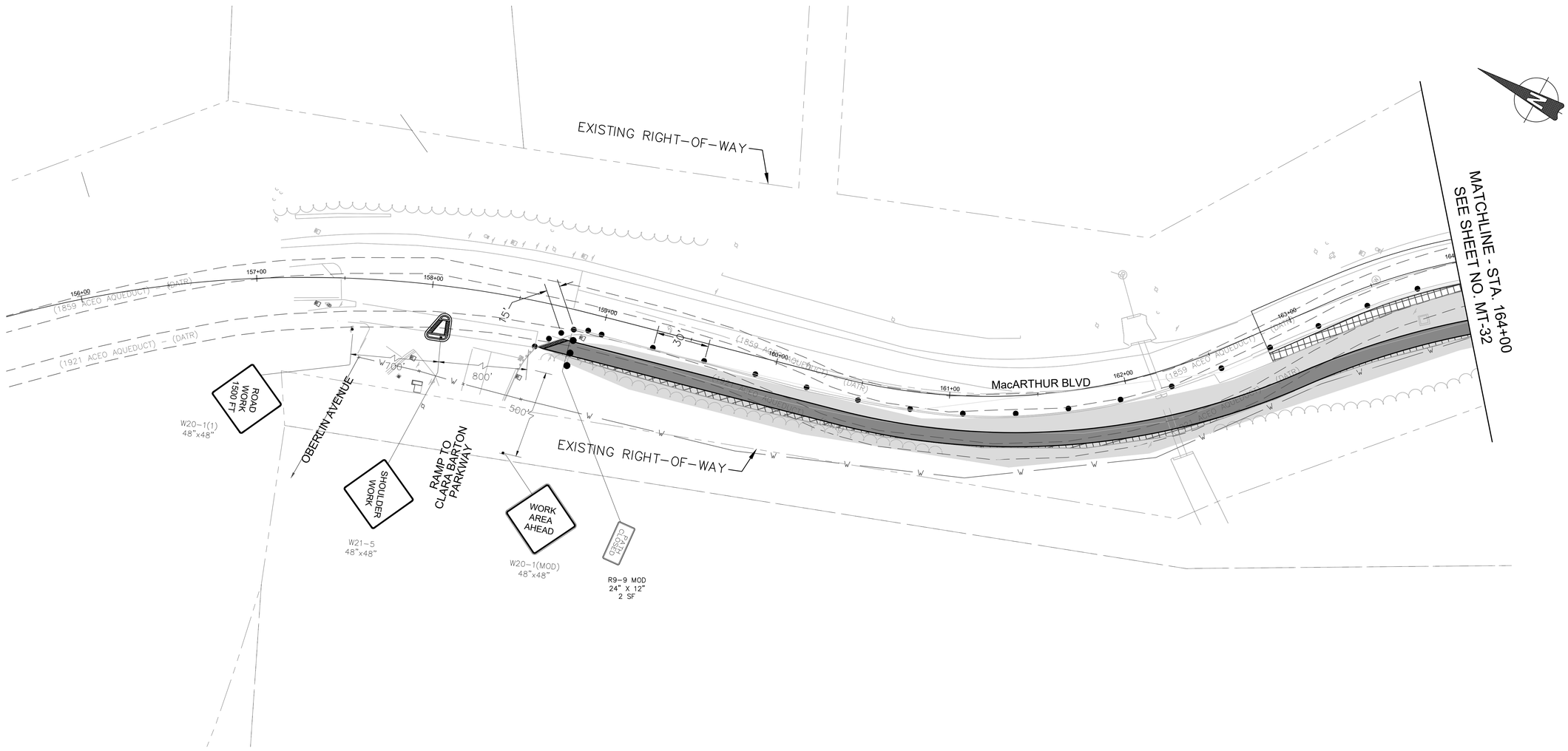
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 94 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-0002_MacArthur.dwg LAYOUT NAME: MT-30 PLOTTED: Friday, June 17, 2022 - 4:21pm USER: AHavener



MOT LEGEND:

- STOP — TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-31
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

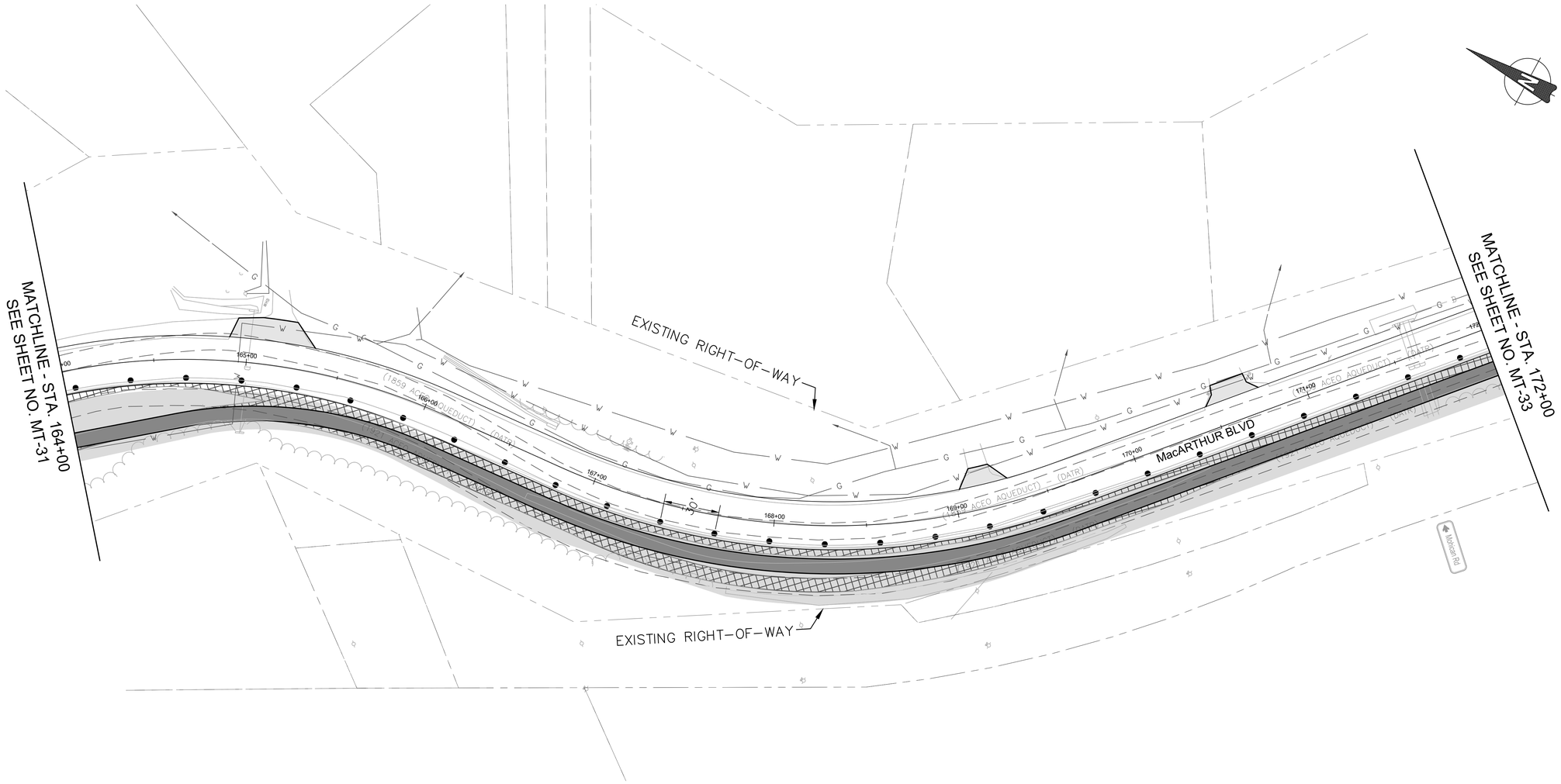
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 95 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-31 PLOTTED: Friday, June 17, 2022 - 5:59pm USER: AHavener



MOT LEGEND:

- STOP — TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

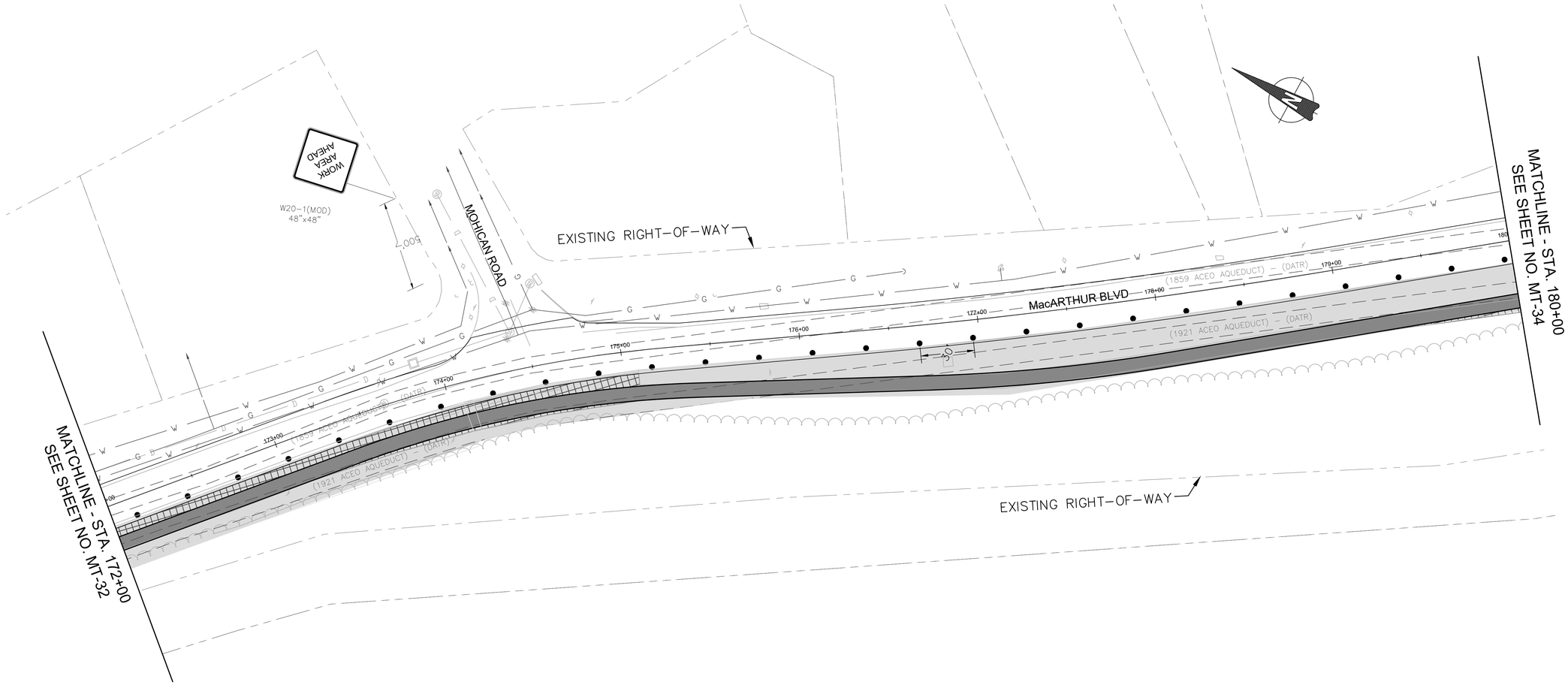
MT-32
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 96 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-32 PLOTTED: Friday, June 17, 2022 - 5:59pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-33
MOT PLAN – STAGE 3

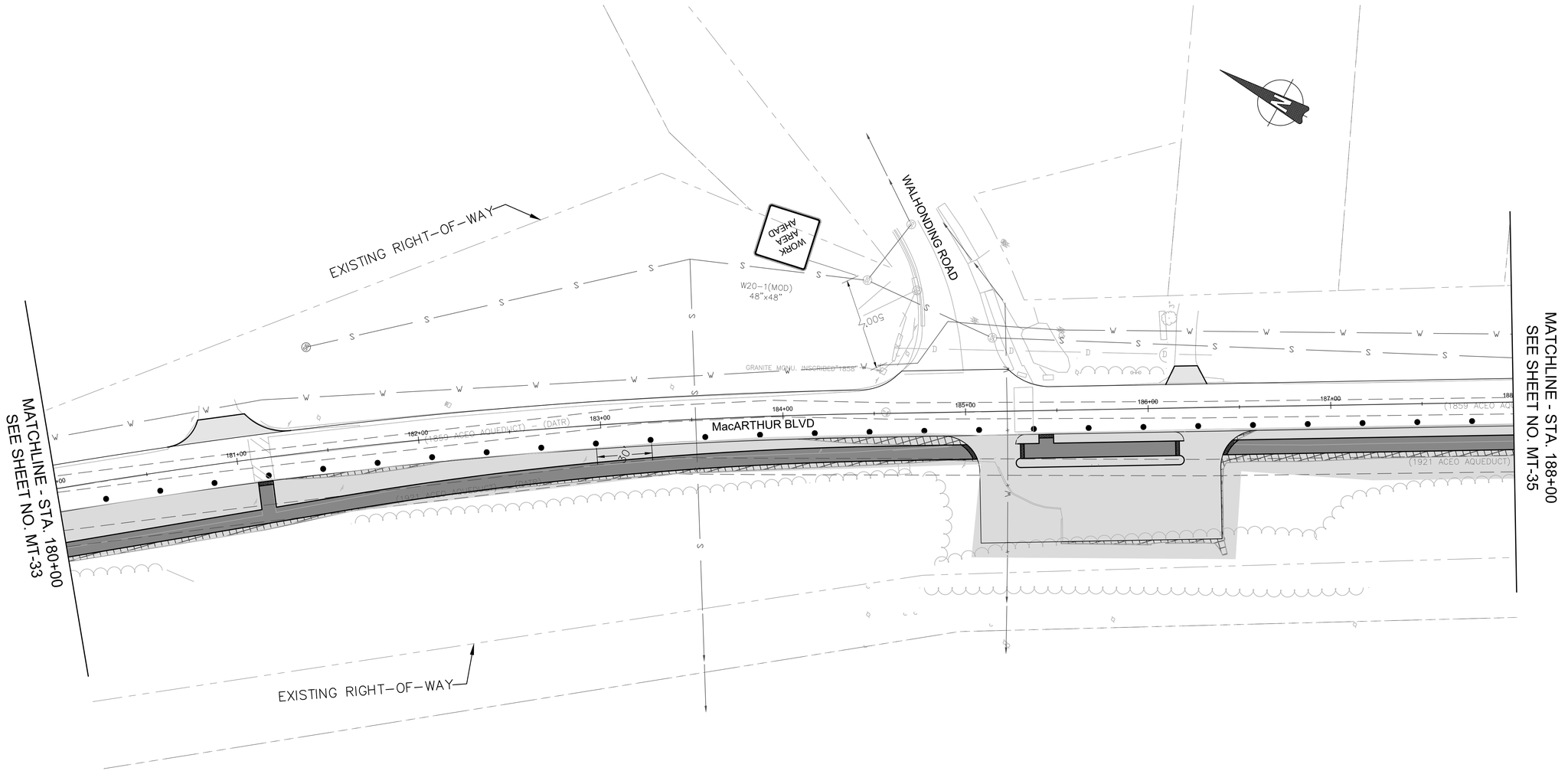
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 97 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-33 PLOTTED: Friday, June 17, 2022 - 5:59pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

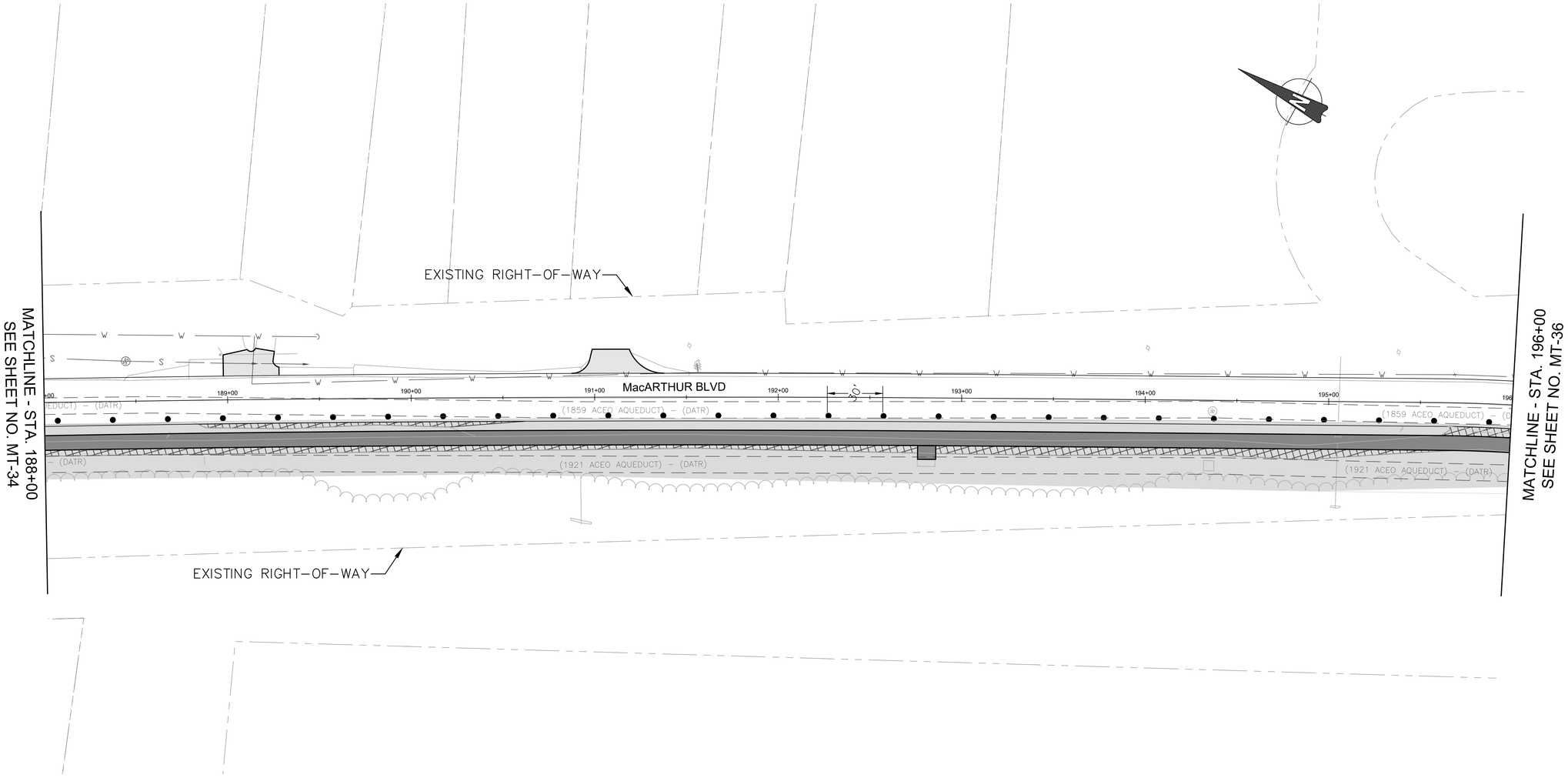
MT-34
MOT PLAN - STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 98 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-34 PLOTTED: Friday, June 17, 2022 - 6:00pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

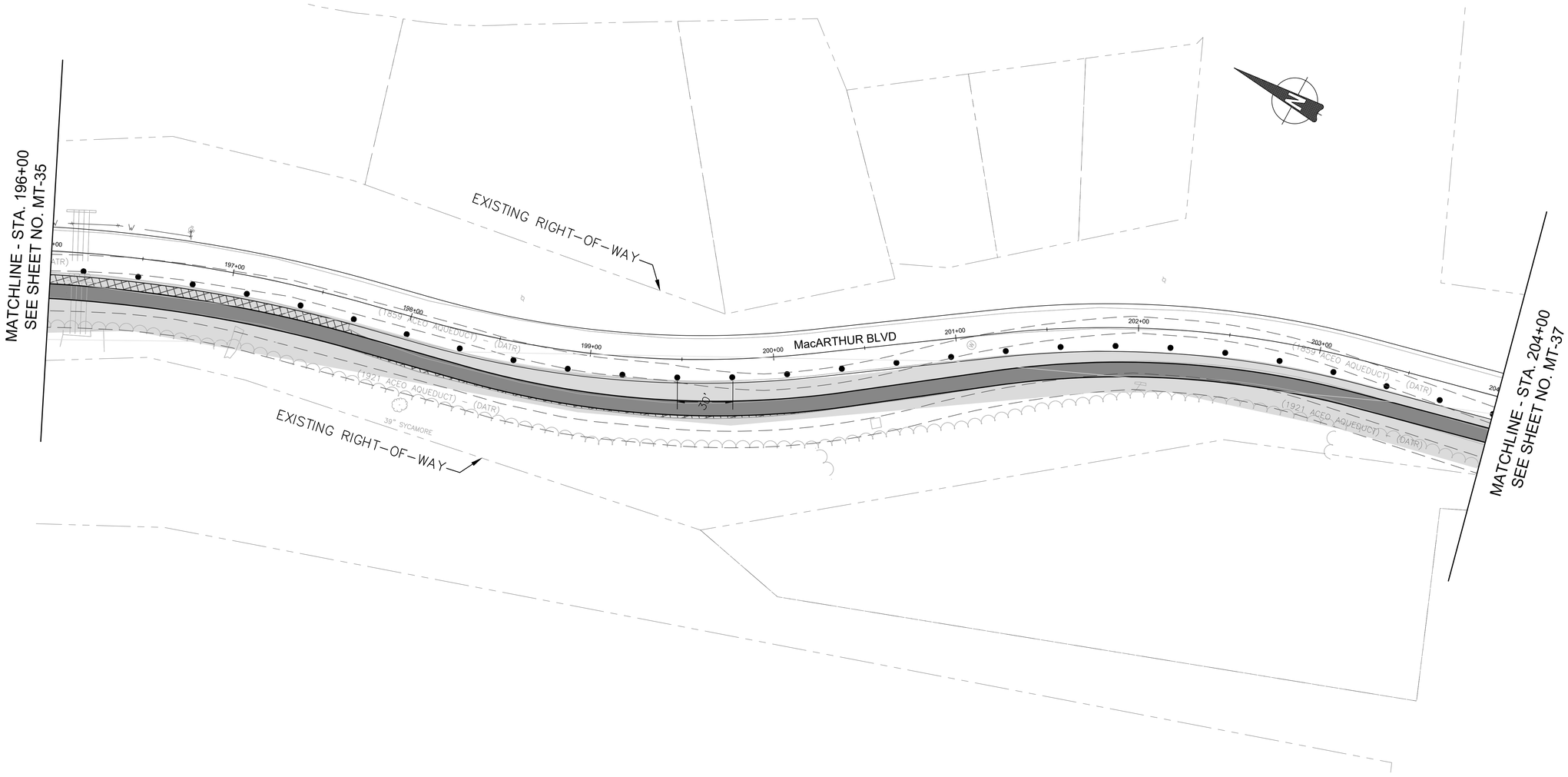
MT-35
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 99 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-35 PLOTTED: Friday, June 17, 2022 – 6:00pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN (STOP)
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-36
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

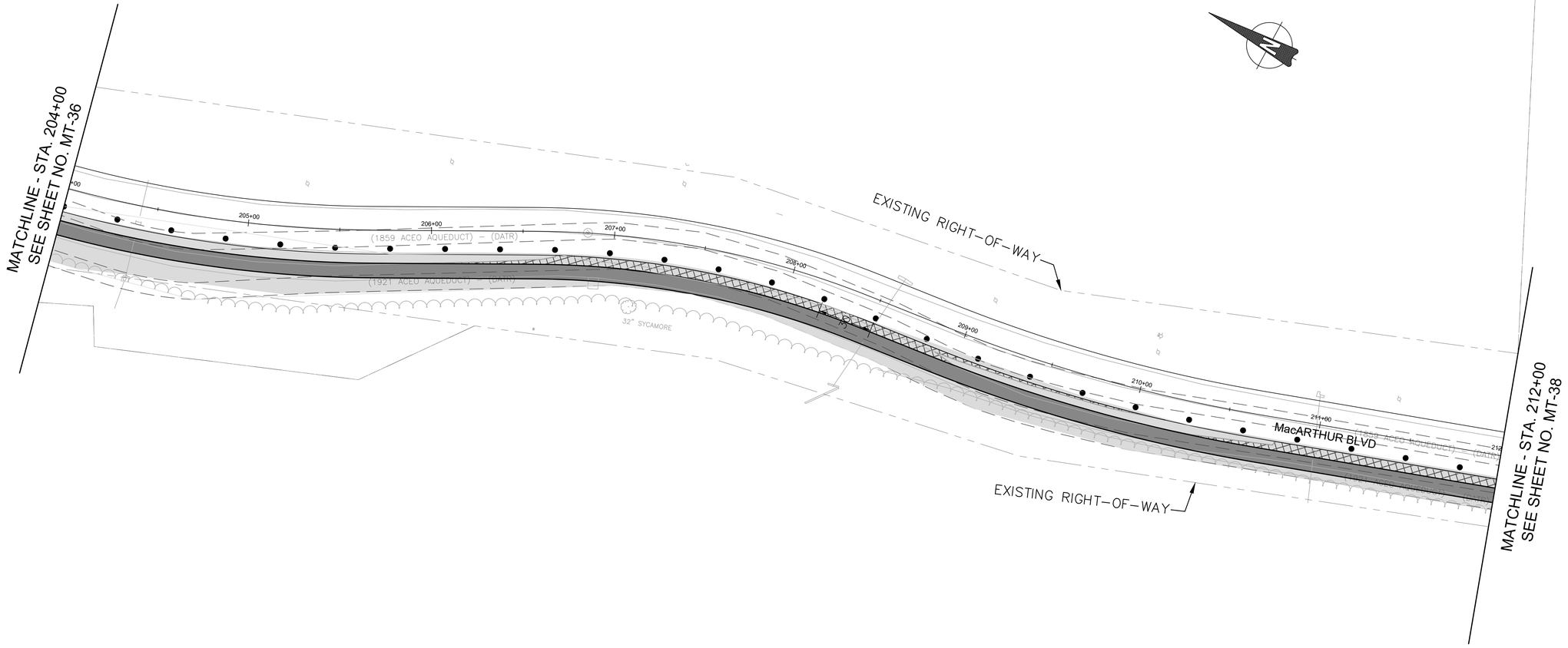
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 100 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-36 PLOTTED: Friday, June 17, 2022 – 6:00pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-37
MOT PLAN – STAGE 3

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

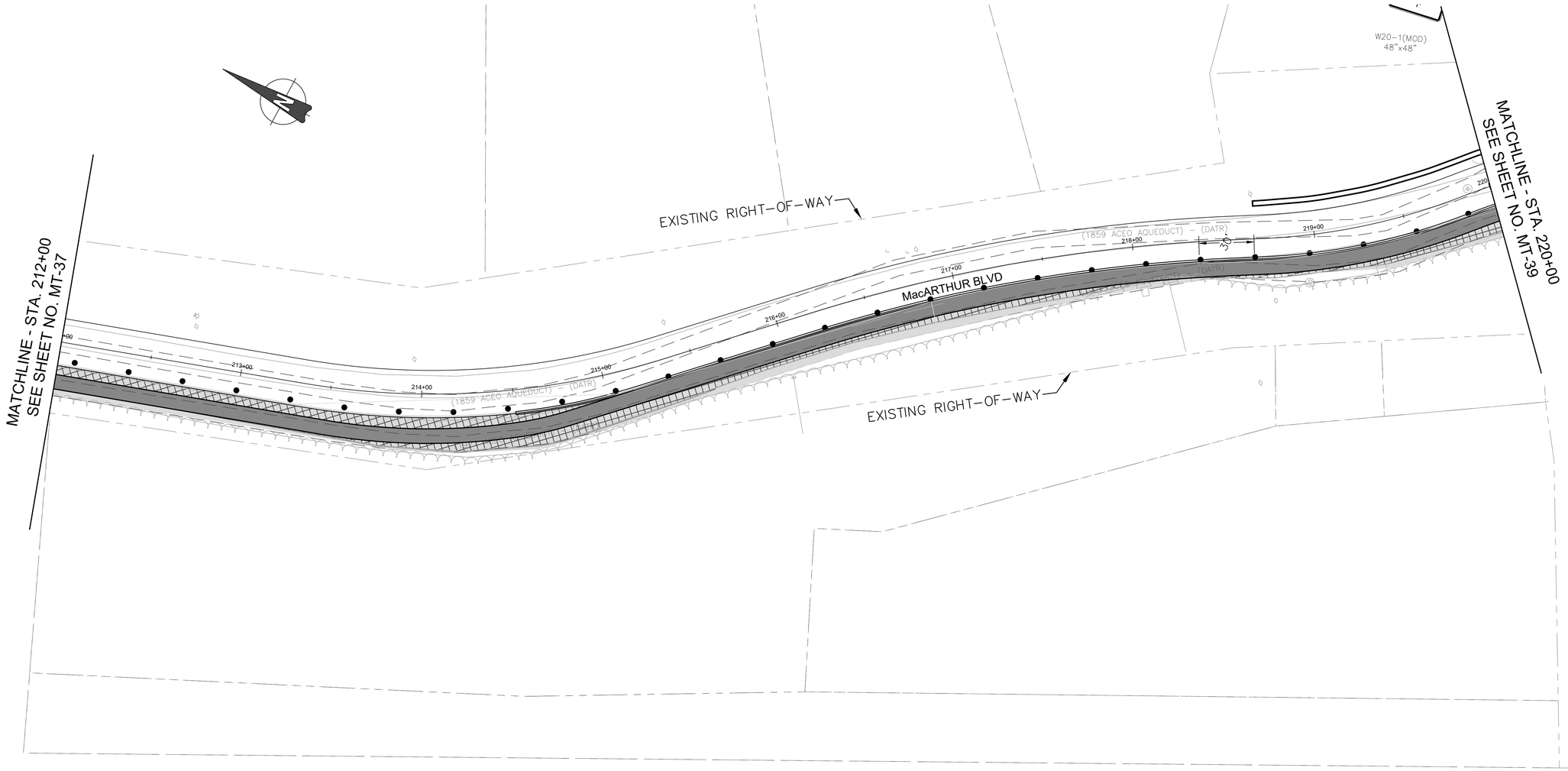
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 101 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-37 PLOTTED: Friday, June 17, 2022 - 6:00pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN (STOP)
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

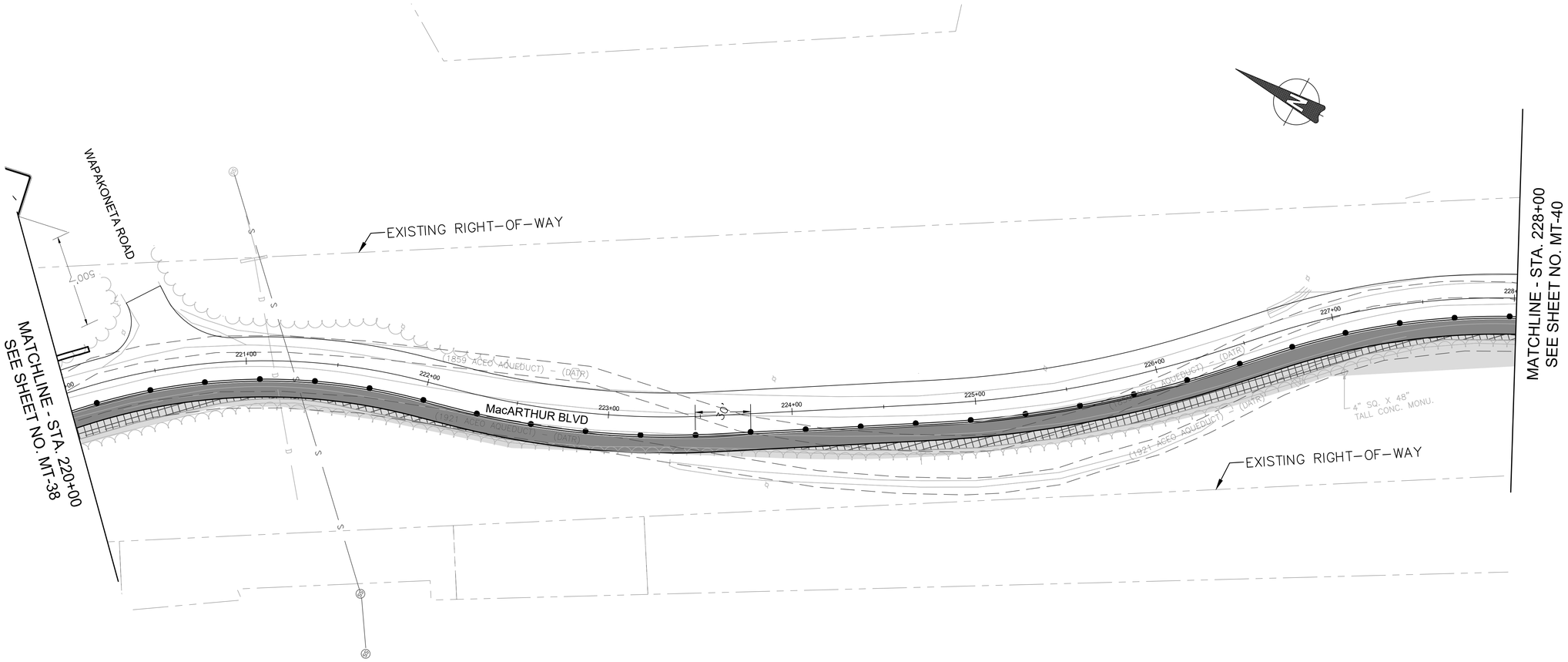
MT-38
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 102 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-38 PLOTTED: Friday, June 17, 2022 – 6:00pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN (STOP)
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-39
MOT PLAN – STAGE 3

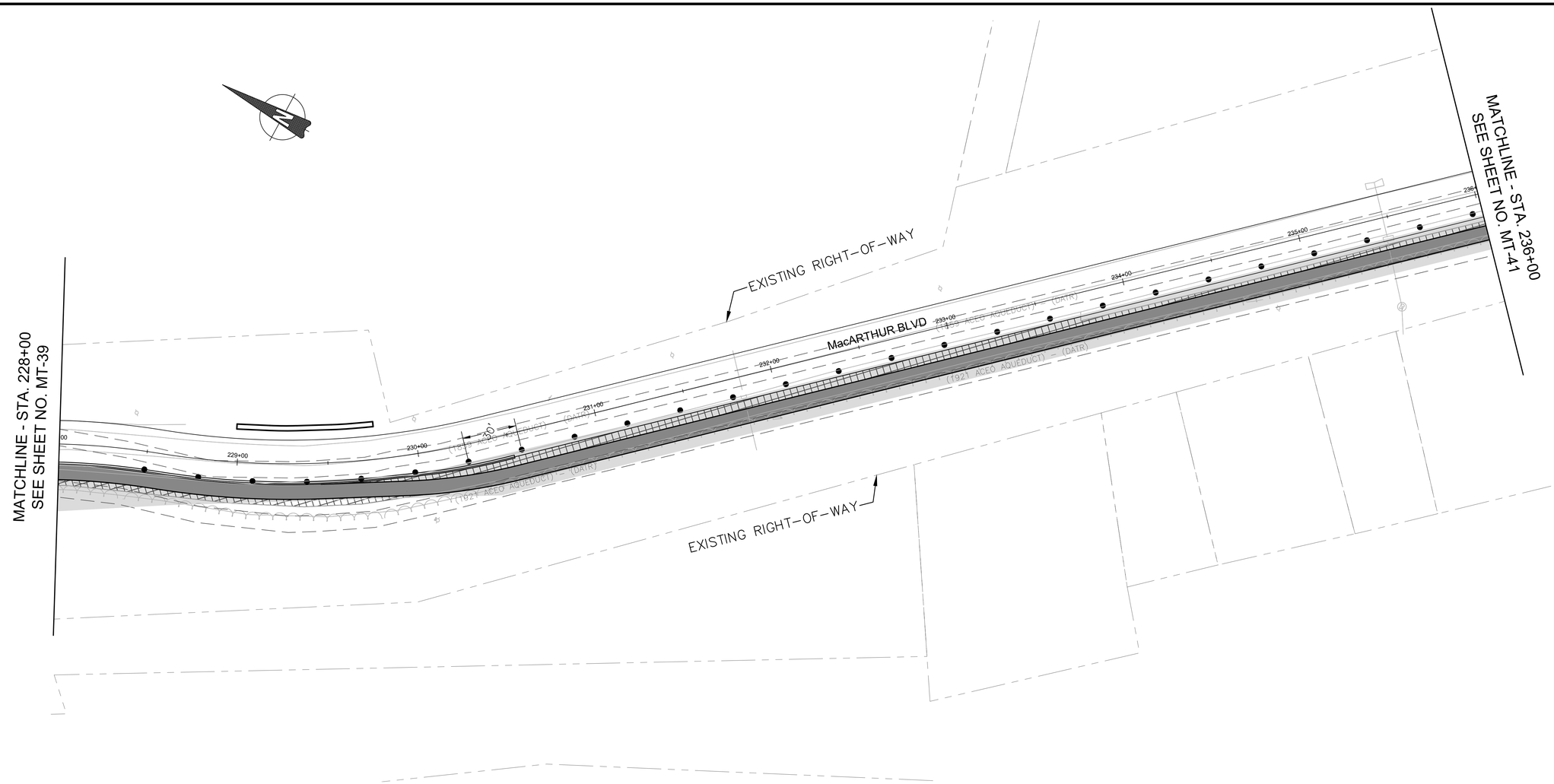
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 103 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-39 PLOTTED: Friday, June 17, 2022 - 6:00pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

