

# ARDENNES AVENUE AND WAINWRIGHT AVENUE INTERSECTION IMPROVEMENT REPORT

Ardennes Avenue and Wainwright Avenue Intersection

Twinbrook Safe Routes to School and Transit Access Feasibility Studies  
City of Rockville Contract No. BCS 2017-01H

December 2024

Prepared For:

City of Rockville  
111 Maryland Ave,  
Rockville, Maryland 20850

Prepared By:

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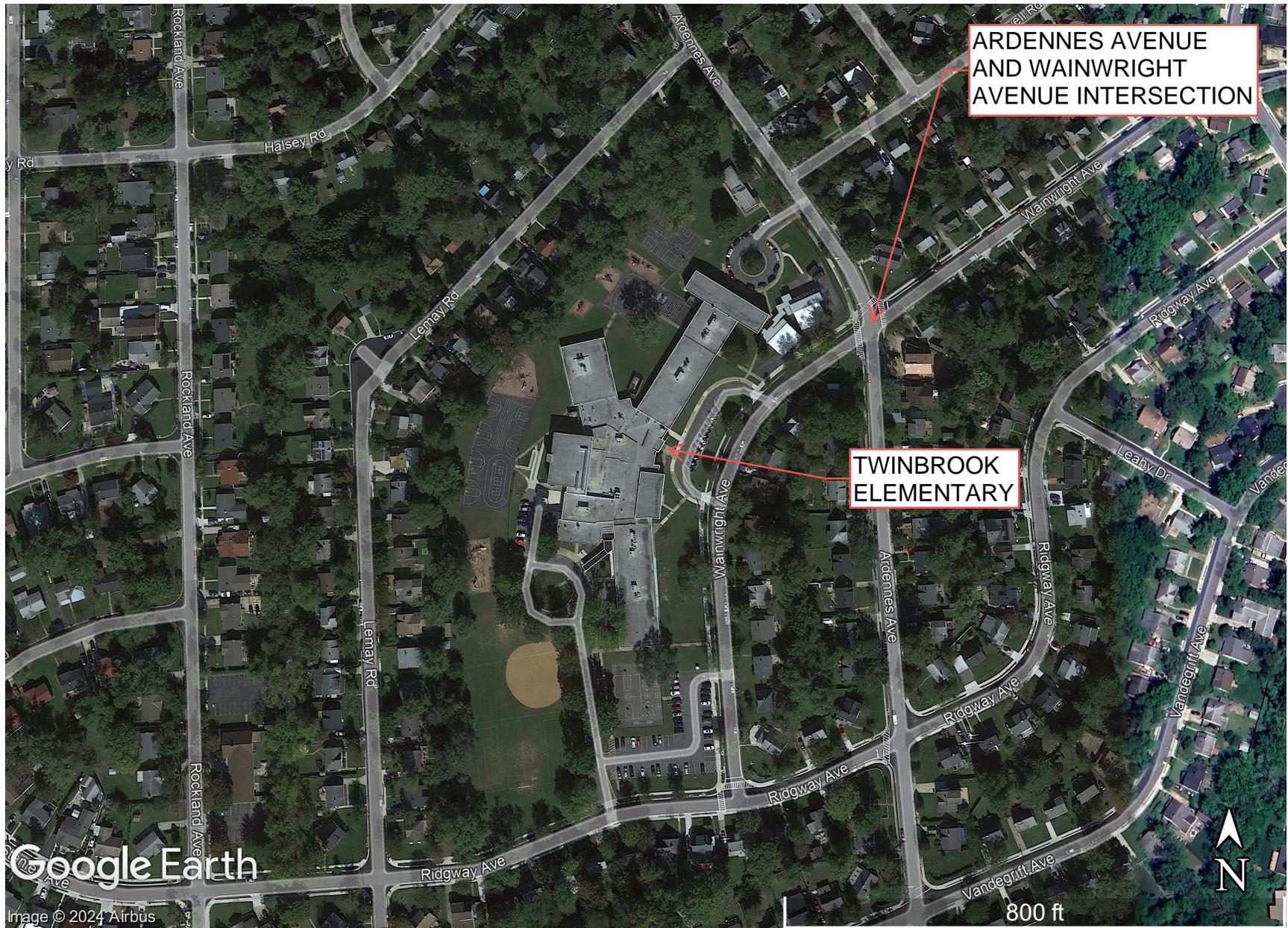
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FIGURE:

