



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item No. 7
10-28-2010

MEMORANDUM

DATE: October 20, 2010

TO: Montgomery County Planning Board

VIA: Dan Hardy, Chief *DKH*
Transportation Planning Division

Sue Edwards, Team Leader *for Sue/RC*
I-270 Corridor Team
Community-Based Planning Division

Larry Cole, Highway Coordinator *LC*
Transportation Planning Division

FROM: Ki H. Kim, Planner/Coordinator (301) 495-4538 *KHK*
Transportation Planning Division

SUBJECT: Roberts Tavern Drive Extended Phase I Transportation Facility Planning Study -
Project Prospectus Recommendations

RECOMMENDATION: Transmit the following comments to the Montgomery County Department of Transportation (MCDOT):

1. The Roberts Tavern Drive Extended Transportation Facility Planning Study should proceed to Phase II of the Facility Planning process to develop a detailed design of a modified version of the Project Prospectus recommended alternative:
 - a. The design for the interim Roberts Tavern Drive Extended should include only two through lanes. Two options could accomplish this change:
 - 1) A two-lane undivided roadway, approximating the proposed northbound through lanes of the proposed alternative, or
 - 2) A two-lane divided roadway, continuing the design of the existing segment of Roberts Tavern Drive

- b. The new roadway should intersect MD355 at a 90-degree angle, and it should be located opposite the driveway to the Green Gardens landscaping company, if possible.
 - c. The design should include the proposed shared use path on its ultimate alignment for the master-planned Relocated MD355.
 - d. The long free-right-turn lane from Roberts Tavern Drive to southbound MD355 should not be built as part of the interim project; this lane should be deferred until the ultimate configuration of the MD355 intersection is constructed.
 - e. A preliminary design of the ultimate configuration of the MD355 intersection should be included in the Mandatory Referral submittal during Phase II of Facility Planning for the interim project.
2. The Phase II Facility Planning study for the Roberts Tavern Drive Extended should:
 - a. Minimize any construction for this interim phase that will have to be removed in the ultimate condition.
 - b. Minimize forest loss.
 3. During the Phase II Facility Planning Study, MCDOT must submit a Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) for approval.

PURPOSE OF THIS BRIEFING

The purpose of this briefing is to present to the Montgomery County Planning Board the Phase I Facility Planning Study completed by MCDOT for the Roberts Tavern Drive Extended project and to solicit your comments on the draft Project Prospectus. Your comments will be considered in the MCDOT's preparation of the final document, which will then be submitted to the County Council.

SUMMARY OF THE STUDY

The Roberts Tavern Drive Extended study considered the extension of the existing Roberts Tavern Drive (A-251) from 200 feet east of Latrobe Lane to Frederick Road (MD 355) in Clarksburg, a distance of approximately 1,000 feet. Attachment 1 shows the subject segment of Roberts Tavern Drive Extended, the limits of the existing segments of Roberts Tavern Drive and Observation Drive, and future completion of Observation Drive (A-251) north of Stringtown Road. When A-251 is completed, it will serve as the bypass of existing MD355 through the Clarksburg Historic District, however no planning is currently underway for the segment north of Stringtown Road.

Staff finds that Roberts Tavern Drive Extended is needed in the near term to improve connectivity for all modes of travel in the Clarksburg Town Center. The ultimate four-lane arterial capacity of the roadway, however, will not be utilized until A-251 is completed as a fully Relocated MD 355 around the Clarksburg Historic District. In fact, the ultimate design cannot be constructed until Relocated MD 355 is completed, and that relocation project will necessarily involve some reconstruction of the current project. Therefore, **staff recommends**

reducing the scope of the current Roberts Tavern Drive Extended project from four lanes to two lanes, to provide the needed connectivity in the near term while reducing the costs, impacts, and potential speeding concerns associated with building a roadway wider than needed for the foreseeable future.

The Roberts Tavern Drive Extended study area is in the MD 355 corridor, between Gateway Center Drive to the west, Little Seneca Creek to the east, Shawnee Lane to the south, and Stringtown Road to the north. This area consists predominantly of established residential homes, townhouses, and apartment/condominium properties along MD 355 and planned residential development throughout the study area.

The primary purpose of the road extension would be to improve mobility and access for people and goods that use MD 355 and the surrounding roadway network. These improvements are necessary to improve travel efficiency, allow for future diversion of regional through-traffic around the Clarksburg Town Center and historic district, provide congestion relief, expand neighborhood connections, and enhance multimodal access. The road extension is needed to:

- Accommodate planned land use;
- Reduce future traffic congestion;
- Improve network efficiency;
- Provide local neighborhood connection; and
- Enhance bicycle and pedestrian connections.

