# **MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION CAPITAL CRESCENT SURFACE TRAIL - PHASE 2** WILLOW LANE TO 47th STREET MONTGOMERY COUNTY, MARYLAND C.I.P PROJECT NO. 501307

# *30% DESIGN REVIEW - APRIL 16, 2020*

PERMITTING S			PARTMENT OF PROVED FOR:	
STORMWATER MANAGEM	ENT	SED	IMENT CONTROL TECHN REQUIREMENTS:	IICAL
REVIEWED DATE		RE	VIEWED DATE	
APPROVED DATE				
S.M.FILE NO.		AP	PROVED DATE	
DPS approval of a sediment control or stor create or imply any right to divert or conce responsible person of professional liability	ntrate runoff o	nto any adiacer	nt property without that property ov	wner's permissior
	and placed	on the first NSIBLITY ED PERM	OF PERMITTEE/OWI	trol/Stormwate NER OF TH ANCE OF T
TYPE OF PERMIT	REQ'D	NOT REQ'D	DIMENT CONTROL P	
MCDPS Floodplain district		X		
WATERWAYS/WETLAND(S)		x		
a. Corps of Engineers				
b. MDE		X		
		X X		
b. MDE c. MDE Water Quality				
b. MDE c. MDE Water Quality Certification	X	x	MCDOT Blanket Permit No. 361405	APPROVAL
b. MDE c. MDE Water Quality Certification MDE Dam Safety *DPS Roadside Trees	X	x		APPROVAL
b. MDE c. MDE Water Quality Certification MDE Dam Safety *DPS Roadside Trees Protection Plan NPDES	x	X X		
b. MDE c. MDE Water Quality Certification MDE Dam Safety *DPS Roadside Trees Protection Plan NPDES NOTICE OF INTENT	X	X X X	No. 361405	
b. MDE c. MDE Water Quality Certification MDE Dam Safety *DPS Roadside Trees Protection Plan NPDES NOTICE OF INTENT FEMA LOMR (Required post contruction) OTHERS (Please List): MNCPPC Park Construction Permit	X	X X X	No. 361405 NA	APPROVAL
b. MDE c. MDE Water Quality Certification MDE Dam Safety *DPS Roadside Trees Protection Plan NPDES NOTICE OF INTENT FEMA LOMR (Required post contruction) OTHERS (Please List):	X 	x x x x x	No. 361405	

OWNER'S/DEVELOPER'S CERTIFICATION

Date

I/We 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.

Signature

Printed Name and Title

CERTIFICATION OF THE QUANTITIES to be 25,265 square feet.

Signature Date

Printed Name and Title

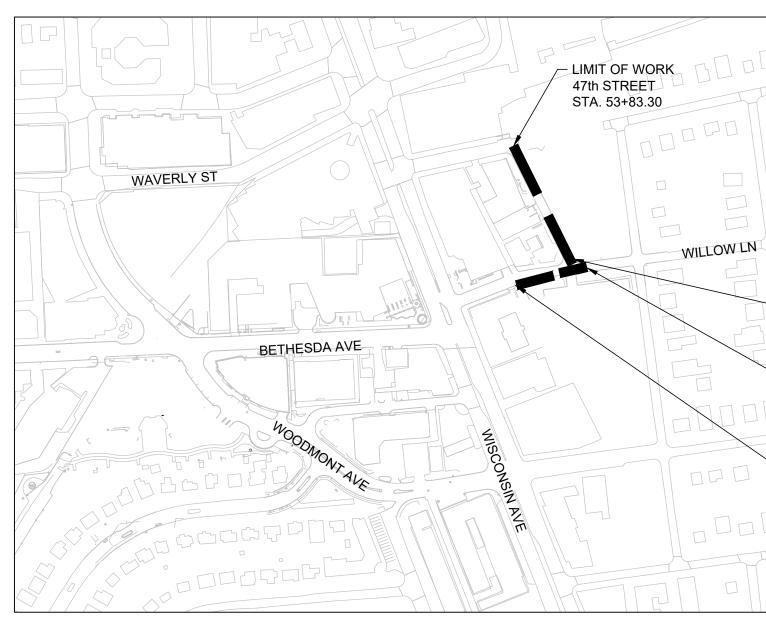
TOOLE DESIGN 8484 GEORGIA AVENUE, SUITE 800, SILVER SPRING, MD 20910 PHONE: (301) 927-1900 FAX: (301) 927-2800

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# MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122

DTE: DT NI DPS	MCDPS APPROVAL DOES EGATE THE NEED OF A ACCESS PERMIT	
ADMI	INISTRATIVE REQUIREMENTS:	
	REVIEWED DATE	_
SEDI	IMENT CONTROL PERMIT NO.	_
one ye IF The F The Pe	APPROVAL OF THIS PLAN WILL EXPIRE AR FROM THE DATE OF APPROVAL. PROJECT HAS NOT STARTED, UNLESS RMIT HAS BEEN EXTENDED.	
It does	runoff treatment standards and does not s not relieve the design engineer or other nhill properties.	
S SI	agement plan set for all projects TE TO OBTAIN PPROVED	
ON	WORK RESTRICTION DATES	
	NA	
	NA	
DATE		
	DATE FILED NA	
ector a	at the preconstruction meeting	



# VICINITY MAP

1"=250'

HORIZONTAL DATUM NAD 83 VERTICAL DATUM **NAVD 88** 

**Registration Number** 

I hereby certify that the estimated total amount of excavation and fill as shown on these plans has been computed to 660 cubic yards of excavation, 660 cubic yards of fill and the total area to be disturbed as shown on these plans has been determined

OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY COUNT DEPARTMENT OF TRANSPOR ROCKVILLE, MARYLAN	RTATION	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL		CAPITAL CRESCENT SURFACE TRAIL PHASE 2
CONTACT:					Chief, Transportation Planning and Design Section APPROVED	Date	WILLOW LANE TO 47TH STREET
PROJECT MANAGER MATT JOHNSON, AICP							TITLE SHEET
240-777-7237					Chief, Division of Transportation Engineering	Date	SCALE     NONE     DATE     APRIL 16, 2020
	NO. REV	VISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY <u>VR</u>	CHECKED BY	DWG.         C0.0         SHEET NO.         1         OF         26

# **INDEX OF SHEETS**

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	05	C3.1	TYPICAL SECTIONS - 2
	06	C5.0	ROADWAY PLAN
	07	C5.1	HARDSCAPE DETAILS-1
	08	C5.2	HARDSCAPE DETAILS-2
	09	C5.3	GEOMETRY TABLE (NOT INCLUDED IN 30%)
	10	C6.0	SIGNING AND MARKING NOTES
	11	C6.1	SIGNING AND MARKING DETAILS
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	16	LT-01	LIGHTING PLAN
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	19	C8.0	CROSS SECTION - 1
	20	C8.1	CROSS SECTION - 2
	21	C8.2	CROSS SECTION - 3
	22	C8.3	CROSS SECTION - 4
	23	C8.4	CROSS SECTION - 5
	24	C8.5	CROSS SECTION - 6
	25	C8.6	CROSS SECTION - 7
	26	SC-1	EROSION AND SEDIMENT CONTROL PLAN
•			

LIMIT OF WORK 47th STREET STA. 50+00.00

LIMIT OF WORK WILLOW LANE STA. 43+90.00

> LIMIT OF WORK WILLOW LANE STA. 42+00.00

# MISS UTILITY

CALL "MISS UTILITY" AT 1-800-257-777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

ALL UTILITIES SHOWN ON THE PLANS ARE PROVIDED FOR INFORMATION ONLY AND SHALL BE CONSIDERED APPROXIMATE. ANY UTILITIES OR OTHER UNDERGROUND FACILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED / REPLACED AT THE CONTRACTOR'S SOLE EXPENSE.

# **GENERAL NOTES**

- 1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE 2019 EDITION OF THE STANDARD SPECIFICATIONS OF THE MARYLAND STATE HIGHWAY ADMINISTRATION, AND WASHINGTON SUBURBAN SANITARY COMMISSION.
- 2. ALL STRIPING AND SIGNS WORK SHALL COMPLY WITH THE LATEST APPLICABLE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDMUTCD) AND MCDOT STANDARDS AND SPECIFICATIONS. SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT) AND MARYLAND STATE HIGHWAY ADMINISTRATION (MDSHA) STANDARDS AND SPECIFICATIONS.
- 3. ALL EXISTING PAVEMENT MARKINGS MAY NOT BE SHOWN. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED BY A METHOD APPROVED BY MCDOT.
- 4. REPAIRS TO UTILITIES OR PROPERTY DAMAGES AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE WITHOUT ANY ADDITIONAL COST TO THE COUNTY BEFORE PROCEEDING WITH CONSTRUCTION.
- 5. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTION TO PROTECT ALL GRADING, SIDEWALKS AND FEATURES OUTSIDE THE LIMITS OF WORK AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AS DIRECTED BY MCDOT ANY SUCH OR CAUSED BY THE CONTRACTOR'S OPERATIONS AT NO ADDITIONAL COST TO MCDOT.
- 6. ALL ELEVATIONS SHOWN ON THIS PLAN ARE IN ACCORDANCE WITH THE FOLLOWING: HORIZONTAL--MARYLAND COORDINATE SYSTEM (STATE PLANE GRID) BASED ON NAD 83; VERTICAL--NAVD88.
- 7. ALL EXISTING STORM DRAIN STRUCTURES, SEWER MANHOLES, VALVE BOXES, VAULTS, ETC. SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET THE FINISHED GRADE ELEVATION AS APPROVED BY THE COUNTY INSPECTOR, UNLESS THESE APPURTENANCES ARE ABANDONED OR REMOVED UNDER THIS CONTRACT. ADJUSTMENTS WILL NOT BE MEASURED, BUT THE COST WILL BE INCIDENTAL TO THE ASPHALT ITEM.
- 8. THE CONTRACTOR SHOULD NOT UNDER ANY CIRCUMSTANCE BAG OR REMOVE PARKING METERS. REQUESTS FOR BAGGING METERS NEED TO GO TO THE MONTGOMERY COUNTY DIVISION OF PARKING MANAGEMENT, HOWEVER REQUESTS MUST COME FROM A MCDOT EMPLOYEE, NOT AN OUTSIDE PERSON. REQUESTS FOR BAGGING MUST BE SUBMITTED BY THE MCDOT STAFF PERSON TO THE DIVISION OF PARKING MANAGEMENT 72 HOURS IN ADVANCE, AND THEREFORE MUST BE SUBMITTED TO THE MCDOT STAFF PERSON EARLIER. THE DIVISION OF PARKING MANAGEMENT WILL HAVE THE SOLE RESPONSIBILITY FOR BAGGING METERS, REMOVING METERS, REMOVING METER POLES, AND INSTALLING ANY SIGNAGE RELATED TO PARKING. THE CONTRACTOR SHOULD NOT INSTALL ANY SIGNAGE RELATED TO PARKING RESTRICTIONS.
- 9. SURVEYS WERE PERFORMED BY AB CONSULTANTS INC IN SEPTEMBER 2013 AND JANUARY 2014.



8484 GEORGIA AVENUE, SUITE 800, SILVER SPRING, MD 20910 PHONE: (301) 927-1900 FAX: (301) 927-2800 www.tooledesign.com



# STANDARD SYMBOLS

### PROPOSED LINE TYPES

-	T
_	———— E ————
-	C
_	—— FO —— FO ——
_	G
_	W
_	
_	CS
_	<u> </u>
_	SS
_	STM
_	

UNDERGROUND TELEPHO UNDERGROUND ELECTRIC UNDERGROUND CABLE UNDERGROUND FIBER OP UNDERGROUND GAS UNDERGROUND WATER ABANDONED LINE UNDERGROUND COMBINA UNDERGROUND STORM S UNDERGROUND SANITARY UNDERGROUND STEAM UNDERGROUND STEAM RE

TRAFFIC STRIPING, CROSS TRAFFIC STRIPING, CROSS TRAFFIC STRIPING, CROSS TRAFFIC STRIPING, LANES TRAFFIC STRIPING, LANES TRAFFIC STRIPING, LANES FENCE / CHAIN LINK

FENCE / BARBED WIRE
BLDG
BLDG-STEP
BLDG-WALL
CURB
CURB-GUTR
CURB-X

ROAD-EDGE

SDWK

SITE-PAD

EXISTING LINE	TYPES

т
———— E ————
C
FO FO
G
W
CS
SD
SS
STM

X	X
X	X
	X X

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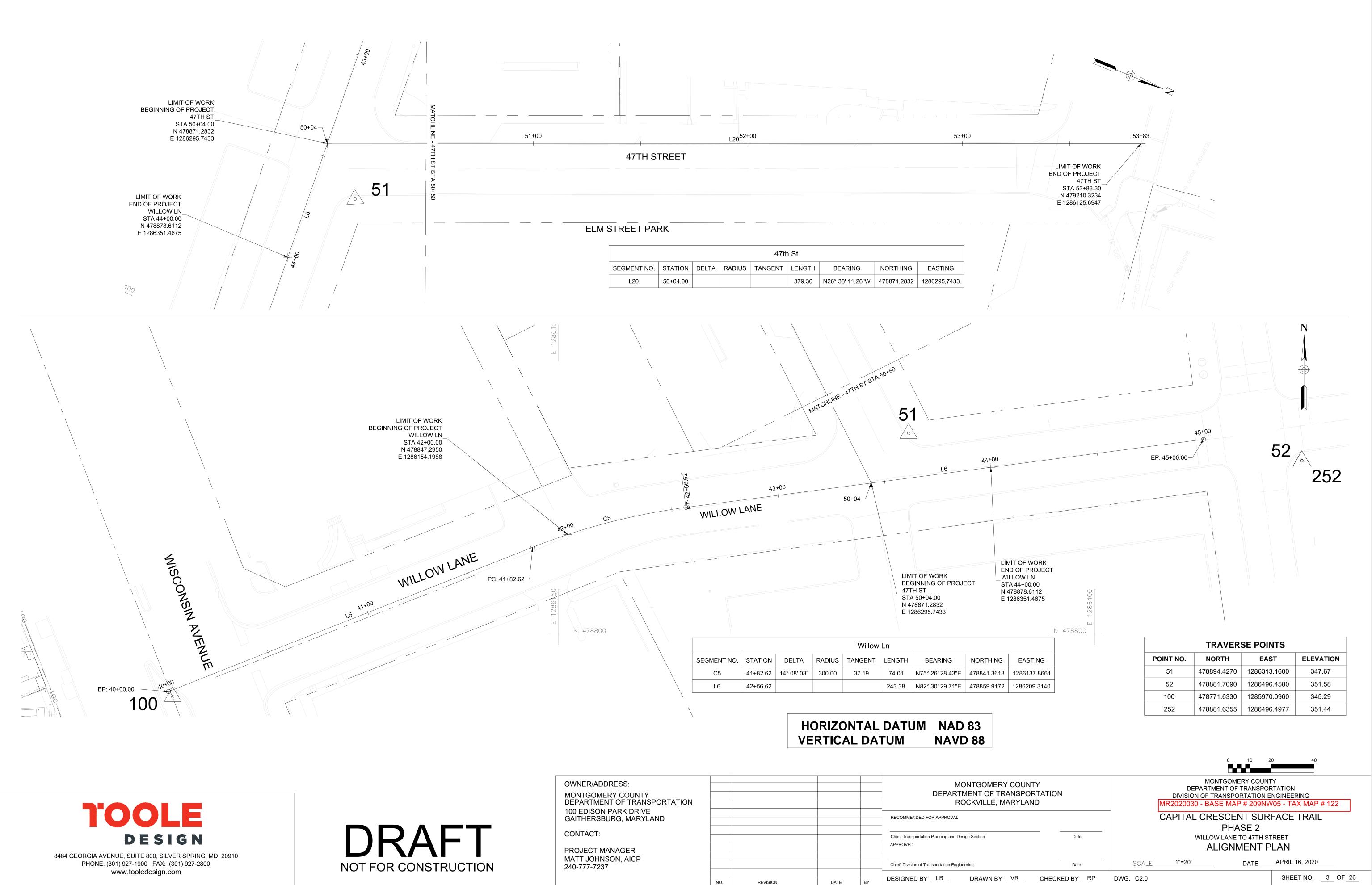
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OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY COUN DEPARTMENT OF TRANSPO ROCKVILLE, MARYLA	ORTATION	MONTGOMERY COUN DEPARTMENT OF TRANSPO DIVISION OF TRANSPORTATION MR2020030 - BASE MAP # 209NW0	DRTATION ENGINEERING
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL		CAPITAL CRESCENT SUF PHASE 2	RFACE TRAIL
CONTACT: PROJECT MANAGER					Chief, Transportation Planning and Design Section APPROVED	Date	WILLOW LANE TO 47TH S GENERAL NO	
MATT JOHNSON, AICP 240-777-7237					Chief, Division of Transportation Engineering	Date	SCALE <u>NONE</u> DATE	APRIL 16, 2020
	NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY <u>VR</u>	CHECKED BY	DWG. C1.0	SHEET NO2_ OF _26

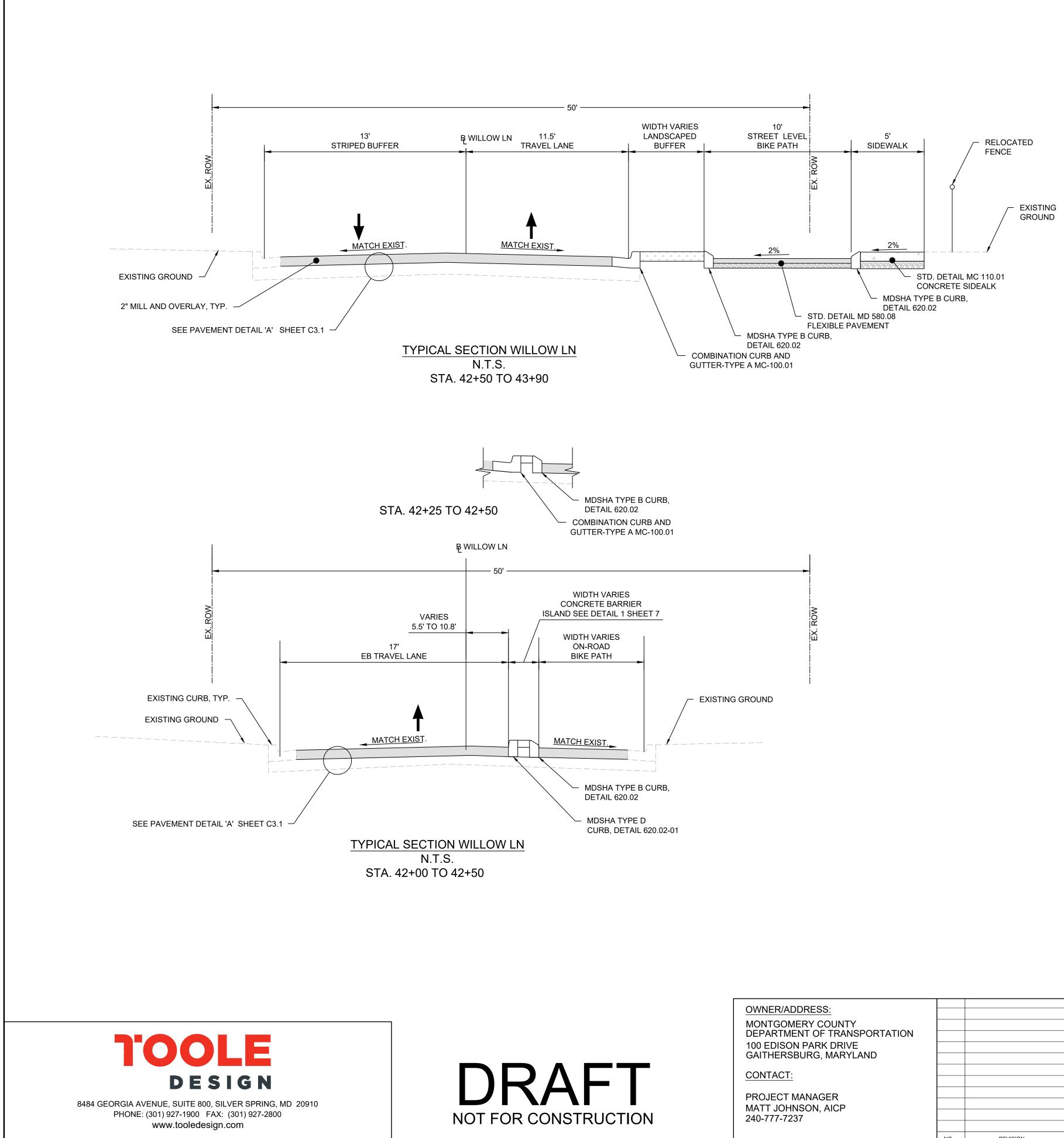
	EXISTING SYMBOLS	PROPOSED SYMBOLS	_
ONE	GS	69	COMBINATION SEWER
IC	63	65	SEWER MANHOLE
	sco	sço	SEWER CLEANOUT
PTIC	Ô	Ð	STORM DRAIN MANHOLE
	CO ©	CO ©	STORM DRAIN CLEANOUT
	$\bigcirc$	Ø	WATER MANHOLE
	WM FH	₩ FH O	WATER METER
ATION SEWER	0	۲ <mark>۵</mark>	FIRE HYDRANT
SEWER	$\overset{\vee\vee}{\bowtie}$	X	WATER VALVE
RY SEWER	WHC	WHC M	WATER HOUSE CONNECTION
AT SEWER	×	<b>内</b>	SPIGOT
	× O Q	₽.O.C@	FOUNTAIN FIRE
RETURN	õ	Ő	MONITORING WELL
	<b></b>	Ø	WELL
SSWALK	Ð	Ð	ELECTRICAL MANHOLE
SSWALK	*	<b>+</b>	ELECTRICAL OUTLET UTILITY POLE
SSWALK			GUY WIRE
S	Ē	È	ELECTRICAL BOX
S	¢.	¢	
S	X Ø	X Ø	GROUND LIGHT CIRCUIT BREAKER
	$\bigcirc$	$\overset{\vee}{\mathbb{D}}$	TELEPHONE MANHOLE
	Т	Т	TELEPHONE BOX TEST VALVE
	©	₽ ©	GAS MANHOLE
	GM	GM	GAS METER
	GM	O	GAS METER
	GV	GY	GAS VALVE
	$\bigcirc$	$\bigcirc$	UNIDENFIED MANHOLE
			TRANSFORMER
	<u> </u>	_0_	SIGNBOARD MAIL BOX
	$\bigtriangleup$	$\triangle$	TRAVERSE / FLY
	P	P	BENCHMARK
	202		TREE
	P	PB	PULL BOX
			U.S. POST BOX TRAFFIC CONTROL BOX
	⊠ <sub>TC</sub>	⊠ <sub>⊤c</sub>	
	®	0 0	FIRE CALL BOX POLICE CALL BOX
	© ©	0	BOLLARD
	4	4	MONITORING WELL
	PM	PM	PARKING METER
	T.L.		TRAFFIC LIGHT
			DECIDUOUS TREE APPROX. DRIP LINE
		X	CONIFEROUS TREE APPROX. DRIP LINE