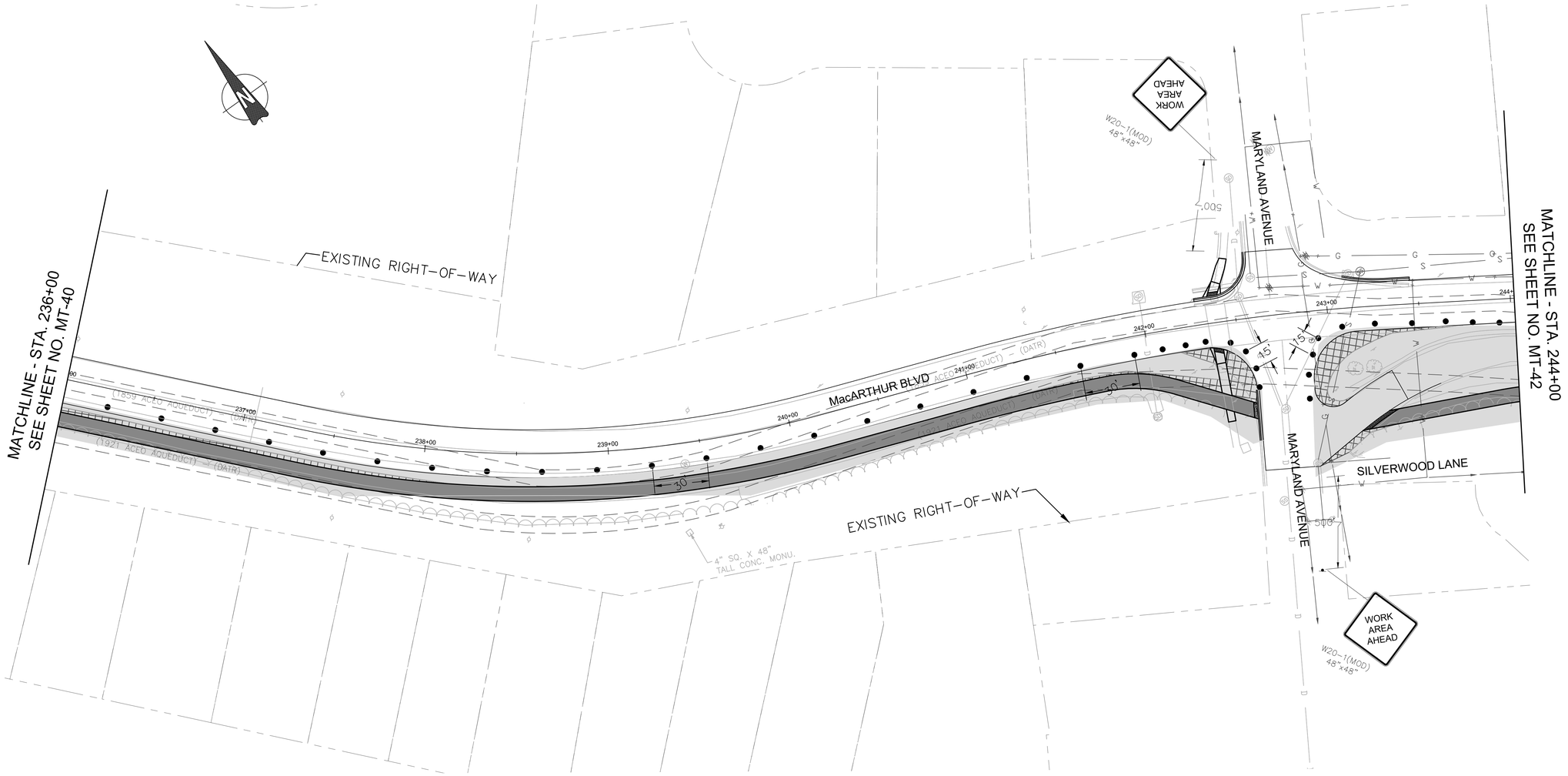
MT-40
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 104 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-40 PLOTTED: Friday, June 17, 2022 – 6:01pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-41
MOT PLAN – STAGE 3

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No.: 502109 SHEET 105 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-41 PLOTTED: Friday, June 17, 2022 - 6:01pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN (STOP)
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-42
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

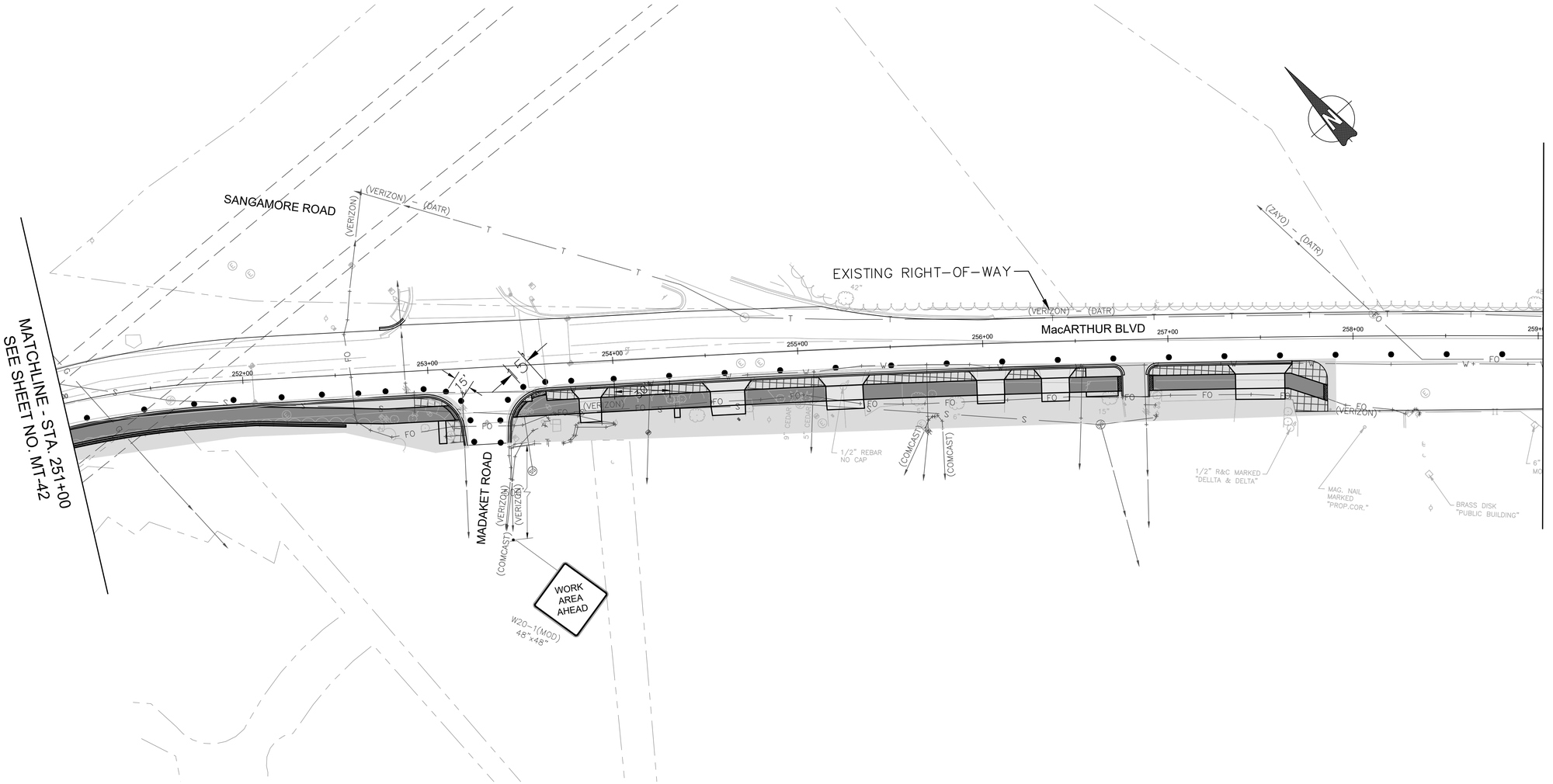
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 106 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-42 PLOTTED: Friday, June 17, 2022 – 6:01pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-43
MOT PLAN – STAGE 3

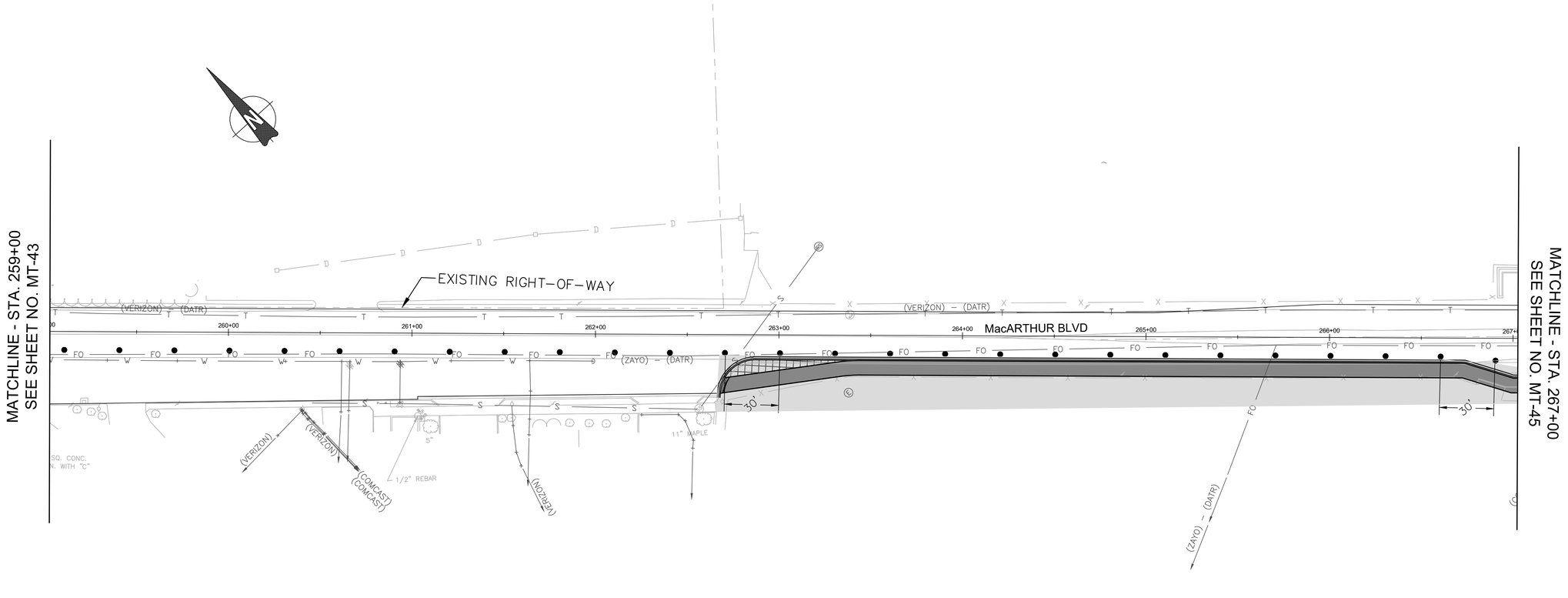
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

SCALE: 1"=30' DATE: JUNE 2022

CIP No. : 502109 SHEET 107 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-43 PLOTTED: Friday, June 17, 2022 – 6:01pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN (STOP)
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-44
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'

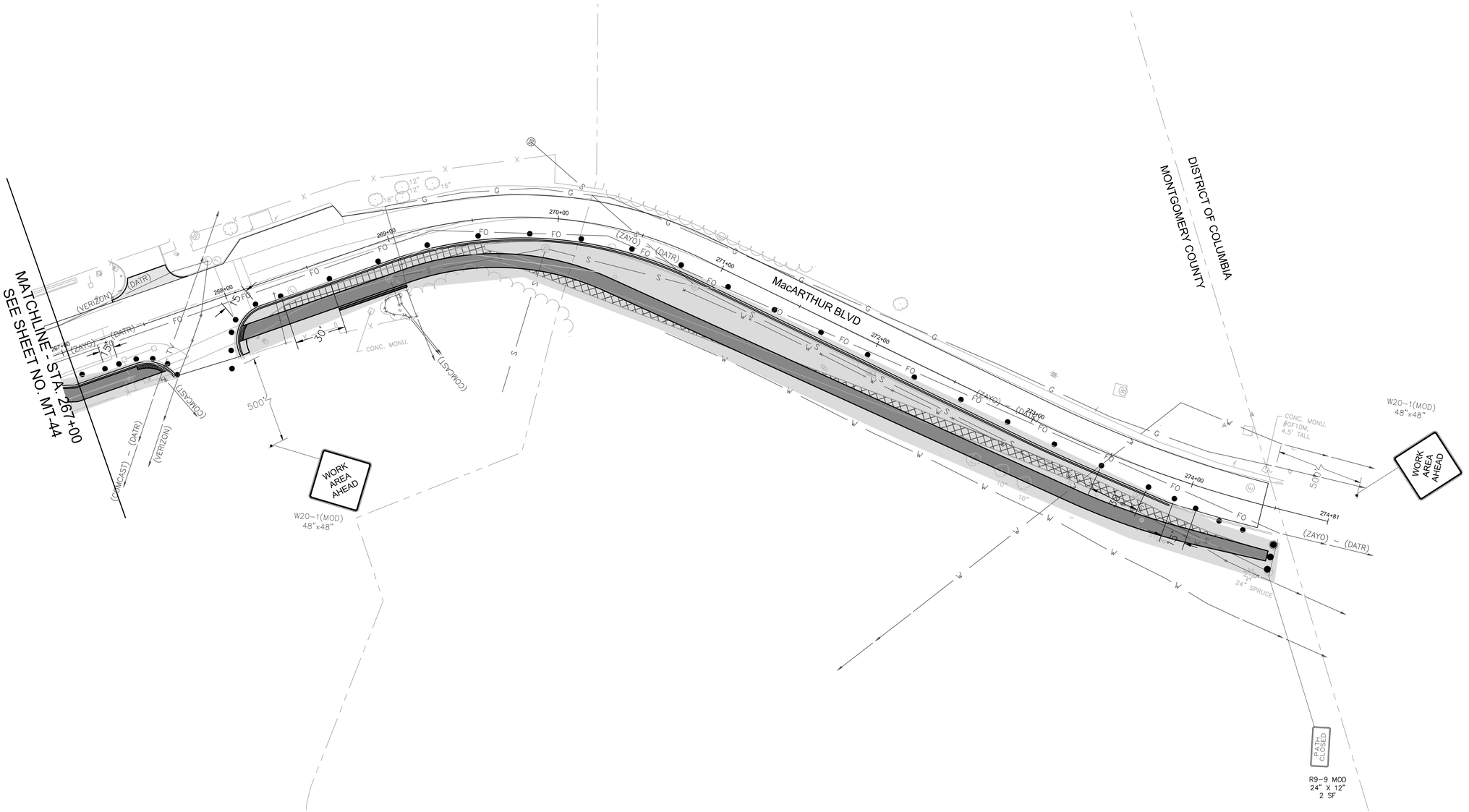
SCALE: 1"=30'

DATE: JUNE 2022

CIP No. : 502109

SHEET 108 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-44 PLOTTED: Friday, June 17, 2022 - 6:01pm USER: AHavener



MOT LEGEND:

- TEMPORARY SIGN
- CHANNELIZING DEVICE
- WORK ZONE THIS STAGE
- TYPE III BARRICADE

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: MDS Checked by: JMC

MT-45
MOT PLAN – STAGE 3
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 30' 60'
SCALE: 1"=30'
DATE: JUNE 2022

CIP No.: 502109
SHEET 109 of 156

FILE NAME: C:\pwworking\jmt\d0320773\pMT-003_MacArthur.dwg LAYOUT NAME: MT-45 PLOTTED: Friday, June 17, 2022 - 6:02pm USER: AHavener

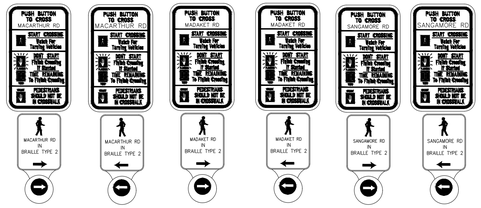
PROPOSED SIGNS AND LED SIGNALS

10-15



16" LED COUNTDOWN PEDESTRIAN SIGNAL

16 17 18 19 20 21



R10-3(1) (MOD) 9" x 15"

EXISTING SIGNS TO BE REMOVED

16r,17r,18r,19r,20r,21r



R10-3(1) (MOD) 9" x 12"

EXISTING SIGNALS TO REMAIN

1,2,3,4, 6,9

12"

5,7,8

12"

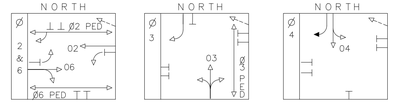
EXISTING SIGNALS TO BE REMOVED

10r,11r,12r,13r,14r,15r



12"

SIGNAL PHASING

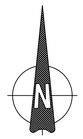


EXISTING SIGNS TO REMAIN

24,25
MacArthur Blvd
D-3(1)
VAR. X 16"

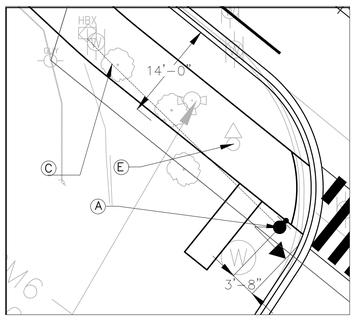
23
Sangamore Rd
Madaket Rd
D-3(1)
VAR. X 32"

22
Madaket Rd
Sangamore Rd
D-3(1)
VAR. X 32"

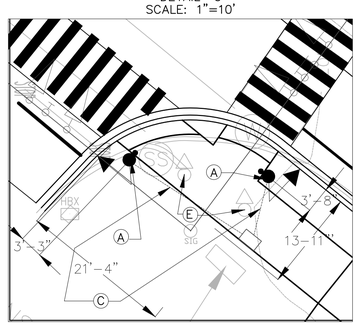


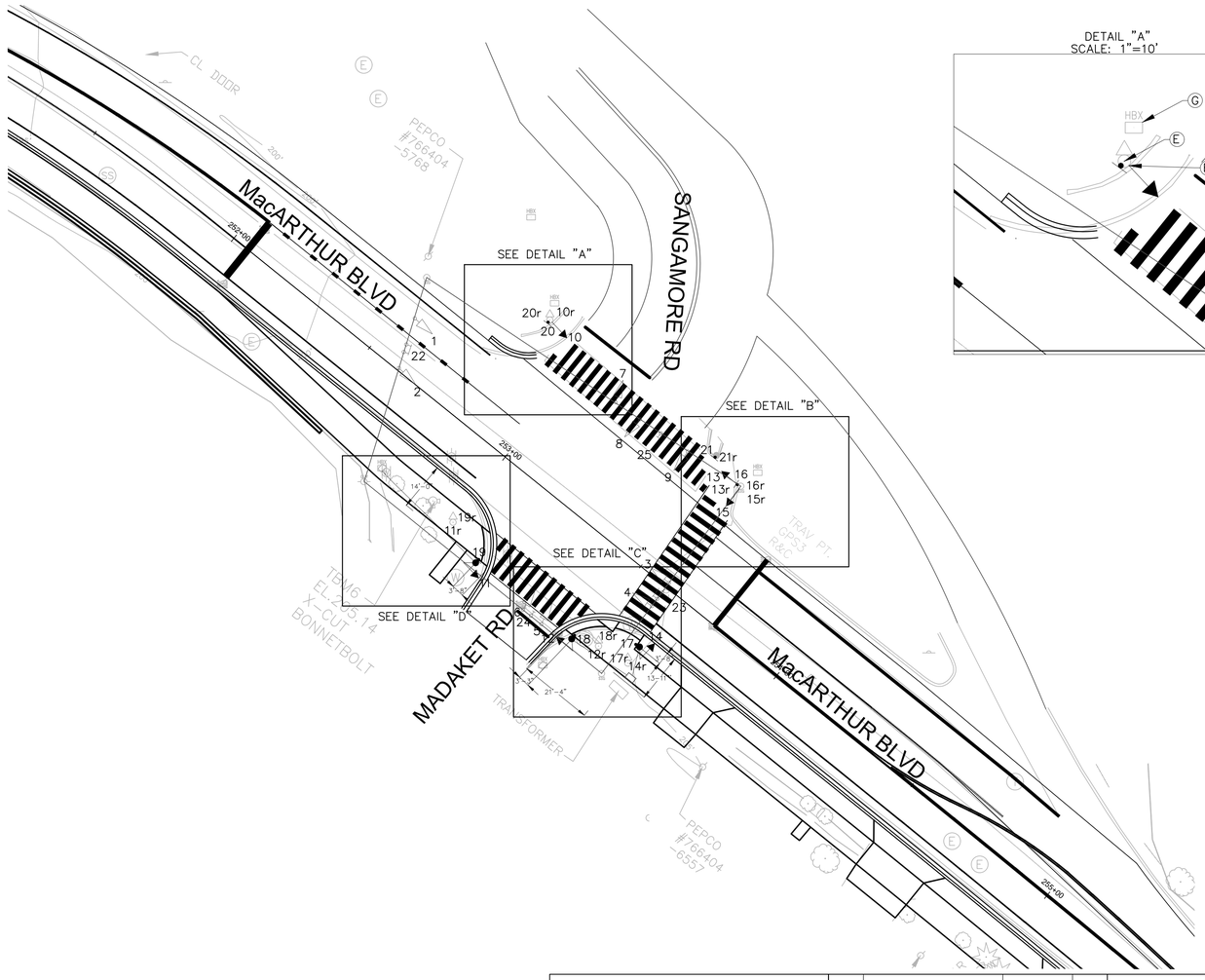
NOTE: MACARTHUR BOULEVARD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

DETAIL "D"
SCALE: 1"=10'



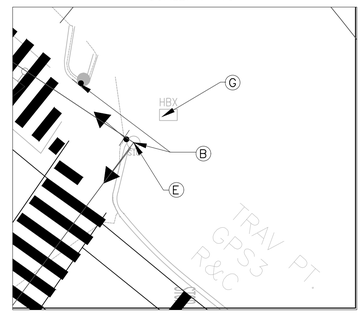
DETAIL "C"
SCALE: 1"=10'





DETAIL "A"
SCALE: 1"=10'

DETAIL "B"
SCALE: 1"=10'



CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH 10 FT. PEDESTAL STEEL POLE WITH MODIFIED BREAKAWAY BASE PER STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS PUSHBUTTON AND SIGN. (NOTE: 1-3 IN. PVC SCHEDULE 80 CONDUIT BEND).

B. INSTALL COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS PUSHBUTTON AND SIGN.

C. INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED.

E. REMOVE EXISTING PUSHBUTTON, COUNT DOWN PEDESTRIAN SIGNAL HEADS, AND SIGN.

F. USE EXISTING TRAFFIC SIGNAL HAND BOX.

G. USE EXISTING CONDUIT.

H. USE EXISTING TRAFFIC CABINET AND CONTROLLER. (NOTE: MONTGOMERY COUNTY FORCES SHALL INSTALL 2 WIRE CONTROL UNIT INTO CABINET.

CONSTRUCTION NOTES

REUSE PED. STRUCTURES AND CONDUIT ON THE NE CORNER OF MACARHTUR BLVD AND SANGAMORE RD AND AT THE SE CORNER OF MACARTHUR BLVD AND SANGAMORE RD.
REPLACE PUSH BUTTONS, SIGNS AND PED. SIGNALS ONLY AT THESE LOCATIONS.

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY
2	Upgrade PED. signal and PB due to trail widening.	5/26/22	CJS
1	Revise due to geometric changes. ADD APS.	2/23/15	RRZ

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: CJS Checked by: MJW

SG-01
SIGNAL PLAN

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 20' 40'
SCALE: 1"=20'

DATE: JUNE 2022

CIP No.: 502109

SHEET 110 of 156

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING STRAIN POLE TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MACARTHUR BLVD AND MADAKET RD/ SANGAMORE RD IN MONTGOMERY COUNTY. AS A PART OF THE LARGER SIDEWALK CONNECTIVITY IMPROVEMENT PROJECT, ALL CURB RAMPS, CROSSWALKS, ACCESSIBLE PEDESTRIAN SIGNALS (APS) WITH AUDIBLE PUSHBUTTONS AND COUNTDOWN PEDESTRIAN SIGNAL (CPS) HEADS WILL BE REPLACED. THIS INCLUDES THE INSTALLATION OF THREE (3) PEDESTRIAN SIGNAL POLES FOR THE INSTALLATION OF APS PUSHBUTTONS AND CPS HEADS. MACARTHUR BLVD IS ASSUMED TO RUN IN AN NORTH–SOUTH DIRECTION.

II. INTERSECTION OPERATION

1. THE INTERSECTION SHALL CONTINUE TO OPERATE IN A NEMA FIVE–PHASE, FULLY–ACTUATED MODE, WITH THE SANGAMORE ROAD APPROACHES RUNNING CONCURRENTLY. THE EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR THE WESTBOUND APPROACH OF SANGAMORE ROAD SHALL REMAIN IN OPERATION. THE PEDESTRIAN PHASES CROSSING MACARTHUR BLVD AND SANGAMORE ROAD SHALL BE COUNTDOWN PEDESTRIAN PHASES WITH PUSHBUTTON ACTUATION.

2. THE EXISTING FULL–TRAFFIC–ACTUATED, EIGHT–PHASE CONTROLLER WITH ALL NECESSARY EQUIPMENT HOUSED IN A NEMA SIZE "6" BASE–MOUNTED CABINET SHALL BE UTILIZED AT THIS INTERSECTION.

3. MONTGOMERY COUNTY SIGNAL SHOP SHALL INSTALL APS CONTROL UNIT INTO CONTROLLER CABINET. THE CONTRACTOR SHALL DELIVER THE CONTROL UNIT AND AUDIBLE PUSHBUTTONS TO THE MONTGOMERY COUNTY SIGNAL SHOP FOR TESTING AND PROGRAMMING AT LEAST TWO WEEKS PRIOR TO THE BEGINNING OF WORK.

III. SPECIAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES, EXCLUDING INTERCONNECT, TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.

2. ALL CONTROLLER CABINET WIRING WILL BE PREFORMED BY MONTGOMERY COUNTY FORCES. CONTACT KAMAL HAMUD AT (240) 777–8761 SEVENTY–TWO (72) HOURS IN ADVANCE OF INTENDED WORK.

3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

APS WILL FUNCTION AS FOLLOWS

FOR SANGAMORE ROAD
A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS SANGAMORE AT MACARTHUR BOULEVARD WAIT."
B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

FOR MACARTHUR BOULEVARD
A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS MACARTHUR BOULEVARD AT SANGAMORE ROAD WAIT."
B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

FOR MADAKET ROAD
A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS MADAKET ROAD AT MACARTHUR BOULEVARD WAIT."
B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

GENERAL NOTES

1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR FOLLOWING MONTGOMERY COUNTY GUIDELINES UTILIZING THE MOST RECENT EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR TRAFFIC CONTROL.
2. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY THE ULTIMATE GRADES PRIOR TO INSTALLATION OF ALL SIGNAL EQUIPMENT.
3. THE CONTRACTOR SHALL INTEGRATE CONCRETE FOUNDATIONS WITH THE PROPOSED SIDEWALK WHERE NECESSARY.
4. THE CONTRACTOR SHALL CONTACT MONTGOMERY COUNTY TMC AT 240–777–2100, 72 HOURS PRIOR TO STARTING ALL WORK.
5. PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA DOES NOT HAVE TO REACH MORE THAN 18 INCHES.
7. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE FOUNDATIONS PRIOR TO INSTALLATION.
8. ALL PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED IN ACCORDANCE WITH MONTGOMERY COUNTY STANDARDS. ALL CROSSWALKS SHALL BE CENTERED ON HANDICAP RAMPS OR MEDIAN CUT THROUGHS.
9. ALL TRAFFIC SIGNAL MODIFICATIONS SHALL BE CONSTRUCTED PRIOR TO SIDEWALK INSTALLATION, INCLUDING CONDUIT. MONTGOMERY COUNTY WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING, TERMINATING AND PROPERLY LABELING ALL SIGNAL CABLES.
10. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MARYLAND MUTCD SECTION 4E.09 AND FIGURE 4E.2; AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS AND NOTIFY THE PROJECT ENGINEER. IF NEEDED A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE CHIEF, MONTGOMERY COUNTY DIVISION OF TRAFFIC ENGINEERING AND OPERATIONS.
11. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60 INCH X 60 INCH LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
12. THE CONTRACTOR SHALL REMOVE ALL UNUSED WIRING.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
805135	100 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
861105	100 LF	2–CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
861107	50 LF	5–CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
802501	50 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
818001	3 EA	10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLING, FOUNDATION AND GROUND ROD
865210	6 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
860285	6 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
873005	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
865300	1 EA	2 WIRE APS CENTRAL CONTROL UNIT

SEQUENCE OF OPERATION SHEET

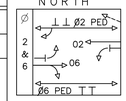
MACARTHUR BLVD IS ASSUMED TO RUN IN A NORTH–SOUTH DIRECTION

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

INTERSECTION: MACARTHUR BLVD AND MADAKET RD / SANGAMORE RD

NO. _____ PHASING

	SIGNAL HEAD INDICATIONS				
SIGNAL NO.	1,2,3,4, 6,8	5,7,9			10–15
TOTAL:	6	3			6
LEGEND: OPTICALLY LIMITED; R RED; Y YELLOW; G GREEN; ◄ ARROW; F FLASHING	R Y G 12"	R Y ◄G 12"	R ◄Y ◄G 12"	Y G 12"	 16"

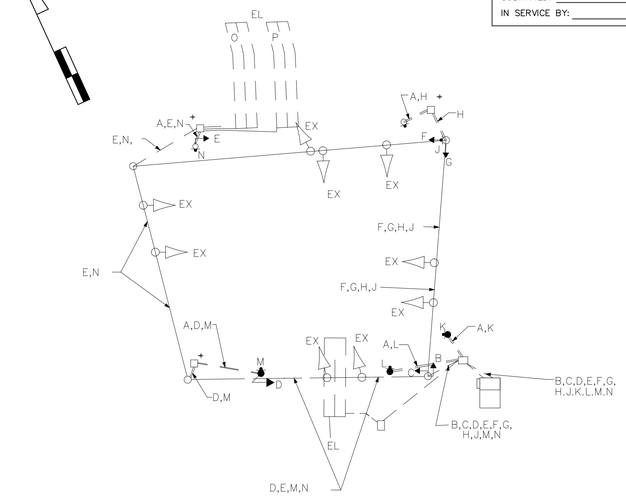


SIGNAL NO.	SEQUENCE OF OPERATION INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	FLASH
1	G	G	Y	R	R	R	R	R	R	R	R	R	FL/Y
2	G	G	Y	R	R	R	R	R	R	R	R	R	FL/Y
3	G	G	Y	R	R	R	R	R	R	R	R	R	FL/Y
4	G	G	Y	R	R	R	R	R	R	R	R	R	FL/Y
5	R	R	R	R	◄G	◄G	◄G	Y	R	R	G	R	FL/R
6	R	R	R	R	G	G	G	Y	R	R	R	R	FL/R
7	R	R	R	R	◄G	◄G	◄G	Y	R	R	G	R	FL/R
8	R	R	R	R	R	R	R	R	R	◄G	Y	R	FL/R
9	R	R	R	R	R	R	R	R	R	G	Y	R	FL/R
10	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
11	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
12	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
13	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
14	DW	DW	DW	DW	DW	DW	DW	DW	DW	WK	FL/DW	DW	DARK
15	DW	DW	DW	DW	DW	DW	DW	DW	DW	WK	FL/DW	DW	DARK
PHASE	2 & 6			ALL RED	3				ALL RED	4		ALL RED	

NOTES:

SUBMITTED:	CHECKED:	APPROVED:
IN SERVICE BY:	DATE:	TIME:

WIRING DIAGRAM



WIRING KEY

A – STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

B C D E F G – 5–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

H J K L M N – 2–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

Q – EXISTING UNDERGROUND ELECTRICAL SERVICE TO BE MAINTAINED BY PEPCO

EL EXISTING LOOP WIRE

LW – LOOP WIRE (NO. 14 A.W.G.)

⏚ – GROUND ROD

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY
2	Upgrade PED. signal and PB due to trail widening.	5/27/22	CJS
1	Revise due to geometric changes. ADD APS.	2/23/15	RRZ

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: MDS Drawn by: CJS Checked by: MJW

SG–02
SIGNAL PLAN

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 20' 40'
SCALE: 1"=20'

DATE: JUNE 2022

CIP No. : 502109 SHEET 111 of 156

GENERAL NOTES:

SPECIFICATIONS:	MDOT SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JULY, 2021.
DESIGN:	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION DATED 2020.
	STEEL PILE DESIGN: LOAD AND RESISTANCE DESIGN METHOD.
	CONCRETE DESIGN: LOAD AND RESISTANCE DESIGN METHOD.
CONCRETE:	CONCRETE FOR WALL FACING AND COPING SHALL BE MIX NO. 3 (3,500 PSI), FOR CAISSONS SHALL BE MIX. NO. 4 (3,500 PSI), AND FOR PRECAST PANELS SHALL BE MIX NO. 6 (4,500 PSI).
REINFORCING STEEL:	REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 60, WITH A YIELD STRENGTH FOR DESIGN OF fy = 60000 psi.
	ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS.
	REINFORCING STEEL SHALL BE EPOXY COATED WHEN NOTED WITH AN EP IN THE PLANS.
	MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE 2" EXCEPT FOR THE FOLLOWING LOCATIONS.
	FOR TIES AND STIRRUPS, STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (–) NORMAL ACI BENDING TOLERANCES.
CHAMFER:	ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" x 3/4" MILLED CHAMFER STRIPS.
STRUCTURAL STEEL:	STRUCTURAL STEEL FOR SOLDIER PILES SHALL CONFORM TO ASTM A 572 GRADE 50. SOLDIER PILES SHALL BE GALVANIZED.
KEYS:	ALL KEYS ARE NOMINAL SIZE.
ARCHITECTURAL TREATMENT:	THE ARCHITECTURAL TREATMENT ON THE CAST–IN–PLACE CONCRETE WALL SHALL BE MINNESOTA ASHLAR HAVING A THICKNESS NOT TO EXCEED 2".



