

Transportation Tests

**Adequate Public Facilities Ordinance
Committee**

April 2, 2025

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Transportation Tests: Key Criteria

Background

- Updates to APFO Road Test required by Council Resolution 17-2022
- Recommendations provided by Land Use and Transportation Regulations Advisory Group in August 2024

Proposed Complete Streets APFO Additions

- Pedestrian crossing improvements at APFO study intersections
- ADA improvements to nearby bus stops



Support County Complete Streets Goals and Requirements



Fair and proportional



Simple to understand and implement

Transportation Tests: Pedestrian Crossing Improvements at Study Intersections

- Same study intersections, as defined the existing APFO system
- Developer evaluates pedestrian crossing adequacy at each signalized study intersection
- Pedestrian adequacy requires Accessible Pedestrian Signal (APS), crosswalk marking and ADA compliant curb ramps across each leg of the intersection
- Office of Transportation decides which inadequacies will be mitigated by the developer, up to the dollar cap (see table below) or if fee in lieu for the amount of the dollar cap is appropriate
- Office of Transportation will prioritize intersections closest to the development
- Mitigations must be in the county right of way

	# peak hour trips generated*	Dollar cap for APFO Complete Streets Improvements
Small	6 to 20	\$20k
Medium	20 to 50	\$60k
Large	50 plus	\$100k

* total of "in and out", whichever is larger between am or pm

Item(s) for one crossing	Cost Estimate
ADA curb ramps (2 ramps)	\$15k
Crosswalk marking	\$10k
APS for one crossing	\$35k

Transportation Tests

Pedestrian Crossing Example 1: Patuxent Commons

Patuxent Commons, 76 apartment units, northeast quadrant of the Freetown Road/Cedar Lane in Columbia



Trip Generation for Site

Land Use	Size	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Apartment	76 units	5	17	22	18	12	30

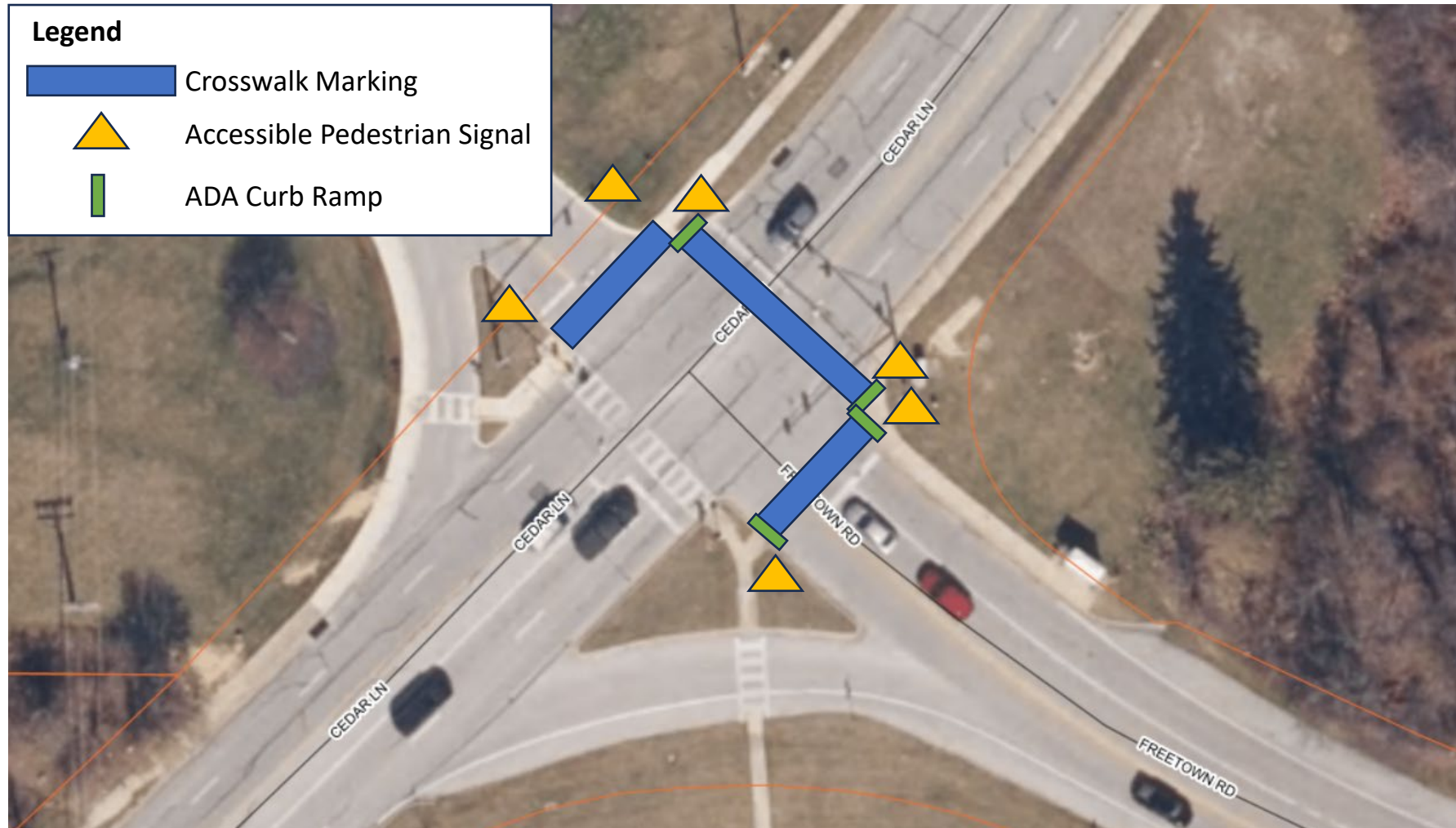
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Item(s) for one crossing	Cost Estimate
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Crosswalk marking	\$10k
APS for one crossing	\$35k

