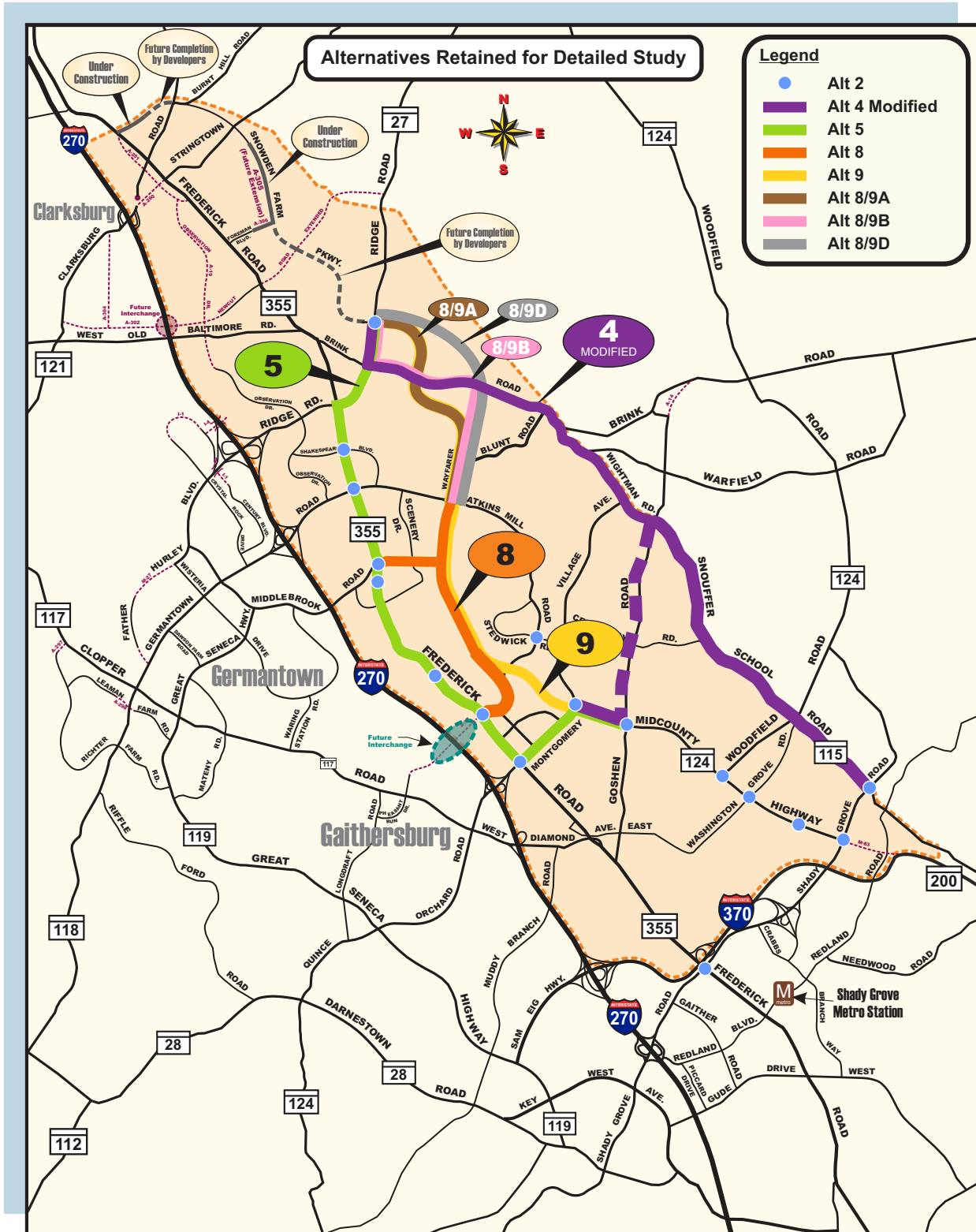


EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

Background

The Midcounty Corridor Study (MCS) is located in Montgomery County on the east side of the I-270 Corridor (**Figure S-1**). Since the 1960s, Midcounty Highway (M-83) has been an element of the transportation master plan for Montgomery County, and is proposed as an 8.7-mile controlled access, four to six-lane major highway from Ridge Road (MD 27) in Clarksburg to Redland Road in Derwood (**Figure S-2**). To date, a three-mile section of Midcounty Highway between Shady Grove Road and Montgomery Village Avenue (MD 124) has been completed to support part of the area's master planned development.