As part of the Roberts Tavern Drive Extended Facility Planning Phase I Study, the following four alternatives were considered and presented to the public for their review and input:

- Alternative 1: No-Build;
- Alternative 2: Master Plan Alignment;
- Alternative 3: T-Intersection; and
- Alternative 4: Master Plan Alignment Adjusted

The Project Prospectus recommends that a modified version of Alternative 3 advance to Facility Planning Phase II. Alternative 3 Modified would provide a continuous four-lane divided roadway from Observation Drive to MD355, with a T-intersection at MD355 and a long free-right turn lane to southbound MD355. It would:

- Meet the project's purpose and need;
- Maintain full movement for roadways;
- Provide safe, direct pedestrian and bicycle access;
- Complete a portion of the master-planned Relocated MD 355; and
- Accommodate future construction of the ultimate Relocated MD 355.

The existing and proposed typical sections of Roberts Tavern Drive are shown as Attachment 2. A graphic of MCDOT's Alternative 3 Modified is shown as Attachment 3. For purposes of discussing the staff recommendations, staff has prepared a conceptual representation of Alternative 3 Modified as shown in Attachment 4. In Attachment 4, the existing two lanes are

shown as solid lines; the proposed additional lanes and shared use path are shown as dashed lines.

Tables from the Project Prospectus showing the impacts of MCDOT's recommended Alternative 3 Modified and original Alternatives 1-4 are shown as Attachment 5. Graphics for Alternatives 1-4 (including the original Alternative 3) are not shown in this memo but will be available for viewing at the Board's meeting. In summary, each of the build alternatives have similar impacts, with 7 to 10 properties affected and between 1.3 and 1.7 acres of forest loss.

Master Plan Consistency

The Clarksburg Master Plan recommends diverting through traffic on MD 355 around the west side of the Clarksburg Historic District via Roberts Tavern Drive Extended and Observation Drive Extended, as indicated in Attachment 1. These roadways form the planned four-lane north-south arterial connection (A-251) that will constitute a new Relocated MD355, and allow the existing Frederick Road to be downgraded to a two-lane business district street (B-1) through the historic district. The Clarksburg Master Plan recommends that MD 355 ultimately be signed to follow A-251 as the through roadway, and graphics indicate that the intersections should be aligned so that the through traveler would be directed along A-251, with existing Frederick Road ultimately realigned to "tee" into A-251.

A completely consistent alignment of Roberts Tavern Drive Extended per the Master Plan is not possible at this time since SHA will not permit a realignment of MD355 at the Roberts Tavern Drive intersection until the northern segment of Observation Drive, which would allow a complete relocation of MD355 through the center of Clarksburg, is also constructed. Thus, any project resulting from this study would be only an interim project until the complete roadway could be built.

Staff Analysis

All the alternatives discussed in the Project Prospectus meet the Purpose and Need for this interim project. To determine which alternative best meets the County's needs, our analysis included two additional considerations: maximizing the usefulness of what is built in attaining the ultimate facility recommended by the Master Plan, and minimizing the initial cost of the interim project while meeting the Purpose and Need.

All of the alternatives considered in the Project Prospectus would construct the ultimate four-lane divided road but the projected peak-hour traffic levels for the proposed in the 2030 design year are very low. The low traffic projections are due to the fact that the northern half of Relocated MD355 would not be built, diminishing the road's usefulness for other than local traffic in the near term. A four-lane Roberts Tavern Drive is projected to carry only 10%-12% of the vehicles in the peak hour that MD355 would carry in two lanes in 2030.

Roberts Tavern Drive	Morning peak hour traffic	Evening peak hour traffic
westbound	131	164
Eastbound	50	35
Total	181 vehicles in AM peak	199 vehicles in PM peak
MD355		
northbound	524	1054
southbound	1262	573
Total	1786 vehicles in AM peak	1627 vehicles in PM peak

The forecast volumes on Roberts Tavern Drive reflect a combination of local traffic (such as residents of the proximate Gateway Commons development) and a dispersion of other traffic from communities to the south and east along MD 355 that needs to access I-270 at MD 121. Roberts Tavern Drive Extended provides an additional access point for Gateway Commons residents heading south along MD 355, reducing their vehicle-miles of travel. It also relieves pressure on the MD 355 / Clarksburg Road signalized intersection, forecast to operate at LOS E in 2030. The connection also provides bicycle and pedestrian connectivity between Clarksburg Town Center communities.