EXISTING PROPOSED

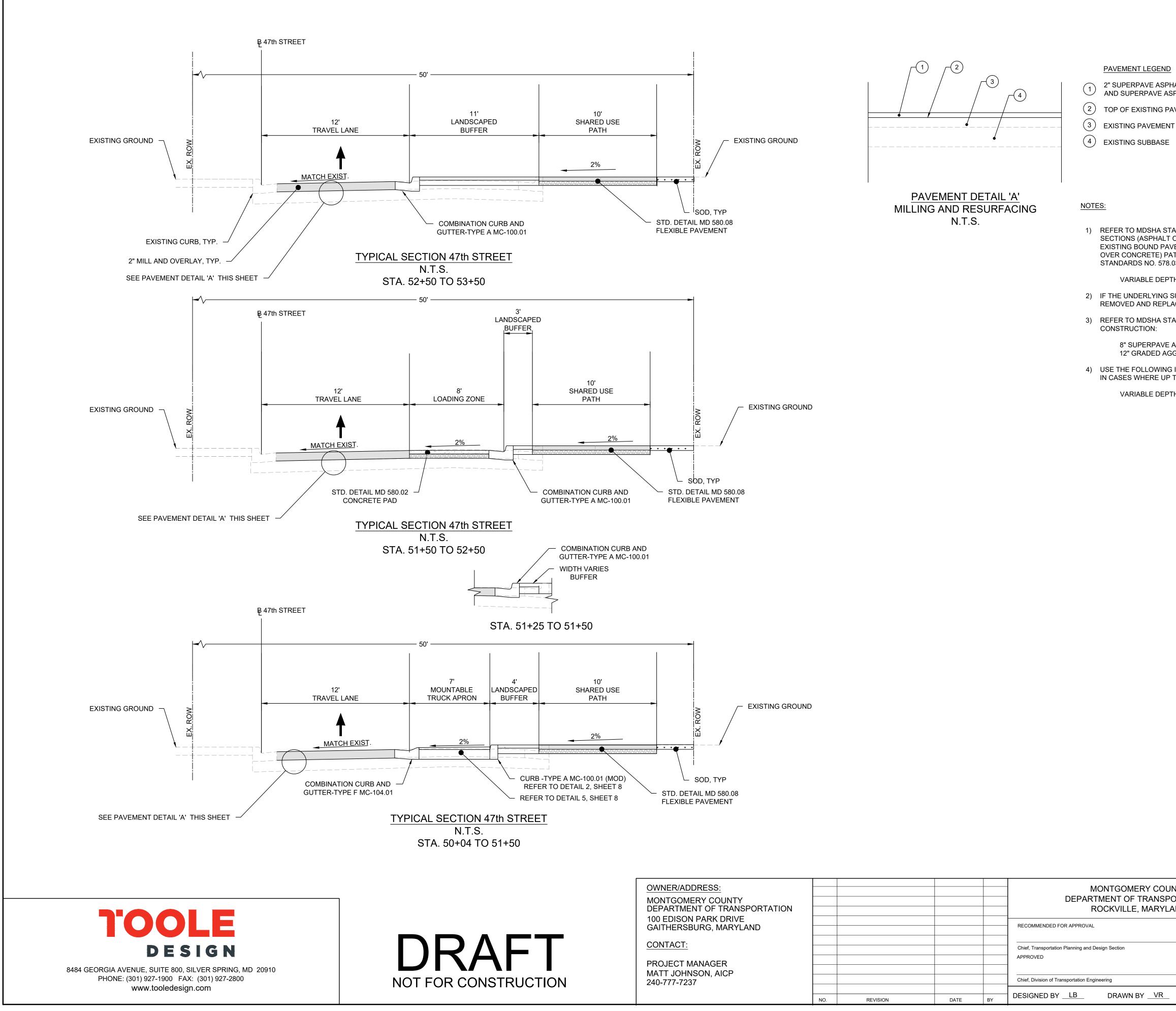


47th St								
SEGMENT NO.	STATION	DELTA	RADIUS	TANGENT	LENGTH	BEARING	NORTHING	EASTING
L20	50+04.00				379.30	N26° 38' 11.26"W	478871.2832	1286295.7433

	-				
OWNER/ADDRESS:					MONTGOMERY
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					DEPARTMENT OF TR ROCKVILLE, M
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL
CONTACT:					Chief, Transportation Planning and Design Section
					APPROVED
MATT JOHNSON, AICP 240-777-7237					Chief, Division of Transportation Engineering
	NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY



OWNER/ADDRESS: MONTGOMERY COUNTY		MONTGOMERY COUN DEPARTMENT OF TRANSPO	ORTATION	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122 CAPITAL CRESCENT SURFACE TRAIL PHASE 2 WILLOW LANE TO 47TH STREET		
DEPARTMENT OF TRANSPORTATION		ROCKVILLE, MARYLA	ND			
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND		RECOMMENDED FOR APPROVAL				
CONTACT:		Chief, Transportation Planning and Design Section	Date			
PROJECT MANAGER		APPROVED		TYPICA	AL SECTIONS -1	
MATT JOHNSON, AICP		Chief, Division of Transportation Engineering	Date	SCALE _ NOT TO SCALE	DATE APRIL 16, 2020	



2" SUPERPAVE ASPHALT MIX 9.5 MM, FOR SURFACE, PG 64S-22, LEVEL2 AND SUPERPAVE ASPHALT MIX 9.5MM FOR WEDGE/LEVEL, PG 64S-22,LEVEL 2 (WHERE REQUIRED OR DIRECTED)

2 TOP OF EXISTING PAVEMENT AND/OR SURFACE AFTER 2" MAX MILLING

1) REFER TO MDSHA STANDARD NO. 578.03-01 FOR FULL-DEPTH PATCHES. FULL-DEPTH PATCHES IN FLEXIBLE PAVEMENT SECTIONS (ASPHALT ONLY) REQUIRE REMOVAL OF PAVEMENT MATERIAL TO A MINIMUM DEPTH OF 8" OR MATCH THE EXISTING BOUND PAVEMENT THICKNESS, WHICHEVER IS THICKER. IN CASE OF COMPOSITE PAVEMENT SECTION (ASPHALT OVER CONCRETE) PATCH DEPTH SHALL EXTEND ONLY TO THE TOP OF CONCRETE. USE THE FOLLOWING MIX WITH STANDARDS NO. 578.03 AND 578.03-01:

VARIABLE DEPTH SUPERPAVE ASPHALT MIX 19.0MM, FOR FULL-DEPTH PATCH, PG 64S-22, LEVEL 2

2) IF THE UNDERLYING SUB-BASE LAYER IS DETERIORATED AT THE TIME OF FULL-DEPTH PATCH EXCAVATION, IT SHOULD BE REMOVED AND REPLACED WITH 6" GRADED AGGREGATE BASE.

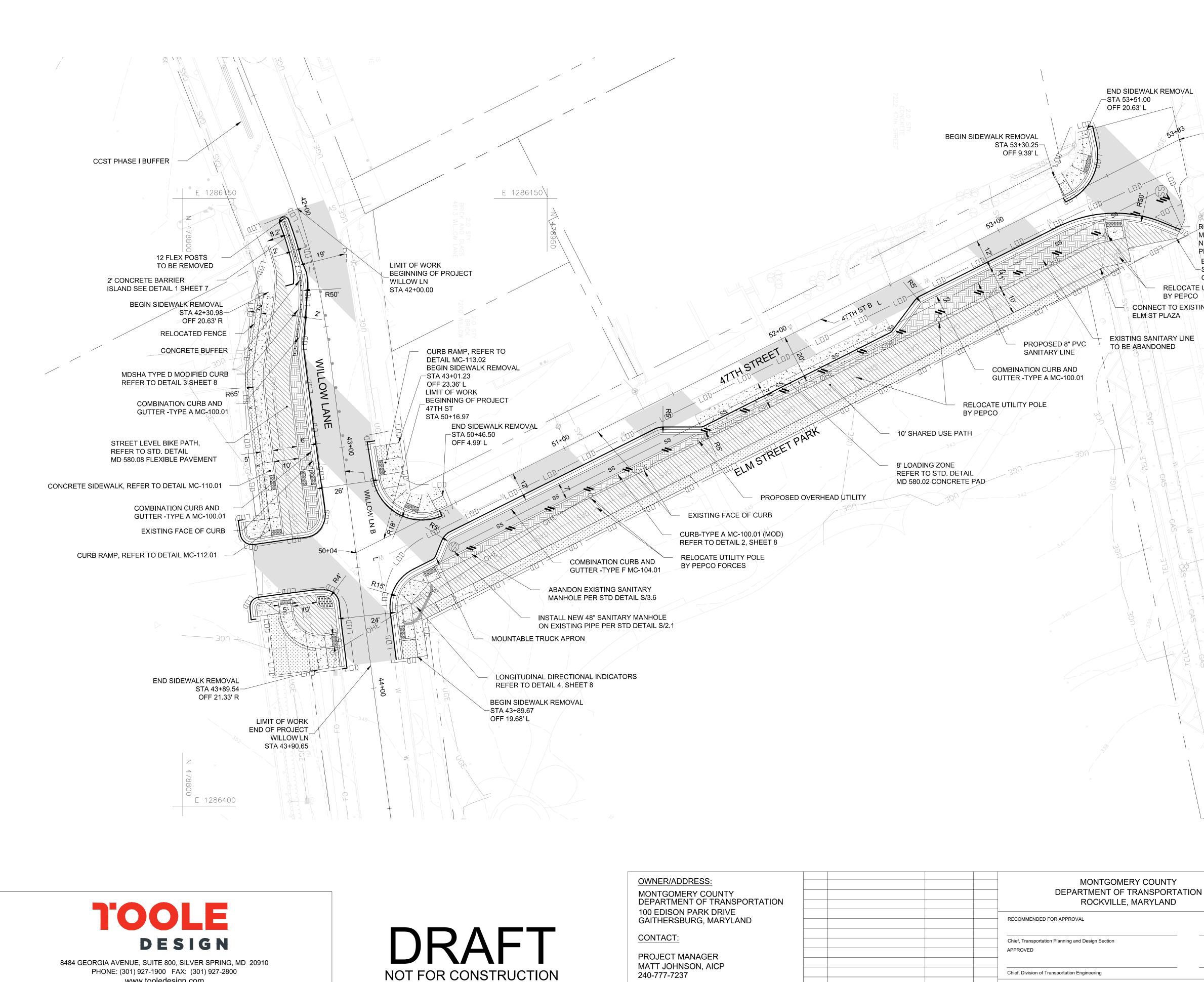
3) REFER TO MDSHA STANDARD NO. 578.01 FOR UTILITY TRENCH REPAIRS. USE THE FOLLOWING FOR THE UTILITY PATCH

8" SUPERPAVE ASPHALT MIX 19.0MM, FOR FULL-DEPTH PATCH, PG 64S-22 LEVEL 2 12" GRADED AGGREGATE BASE (TWO 6" LIFTS)

4) USE THE FOLLOWING ITEM FOR WEDGE/LEVEL, TO ADDRESS CROSS SLOPE CORRECTIONS OR AS DIRECTED BY ENGINEER. IN CASES WHERE UP TO 2" WEDGE/LEVEL IS REQUIRED, USE THE FOLLOWING MATERIAL:

VARIABLE DEPTH SUPERPAVE ASPHALT MIX 9.5MM, FOR WEDGE/LEVEL PG 64S-22, LEVEL 2

Y COUNTY ANSPORTATION	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING						
IARYLAND	MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122						
	CAPITAL CRESCENT SURFACE TRAIL						
	PHASE 2						
Date	WILLOW LANE TO 47TH STREET						
	TYPICAL SECTIONS -2						
Date	SCALE NOT TO SCALE DATE	APRIL 16, 2020					
CHECKED BY	DWG. C3.1	SHEET NO. <u>5</u> OF <u>26</u>					



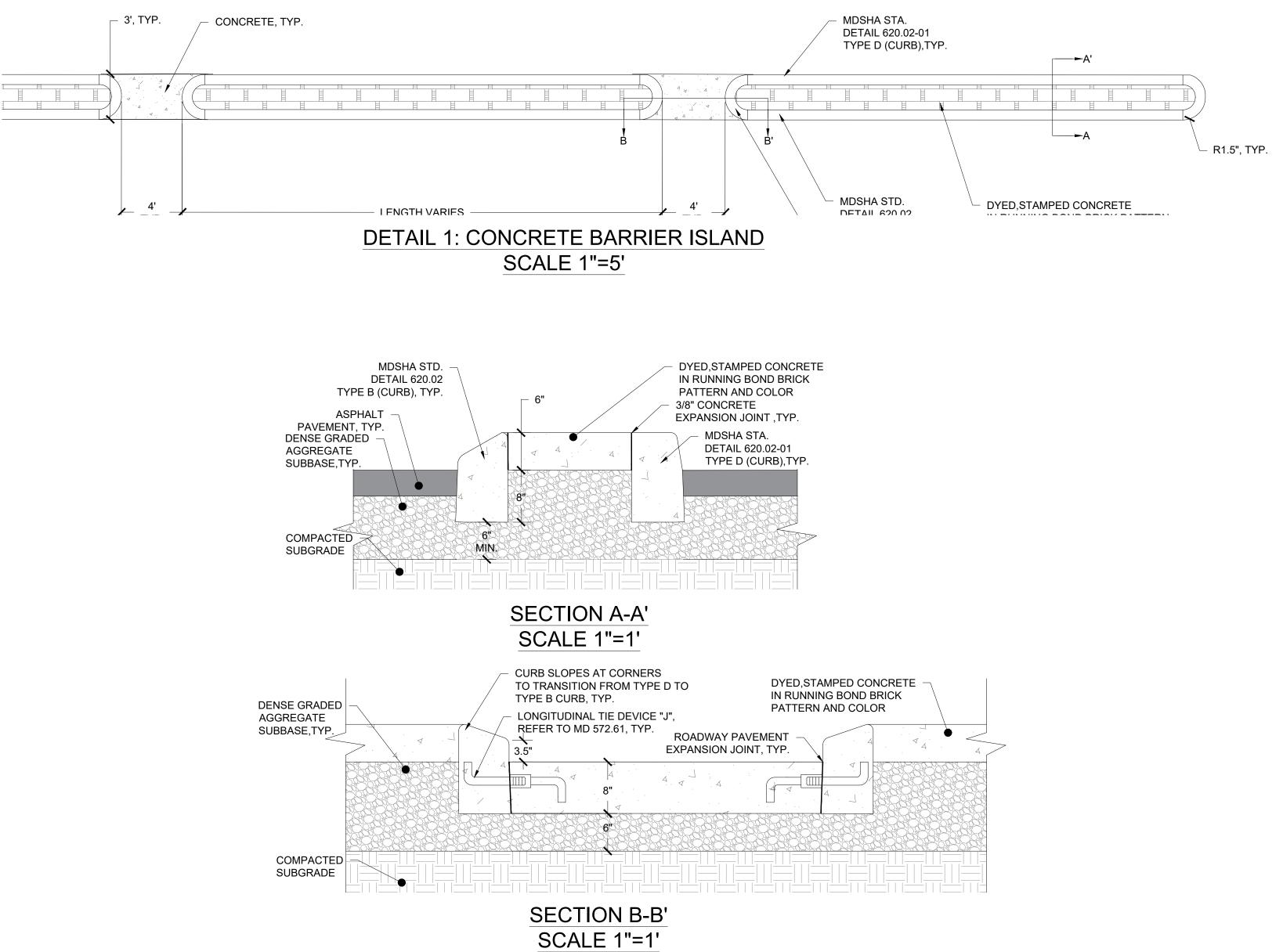
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				RECOMMENDED FOR APPROVAL
				-
				Chief, Transportation Planning and Design Section
				APPROVED
				Chief, Division of Transportation Engineering
NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY
	r	1		

END SIDEWALK REMOVAL LIMIT OF WORK END OF PROJECT 47TH ST STA 53+83.30 REMOVE EXISTING SANITARY MANHOLE AND INSTALL NEW 60" SANITARY MANHOLE PER STD, DETAIL S/1.1 & S/2.1 END SIDEWALK REMOVAL −STA 53+63.94 OFF 35.81 R RELOCATE UTILITY POLE BY PEPCO CONNECT TO EXISTING ELM ST PLAZA LEGEND PROPOSED CURB EXISTING SANITARY LINE TO BE ABANDONED PROPOSED CURB AND GUTTER SAW CUT ----- LOD------ LIMIT OF DISTURBANCE MOUNTABLE TRUCK APRON (REFER TO DETAIL 5, SHEET 8) PROPOSED CONCRETE VEGETATIVE BUFFER PROPOSED ASPHALT-BIKE OR SHARED-USE PATH (REFER TO STD. DETAIL MD 580.08 FLEXIBLE PAVEMENT) PROPOSED DYED STAMPED CONCRETE BRICK SHAPED PROPOSED SOD ESTABLISHMENT PROPOSED 2" MILL AND OVERLAY DETECTABLE WARNING SURFACE GEOMETRY POINT SEE (#) SHEET 9 **X X - #** DRAINAGE NOTES 1. FOR PROPOSED LANDSCAPING, SEE TREE PROTECTION AND LANDSCAPING SHEET. TP-1. 2. FOR PROPOSED LIGHTING, SEE LIGHTING PLAN SHEET, LT-1 MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122 CAPITAL CRESCENT SURFACE TRAIL PHASE 2 Date WILLOW LANE TO 47TH STREET ROADWAY PLAN APRIL 16, 2020 1"=20' DATE \_ SCALE \_ Date SHEET NO. 6 OF 26 \_\_VR\_\_ CHECKED BY \_\_\_\_\_ DWG. C5.0





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TRAVEL LANE

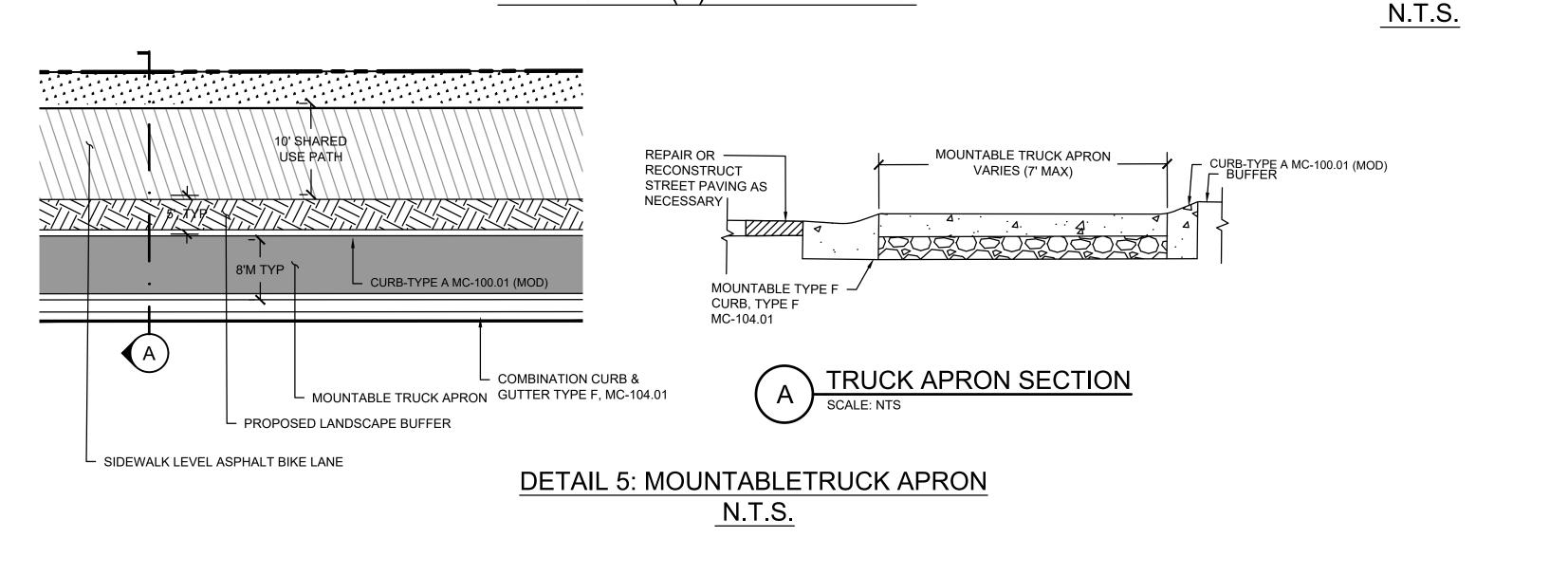
OWNER/ADDRESS:				MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122		
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL	CAPITAL CRESCENT SURFACE TRAIL PHASE 2			
CONTACT: PROJECT MANAGER					Chief, Transportation Planning and Design Section APPROVED	Date	WILLOW LANE TO 47TH STREET HARDSCAPE DETAILS-1		
MATT JOHNSON, AICP 240-777-7237					Chief, Division of Transportation Engineering	Date	SCALE         NOTED ABOVE         DATE         APRIL 16, 2020		
	NO.	REVISION	DATE	BY	DESIGNED BY LB DRAWN BY SEE CHECKE	ED BY <u>RP</u>	DWG. C5.1 SHEET NO7_ OF _26_		





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DETAIL 3: MONTGOMERY COUNTY CURB (A) MODIFIED N.T.S.