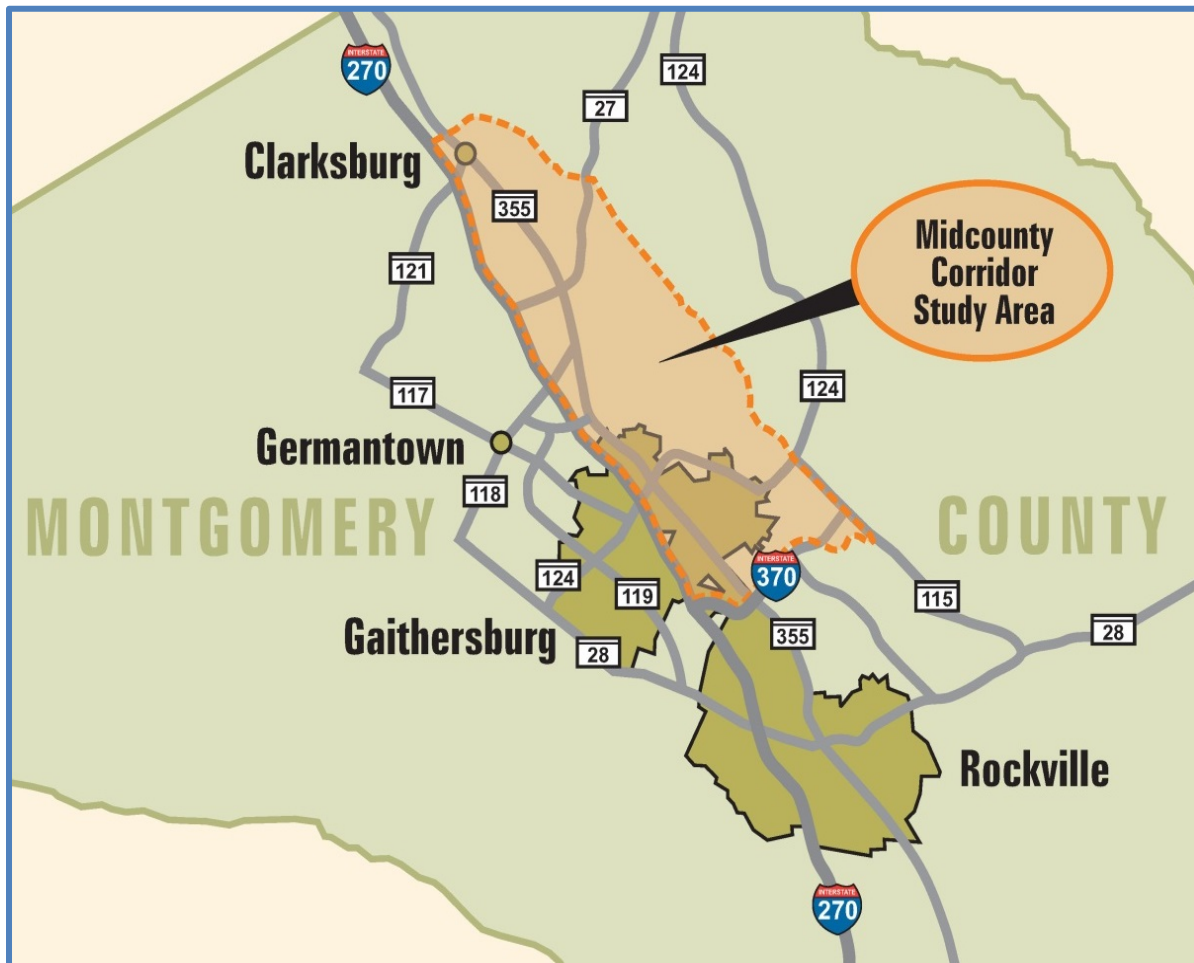


Figure S-1: Midcounty Corridor Study Project Study Area

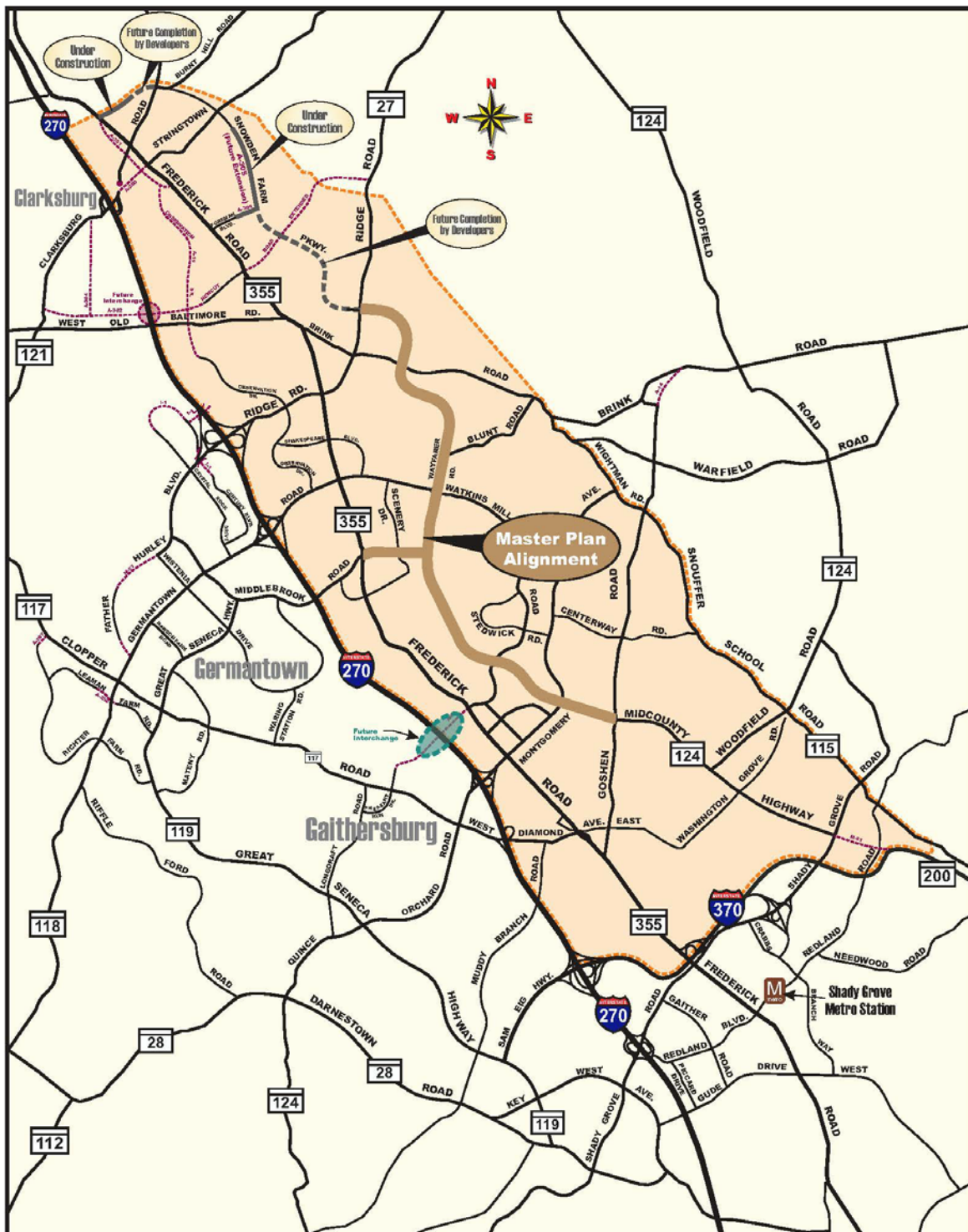


Figure S-2: Midcounty Corridor Study Master Plan Alignment



In 2004, the Montgomery County Department of Transportation (MCDOT) initiated the MCS to extend the Master Plan alignment of existing Midcounty Highway from Montgomery Village Avenue to Snowden Farm Parkway at Ridge Road. However, as it became clear that the potential impact to wetlands and streams may warrant a U.S. Army Corps of Engineers (USACE) Individual Permit, which requires compliance with the National Environmental Policy Act (NEPA), the study was expanded to include an analysis of eleven alternatives.

Since 2006, the project has followed *Maryland's Streamlined Environmental and Regulatory Process* (January 15, 2000) which was developed for projects that require NEPA documentation and Clean Water Act permits. In accordance with the *Streamlined Process*, the USACE, the U.S. Environmental Protection Agency (EPA), and the Maryland Department of the Environment (MDE) have been invited to concur at three major milestones: (1) Purpose and Need (concurred upon January 2007), (2) Alternatives Retained for Detailed Study (ARDS - concurred upon February 2011), and (3) Preferred Alternative/Conceptual Mitigation. This *Preferred Alternative/Conceptual Mitigation package (PA/CM)* provides the basis for the MCDOT's recommendations for the preferred alternative.

Since 2004, extensive public and agency outreach efforts have been conducted, including:

- Nine public workshops/community meetings,
- Nine briefings to local elected officials,
- Two public hearings,
- Five newsletters, and
- 50 agency/stakeholder meetings.

Alternatives Retained for Detailed Study (ARDS)

Alternatives evaluated in the *Draft Environmental Effects Report (EER)* May 2013 and included in this *PA/CM* evaluation are summarized below and depicted in **Figure S-3**:

- **Alternative 1 – No-Build:** Would include the development of projects listed in the Metropolitan Washington Council of Governments' (MWCOC's) Constrained Long Range Plan (CLRP); Montgomery County's Capital Improvement Program (CIP); planned transit system improvements and the Corridor Cities Transitway (CCT); but would not include the proposed extension of Midcounty Highway. While this alternative would not address the project purpose and need, it provides a baseline by which to compare the impacts and operations of all other alternatives.
- **Alternative 2 – TSM/TDM:** Would improve the existing transportation system with minimal capital cost. In the design year 2030, 16 study area intersections would exceed