The project serves the need for better connectivity in Clarksburg, but building the ultimate four-lane typical section on an interim basis does not appear to be cost-effective, particularly considering that the MD 355/Roberts Tavern Drive intersection will ultimately need to be reconstructed to satisfy the Master Plan intent. We agree with the overall alignment of MCDOT’s preferred alternative – that Roberts Tavern Drive intersect MD355 at a 90-degree angle in this interim condition. But we recommend that this alternative be revised to include only a two-lane roadway that could easily accommodate the projected traffic and minimize the extent of reconstruction needed at a later date. We suggest either of two implementation options described below.

Staff’s Two-lane Implementation Option 1: The northernmost two lanes of the recommended alternative could be used as a two-way undivided roadway that intersects MD355 at a 90-degree angle. A transition section between the existing two-lane divided roadway would be needed and providing a short right-turn lane on Roberts Tavern Drive at MD355 should be considered (see Attachment 6.) Staff expects that the primary advantages of this option would be a reduction in near-term project costs, forest loss, and impervious surface.

Staff’s Two-lane Implementation Option 2: The existing cross-section of Roberts Tavern Drive, which is a two-lane divided road, could be extended to MD355, modifying the section only where needed close to the MD355 intersection (see Attachment 7.) Staff expects that the primary advantages of this option would be the establishment of a greater extent of the ultimate drainage, pedestrian and streetscape elements on both sides of the roadway.

Either of the above options would satisfy the staff recommendations. Staff does not recommend that the Board identify a preference for either implementation option at this time as the decision should be based on balancing near-term and long-term cost considerations for which additional engineering analysis would be needed.

The proposed shared use path should still be built under either of the above options on its ultimate alignment for the MD355 Clarksburg Bypass, meeting the need to improve bike accommodation in this area and following the shortest path along the ultimate MD 355 Relocated alignment.

Minimizing the work done in this initial phase of the project would be less costly in the near-term and would avoid an obvious imbalance between the two roads in regard to roadway capacity and demand. It would also reduce the potential for speeding; a problem that can occur with underutilized roads. While this is a short segment of road, the problem would likely be greatest at the Roberts Tavern Drive free-right turn lane to southbound MD355. The design of this lane would be similar to the alignment of southbound 16th Street as it diverges from Georgia Avenue in Montgomery Hills. This design might reduce a driver's expectation of pedestrians along MD355 who would have to cross this lane. While this lane would be on the ultimate alignment of the A-251 and would help establish the limits of the future widening, we recommend that the separate right turn lane to southbound MD355 not be built as part of this project to avoid potential problems in the interim.

On a detailed design-oriented note, the proposed signalized intersection is slightly offset from the driveway of the Green Gardens landscaping company on the east side of MD355. Constructing the interim roadway directly opposite this driveway on MD355 would better accommodate their large vehicles. We recommend that this be considered.

On a broader note, all of the alternatives include taking sufficient right-of-way to accommodate the ultimate configuration of the MD355 Relocated intersection (teeing the north leg of existing MD355 into the MD 355 Relocated alignment), but no analysis is shown in the study report as to which alternative would best facilitate it. We recommend that a preliminary design of the ultimate Master Plan "tee" intersection (with A-251 as the through movement and the northern leg of Frederick Road serving as the stem of the "tee") be included with the Mandatory Referral submittal for the interim project so that future rework can be considered and minimized.

PUBLIC OUTREACH

The MCDOT study team held one public meeting during the Phase I Facility Planning process. The public meeting, on November 12, 2009, discussed the Facility Planning process, presented the study and discussed roadway concepts, and received public input. As summarized in Attachment 5, the citizens who attended generally supported the project and in particular Alternative 3 with a tee intersection, but would accept the other two build alternatives if deemed necessary for environmental reasons.

