

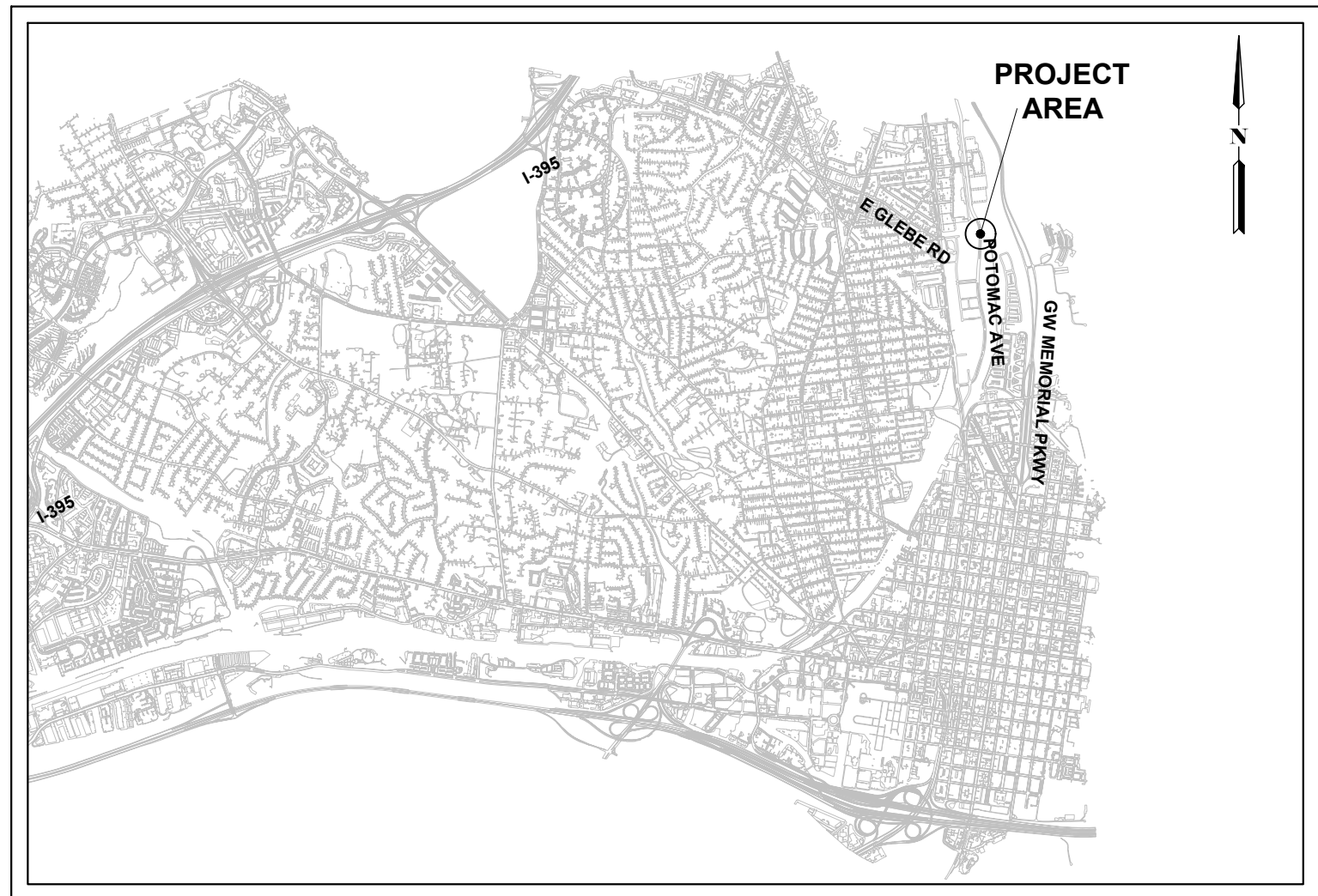
CITY OF  
**ALEXANDRIA**  
Virginia

Department of Transportation & Environmental Services

301 KING STREET  
ROOM 3600  
ALEXANDRIA, VA 22314

TEL. 703.746.4408  
www.alexandriava.gov

LOCATION MAP  
1"=4000'



PLANS FOR:

**POTOMAC AVENUE & GLEBE ROAD INTERSECTION SAFETY IMPROVEMENTS**

MAY 2022 - 60% SUBMITTAL

INDEX OF SHEETS	
SHEET NUMBER	TITLE
1	G-1 COVER SHEET
2	G-2 GENERAL NOTES
3	C-1 PAVEMENT MARKING LEGEND & SIGN SCHEDULE
4	C-2 PAVEMENT MARKING & SIGNAGE PLAN
5	D-1 ADDITIONAL DETAILS
6	D-2 ADDITIONAL DETAILS
7	D-3 ADDITIONAL DETAILS

60% DESIGN SUBMISSION  
PRELIMINARY - NOT FOR CONSTRUCTION

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Friday, May 13, 2022 1:05:19 PM

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF VIRGINIA, LICENSE NO. 0402062860, EXPIRATION DATE: 11-30-22.

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DR	SRL				
CHK	ECG				
APVD	RLP	NO.	DATE	REVISION	BY APVD

**TOOLE DESIGN**

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

POTOMAC AVENUE & GLEBE ROAD INTERSECTION SAFETY IMPROVEMENTS  
CITY OF ALEXANDRIA, VA

GENERAL	
<b>G-1 COVER SHEET</b>	

PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	G-1
SHEET NO.	1 OF 7

## GENERAL NOTES

- ALL CONSTRUCTION MATERIALS AND PROCEDURES SHALL BE GOVERNED BY THE LATEST VERSION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES, ROAD DESIGN MANUAL, AND ROAD AND BRIDGE STANDARDS ISSUED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT).
- BASE MAPPING WAS PREPARED FROM GIS DATA PROVIDED BY THE CITY OF ALEXANDRIA. ALL DIMENSIONS AND EXISTING FEATURES SHALL BE VERIFIED IN THE FIELD PRIOR TO ORDERING MATERIALS FOR CONSTRUCTION. WHEN THESE PLANS ARE IN CONFLICT WITH ACTUAL SITE CONDITIONS, ANY DISCREPANCIES SHALL BE REPORTED TO THE CITY ENGINEER PRIOR TO BEGINNING WORK. PROPOSED STRIPING AND SIGNS MAY BE ADJUSTED AS DIRECTED BY THE CITY ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO BEGINNING WORK. ANY DAMAGE TO UTILITIES MUST BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTION TO PROTECT ALL WALKS, GRADING, SIDEWALKS AND FEATURES OUTSIDE THE LIMITS OF WORK AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AS DIRECTED BY THE CITY ENGINEER ANY OTHER DAMAGE SO CAUSED.

## SIGNING AND PAVEMENT MARKINGS

- ALL STRIPING AND SIGN WORK SHALL MEET ALL APPLICABLE VDOT, CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS, AND 2009 MANUAL ON UNIFORM TRAFFIC CONTROL (MUTCD) REQUIREMENTS.
- ALL PAVEMENT MARKINGS ARE THERMOPLASTIC UNLESS OTHERWISE NOTED.
- ALL EXISTING PAVEMENT MARKINGS MAY NOT BE SHOWN. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE ERADICATED.
- DRIVEWAYS - NOT ALL DRIVEWAYS HAVE BEEN LOCATED FOR THIS STRIPING PLAN. FIELD VERIFY DRIVEWAY LOCATIONS BEFORE APPLYING STRIPING.
- ALL SIGNS SHALL BE HIGH INTENSITY SHEETING MEETING THE REQUIREMENTS OF AASHTO M268.
- PROPOSED SIGNS SHALL BE INSTALLED SO THAT NO PORTION OF THE SIGN PANEL OVERHANGS ADJACENT ROADWAY PAVEMENT, I.E. SHALL NOT OVERHANG BEYOND THE FACE OF CURB.
- PROPOSED SIGN POSTS SHALL BE LOCATED A MINIMUM OF 2 FEET BEHIND ANY ADJACENT FACE OF CURB UNLESS SPECIFICALLY NOTED OTHERWISE. IF LOCATED IN OR ADJACENT TO SIDEWALKS, A 32" MINIMUM CLEAR AND 48" PREFERRED PASSING SPACE ON EXISTING AND PROPOSED SIDEWALKS SHALL BE MAINTAINED.
- PROPOSED SIGNS AT NEW LOCATIONS SHALL BE INSTALLED SO THEY DO NOT BLOCK THE VISIBILITY OF ANY EXISTING SIGNS OR SIGNALS.
- PROPOSED SIGNS AND POSTS SHALL BE CLEAR OF EXISTING FIRE HYDRANTS, SURFACE UTILITY, AND OVERHEAD UTILITY EQUIPMENT BY A MINIMUM OF 10 FEET.
- FOR NEW POST INSTALLATION, THE CONTRACTOR SHALL VERIFY THERE ARE NO CONFLICTING UNDERGROUND OR OVERHEAD UTILITIES.
- SIGNS MOUNTED TO EXISTING LIGHT, SIGNAL OR UTILITY POLES SHALL BE FASTENED WITH A MANUFACTURED STEEL BANDING SYSTEM. POLES SHALL NOT BE DRILLED DIRECTLY. THE CONTRACTOR SHALL SUBMIT MANUFACTURER INFORMATION ON THE BANDING SYSTEM TO THE CITY ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- IF SIGN INSTALLATION IS SHOWN ON A POLE THAT IS NOT OWNED BY THE CITY, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER (UTILITY COMPANY OR PROPERTY OWNER). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING REQUIRED PERMISSION.
- ALL SIGN LOCATIONS SHOWN ON THE PLANS ARE SCHEMATIC AND MAY NOT REFLECT ACTUAL FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY EACH LOCATION PRIOR TO INSTALLING A SIGN. IF AT ANY POINT THE CONTRACTOR FINDS A CONFLICT, THE CONTRACTOR SHALL CONTACT THE CITY ENGINEER PRIOR TO INSTALLING THE PROPOSED SIGN. PROPOSED SIGN LOCATIONS CAN BE ADJUSTED AS APPROVED BY THE CITY ENGINEER.