1. LOCATION MAP



**ARDENNES AVENUE AND WAINWRIGHT AVENUE INTERSECTION**  
**FIGURE 1: LOCATION MAP**

## I. PROJECT INTRODUCTION

This report has been prepared for the City of Rockville as part of the Vision Zero program, a priority initiative of the Mayor and Council that seeks to eliminate serious injuries and fatalities that result from traffic crashes. This program is multimodal and aims to improve roadway safety for pedestrians, bicyclists, transit users, and motorists. The Twinbrook Safe Routes to School and Transit Access study will identify opportunities to improve intersection safety for all modes of transportation, especially for trips to and from Twinbrook Elementary School and the Twinbrook Metro Station. The intersections studied included:

1. Ardennes Avenue and Crawford Drive
2. Ardennes Avenue and Halsey Road
3. Ardennes Avenue and Halpine Road
4. Ardennes Avenue and Ridgway Avenue
5. Ardennes Avenue and Wainwright Avenue
6. Chapman Avenue and Bouic Avenue
7. Chapman Avenue and Twinbrook Parkway
8. Lemay Road and Ridgway Avenue

Additionally, as a separate effort, this project evaluated the feasibility of constructing a sidewalk along several street segments in Twinbrook including:

1. Brooke Drive between Lewis Avenue and Rockland Avenue
2. Crawford Drive between Rockcrest Circle and Hillcrest Park
3. Crawford Drive between Atlantic Avenue and Ardennes Avenue
4. Halsey Road between Henry Road and Ardennes Avenue
5. Lemay Road between Vandegrift Avenue and Ardennes Avenue
6. Midway Avenue between Crawford Drive and Stillwell Road
7. Wade Avenue between Edmonston Drive and Crawford Drive

This project was funded by a MDOT Transportation Alternatives (TA) Program grant, and the improvements and cost estimate are proposed by the project team consisting of Mercado Consultants and AECOM.

## II. PROJECT DESCRIPTION

This report discusses the feasibility of improvements at the intersection of Ardennes Avenue and Wainwright Avenue. Please see Appendix A for the recommended feasible safety upgrades and cost estimate.

## III. DESIGN CRITERIA AND ASSUMPTIONS

The design criteria used for intersection improvements include both intersection and sidewalk aspects. Intersection design criteria come from the AASHTO Geometric Design of Highways and Streets. This reference document outlines specific elements affecting the performance of pedestrians at intersections. The elements outlined include sidewalk and crosswalk width, crossing distances, conflicting traffic volumes, speed and visibility of approaching traffic, turning speeds, permissive right-turn-on-red, permissive left-turn movements, crosswalk lighting, and accessibility for persons with disabilities. Improving these elements was explored within this study.

The Maryland Manual on Uniform Traffic Control Devices (MD MUTCD) was referenced for the proposed signs, placement, pavement markings, and traffic control devices applicable to improving the intersections studied. Specifically, the MD MUTCD was referenced for choosing advanced warning signs and sign placement. This document was also used for proposing crosswalks, upgrading crosswalk style, and pavement markings for the crosswalk and stop bar. The MD MUTCD was also used for verifying warrants for additional proposed traffic controls at the intersections.

The NACTO Urban Street Design Guide was also used as a reference for intersection upgrades. Various design techniques are outlined in this document which improve pedestrian safety and mobility across intersections.

The sidewalk criteria for the intersection came from the ADA Standards for Accessible Design and the recently adopted Public Right-of-Way Accessibility Guidelines. A 5-foot minimum width sidewalk was proposed to meet this standard. The acceptable running slopes on the ramps are 12:1 maximum, and the proposed landing pads are a minimum of 5-foot x 5-foot with a 48:1 maximum cross-slope. The depressed landing pads located at crossings contain a 2-foot-wide minimum detectable warning surface.

The buffer between the proposed sidewalk and back of curb was set to a 2-foot minimum but could vary to avoid tree and utility impacts. Any proposed sidewalk was also set to tie into existing sidewalk where applicable.

It was assumed the proposed sidewalk is entirely within the City of Rockville's right-of-way. Impacted fences, mailboxes, and other resident belongings located within the City of Rockville's right-of-way are to be relocated. Impacted steps or resident walkways are to be reconstructed to tie into the proposed sidewalk. Utility impacts such as inlets, fire hydrants, and utility poles were avoided.

The Fire Department Access Performance-Based Design Guide was also referenced for the intersection upgrades. This guide dictates the roadway clear width to be 20-foot minimum for emergency vehicles. The curb radius recommended at intersections is 25-foot minimum and was used to upgrade curb radii throughout the site.

The design vehicle recommended to be used to confirm turning movements for this intersection is a transport truck (WB-50) and Metro Bus (CITY-BUS) per the direction of the City of Rockville. It is also assumed the intersection will remain an all-way stop-controlled intersection with Wainwright Avenue westbound remaining one-way.