Attachments

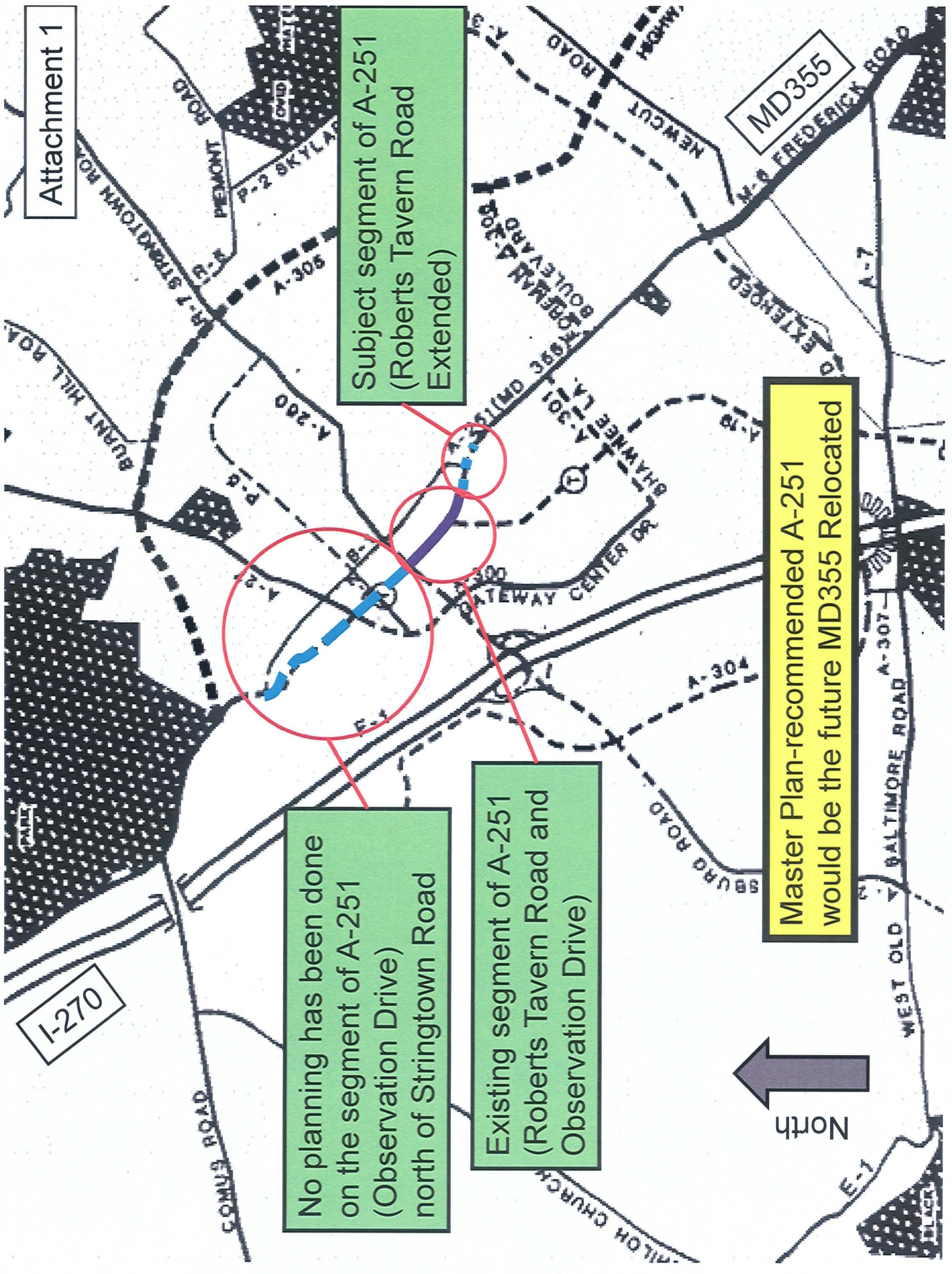
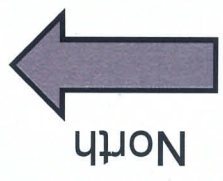
Attachment 1

Subject segment of A-251
(Roberts Tavern Road
Extended)

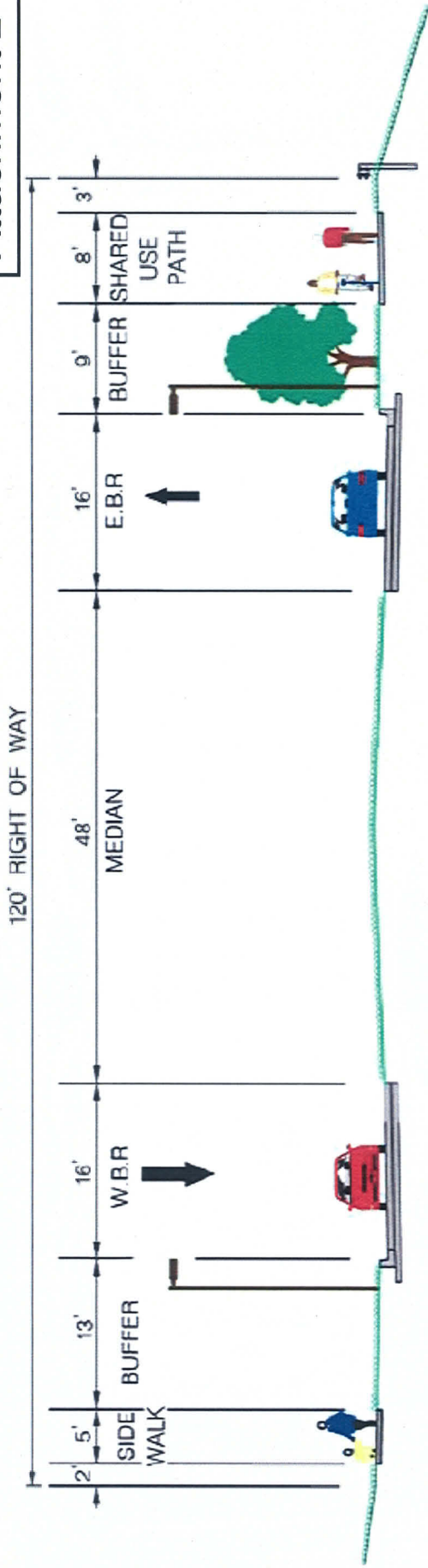
Master Plan-recommended A-251
would be the future MD355 Relocated