## MAINTENANCE OF TRAFFIC

- VIRGINIA MUTCD, VDOT AND CITY OF ALEXANDRIA STANDARD DETAILS AND PROCEDURES FOR MAINTENANCE OF TRAFFIC SHALL BE USED FOR INSTALLATION OF ALL PROJECT FEATURES.
- ALL EXISTING RESIDENTIAL AND COMMERCIAL DRIVEWAYS AND PUBLIC ALLEY ENTRANCES SHALL REMAIN OPEN AT ALL TIMES, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
- FOR LOCATIONS WHERE THE WORK WILL BE COMPLETE WITHIN ONE WORKING DAY, THE CONTRACTOR SHALL UTILIZE SIGNS, BARRICADES, CHANNELIZING DEVICES, CHANGEABLE MESSAGE BOARDS, AND WARNING LIGHTS AS NECESSARY TO COMPLY WITH VDOT AND MUTCD REQUIREMENTS FOR SHORT-TERM STATIONARY WORK AND MOBILE WORK.
- TEMPORARY "MOBILE" LANE CLOSURES UTILIZING VEHICLES WITH WARNING LIGHTS AND SIGNS PER MUTCD WILL BE ALLOWED FOR LANE CLOSURES WHERE THE WORK WILL BE COMPLETED WITHIN ONE WORKING DAY. FOR LOCATIONS WHERE THE WORK WILL NOT BE COMPLETE WITHIN ONE WORKING DAY OR OCCUR AT NIGHT, THE CONTRACTOR SHALL UTILIZE SIGNS, BARRICADES, CHANNELIZING DEVICES, CHANGEABLE MESSAGE BOARDS, AND WARNING LIGHTS AS NECESSARY TO COMPLY WITH VDOT AND MUTCD REQUIREMENTS FOR INTERMEDIATE-TERM STATIONARY WORK.
- THE SIDEWALKS AND CROSSWALKS MUST REMAIN OPEN AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
- TEMPORARY SIGNS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK AND REMOVED IMMEDIATELY AFTER COMPLETION OF ACTIVITIES.
- FULL VIEW OF ADVANCE WARNING SIGNS SHALL BE CLEAR OF OBSTRUCTION ON APPROACH TO WORK ZONE.
- THE CONTRACTOR SHALL OBTAIN THE NECESSARY NOISE PERMIT FOR WEEKEND AND NIGHT-TIME WORK.
- ALL AFFECTED TRAVEL LANES SHALL MAINTAIN A 10-FOOT MINIMUM WIDTH UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

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# MARKING LEGEND

EXISTING	PROPOSED	
		FLEX POST
		SIGN AND POST
		SHARED LANE MARKING
		4" SOLID WHITE LANE LINE
		4" SOLID YELLOW LANE LINE
		4" DOUBLE SOLID YELLOW CENTERLINE
		12" STOP LINE OR CROSSWALK LINE
		24" STOP LINE OR CROSSWALK LINE
		WHITE PAVEMENT ARROW
		RED-COLORED MMA PAINT
		SIGN
		FIRE HYDRANT
		SIGNAL POLE
		LIGHT POLE
		PUSH BUTTON
		TRAFFIC CABINET / BOX
		STORM INLET
		CONCRETE PAVEMENT
		COMBINED PEDESTRIAN-BUS SIGNAL

POTOMAC AVENUE & GLEBE ROAD - SIGN SCHEDULE							
DWG NO.	SIGN DESIGNATION	SIGN DESCRIPTION	SIZE (INCHES)	SF	QUANTITY	TOTAL SF	NEW SIGN POST (LF)
C-2	R4-11	BIKES MAY USE FULL LANE	30 X 30	6.25	1	6.25	12
C-2	R10-11	NO TURN ON RED	24 X 30	5.0	2	10	24
C-2	R9-5	BIKES USE PED SIGNAL	12 X 18	1.5	3	4.5	12
C-2	CUSTOM SHARED ZONE-1	BIKES YIELD TO PEDS / SHARED ZONE	24 X 18	3.0	2	6	12
C-2	R3-11b	RIGHT LANE BUSES ONLY	30 X 42	8.75	1	8.75	12

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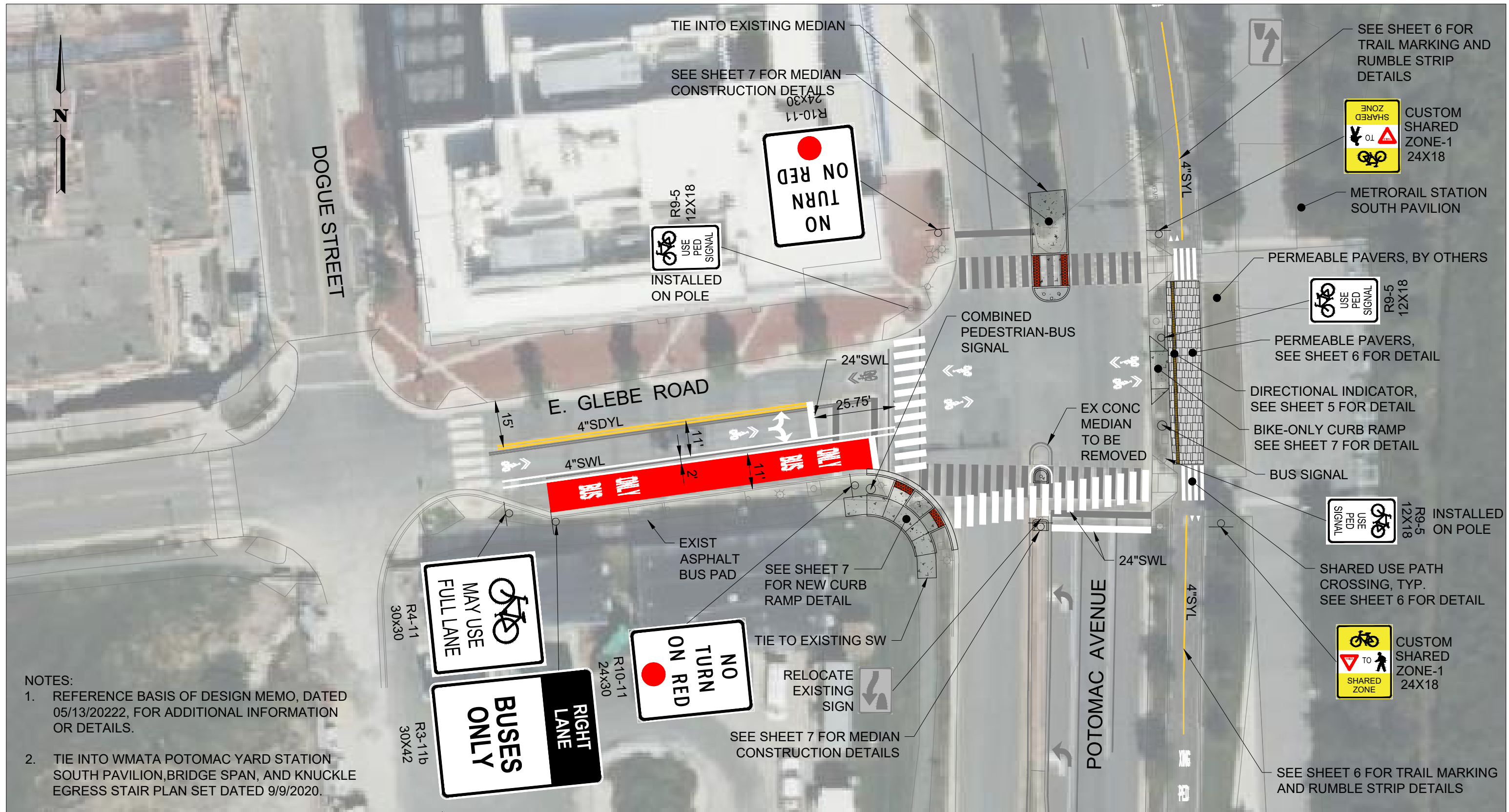
**TOOLE DESIGN**

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SILVER SPRING, MD 20910  
PHONE: 301.927.1900  
FAX: 301.927.2800  
www.tooledesign.com

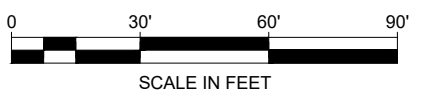
POTOMAC AVENUE & GLEBE ROAD  
INTERSECTION SAFETY IMPROVEMENTS  
CITY OF ALEXANDRIA, VA

GENERAL  
**C-1 PAVEMENT MARKING LEGEND & SIGN SCHEDULE**

PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	C-1
SHEET NO.	3 OF 7



- NOTES:
1. REFERENCE BASIS OF DESIGN MEMO, DATED 05/13/2022, FOR ADDITIONAL INFORMATION OR DETAILS.
  2. TIE INTO WMATA POTOMAC YARD STATION SOUTH PAVILION, BRIDGE SPAN, AND KNUCKLE EGRESS STAIR PLAN SET DATED 9/9/2020.