STRUCTURE LOCATION PLAN
SCALE: 1" = 200'–0"

DRAFT
NOT FOR CONSTRUCTION

ALA
ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers Bethesda, Maryland

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: JS Drawn by: JE Checked by: KA

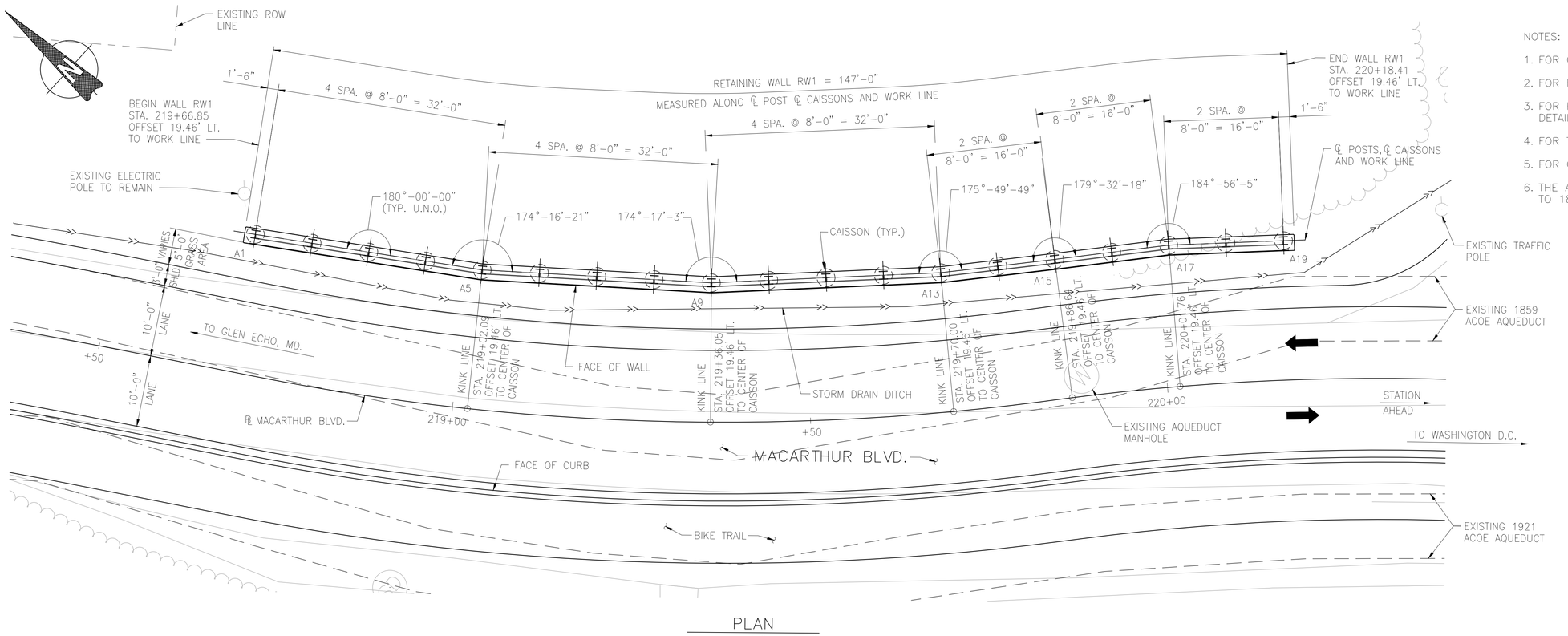
ST–01
GENERAL NOTES

MACARTHUR BOULEVARD
BIKEWAY PHASE III

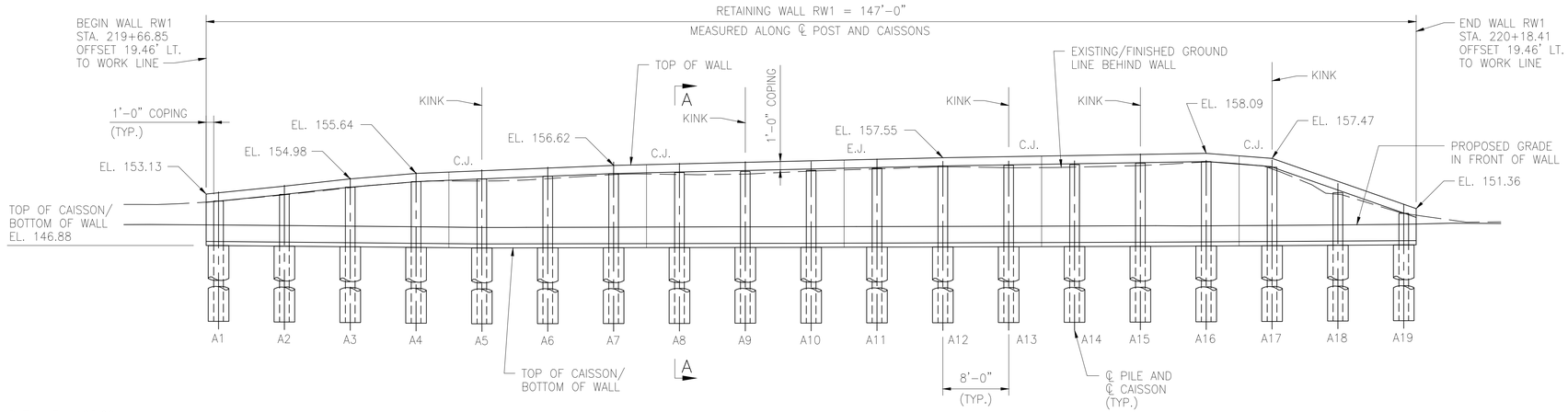
DATE: JUNE 2022

CIP No. : 502109 SHEET 112 of 156

FILE NAME: C:\pwworking\jmt\d0322045\01_General Notes.dwg LAYOUT NAME: 24x36 PLOTTED: Friday, June 17, 2022 – 12:46pm USER: JElliott



PLAN
SCALE: 1/8" = 1'-0"



ELEVATION
SCALE: 1/8" = 1'-0"

NOTES:

1. FOR GENERAL NOTES, SEE DWG. NO. ST-01.
2. FOR RETAINING WALL RW1 TYPICAL SECTION, SEE DWG. NO. ST-06.
3. FOR RETAINING WALL CONTRACTION JOINT AND EXPANSION JOINT DETAILS, SEE MDSHA DETAIL NO. RW-401 ON DWG. NO. ST- .
4. FOR TEST BORING LOGS, SEE DWG. NO. ST- .
5. FOR CAISSON SCHEDULE, SEE DWG. NO. ST- .
6. THE APPROXIMATE HORIZONTAL DISTANCE FROM FRONT FACE OF WALL TO 1859 ACOE AQUEDUCT VARIES FROM 3'-8" TO 14'-5".

DRAFT
NOT FOR CONSTRUCTION

ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers Bethesda, Maryland

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: JS Drawn by: JE Checked by: KA

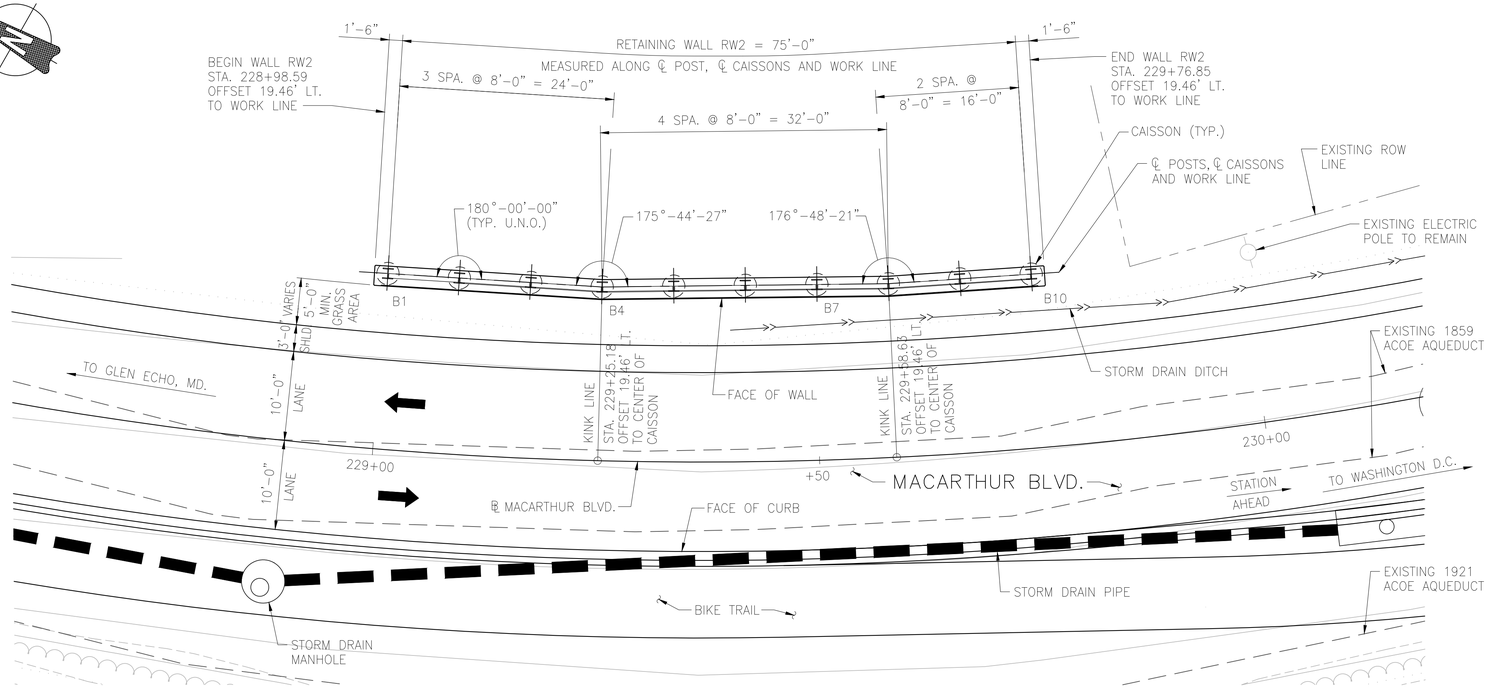
ST-02
RETAINING WALL 1
PLAN & ELEVATION

MACARTHUR BOULEVARD BIKEWAY PHASE III

DATE: JUNE 2022

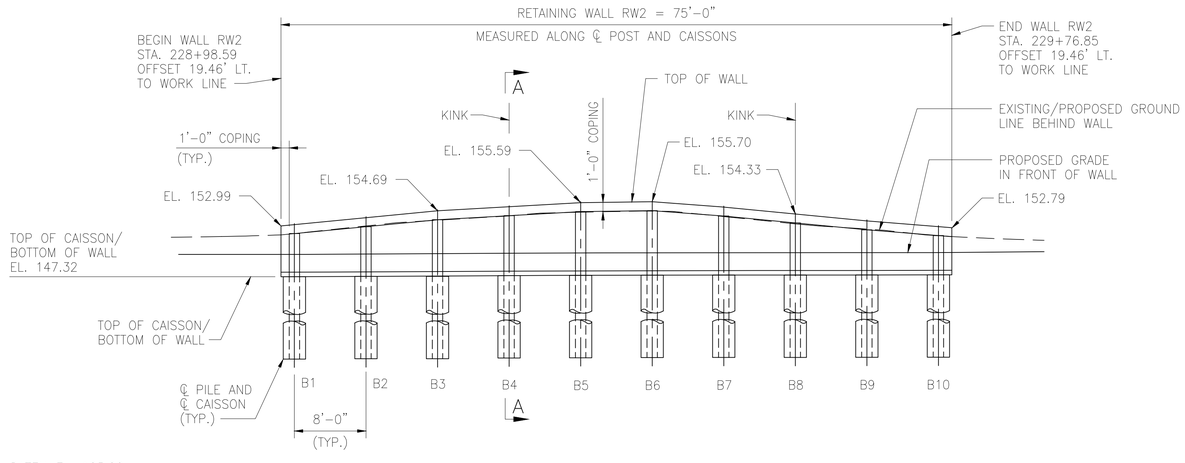
CIP No. : 502109 SHEET 113 of 156

FILE NAME: C:\pwworking\jmt\d0322045\02_Retaining Wall 1 - Plan and Elevation.dwg LAYOUT NAME: 24x36 PLOTTED: Friday, June 17, 2022 - 1:19pm USER: JElliott



PLAN

SCALE: 1/8" = 1'-0"



ELEVATION

SCALE: 1/8" = 1'-0"

NOTES:

1. FOR GENERAL NOTES, SEE DWG. NO. ST-01.
2. FOR RETAINING WALL RW2 TYPICAL SECTION, SEE DWG. NO. ST-06.
3. FOR RETAINING WALL CONTRACTION JOINT AND EXPANSION JOINT DETAILS, SEE MDSHA DETAIL NO. RW-401 ON DWG. NO. ST- .
4. FOR TEST BORING LOGS, SEE DWG. NO. ST- .
5. FOR CAISSON SCHEDULE, SEE DWG. NO. ST- .
6. THE APPROXIMATE HORIZONTAL DISTANCE FROM FRONT FACE OF WALL TO 1859 ACOE AQUEDUCT VARIES FROM 15'-5" TO 17'-7".

* OFFSET DIMENSIONS ARE MEASURED TO WORK LINE.

DRAFT
NOT FOR CONSTRUCTION

ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers Bethesda, Maryland

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

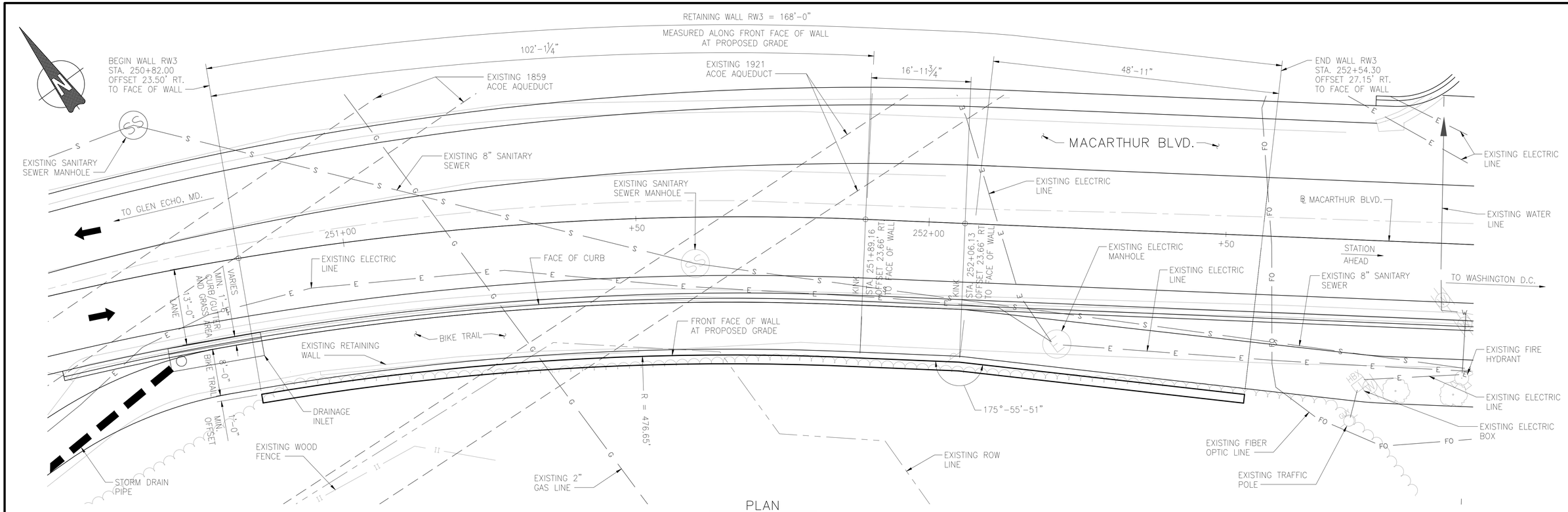
Designed by: JS Drawn by: JE Checked by: KA

ST-03
RETAINING WALL 2
PLAN & ELEVATION
MACARTHUR BOULEVARD BIKEWAY PHASE III

DATE: JUNE 2022

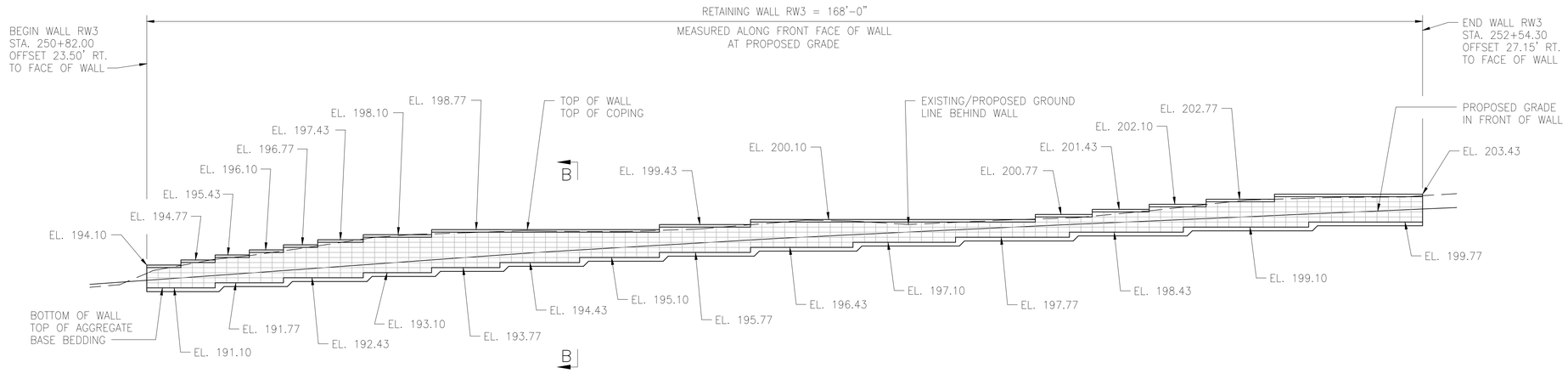
CIP No.: 502109 SHEET 114 of 156

FILE NAME: C:\pwworking\jmt\d0322045\03_Retaining Wall 2 – Plan and Elevation.dwg LAYOUT NAME: 24x36 PLOTTED: Friday, June 17, 2022 – 1:25pm USER: JElliott



PLAN

SCALE: 1/8" = 1'-0"



DATUM EL. 175.00

ELEVATION

SCALE: 1/8" = 1'-0"

* OFFSET DIMENSIONS ARE MEASURED TO FRONT FACE OF WALL.

NOTES:

1. FOR GENERAL NOTES, SEE DWG. NO. ST-01.
2. FOR RETAINING WALL RW3 TYPICAL SECTION, SEE DWG. NO. ST-06.
3. FOR TEST BORING LOGS, SEE DWG. NO. ST- .

DRAFT
NOT FOR CONSTRUCTION

ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers Bethesda, Maryland

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

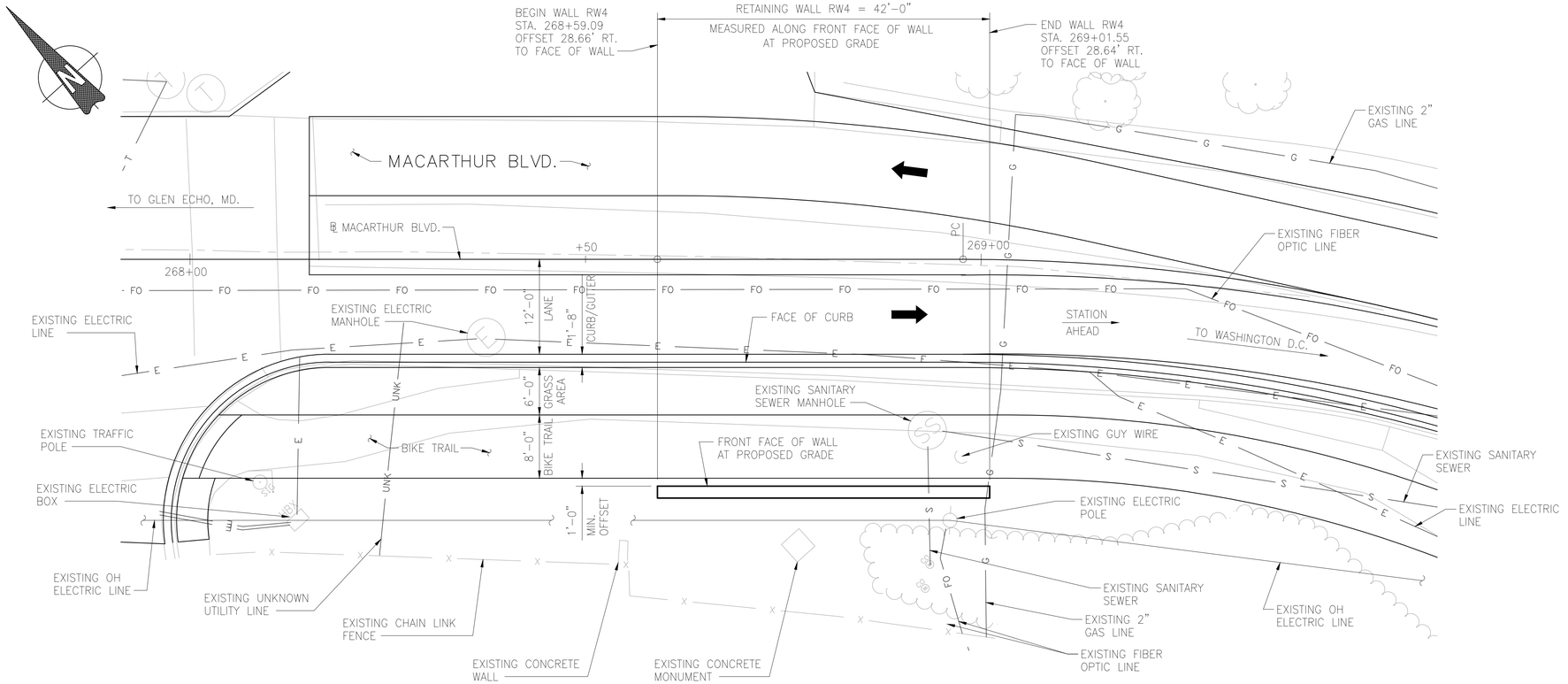
Designed by: JS Drawn by: JE Checked by: KA

ST-04
RETAINING WALL 3
PLAN & ELEVATION
MACARTHUR BOULEVARD BIKEWAY PHASE III

DATE: JUNE 2022

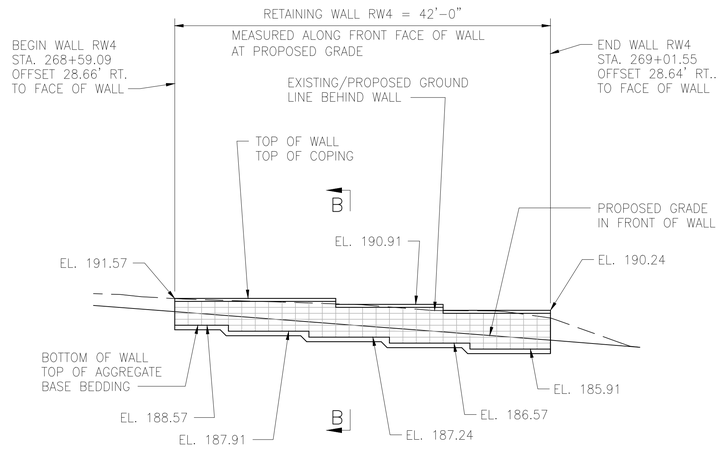
CIP No. : 502109 SHEET 115 of 156

FILE NAME: C:\pwworking\jmt\d0322045\04_Retaining Wall 3 – Plan and Elevation.dwg LAYOUT NAME: 24x36 PLOTTED: Friday, June 17, 2022 – 1:43pm USER: JElliott



PLAN

SCALE: 1/8" = 1'-0"



DATUM EL. 170.00

ELEVATION

SCALE: 1/8" = 1'-0"

NOTES:

1. FOR GENERAL NOTES, SEE DWG. NO. ST-01.
2. FOR RETAINING WALL RW4 TYPICAL SECTION, SEE DWG. NO. ST-06.
3. FOR TEST BORING LOGS, SEE DWG. NO. ST- .

* OFFSET DIMENSIONS ARE MEASURED TO FRONT FACE OF WALL.

DRAFT
NOT FOR CONSTRUCTION

ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers Bethesda, Maryland

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: JS Drawn by: JE Checked by: KA

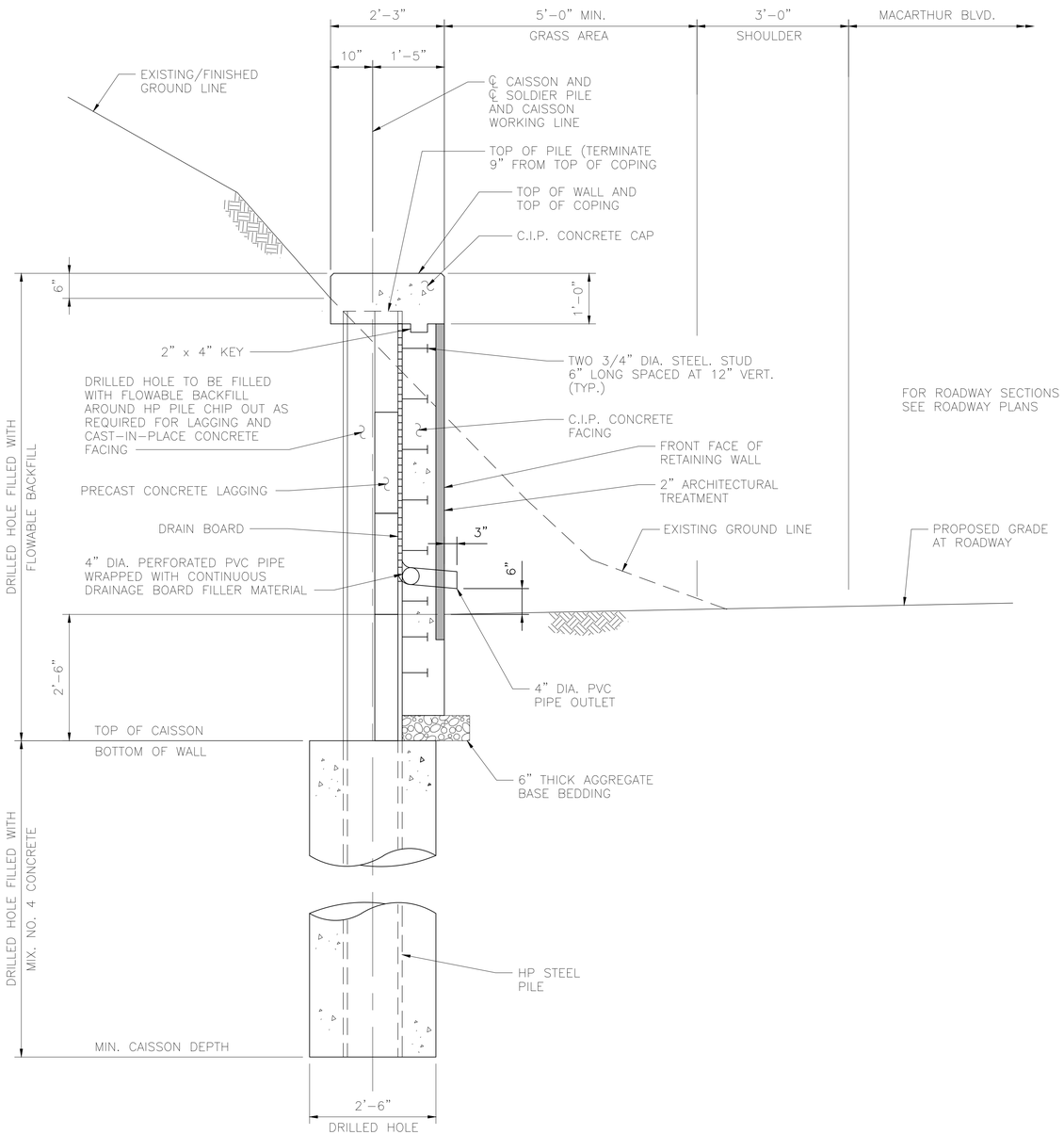
ST-05
RETAINING WALL 4
PLAN & ELEVATION
MACARTHUR BOULEVARD
BIKEWAY PHASE III

DATE: JUNE 2022

CIP No. : 502109

SHEET 116 of 156

FILE NAME: C:\pwworking\jmt\d0322045\05_Retaining Wall 4 – Plan and Elevation.dwg LAYOUT NAME: 24x36 PLOTTED: Thursday, June 16, 2022 – 7:35pm USER: JElliott

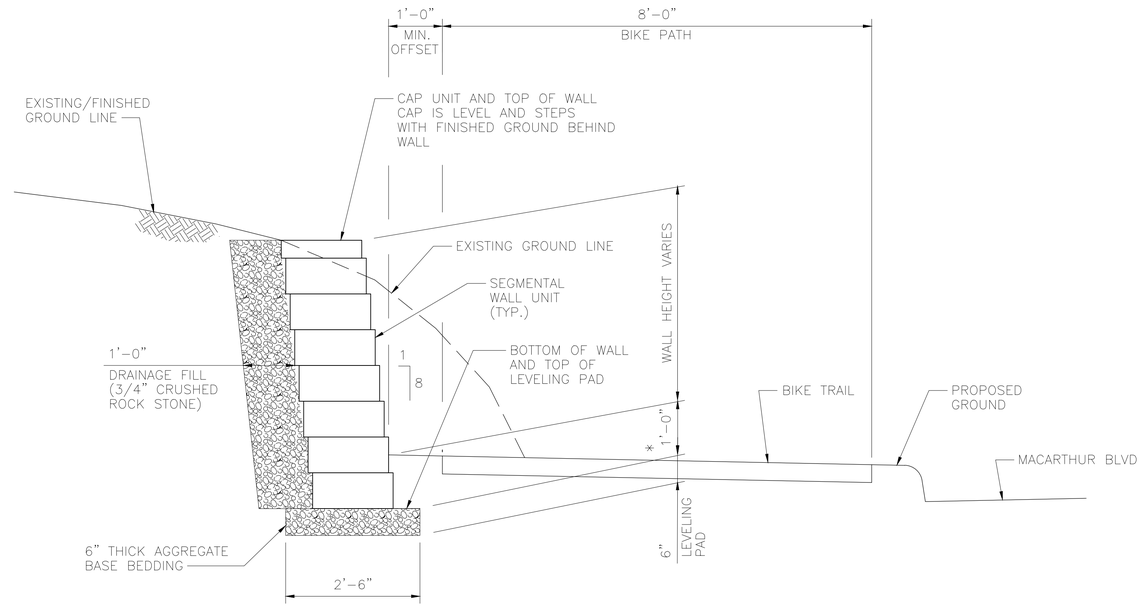


SECTION A-A

SCALE: 3/4" = 1'-0"

NOTES:

1. BACKFILL AROUND STEEL PILE ABOVE TOP OF CONCRETE CAISSON SHALL BE FLOWABLE BACKFILL IN ACCORDANCE WITH SPECIFICATION SECTION 314.
2. FOR CONSTRUCTION SEQUENCE AND REQUIREMENTS, SEE SPECIAL PROVISIONS.
3. COST FOR FLOWABLE FILL, 6" AGGREGATE BASE, DRAIN BOARD AND PIPE SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM PAYMENT FOR "RETAINING WALLS".
4. FOR CAISSON SCHEDULES, SEE DWG. NOS. ST- AND ST- .



SECTION B-B

SCALE: 3/4" = 1'-0"

NOTES:

1. THE MAXIMUM ALLOWABLE BEARING PRESSURE UNDER THE SEGMENTAL WALL SHALL BE 1.0 TONS PER SQUARE FOOT.
2. * THE WALL EMBEDMENT DEPTH SHALL BE INCREASED AS REQUIRED FOR WALL GLOBAL STABILITY.
3. REINFORCED SOIL SHALL BE #57 STONE UNLESS OTHERWISE SPECIFIED BY THE WALL SUPPLIER.
4. FOR ADDITIONAL REQUIREMENTS FOR THE SEGMENTAL WALL, SEE SPECIAL PROVISIONS "SEGMENTAL RETAINING WALL UNIT SYSTEM".