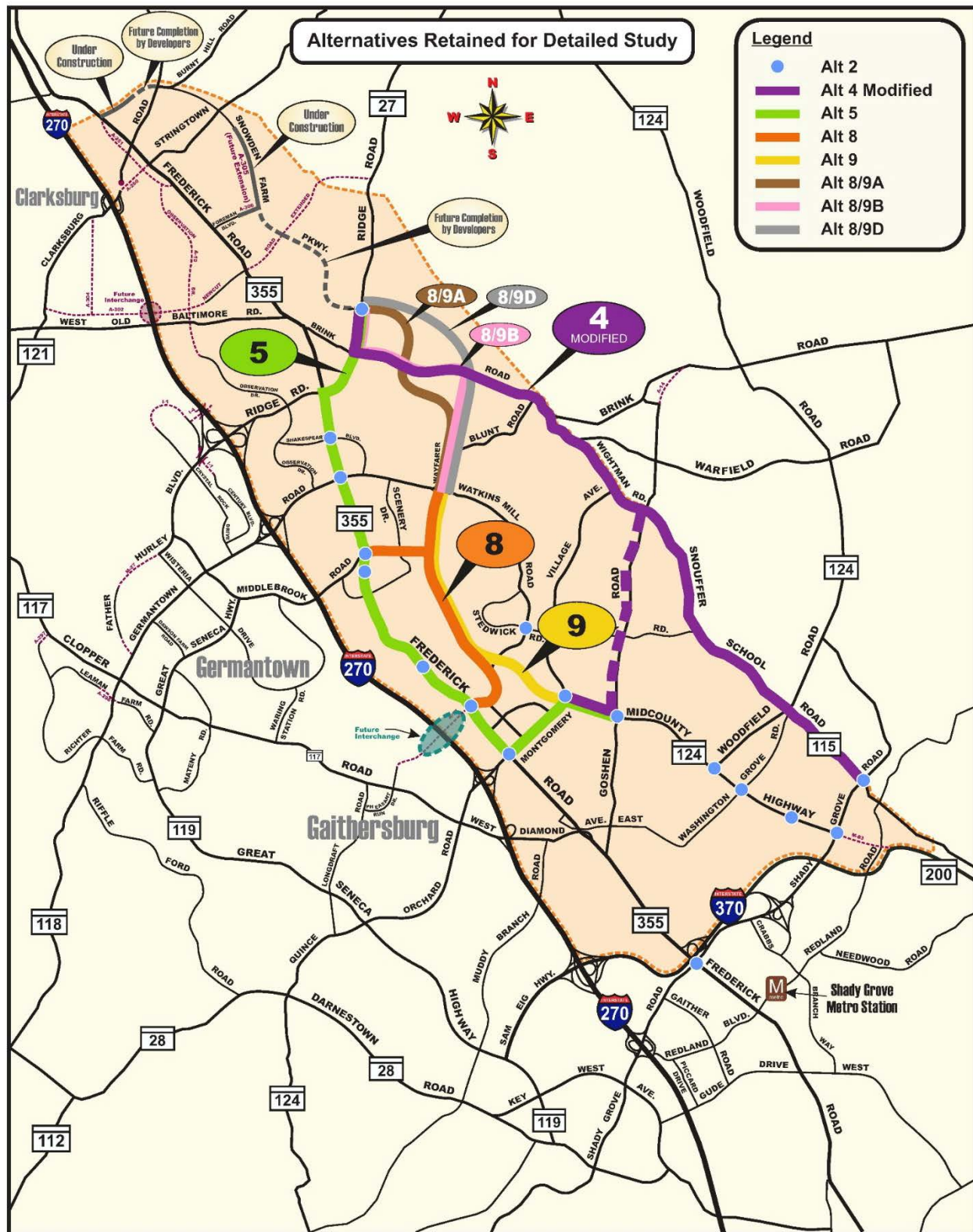


Figure S-3: Midcounty Corridor Study ARDS



the County congestion standard. Low-cost intersection improvements that could be constructed within existing rights-of-way (such as additional turning lanes) would be provided at these locations.

- **Alternative 4 Modified – Brink-Wightman-Goshen-Snouffer School-Muncaster Mill:** Would provide roadway widening along a 7.5-mile route from future Snowden Farm Parkway to Shady Grove Road along Brink, Wightman, Goshen, Snouffer School, and Muncaster Mill Roads to four lanes, and in some locations, six lanes.
- **Alternative 5 – MD 355 with Service Roads:** Would provide upgrades and access consolidation along a 6.6 mile long corridor including widening portions of Ridge Road (MD 27), Frederick Road (MD 355), and existing Midcounty Highway to six lanes. The portion of Montgomery Village Avenue (MD 124) from Frederick Avenue to existing Midcounty Highway, which is already six lanes, would be modified by replacing the existing eastern sidewalk with a shared use path.
- **Alternative 8 – Master Plan Alignment Truncated at Watkins Mill Road:** Would construct Midcounty Highway along the Master Plan alignment from Snowden Farm Parkway south to Watkins Mill Road, leaving a 0.8-mile gap in the Master Plan alignment for Midcounty Highway between Watkins Mill Road and Montgomery Village Avenue.
- **Alternative 9 – Master Plan Alignment:** Would construct Midcounty Highway along the Master Plan alignment as a four-lane divided highway between Snowden Farm Parkway and Montgomery Village Avenue.
- **Northern Terminus Options:** For Alternative 8 and Alternative 9, three options (A, B and D) were evaluated for the northern terminus of the alignments as follows:
 - **Option A:** Follows the Master Plan alignment and extends northwesterly through the park to Brink Road. The alignment would then continue across Brink Road on new alignment to Snowden Farm Parkway at Ridge Road.
 - **Option B:** Provides a more direct crossing of the North Germantown Greenway Stream Valley Park and extends straight across the park to Brink Road. The alignment would then follow Brink Road and Ridge Road to Snowden Farm Parkway.
 - **Option D:** Provides a more direct crossing of the North Germantown Greenway Stream Valley Park and extends straight across the park to Brink Road. The alignment would then continue across Brink Road on new alignment to Snowden Farm Parkway at Ridge Road.