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			APVD

**TOOLE DESIGN**

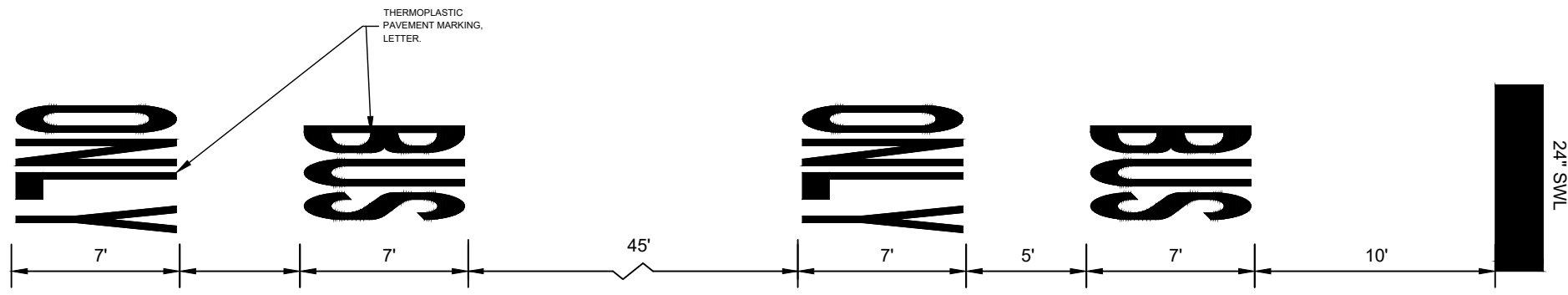
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**POTOMAC AVENUE & GLEBE ROAD INTERSECTION SAFETY IMPROVEMENTS**  
CITY OF ALEXANDRIA, VA

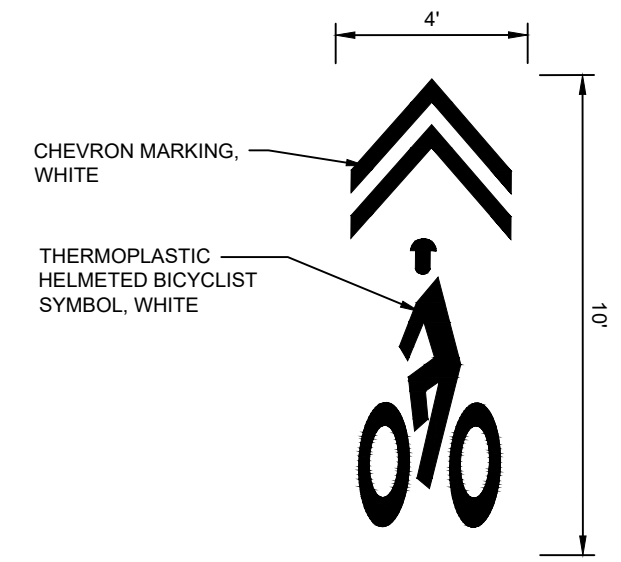
**CIVIL**

**C-2 PAVEMENT MARKING & SIGNAGE PLAN**

PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	C-2
SHEET NO.	4 OF 7

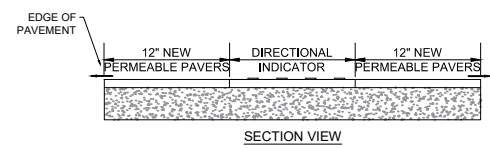
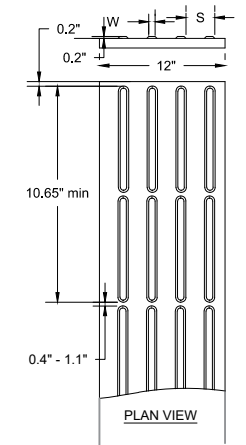


**101** BUS-ONLY PAVEMENT MARKING SYMBOL PLACEMENT  
SCALE: N.T.S.

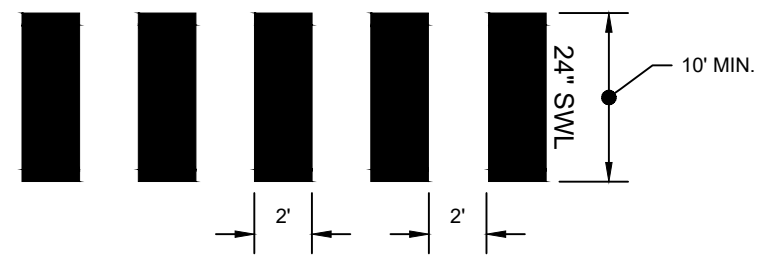


**102** SHARED LANE MARKING  
SCALE: N.T.S.

W (in)	S (in)
0.67	2.25 - 3
0.8	2.35 - 3.15
1	2.55 - 3.25
1.2	2.75 - 3.35

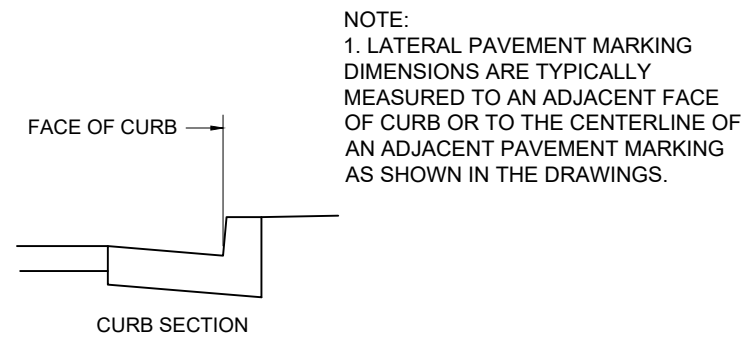


**103** DIRECTIONAL INDICATOR DETAIL  
SCALE: N.T.S.



NOTE: CROSSWALK MARKINGS PERPENDICULAR TO VEHICLE WHEEL PATH

**104** CROSSWALK DETAIL  
SCALE: N.T.S.



NOTE:  
1. LATERAL PAVEMENT MARKING DIMENSIONS ARE TYPICALLY MEASURED TO AN ADJACENT FACE OF CURB OR TO THE CENTERLINE OF AN ADJACENT PAVEMENT MARKING AS SHOWN IN THE DRAWINGS.

**105** TYPICAL LATERAL STRIPING DIMENSIONS  
SCALE: N.T.S.

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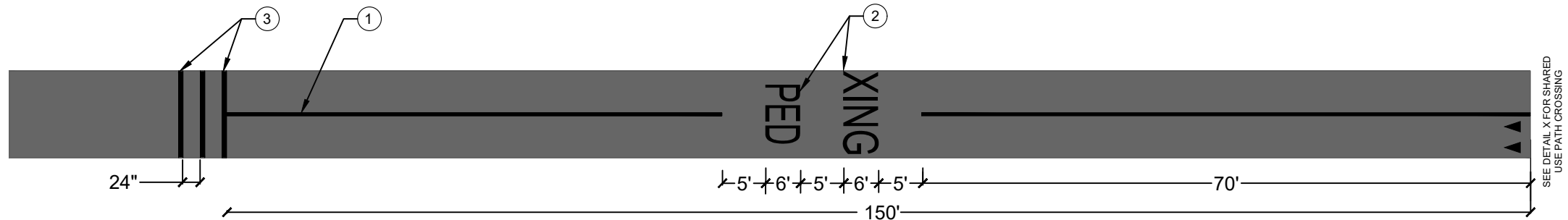
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**POTOMAC AVENUE & GLEBE ROAD INTERSECTION SAFETY IMPROVEMENTS**  
CITY OF ALEXANDRIA, VA

**CIVIL**  
**D-1 ADDITIONAL DETAILS**

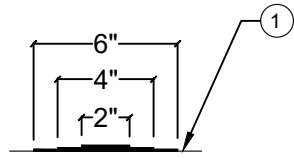
PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	D-1
SHEET NO.	5 OF 7





- ① PAINTED STRIPING (SOLID)
- ② PAINTED "ROAD XING" PAVEMENT MARKING
- ③ (3) RUMBLE STRIPS 30" ON CENTER

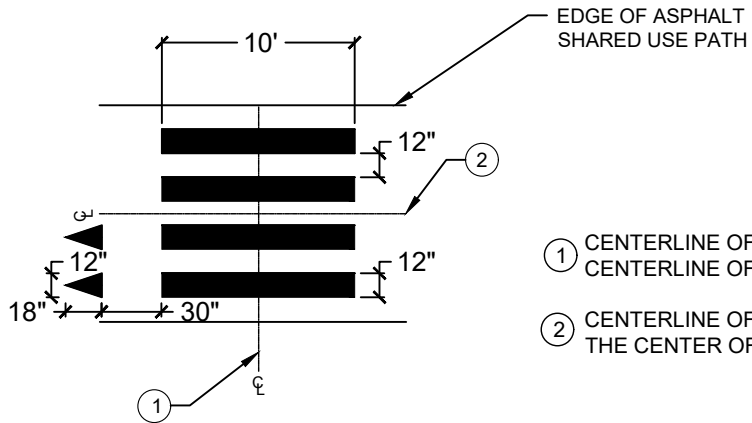
**1** TRAIL PAVEMENT MARKING SYMBOL PLACEMENT  
SCALE: N.T.S.