#### IV. EXISTING CONDITIONS

Ardennes Avenue is an undivided two-way road, classified by the city as a primary residential class 2 road. Wainwright Avenue is an undivided two-way road, classified by the city as a secondary residential road. The four-way intersection of Ardennes Avenue and Wainwright Avenue is stop-controlled in all directions and one-way westbound along Wainwright Avenue. The posted speed through the intersection is 25 MPH. This intersection is located 350 feet from Twinbrook Elementary School and 0.6 miles from the Twinbrook Metro Station.

The approaches to the Ardennes Avenue and Wainwright Avenue intersection do not contain pavement markings for lane separation. There are existing crosswalks on the north, east, and west approaches. Only the north and east approaches have stop bars, as the westbound is one-way.

The Ardennes Avenue and Wainwright Avenue intersection has an existing sidewalk along both sides of Ardennes Avenue. There are also existing sidewalks along both sides of the east approach of Wainwright Avenue and on the north side of the west approach of Wainwright Avenue. There is an existing fire hydrant on the northwest corner of the intersection along Wainwright Avenue and there is an existing utility pole at the southwest corner of the intersection.

The Ardennes Avenue and Wainwright Avenue intersection is fairly level at the intersection and approaches. There is a slight slope leading north along Ardennes Avenue. Wainwright Avenue intersects Ardennes Avenue at a skew at this intersection. The existing curb radii at the intersection are greater than the recommended 25-feet.

Please see Appendix B for existing site photos.

V. CRASH DATA

There is one police-reported crash at this location during the 2018-2022 study period. Please see Appendix C for Crash Data.

VI. ALTERNATIVES CONSIDERED

Various strategies were considered for improving safety at the Ardennes Avenue and Wainwright Avenue intersection. Curb extensions or bulbouts are one effective traffic calming strategy that was considered for this intersection. This strategy is effective in slowing down traffic as it approaches the intersection because the roadway width is narrowed from its existing 25-feet to 20-feet. The crosswalk width is also decreased using this strategy. This strategy would impact one existing driveway, and two existing bus stops. Due to the narrower roadway clear width, existing stop bars are relocated. The proposed stop bar locations are to ensure the design vehicles are able to make all possible turning movements.

Curb extensions or bulb outs for the existing bus stops were also considered. Curb extensions along bus stops serve to deter motorists from going around stopped buses by narrowing the road at bus stop locations.

Another strategy considered was converting the intersection of Ardennes Avenue and Wainwright Avenue into a raised intersection. Creating a raised intersection at this location would require relocating the existing stop bars and stop signs outside of the footprint of the raised intersection. Existing bus pads north and south of the intersection along Ardennes Avenue would also require relocation. The existing utility post on the southwest corner would also need to be relocated. Drainage patterns at this intersection would need to be further evaluated as the intersection and approaches are mostly flat.

Crosswalk realignment and marking upgrades are another strategy considered. The existing crosswalks across the north, east, and west approaches were considered for relocation for more perpendicular alignment with each other. Stop bars would also be relocated to align with new crosswalk locations. All crosswalks were considered for upgrade to continental style. This strategy provides greater visibility and warning to motorists of the upcoming crosswalk and pedestrians.

A proposed crosswalk for the southern approach was also considered but a perpendicular crosswalk was not able to be placed without impacting the existing driveway of 12919 Ardennes Avenue. The southwest curb radius could not be further reduced to make the proposed crosswalk more perpendicular without impacting vehicle turning movements.

The addition of double solid yellow pavement markings to clearly mark directional traffic was also considered along Ardennes Avenue.

Radii upgrades to 25-feet at this intersection were also considered. Smaller radii require motorist to slow down before making turns. This should encourage motorists to slow down through the intersection.

#### VII. PUBLIC INPUT

The in-person and virtual meeting to discuss proposed intersection improvements for all eight intersections took place on June 26<sup>th</sup> and July 1<sup>st</sup>, 2024. During these meetings improvements across all intersections were discussed and residents overall appeared to be in favor of the proposed improvements. The Twinbrook Community Association submitted formal comments. Please see Appendix D for comments and the project team's response.

#### VIII. RECOMMENDATIONS

The project team recommends upgrading the curb radii at this intersection to 25-feet. Quadrants with curb radii higher than 25-feet can promote higher turning speeds for motorists. Stop bars are relocated as a result of the vehicular turning movements due to curb extensions.

Bus curb extensions are also recommended for this location. This would deter motorists from going around buses at bus stops along Ardennes Avenue.