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Pedestrian Crossing Example 1: Patuxent Commons



Inadequate pedestrian crossing accommodations shown on diagram at 3 of the 4 legs
\$60k dollar cap would cover one crossing (crosswalk marking, two curb ramps, two accessible pedestrian signals)

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Pedestrian Crossing Example 2: Popeye's, Route 40

2,448 square foot (S.F.) fast food restaurant,
10060 Baltimore National Pike (US 40) in
the Enchanted Forest Shopping Center

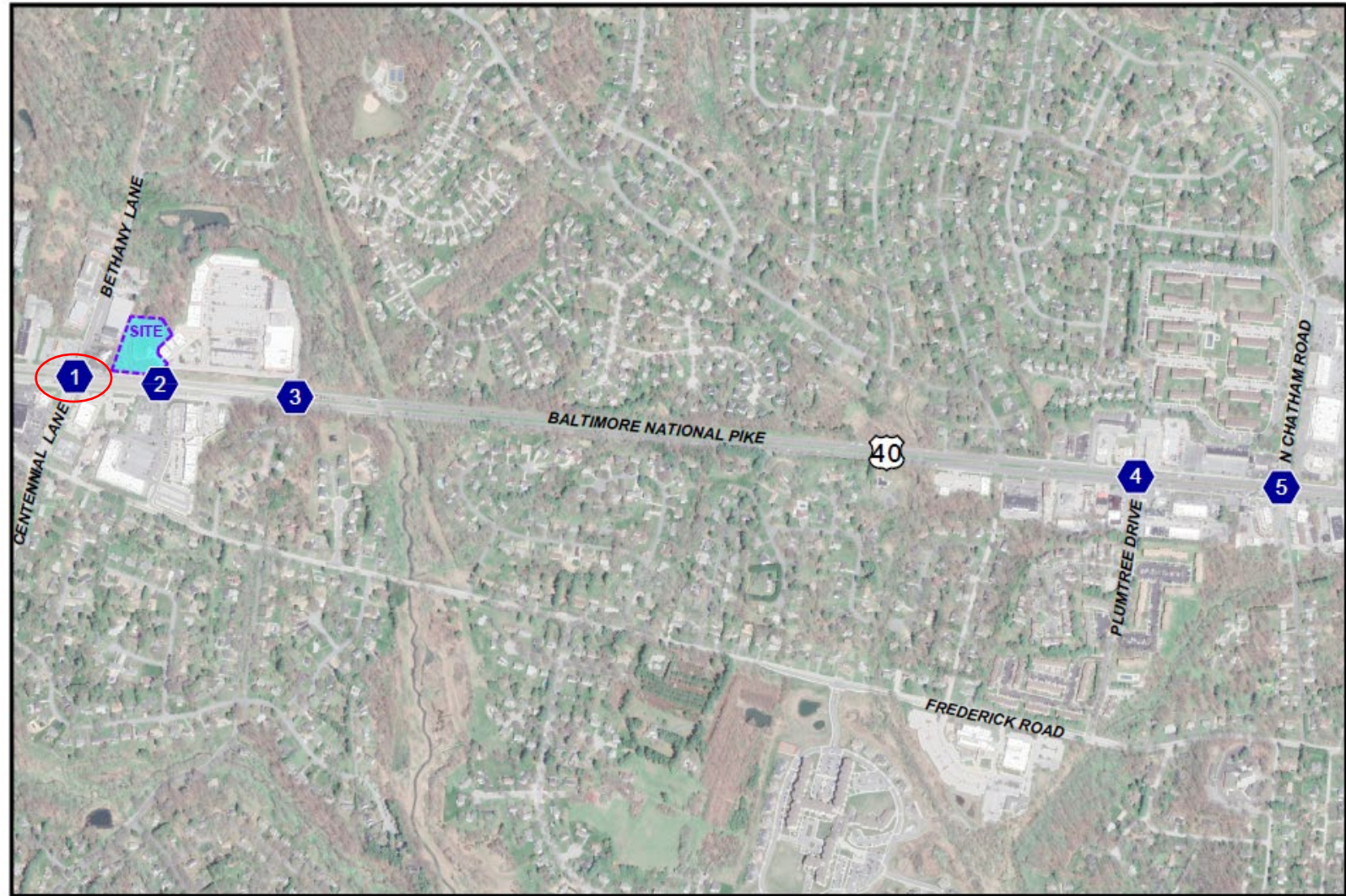


Figure 1-1
Site Location and Study Intersections

Study Intersection



Transportation Tests

Pedestrian Crossing Example 2: Popeye's, Route 40

Enchanted Forest Shopping Center - Popeye's
Site Trip Generation

Land Use	LUC	Amount	Unit	ITE Trip Generation ¹						
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
<u>Existing Enchanted Forest Shopping Center</u>										
Shopping Plaza	821	142,052	S.F.	311	190	501	580	628	1,208	
Internal Capture				<u>-7</u>	<u>-25</u>	<u>-32</u>	<u>-16</u>	<u>-12</u>	<u>-28</u>	
External Retail Trips				304	165	469	564	616	1,180	
<u>Proposed Fast-Food Restaurant with Drive Thru Window</u>										
Fast-Food Restaurant with Drive-Through Window	934	2,448	S.F.	56	53	109	42	39	81	
Internal Capture				<u>-25</u>	<u>-7</u>	<u>-32</u>	<u>-12</u>	<u>-16</u>	<u>-28</u>	
External Retail Trips				31	46	77	30	23	53	
Pass-By Retail Trips (AM: 49% & PM: 50%)				19	19	38	14	13	27	
Primary Retail Trips Added (AM: 51% & PM: 50%)				12	27	39	16	10	26	

Notes:

(1) Trip Generation based on the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition.