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

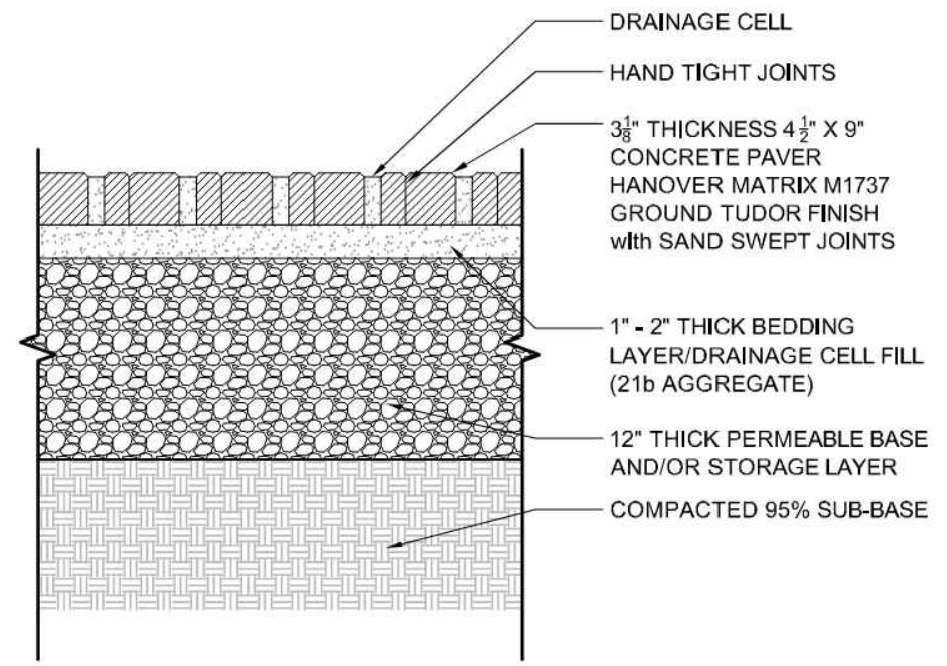
**2** RUMBLE STRIP DETAIL  
SCALE: N.T.S.

**106** TRAIL MARKING & RUMBLE STRIP DETAIL  
SCALE: N.T.S.



- ① CENTERLINE OF CROSSWALK TO BE LOCATED AT CENTERLINE OF PEDESTRIAN RAMPS
- ② CENTERLINE OF CROSSWALK TO BE LOCATED IN THE CENTER OF THE SHARED USE PATH

**107** SHARED USE PATH CROSSING DETAIL  
SCALE: N.T.S.



**108** PERMEABLE PAVERS SECTION  
SCALE: N.T.S.

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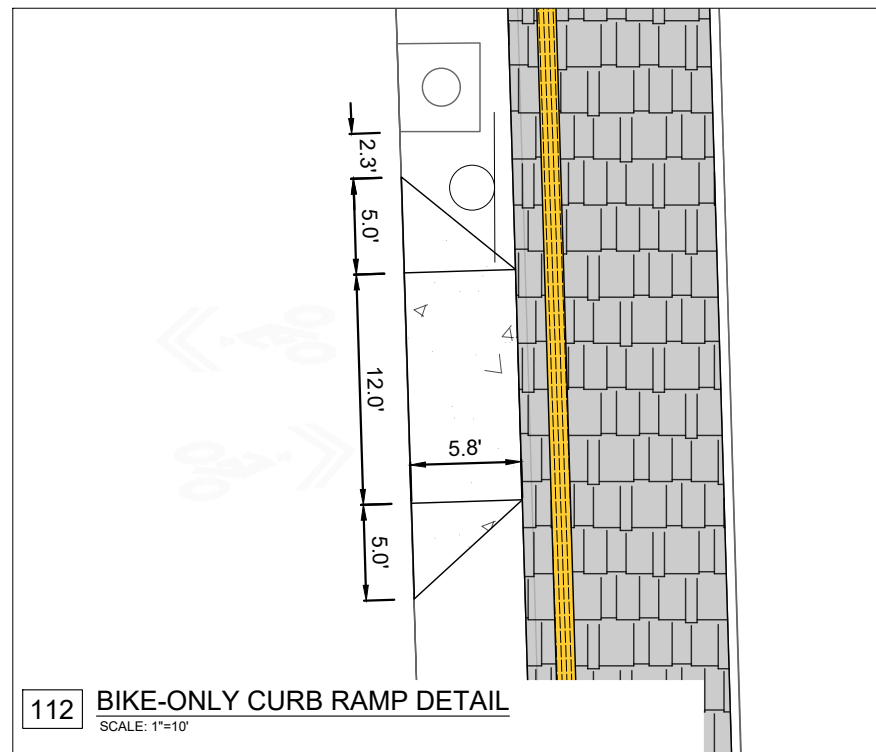
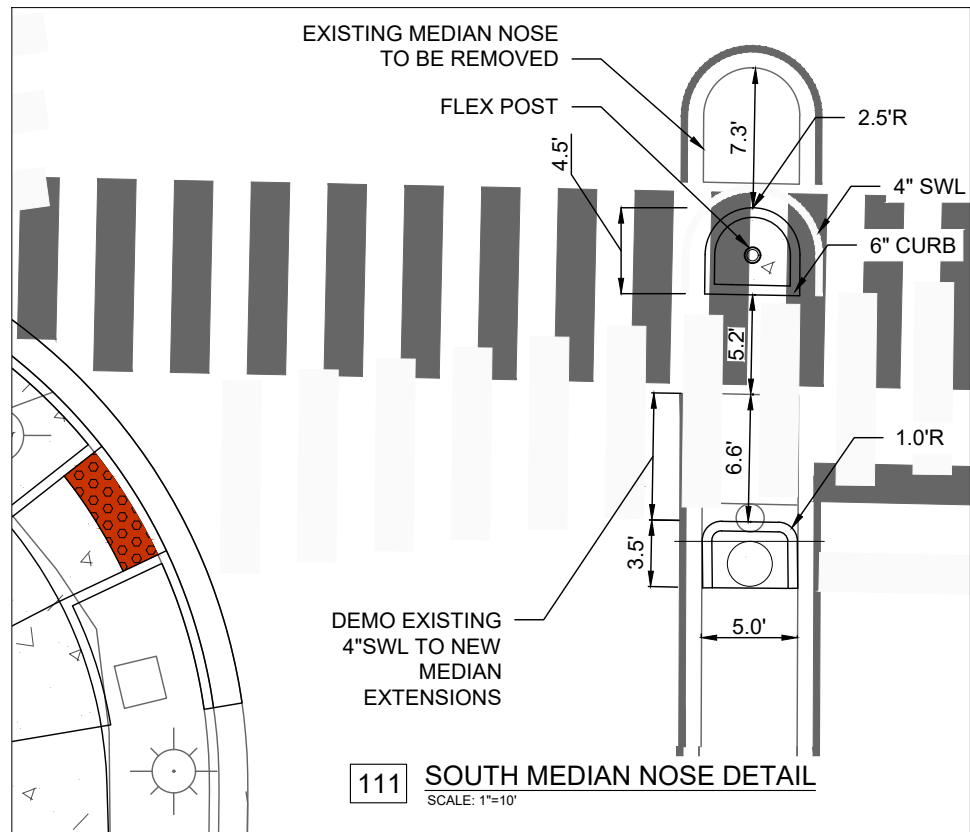
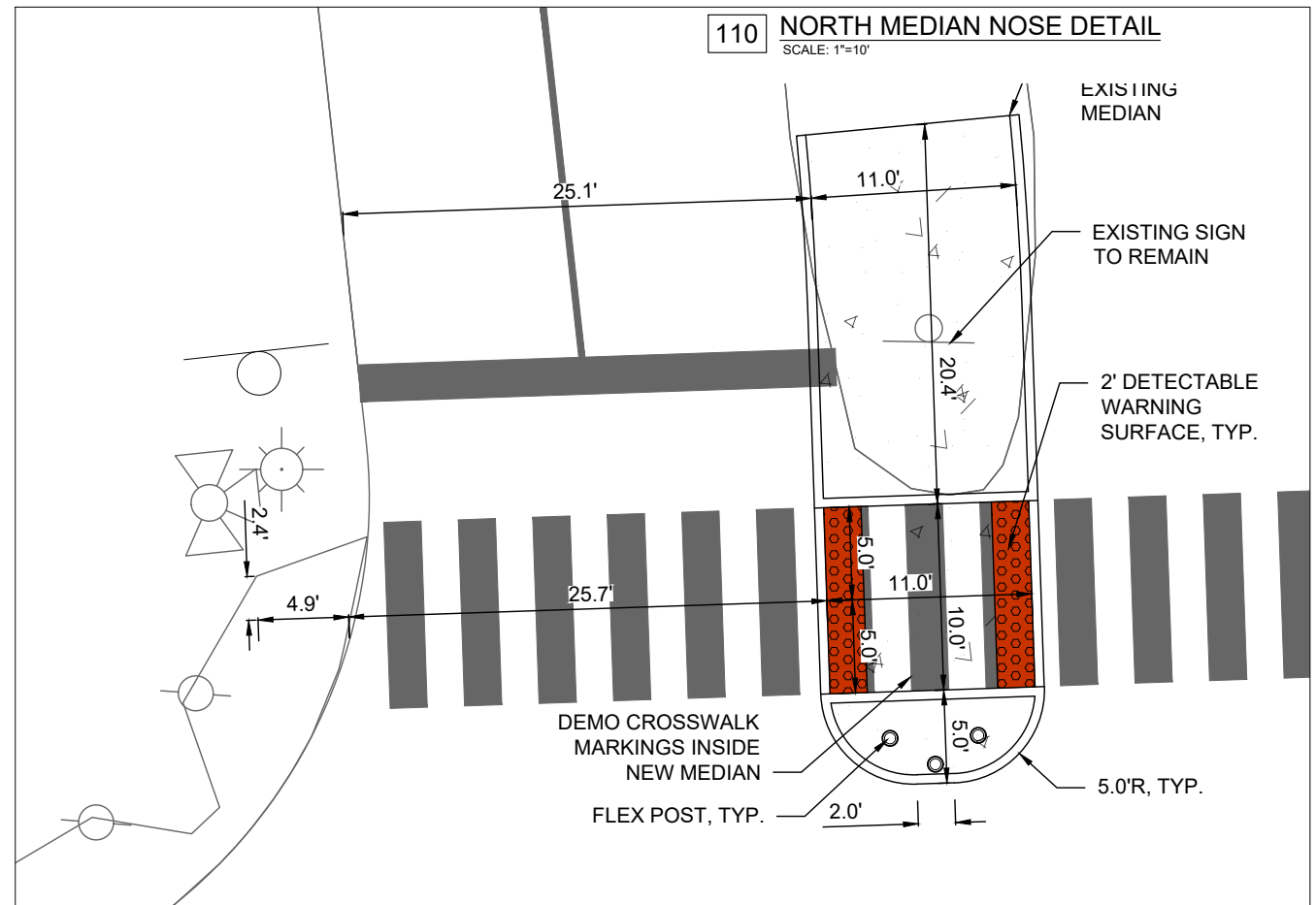
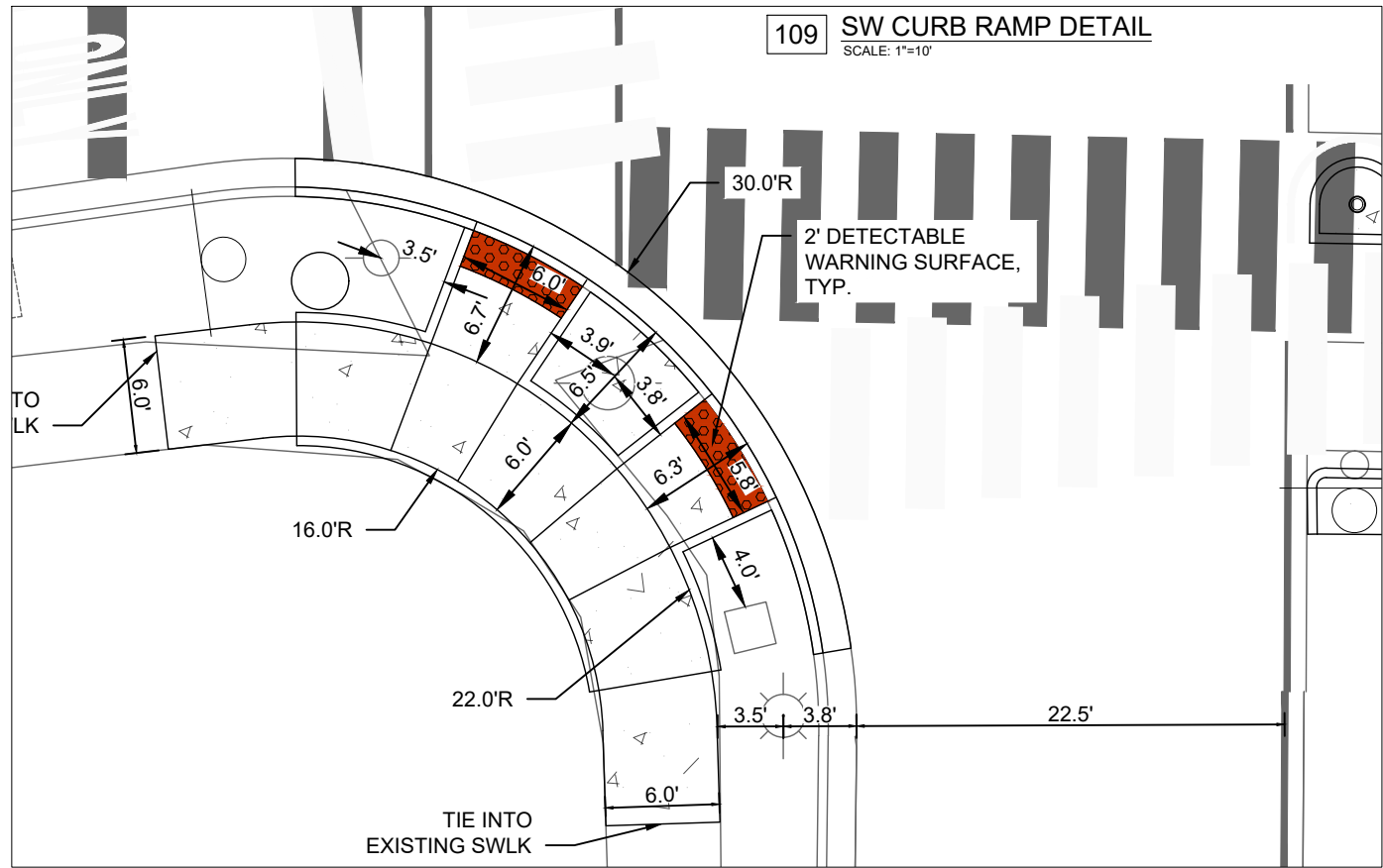
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CITY OF ALEXANDRIA, VA