Crosswalks relocation and realignment is recommended. Crosswalks should be perpendicular to the curb and landing pads should face each other. All crosswalks should be upgraded to continental style. Double solid yellow pavement markings are recommended along Ardennes Avenue to clearly mark directional traffic.

Lastly, the project team recommends a lighting survey to be conducted in the future for this intersection

There are also no impacts outside of the City of Rockville's right-of-way for any of the recommended strategies. An easement is required to allow for the construction of a connection to the pre-existing sidewalk.

##### A. IMPACTS:

Utility Impacts: 1  
Bus Stop Relocation: 2  
Easements required: 1

##### B. COST ESTIMATE:

Project cost was estimated using the unit cost method plus an overall 40% contingency to reflect the current level of study. Unit costs were gathered for proposed items and quantities were gathered. The unit costs used were derived from similar projects within Montgomery County. The approximate cost for constructing the recommended safety upgrades is \$74,000. Please see Appendix A for cost estimate breakdown.

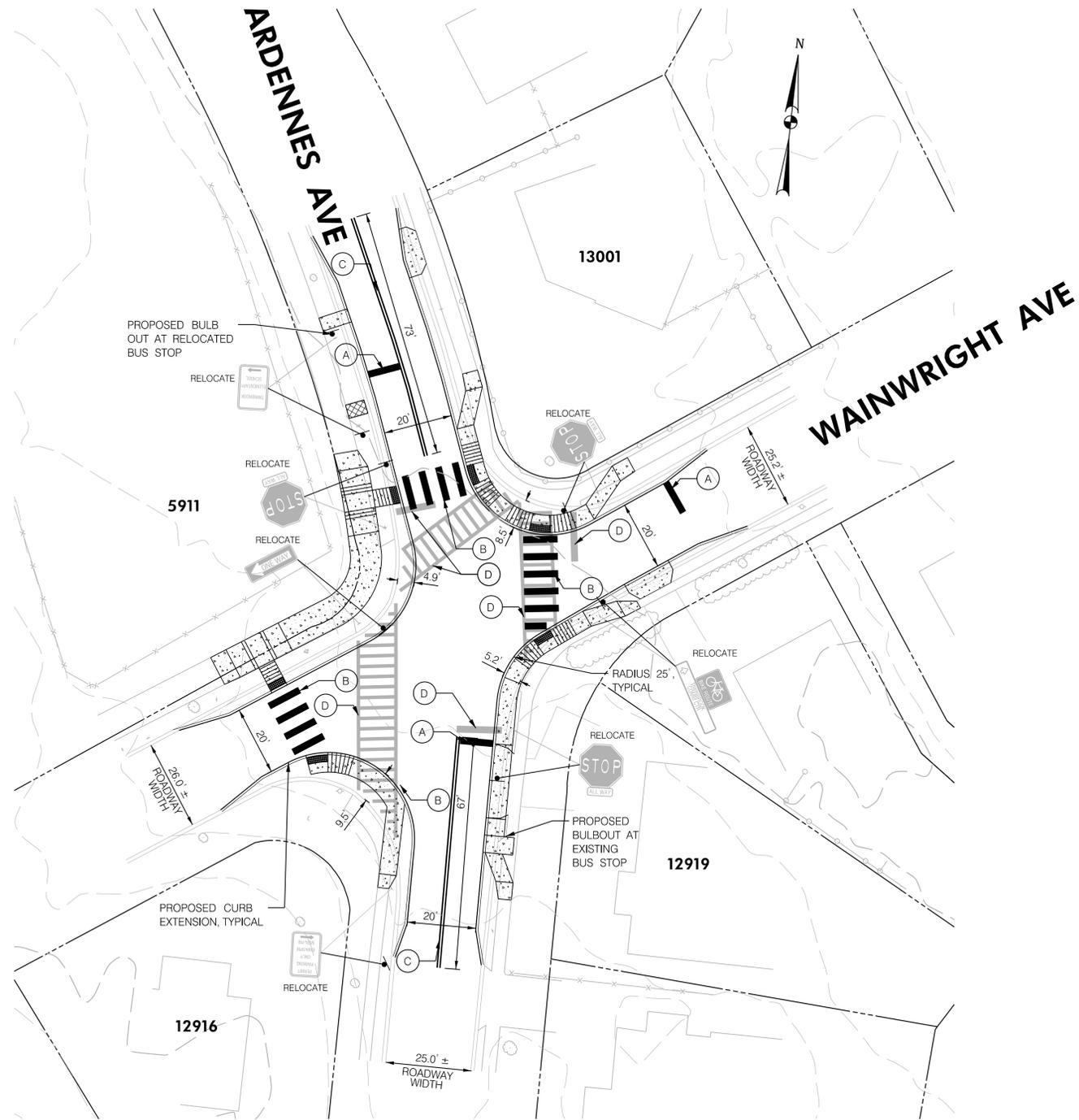
IX. SUMMARY

The project team proposes moving forward with several intersection improvement techniques for Ardennes Avenue and Wainwright Avenue. While feasible, the project team recommends upgrading the curb radii to 25-foot radii for each quadrant as a lower priority project to be carried out in a future fiscal year when budget resources permit.