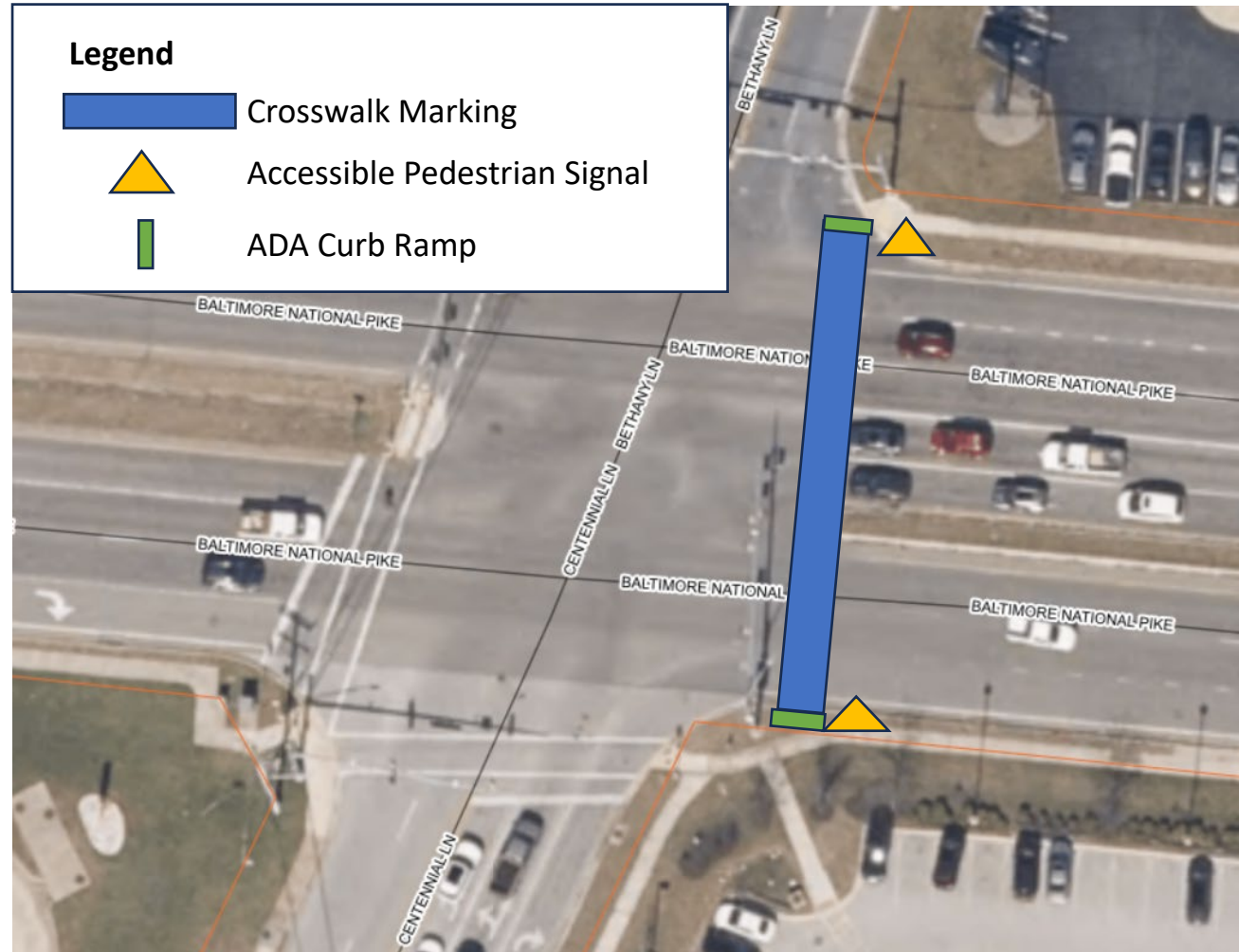
Item(s) for one crossing	Cost Estimate
ADA curb ramps (2 ramps)	\$15k
Crosswalk marking	\$10k
APS for one crossing	\$35k
Total (approx)	\$60k

	# peak hour trips generated*	Dollar cap for APFO Complete Streets Improvements
Small	6 to 20	\$20k
Medium	20 to 50	\$60k
Large	50 plus	\$100k

* total of "in and out", whichever is larger between am or pm or weekend peak hours

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Pedestrian Crossing Example 2: Popeye's, Route 40



Inadequate pedestrian crossing accommodations shown on diagram at 1 of the 4 legs
\$60k dollar cap would cover one crossing (crosswalk marking, two curb ramps, two accessible pedestrian signals)

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Pedestrian Crossing Example 3: Maple Grove