No planning has been done
on the segment of A-251
(Observation Drive)
north of Stringtown Road

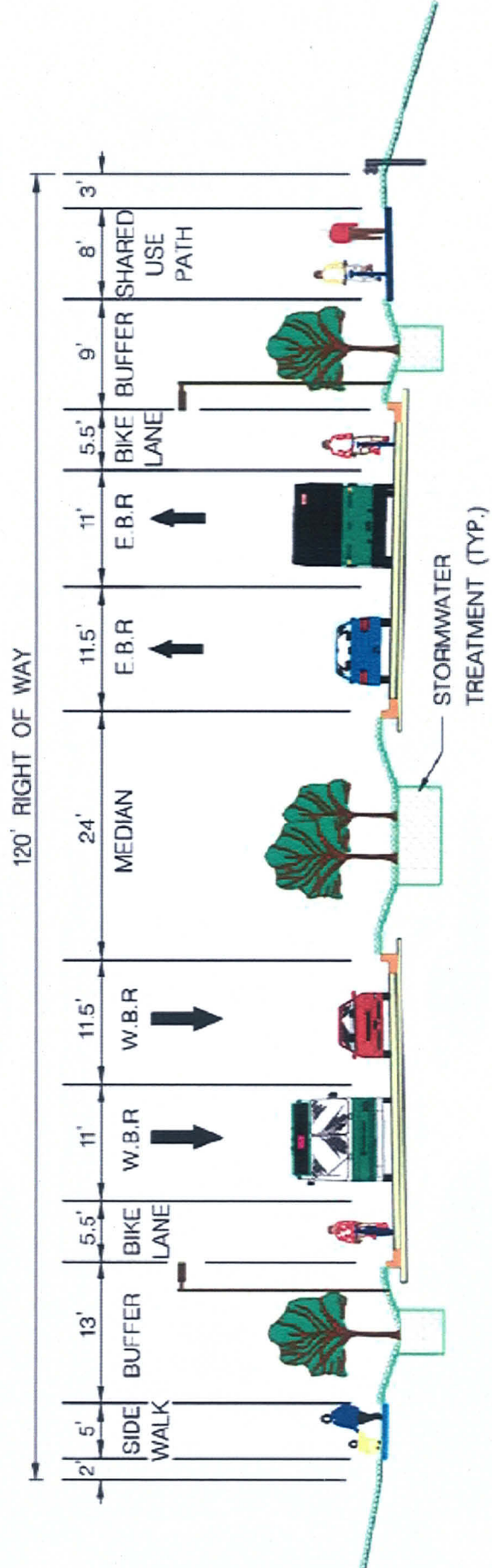
Existing segment of A-251
(Roberts Tavern Road and
Observation Drive)