**D-2 ADDITIONAL DETAILS**

PROJECT NO.	50827
DATE	05/13/2022
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SHEET NO.	6 OF 7



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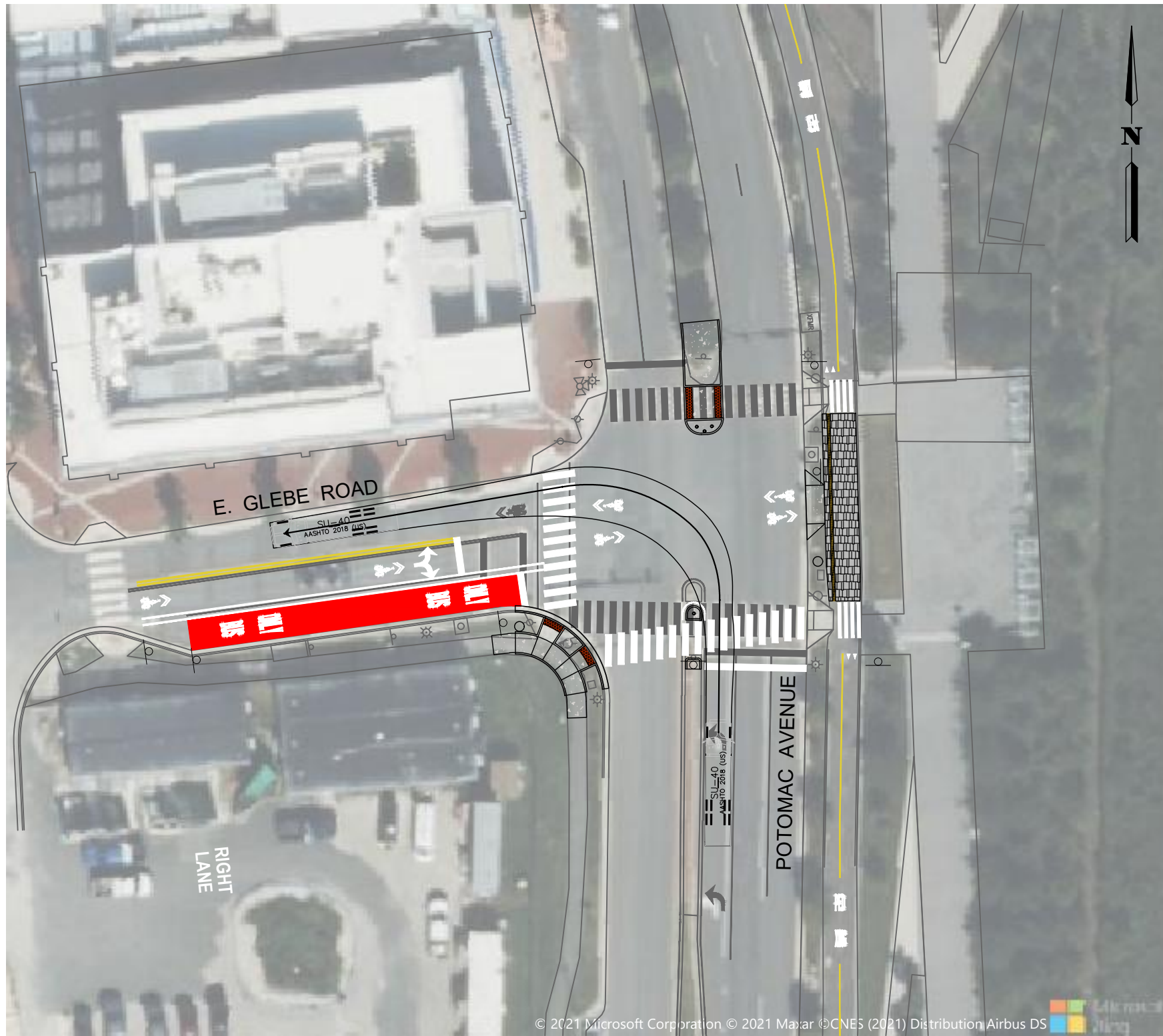
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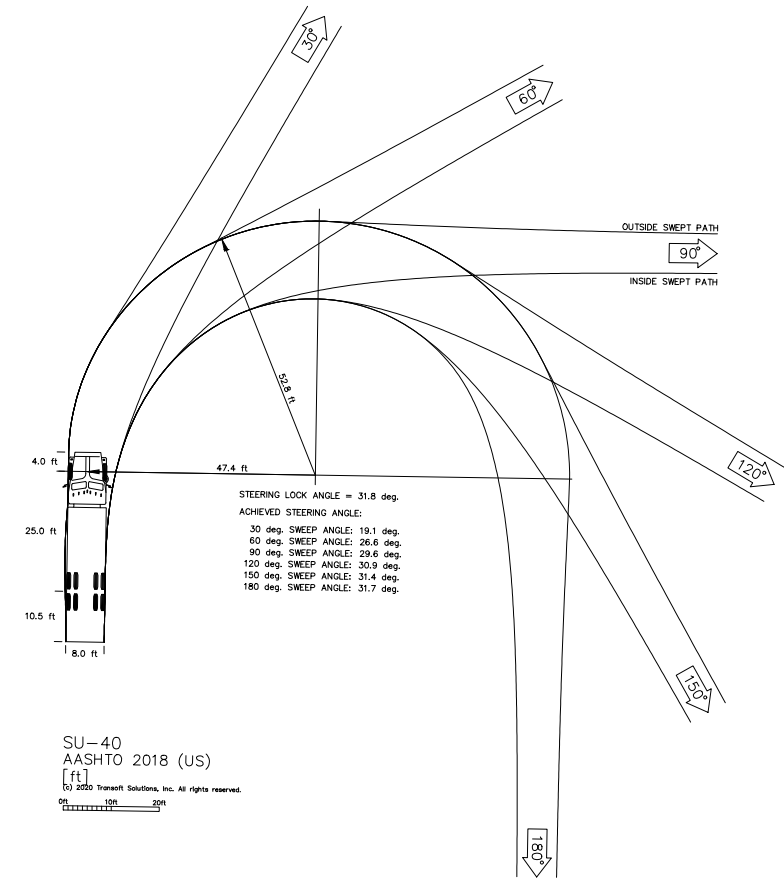
CIVIL  
D-3 ADDITIONAL DETAILS