Nine single family dwelling units, St John's Lane, just north of Route 40

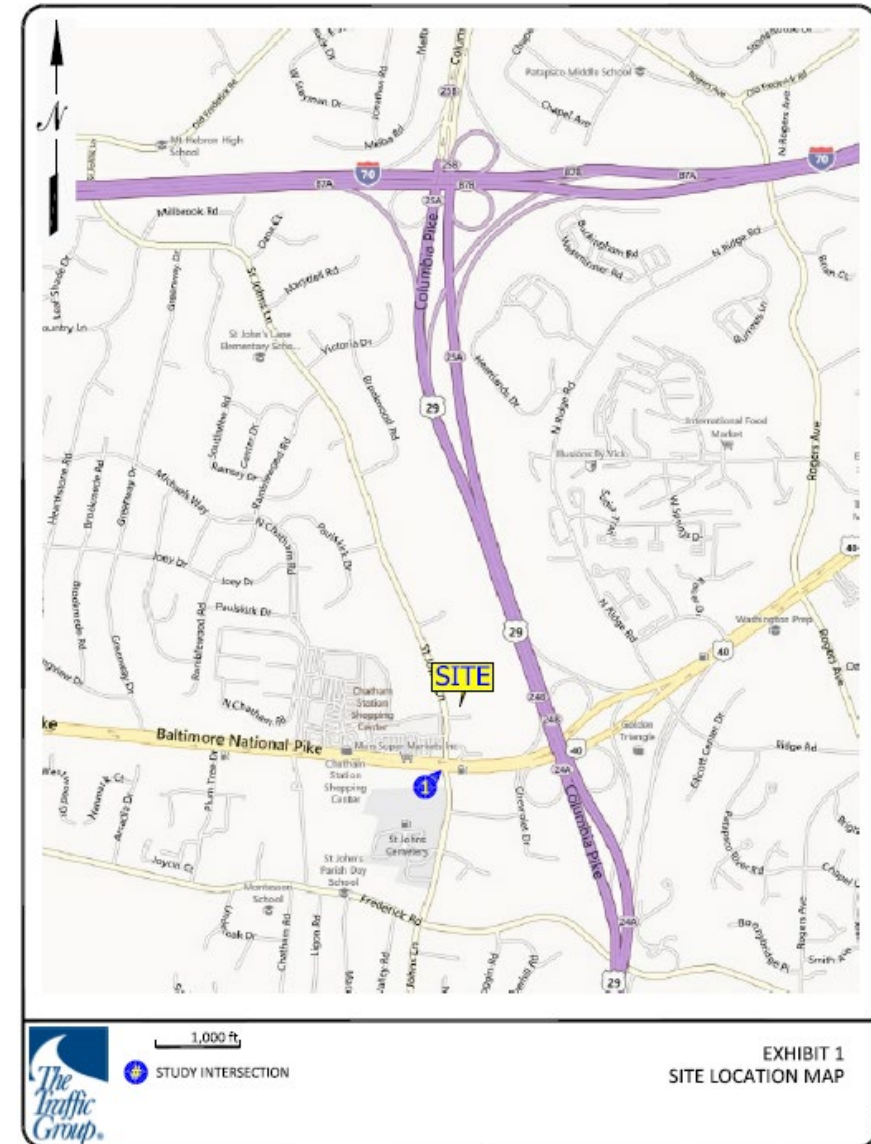
Trip Generation for Maple Grove

Land Use	Size	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Single-Family Detached	9 units	2	5	7	6	3	9

	# peak hour trips generated*	Dollar cap for APFO Complete Streets Improvements
Small	6 to 20	\$20k
Medium	20 to 50	\$60k
Large	50 plus	\$100k

* total of "in and out", whichever is larger between am or pm or weekend peak hours

Item(s) for one crossing	Cost Estimate
ADA curb ramps (2 ramps)	\$15k
Crosswalk marking	\$10k
APS for one crossing	\$35k
Total (approx)	\$60k



Transportation Tests

Pedestrian Crossing Example 3: Maple Grove

- Inadequate pedestrian crossing accommodations shown on diagram on 2 of the 4 legs
- Cost of improvements would far exceed \$20k for a small scale development
- Fee in lieu of \$20k could be provided in this case, assigned to future improvements at this intersection
- OR, alternative mitigation in this case is upgrade existing two crosswalks to current MDOT SHA standard (continental crossing)



Transportation Tests

Public Transit

- Determining factors
 - Is there existing transit station/stop within ¼ mile of project frontage boundaries?
 - If yes, is that bus stop ADA compliant?
- Compliance
 - Minimum 5' wide x 8' deep concrete area/pad
 - Pad typically connected to minimum 5' sidewalk
 - ADA ramps, curb & gutter
- For developments in the “large” category, pad will be slightly larger (8'x10') if feasible, to accommodate future shelter to be added by County
- Cost estimations will use average prices from MDOT price index and Howard County approved unit prices
- Out of 458 RTA stops in Howard County, 233 are currently ADA accessible and 71 have shelters.