WORKS & TRANSPORTATION

To CHIEF, DIV. OF CAP. DEV.

REFORMS AND CORB SECTIONS WHICH INCLUDE INLETS.								
4. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).								
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920.								
APPROVED 14 ARL'06	REVISED	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION						
DIRECTOR, DEPT. OF RUBLIC		COMBINATION CONCRETE CURB AND GUTTER						

TYPE A MODIFIED

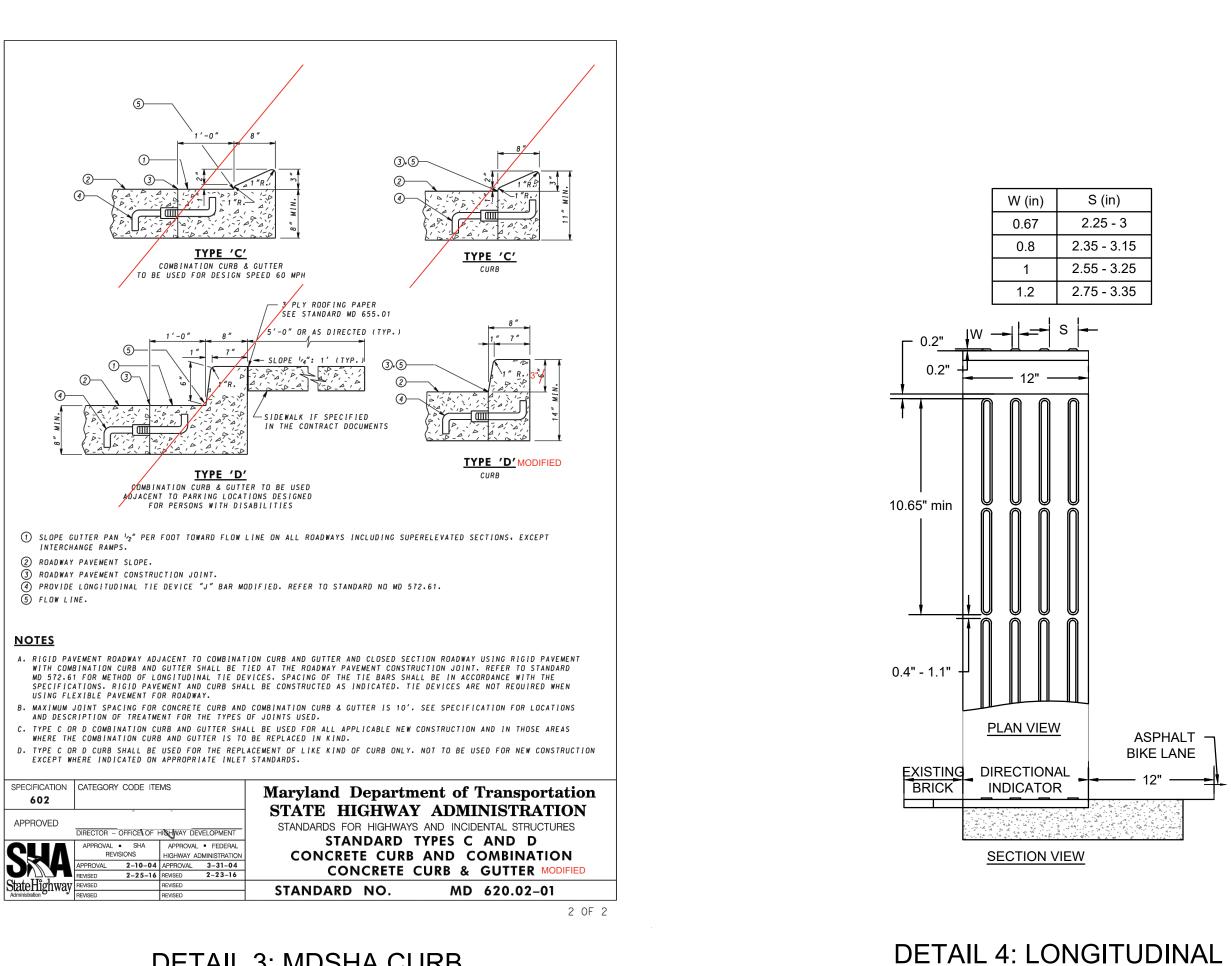
STANDARD NO. MC-100.01

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14"		00 90
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GENERAL NOTES

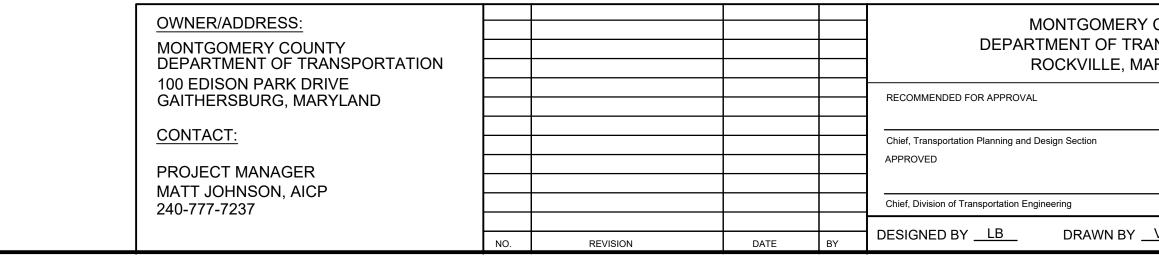
- 1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
- 2. THIS STANDARD SHALL BE USED ON PRIMARY RESIDENTIAL, ARTERIAL AND BUSINESS DISTRICT ROADS
- AS WELL AS CURB RETURNS AND INLET THROATS. 3. WHENEVER STANDARD MC-101.01 CURB IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT

- TRANSITION SHALL BE PROVIDED FROM STANDARD MC-100.01 TO STANDARD MC-101.01 FOR CURB
- DETRICKS AND ALLOD SECTIONS WHICH INCLUDE INLESS



DIRECTIONAL INDICATORS

# DETAIL 3: MDSHA CURB AND GUTTER (D) MODIFIED N.T.S.



Y COUNTY ANSPORTATION	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING					
ARYLAND	MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122					
	CAPITAL CRESCENT SURFACE TRAIL					
	PHASE 2					
Date	WILLOW LANE TO 47TH STREET					
	HARDSCAPE DETAILS-2					
Date	SCALE DATE APRIL 16, 2020					
VR CHECKED BY RP	DWG. C5.2 SHEET NO. <u>8</u> OF <u>26</u>					

### SIGNING AND PAVEMENT MARKINGS

- 1. ALL PAVEMENT MARKINGS ARE THERMOPLASTIC UNLESS OTHERWISE NOTED.
- 2. ALL NEW SIGNS SHALL BE HIGH INTENSITY REFLECTIVE SHEETING MEETING THE REQUIREMENTS OF AASHTO M268.
- 3. PROPOSED SIGNS SHALL BE INSTALLED SO THAT NO PORTION OF THE SIGN PANEL OVERHANGS ADJACENT ROADWAY PAVEMENT, I.E. SHALL NOT HANG IN FRONT OF A FACE OF CURB.
- 4. PROPOSED SIGN POSTS SHALL BE LOCATED A MINIMUM OF 2 FEET BEHIND ANY ADJACENT FACE OF CURB. IF LOCATED IN OR ADJACENT TO SIDEWALKS, A 60" MINIMUM CLEAR IS REQUIRED BY SHA FOR PASSING SPACE ON EXISTING AND PROPOSED SIDEWALKS SHALL BE MAINTAINED.
- 5. PROPOSED SIGNS AND RELOCATED EXISTING SIGNS SHALL BE INSTALLED SO THEY DO NOT BLOCK THE VISIBILITY OF ANY EXISTING SIGNS OR SIGNALS, OR OBSTRUCT SIGHT LINES AT INTERSECTIONS.
- 6. PROPOSED SIGNS AND POSTS SHALL BE CLEAR OF EXISTING FIRE HYDRANTS, SURFACE UTILITY, AND OVERHEAD UTILITY EQUIPMENT A MINIMUM OF 10 FEET.
- 7. FOR NEW POST INSTALLATION, THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO CONFLICTING UNDERGROUND OR OVERHEAD UTILITIES.
- 8. NEW POST INSTALLATION SHALL COMPLY WITH MD SHA STANDARD NO. MD 802.04 AND MD 813.08-1.
- 9. SIGNS MOUNTED TO EXISTING LIGHT, SIGNAL OR UTILITY POLES SHALL BE FASTENED WITH A MANUFACTURED STEEL BANDING SYSTEM PER MD SHA STANDARD NO. MD 813.08. POLES SHALL NOT BE DRILLED DIRECTLY. THE CONTRACTOR SHALL SUBMIT MANUFACTURER INFORMATION ON THE BANDING SYSTEM TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- 10. IF SIGN INSTALLATION IS SHOWN ON A POLE THAT IS NOT OWNED BY THE COUNTY, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER (UTILITY COMPANY OR PROPERTY OWNER). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING REQUIRED PERMISSION.
- 11. ALL CROSSWALKS SHALL BE INSTALLED CONNECTING THE CURB RAMPS SUCH THAT THE CURB RAMPS FALL WITHIN THE MARKED CROSSWALK. MINIMUM CROSSWALK WIDTH IS 10 FEET. DIAGONAL CORNER CURB RAMPS SHALL HAVE A CLEAR SPACE OF FOUR FEET WITHIN THE CROSSWALK MARKINGS. CROSSWALK MARKINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO FINAL INSTALLATION.

		SIGN SCHEDULE				
SHEET NO.	SIGN DESCRIPTION	APPROX. LOCATION	SIZE (INCHES)	SF	NEW SIG	N POST (LF)
9	R5-1	STA. 43+18.47, 17.01 LT ON WILLOW LN	-	0	0	
9	D1-1(X4)	STA. 43+18.47, 17.01 LT ON WILLOW LN	-	0	0	
9	D3-2	STA. 43+16.46, 15.61 RT ON WILLOW LN	-	0	0	
9	R1-1	STA. 43+64.82, 38.08 RT ON WILLOW LN	-		0	0
9	R3-2	STA. 43+64.82, 38.08 RT ON WILLOW LN	-	0	0	
9	R7-4 MOD	STA. 43+63.33, 13.83 RT ON WILLOW LN	-	0	0	
9	R7-5	STA. 43+63.33, 13.83 RT ON WILLOW LN	-	0	0	
9	R1-1	STA. 43+90.85, 15.54 LT ON WILLOW LN	-	0	0	
9	D3-2	STA. 50+17.19, 22.72 RT ON 47TH ST	-	0	0	
9	R7-4 MOD	STA. 50+42.87, 22.40 RT ON 47TH ST	-	0	0	
9	R3-1	STA. 50+87.65, 21.71 RT ON 47TH ST	-	0	0	
9	R6-1L	STA. 50+87.65, 21.71 RT ON 47TH ST	-	0	0	
9	R7-4 MOD	STA. 51+47.64, 22.51 RT ON 47TH ST	12 X 18	1.5	1	
9	R7-6	STA. 51+48.37, 22.70 RT ON 47TH ST	12 X 18	1.5	1	
9	R3-1	STA. 51+59.41, 22.58 RT ON 47TH ST	-	0	0	
9	R6-1L	STA. 51+67.72, 27.37 RT ON 47TH ST	-	0	0	
9	R7-2a MOD	STA. 51+95.38, 22.54 RT ON 47TH ST	12 X 18	1.5	1	
9	R7-6	STA. 51+95.38, 22.54 RT ON 47TH ST	12 X 18	1.5	1	
9	W3-1	STA. 52+31.02, 22.34 RT ON 47TH ST	-	0	0	
9	R7-2a MOD	STA. 52+48.89, 20.51 RT ON 47TH ST	12 X 18		1.5	1
9	R7-4 MOD	STA. 52+48.89, 20.51 RT ON 47TH ST	12 X 18		1.5	1
9	R1-1	STA. 53+35.89, 17.69 RT ON 47TH ST	-		0	0
9	R5-1	STA. 53+35.89, 17.69 RT ON 47TH ST	-		0	0





OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE RECOMMENDED FOR APPROVAL GAITHERSBURG, MARYLAND CONTACT: Chief, Transportation Planning and Design Section APPROVED PROJECT MANAGER MATT JOHNSON, AICP Chief, Division of Transportation Engineering 240-777-7237 DESIGNED BY <u>LB</u> DRAWN BY NO. REVISION DATE BY

MARKING LEGEND EXISTING PROPOSED ( • **~** ~ 5" SWL 10" SWL 5" BWL 5" DWL OR 5" DYL 10" DWL 5" SYL 5" SYCL 5" DAYCL 5" DSYCL \_\_\_\_\_ 5" SBYCL 8" SWCT 10" SWCHL 10" SYCHL 12" SWL 24" SL HVCW J STOP STOP Λ Λ MONTGOMERY DEPARTMENT OF TR ROCKVILLE, M

YIELD AHEAD TRIANGLE SYN	YIELD AHEAD TRIANGLE SYMBOLS, REFER TO MDMUTCD									
12" YIELD AHEAD TRIANGLE	12" YIELD AHEAD TRIANGLE SYMBOLS FOR BIKE LANE, REFER TO MDMUTCD									
BICYCLE CROSSING STRIPIN	BICYCLE CROSSING STRIPING									
Y COUNTY RANSPORTATION IARYLAND	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122									
Date	CAPITAL CRESCENT SURFACE TRAIL PHASE 2 WILLOW LANE TO 47TH STREET SIGNING AND MARKING NOTES									
Date	SCALE	DATE	APRIL 16, 2020	_						
VR CHECKED BY RP	DWG. C6.0		SHEET NO. 10	_OF_26_						

ADVANCE SPEED HUMP MARKING, REFER TO MDMUTCD

HALF-SIZED ADVANCE SPEED HUMP MARKING FOR BIKE LANE, REFER TO MDMUTCD

### SIGN

GREEN PAVEMENT MARKING MATERIAL, LIQUID EPOXY-BASED

### GREEN PAVEMENT MARKING MATERIAL, PREFORMED THERMOPLASTIC

BIKE LANE WHITE PAVEMENT ARROW, REFER TO MDMUTCD

WHITE PAVEMENT ARROW, REFER TO MDMUTCD

CROSSWALK WITH 2' SWL - 5' O.C. ALIGNED WITH DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED, REFER TO MDMUTCD

24" STOP LINE

16" STOP LINE

12" SOLID WHITE LINE

10" SOLID YELLOW CHANNELIZATION LINE (45° TYP.)

10" SOLID WHITE CHANNELIZATION LINE (45° TYP.)

8" SOLID WHITE/BLACK CONTRAST TAPE (SUGGESTED MANUFACTURER: 3M STAMARK OR APPROVE EQUAL)

5" SOLID YELLOW LANE LINE WITH 5" BROKEN YELLOW LANE LINE (10' STRIPE, 30' SKIP)

5" DOUBLE SOLID YELLOW CENTERLINE

5" DASHED YELLOW CENTER LINE (3' STRIPE, 9' SKIP)

5" SOLID YELLOW CENTERLINE

**5" SOLID YELLOW LANE LINE** 

10" DOTTED WHITE LANE LINE (2' STRIPE, 4' SKIP)

5" DOTTED WHITE OR YELLOW LANE LINE (2' STRIPE, 4' SKIP)

5" BROKEN WHITE LANE LINE (10' STRIPE, 30' SKIP)