The *Draft EER* May 2013 evaluated the ARDS as potential solutions for addressing the project purpose and need, and identified the benefits and potential social, economic, and environmental effects of each alternative. The Summary of Impacts and Costs associated with the ARDS are presented in **Table S-1**.





Table S-1: Summary of Impacts and Costs – Midcounty Corridor Study ARDS

RESOURCES	ALTERNATIVES RETAINED FOR DETAILED STUDY									
	1	2	4 MOD	5	8A	8B	8D	9A	9B	9D
PROPERTY IMPACTS										
Residences Displaced (no.)	0	0	2	0	0	1	1	0	1	1
Businesses Displaced (no.)	0	0	0	3	0	0	0	0	0	0
Partial Acquisition from Residential Prop. (no.)	0	0	242	92	96	120	103	125	149	132
Partial Acquisition from Business Property (no.)	0	0	67	82	15	17	15	14	16	14
Total Number Parcels from which Property will be Acquired¹	0	0	353	180	131	157	133	161	187	163
NOISE IMPACTS										
Residences within 67 dBA Noise Contour (no.)	0	0	417	228	114	125	114	217	234	217
PARK IMPACTS										
Total (ac)	0	0	19.4	0.2	45.2	30.5	29.4	49.0	33.5	32.4
PRIME, STATEWIDE IMPORTANT FARMLAND										
Total (ac)	0	0	2.8	0	17.7	3.1	31.5	17.7	3.1	31.5
WATER RESOURCES										
STREAMS										
Piped Streams (LF)	0	0	1,282	70	749	520	914	485	256	650
Relocated Streams (LF)	0	0	0	0	0	0	0	989	989	989
Total Permanent (LF)	0	0	1,282	70	749	520	914	1,474	1,245	1,639
Total Temporary (LF)	0	0	30	0	75	75	75	60	60	60
NONTIDAL WETLANDS										
Permanent										
Fill (ac)	0	0	0.26	0	0.76	0.76	0.76	0.87	0.87	0.87
Conversion (ac)	0	0	0.27	0	1.78	1.69	1.69	1.70	1.60	1.60
Temporary (ac)	0	0	0.10	0	0.76	0.74	0.74	0.82	0.80	0.80
NONTIDAL WETLAND BUFFER										
Permanent (ac)	0	0	0.82	0	0.74	0.57	0.57	0.99	0.82	0.82
Temporary (ac)	0	0	0.03	0	0.13	0.13	0.13	0.15	0.13	0.13
100-YEAR FLOODPLAIN IMPACTS										
Permanent (ac)	0	0	4.5	0.4	2.9	2.9	2.9	4.8	4.8	4.8
Temporary (ac)	0	0	0.24	0	0.58	0.58	0.58	0.58	0.58	0.58
FOREST IMPACTS										
Total (ac)	0	0	31.0	2.0	57.6	52.5	61.4	72.9	67.7	76.7
SPECIAL PROTECTION AREAS										
Total Added Impervious Surface (ac)	0	0	1.4	0	7.2	1.7	4.8	7.2	1.7	4.8
FIDS HABITAT										
Direct (ac)	0	0	0	0	16.7	11.2	11.2	19.4	11.2	11.2
Indirect (ac)	0	0	2.2	0	66.8	54	58.4	74.1	54	58.4





RESOURCES	ALTERNATIVES RETAINED FOR DETAILED STUDY									
	1	2	4 MOD	5	8A	8B	8D	9A	9B	9D
THREATENED & ENDANGERED SPECIES										
Number of Species Impacted	0	0	0	0	0	0	0	0	0	0
COST										
\$ Millions²	0	41	251	120	283	264	276	357	339	350

NOTE: Potential impacts are based on preliminary engineering. Further refinement of impacts would occur during project design.

¹ Includes residences, businesses, churches, schools, community facilities, parkland, and public works properties.

² Cost excludes \$14 million for Middlebrook Road construction.

Preferred Alternative and Conceptual Mitigation Plan (PA/CM)

Preferred Alternative Selection

The content of the *Draft EER*, feedback from the agencies and public and the recommendation of the Montgomery County Planning Board were considered in the development of the *Preferred Alternative and Conceptual Mitigation Plan (PA/CM)*. **The Preferred Alternative is Alternative 9A** as depicted in **Figure S-4**.

As required by Section 404 of the Clean Water Act, the selection of the Preferred Alternative has been based on a determination of the least environmentally damaging practicable alternative (LEDPA). The evaluation of the LEDPA included reviewing each alternative's ability to satisfy the purpose and need of the project and to avoid and minimize impacts on jurisdictional waters and wetlands and other natural, cultural, and socioeconomic resources. The evaluation of the LEDPA also considered the extensive public involvement performed with the community over the past ten years and the wide range of comments received from the general public, agency representatives, elected officials, special interest groups, and community leaders.