The project team recommends curb extensions for bus stops to be added at this intersection. Crosswalks are to be realigned and upgraded to continental style crosswalks. Double solid yellow pavement markings are also to be added along Ardennes Avenue. These upgrades should improve pedestrian safety across the Ardennes Avenue and Wainwright Avenue intersection.

# APPENDIX A:

PLAN SHEET(S) AND ESTIMATE



**LEGEND**

-  5 INCH CONCRETE SIDEWALK
-  CONCRETE REMOVAL
-  8 INCH PORTLAND CEMENT CONCRETE DRIVEWAY
-  8 INCH ASPHALT DRIVEWAY
-  DETECTABLE WARNING SURFACE
-  NEW CURB
-  APPROX. RIGHT OF WAY
-  ADA RAMP
-  PROPOSED SIGN AND POST
-  EXISTING SIGN TO REMAIN

**SIGNING AND PAVEMENT MARKING LEGEND**

- (A) 24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS
- (B) 24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS (SPACING: 20-36 INCH, TYPICAL 36 INCH)
- (C) 5 INCH DOUBLE YELLOW THERMOPLASTIC PAVEMENT MARKINGS
- (D) REMOVAL OF EXISTING PAVEMENT MARKINGS

NOTE: 1. TOPOGRAPHY BASED ON MOBILE LIDAR SCAN  
 2. DESIGN VEHICLE WB-50 IS UNABLE TO MAKE ALL MOVEMENTS WITHOUT ENCRDACHING INTO ADJACENT LANES UNDER EXISTING CONDITIONS.  
 3. SIGHT DISTANCE ANALYSIS WOULD BE REQUIRED AT FOLLOWING DESIGN STAGE.  
 4. DESIGN VEHICLES FOR THIS INTERSECTION ARE A TRANSPORT TRUCK (WB-50) AND BUS (CITY-BUS).



NOTE: 1. ALL SIGNING AND MARKING SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MD MUTCD), MARYLAND'S STATE HIGHWAY ADMINISTRATION'S BOOK OF STANDARDS, SPECIFICATIONS, AND GUIDELINES.  
 2. ALL PAVEMENT MARKING SHALL BE DONE USING THERMOPLASTIC MATERIALS.  
 3. STOP LINES SHALL BE 24 INCH WIDE USING THERMOPLASTIC MATERIAL. THE SPACING BETWEEN THE STOP LINE AND THE CROSSWALK MARKING SHALL BE 4 FEET AT A MINIMUM.  
 4. SIGN HEIGHT SHALL BE MINIMUM 7 FEET FROM THE BOTTOM OF THE SIGN FACE TO THE GROUND.  
 5. FOR SIGN POST, USE EITHER 2" GALVANIZED U CHANNEL POSTS OR GALVANIZED BREAKAWAY TUBULAR STEEL SIGN POSTS BASED ON THE MD SHA STANDARD MD-802.04



DEPARTMENT OF PUBLIC WORKS  
 CITY OF  
**ROCKVILLE**  
 111 MARYLAND AVE. ROCKVILLE, MARYLAND

INTERSECTION IMPROVEMENT PLANS  
 ARDENNES AVE-WAINWRIGHT AVE

TWINBROOK SAFE ROUTES TO SCHOOL AND TRANSIT  
 ACCESS FEASIBILITY STUDIES

DATE SUBMITTED:  
 12/2024

CONTRACT NO.  
 BCS 2017-01H

SCALE  
 1"=20'

DRAFT  
 SHEET  
 NO. 1  
 OF 1

City of Rockville, Maryland



### Engineer's Cost Estimate

Contract No. BCS 2017-01H  
 Twinbrook Safe Routes to School and  
 Transit Access Feasibility Studies  
 Ardennes Avenue and Wainwright Avenue Intersection  
 December 16, 2024