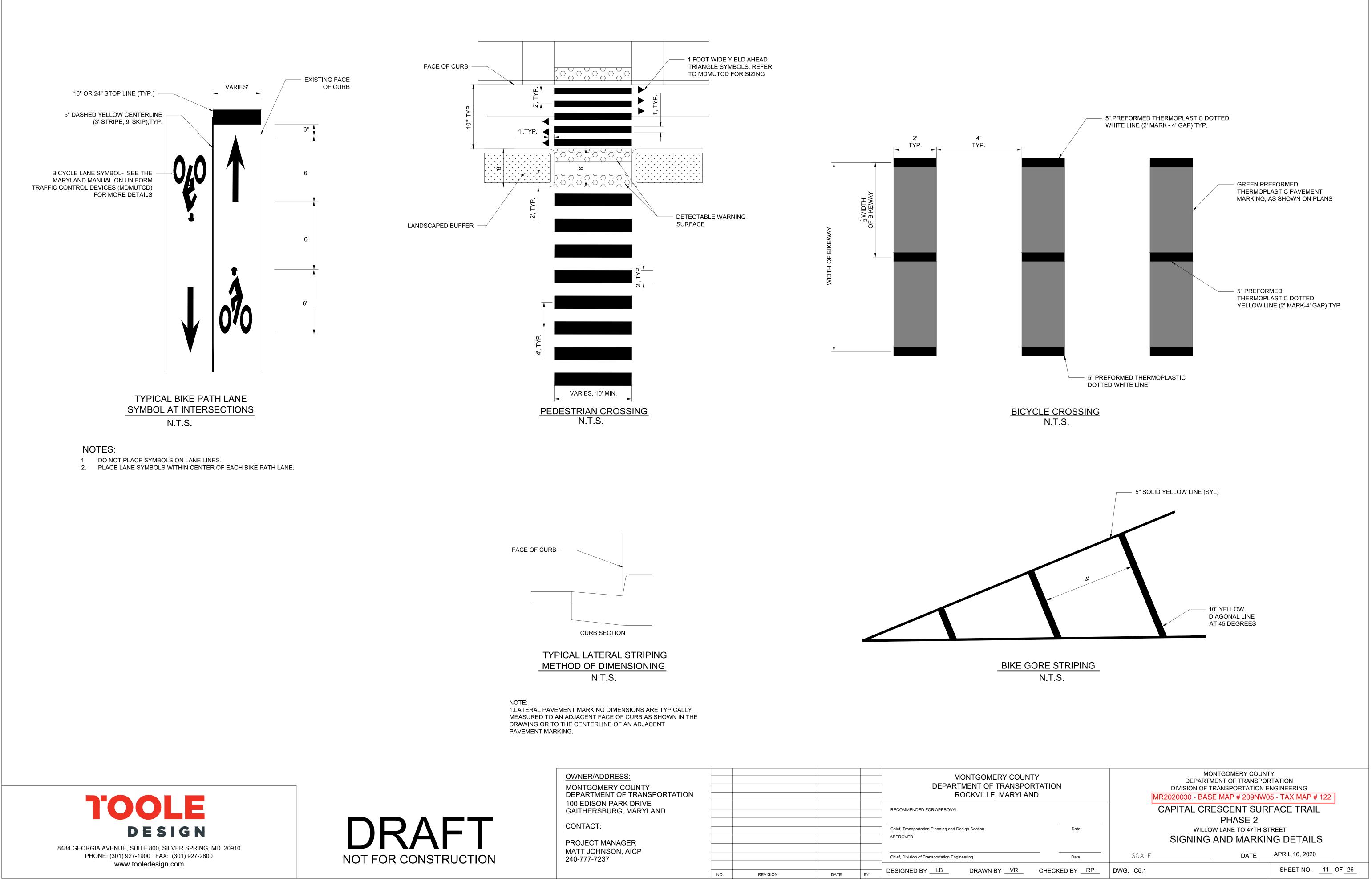
10" SOLID WHITE LANE LINE

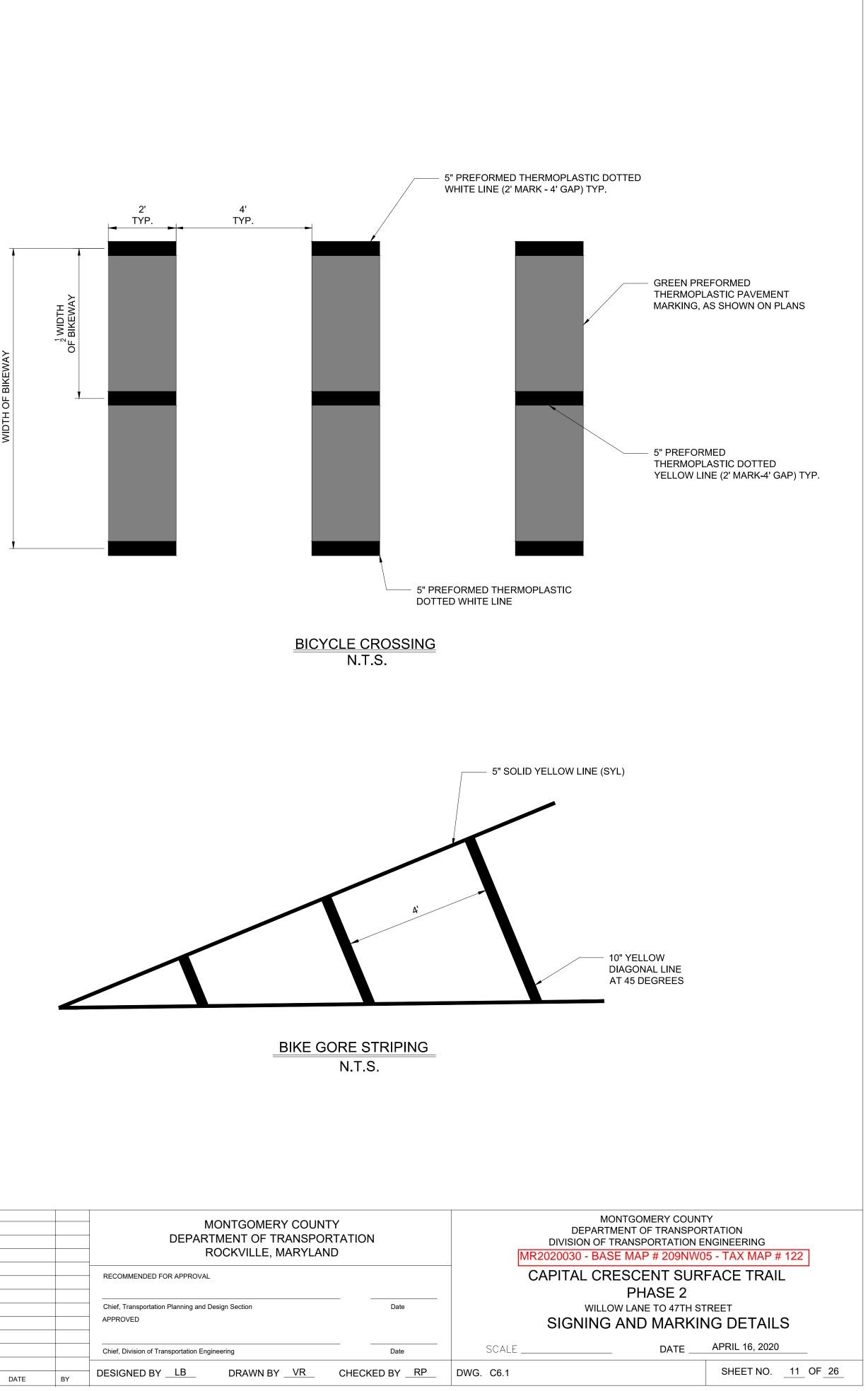
**5" SOLID WHITE LANE LINE** 

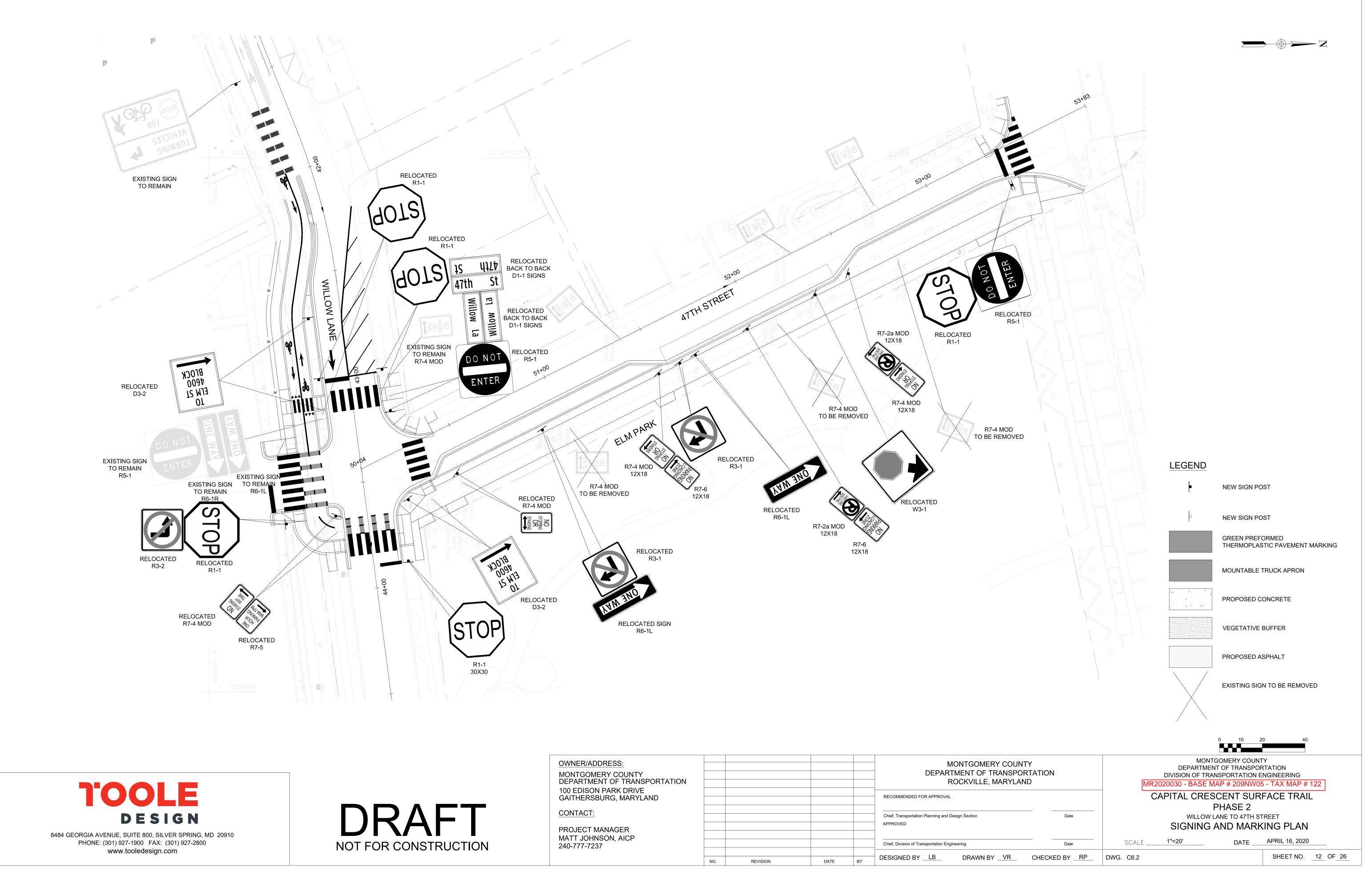
SHARED LANE MARKING SYMBOL

BICYCLE LANE SYMBOL

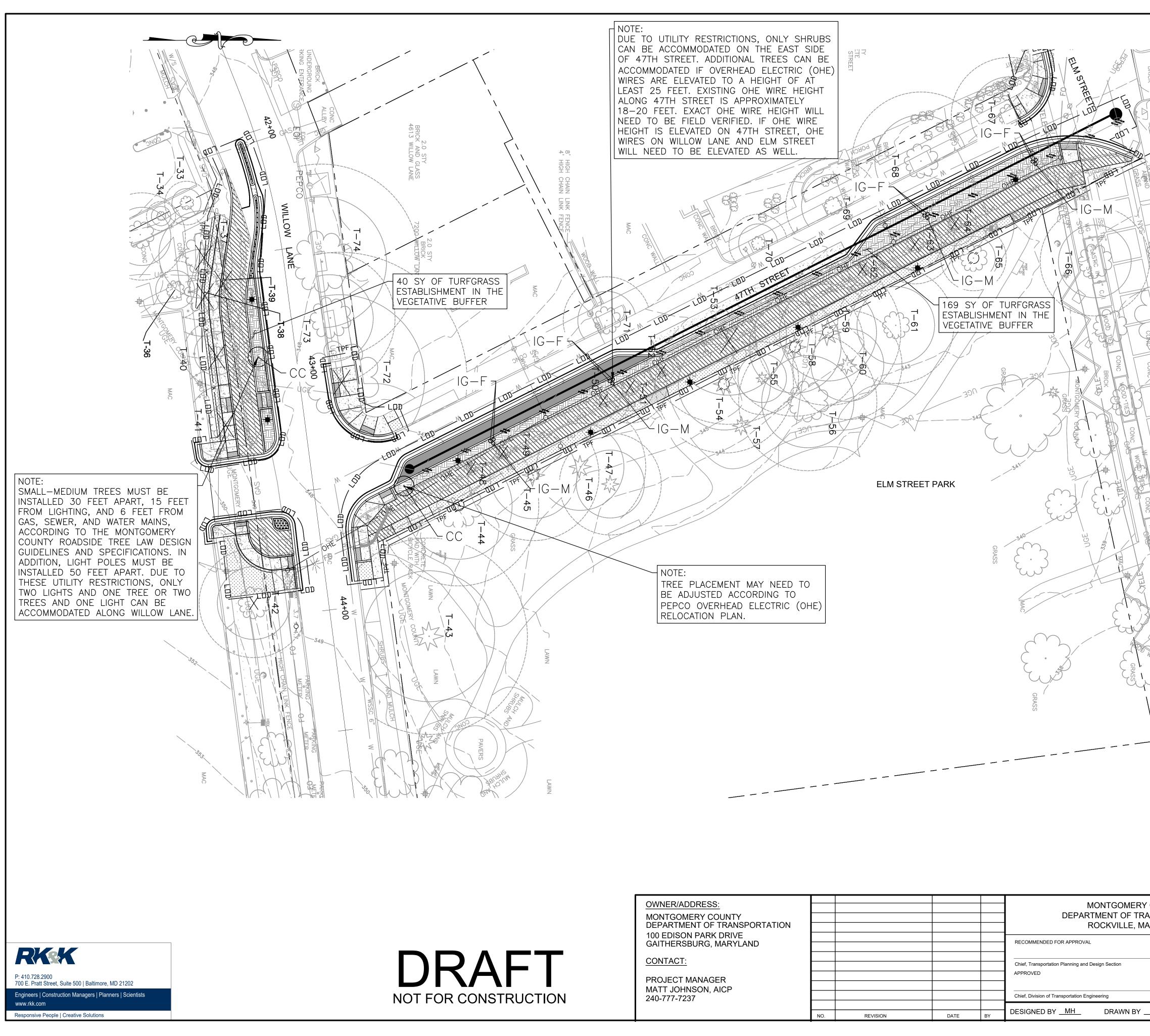
SIGN AND POST







OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY DEPARTMENT OF TRA ROCKVILLE, MA
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL
CONTACT:					Chief, Transportation Planning and Design Section
PROJECT MANAGER MATT JOHNSON, AICP					APPROVED
240-777-7237					Chief, Division of Transportation Engineering
	NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY _



Ž	LEGEN	D
BRICK	€·-3T−10	EXISTING TREE
		TREE TO BE REMOVED
	T-10	CRITICAL ROOT ZONE
T BOOM FR	$\bigcirc$	STRUCTURAL ROOT ZONE
	TPF	TREE PROTECTION FENCE
FRANK I SC	LOD	LIMIT OF DISTURBANCE
S TO COMORO		PROPERTY BOUNDARY
		EXISTING CONTOURS
		PROPOSED CONTOURS
Hur A		PROPOSED SANITARY MANHOLE
		PROPOSED SANITARY PIPE
GRAS	OHE	PROPOSED OVERHEAD ELECTRIC
Co Co Co	8	PROPOSED SHRUBS
	+	PROPOSED ORNAMENTAL TREE
CONCERNS		HEAVY TREE PROTECTION
CONC BR		VEGETATIVE BUFFER
		MOUNTABLE TRUCK APRON
CONC CONC		PROPOSED ASPHALT - BIKE OR SHARED - USE PATH
		PROPOSED DYED STAMPED CONCRETE BRICK SHAPED
ONC THE	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	PROPOSED CONCRETE
WOO CONT		PROPOSED SOD ESTABLISHMENT
CONC CONC		ABANDONED SANITARY SEWER PIPE
	*	PROPOSED LIGHTING
CONC NO THE BRICK	NOTEO	
	NOTES: 1. SIGNIFICANT/SPECIMEN TREE TABLE,	GENERAL NOTES, AND TREE INVENTORY
A DE LE CUINC	TABLE FOUND ON SHEET TP-2 2. ROOT PRUNE IN AREAS OF EXCAVATION TREE EXPERT (LTE).	ON AT THE DIRECTION OF A MD LICENSED
GRASS	3. CONDUCT BRANCH PRUNING AT THE I EXPERT (LTE).	DIRECTION OF A MD LICENSED TREE
	4. TREE SAVE DETAILS FOUND ON SHEE	T TP-3.
	5. ADDITIONAL STRESS REDUCTION MEA OF MD LTE.	SURES MAY BE REQUIRED, PER DIRECTION
	6. ALL AREAS OUTSIDE OF THE PROJECT CONSIDERED TREE PRESERVATION A	T LIMITS OF DISTURBANCE (LOD) SHALL BE REAS TO BE LEFT UNDISTURBED.
	7. TREE PROTECTION FENCE (TPF) IS SH PURPOSES ONLY. SEE ROOT PRUNING	OWN OUTSIDE OF LOD FOR GRAPHICAL B DETAIL ON TP-3 FOR PLACEMENT OF TPF.
:	8. SEE SPECIFICATIONS FOR FURTHER D TECHNIQUES.	DETAILS ON BRANCH AND ROOT PRUNING
	9. SEE LANDSCAPE SCHEDULE AND PLAI	
	10. SEE ROADWAY AND UTILITY SHEETS F	UK PROPOSED DESIGN.

11. SEE LIGHTING PLAN FOR PROPOSED DESIGN.

COUNTY NSPORTATION RYLAND	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122 CAPITAL CRESCENT SURFACE TRAIL WILLOW AVE TO 47TH STREET
Date	
	TREE PROTECTION AND LANDSCAPE PLAN
Date	SCALE1"=20' DATE04/16/20
CP CHECKED BY GRO	DWG. TP-1 SHEET NO. <u>13</u> OF <u>29</u>

0 10 20

40

NOTES:			
1. TREE PROTECTION AND LANDSCAPE PLA FIELD DATA COLLECTED ON MARCH 15, 2	AN PREPARED BY GREG O'HARE, CA, LTE, MD L.P.F. #658 USING 2018.		5. TEMPOR THE DUR
2. A FORESTRY DIAMETER TAPE WAS USE	D TO MEASURE THE DIAMETER OF INDIVIDUAL TREES.		FROM TH PROTEC ACCESS
	R WETLANDS/WATERWAYS EXIST WITHIN THE PROJECT AREA. THE ER MONTGOMERY COUNTY WATERSHED.		WITHOU
	NDUCTED IN ACCORDANCE WITH SECTION 120-TREE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS -		6. PERIODI
	O RECORDS OF RTE SPECIES OR RTE HABITAT EXISTS WITHIN THE TE HABITAT WERE OBSERVED DURING FIELD INVESTIGATIONS.		CORREC ESTABLI 7. THE COM
6. MHT DETERMINED THAT THE PROJECT H	HAS NO ADVERSE EFFECTS ON HISTORIC PROPERTIES.		ZONES 1
OF THE MD LTE AND WITH PERMISSION I	CANT/SPECIMEN TREES SHALL BE CONDUCTED AT THE DIRECTION FROM PROPERTY OWNERS TO REDUCE WATER STRESS DURING FORING WILL BE REQUIRED TO FACILITATE THIS ACTIVITY.		POST-CONS
AFFECTING VISIBILITY MAY WARRANT PI DURING THE ON-SITE PRE-CONSTRUCTION	ACED APPROXIMATELY 25 FEET APART. CONDITIONS ON SITE LACING SIGNS CLOSER OR FARTHER APART, AS DETERMINED ON MEETING. TREE PROTECTION SIGNS WILL BE INSTALLED IN D BY THE CONTRACTORS AND SUBCONTRACTORS THAT WILL		a. RE b. PF c. SC
ACTIVITIES NEAR THESE TREES SHALL E	TED ADJACENT TO SIGNIFICANT/SPECIMEN TREES AND ALL WORK BE SUPERVISED AND DIRECTED BY THE PROJECT MD LTE. TH OF EXCAVATION MAY BE REQUIRED ADJACENT TO CTED BY THE MD LTE.		d. FE e. W f. W
PREDEVELOPMENT HEALTH AND STRUC CONSTRUCTION, AND BE COMPATIBLE V ACTIVITY, AND STANDARDS FOR PUBLIC	ON ARE EXPECTED TO RETAIN A SIGNIFICANT DEGREE OF THEIR CTURAL CONDITION, SURVIVE AT LEAST FIVE YEARS AFTER WITH RIGHT-OF-WAY INFRASTRUCTURE, TRANSPORTATION C SAFETY. TREES THAT DO NOT MEET THESE STANDARDS BY THE RE ADDITIONAL WORK FROM THE PERMITTEE TO FULLY SATISFY		9. AFTER II TEMPOR DEVICES BOTH TH OR BURI
THE MONTGOMERY COUNTY ROADSIDE	OWN IN A TABLE ON THIS SHEET. MCDOT'S BLANKET PERMIT FOR TREE LAW (PERMIT #361405) AND THE TOWN OF CHEVY CHASE'S RTMENT OF NATURAL RESOURCES ROADSIDE TREE LAW (PERMIT ECT.		
12. STUMP GRINDING SHALL BE CONDUCTE CONSTRUCTION.	D AFTER TREE REMOVAL AT THE DIRECTION OF MD LTE DURING		SIG
PRE-CONSTRUCTION		TREE ID	SCIENTIFI NAME
	ING IS REQUIRED AFTER THE LOD HAS BEEN STAKED AND	T-43* T-53*	Pinus strobus Zelkova serrat
FLAGGED, BUT BEFORE ANY CLEARING ( PROTECTION MEASURES.	OR GRADING BEGINS. THE MD LTE WILL IMPLEMENT THE TREE	T-72**	Quercus phello
	N BEFORE STRESS-REDUCTION MEASURES HAVE BEEN ES MAY INCLUDE, BUT ARE NOT LIMITED TO:	**Specimen	Quercus phello Trees = Trees betw Trees = Trees Hav
a. ROOT PRUNING b. CROWN REDUCTION OR PRUNING c. WATERING		Trees Having	g 75% or More of t
d. FERTILIZING e. VERTICAL MULCHING			TREI
f. ROOT AERATION MATTING			
MEASURES NOT SPECIFIED ON THE 1 DETERMINED BY THE MD LTE.	TREE PROTECTION AND LANDSCAPE PLAN MAY BE REQUIRED AS		ected Right-of
3. A MD LTE MUST PERFORM ALL STRESS I	REDUCTION MEASURES.	•	County ROW, Montgomery Coun Tree Protection La
LANDSCAPE PLAN AND PRIOR TO ANY C LOCATIONS SHALL BE STAKED PRIOR TO	ES SHALL BE INSTALLED PER THE TREE PROTECTION AND ONSTRUCTION ACTIVITIES. TREE PROTECTION FENCING O THE PRE-CONSTRUCTION MEETING. THE COUNTY INSPECTOR, IN NT CONTROL INSPECTOR, MAY MAKE FIELD ADJUSTMENTS TO		Town ROW, to DNR Roadside
INCREASE THE SURVIVABILITY OF TREES PROTECTION DEVICES MAY INCLUDE: a. ORANGE, RED OR YELLOW COLOF b. CHAIN LINK FENCE (FOUR FEET HI c. SUPER SILT FENCE WITH WIRE S WITH HIGH VISIBILITY FLAGGING STRUCTURAL ROOT ZONE WITHOU	S SHOWN AS SAVED ON THE APPROVED PLAN. TEMPORARY TREE RED HEAVY DUTY WARNING BARRIER POLYETHYLENE FENCE. IGH). STRUNG BETWEEN SUPPORT POLES (MINIMUM FOUR FEET HIGH) G. SUPER SILT FENCE SHALL NOT BE INSTALLED WITHIN THE UT PRIOR APPROVAL. DED WIRE FENCING SUPPORTED BY STEEL T-BAR POSTS (MINIMUM	TREE WILL COMPLIANC BE PAID INT 2. TO MEET REQUIREMI	THE MONTGOM BE PLANTED ON CE, \$750 PER NC TO THE STREET THE MARYLANE ENT, TWO 1" CA CE AND ROW EN
P: 410.728.2900 700 E. Pratt Street, Suite 500   Baltimore, MD 21202 Engineers   Construction Managers   Planners   Scientists www.rkk.com			

Responsive People | Creative Solutions

TEMPORARY PROTECTION DEVICES SHALL BE MAINTAINED AND INSTALLED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION PROJECT AND MUST NOT BE ALTERED WITHOUT PRIOR APPROVAL FROM THE MD LTE. NO EQUIPMENT, TRUCKS, MATERIALS, OR DEBRIS MAY BE STORED WITHIN THE TREE PROTECTION FENCE AREAS DURING THE ENTIRE CONSTRUCTION PROJECT. NO VEHICLE OR EQUIPMENT ACCESS TO THE FENCED AREA WILL BE PERMITTED. TREE PROTECTION SHALL NOT BE REMOVED WITHOUT PRIOR APPROVAL FROM DPS INSPECTOR.