Factors leading to the selection of Alternative 9A as the Preferred Alternative include:

- It is the only alternative that completely satisfies the project purpose and need;
- It is the only alternative that is a partially controlled access facility that will significantly reduce congestion, enhance vehicular, pedestrian and bicycle safety, improve network efficiency (ladder/rung), accommodate planned growth, improve bicycle/pedestrian connections, improve homeland security and improve quality of life – reduces travel time by more than 50% compared to No-Build Alternative;
- It conforms with local master plans;
- It is supported by Montgomery County Planning Board (November 2013);



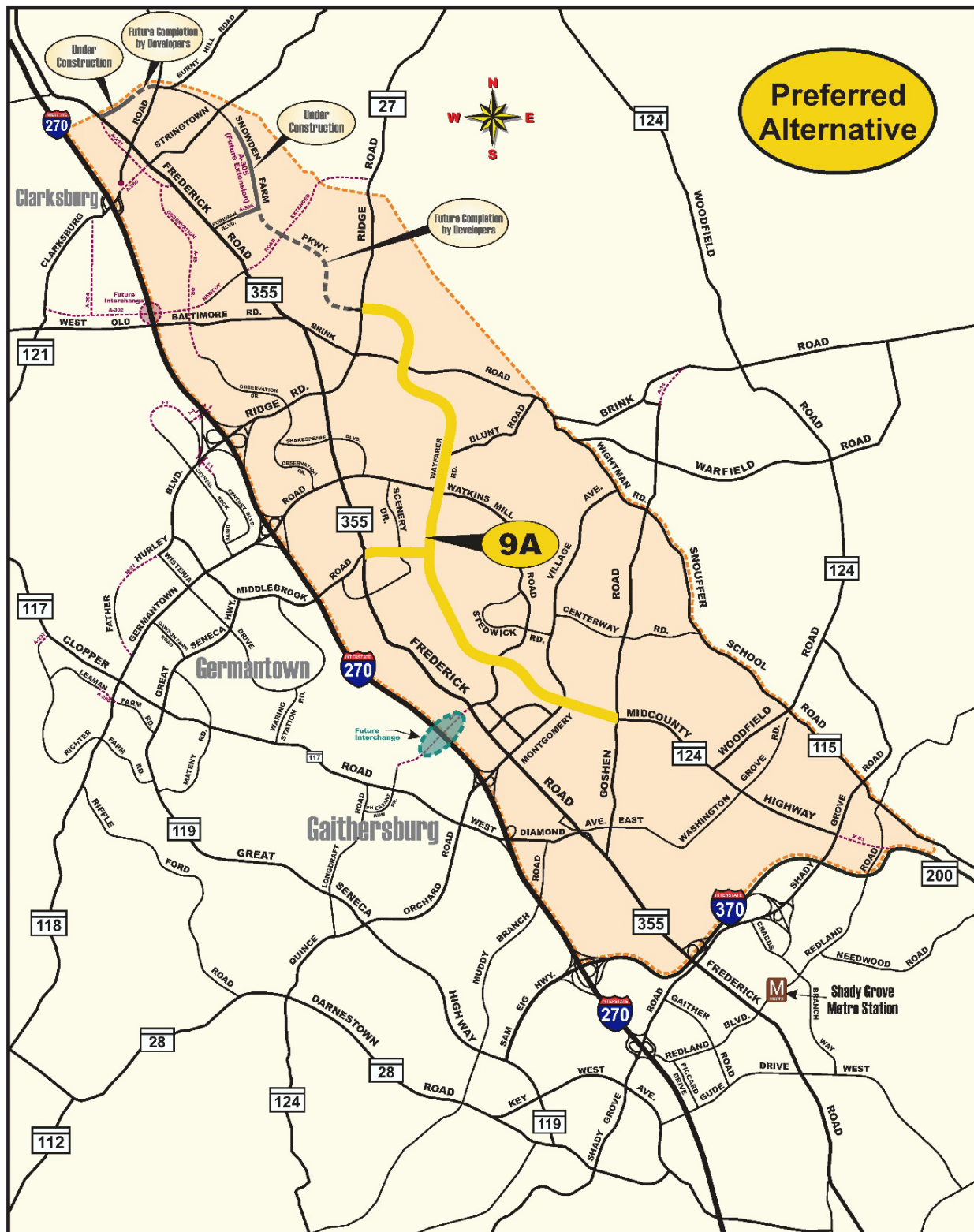


Figure S-4: Preferred Alternative (Alternative 9A)



- It can be completed in an environmentally sensitive manner with impacts to natural resources significantly reduced (less than one acre of wetlands fill) through a variety of avoidance and minimization strategies; and
- It has feasible mitigation plan identified that will effectively mitigate environmental impacts.

MCDOT has selected Alternative 9A as the preferred alternative because of its ability to completely and most effectively achieve the purpose and need of the project while minimizing impacts to jurisdictional wetlands and waters to less than one acre. Alternative 9A conforms to the alignment for Midcounty Highway identified in the study area master plans and includes construction of a new four-lane divided arterial from the Snowden Farm Parkway / Ridge Road (MD 27) intersection in Clarksburg to the existing Montgomery Village Avenue / Midcounty Highway intersection in Gaithersburg. Alternative 9A substantially outperforms the other alternatives in transportation effectiveness which was a key contributing factor to its selection as the preferred alternative.