PROJECT NO.	50827
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DRAWING NO.	D-3
SHEET NO.	7 OF 7

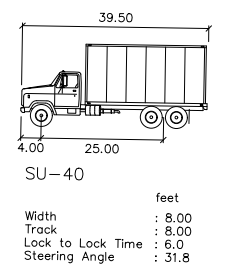


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NOT TO SCALE



SU-40  
 AASHTO 2018 (US)  
 [ft]  
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 PRELIMINARY - NOT FOR CONSTRUCTION

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 Friday, May 13, 2022 1:09:28 PM

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DSGN	MMG		
DR	SRL		
CHK	ECG		
APVD	RLP	NO.	DATE
			REVISION
		BY	APVD

**TOOLE DESIGN**

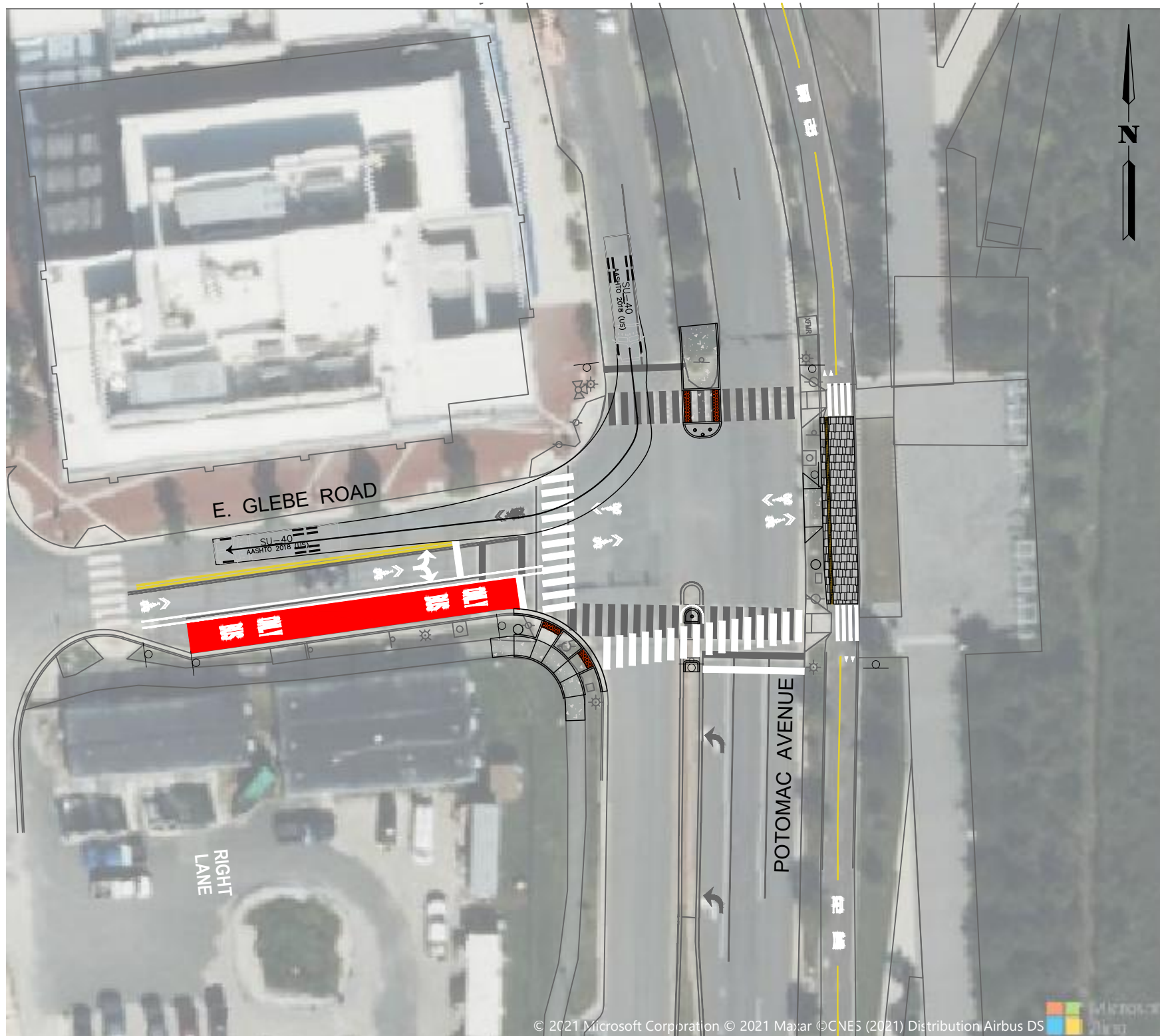
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**POTOMAC AVENUE & GLEBE ROAD INTERSECTION SAFETY IMPROVEMENTS**  
 CITY OF ALEXANDRIA, VA

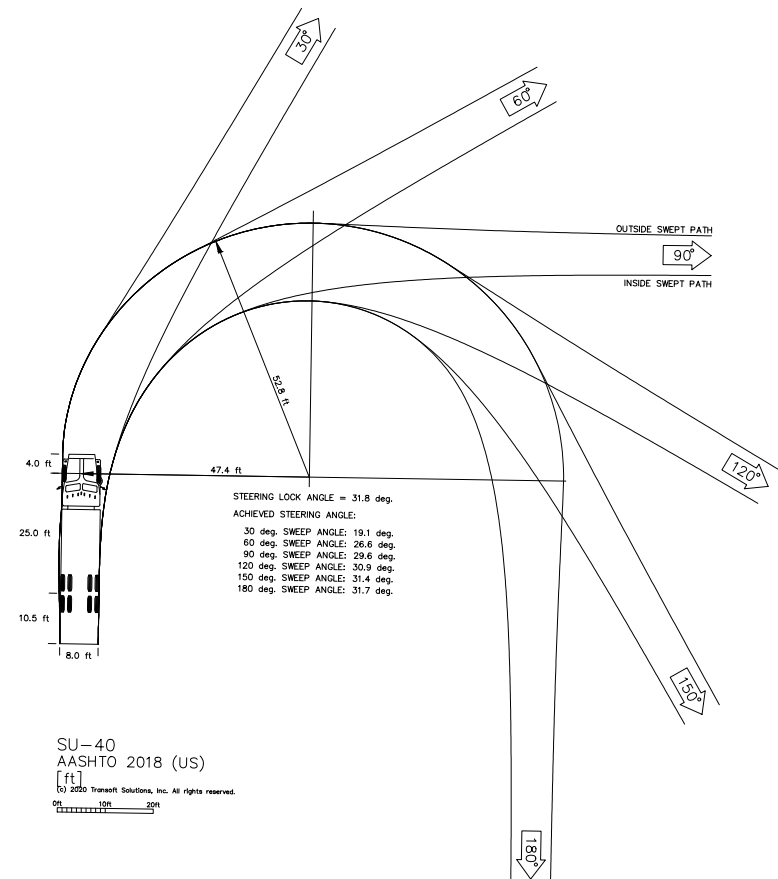
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PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	EX-1
SHEET NO.	1

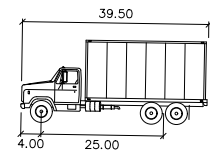




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SU-40  
 AASHTO 2018 (US)  
 [ft]  
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SU-40  
 feet  
 Width : 8.00  
 Track : 8.00  
 Lock to Lock Time : 6.0  
 Steering Angle : 31.8

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APVD	RLP	NO.	DATE	REVISION	BY APVD