### URING CONSTRUCTION

PERIODIC INSPECTION BY THE MD LTE WILL OCCUR DURING THE CONSTRUCTION PROJECT. CORRECTIONS AND REPAIRS TO ALL TREE PROTECTION DEVICES MUST BE MADE WITHIN THE TIMEFRAME ESTABLISHED BY THE MD LTE.

THE CONTRACTOR WILL COMMUNICATE THE NEED TO PROTECT ROADSIDE TREES AND TREE PROTECTION ZONES TO SUBCONTRACTORS AND UTILITY COMPANIES THAT WILL CARRY OUT WORK ON-SITE.

### OST-CONSTRUCTION

AFTER CONSTRUCTION IS COMPLETED, AN INSPECTION FROM DPS SHALL BE REQUESTED. CORRECTIVE MEASURES MAY INCLUDE:

- a. REMOVAL AND REPLACEMENT OF DEAD AND DYING TREES
- b. PRUNING OF DEAD OR DECLINING LIMBS
- c. SOIL AERATION
- d. FERTILIZATION
- e. WATERING
- f. WOUND REPAIR

AFTER INSPECTION AND COMPLETION OF CORRECTIVE MEASURES HAVE BEEN UNDERTAKEN, ALL TEMPORARY PROTECTION DEVICES SHALL BE REMOVED FROM THE SITE. REMOVAL OF TREE PROTECTION DEVICES THAT ALSO OPERATE FOR EROSION AND SEDIMENT CONTROL MUST BE COORDINATED WITH BOTH THE DEPARTMENT OF PERMITTING SERVICES AND THE MD LTE. NO ADDITIONAL GRADING, SODDING, OR BURIAL MAY TAKE PLACE AFTER THE TREE PROTECTION FENCING IS REMOVED.

SIGNIFICANT & SPECIMEN TREE TABLE								
ENTIFIC NAME	COMMON NAME	DBH	CONDITION	TREE REMOVAL	SHEET NO.			
us strobus	White pine	27	Fair	No	<b>TP-1</b>			
ova serrata	Japanese Zelkova	24	Fair	No	TP-1			
cus phellos	Willow oak	35	Fair	Yes	TP-1			
cus phellos	Willow oak	27	Fair	No	TP-1			
Frans hatwaan '	A and 20 Inchas in Di	am atom at	Proget Usight (DPU)	inclusiva				

Trees between 24 and 29 Inches in Diameter at Breast Height (DBH), inclusive

Trees Having a Diameter Measured at 4.5 Feet Above the Ground of 30 Inches or More (DBH), or More of the Diameter of the Current State Champion Tree.

# **TREES REMOVED AND MITIGATION REQUIREMENTS**

			•		
Right-of-Way	Number of Trees Removed	Mitigation Ratio	Required Planting	Proposed On Site Planting	Remainder Replacement Requirement
ty ROW, mery County Roadside tection Law	7 Trees: T-37, T-38, T-39, T-40, T-41, T-42, & T-72**	3:1	21 Trees	1 Tree	20 Trees
n ROW, Roadside Tree Law	9 Trees: T-48, T-49, T-50, T-51, T-52, T-53*, T-62, T-63, & T-64	1:1	9 Trees	2 Trees	7 Trees

IONTGOMERY COUNTY ROADSIDE TREE LAW 3:1 REPLACEMENT REQUIREMENT, ONE 1" CALIPER ANTED ON SITE WITHIN IN THE EXISTING COUNTY ROAD RIGHT-OF-WAY (ROW). FOR PERMIT 50 PER NON-MITIGATED ROADSIDE TREE REMOVAL (\$250 PER REMAINDER REPLACEMENT TREE) WILL E STREET TREE FUND PRIOR TO CONSTRUCTION FOR A TOTAL OF \$5,000. ARYLAND DEPARTMENT OF NATURAL RESOURCES ROADSIDE TREE LAW 1:1 REPLACEMENT WO 1" CALIPER TREES WILL BE PLANTED IN THE TOWN OF CHEVY CHASE ROW FOR PERMIT ROW ENHANCEMENT.

OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122
GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL		CAPITAL CRESCENT SURFACE TRAIL WILLOW AVE TO 47TH STREET
<u>CONTACT:</u> PROJECT MANAGER					Chief, Transportation Planning and Design Section Date APPROVED		TREE PROTECTION AND LANDSCAPE TABLES AND NOTES
MATT JOHNSON, AICP 240-777-7237					Chief, Division of Transportation Engineering Date		SCALE         1"=20'         DATE         04/16/20
	NO.	REVISION	DATE	BY	DESIGNED BY <u>MH</u> DRAWN BY <u>CP</u> CHECKED BY <u>G</u>	<u>GRO</u>	DWG. TP-2 SHEET NO. <u>14</u> OF <u>29</u>

REE ID	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	TREE REMOVAL	SHEET NO.
T-33	Lagerstroemia indica	Crapemyrtle	6	Fair	No	TP-1
T-34	Lagerstroemia indica	Crapemyrtle	4	Poor	No	TP-1
T-35	Betula nigra	River birch	12	Fair	No	TP-1
Т-36	Quercus palustris	Pin oak	3	Good	No	TP-1
T-37	Acer rubrum	Red maple	18	Fair	Yes	TP-1
T-38	Quercus palustris	Pin oak	18	Fair	Yes	TP-I
Т-39	Acer platanoides	Norway maple	6	Fair	Yes	TP-1
T-40	Acer rubrum	Red maple	9	Good	Yes	TP-I
T-41	Acer rubrum	Red maple	15	Fair	Yes	TP-1
T-42	Acer rubrum	Red maple	15	Fair	Yes	TP-1
T-43*	Pinus strobus	White pine	27	Fair	No	TP-1
T <b>-</b> 44	Gleditsia triacanthos var. inermis	Thornless honey locust	22	Fair	No	TP-1
Т-45	Pinus strobus	White pine	18	Fair	No	TP-1
T-46	Pinus strobus	White pine	18	Fair	No	TP-1
T-47	Pinus strobus	White pine	]4	Fair	No	TP-I
Т-48	Prumis sp.	Flowering cherry sp.	2	Good	Yes	TP-1
T-49	Prunus sp.	Flowering cherry sp.	2	Good	Yes	TP-I
T-50	Zelkova serrata	Japanese Zelkova	7	Good	Yes	TP-1
T-51	Zelkova serrata	Japanese Zelkova	10	Fair	Yes	TP-1
T-52	Zelkova serrata	Japanese Zelkova	5	Good	Yes	TP-1
T-53*	Zelkova serrata	Japanese Zelkova	24	Fair	Yes	TP-1
T-54	Pinus strobus	White pine	19	Fair	No	TP-1
T-55	Pinus strobus	White pine	10	Fair	No	TP-1
T-56	Pyrus calleryana	Bradford pear	19	Good	No	TP-1
T-57	Tsuga canadensis	Hemlock sp.	15	Good	No	TP-1
T-58	Pinus strobus	White pine	19	Fair	No	TP-I
T-59	Pinus strobus	White pine	20	Fair	No	TP-1
T-60	Juniperus virginiana	Eastern red cedar	15	Poor	No	TP-1
T-61	Ulmus americana	American elm	16	Fair	No	TP-1
T-62	Zelkova serrata	Japanese Zelkova	6	Fair	Yes	TP-1
Т-63	Zelkova serrata	Japanese Zelkova	11	Fair	Yes	TP-1
T-64	Zelkova serrata	Japanese Zelkova	9	Fair	Yes	TP-1
T-65	Magnolia x soulangeana	Saucer magnolia	9	Fair	No	TP-I
T-66	Liquidambar styraciflua	Sweetgum	15	Poor	No	TP-1
T-67	Tilia cordata	Littleleaf linden	16	Fair	No	TP-1
T-68	Tilia cordata	Littleleaf linden	19	Fair	No	TP-1
T-69	Tilia cordata	Littleleaf linden	13	Fair	No	TP-1
T-70	Tilia cordata	Littleleaf linden	8	Fair	No	TP-1
T-71	Tilia cordata	Littleleaf linden	12	Fair	No	TP-1
1`-72**	Quercus phellos	Willow oak	35	Fair	Yes	TP-1
T-73	Quercus phellos	Willow oak	18	Fair	No	TP-1
T-74*	Quercus phellos	Willow oak	27	Fair	No	TP-I

# TREE CONDITION ASSESSMENT GUIDELINES

EXCELLENT - healthy tree with exceptional growth form; no visible defects; well-formed crown; few minor dead branches; this tree condition is rare.

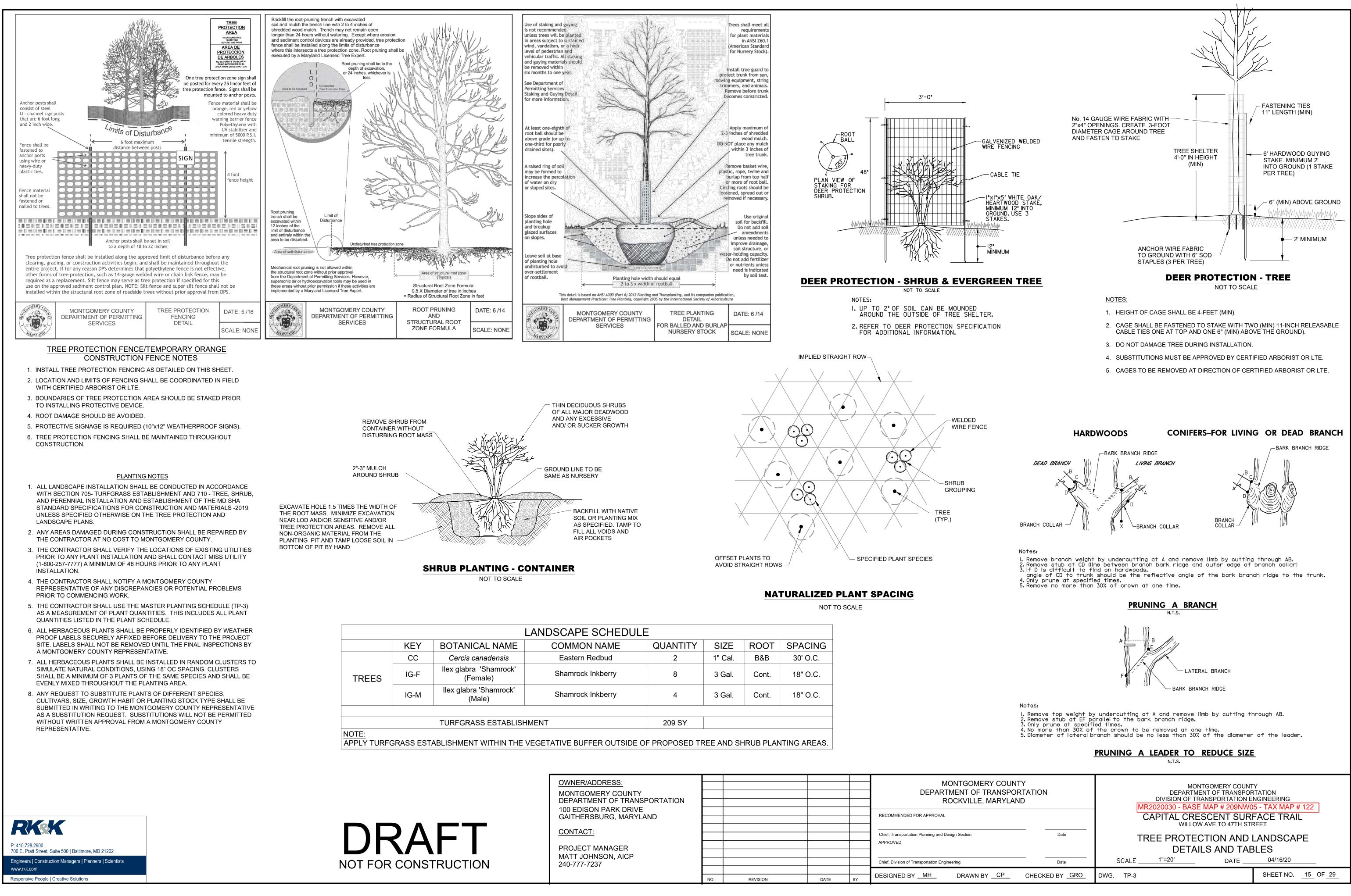
GOOD - healthy tree; very minor defects/decay acceptable with callous forming/complete; well-formed crown; minor lean and/or few minor/major dead branches acceptable; vines may be growing along trunk but not present within crown.

FAIR - health questionable/stress evident; structurally sound tree; defects present that do not affect structural integrity; moderate lean; minor/major dead branches may be present; crown not broken out but not necessarily well formed or even; vines may be growing along trunk and within crown.

Ex. Fair tree could be experiencing insect damage, or exhibit a growth form that makes it very susceptible to wind damage in an open setting.

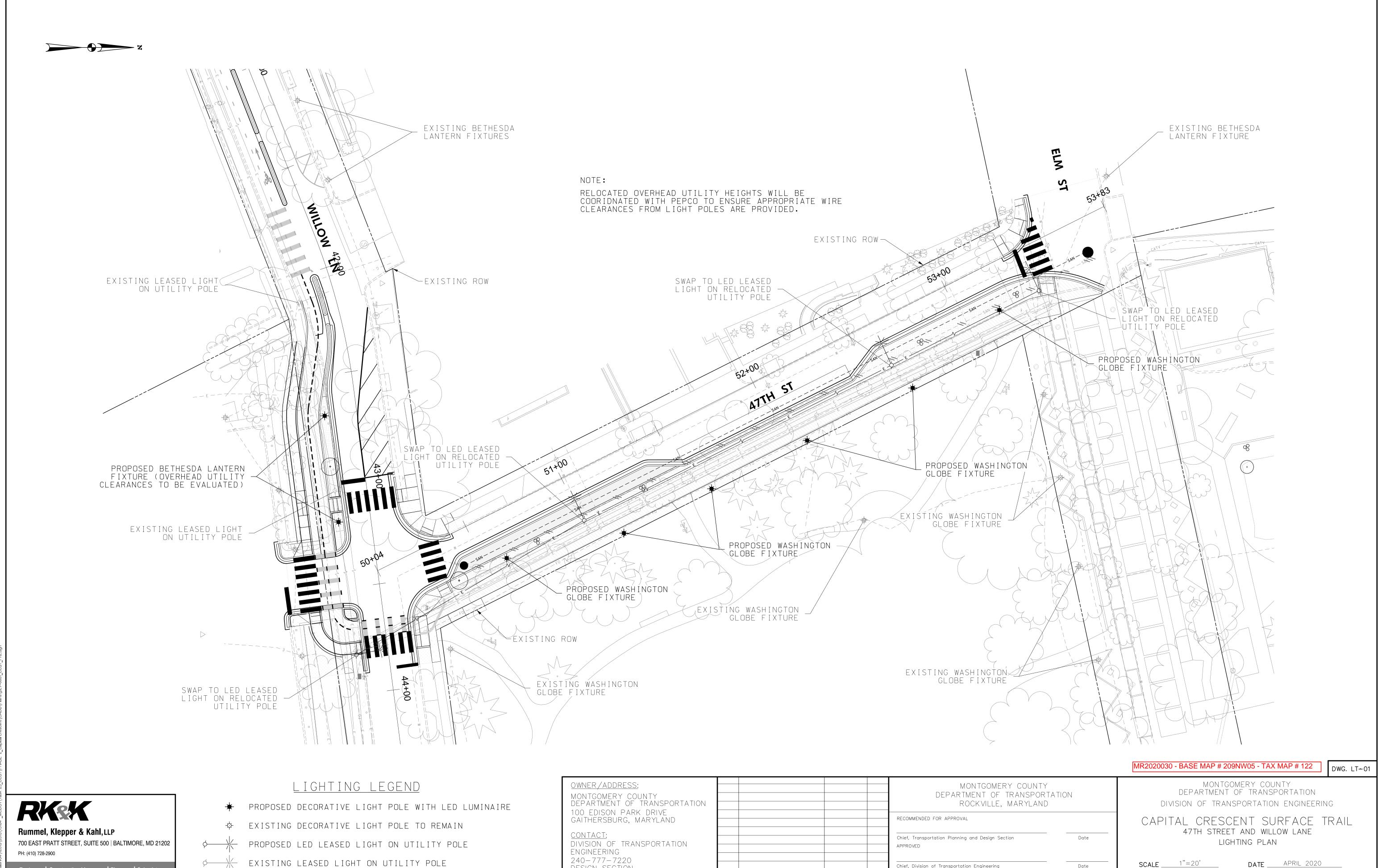
**POOR** - significant health problems; may be structurally unsound; may be dead or dying; may contain significant decay; may have broken or missing top/crown; may have heavy lean; vines may be significantly affecting tree health.

Note: These guidelines were developed in-house based on the professional judgment of our Certified Arborists and other senior environmental staff. These guidelines should be incorporated into documents (Such as FSD's) whenever a tree assessment is conducted.



I	LANDSCAPE SCHEDU	LE			
ANICAL NAME	COMMON NAME	QUANTITY	SIZE	ROOT	SPACING
cis canadensis	Eastern Redbud	2	1" Cal.	B&B	30' O.C.
abra 'Shamrock' (Female)	Shamrock Inkberry	8	3 Gal.	Cont.	18" O.C.
labra 'Shamrock' (Male)	Shamrock Inkberry	4	3 Gal.	Cont.	18" O.C.
GRASS ESTABLISH	IMENT	209 SY			

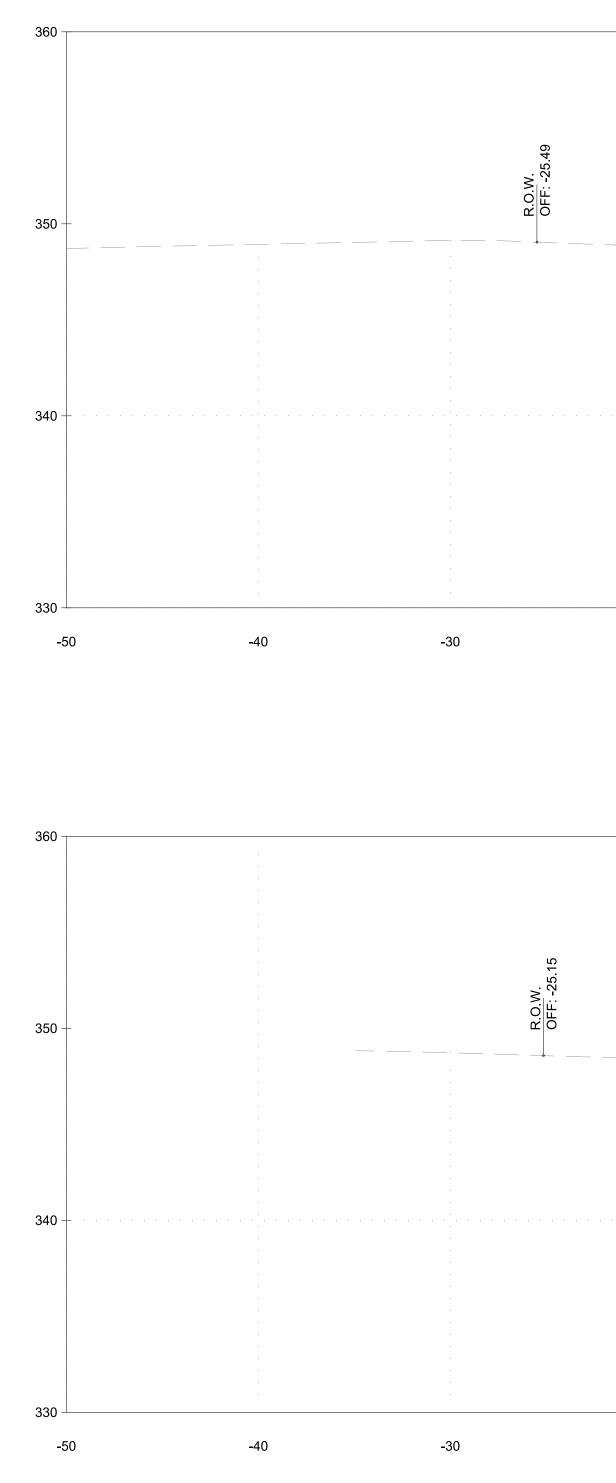
OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY DEPARTMENT OF TRA ROCKVILLE, MA
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL
CONTACT:					Chief, Transportation Planning and Design Section
PROJECT MANAGER MATT JOHNSON, AICP					APPROVED
240-777-7237					Chief, Division of Transportation Engineering
					DESIGNED BY DRAWN BY
	NO.	REVISION	DATE	BY	