DRAFT
NOT FOR CONSTRUCTION

ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers — Bethesda, Maryland

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: JS Drawn by: JE Checked by: KA

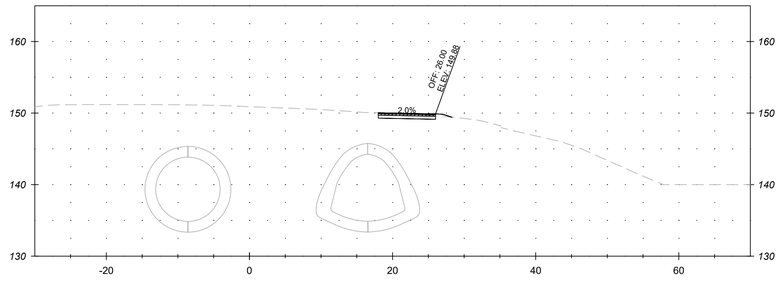
ST-06
TYPICAL SECTIONS
MACARTHUR BOULEVARD BIKEWAY PHASE III

DATE: JUNE 2022

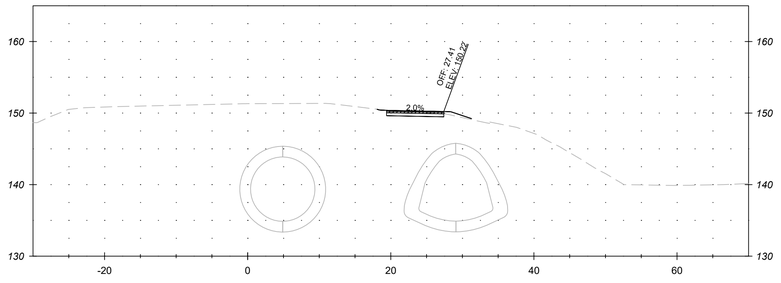
CIP No.: 502109

SHEET 117 of 156

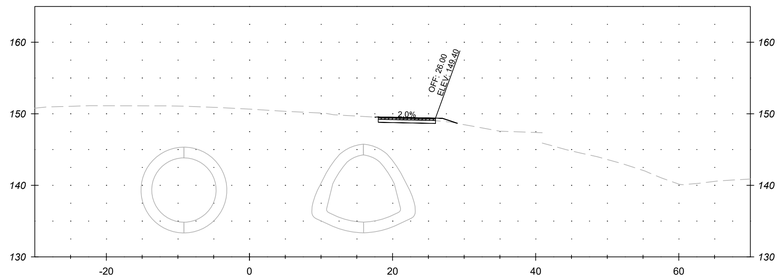
FILE NAME: C:\pwworking\jmt\d0322045\06_Typical Sections.dwg LAYOUT NAME: 24x36 PLOTTED: Thursday, June 16, 2022 - 7:36pm USER: JElliott



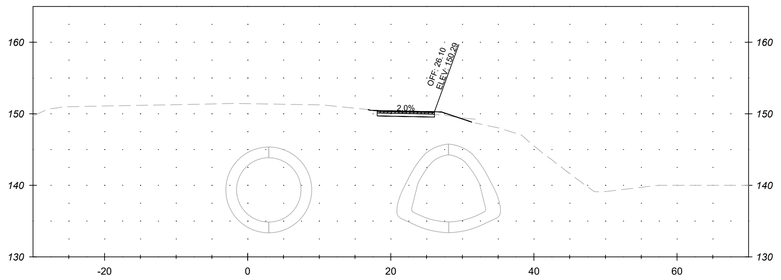
STA. 159+50



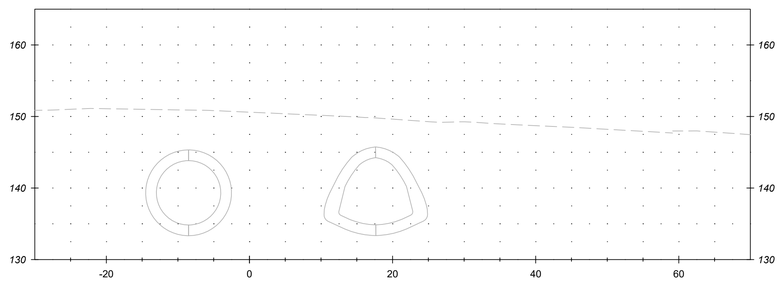
STA. 161+00



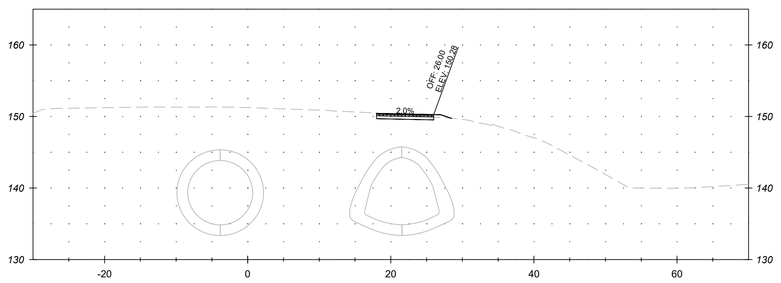
STA. 159+00



STA. 160+50



STA. 158+50



STA. 160+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-01
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

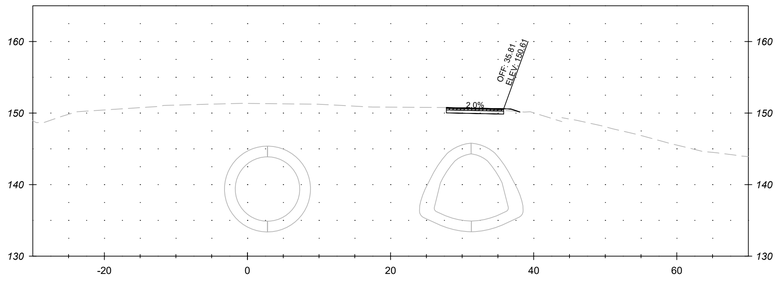
SCALE: 1"=10'

DATE: JUNE 2022

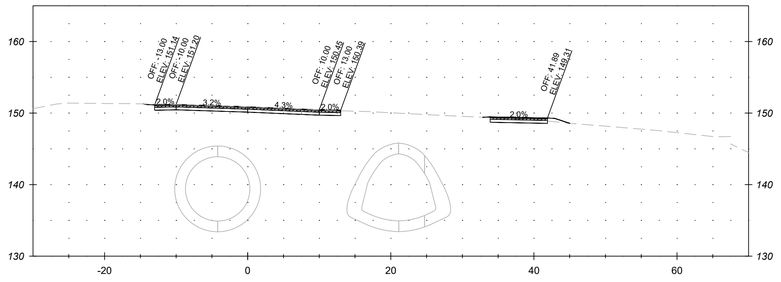
CIP No.: 502109

SHEET 118 of 156

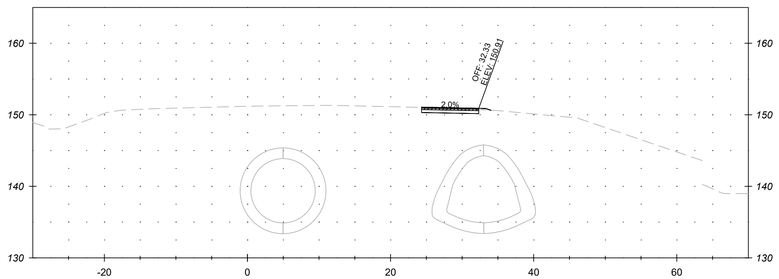
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-01 PLOTTED: Friday, June 17, 2022 - 4:26pm USER: AHavener



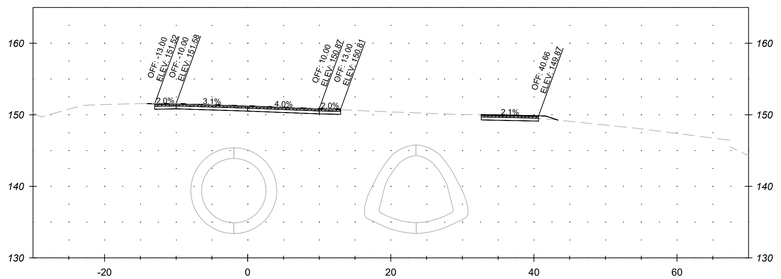
STA. 162+50



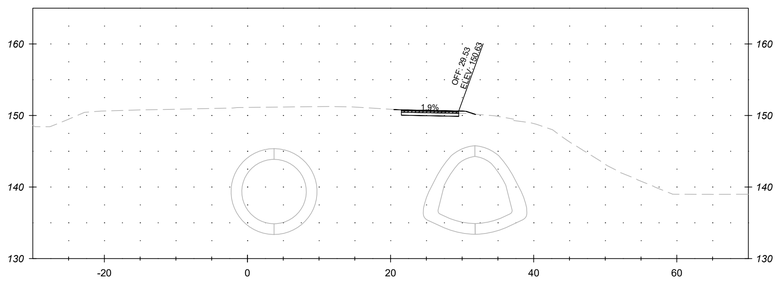
STA. 164+00



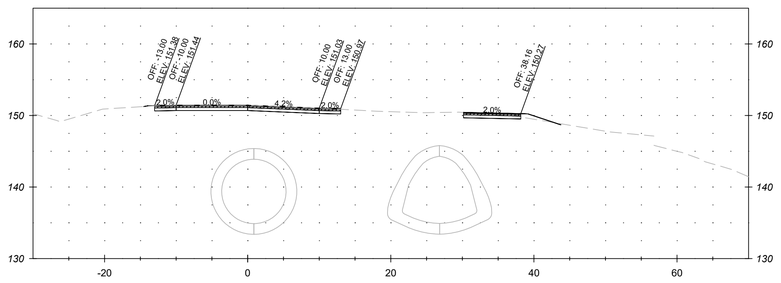
STA. 162+00



STA. 163+50



STA. 161+50



STA. 163+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

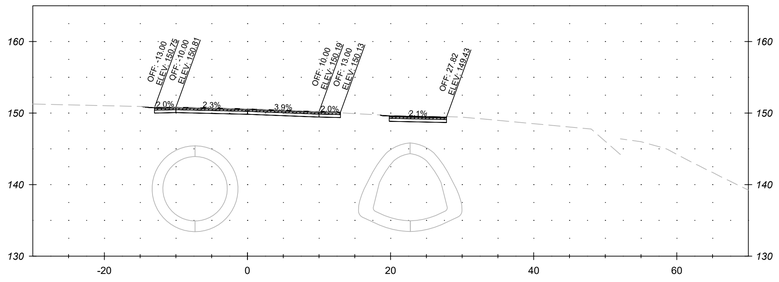
XS-02
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

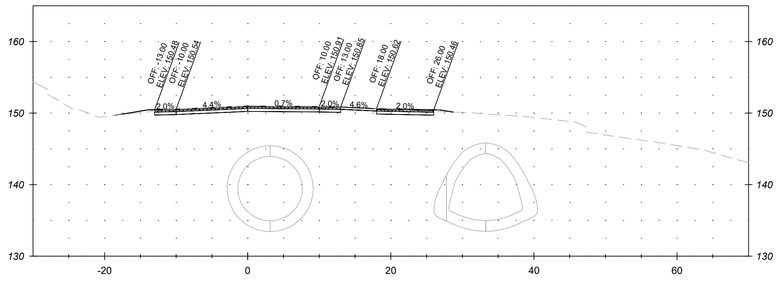
SCALE: 1"=10' DATE: JUNE 2022

CIP No. : 502109 SHEET 119 of 156

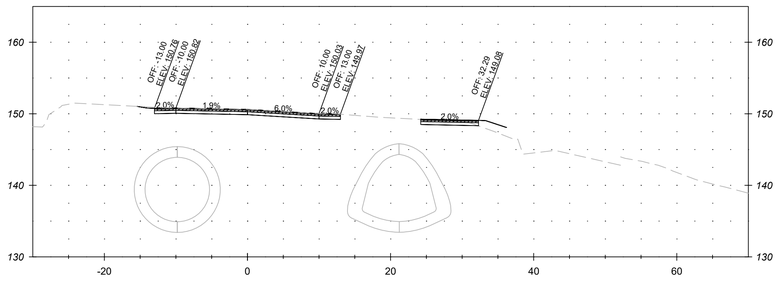
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-02 PLOTTED: Friday, June 17, 2022 - 4:27pm USER: AHavener



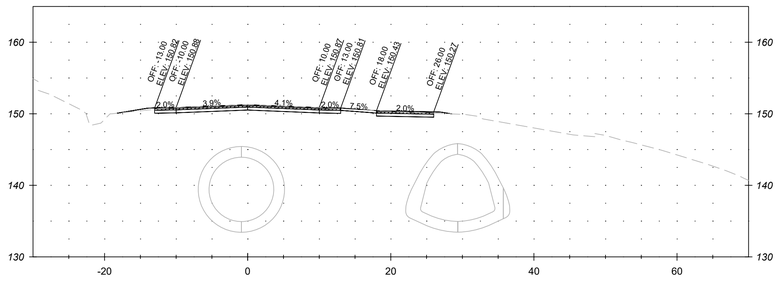
STA. 165+50



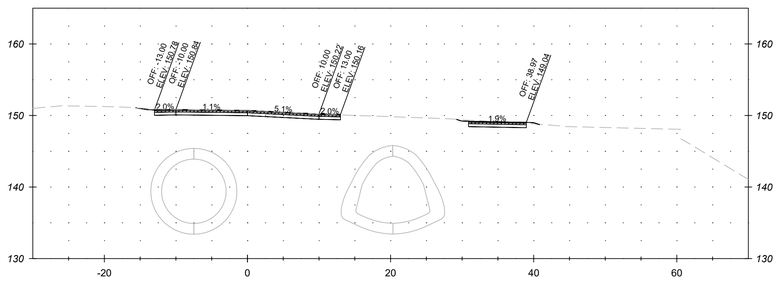
STA. 167+00



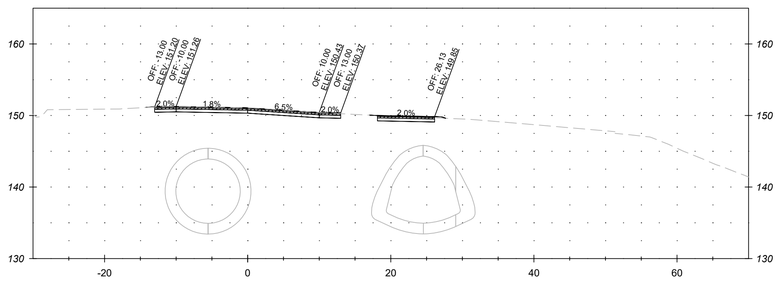
STA. 165+00



STA. 166+50



STA. 164+50



STA. 166+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-03
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

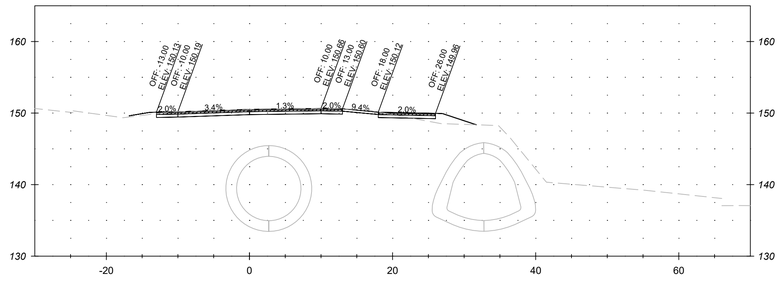
SCALE: 1"=10'

DATE: JUNE 2022

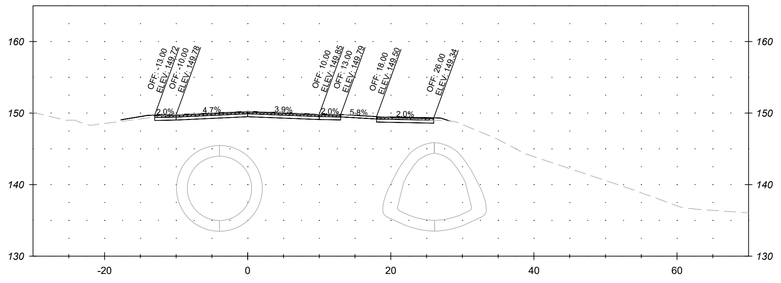
CIP No. : 502109

SHEET 120 of 156

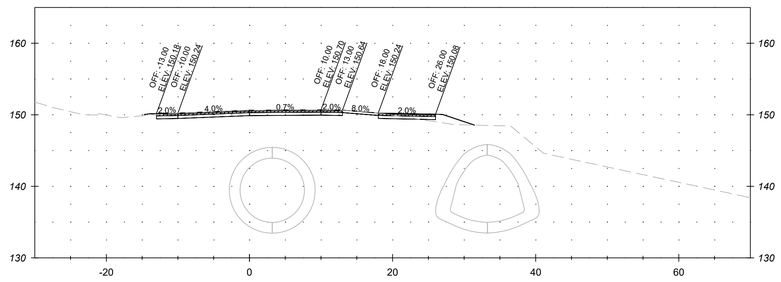
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-03 PLOTTED: Friday, June 17, 2022 - 4:28pm USER: AHavener



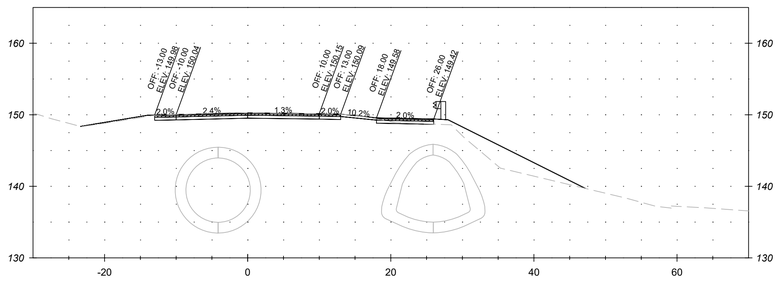
STA. 168+50



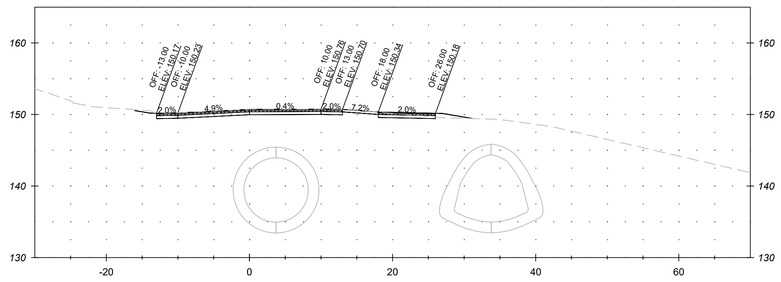
STA. 170+00



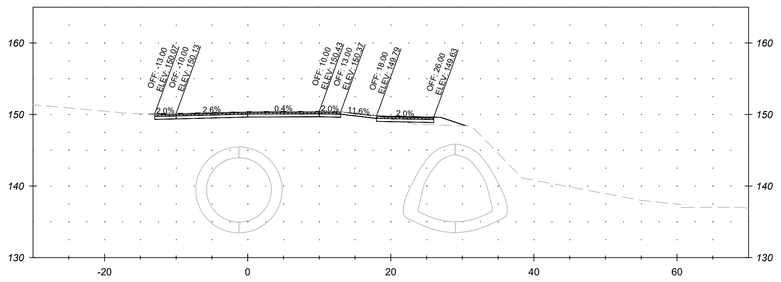
STA. 168+00



STA. 169+50



STA. 167+50



STA. 169+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-04
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

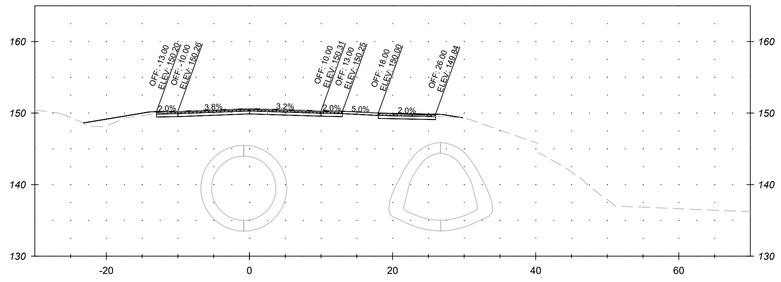
SCALE: 1"=10'

DATE: JUNE 2022

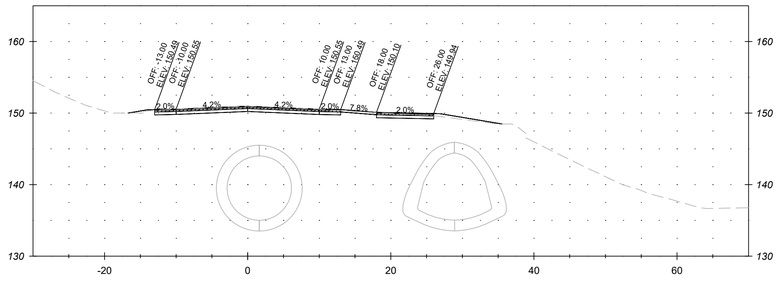
CIP No.: 502109

SHEET 121 of 156

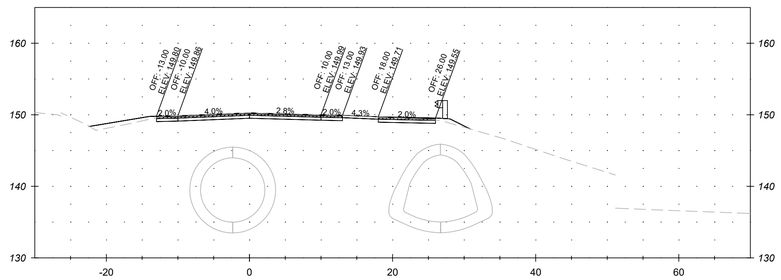
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-04 PLOTTED: Friday, June 17, 2022 - 4:28pm USER: AHavener



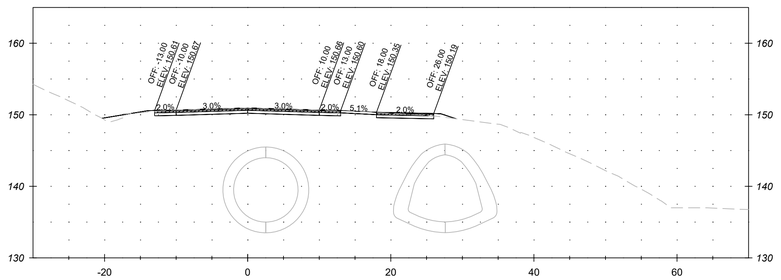
STA. 171+50



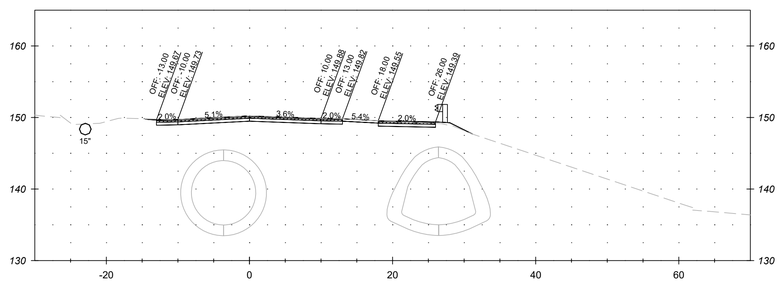
STA. 173+00



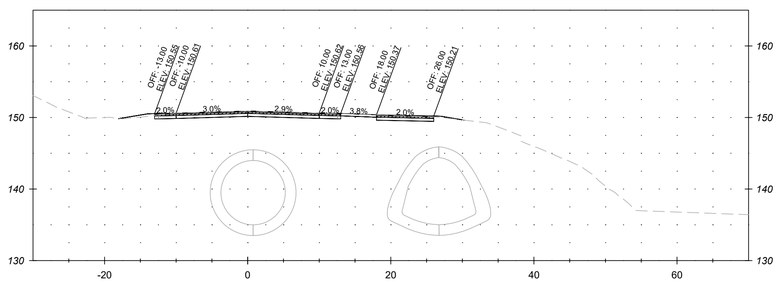
STA. 171+00



STA. 172+50



STA. 170+50



STA. 172+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

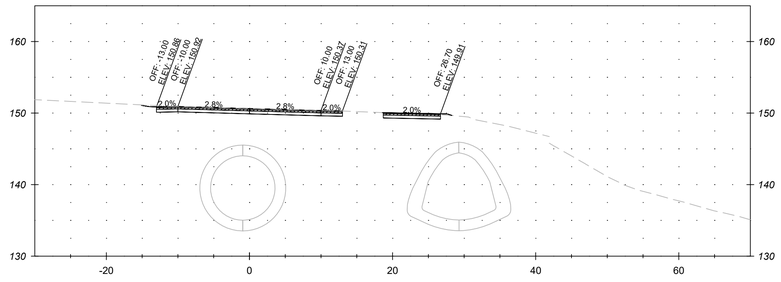
Designed by: ADH Drawn by: ADH Checked by: JJR

XS-05
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

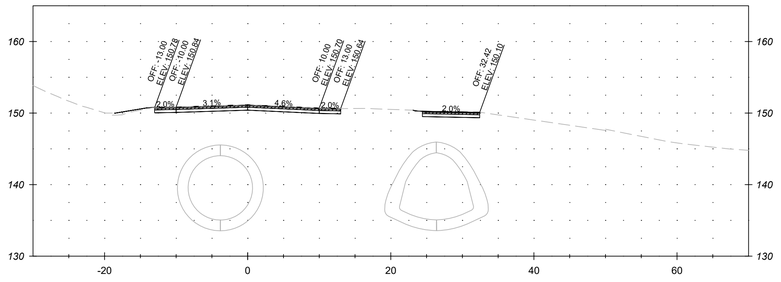
0 10' 20'

SCALE: 1"=10' DATE: JUNE 2022

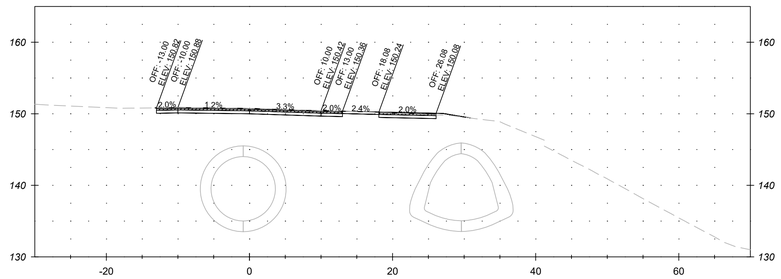
CIP No. : 502109 SHEET 122 of 156



STA. 174+50



STA. 176+00



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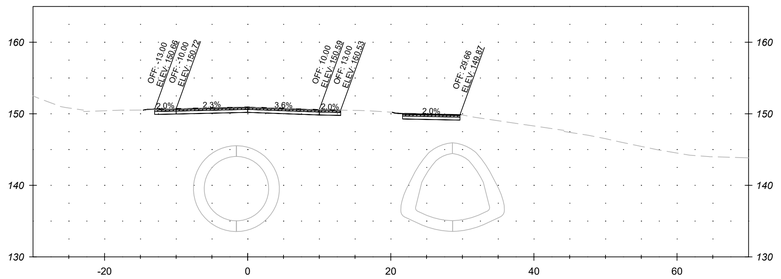
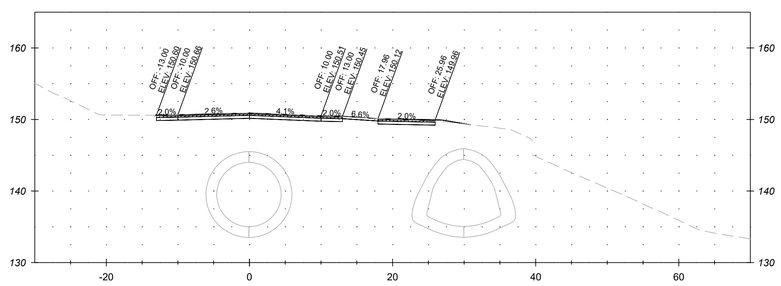
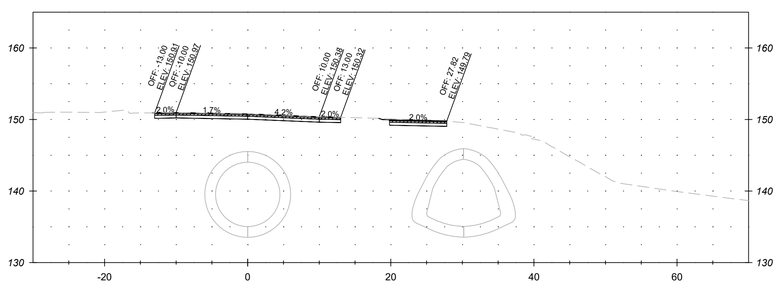


STA. 175+50



STA. 173+50



STA. 175+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-06
CROSS SECTION

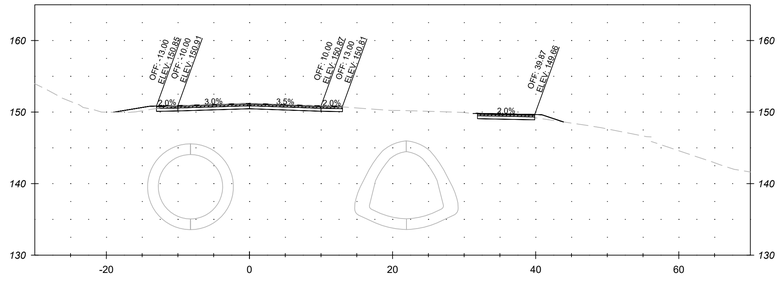
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

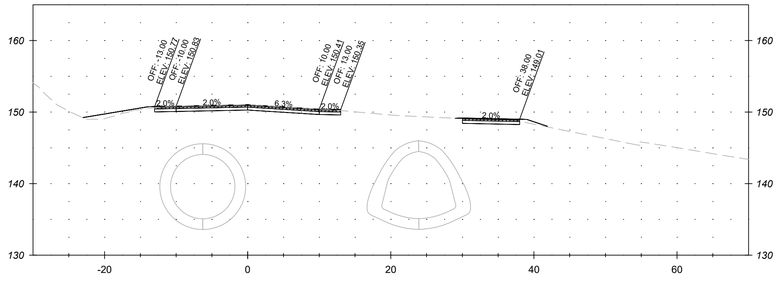
SCALE: 1"=10' DATE: JUNE 2022

CIP No. : 502109 SHEET 123 of 156

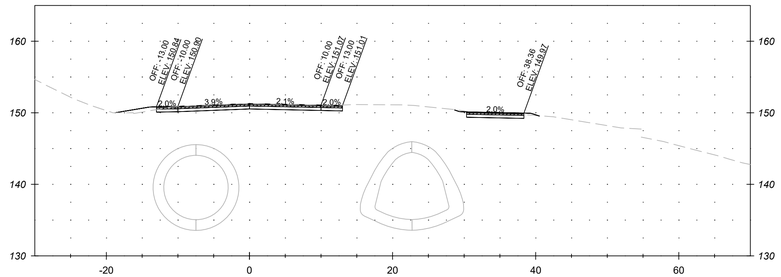
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-06 PLOTTED: Friday, June 17, 2022 - 4:29pm USER: AHavener



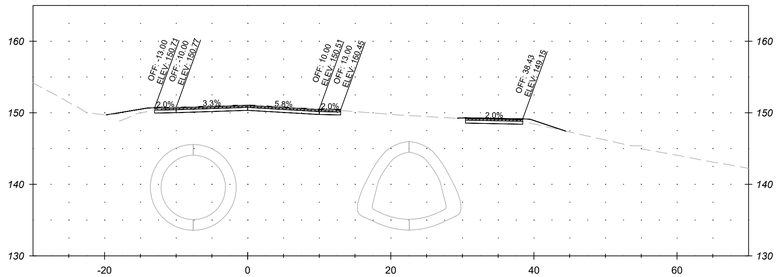
STA. 177+50



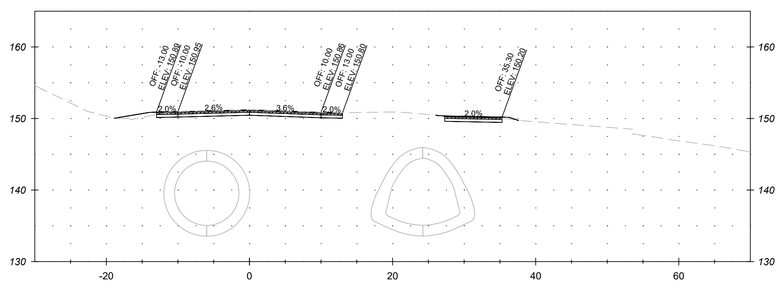
STA. 179+00



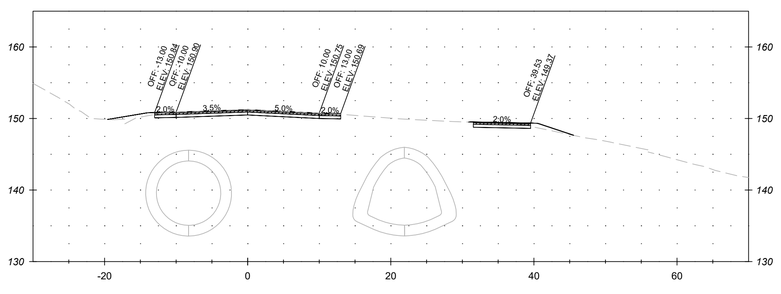
STA. 177+00



STA. 178+50



STA. 176+50



STA. 178+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-07
CROSS SECTION

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

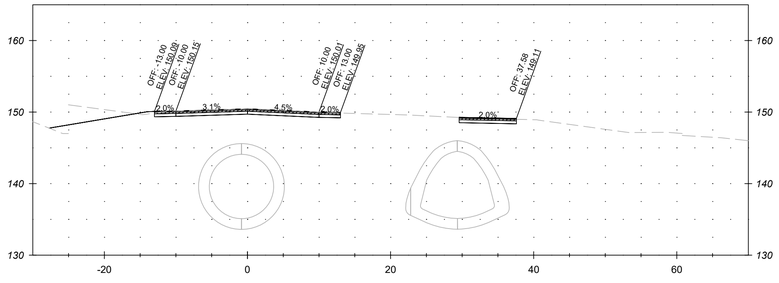
SCALE: 1"=10'

DATE: JUNE 2022

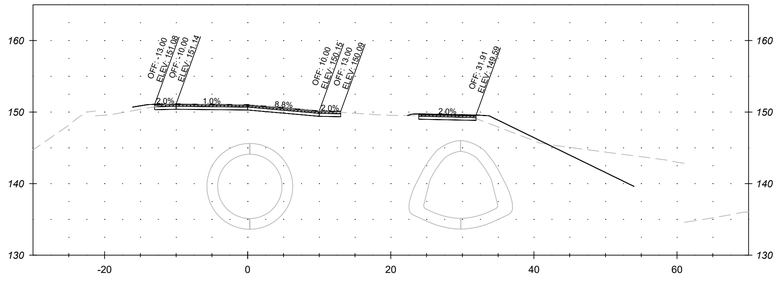
CIP No.: 502109

SHEET 124 of 156

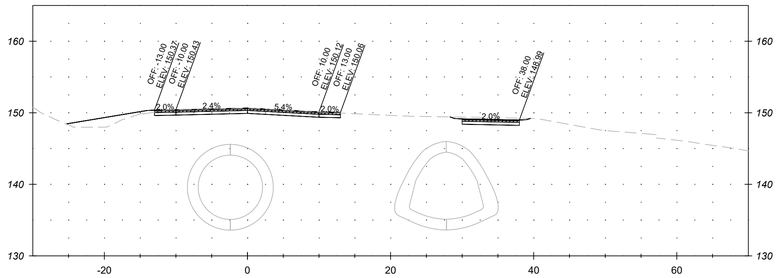
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-07 PLOTTED: Friday, June 17, 2022 - 4:30pm USER: AHavener



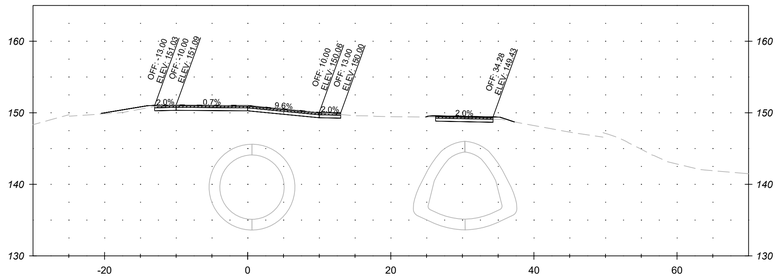
STA. 180+50



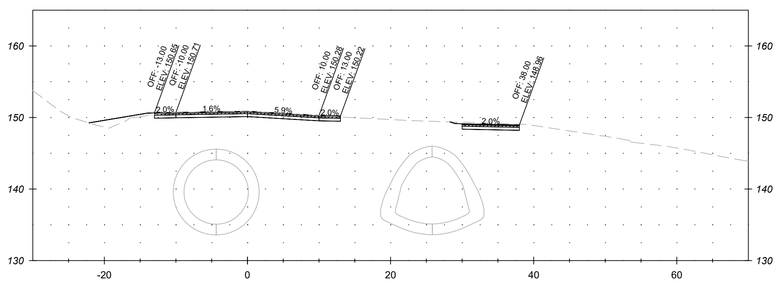
STA. 182+00



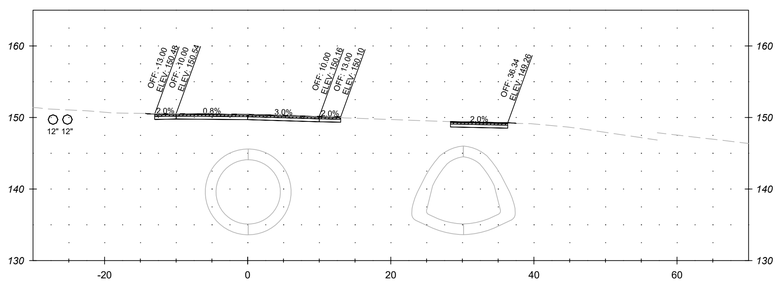
STA. 180+00



STA. 181+50



STA. 179+50



STA. 181+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-08
CROSS SECTION

MACARTHUR BOULEVARD BIKEWAY PHASE III

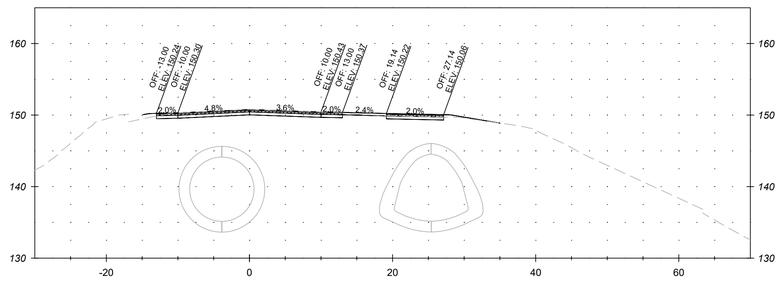
0 10' 20'
SCALE: 1"=10'

DATE: JUNE 2022

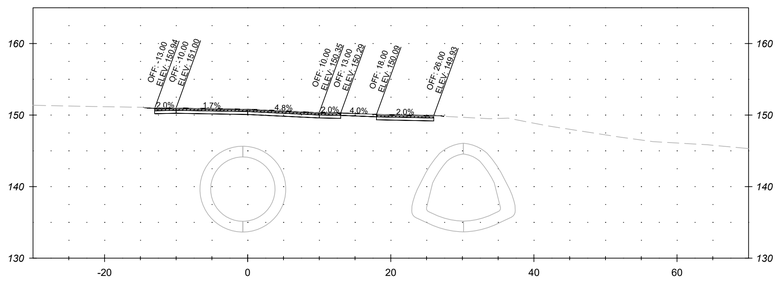
CIP No.: 502109

SHEET 125 of 156

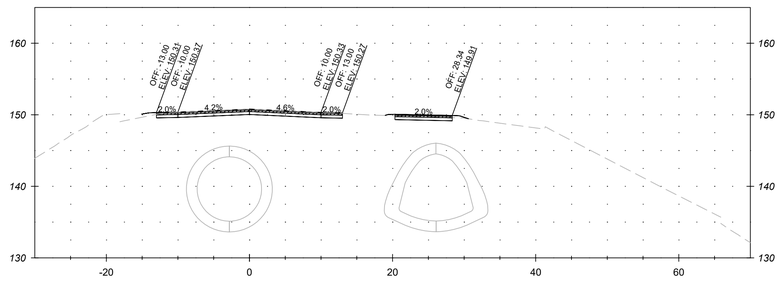
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-08 PLOTTED: Friday, June 17, 2022 - 4:30pm USER: AHavener