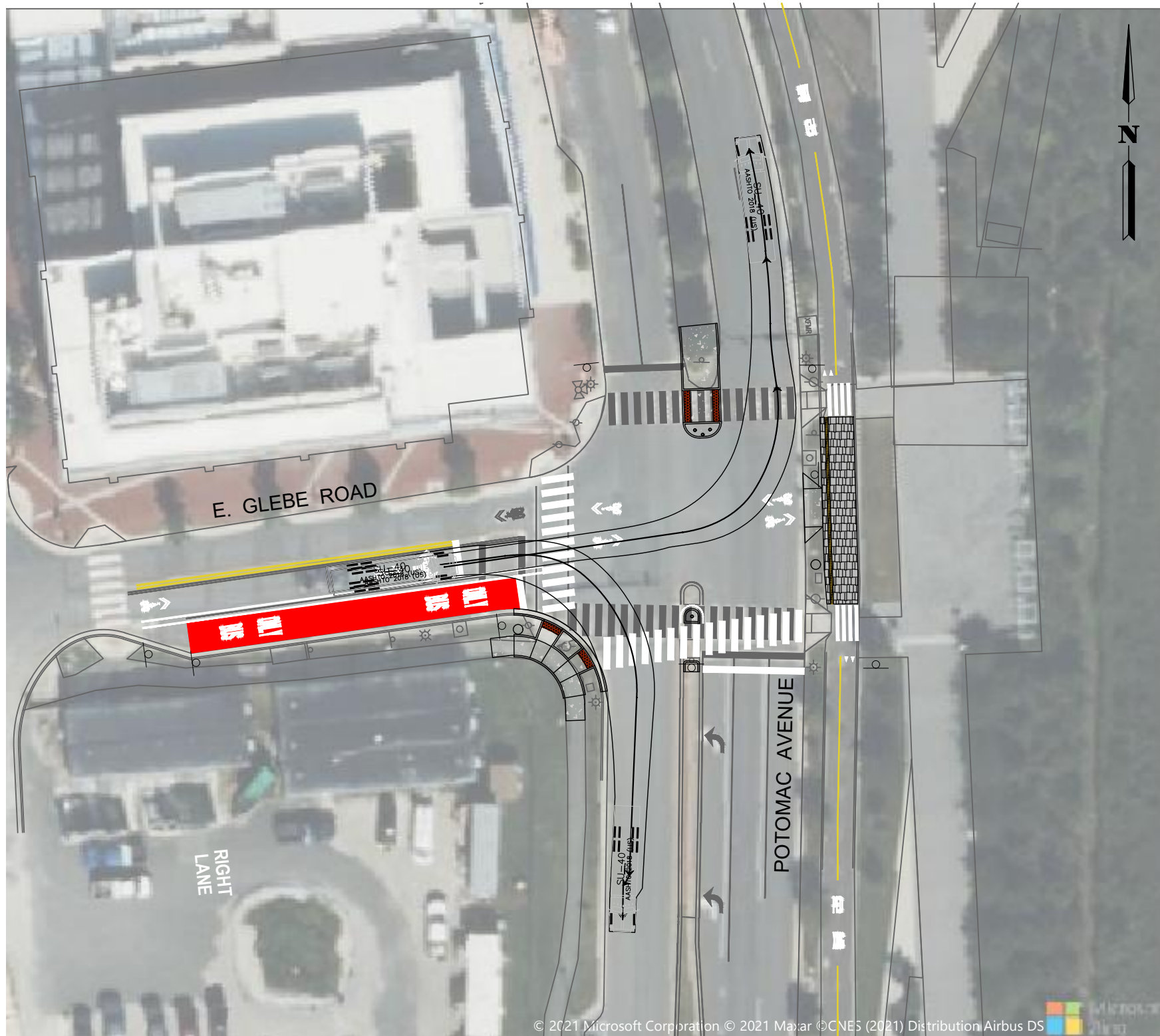
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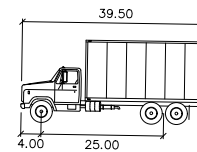
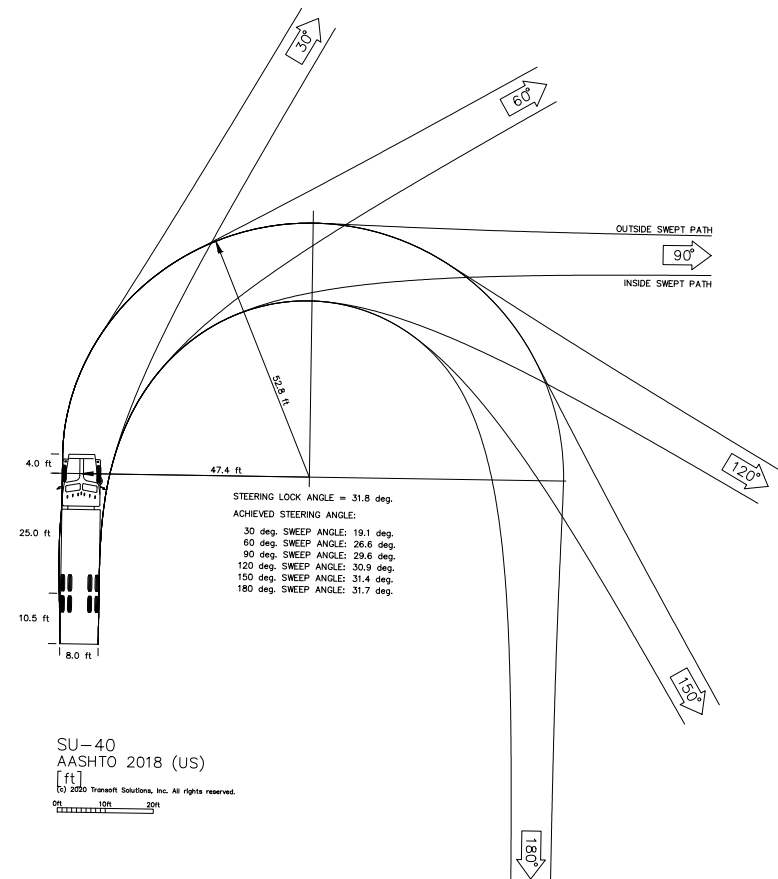
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 CITY OF ALEXANDRIA, VA

**AUTOTURN EXHIBIT SU-40**

PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	EX-2
SHEET NO.	2



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SU-40

Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8

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DSGN	MMG				
DR	SRL				
CHK	ECG				
APVD	RLP	NO.	DATE	REVISION	BY APVD

**TOOLE DESIGN**

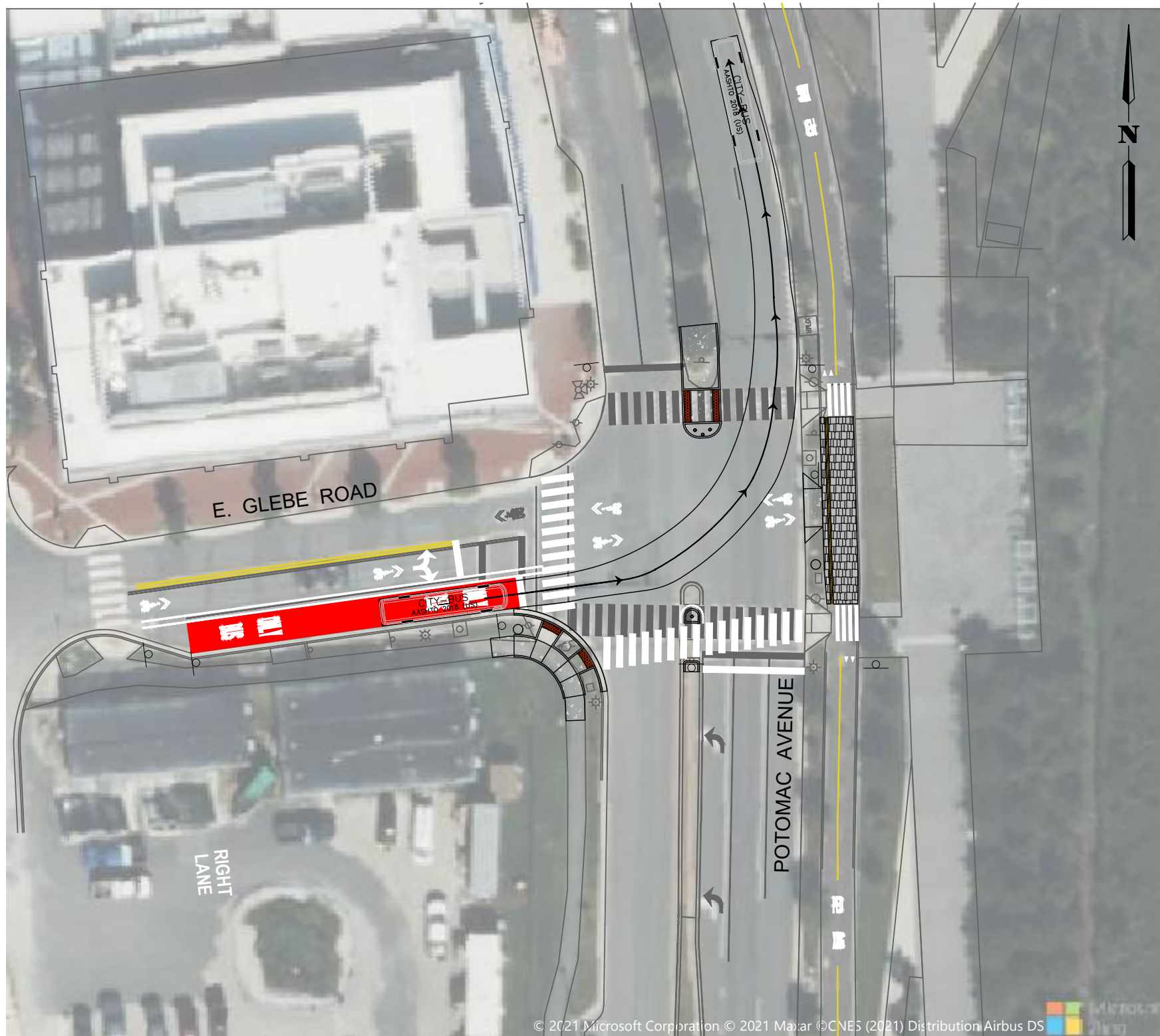
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**AUTOTURN EXHIBIT SU-40**