Attachment 2

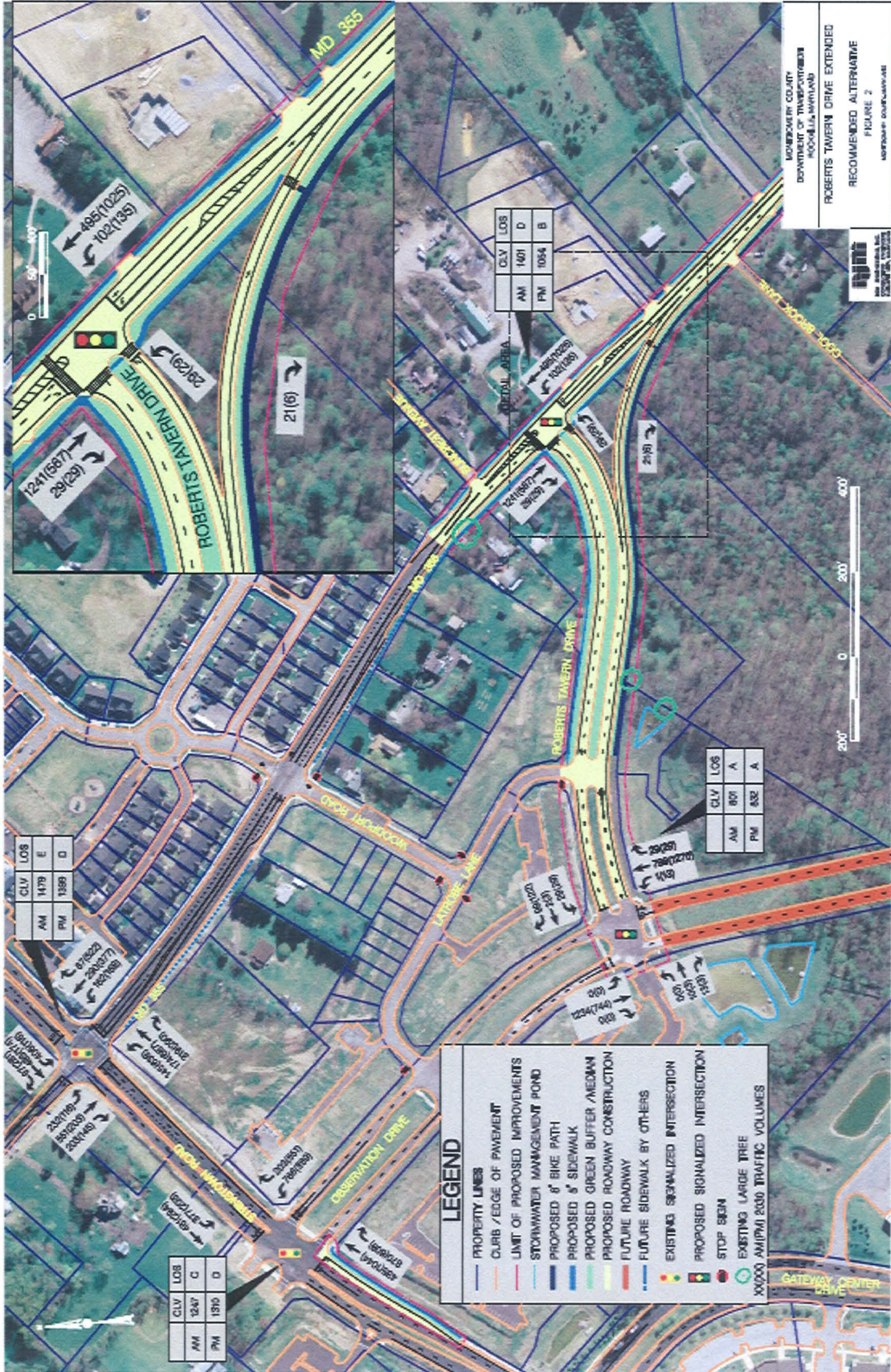


Existing Roberts Tavern Drive Typical Section



Proposed Roberts Tavern Drive Typical Section

Attachment 3



Attachment 4

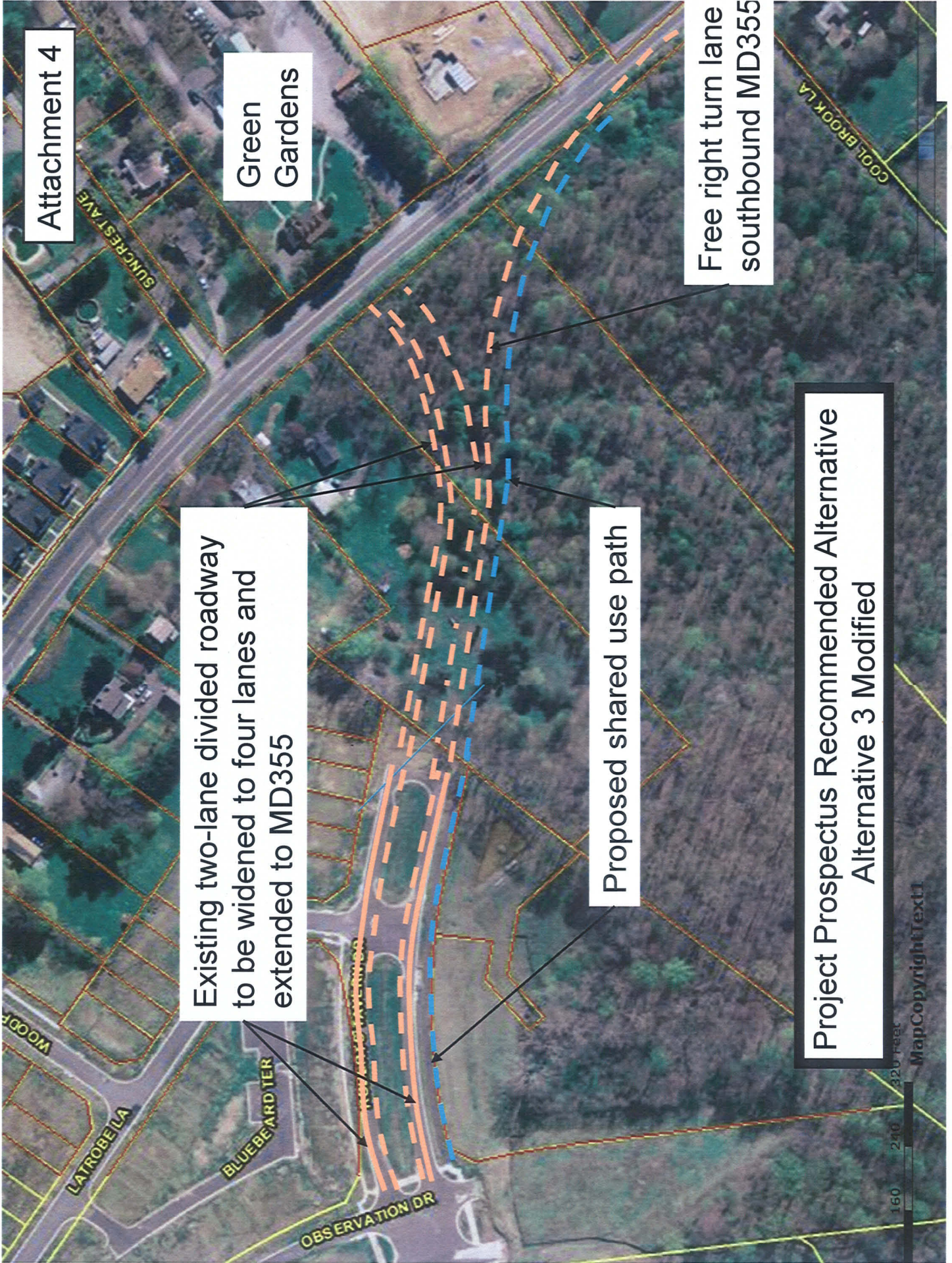
Green
Gardens

Free right turn lane
southbound MD355

Existing two-lane divided roadway
to be widened to four lanes and
extended to MD355

Proposed shared use path

Project Prospectus Recommended Alternative
Alternative 3 Modified



Impacts Summary of Prospectus-Preferred Alternative: Alternative 3 Modified

Resource	Impact	Value
Erodible Soils		Yes
Prime Farmland / Farmland of Statewide Importance		Yes
Forest		1.8 ac.
Specimen Trees (> 24" dbh)		2
Floodplains		None
Waters of the U.S.		None
Wetlands		None
Special Protection Area		Yes
Rare, Threatened and Endangered Species		None
Forest Interior Dwelling Bird Habitat		Low
Historic and Archeological Resources		None
Parks and Recreational Facilities		None
Community Facilities		None
Properties Impacted		10
Right-of-Way Required		2.5 ac.
Displacements		None
Hazardous Material Sites		None
Utilities		Yes

Impacts Summary of Alternatives 1-4 Considered in Project Prospectus

Impact Category	Alternative 1: No Build	Alternative 2: Master Plan	Alternative 3: T-Intersection	Alternative 4: Master Plan Modified
Accommodates Planned Land Use	No	Yes	Yes	Yes
Accommodates Future MD 355 Bypass	No	Very Good	Good	Best
Improves Network Efficiency	No	Yes	Yes	Yes
Provides Local Neighborhood Access	No	Yes	Yes	Yes
Enhances Bicycle and Pedestrian Access	No	Good	Best	Good
Roberts Tavern Drive/MD 355 Intersection Control	N/A	Unsignalized	Signalized*	Unsignalized
Number of Properties Impacted	0	9	7	9
ROW Impact Area (Acres)	0	2.4	1.8	2.2
Forest Stand Impact (Acres)	0	1.7	1.3	1.7
Public Support for Option	Low	Moderate	High	Moderate

* Future studies will determine the viability and feasibility of signalization.