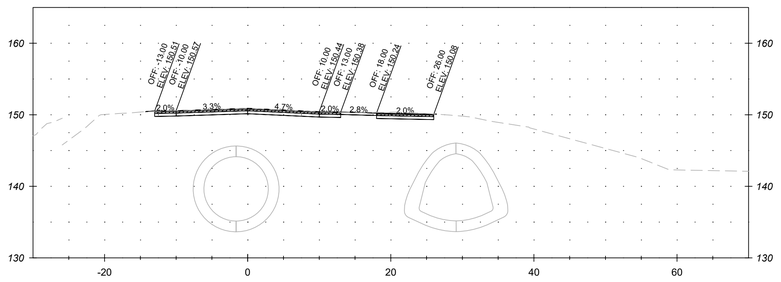
STA. 183+50



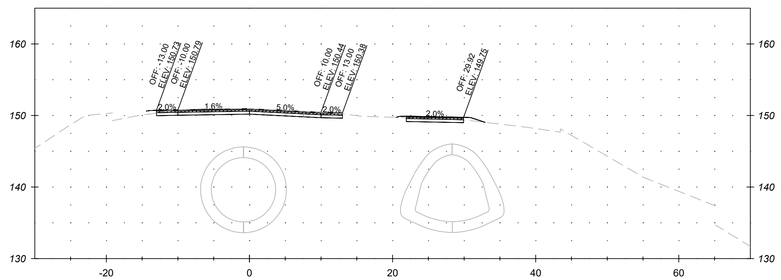
STA. 185+00



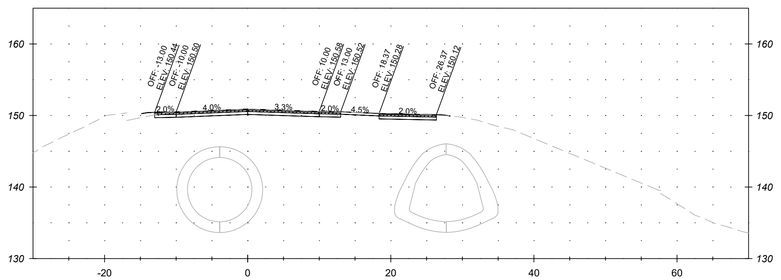
STA. 183+00



STA. 184+50



STA. 182+50



STA. 184+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-09
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

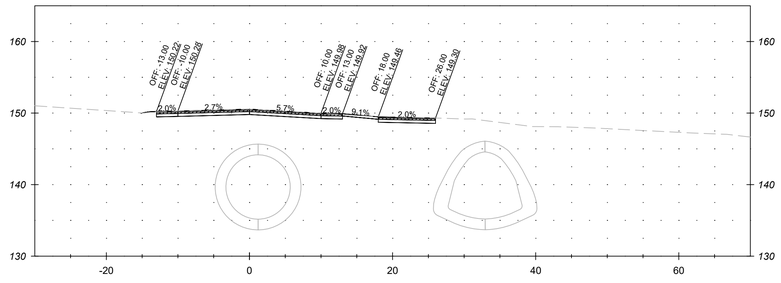
SCALE: 1"=10'

DATE: JUNE 2022

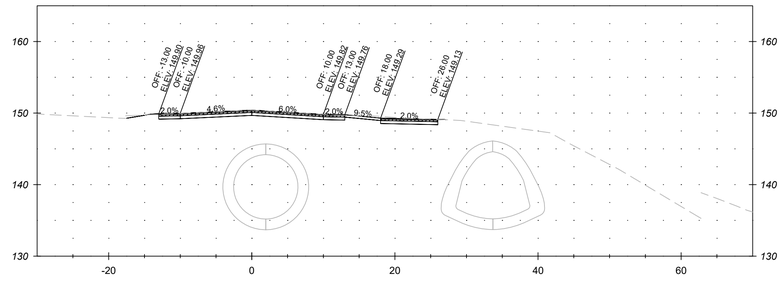
CIP No.: 502109

SHEET 126 of 156

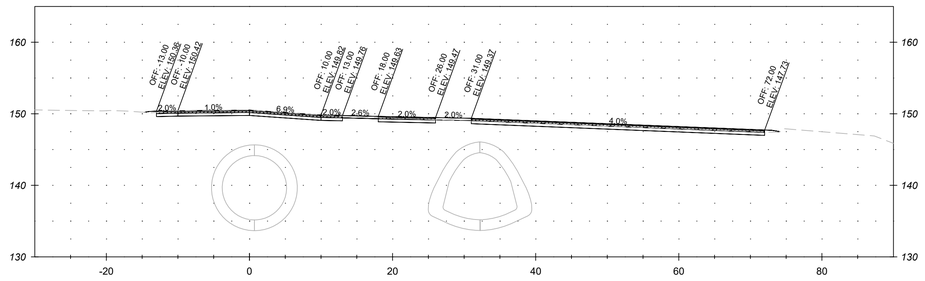
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-09 PLOTTED: Friday, June 17, 2022 - 4:31pm USER: AHavener



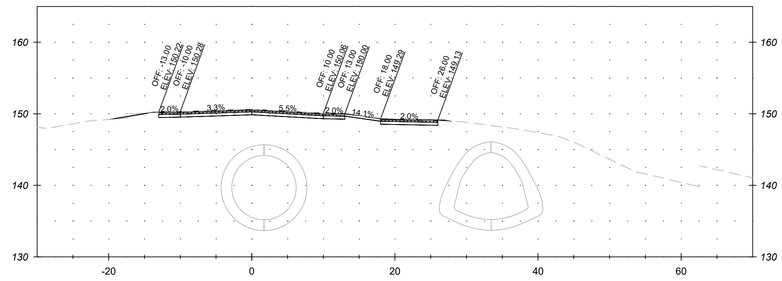
STA. 186+50



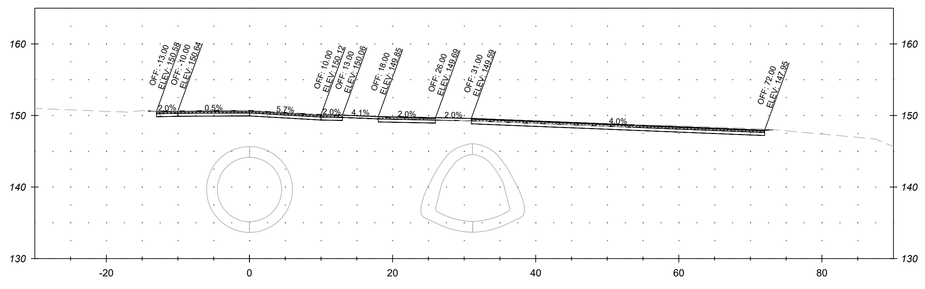
STA. 188+00



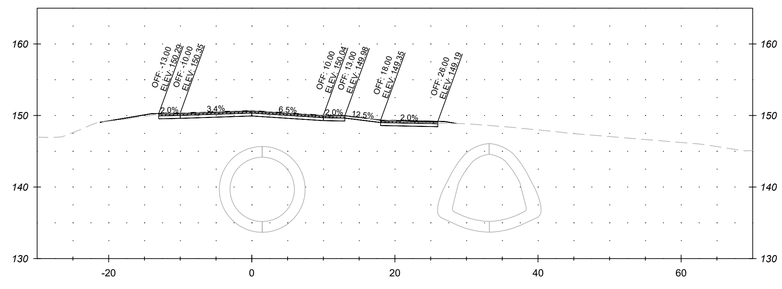
STA. 186+00



STA. 187+50



STA. 185+50



STA. 187+00

DRAFT
NOT FOR CONSTRUCTION

JMT

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-10
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

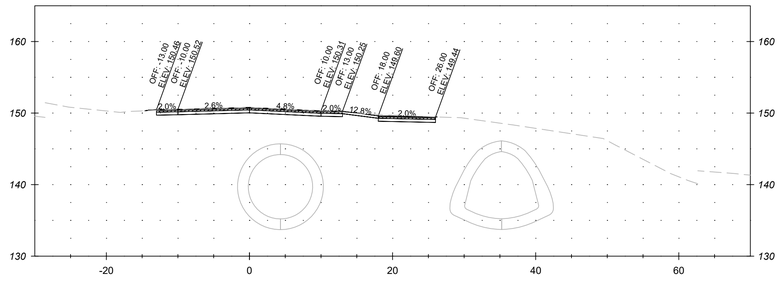
SCALE: 1"=10'

DATE: JUNE 2022

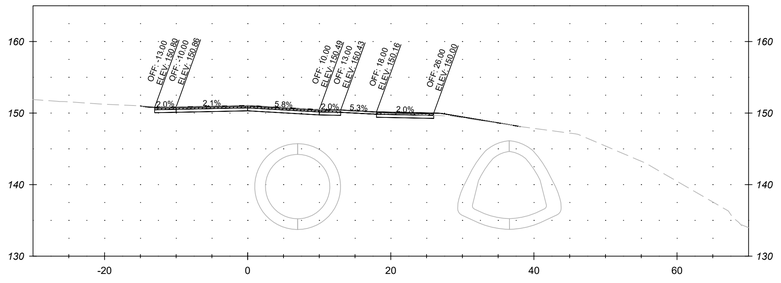
CIP No.: 502109

SHEET 127 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-10 PLOTTED: Friday, June 17, 2022 - 4:31pm USER: AHavener



STA. 189+50



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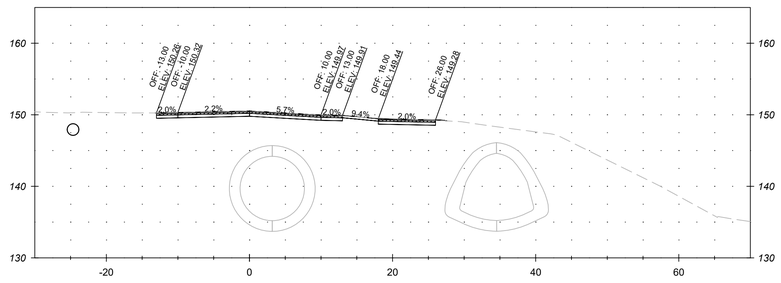
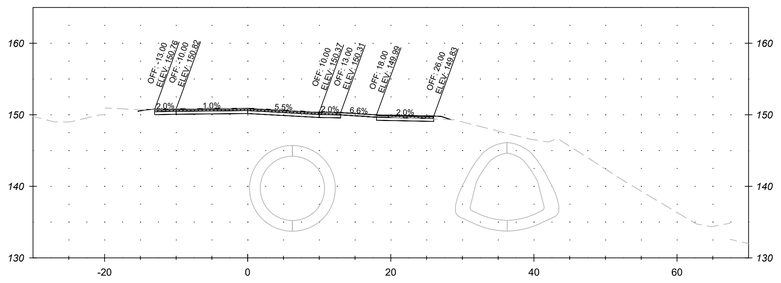
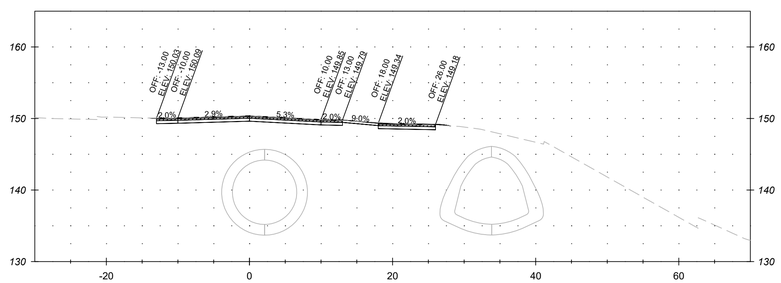


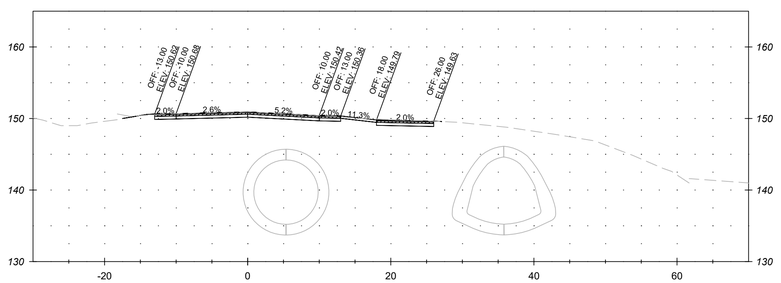
STA. 189+00



STA. 190+50



STA. 188+50



STA. 190+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-11
CROSS SECTION

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

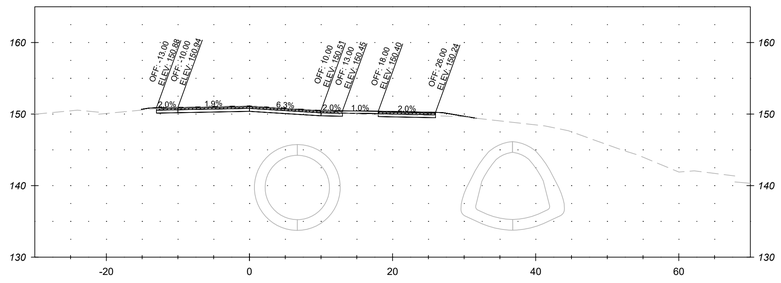
SCALE: 1"=10'

DATE: JUNE 2022

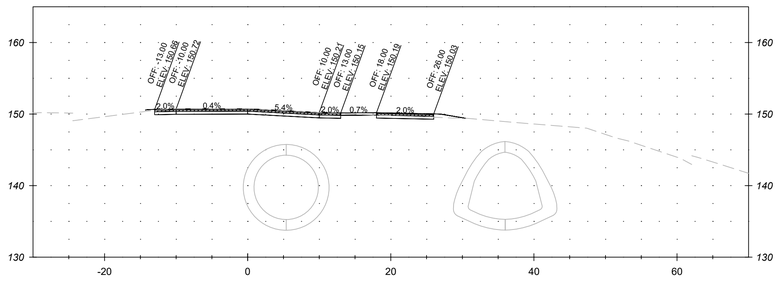
CIP No. : 502109

SHEET 128 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-11 PLOTTED: Friday, June 17, 2022 - 4:32pm USER: AHavener



STA. 192+50



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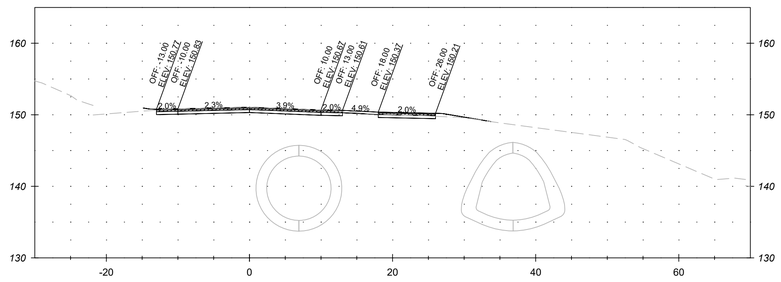
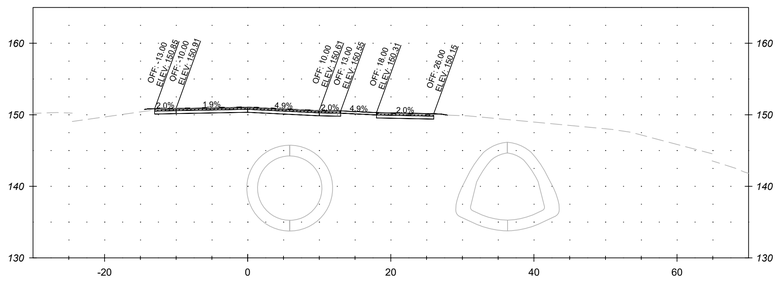
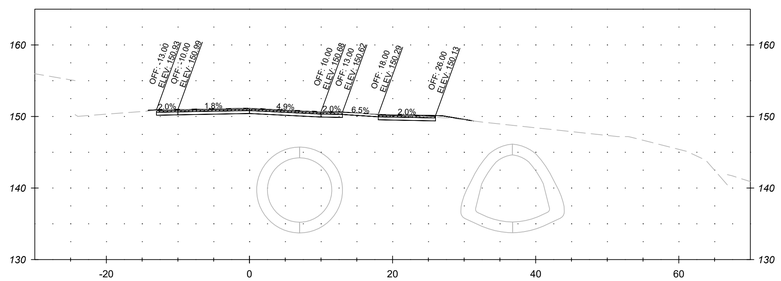


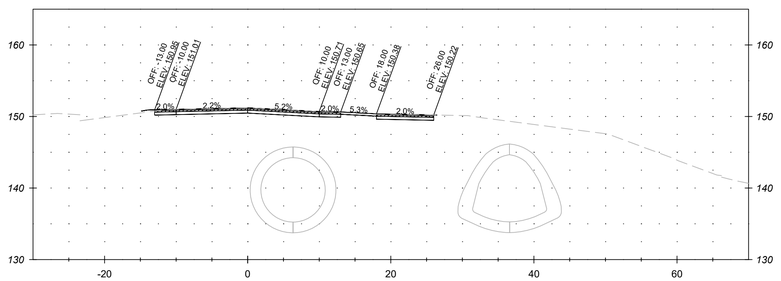
STA. 192+00



STA. 193+50



STA. 191+50



STA. 193+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-12
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

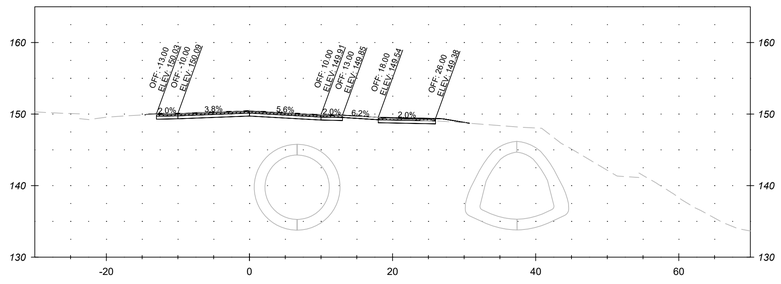
SCALE: 1"=10'

DATE: JUNE 2022

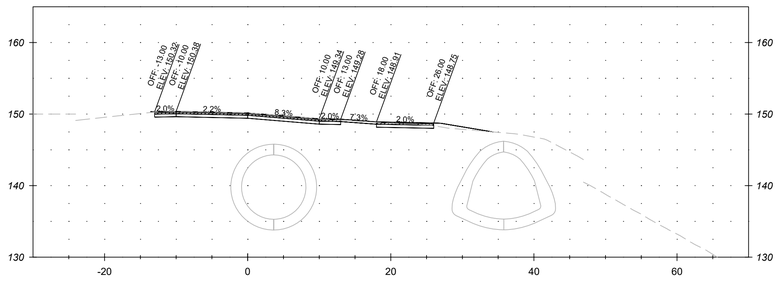
CIP No.: 502109

SHEET 129 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-12 PLOTTED: Friday, June 17, 2022 - 4:32pm USER: AHavener



STA. 195+50



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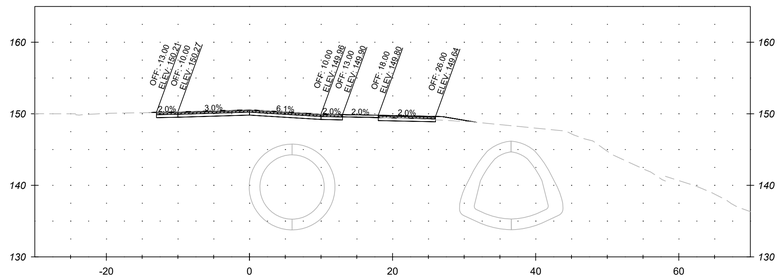
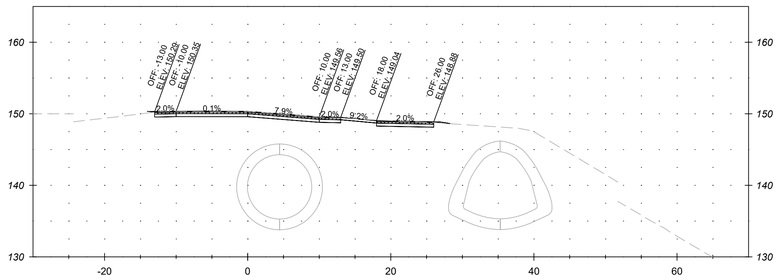
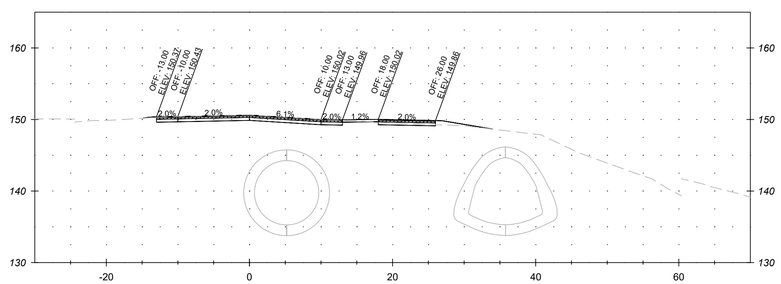


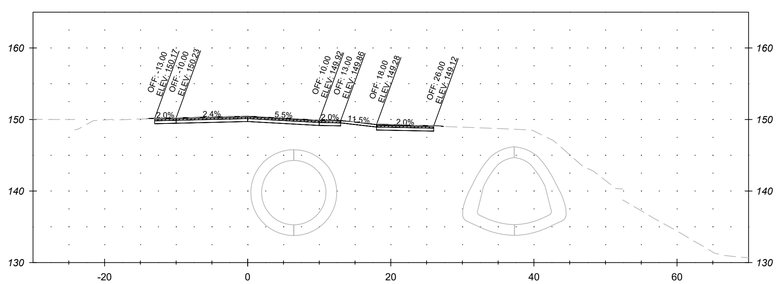
STA. 195+00



STA. 196+50



STA. 194+50



STA. 196+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-13
CROSS SECTION

MACARTHUR BOULEVARD
BIKEWAY PHASE III

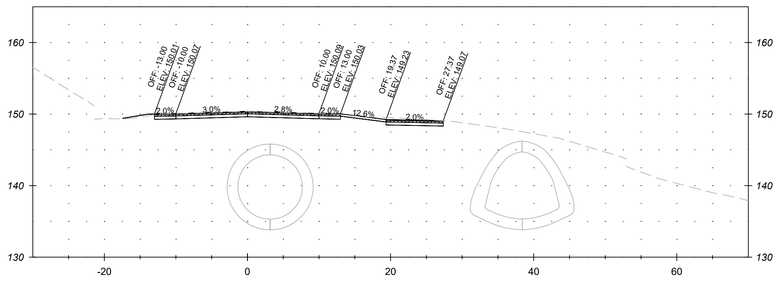
0 10' 20'
SCALE: 1"=10'

DATE: JUNE 2022

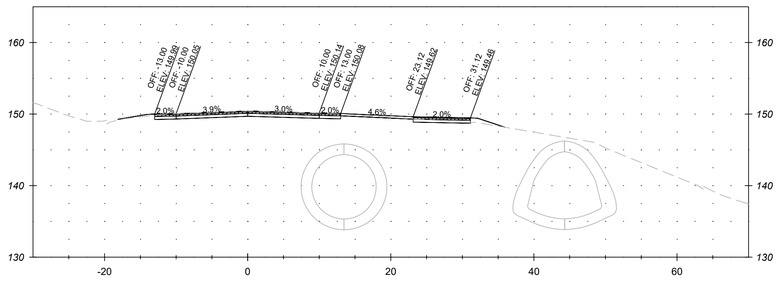
CIP No.: 502109

SHEET 130 of 156

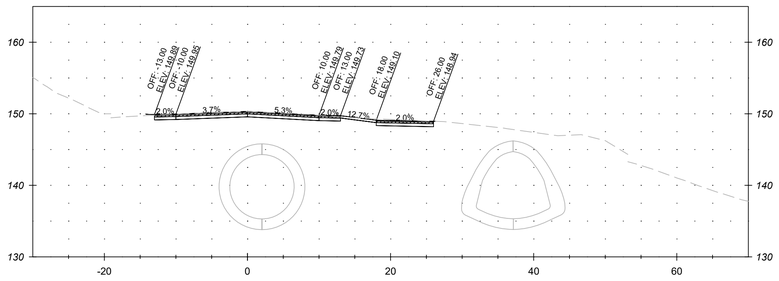
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-13 PLOTTED: Friday, June 17, 2022 - 4:33pm USER: AHavener



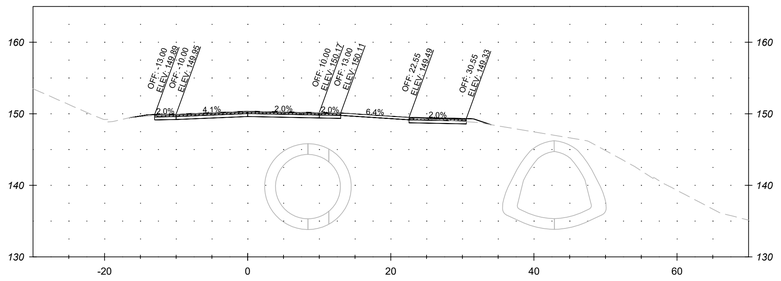
STA. 198+50



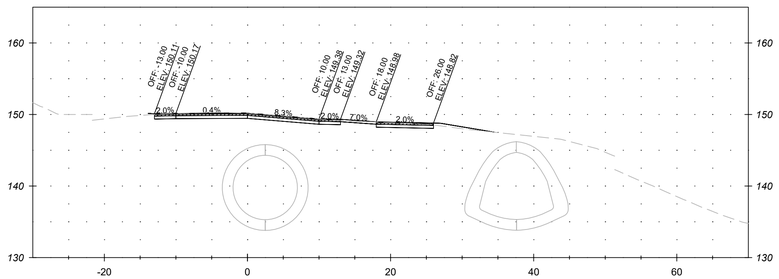
STA. 200+00



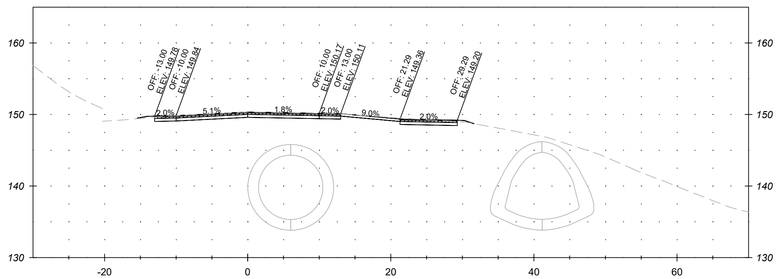
STA. 198+00



STA. 199+50



STA. 197+50



STA. 199+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-14
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

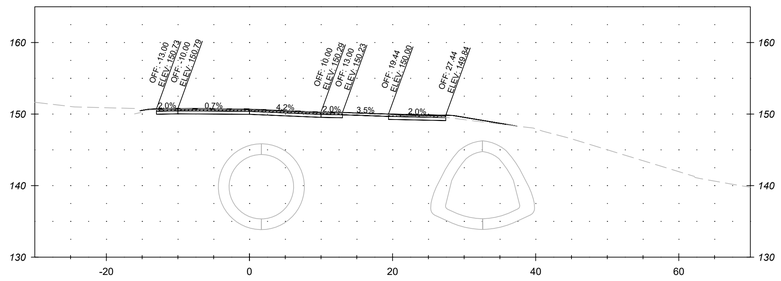
0 10' 20'
SCALE: 1"=10'

DATE: JUNE 2022

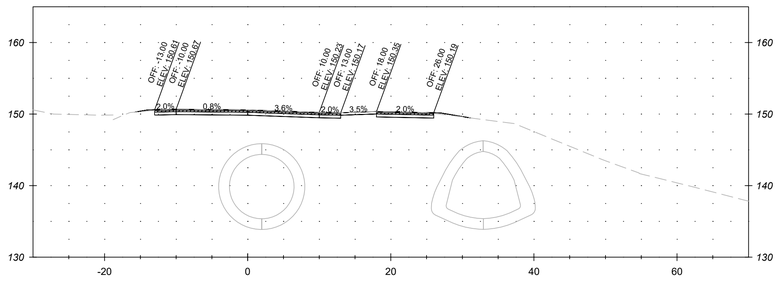
CIP No. : 502109

SHEET 131 of 156

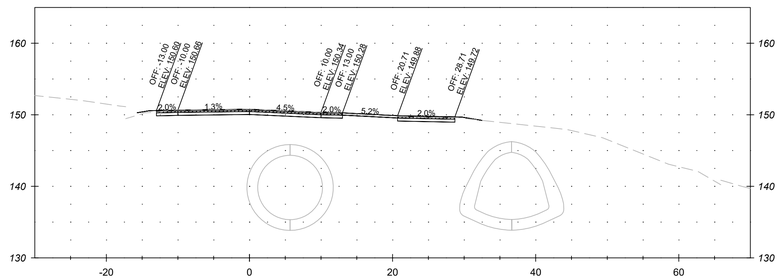
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-14 PLOTTED: Friday, June 17, 2022 - 4:33pm USER: AHavener



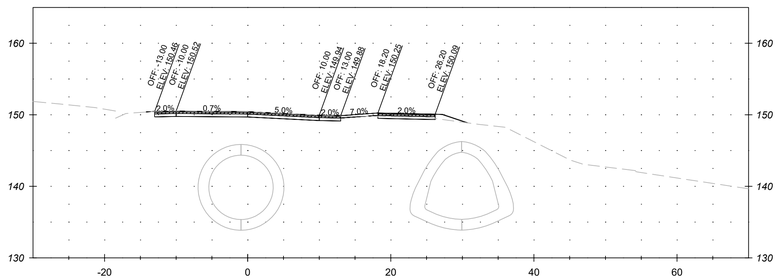
STA. 201+50



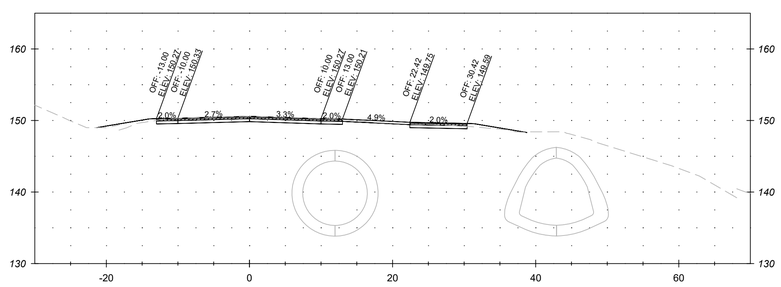
STA. 203+00



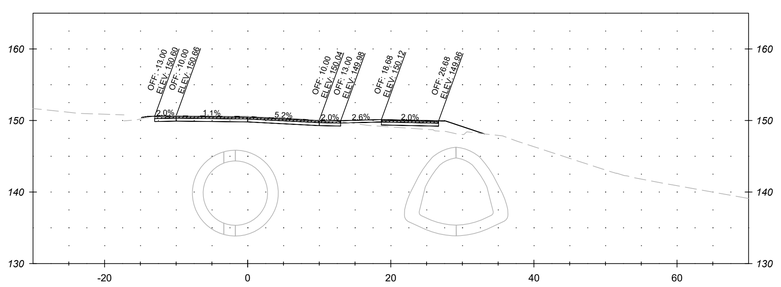
STA. 201+00



STA. 202+50



STA. 200+50



STA. 202+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

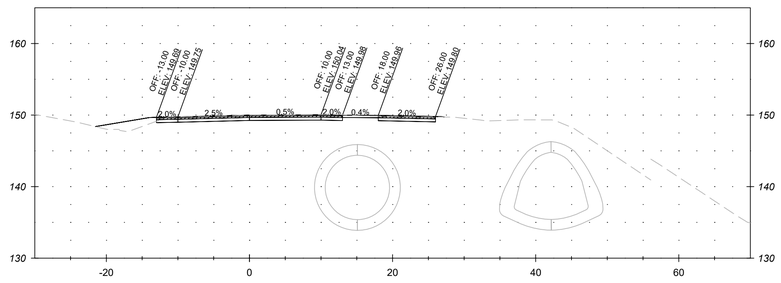
XS-15
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

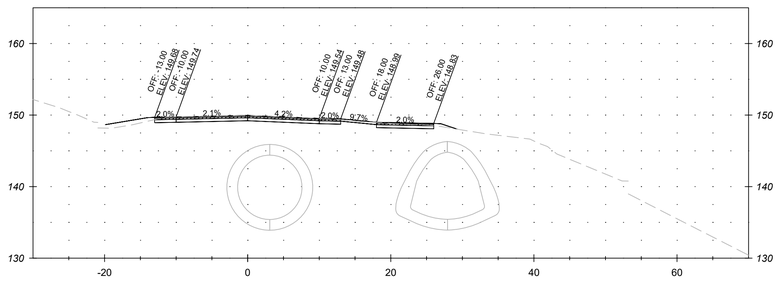
SCALE: 1"=10' DATE: JUNE 2022

CIP No. : 502109 SHEET 132 of 156

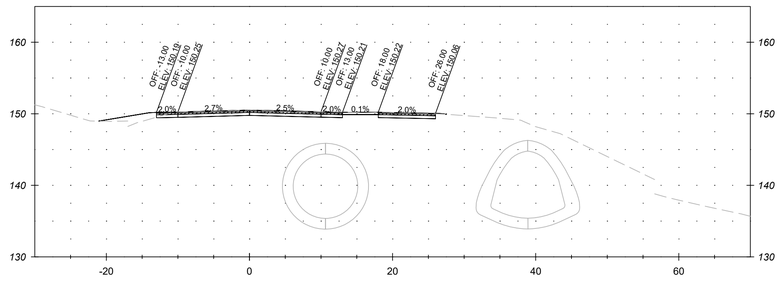
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-15 PLOTTED: Friday, June 17, 2022 - 4:34pm USER: AHavener



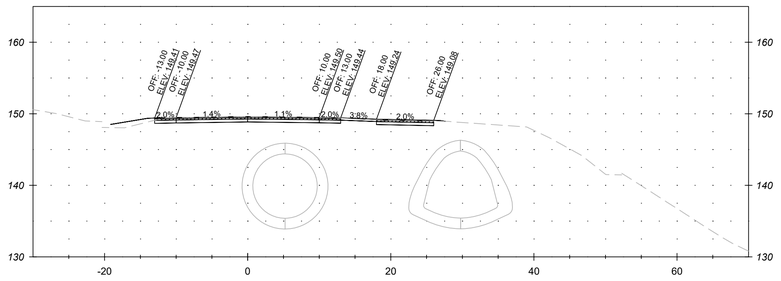
STA. 204+50



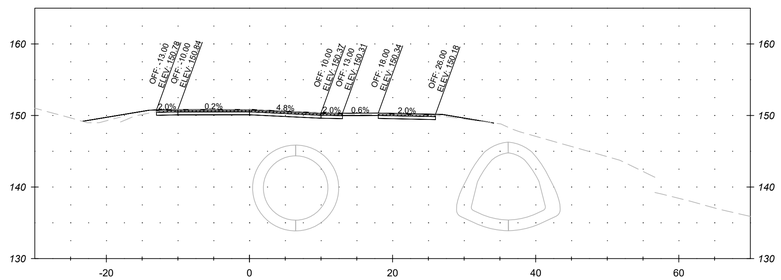
STA. 206+00



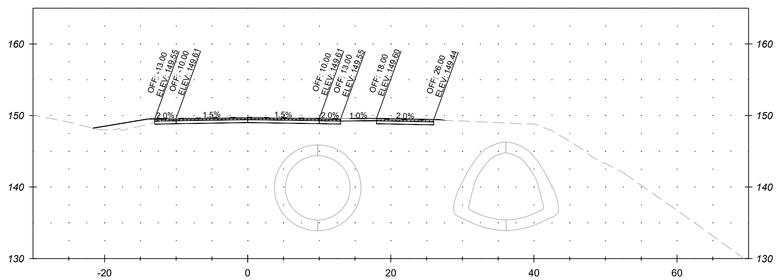
STA. 204+00



STA. 205+50



STA. 203+50



STA. 205+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-16
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

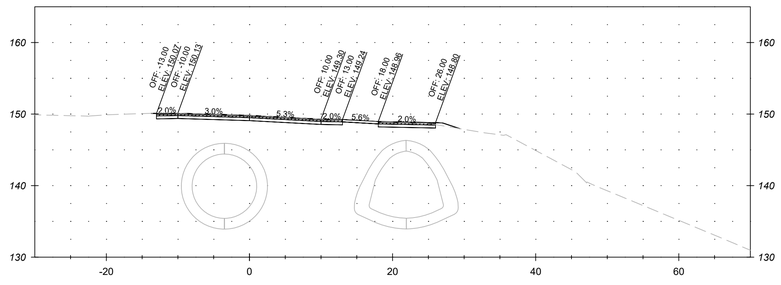
SCALE: 1"=10'