More specifically, Alternative 9A:

- Most effectively accommodates the planned land use and future growth as specified in the area master plans;
- Is a top performer in its ability to reduce traffic congestion at area intersections;
- Will maximize network efficiency and roadway connections within the study area by completing the planned roadway network and “ladder grid”;
- Will provide the greatest improvement to travel safety because it enables the completion of the only partial access controlled facility within the study area and provides a roadway corridor with the lowest estimated crash rate among the alternatives;
- Will provide new bicycle and pedestrian facilities along the corridor including on-street bike lanes, off-street shared use path and sidewalk. Alternative 9A maximizes network efficiency and connectivity for bicyclists and pedestrians by providing a new north-south travel route and creating new connections to existing east-west roadways. Alternative 9A also offers the safest bicycle and pedestrian travel alternative since the new bike facilities and sidewalks are being constructed along a partial access controlled facility;
- When compared to the other alternatives, will maximize the ability to enhance homeland security within the study area. By constructing a new north-south travel route between Clarksburg and Gaithersburg, Alternative 9A will provide an alternative travel route and additional capacity should a major evacuation be required along this segment of the I-270 corridor; and
- Will enhance quality of life within the study area by relieving congestion, improving the network efficiency and reducing travel times for all users – including automobiles, bicyclists, pedestrians, and transit – of the new roadway and other area roadways.

Preferred Alternative Impacts and Mitigation Needs

Impacts to Wetlands and Streams have been identified for the Preferred Alternative and mitigation ratios and potential mitigation needs have also been identified based on discussions with the agencies (**Table S-2**). The estimate of mitigation required was based on mitigation ratios of 2:1 for forested wetlands, 1.5:1 for scrub-shrub wetlands and 1:1 ratio for emergent wetlands as well as a 1:1 ratio for permanent waters impacts. Impacts to parks, forest, and forest interior dwelling species (FIDS) have also been identified for the Preferred Alternative (**Table S-3**).

Conceptual Mitigation

An area wide search was conducted with federal, state and local agencies to identify potential sites to mitigate the project's estimated environmental impacts. A wide variety of mitigation opportunities have been identified within the Study Area that will effectively mitigate the estimated impacts to wetlands, streams, parklands, forest, and FIDS. **Figure S-5** is a map depicting the location of the following potential sites:

- Potential Wetlands and Stream Mitigation Sites (including Leishear Farms potential bank);
- Potential M-NCPPC Parks/Forest/FIDS Mitigation Sites; and
- Potential Mitigation site for City of Gaithersburg parks.

The figure relates locations of all the mitigation sites to the preferred alternative corridor, the study area, and existing Montgomery County park properties/open space.

Wetland and Stream Mitigation: MCDOT has identified the following seven sites for potential wetland and/or stream mitigation:

- **SC-21:** Great Seneca Park, Brink Road – Great Seneca Creek
- **GSMS 413-12:** Great Seneca Park, Watkins Mill Road, North Creek to Seneca Creek
- **High Meadow:** Muddy Branch Park, High Meadow Road – Muddy Branch
- **MC-SC-007:** Ovid Hazen Wells Park, Ridge Road – Little Seneca Creek
- **Cinnamon:** Seneca Creek State Park, Clopper Road – Gunners Branch
- **Sundown:** Rachel Carson Conservation Area, Sundown Road – Hawlings River
- **MC-SC-017:** Great Seneca Park, Watkins Mill Road – Great Seneca Creek/North Creek

Upon concurrence with the Preferred Alternative and Conceptual Mitigation plan by the participating agencies, MCDOT will proceed to coordinate with the agencies to identify a preferred wetlands/streams mitigation site and prepare a final Mitigation Plan to compensate for impacts associated with the Preferred Alternative. Based on the preliminary impact numbers

Table S-2: Summary of Wetland/Stream Impacts and Mitigation Requirement

RESOURCES	ALTERNATIVE 9A IMPACTS	MITIGATION REQUIRED
STREAMS		
Piped		
Perennial/Intermittent	256	485
Ephemeral	229	
Relocated	989	To be mitigated in-kind
Permanent (LF)¹	1,474	485
Temporary (LF)	60	--
NONTIDAL WETLANDS		
Fill	0.87	1.74*
Conversion	1.70	1.70
Permanent (ac)	2.57	3.44*
Temporary (ac)	0.82	--

NOTE: No mitigation is required for temporary impacts.

* Wetland Mitigation Required equals two times the permanent wetland fill area (mitigated at a 2:1 ratio) plus the permanent wetland conversion area.

Table S-3: Parks and Forest Impacts of the Preferred Alternative

Park Name	Total Park Area (ac)	ALTERNATIVE 9A IMPACTS			
		Park Land (ac) (%)	FIDS		Forest (ac)
			Direct (ac)	Indirect* (ac)	
Wildcat Branch Tributary Park (M-NCPPC Department of Parks)	14.95	0.88 (5.9%)	0.00	0.00	0.34
Seneca Crossing Local Park (M-NCPPC Department of Parks)	28.10	3.65 (13.0%)	0.00	0.00	0.93
North Germantown Greenway Stream Valley Park (M-NCPPC Department of Parks)	380.80	24.89 (6.5%)	18.14	53.08	24.35
Great Seneca Stream Valley Park (M-NCPPC Department of Parks)	2,012.85	14.72 (0.7%)	1.30	21.04	11.00
M-NCPPC Department of Parks Sub-Total	2,436.70	44.14 (1.8%)	19.44	74.12	36.62
Blohm Park (City of Gaithersburg)	24.33	2.56 (10.5%)	0.00	0.00	1.06
South Valley Park (Montgomery Village)	32.10	2.27 (7.1%)	0.00	0.00	2.09
Other Parcel(s)		0.00	0.00	0.00	33.13
TOTAL		48.97	19.44	74.12	72.90

* Indirect FIDS impacts include the portion of interior forest that will be converted to FIDS buffer.