Transportation Tests

Transit Test Example 1: Chesapeake Conference

- Residential development
 - SDP-25-020: Chesapeake Conference of 7th Day Adventists
- Existing transit stop within ¼ mile of development
- Developer would be required to construct ADA-compliant concrete pad, lead-up sidewalk, and ramp from nearby intersection
- Estimated material cost:
 - Approx. 100 LF of 5' wide sidewalk: \$12,500
 - ADA concrete pad: \$1000
 - Approx. 50 LF Curb & gutter: \$1,050
 - Intersection ramp: \$1,200
 - Estimated Total: \$15,750, up to \$20,000 with other costs



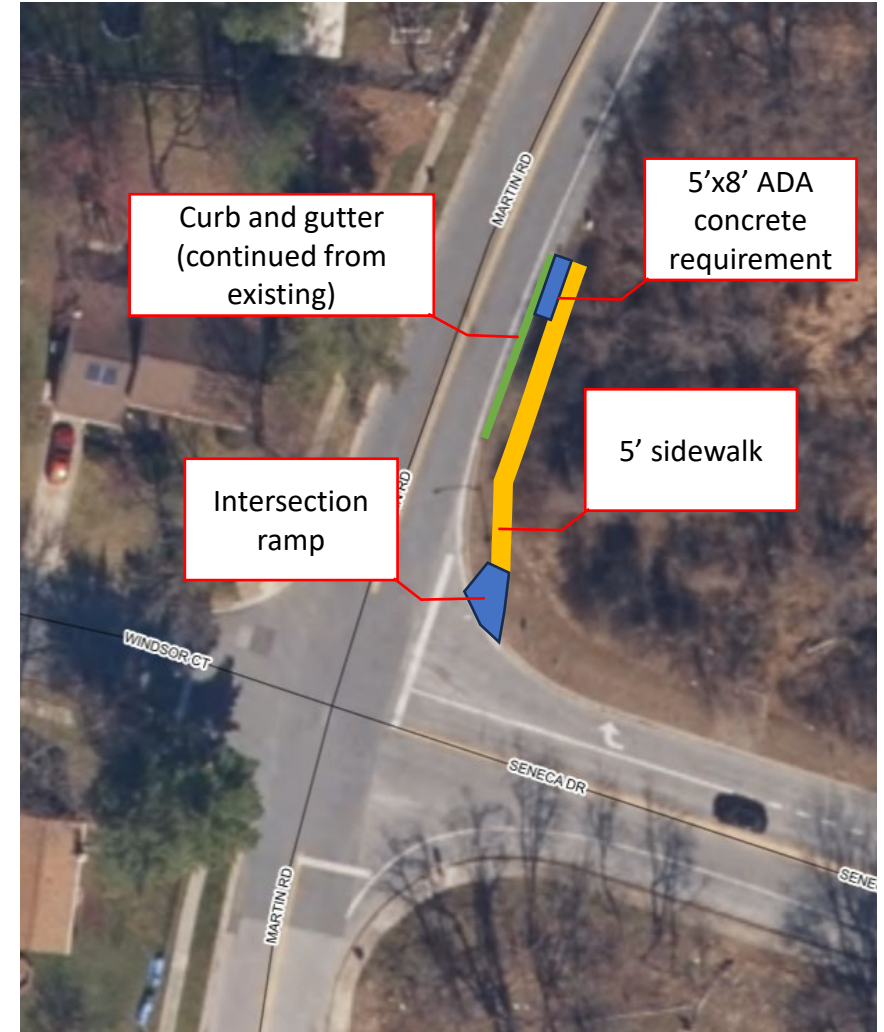
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Transit Test Example 1: Chesapeake Conference