DATE: JUNE 2022

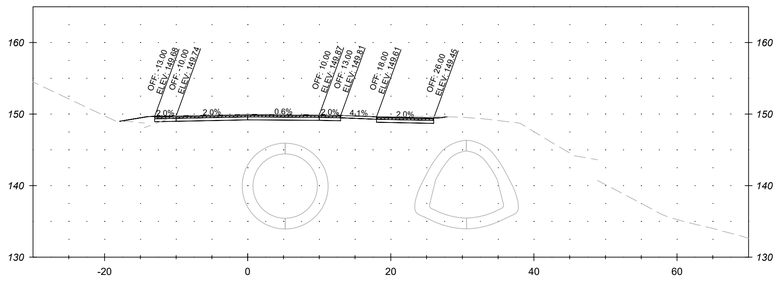
CIP No.: 502109

SHEET 133 of 156

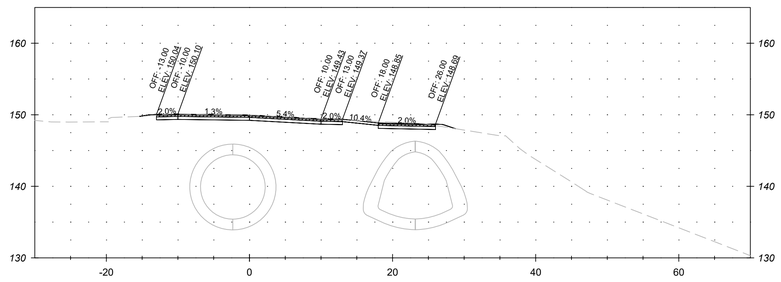
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-16 PLOTTED: Friday, June 17, 2022 - 4:34pm USER: AHavener



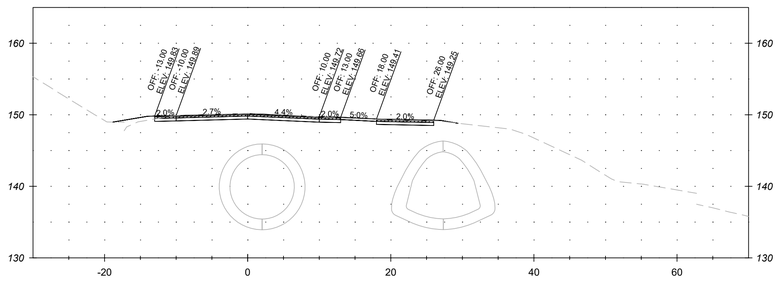
STA. 207+50



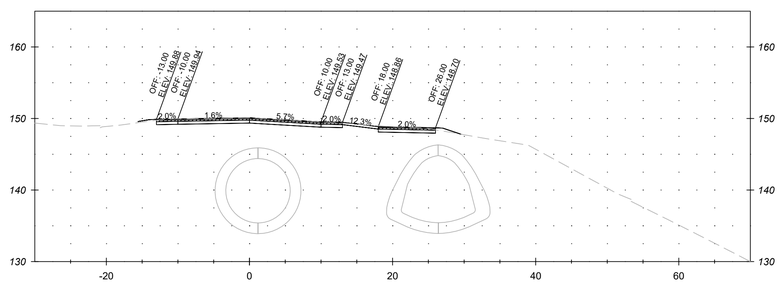
STA. 209+00



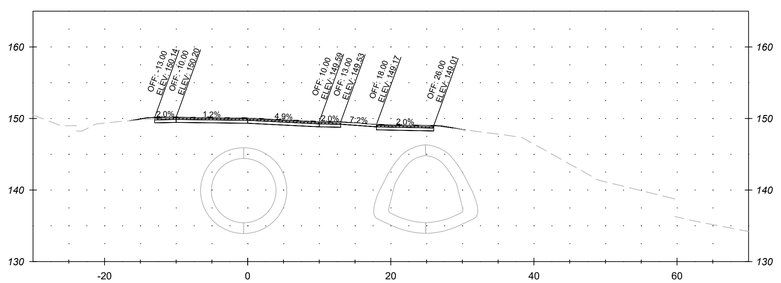
STA. 207+00



STA. 208+50



STA. 206+50



STA. 208+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-17
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

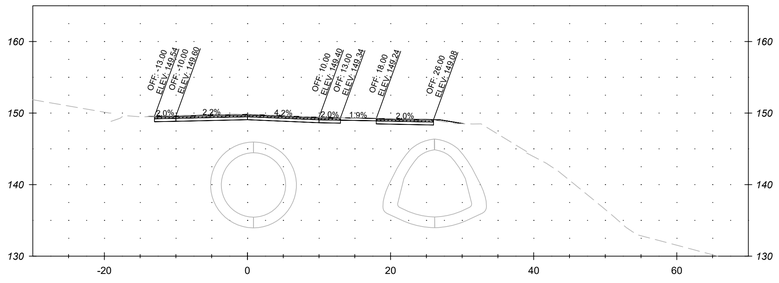
0 10' 20'
SCALE: 1"=10'

DATE: JUNE 2022

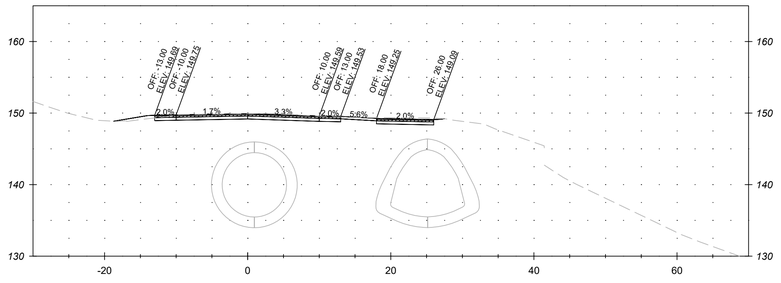
CIP No.: 502109

SHEET 134 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-17 PLOTTED: Friday, June 17, 2022 - 4:35pm USER: AHavener



STA. 210+50



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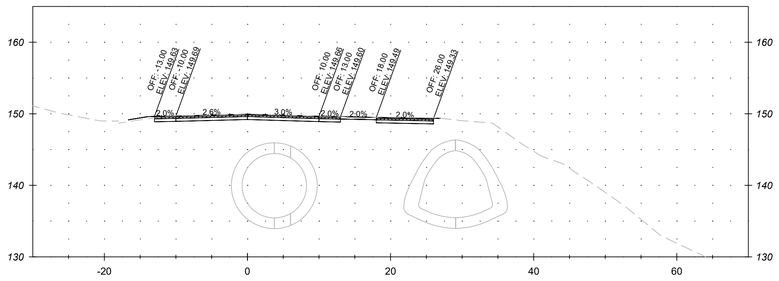

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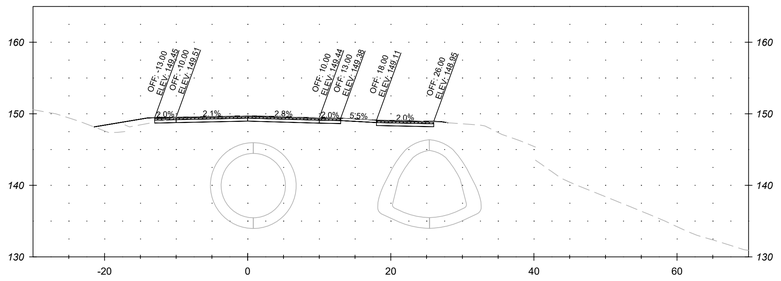
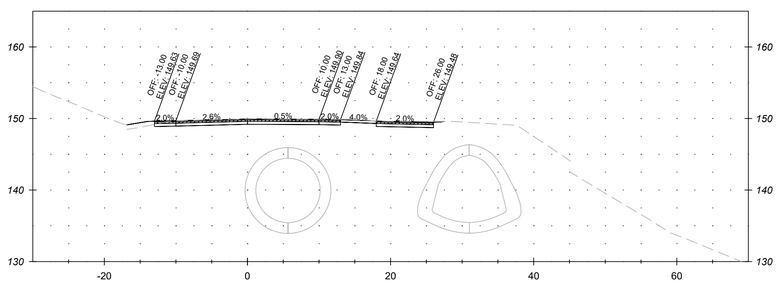
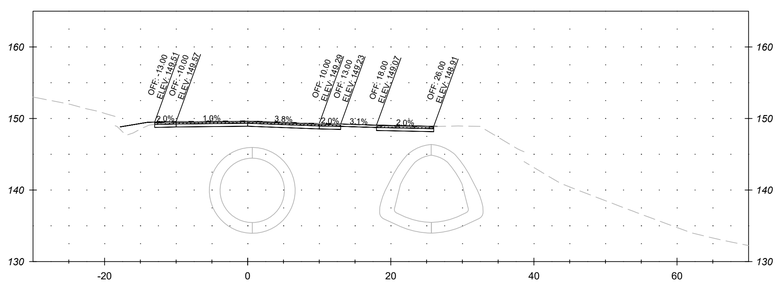


STA. 211+50



STA. 209+50



STA. 211+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-18
CROSS SECTION

MACARTHUR BOULEVARD
BIKEWAY PHASE III

0 10' 20'

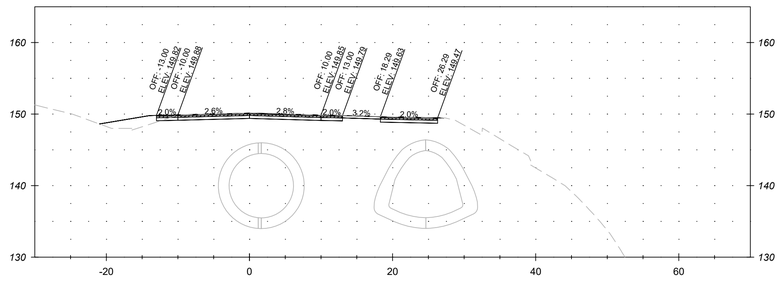
SCALE: 1"=10'

DATE: JUNE 2022

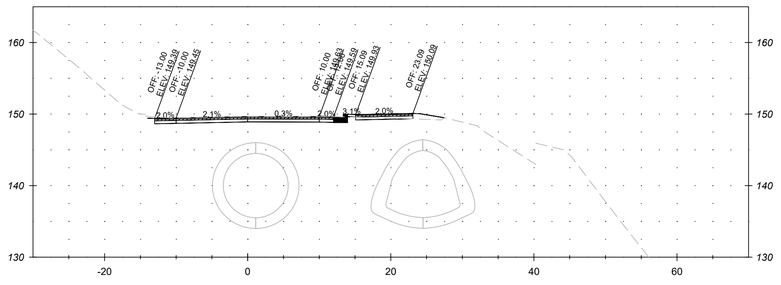
CIP No. : 502109

SHEET 135 of 156

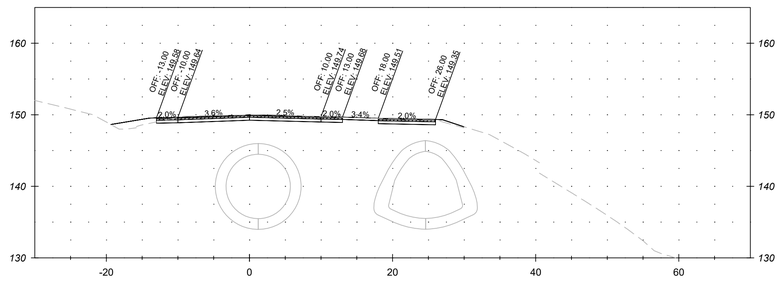
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-18 PLOTTED: Friday, June 17, 2022 - 4:35pm USER: AHavener



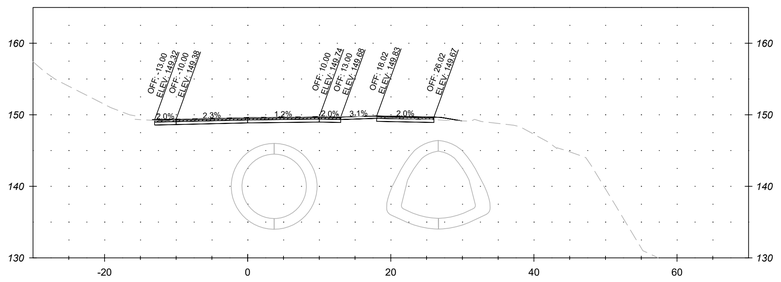
STA. 213+50



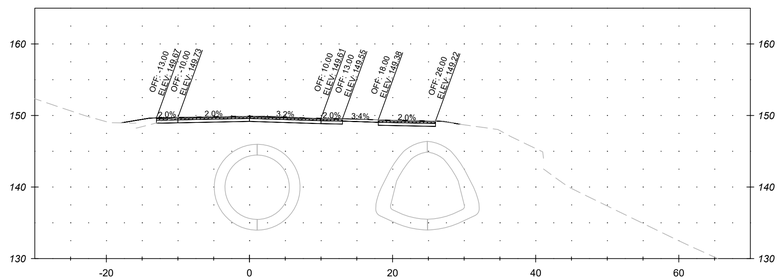
STA. 215+00



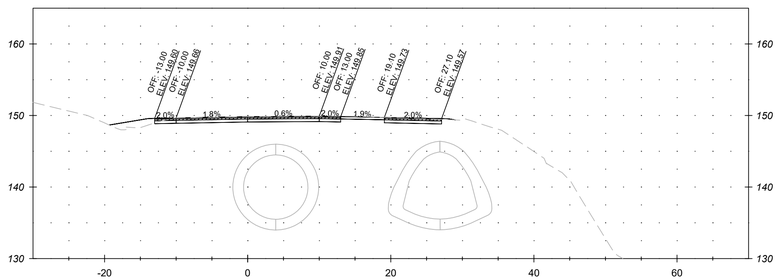
STA. 213+00



STA. 214+50



STA. 212+50



STA. 214+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-19
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

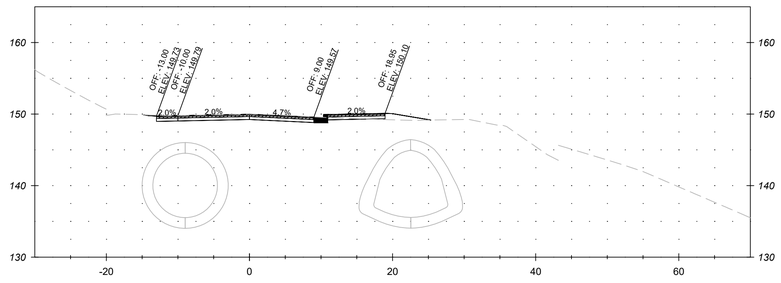
SCALE: 1"=10'

DATE: JUNE 2022

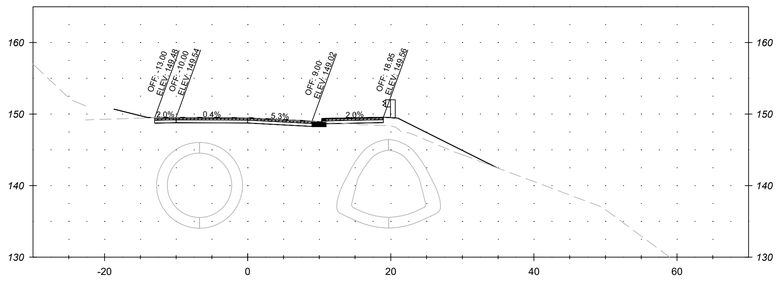
CIP No. : 502109

SHEET 136 of 156

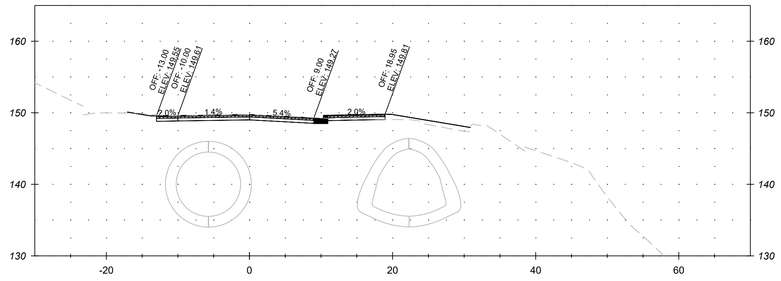
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-19 PLOTTED: Friday, June 17, 2022 - 4:36pm USER: AHavener



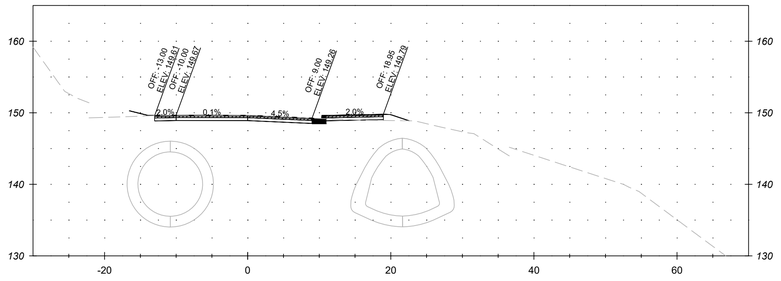
STA. 216+50



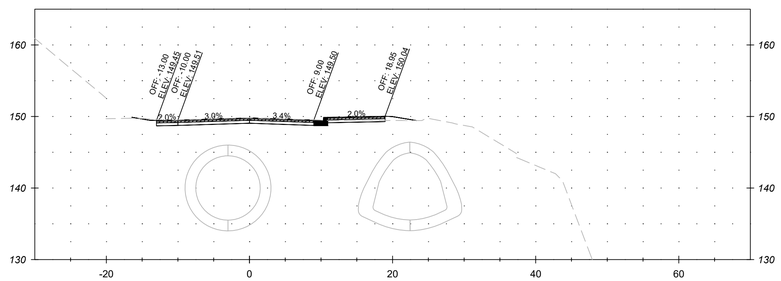
STA. 218+00



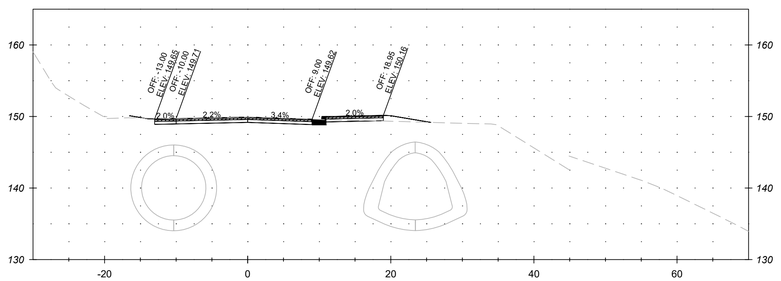
STA. 216+00



STA. 217+50



STA. 215+50



STA. 217+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-20
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

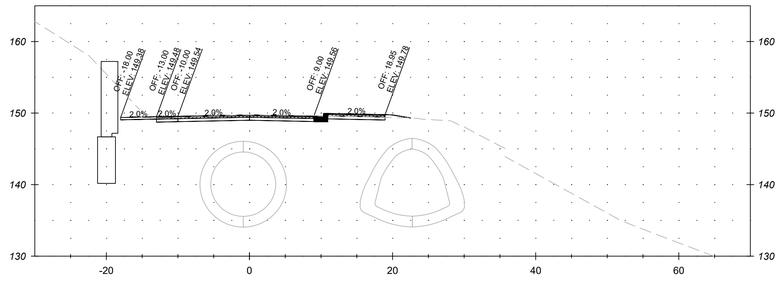
SCALE: 1"=10'

DATE: JUNE 2022

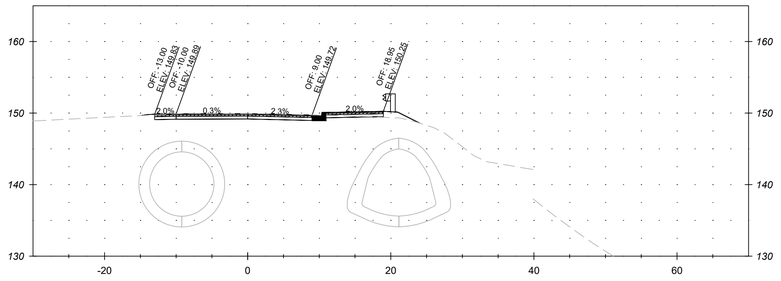
CIP No. : 502109

SHEET 137 of 156

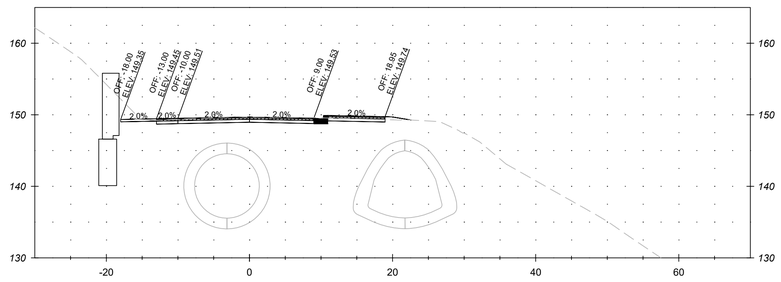
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-20 PLOTTED: Friday, June 17, 2022 - 4:36pm USER: AHavener



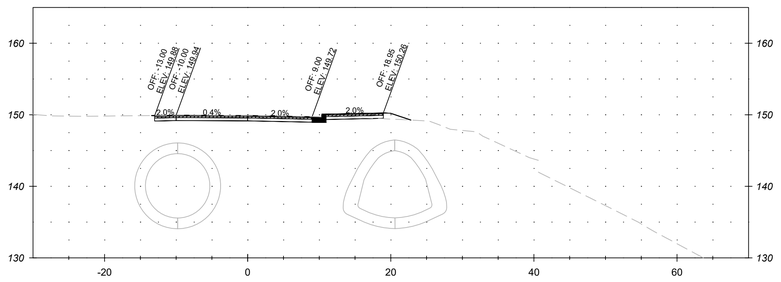
STA. 219+50



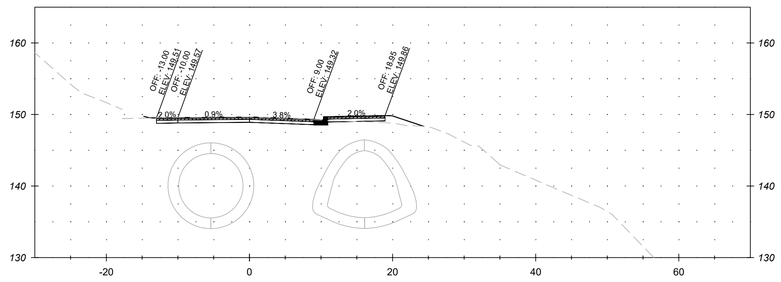
STA. 221+00



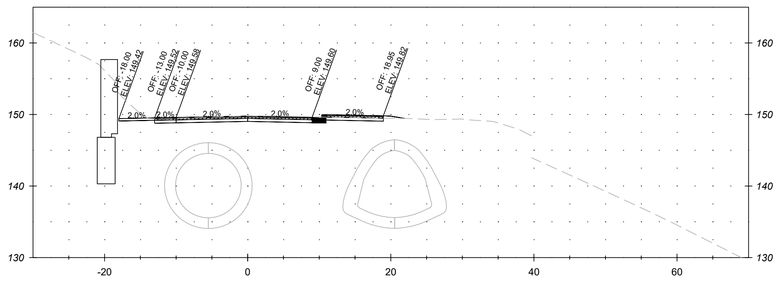
STA. 219+00



STA. 220+50



STA. 218+50



STA. 220+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-21
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

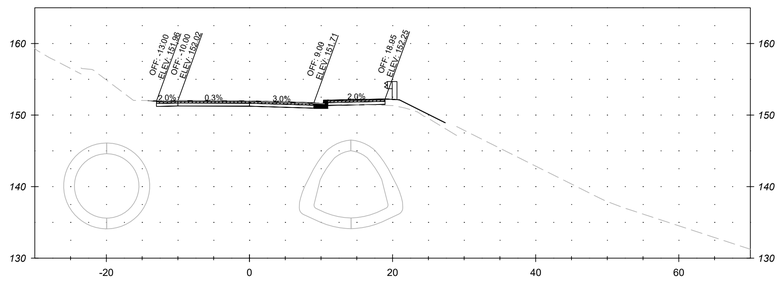
0 10' 20'
SCALE: 1"=10'

DATE: JUNE 2022

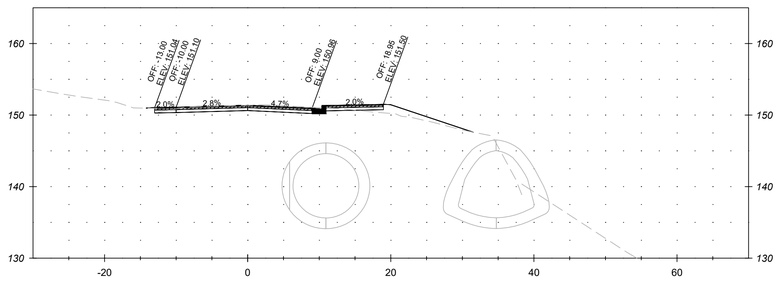
CIP No. : 502109

SHEET 138 of 156

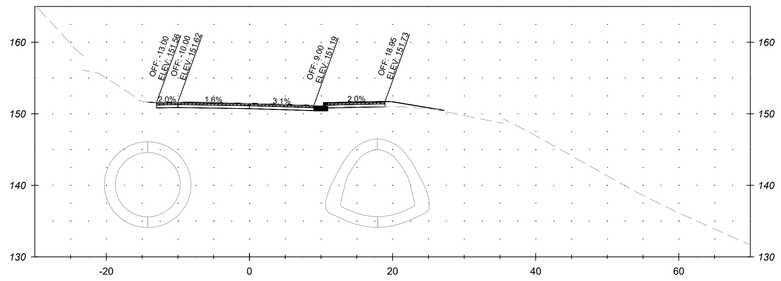
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-21 PLOTTED: Friday, June 17, 2022 - 4:37pm USER: AHavener



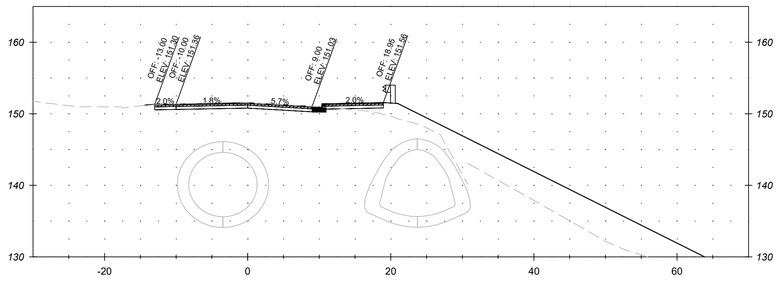
STA. 222+50



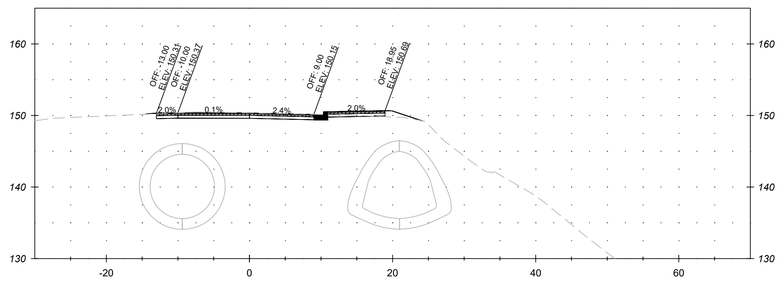
STA. 224+00



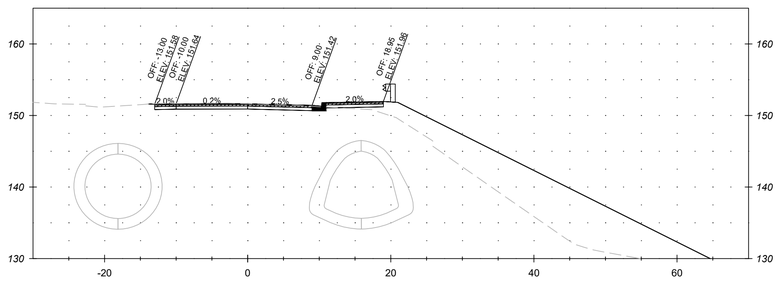
STA. 222+00



STA. 223+50



STA. 221+50



STA. 223+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-22
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

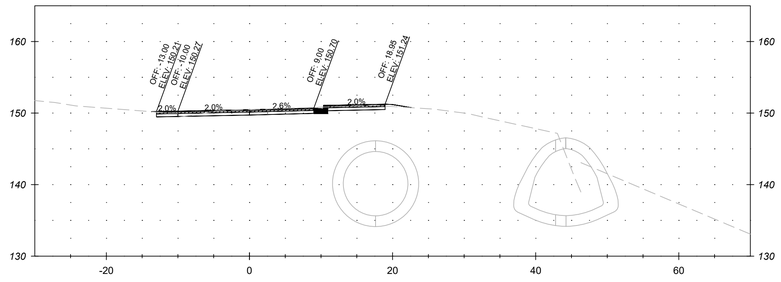
SCALE: 1"=10'

DATE: JUNE 2022

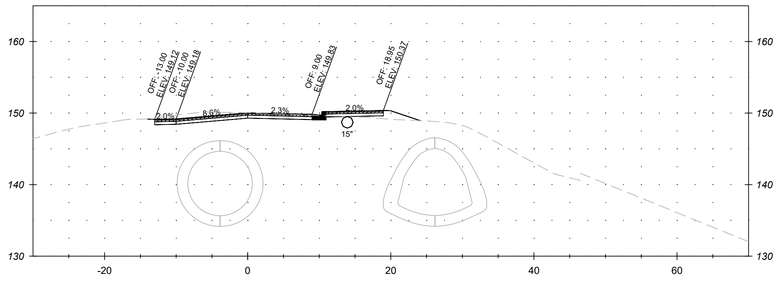
CIP No.: 502109

SHEET 139 of 156

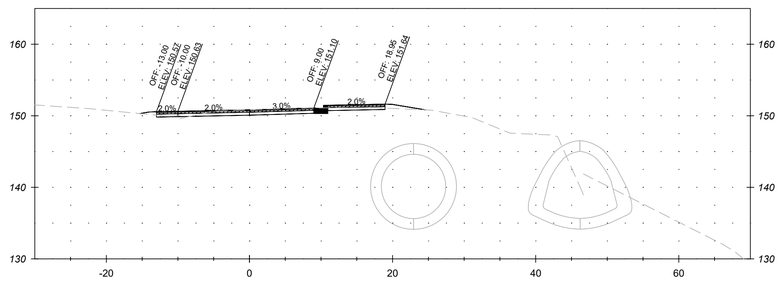
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-22 PLOTTED: Friday, June 17, 2022 - 4:37pm USER: AHavener



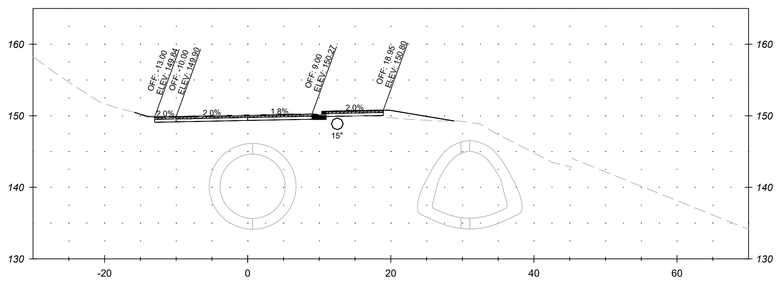
STA. 225+50



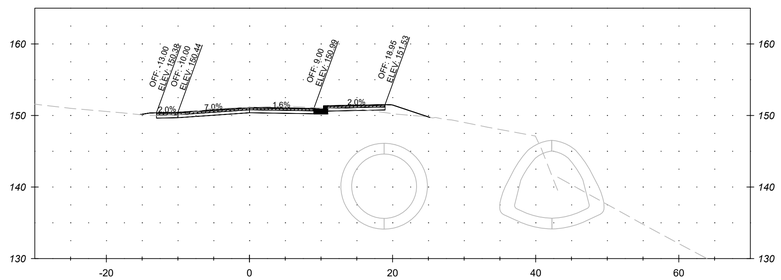
STA. 227+00



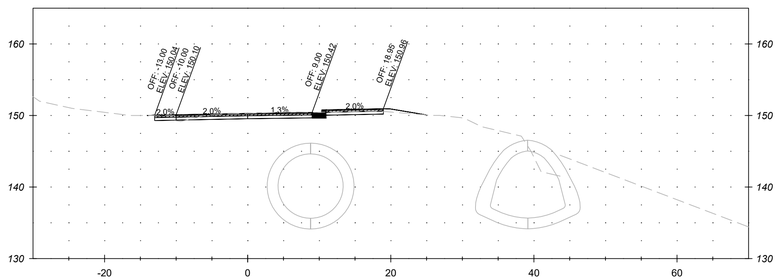
STA. 225+00



STA. 226+50



STA. 224+50



STA. 226+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-23
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

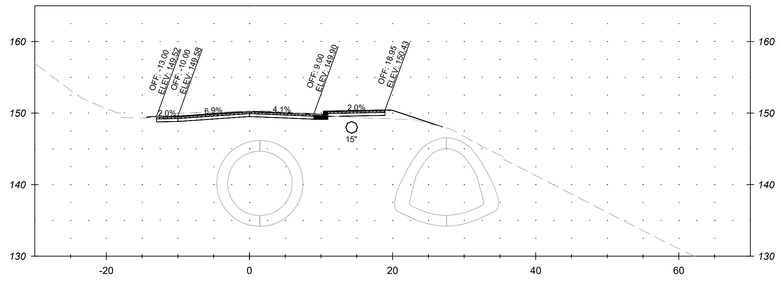
SCALE: 1"=10'

DATE: JUNE 2022

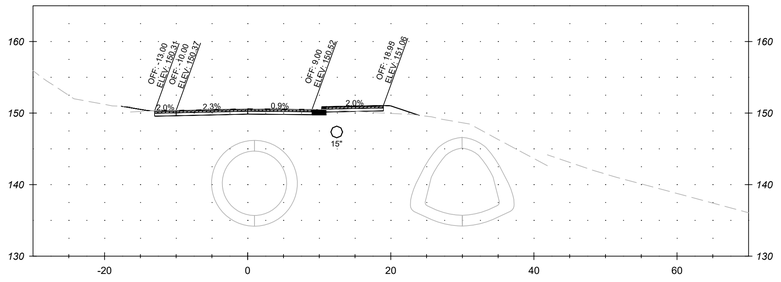
CIP No. : 502109

SHEET 140 of 156

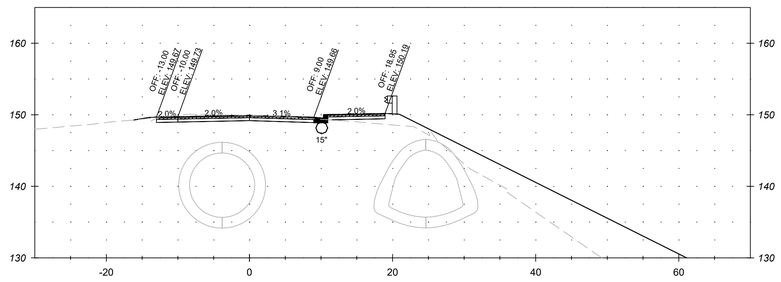
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-23 PLOTTED: Friday, June 17, 2022 - 4:38pm USER: AHavener