ITEM NO.	CATEGORY CODE	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
<b>CATEGORY 1</b>						
		MAINTENANCE OF TRAFFIC	LS	1	\$5,000.00	5,000.00
		REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH	LF	723	\$1.00	723.00
				<b>CATEGORY 1 TOTAL</b>		<b>\$5,723.00</b>
<b>CATEGORY 2</b>						
		CLASS 1 EXCAVATION	CY	35	\$60.00	\$2,100.00
				<b>CATEGORY 2 TOTAL</b>		<b>\$2,100.00</b>
<b>CATEGORY 3</b>						
				<b>CATEGORY 3 TOTAL</b>		<b>\$0.00</b>
<b>CATEGORY 4</b>						
				<b>CATEGORY 4 TOTAL</b>		<b>\$0.00</b>
<b>CATEGORY 5</b>						
		5 INCH SOLID YELLOW PM	LF	280	\$3.00	\$840.00
		24 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS	LF	66	\$5.00	\$330.00
				<b>CATEGORY 5 TOTAL</b>		<b>\$1,170.00</b>
<b>CATEGORY 6</b>						
		5 INCH CONCRETE FOR SIDEWALK	CY	32	\$650.00	\$20,800.00
		7 INCH CONCRETE FOR DRIVEWAY	CY	6	\$650.00	\$3,900.00
		TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH	LF	633	\$60.00	\$37,980.00
				<b>CATEGORY 6 TOTAL</b>		<b>\$41,880.00</b>
<b>CATEGORY 7</b>						
				<b>CATEGORY 7 TOTAL</b>		<b>\$0.00</b>
<b>CATEGORY 8</b>						
		RELOCATE SIGN	SF	44	\$30.00	1,320.00
				<b>CATEGORY 8 TOTAL</b>		<b>\$1,320.00</b>
				<b>SUBTOTAL</b>		<b>\$52,193.00</b>
				<b>40% CONTINGENCY</b>		<b>\$20,877.20</b>
				<b>TOTAL</b>		<b>\$73,070.20</b>

# APPENDIX B:

SITE PHOTOS



Ardennes Avenue and Wainwright Avenue Intersection – Looking North



Ardennes Avenue and Wainwright Avenue Intersection – Looking South



Ardennes Avenue and Wainwright Avenue Intersection – Looking East



Ardennes Avenue and Wainwright Avenue Intersection – Looking West

# APPENDIX C:

## CRASH DATA REPORT



Google Earth

Image Landsat / Copernicus

100 ft



Location: ARDENNES AVE @ WAINWRIGHT AVE  
 County: Montgomery, D3      Period: January 01, 2018 To December 31, 2022

Logmiles: 0.51 At 0.15 Radius: 250 ft.  
 Note:

YEAR >>	2018	2019	2020	2021	2022	Total
<b>Fatal</b>	0	0	0	0	0	0
<b>No. Killed</b>	0	0	0	0	0	0
<b>Injury</b>	0	0	0	0	0	0
<b>No. Injured</b>	0	0	0	0	0	0
<b>Prop. Damage</b>	1	0	0	0	0	1
<b>Total Crashes</b>	1	0	0	0	0	1
<b>Severity Index</b>	1	0	0	0	0	Avg 0
<b>Opposite Dir.</b>	0	0	0	0	0	0
<b>Rear End</b>	1	0	0	0	0	1
<b>Sideswipe</b>	0	0	0	0	0	0
<b>Left Turn</b>	0	0	0	0	0	0
<b>Angle</b>	0	0	0	0	0	0
<b>Pedestrian</b>	0	0	0	0	0	0
<b>Parked Veh.</b>	0	0	0	0	0	0
<b>Fixed Object</b>	0	0	0	0	0	0
<b>Other</b>	0	0	0	0	0	0
<b>U-Turn</b>	0	0	0	0	0	0
<b>Backing</b>	0	0	0	0	0	0
<b>Animal</b>	0	0	0	0	0	0
<b>Railroad</b>	0	0	0	0	0	0
<b>Fire / Expl.</b>	0	0	0	0	0	0
<b>Overturn</b>	0	0	0	0	0	0
<b>Truck Related</b>	0	0	0	0	0	0
<b>Night Time</b>	0	0	0	0	0	0
<b>Wet Surface</b>	0	0	0	0	0	0
<b>Alcohol</b>	0	0	0	0	0	0
<b>Intersection</b>	1	0	0	0	0	1
<b>Total Vehicles</b>	2	0	0	0	0	2
<b>Total Trucks</b>	0	0	0	0	0	0
<b>Truck %</b>	0.0	0.0	0.0	0.0	0.0	0.0

Comments:

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Location: ARDENNES AVE @ WAINWRIGHT AVE  
 County: Montgomery, D3

Logmiles: 0.51 At 0.15 Radius: 250 ft.  
 Note:

SEVERITY											DAY OF THE WEEK											
FATAL	INJURY	P-DAMAGE	TOTAL									SUN	MON	TUE	WED	THU	FRI	SAT	UNK			
Accidents	0	1	1																			
Veh Occ													1									
Pedestrian				AVG Severity Index: 0																		
MONTH OF THE YEAR													CONDITION			DRIVER		PED				
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK	Normal:			1						
	1												Alcohol:									
													Other:			1						
TIME											VEHICLES INVOLVED PER ACCIDENT											
12	01	02	03	04	05	06	07	08	09	10	11	UNK	1	2	3	4	5	6+	UNK	TOTAL		
AM:								1														
PM:													1							2		
VEHICLE TYPE				SURFACE		MOVEMENTS																
Motorcycle/Moped		Tractor Trailer		Wet		NORTH			SOUTH			EAST			WEST							
1	Passenger Vehicle	Passenger Bus		1	Dry	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT					
1	Sport Utility Veh	School Bus		Sno/Ice		2																
Pick-Up Truck		Emergency Veh		Mud																		
Trucks (2+3 axles)		Other Types		Other		OTHER MOVEMENTS																
PROBABLE CAUSES											COLLISION TYPES				FATAL	INJURY	PROP	TOTAL				
Influence of Drugs				Improper Lane Change							Opposite Dir	Related:										
Influence of Alcohol				Improper Backing							UnRelated:											
Influence of Medication				Improper Passing							Rear End	Related:			1	1						
Influence of Combined Subst.				Improper Signal							UnRelated:											
Physical/Mental Difficulty				Improper Parking							Sideswipe	Related:										
Fell Asleep/Fainted, etc.				Passenger Interfere/Obstruct.							UnRelated:											
1	Fail to give full Attention	Illegally in Roadway							Left Turn	Related:												
Lic. Restr. Non-compliance				Bicycle Violation							UnRelated:											
Fail to Drive in Single Lane				Clothing Not Visible							Angle	Related:										
Improper Right Turn on Red				Sleet, Hail, Freezing Rain							UnRelated:											
Fail to Yield Right-of-way				Severe Crosswinds							Pedestrian	Related:										
Fail to Obey Stop Sign				Rain, Snow							UnRelated:											
Fail to Obey Traffic Signal				Animal							Parked Vehicle	Related:										
Fail to Obey Other Control				Vision Obstruction							UnRelated:											
Fail to Keep Right of Center				Vehicle Defect							Other Collision	Related:										
Fail to Stop for School Bus				Wet							UnRelated:											
Wrong Way on One Way				Icy or Snow Covered							F	Bridge	01									
Exceeded Speed Limit				Debris or Obstruction							I	Building	02									
Operator Using Cell Phone				Ruts, Holes or Bumps							X	Culvert/Ditch	03									
Stopping in Lane Roadway				Road Under Construction							E	Curb	04									
Too Fast for Conditions				Traffic Control Device Inop.							D	Guardrail/Barrier	05									
Followed too Closely				Shoulders Low, Soft or High								Embankment	06									
Improper Turn				Other or Unknown							O	Fence	07									
											B	Light Pole	08									
											J	Sign Pole	09									
											E	Other Pole	10									
											C	Tree/Shrubbery	11									
											T	Contr. Barrier	12									
											S	Crash Attenuator	13									
															Other Fixed Object							
WEATHER		ILLUMINATION			TOTALS																	
1	Clear / Cloudy	1 Day			18-22		1															
	Foggy	Dawn/Dusk																				
	Raining	Dark - Lights On																				
	Snow / Sleet	Dark - No Lights																				
	Other	Other																				

Location: ARDENNES AVE @ WAINWRIGHT AVE

Logmiles: 0.51 At 0.15 Radius: 250 ft.

County: Montgomery, D3

Period: January 01, 2018 To December 31, 2022

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement		Probable Cause
										V1	V2	
<b>MU140</b>												
0.510	<input type="checkbox"/>	02052018	Property	08A	Day	Dry			RREND	NS	NS	Fail to give full attention

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence  
 08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator



Office of Traffic & Safety  
 Traffic Development & Support Division  
 Crash Analysis Safety Team

Location: Ardennes Ave @ Wainwright Ave  
 County: MONTGOMERY  
 Study Period: 01/01/2018 to 12/31/2022  
 Analyst: Robert L. Booker, Jr. Date: 04/18/2024