Engineers | Construction Managers | Planners | Scientists www.rkk.com

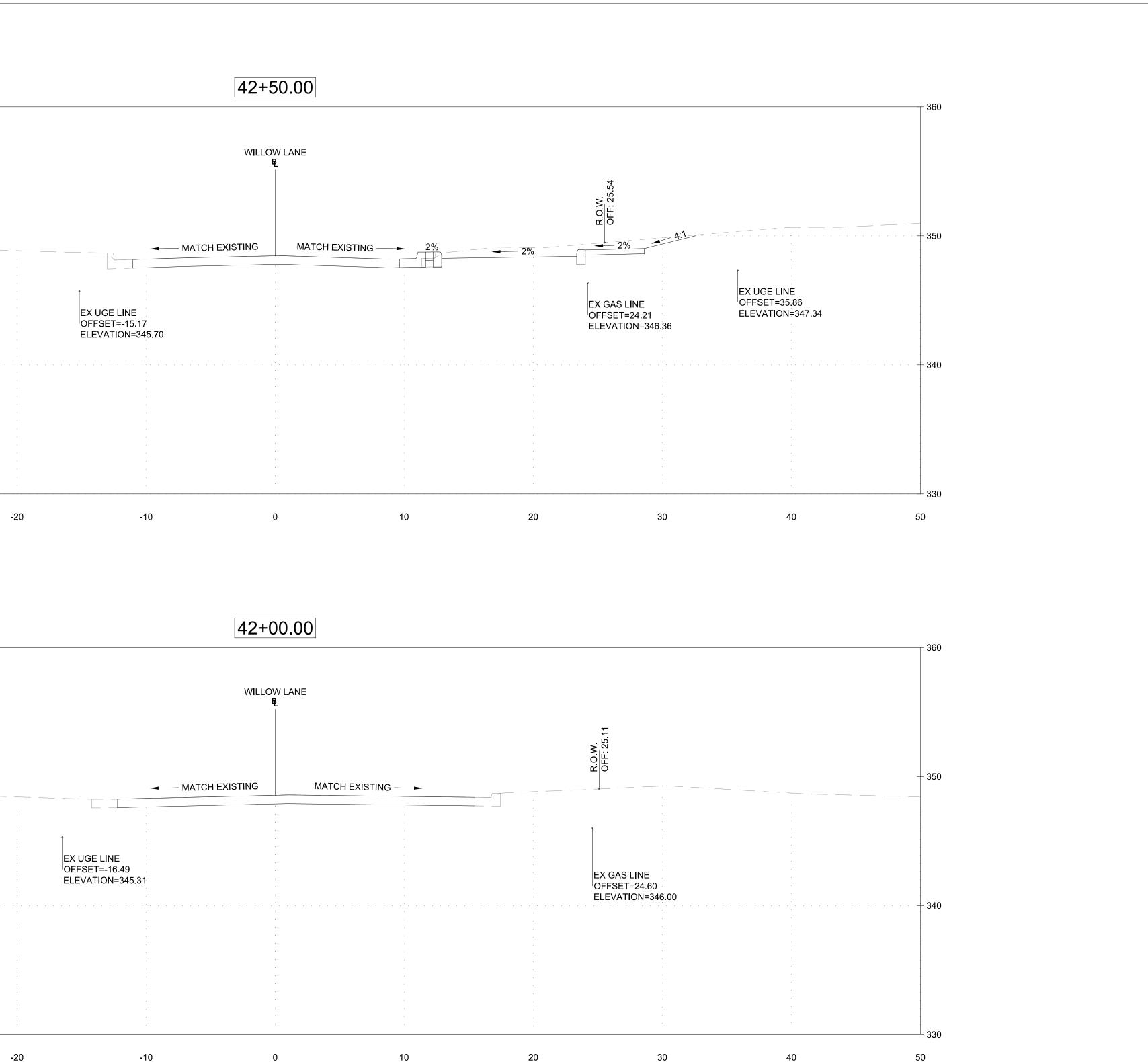
/INA I RE	OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY C DEPARTMENT OF TRA ROCKVILLE, MAR
	100 EDISON PARK DRIVE Gaithersburg, Maryland					RECOMMENDED FOR APPROVAL
	<u>Contact:</u> Division of transportation Engineering					Chief, Transportation Planning and Design Section APPROVED
	240-777-7220 Design Section					Chief, Division of Transportation Engineering
	240-777-7221	NO.	REVISION	DATE	BY	DESIGNED BY <u>wfw</u> Drawn By <u>m</u>

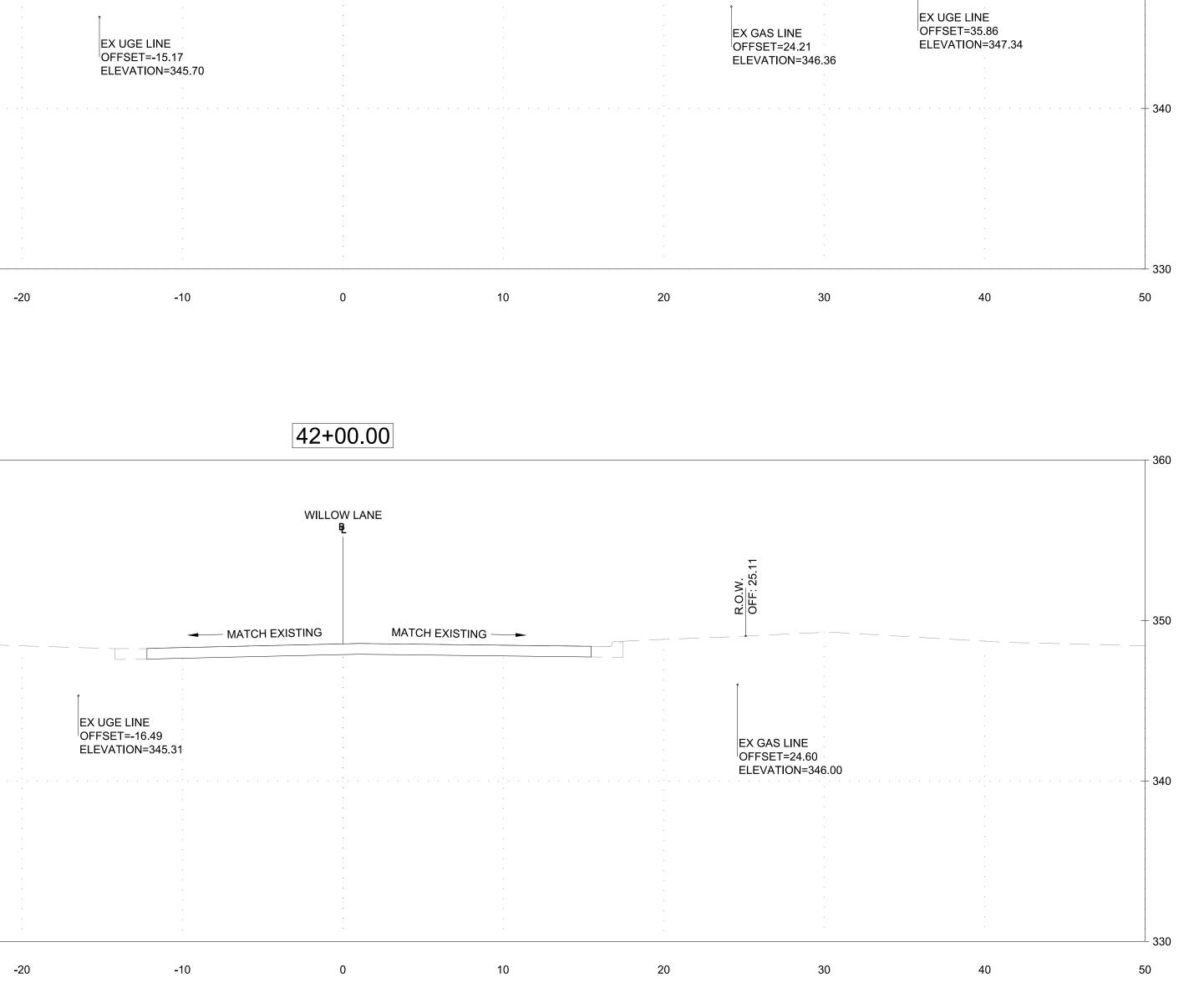
	Date	SCALE1"=20'	DATE	APRIL 2020	
MRL	CHECKED BY <u>wew</u>			SHEET NO. <u>16</u> OF <u>26</u>	_



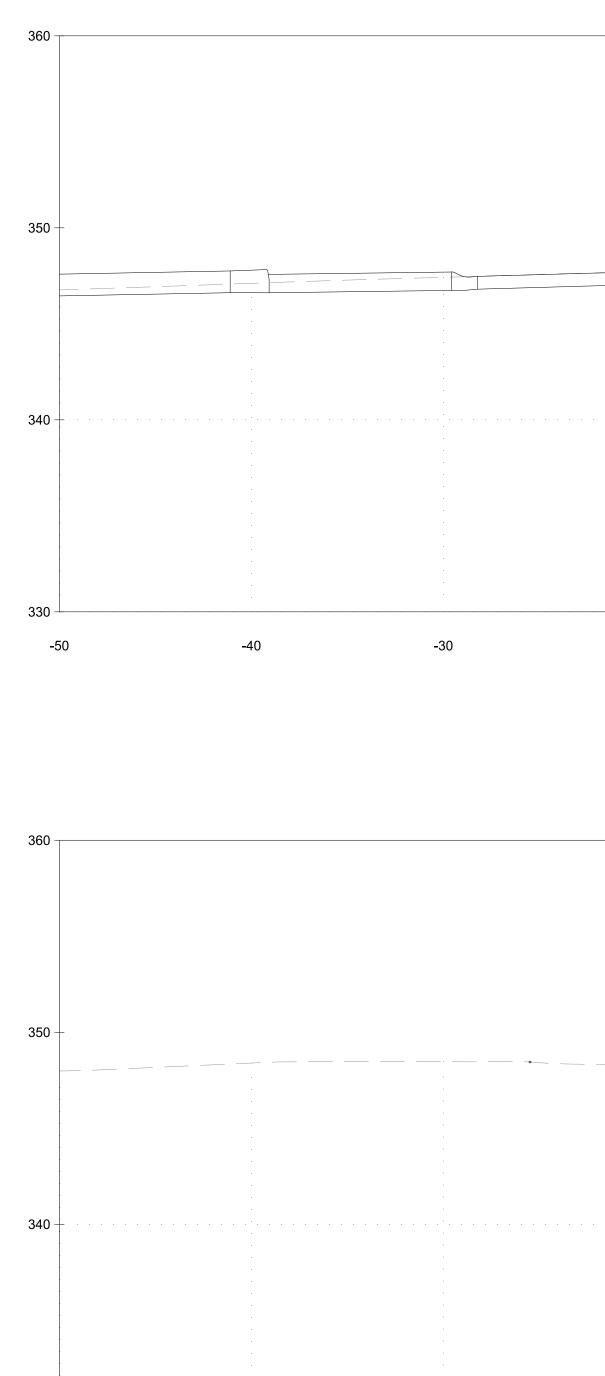
**TOOLE** DESIGN 8484 GEORGIA AVENUE, SUITE 800, SILVER SPRING, MD 20910 PHONE: (301) 927-1900 FAX: (301) 927-2800 www.tooledesign.com







OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION			MONTGOMERY COUN DEPARTMENT OF TRANSPO ROCKVILLE, MARYLA	RTATION	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 1
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND			RECOMMENDED FOR APPROVAL		CAPITAL CRESCENT SURFACE TRAIL PHASE 2
CONTACT: PROJECT MANAGER			Chief, Transportation Planning and Design Section APPROVED	Date	47TH STREET AND WILLOW LANE CROSS SECTIONS - 1
MATT JOHNSON, AICP 240-777-7237	NO. REVISION	DATE BY	Chief, Division of Transportation Engineering DESIGNED BY _LB_ DRAWN BY _JK_	Date CHECKED BYRP	SCALE         DATE         APRIL 16, 2020           DWG. C8.0         SHEET NO.



**TOOLE** DESIGN 8484 GEORGIA AVENUE, SUITE 800, SILVER SPRING, MD 20910 PHONE: (301) 927-1900 FAX: (301) 927-2800 www.tooledesign.com

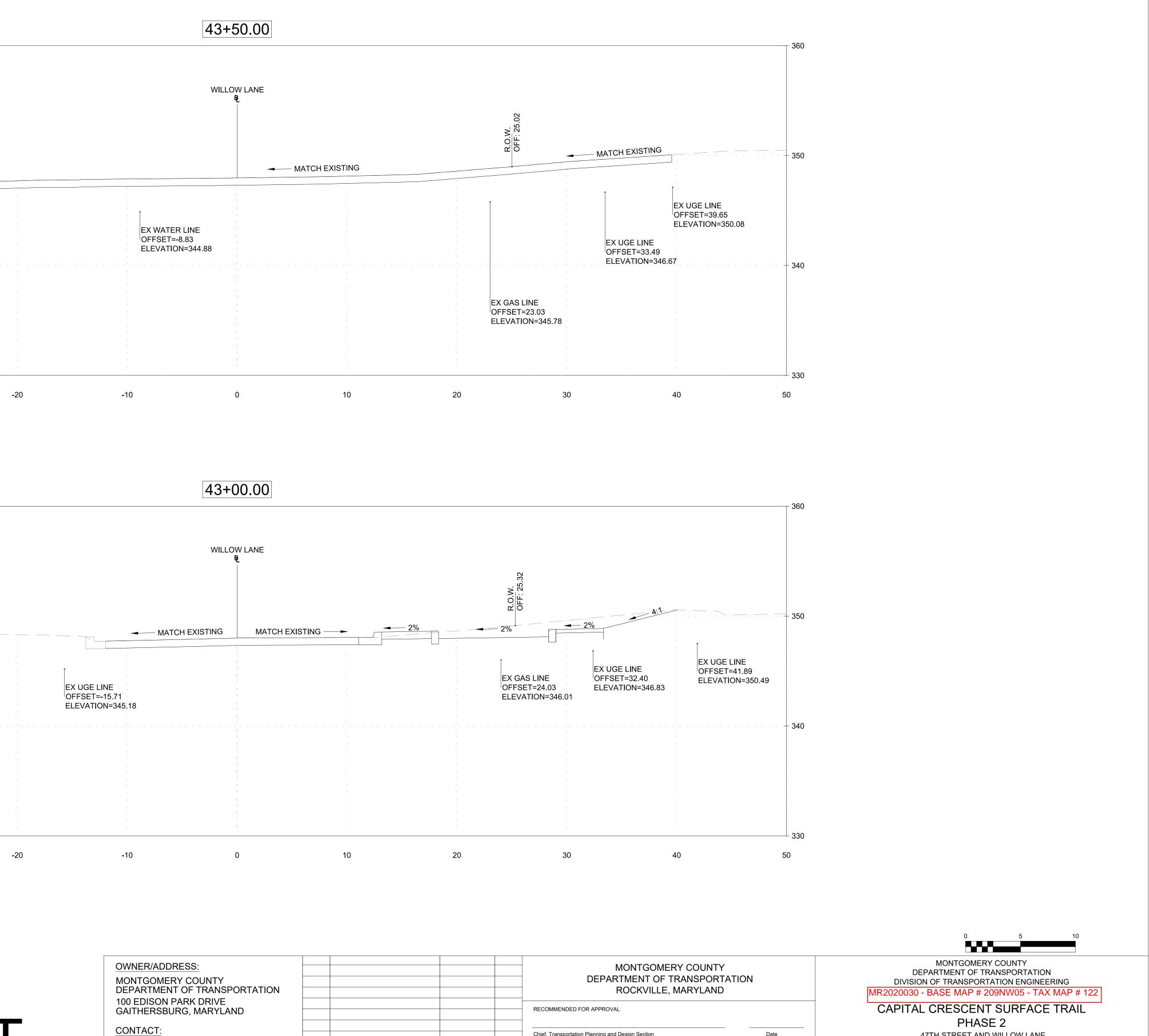
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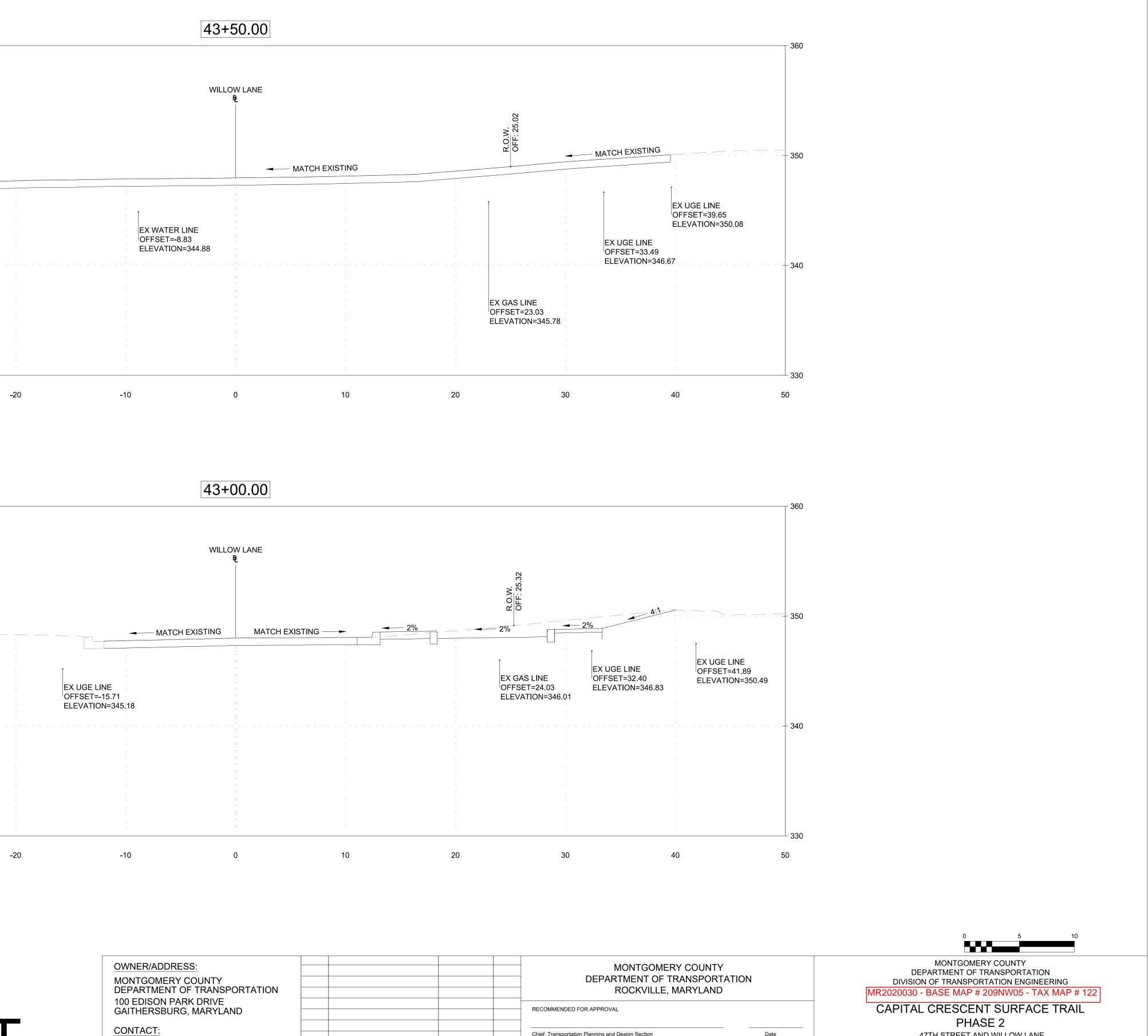
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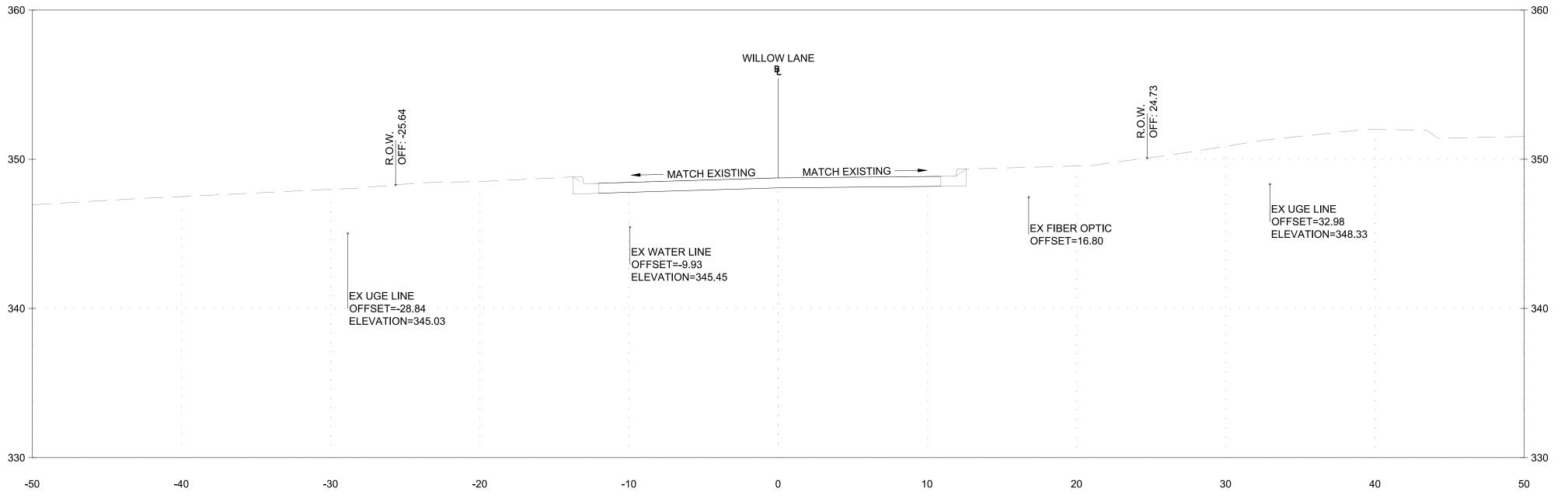




OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION				MONTG DEPARTMENT ROCKVI		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATIO DIVISION OF TRANSPORTATION ENGINE MR2020030 - BASE MAP # 209NW05 - TA			
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND CONTACT:				RECOMMENDED FOR APPROVAL	on Date		CAPITAL CRESCE PH 47TH STREET	ASE 2	
PROJECT MANAGER MATT JOHNSON, AICP 240-777-7237				APPROVED Chief, Division of Transportation Engineering	Date	SCALE	CROSS	_	
2101111201	NO.	REVISION	DATE B	DESIGNED BY LB DRA	WN BYJK CHECKED BYF	P DWG. C8.1			SHEET

RIL 16, 2020

HEET NO. \_20\_ OF \_26\_

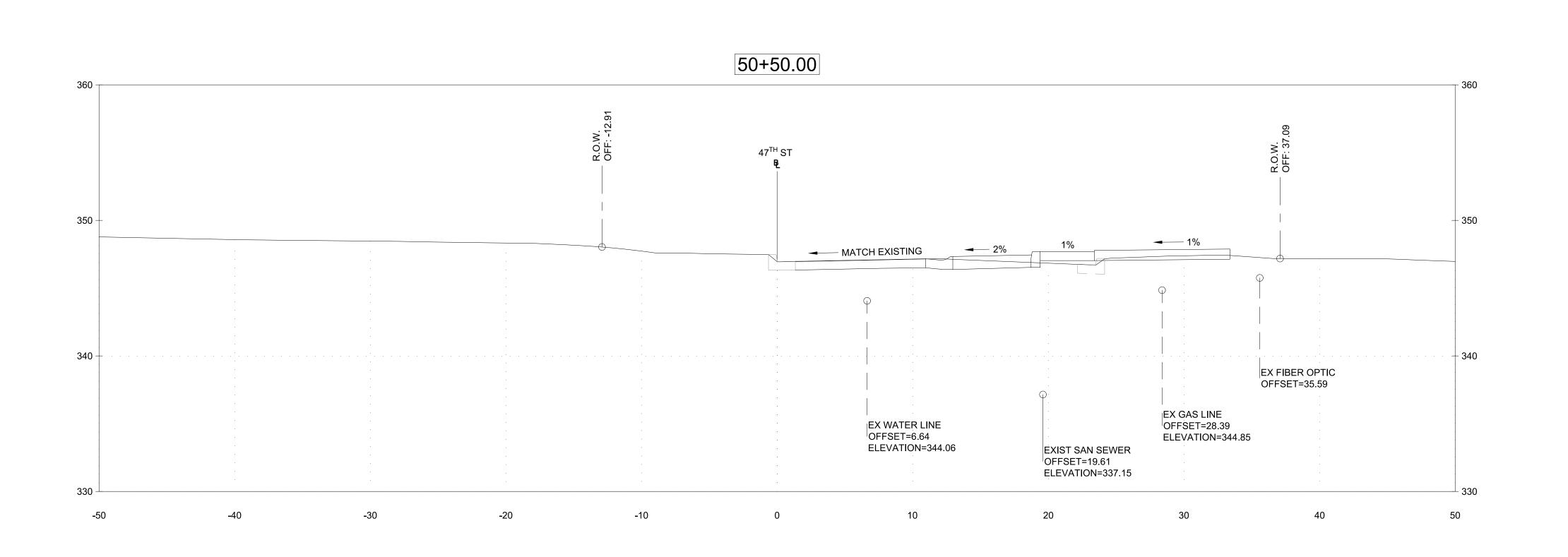


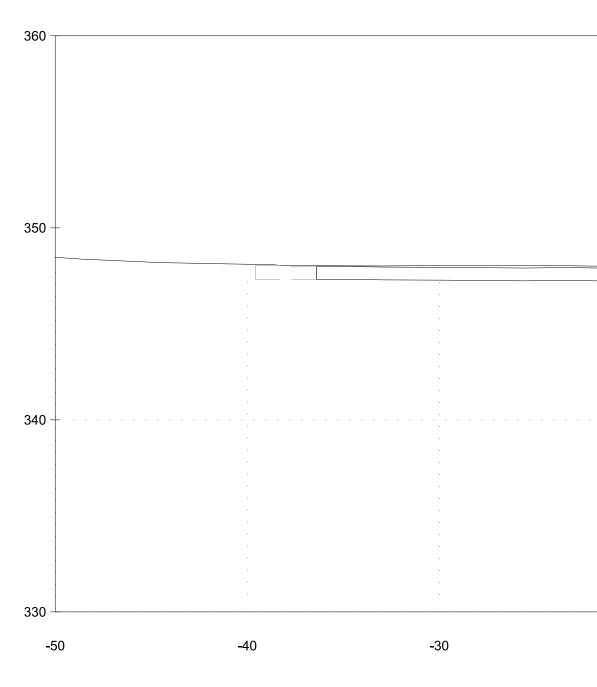






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OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORT ROCKVILLE, MARYLAND	TATION		MONTGOMERY COUN DEPARTMENT OF TRANSPO DIVISION OF TRANSPORTATION 20030 - BASE MAP # 209NW	ORTATION ENGINEERING
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL		CAF	PITAL CRESCENT SUF PHASE 2	RFACE TRAIL
CONTACT: PROJECT MANAGER					Chief, Transportation Planning and Design Section APPROVED	Date		47TH STREET AND WILLO CROSS SECTIO	
MATT JOHNSON, AICP 240-777-7237					Chief, Division of Transportation Engineering	Date	SCALE	DATE	APRIL 16, 2020
	NO.	REVISION	DATE	BY	DESIGNED BYLB DRAWN BYJK	CHECKED BY	DWG. C8.2		SHEET NO21_ OF _26_





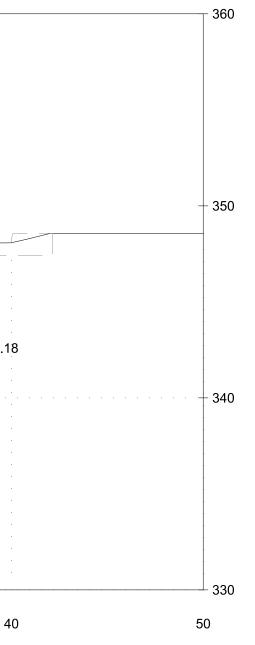




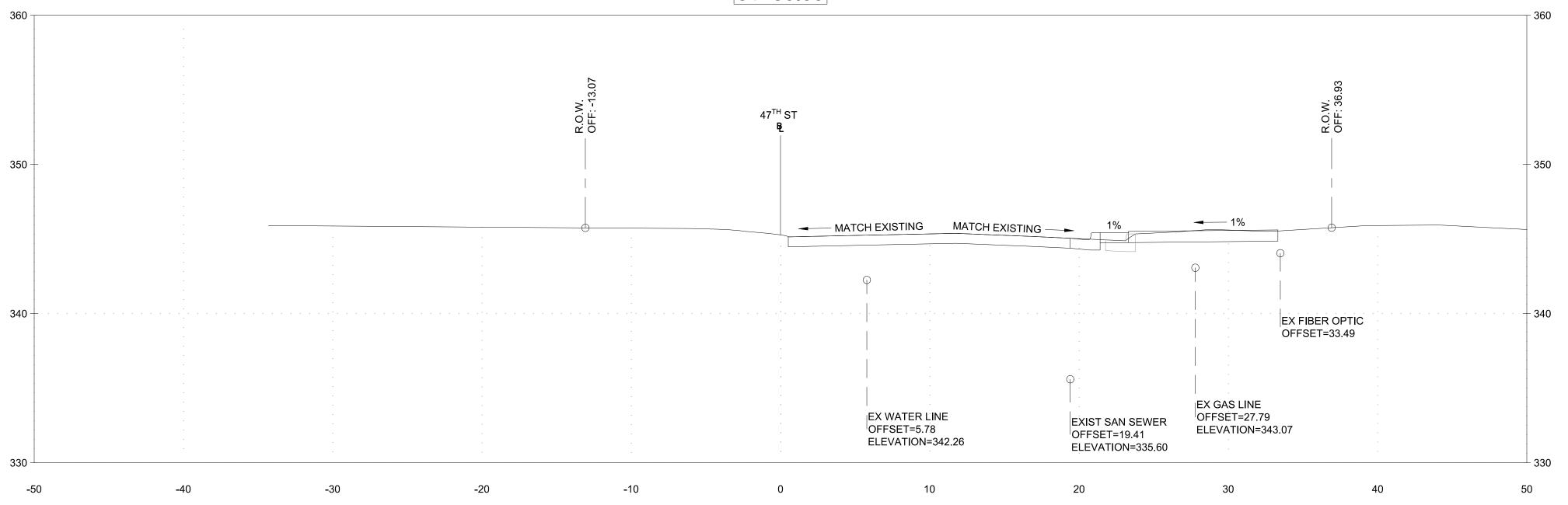
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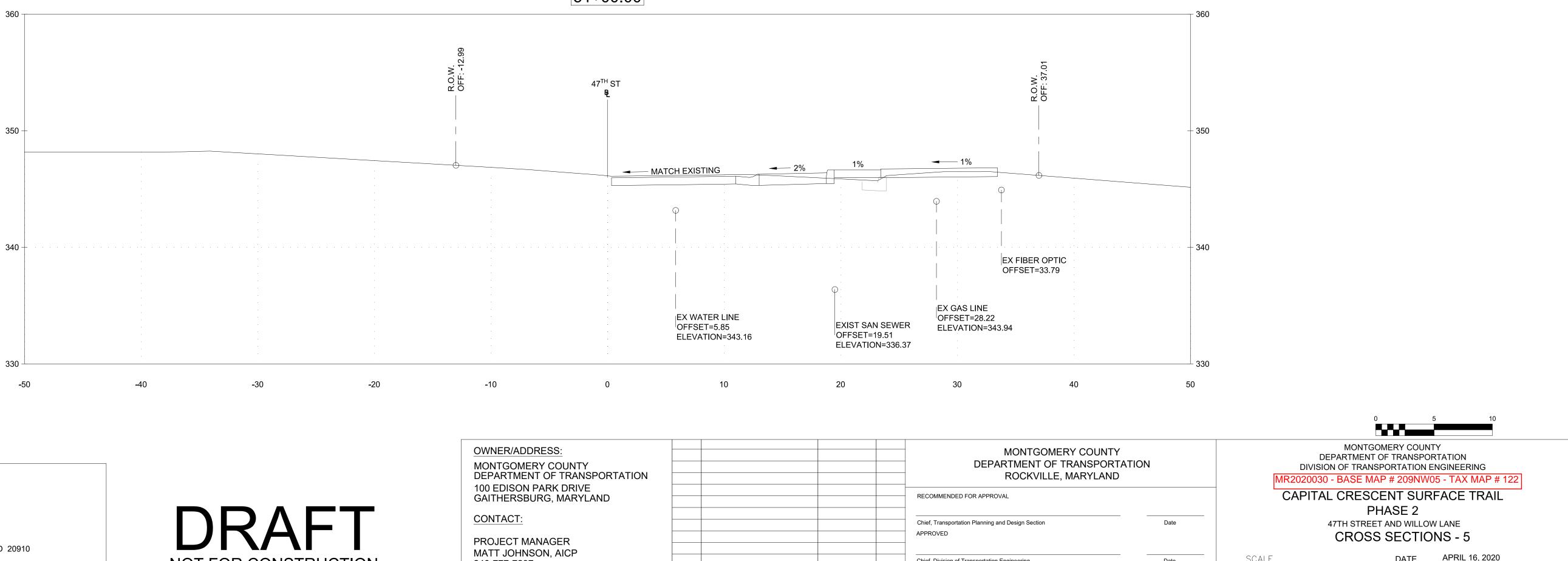
		47 <sup>th</sup> St <b>B</b>				
- MATCI	HEXISTING			— MATCH EXISTING		
					OFFSE	TER LINE T=33.85 TION=346.18
					EX UGE LINE OFFSET=29.87 ELEVATION=345.04 EX GAS LINE OFFSET=27.57	4
-20	-10	0	10	20	ELEVATION=345.52 30	40

OWNER/ADDRESS:					
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					DEPARTMENT OF TRA ROCKVILLE, MA
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL
CONTACT:					Chief, Transportation Planning and Design Section
PROJECT MANAGER MATT JOHNSON, AICP					
240-777-7237					Chief, Division of Transportation Engineering
	NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY _



		10					
RY COUNTY RANSPORTATION MARYLAND	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122						
Date	CAPITAL CRESCENT SURFACE TRAIL PHASE 2 47TH STREET AND WILLOW LANE CROSS SECTIONS - 4						
Date	SCALE DATE	APRIL 16, 2020					
KCHECKED BYRP	DWG. C8.3	SHEET NO22_ OF _26					







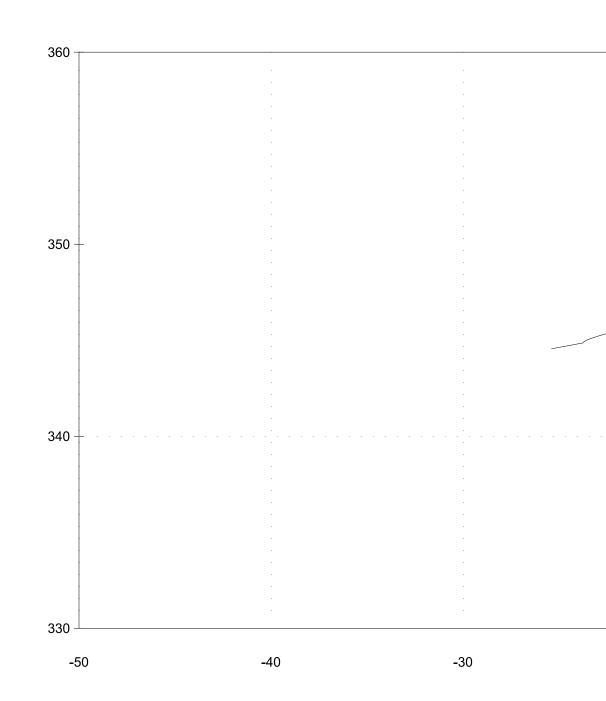


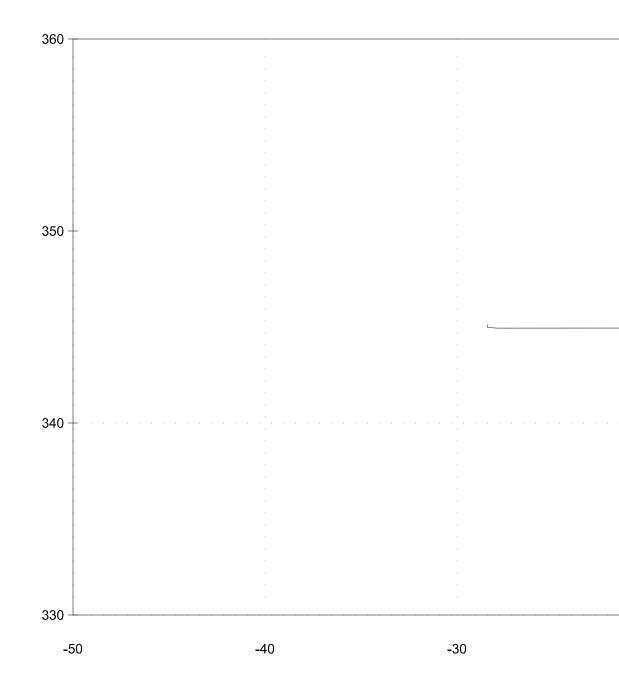
51+50.00

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OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY DEPARTMENT OF TRA ROCKVILLE, MA
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL
CONTACT:					Chief, Transportation Planning and Design Section
PROJECT MANAGER MATT JOHNSON, AICP					Chief, Division of Transportation Engineering
240-777-7237	NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY

DATE \_\_\_\_\_ APRIL 16, 2020 SCALE \_ Date SHEET NO. \_23\_ OF \_26\_ JK CHECKED BY <u>RP</u> DWG. C8.4

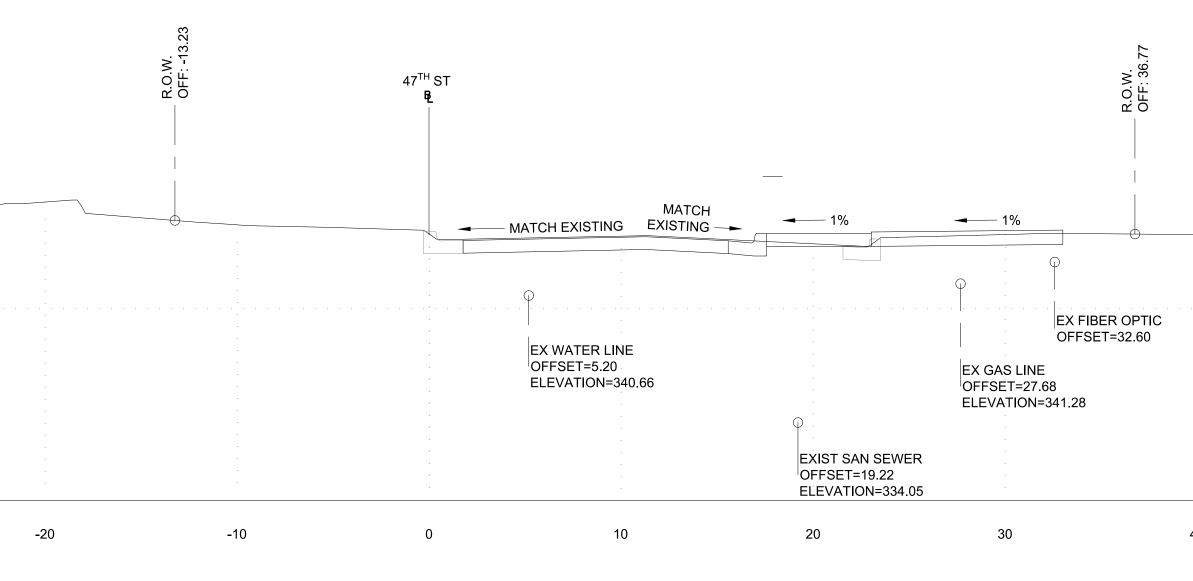




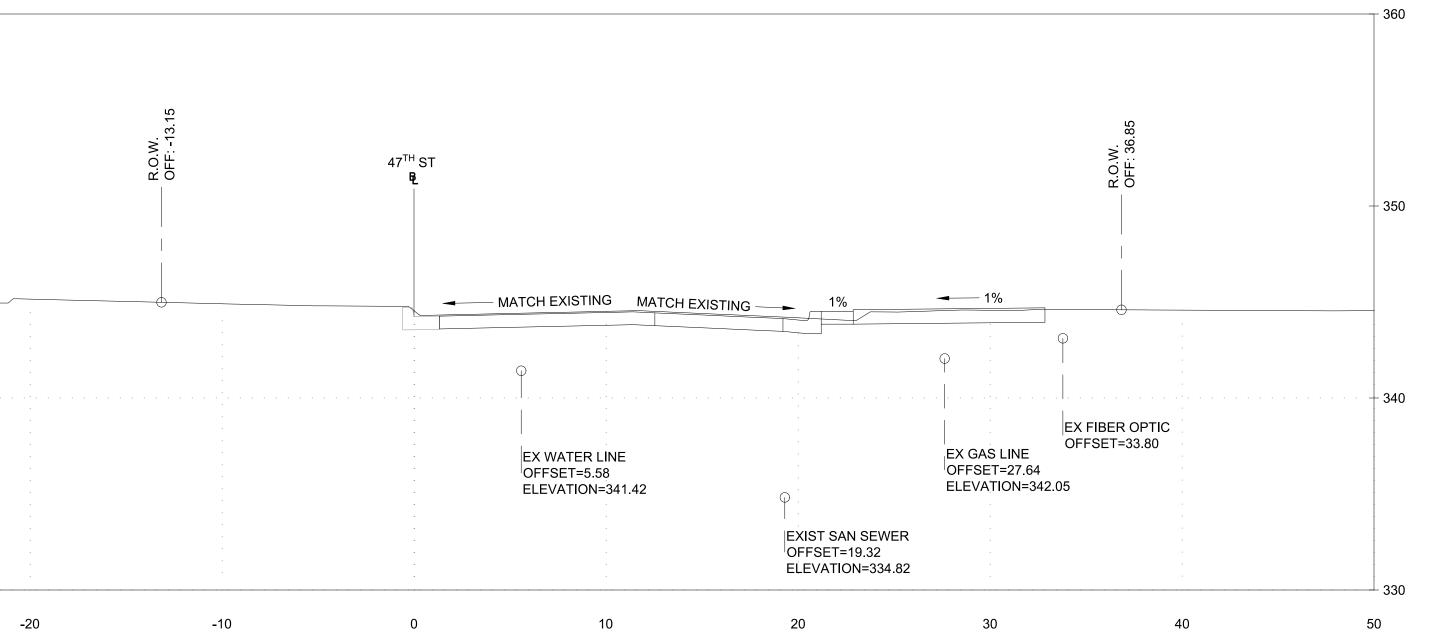




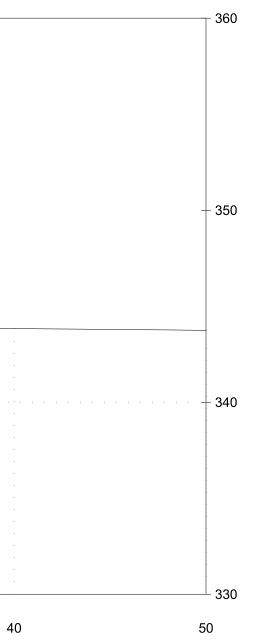
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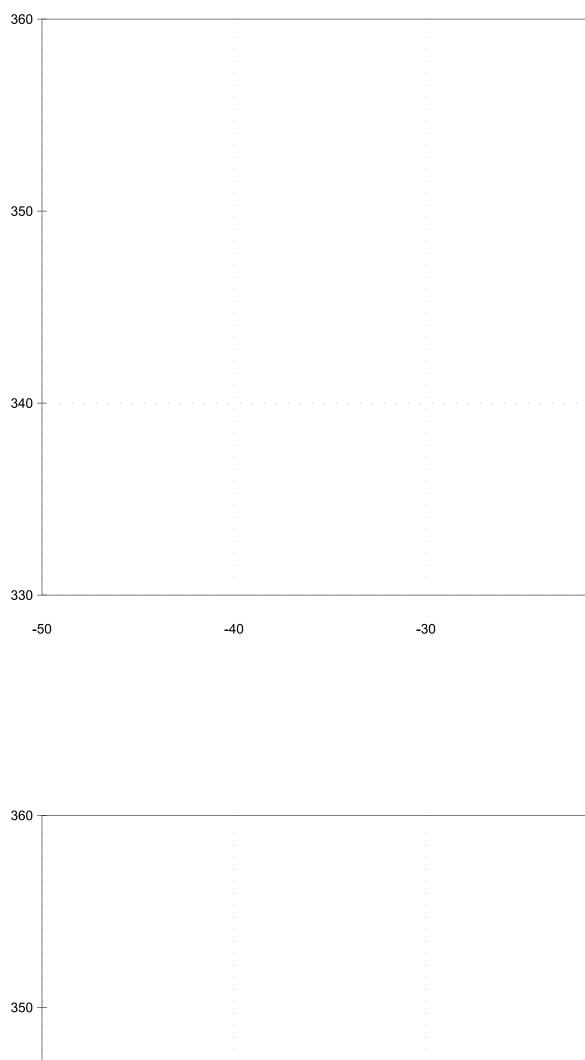
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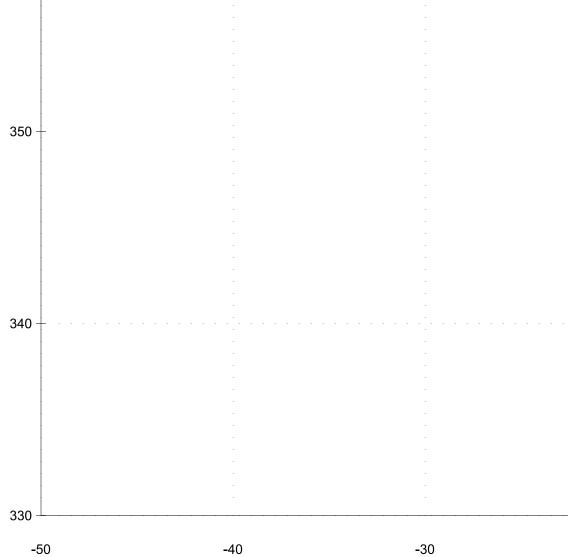


OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY DEPARTMENT OF TRA ROCKVILLE, MA
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL
CONTACT:					Chief, Transportation Planning and Design Section
PROJECT MANAGER MATT JOHNSON, AICP					
240-777-7237					Chief, Division of Transportation Engineering
	NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY _



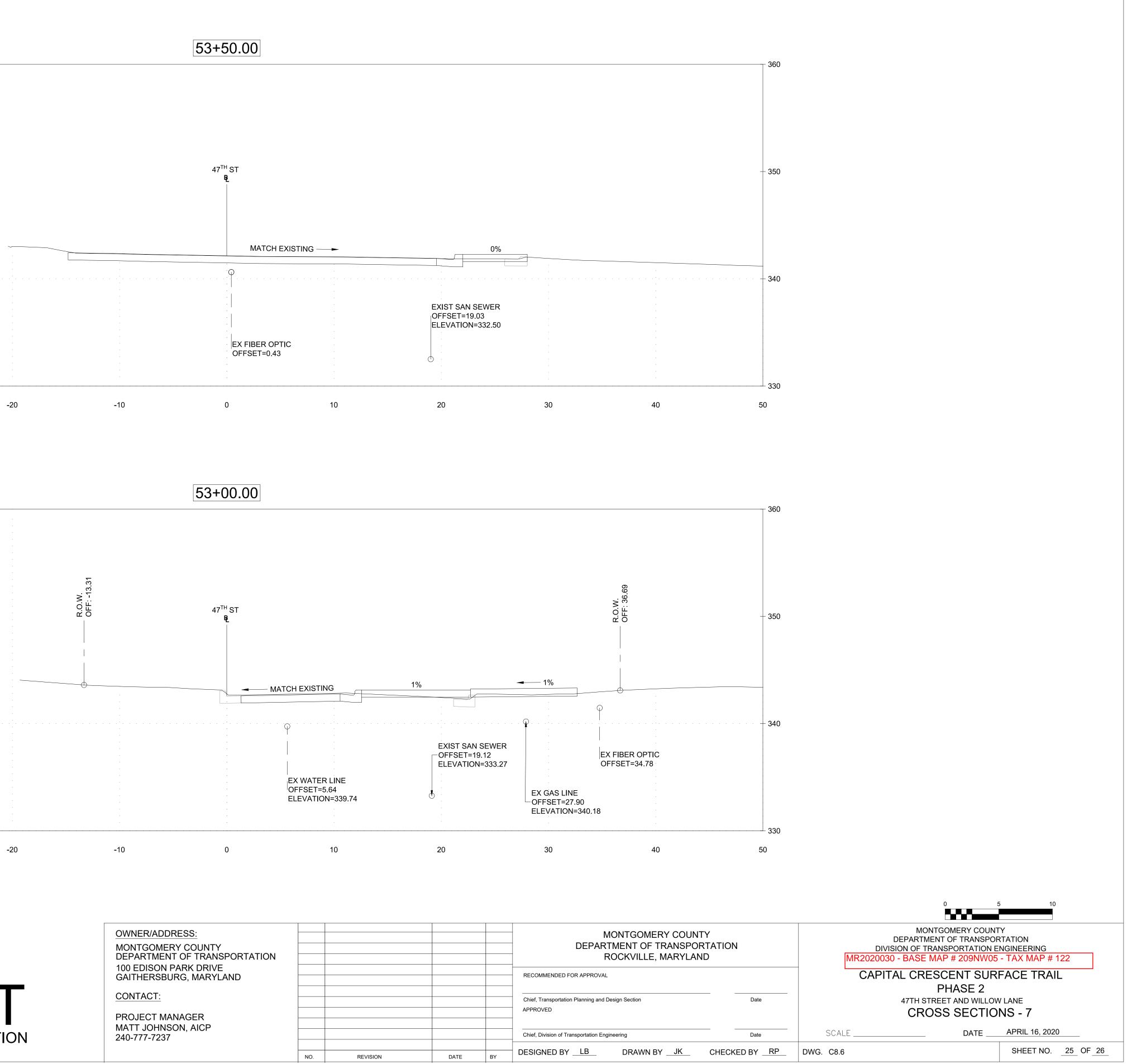
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RY COUNTY RANSPORTATION MARYLAND	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MR2020030 - BASE MAP # 209NW05 - TAX MAP # 122						
Date	CAPITAL CRESCENT SUR PHASE 2 47TH STREET AND WILLOW CROSS SECTIO	/ LANE					
Date	SCALE DATE	APRIL 16, 2020					
CHECKED BY	DWG. C8.5	SHEET NO24_ OF _26					

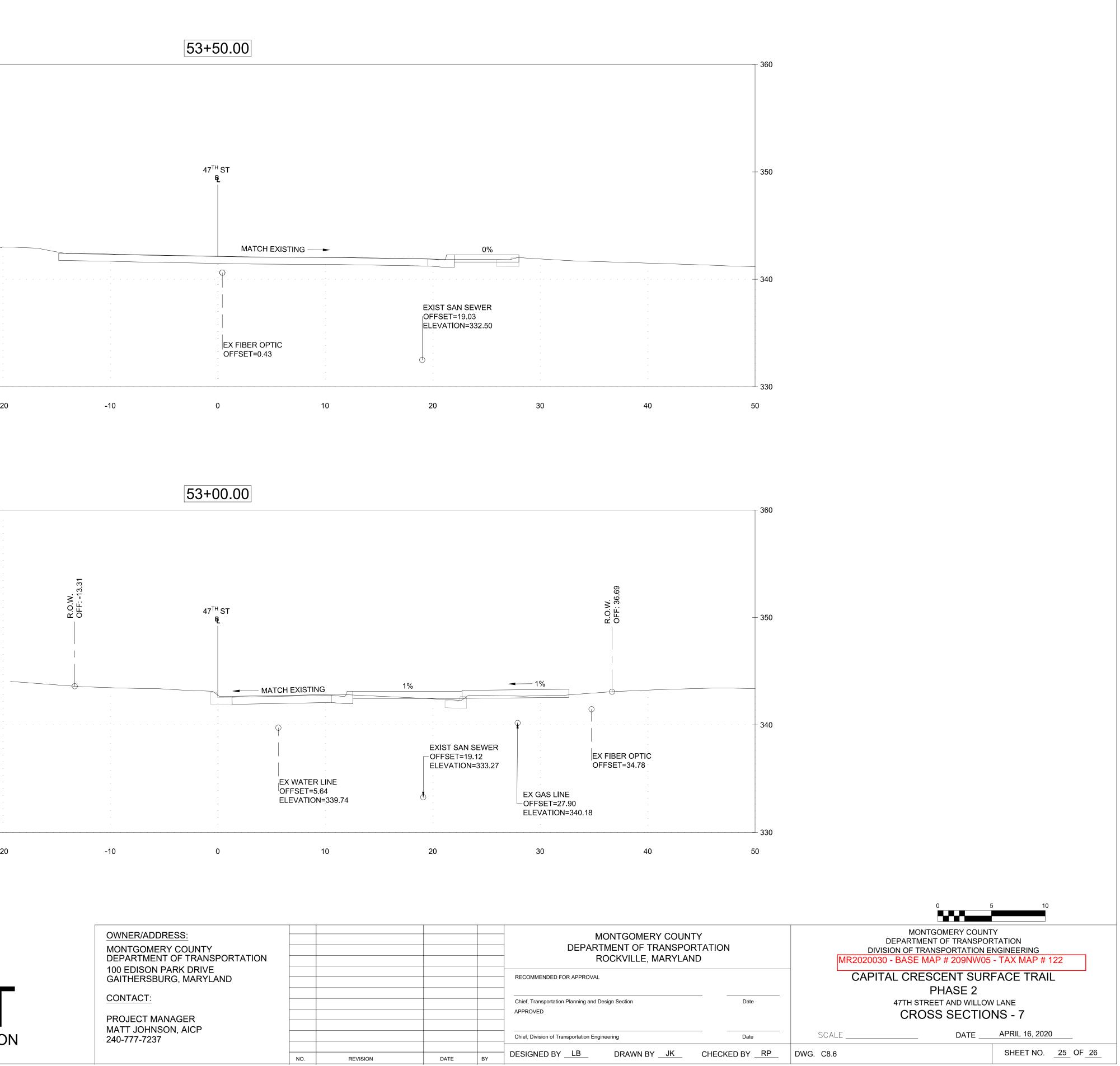


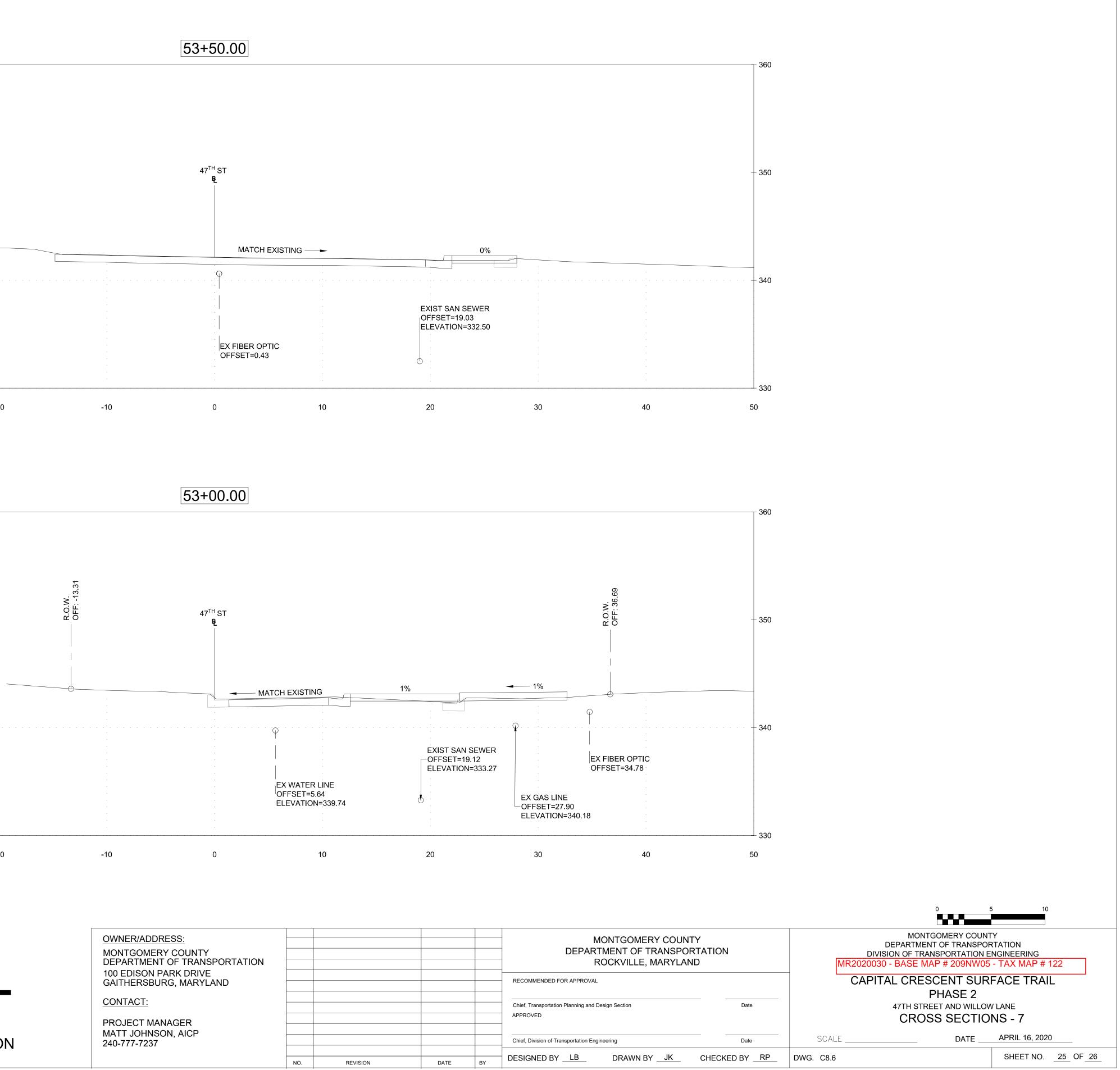












## <u>NOTES:</u>

- 1. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN MCDPS-APPROVED SEDIMENT CONTROL DEVICE. PROVIDE SAME-DAY STABILIZATION FOR ALL DISTURBED AREAS NOT DRAINING TO AN APPROVED SEDIMENT CONTROL DEVICE.
- 2. NO SCE IS PROVIDED, THEREFORE THE CONTRACTOR SHALL DESIGNATE PIÉCES OF CONSTRUCTION EQUIPMENT ALLOWED WITHIN THE LOD UNTIL THE PROPOSED CONSTRUCTION IS COMPLETED AND SHALL LEAVE TREADS/TIRES CLEANED PRIOR TO LEAVING THE LOD. ANY SEDIMENT TRACKED ONTO THE ROADWAY SHALL BE PROMPTLY REMOVED.
- 3. EROSION AND SEDIMENT CONTROL DEVICES AND/OR MEASURES ARE TO REMAIN IN PLACE UNTIL THÉIR REMOVAL IS APPROVED BY THE MCDPS INSPECTOR. STABILIZE THE DISTURBED AREAS.

### SEQUENCE OF CONSTRUCTION:

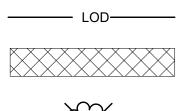
- 1. SET UP MOT AS INDICATED IN THE PLANS
- 2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED
- 3. EROSION AND SEDIMENT CONTROL DEVICES AND/OR MEASURES ARE TO REMAIN IN PLACE UNTIL THÉIR REMOVAL IS APPROVED BY THE MCDPS INSPECTOR. STABILIZE THE DISTURBED AREAS.

LEGEND

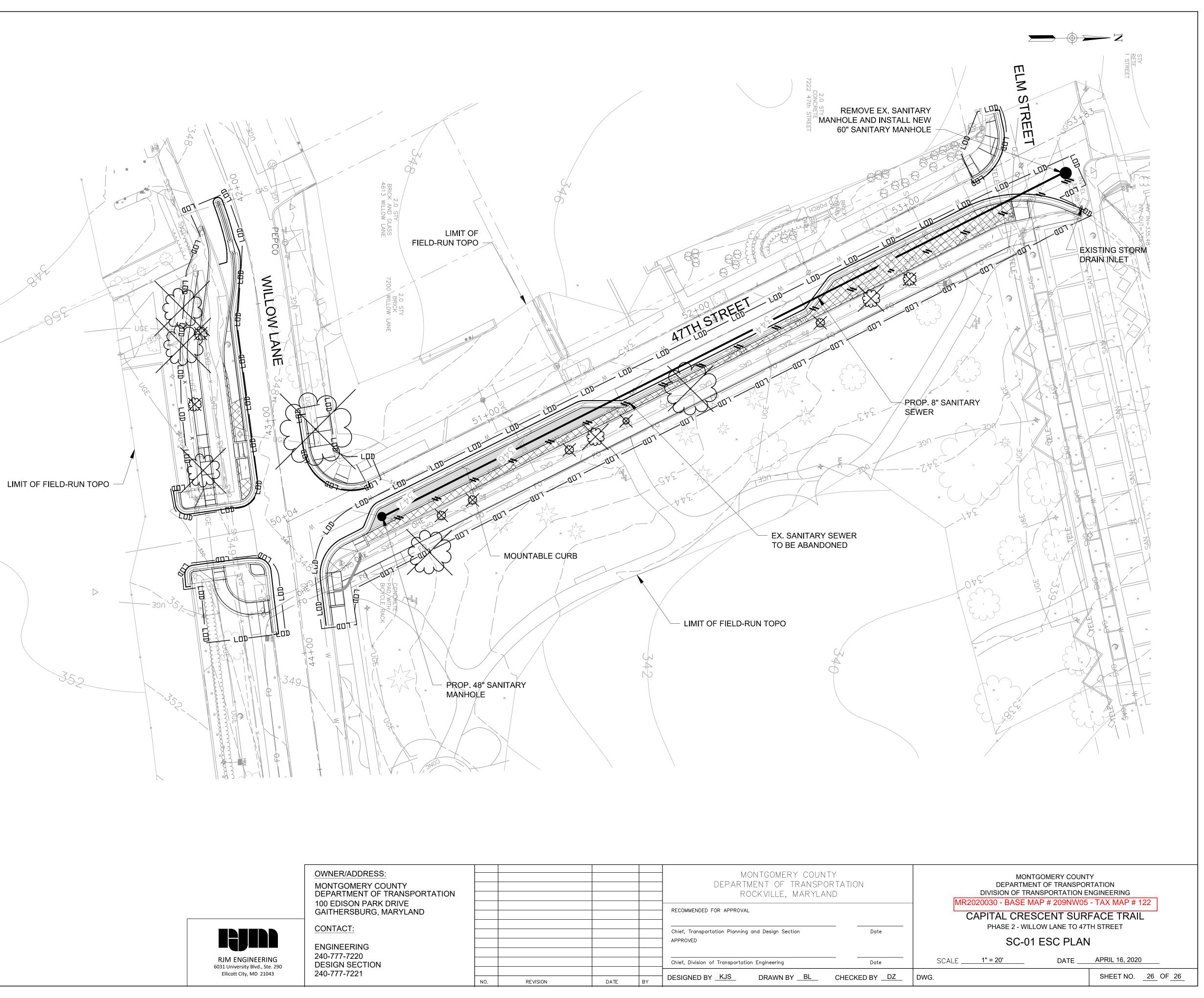
LIMIT OF DISTURBANCE

PAVEMENT REMOVAL

TREE REMOVAL









OWNER/ADDRESS:					MONTGOMERY COUN
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					DEPARTMENT OF TRANSPO ROCKVILLE, MARYLA
100 EDISON PARK DRIVE					ROCKVILLE, MARTLA
GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL
CONTACT:					
					Chief, Transportation Planning and Design Section
ENGINEERING					APPROVED
240-777-7220					
DESIGN SECTION					Chief, Division of Transportation Engineering
240-777-7221					DESIGNED BY KJS DRAWN BY BL
	NO.	REVISION	DATE	BY	DESIGNED BY <u>KJS</u> DRAWN BY <u>BL</u>