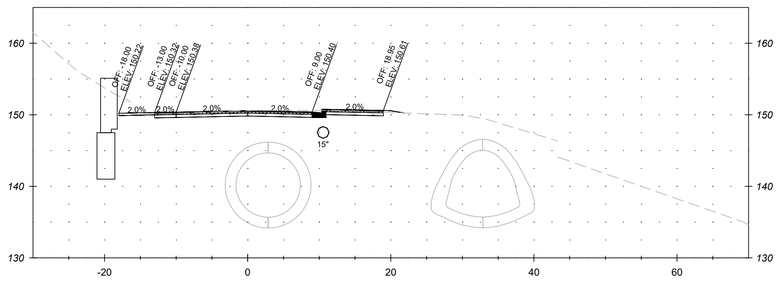
STA. 228+50



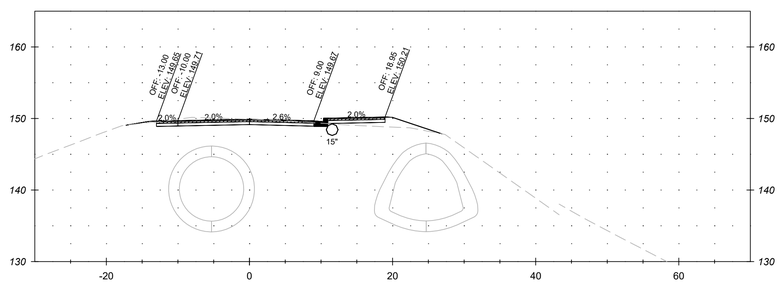
STA. 230+00



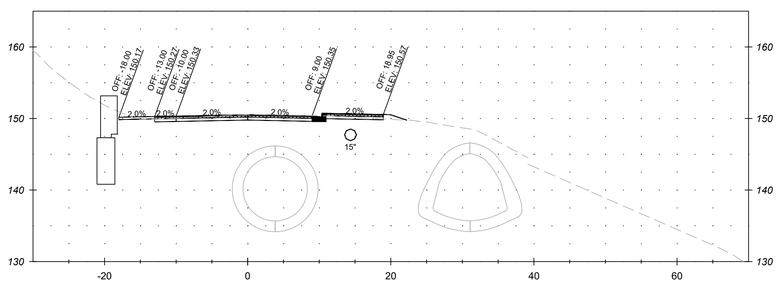
STA. 228+00



STA. 229+50



STA. 227+50



STA. 229+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

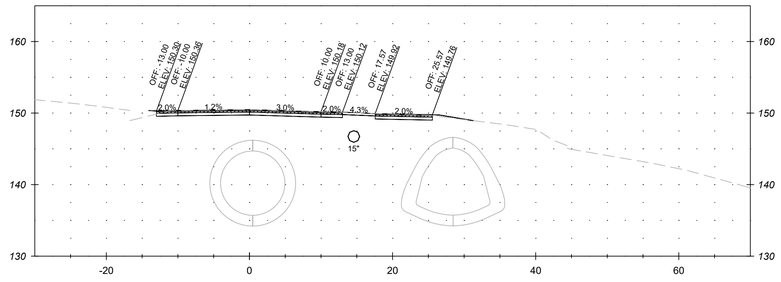
XS-24
CROSS SECTION

MACARTHUR BOULEVARD BIKEWAY PHASE III

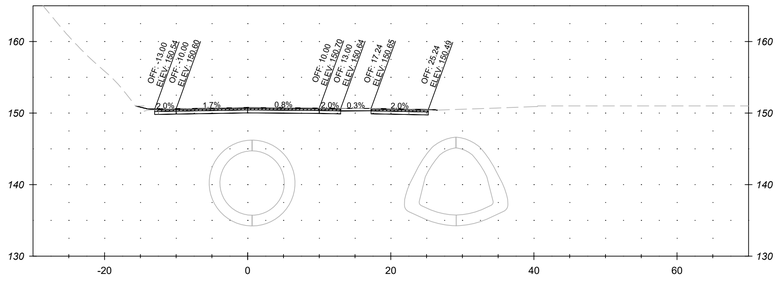
0 10' 20'

SCALE: 1"=10' DATE: JUNE 2022

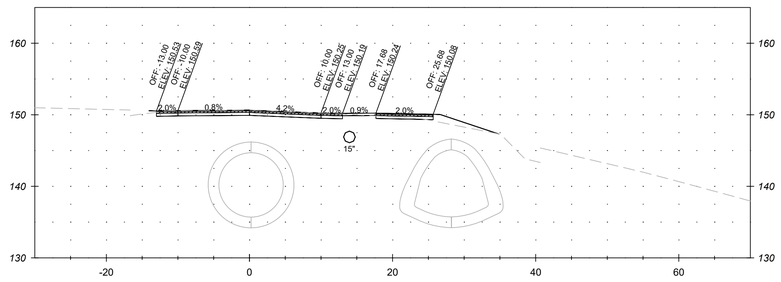
CIP No.: 502109 SHEET 141 of 156



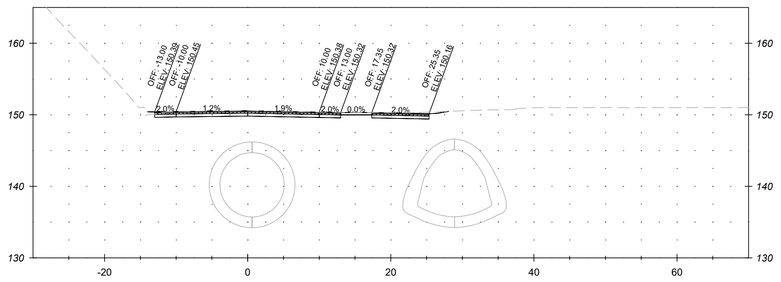
STA. 231+50



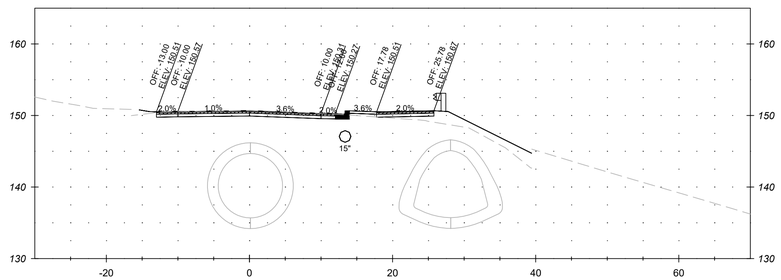
STA. 233+00



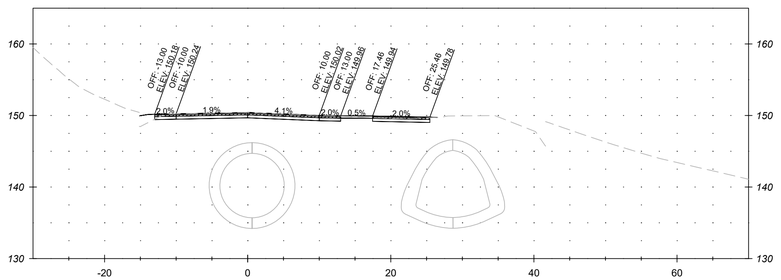
STA. 231+00



STA. 232+50



STA. 230+50



STA. 232+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

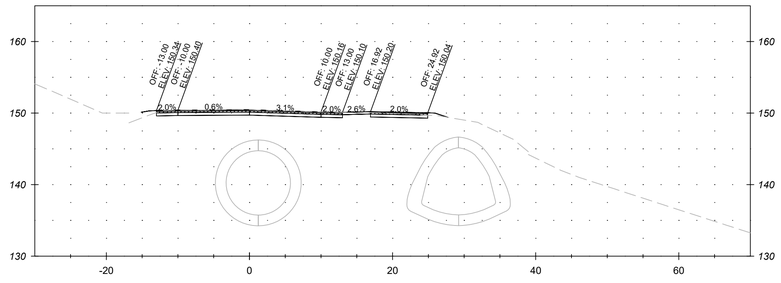
XS-25
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

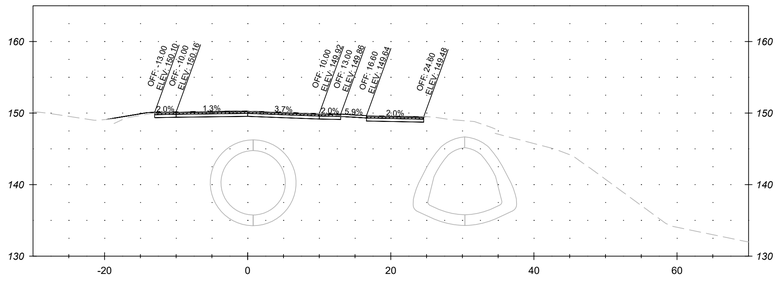
SCALE: 1"=10' DATE: JUNE 2022

CIP No. : 502109 SHEET 142 of 156

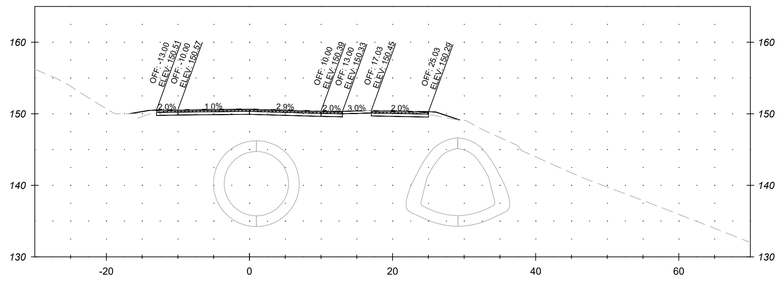
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-25 PLOTTED: Friday, June 17, 2022 - 4:39pm USER: AHavener



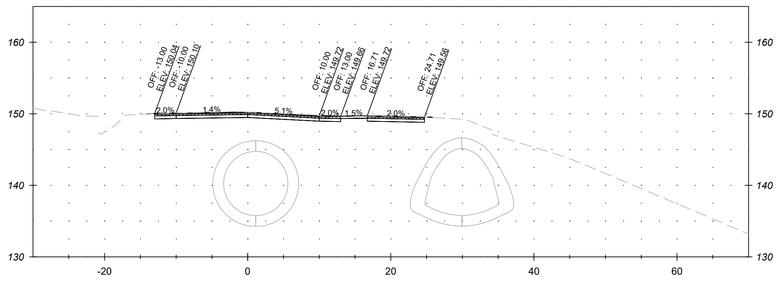
STA. 234+50



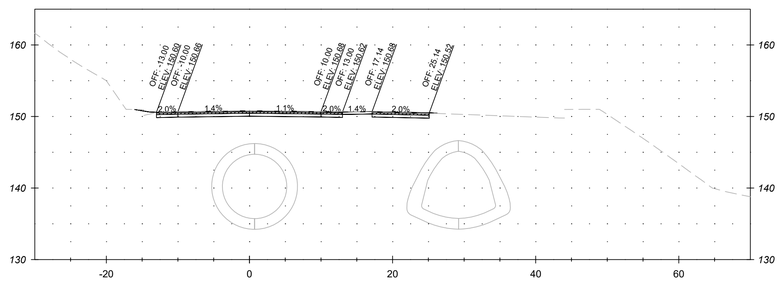
STA. 236+00



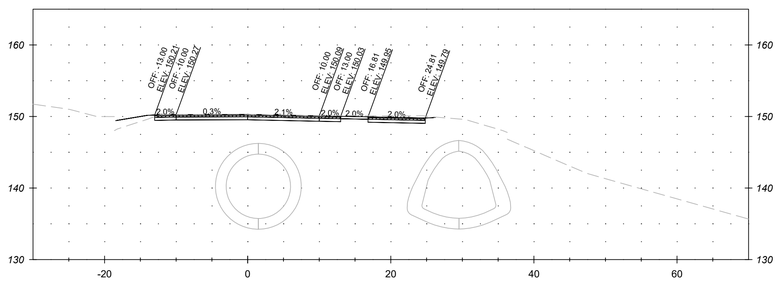
STA. 234+00



STA. 235+50



STA. 233+50



STA. 235+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-26
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

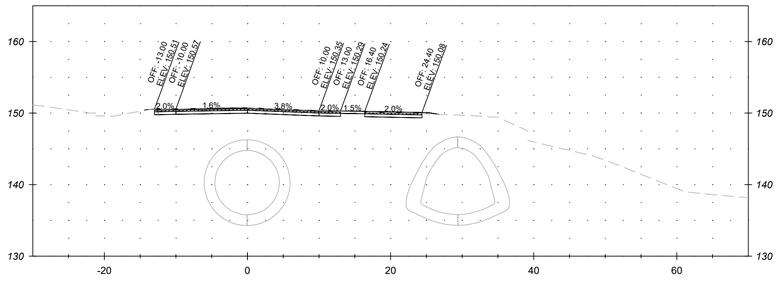
SCALE: 1"=10'

DATE: JUNE 2022

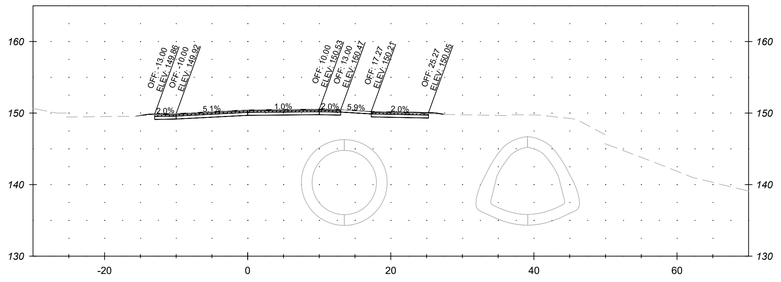
CIP No. : 502109

SHEET 143 of 156

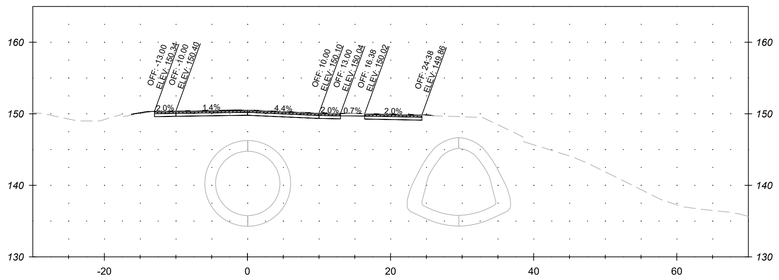
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-26 PLOTTED: Friday, June 17, 2022 - 4:39pm USER: AHavener



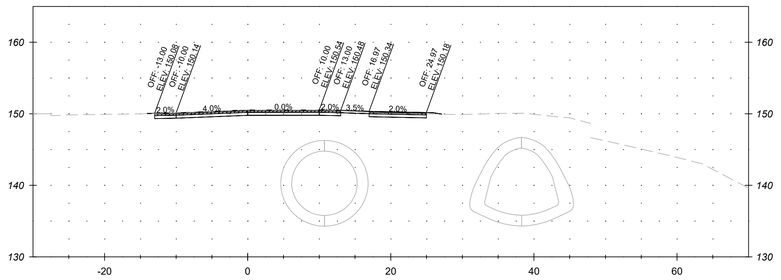
STA. 237+50



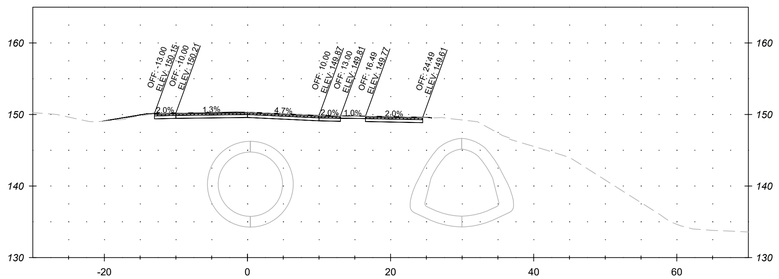
STA. 239+00



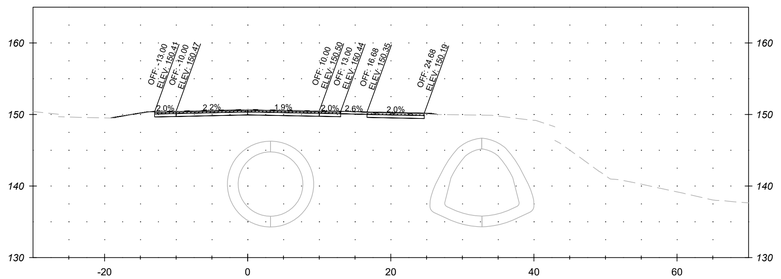
STA. 237+00



STA. 238+50



STA. 236+50



STA. 238+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-27
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

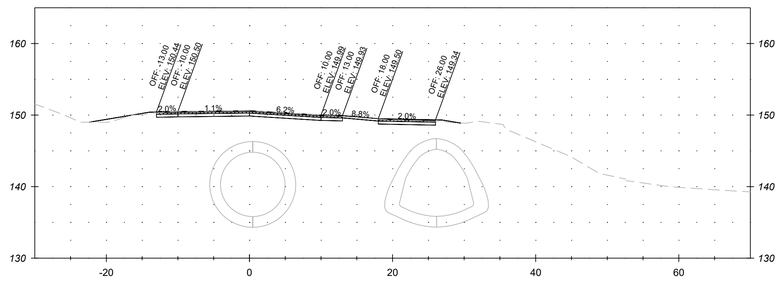
SCALE: 1"=10'

DATE: JUNE 2022

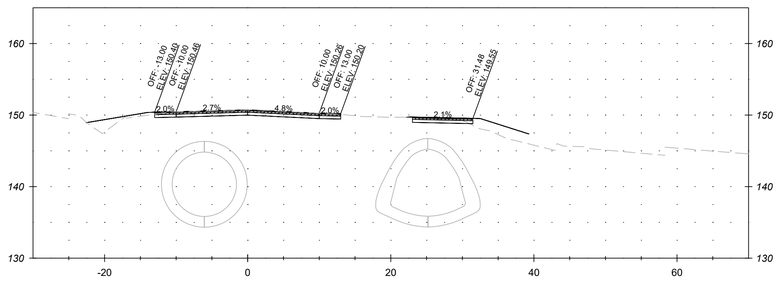
CIP No.: 502109

SHEET 144 of 156

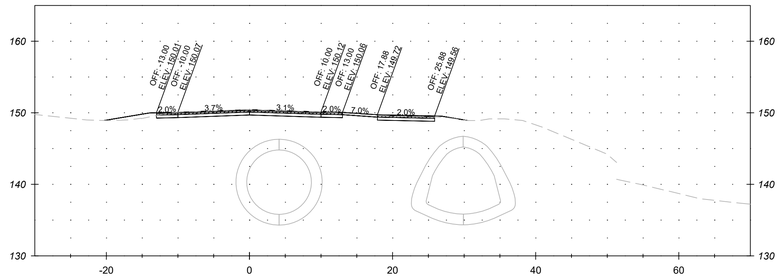
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-27 PLOTTED: Friday, June 17, 2022 - 4:40pm USER: AHavener



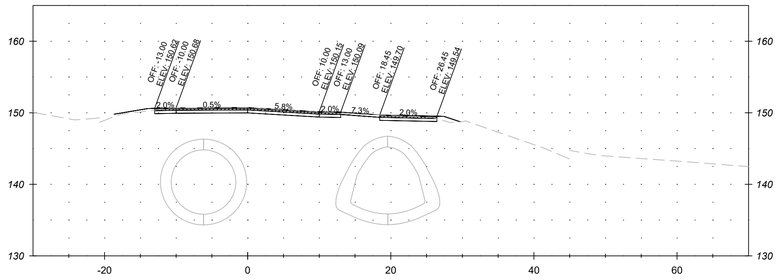
STA. 240+50



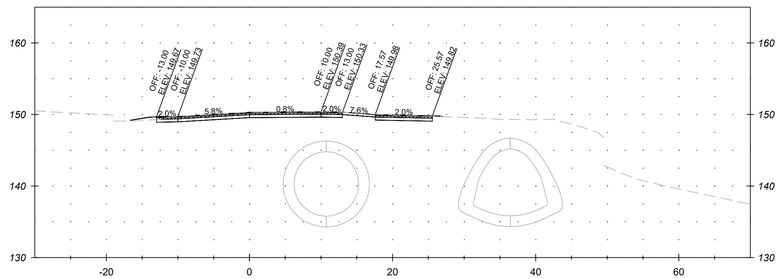
STA. 242+00



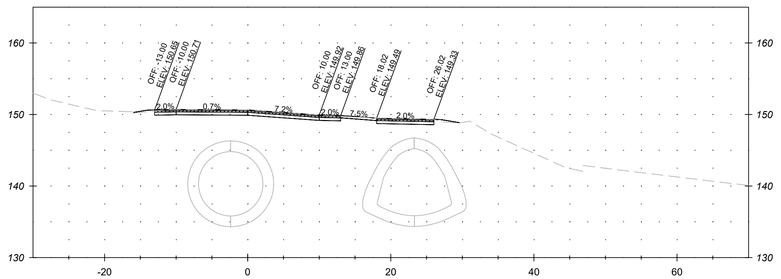
STA. 240+00



STA. 241+50



STA. 239+50



STA. 241+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

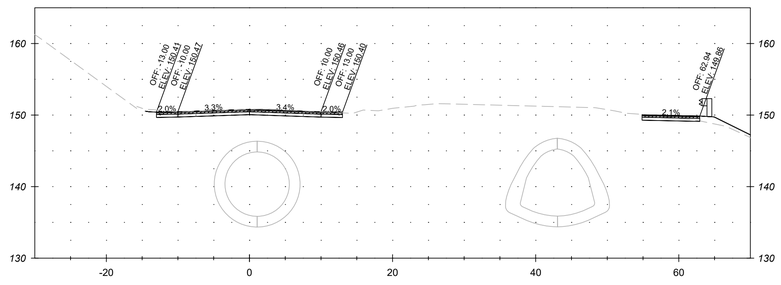
XS-28
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

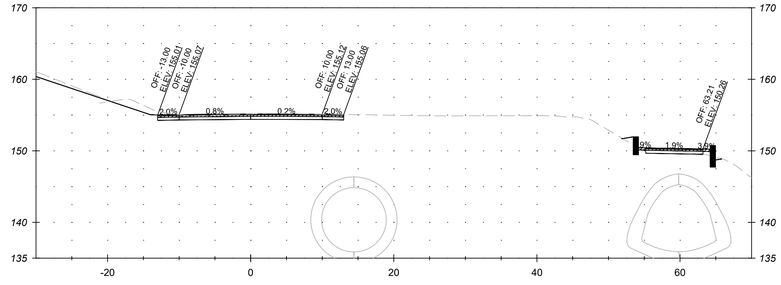
SCALE: 1"=10' DATE: JUNE 2022

CIP No.: 502109 SHEET 145 of 156

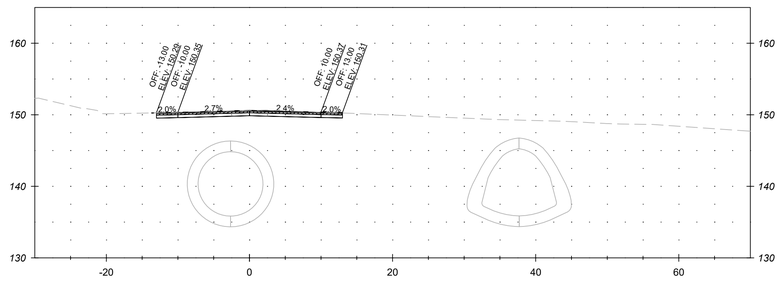
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-28 PLOTTED: Friday, June 17, 2022 - 4:40pm USER: AHavener



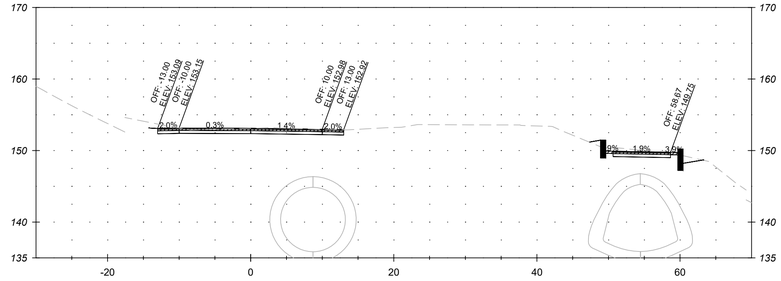
STA. 243+50



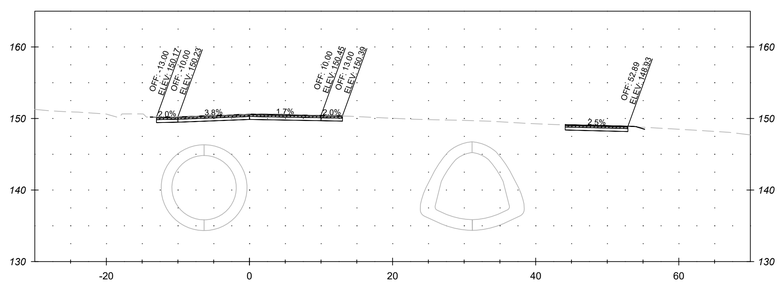
STA. 245+00



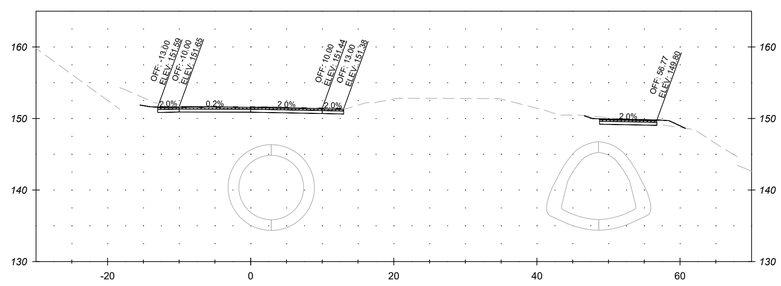
STA. 243+00



STA. 244+50



STA. 242+50



STA. 244+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-29
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

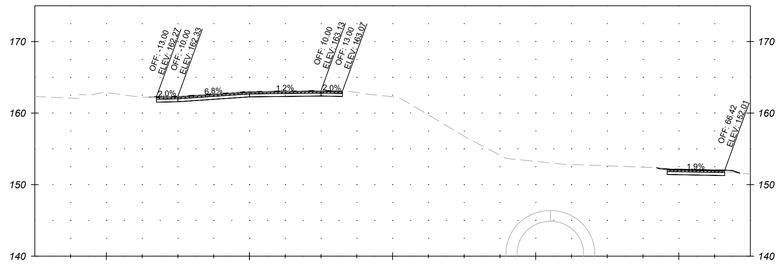
0 10' 20'

SCALE: 1"=10'

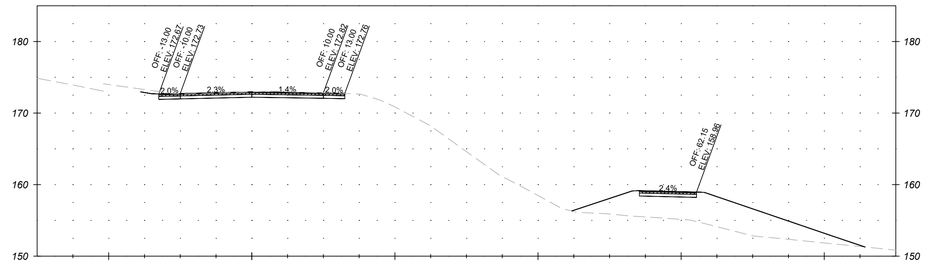
DATE: JUNE 2022

CIP No. : 502109

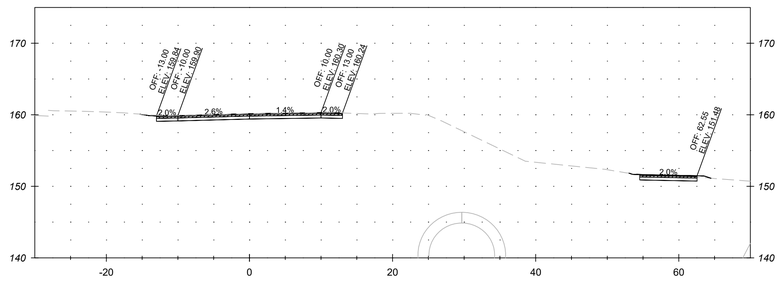
SHEET 146 of 156



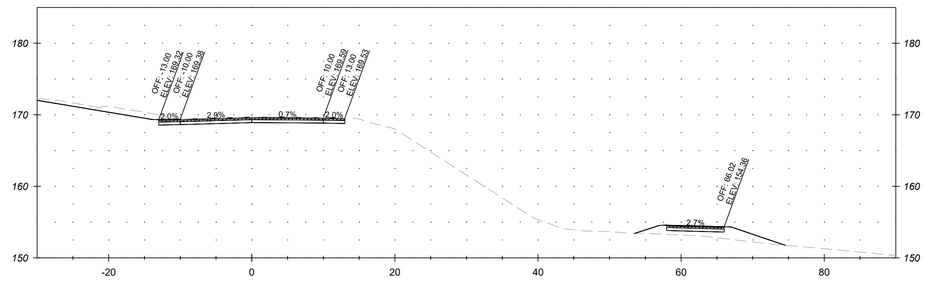
STA. 246+50



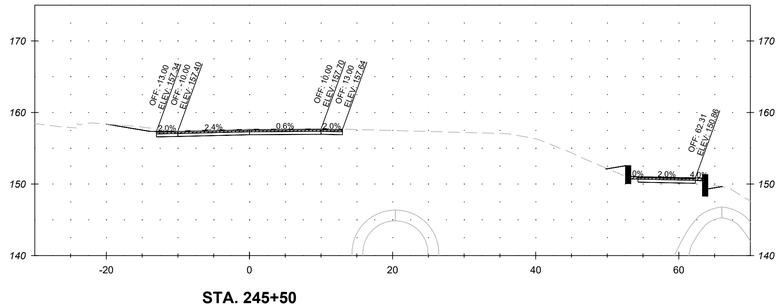
STA. 248+00



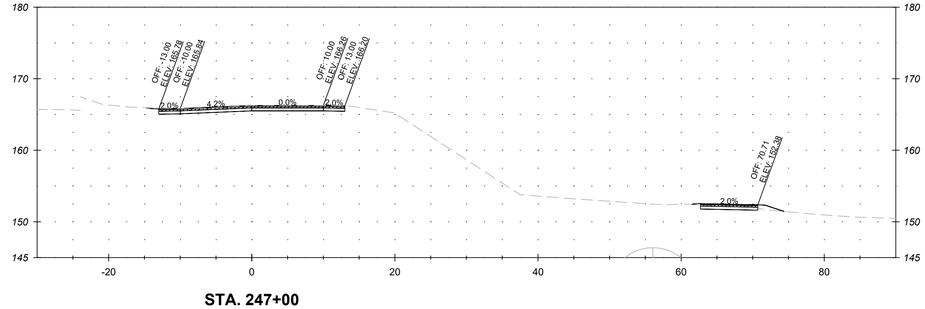
STA. 246+00



STA. 247+50



STA. 245+50



STA. 247+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-30
CROSS SECTION

MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

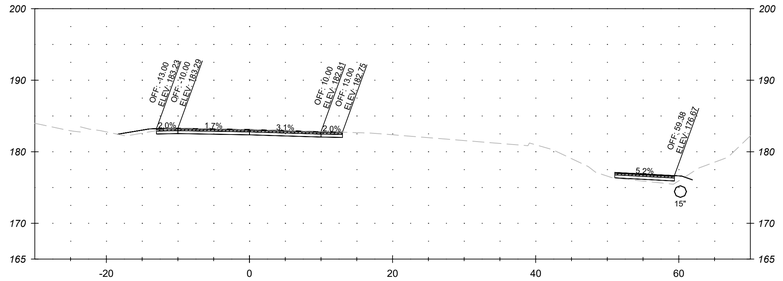
SCALE: 1"=10'

DATE: JUNE 2022

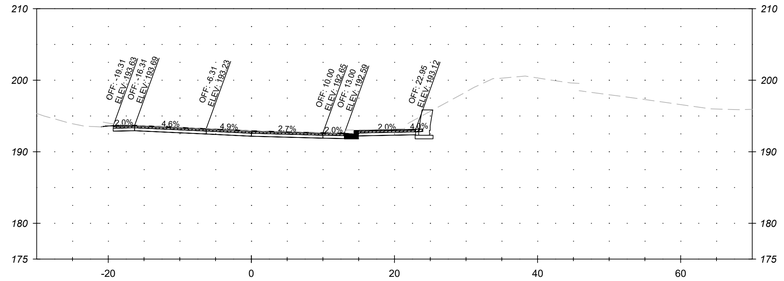
CIP No. : 502109

SHEET 147 of 156

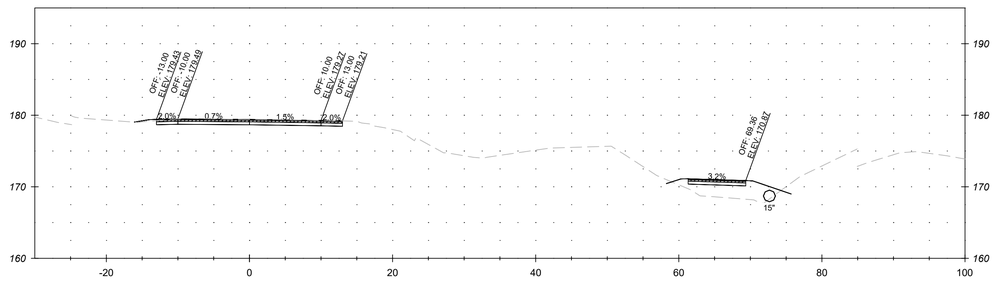
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-30 PLOTTED: Friday, June 17, 2022 - 4:41pm USER: AHavener



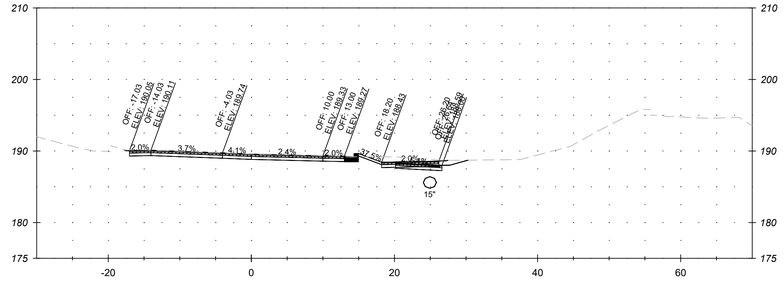
STA. 249+50



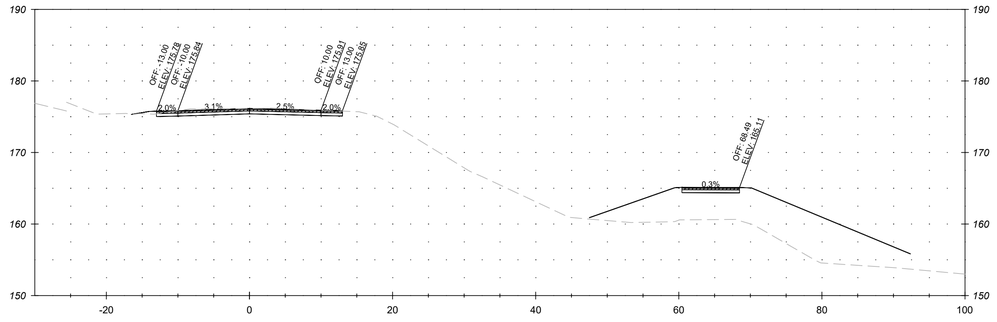
STA. 251+00



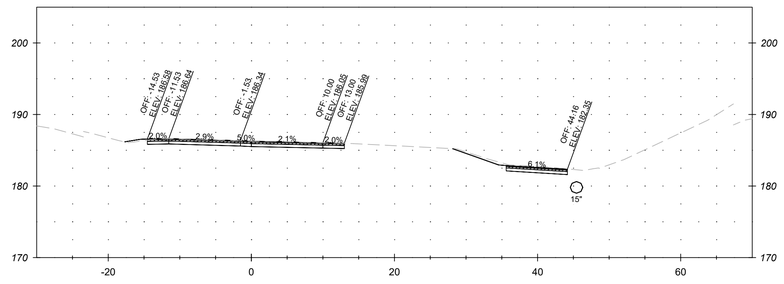
STA. 249+00



STA. 250+50



STA. 248+50



STA. 250+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

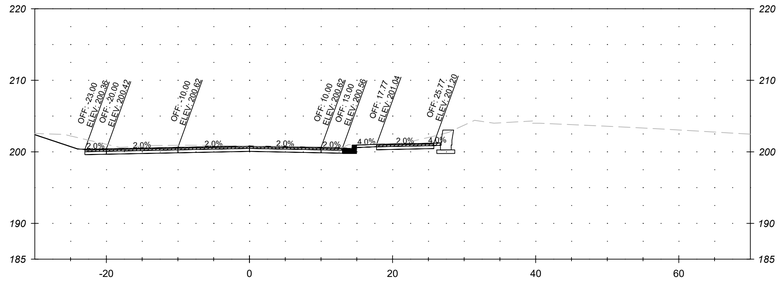
Designed by: ADH Drawn by: ADH Checked by: JJR