ARDENNES AVE  
 WAINWRIGHT AVE



WAINWRIGHT AVE

ARDENNES AVE

02/05/18-P-8A-D

◀ DATE-SEVERITY-TIME-SURFACE  
 ▲ NIGHT  
 ◀ ALCOHOL X  
 ◀ DRUGS ⊗

**SEVERITY**  
 F - Fatalities  
 I - Injured  
 P - Property Damage  
 Only  
**SURFACE**  
 D - Dry Surface  
 W - Wet Surface  
 I - Icy Surface  
 S - Snowy Surface

00 - Not Applicable  
 01 - Bridge or Overpass  
 02 - Building  
 03 - Culvert or Ditch  
 04 - Curb  
 05 - Guardrail or Barrier  
 06 - Embankment  
 07 - Fence

08 - Light Support Pole  
 09 - Sign Support Pole  
 10 - Other Pole  
 11 - Tree Shrubbery  
 12 - Construction Barrier  
 13 - Crash Attenuator  
 88 - Other  
 99 - Unknown

B - Bicycle  
 P - Other Pedalcycle  
 C - Other Conveyance  
 T - Railway Train  
 A - Animal  
 O - Other Object  
 S - Spilled Cargo  
 J - Jackknife

U - Units Separated  
 N - Other Non collision  
 D - Off Road  
 R - Downhill Runaway  
 F - Explosion or Fire  
 ? - Unknown

U - TURN  
 BACKING  
 OVERTURN  
 Parked Vehicle  
 Pedestrian

# APPENDIX D:

## RESIDENT COMMENTS AND RESPONSES



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## TCA Support for Safe Routes to School

July 5, 2024

City of Rockville  
111 Maryland Avenue  
Rockville, MD 20850

Dear Bryan Barnett-Woods,

On behalf of the Twinbrook Community Association, I am writing to express our strong support for the city's "Safe Routes to School" project. We commend your efforts to enhance pedestrian safety at targeted intersections in Twinbrook, which will greatly benefit our community's residents, particularly our children.

We are pleased to see the city taking proactive steps to improve road safety and encourage walking and cycling to school.

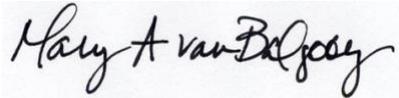
While we fully support the current plans, we would like to respectfully suggest a few additional considerations that we believe would further enhance the project's impact:

1. **Mini Traffic Circle:** We propose the installation of a mini traffic circle at the intersection of Halpine Road and Ardennes Avenue. This would help calm traffic and improve safety at this busy intersection, which is frequently used by students. If possible, the mini circle should incorporate landscaping (e.g. potted plants/trees and/or public art).
2. **Pedestrian-Level Lighting Assessment:** We request a comprehensive assessment of pedestrian-level lighting at all intersections being studied under this project. Adequate lighting is crucial for pedestrian visibility and safety, especially during early morning and evening hours when many students are traveling to and from school-related activities. This would serve as an additional benefit for low-wage workers traveling during off-peak work hours.
3. **Slip Lane Elimination:** We strongly advocate for the elimination of the slip lane on the northwest corner of Twinbrook Parkway and Chapman Avenue. Removing this slip lane would significantly improve pedestrian safety by reducing vehicle speeds and decreasing the number of pedestrian vehicle conflict points.

The Twinbrook Community Association is committed to working collaboratively with the City of Rockville to ensure the success of this important project. We would be happy to provide any additional input or assistance as needed.

Thank you for your consideration of these suggestions and for your ongoing commitment to improving pedestrian safety in our community. We look forward to seeing the positive impact of the “Safe Routes to School” project in Twinbrook.

Sincerely,

A handwritten signature in black ink that reads "Mary A. van Balgooy". The signature is written in a cursive style with a light grey rectangular background behind it.

Mary A. van Balgooy  
President, Twinbrook Community Association

In response to the Twinbrook Community Associate comments please see below

1. A mini-traffic circle is only recommended for intersections without stop-control. The intersection of Halpine Road and Ardennes Avenue is an all-way stop control intersection, and has a stop sign on each leg of the intersection. Motorists are required to make a complete stop at this intersection. Staff has reached out to Rockville City Police Department to provide additional traffic enforcement at this intersection.
2. The Transportation Alternatives project did not include an assessment of lighting conditions. Most of the streetlights in Twinbrook are owned and maintained by Pepco. Staff will separately request Pepco to evaluate lighting levels at each intersection.
3. A comprehensive traffic study was not included to evaluate whether the northeast slip lane could be removed. However, the post for the existing signals is installed on the northeast corner refuge island and would require relocation to the new corner if the slip lane were removed. This would be too expensive to implement without being a separate CIP item. Additionally, this intersection is currently subject to an adequacy evaluation and improvements per a county development. Staff is coordinating with MNCPPC regarding this project.