Existing stop on Google Street View



Required improvements
ADA compliance



Transportation Tests

Transit Test Example 2-Commercial Street

- Residential development
 - F-25-015 Commercial Street
- Existing transit stop within ¼ mile of development
- Developer would be required to construct ADA-compliant concrete pad and lead-up sidewalk
- Estimated cost:
 - Approx. 25 LF of 5' wide sidewalk: \$3,125
 - ADA concrete pad: \$1000
 - Estimated Total: \$4,125, up to \$8,000 with other costs



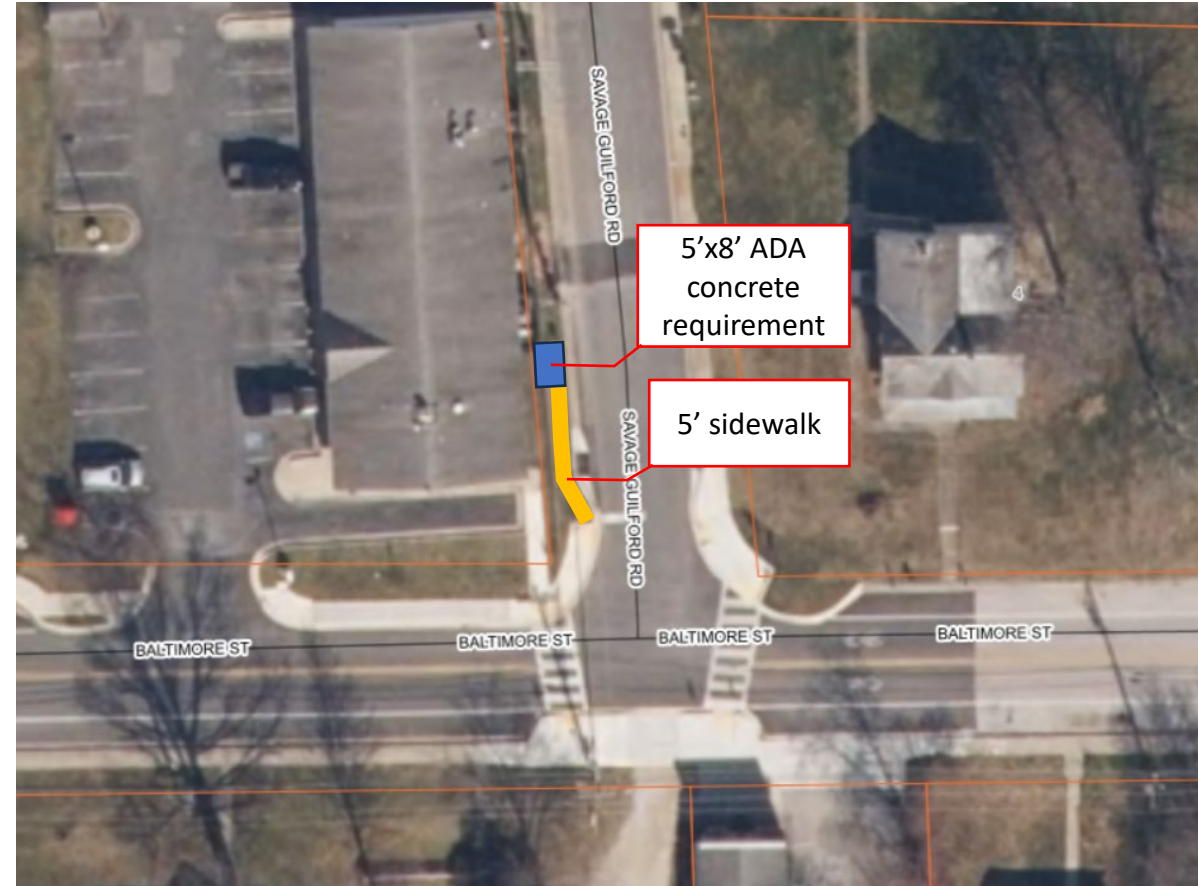
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Transit Test Example 2-Commerical Street

Existing stop on Google Street View



Required improvements for ADA compliance



Questions?

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