XS-31
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

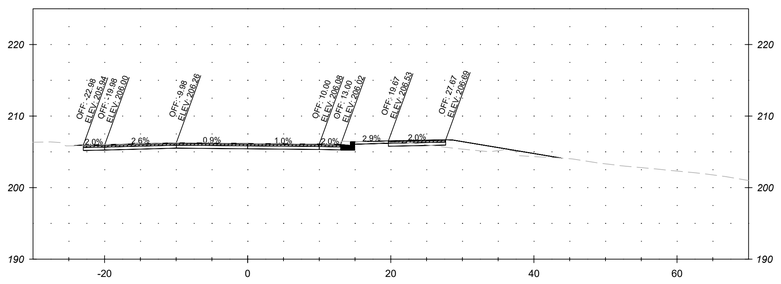
0 10' 20'

SCALE: 1"=10' DATE: JUNE 2022

CIP No. : 502109 SHEET 148 of 156



STA. 252+50



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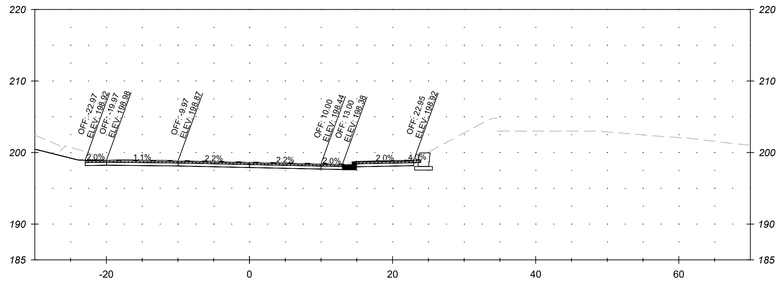

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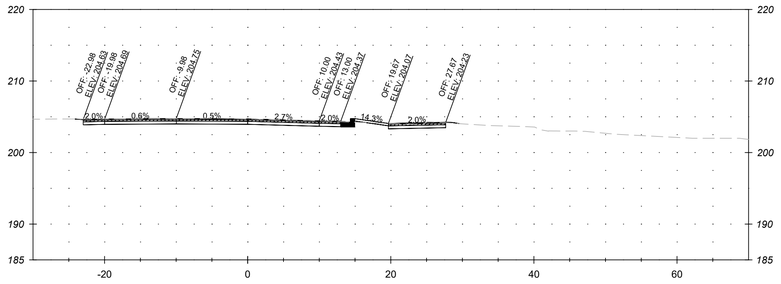
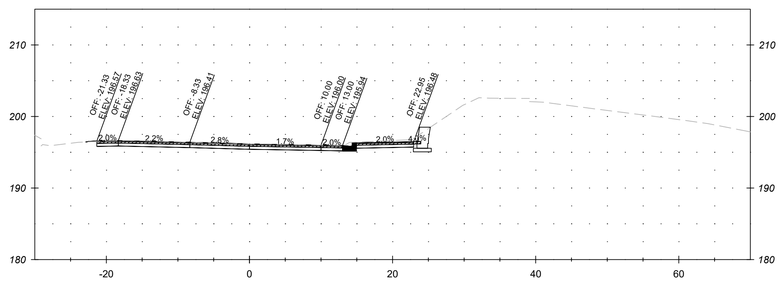
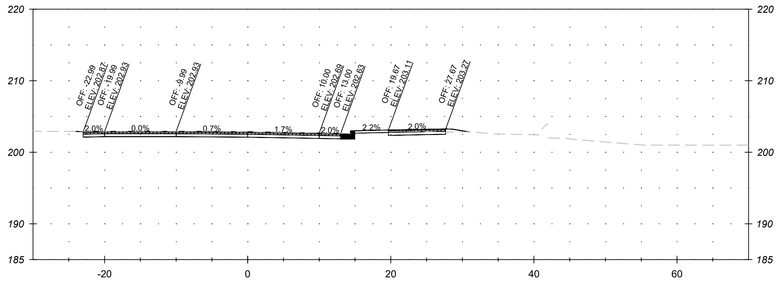


STA. 253+50



STA. 251+50



STA. 253+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-32
CROSS SECTION

MACARTHUR BOULEVARD BIKEWAY PHASE III

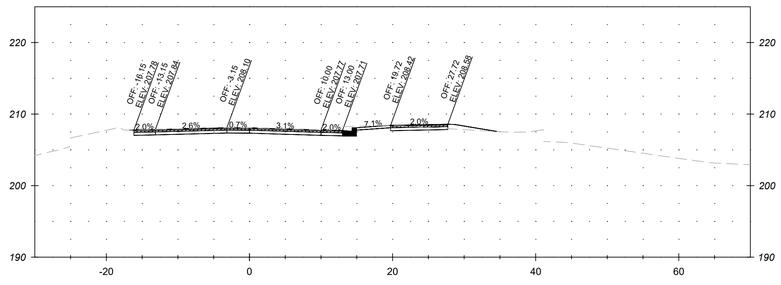
0 10' 20'

SCALE: 1"=10'

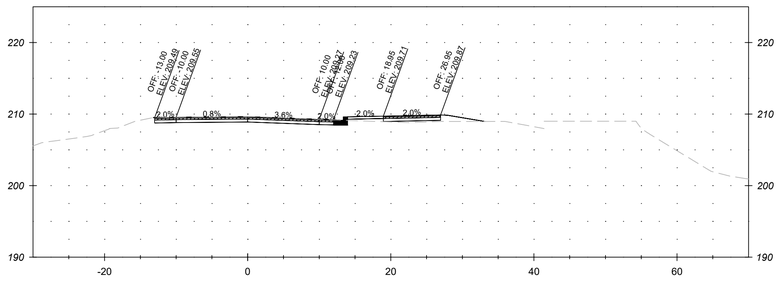
DATE: JUNE 2022

CIP No. : 502109

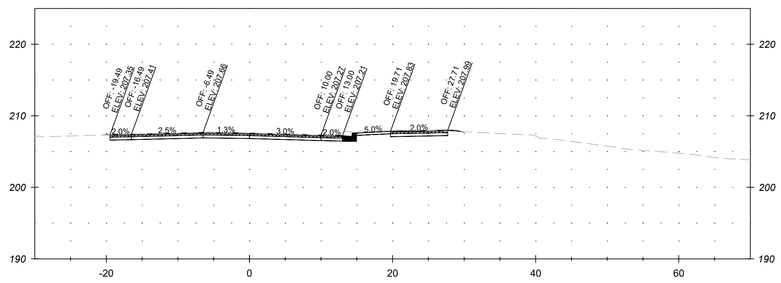
SHEET 149 of 156



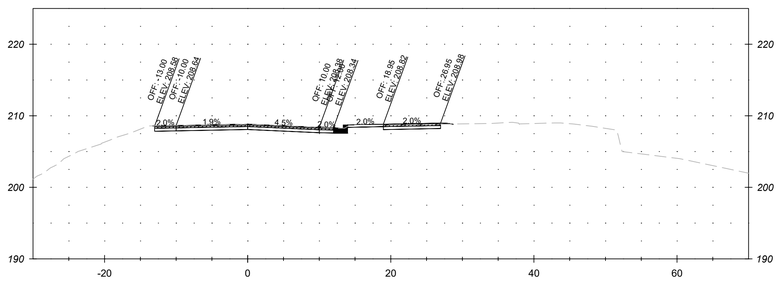
STA. 255+50



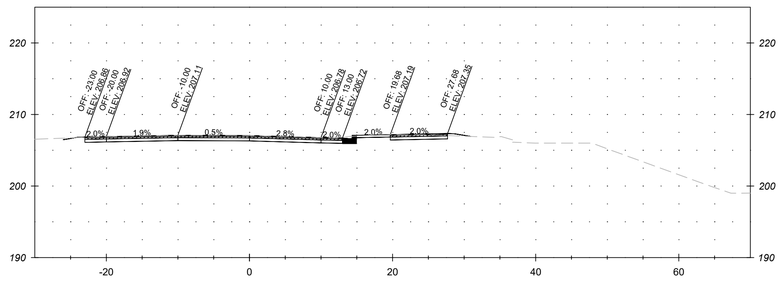
STA. 257+00



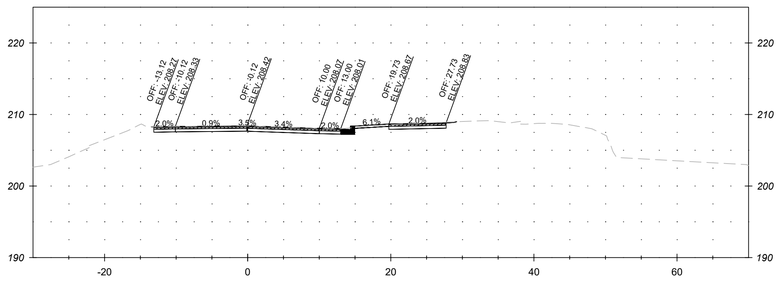
STA. 255+00



STA. 256+50



STA. 254+50



STA. 256+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

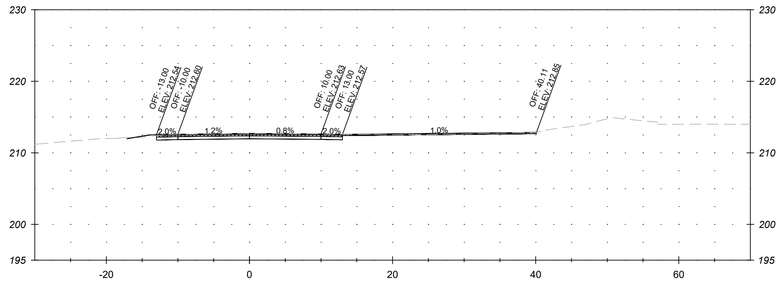
XS-33
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

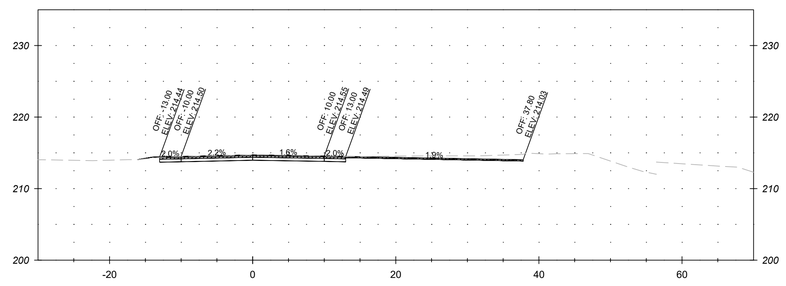
SCALE: 1"=10' DATE: JUNE 2022

CIP No. : 502109 SHEET 150 of 156

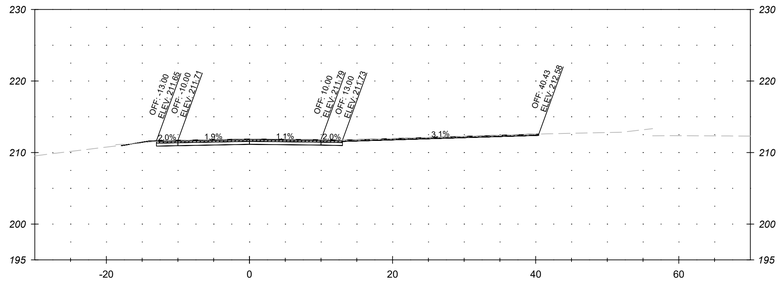
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-33 PLOTTED: Friday, June 17, 2022 - 4:43pm USER: AHavener



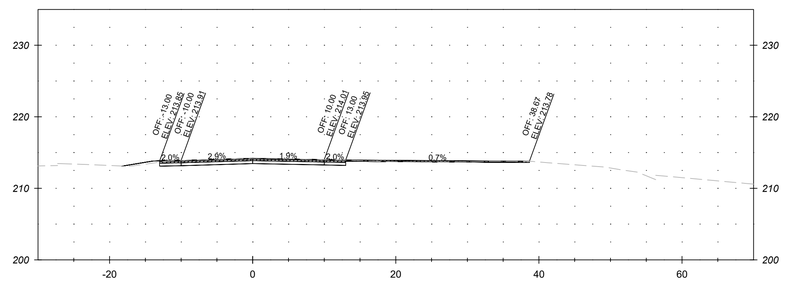
STA. 258+50



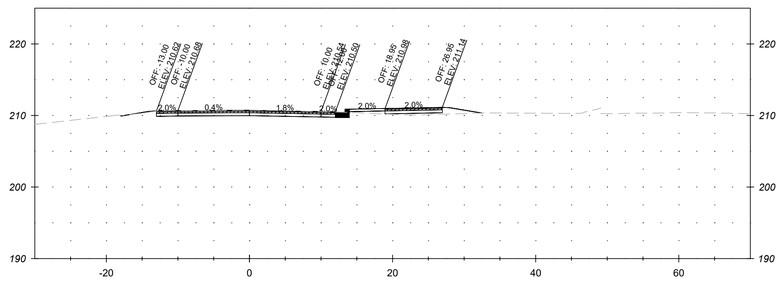
STA. 260+00



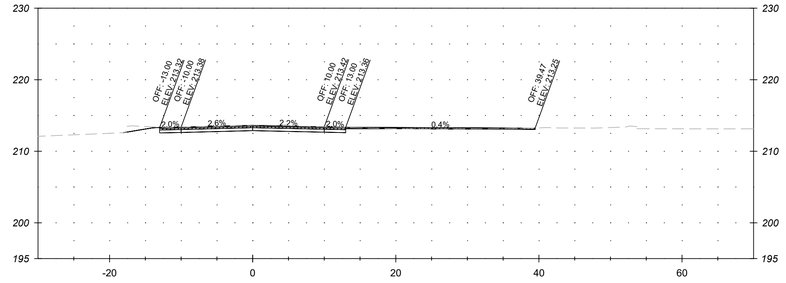
STA. 258+00



STA. 259+50



STA. 257+50



STA. 259+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-34
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

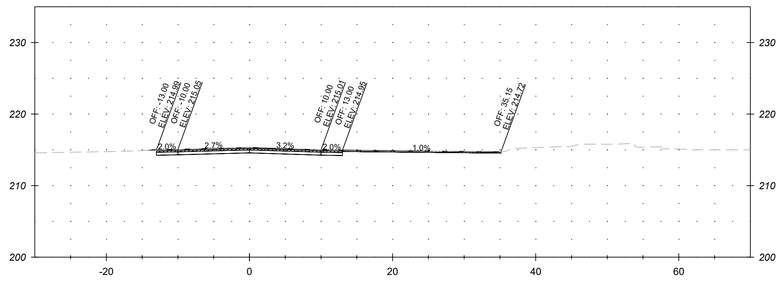
SCALE: 1"=10'

DATE: JUNE 2022

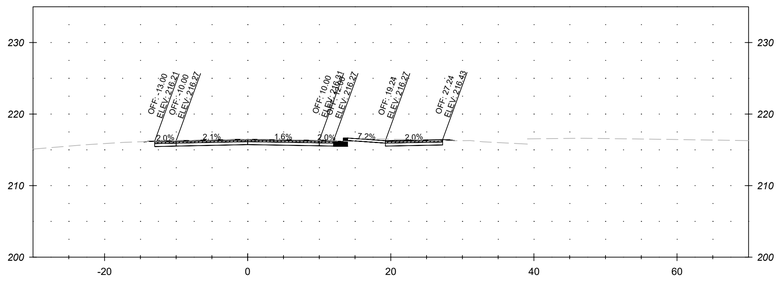
CIP No.: 502109

SHEET 151 of 156

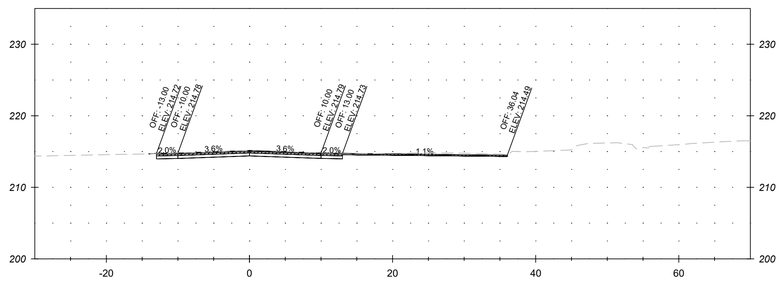
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-34 PLOTTED: Friday, June 17, 2022 - 4:43pm USER: AHavener



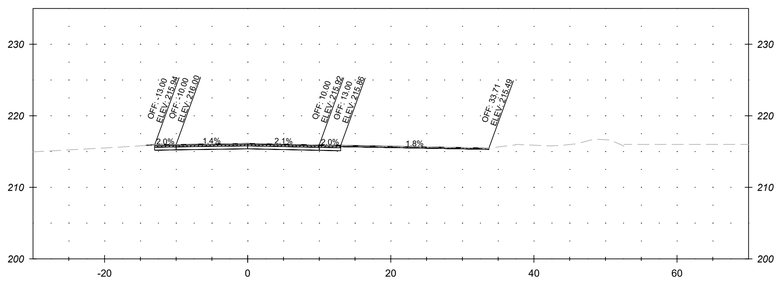
STA. 261+50



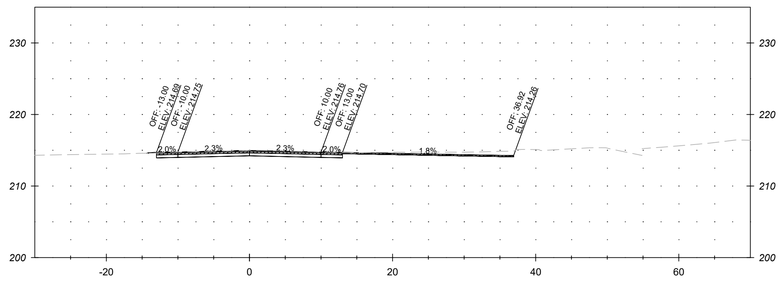
STA. 263+00



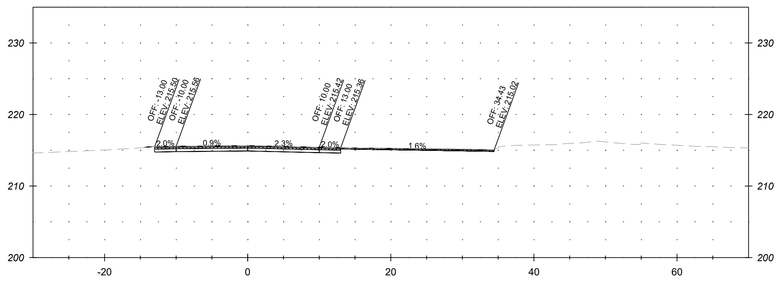
STA. 261+00



STA. 262+50



STA. 260+50



STA. 262+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-35
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

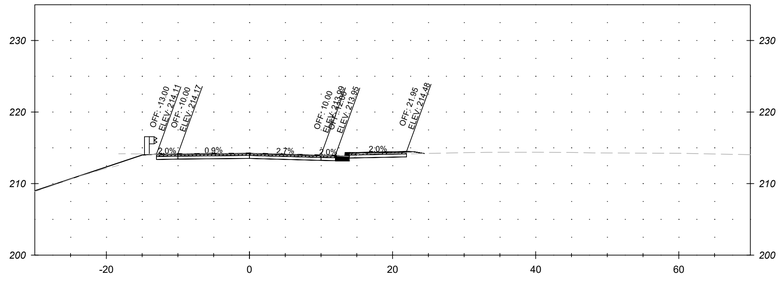
SCALE: 1"=10'

DATE: JUNE 2022

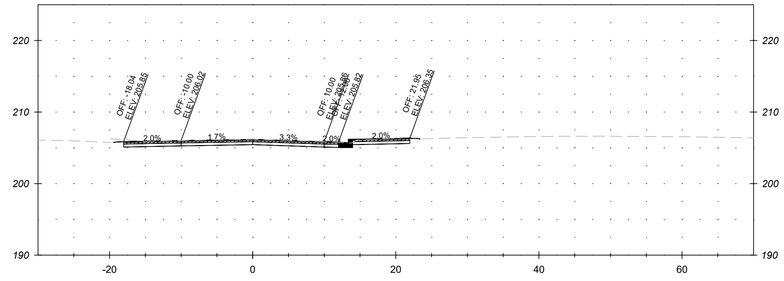
CIP No. : 502109

SHEET 152 of 156

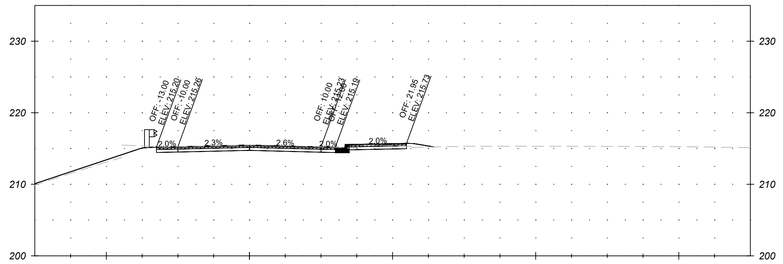
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-35 PLOTTED: Friday, June 17, 2022 - 4:44pm USER: AHavener



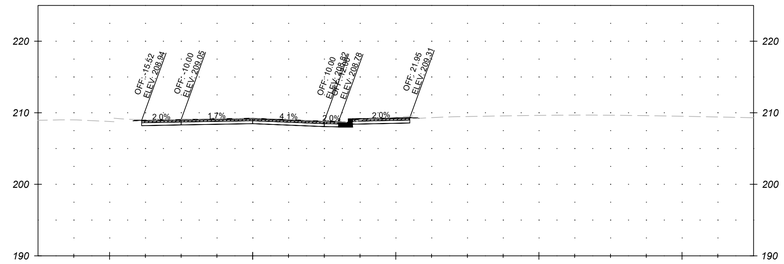
STA. 264+50



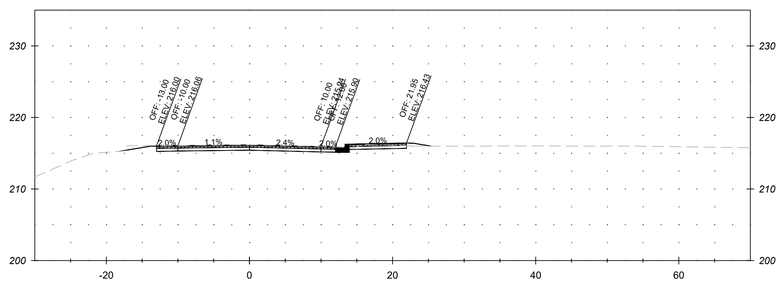
STA. 266+00



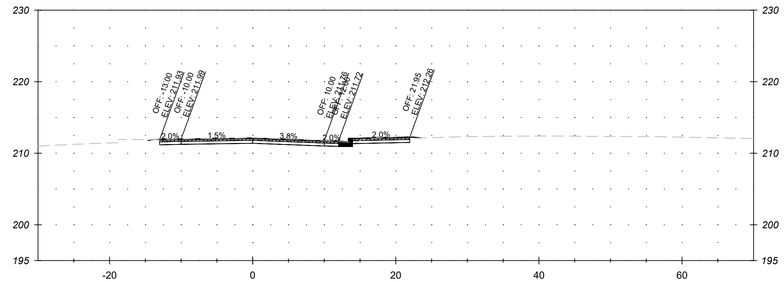
STA. 264+00



STA. 265+50



STA. 263+50



STA. 265+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

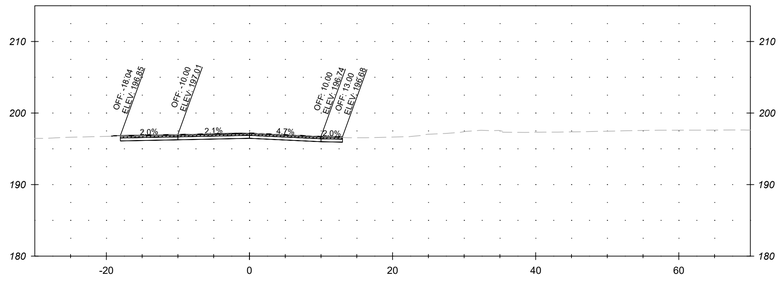
XS-36
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

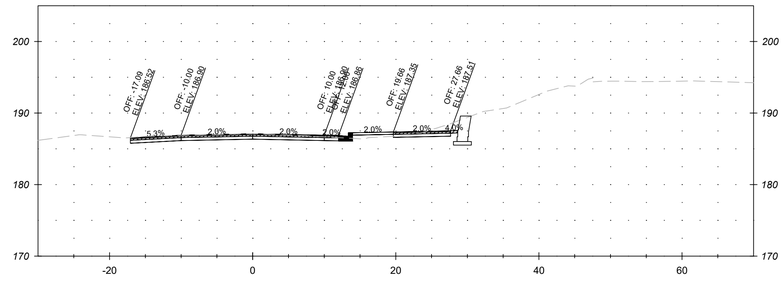
SCALE: 1"=10' DATE: JUNE 2022

CIP No. : 502109 SHEET 153 of 156

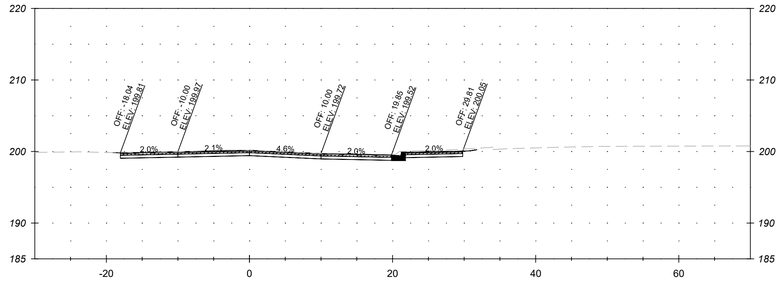
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-36 PLOTTED: Friday, June 17, 2022 - 4:44pm USER: AHavener



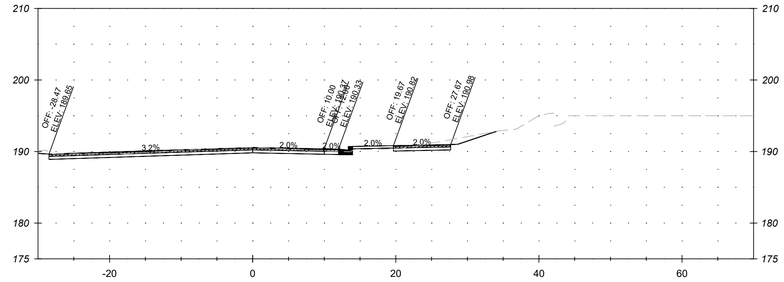
STA. 267+50



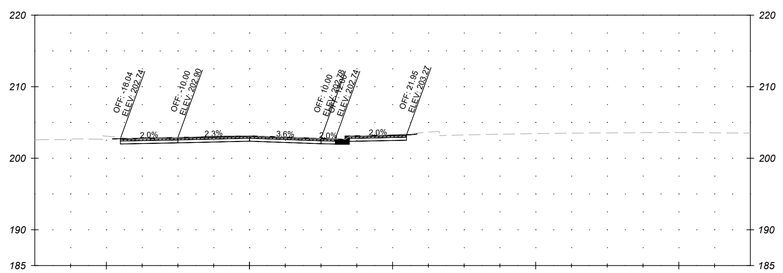
STA. 269+00



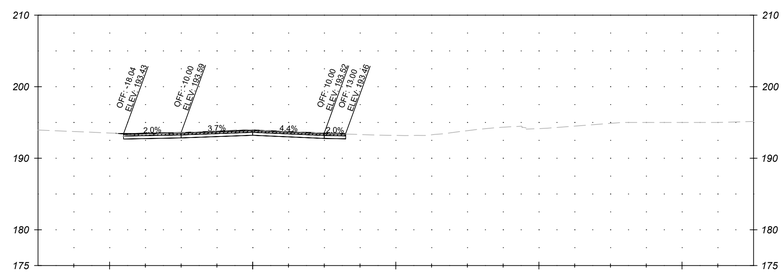
STA. 267+00



STA. 268+50



STA. 266+50



STA. 268+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-37
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

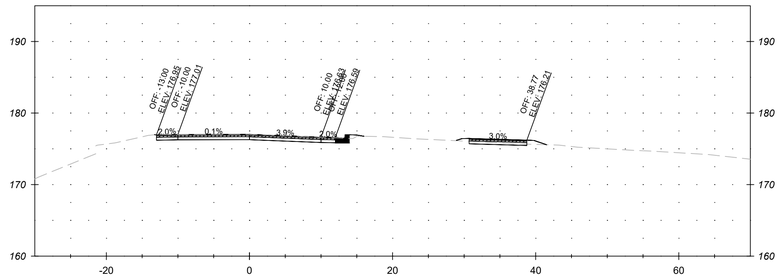
SCALE: 1"=10'

DATE: JUNE 2022

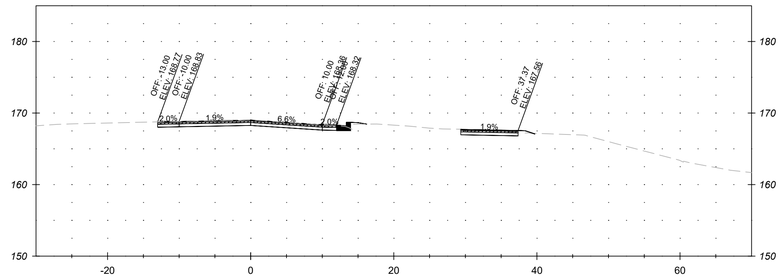
CIP No. : 502109

SHEET 154 of 156

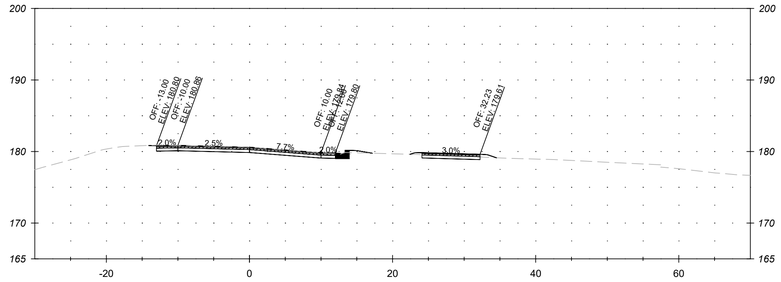
FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-37 PLOTTED: Friday, June 17, 2022 - 4:45pm USER: AHavener



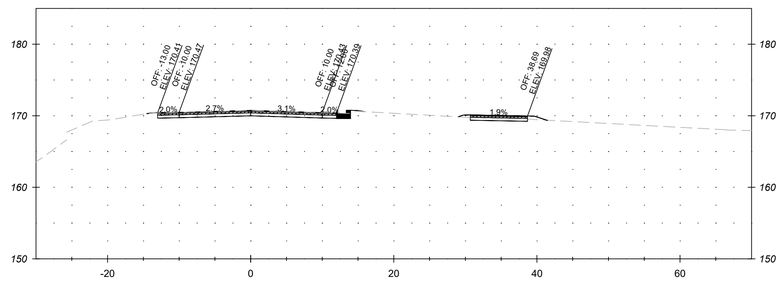
STA. 270+50



STA. 272+00



STA. 270+00



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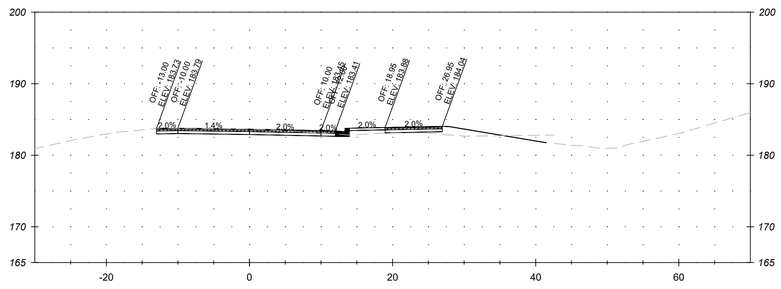

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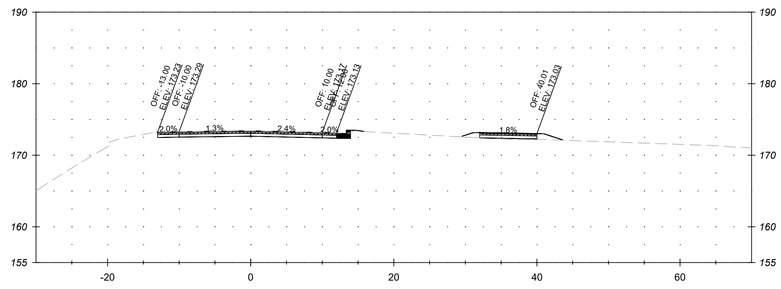


STA. 271+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-38
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

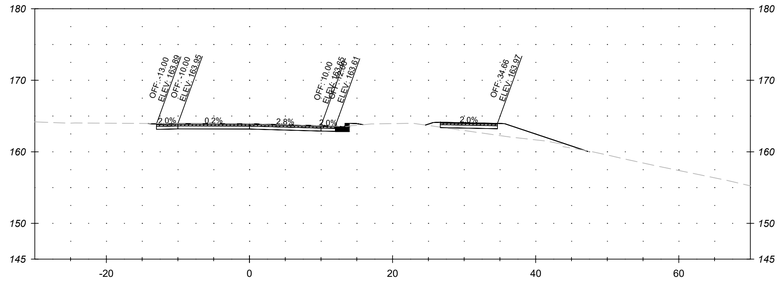
0 10' 20'

SCALE: 1"=10'

DATE: JUNE 2022

CIP No.: 502109

SHEET 155 of 156



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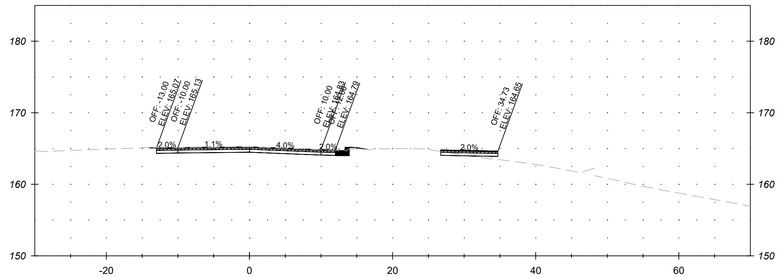

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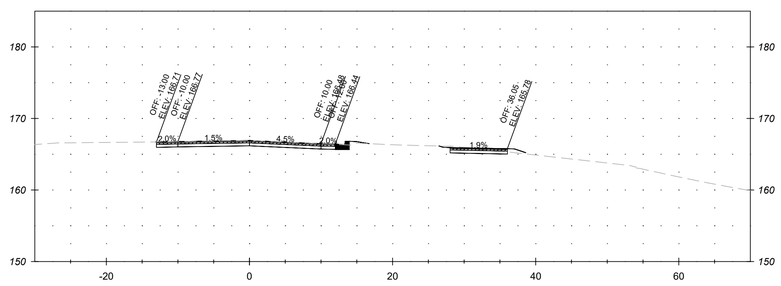

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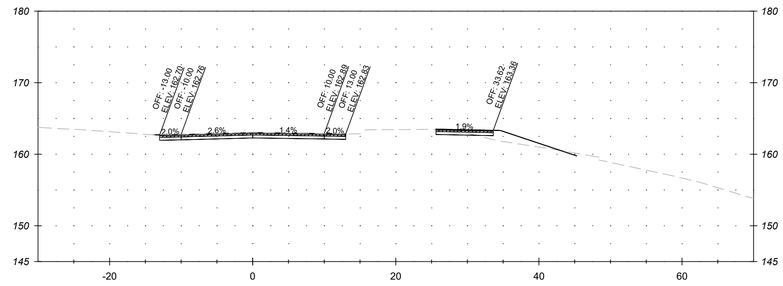

STA. 274+00

DRAFT
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ADH Drawn by: ADH Checked by: JJR

XS-39
CROSS SECTION
MACARTHUR BOULEVARD BIKEWAY PHASE III

0 10' 20'

SCALE: 1"=10'

DATE: JUNE 2022

CIP No. : 502109

SHEET 156 of 156

FILE NAME: C:\pwworking\jmt\d0320713\pHC-0001_MacArthur_CrossSections.dwg LAYOUT NAME: XS-39 PLOTTED: Friday, June 17, 2022 - 4:46pm USER: AHavener