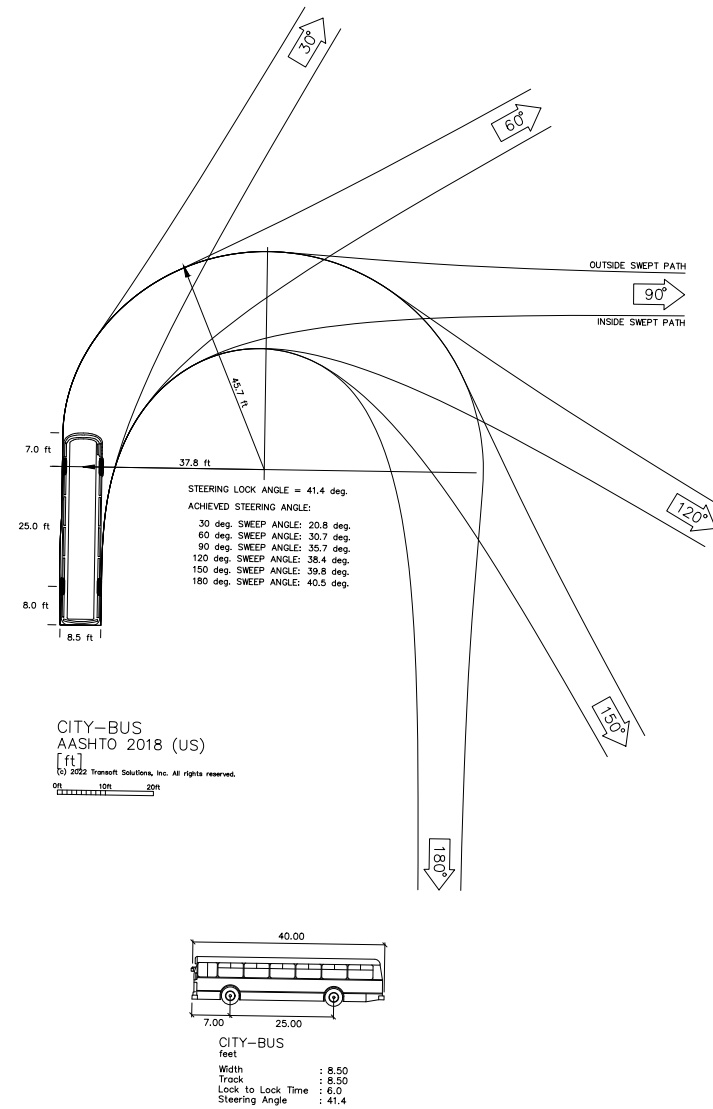
PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	EX-3
SHEET NO.	3





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DSGN	MMG	NO.	DATE
DR	SRL		
CHK	ECG		
APVD	RLP		
		REVISION	BY APVD

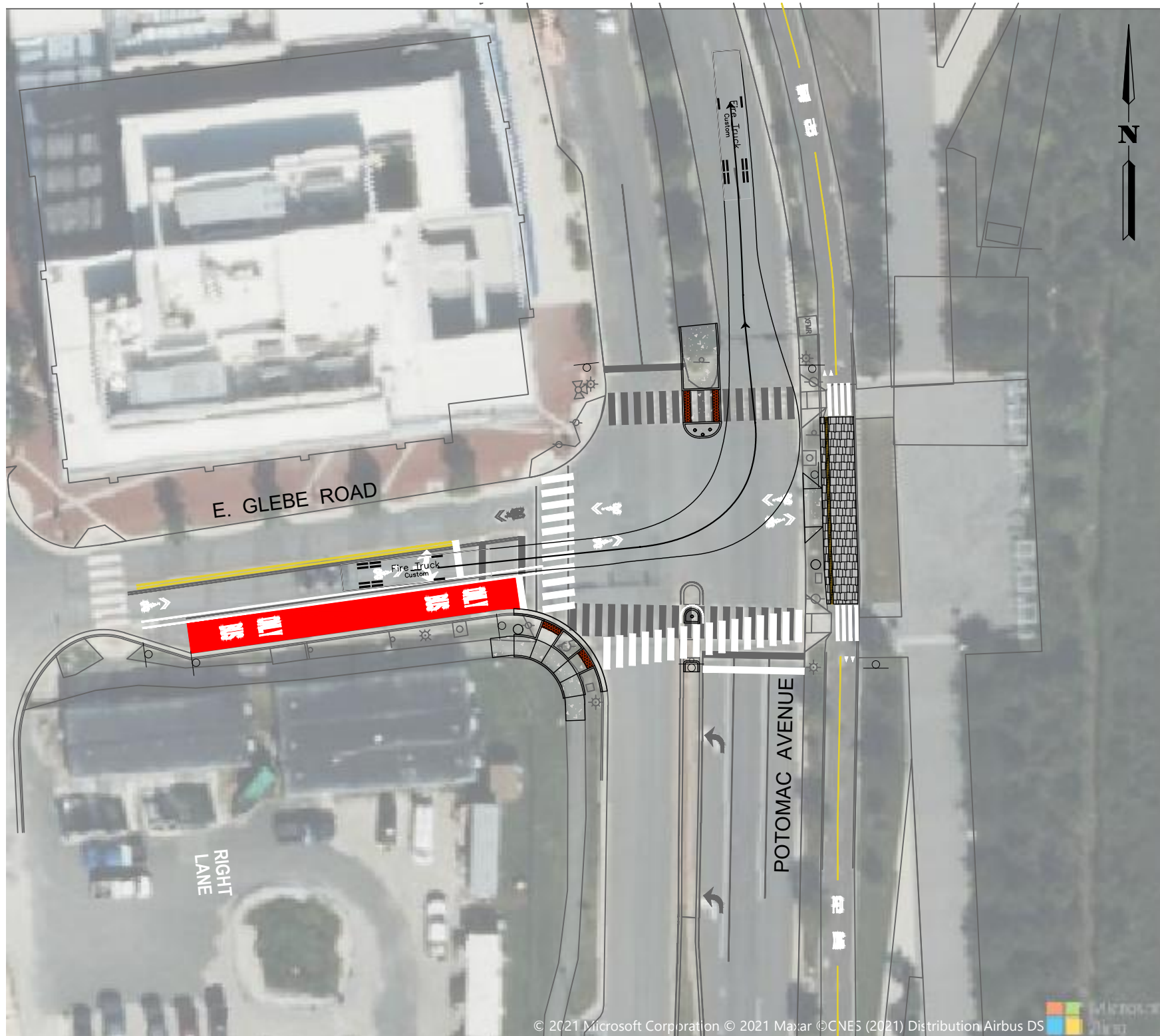
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CITY OF ALEXANDRIA, VA

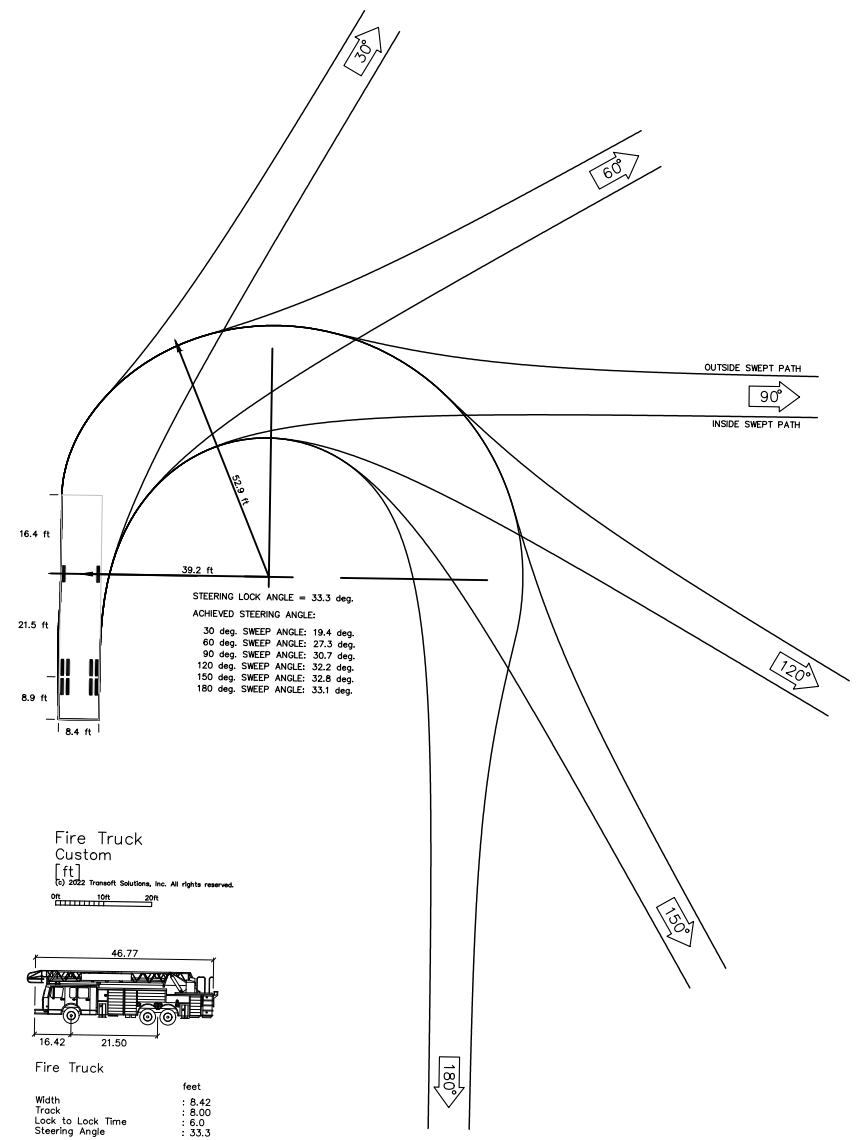
**AUTOTURN EXHIBIT CITY-BUS**

PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	EX-4
SHEET NO.	4



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DR	SRL				
CHK	ECG				
APVD	RLP	NO.	DATE	REVISION	BY APVD

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**AUTOTURN EXHIBIT FIRE TRUCK**

PROJECT NO.	50827
DATE	05/13/2022
DRAWING NO.	EX-5
SHEET NO.	5