Attachment 6

Green Gardens

Existing two-lane divided roadway

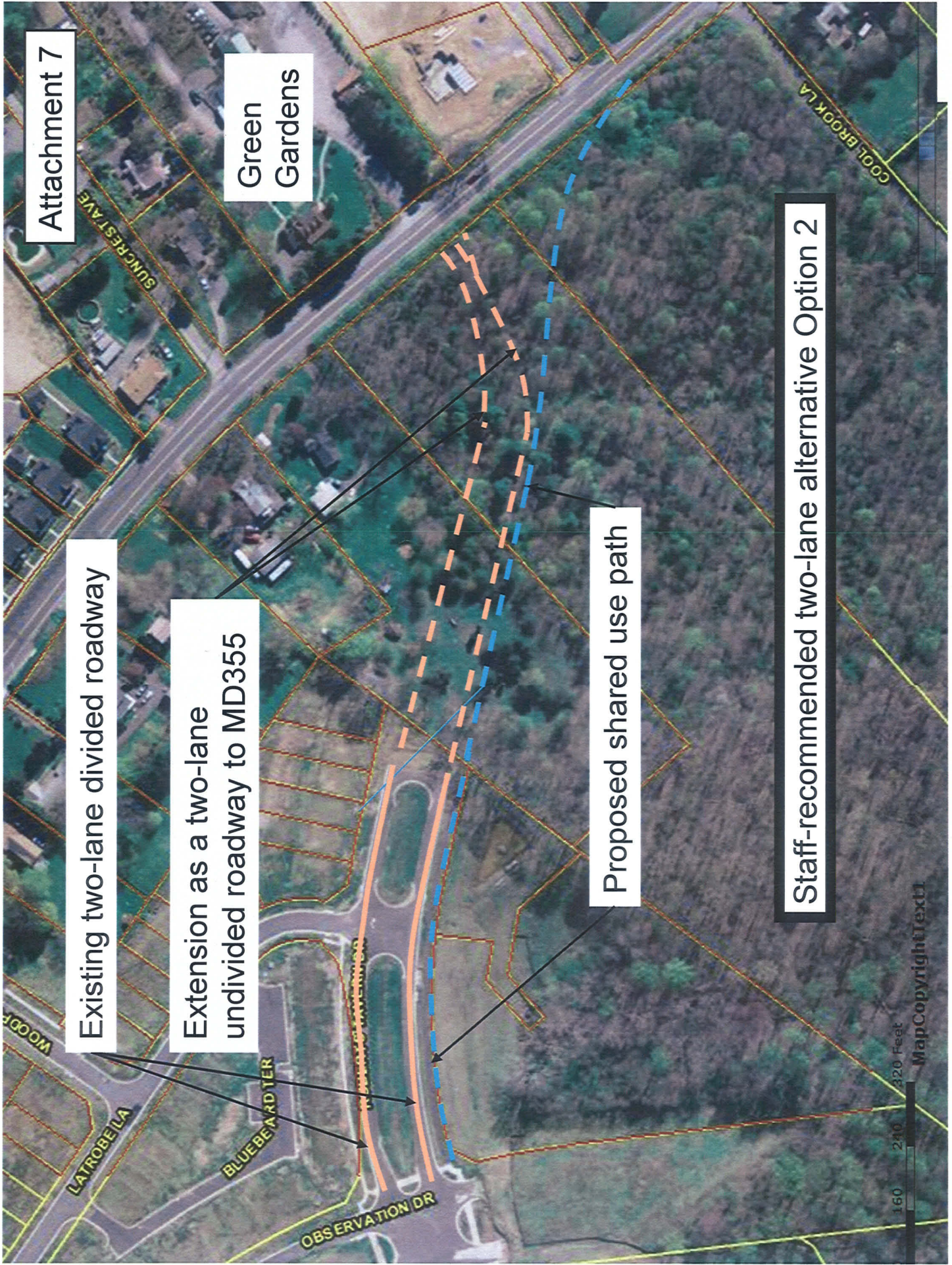
Extension as a two-lane undivided roadway to MD355

Proposed shared use path

Staff-recommended two-lane alternative Option 1

160 240 320 Feet

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Attachment 7

Green Gardens

Existing two-lane divided roadway

Extension as a two-lane undivided roadway to MD355

Proposed shared use path

Staff-recommended two-lane alternative Option 2

160 240 320 Feet

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