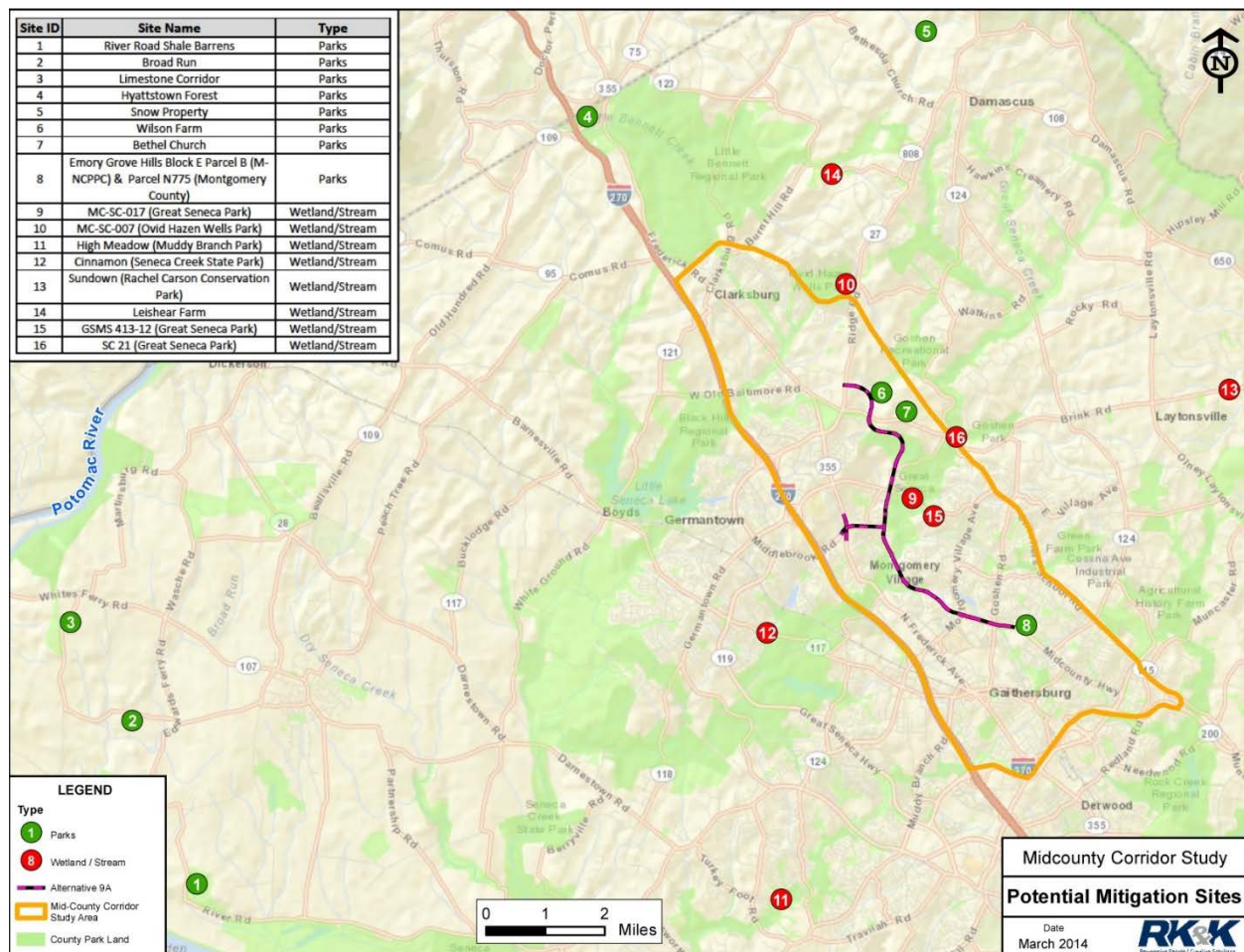


Figure S-5: Potential Wetlands/Streams, Parks Mitigation Site Location Map

presented for this alignment (**Table S-2**), the mitigation sites identified will provide ample mitigation for both streams and wetlands. It is anticipated that one to three of the sites will provide effective mitigation for the project. Since all sites are on Montgomery County park lands, there is high assurance that these sites will be available for mitigation and that final selection of the sites will depend on technical characteristics, ecological benefits, and park enhancement opportunities. MCDOT will coordinate with the USACE, MDE, and M-NCPPC, the land manager for each of these sites, to prioritize selection of the final mitigation sites.

Parkland, Forest, and FIDS Mitigation: MCDOT has identified the following seven sites for potential parkland, forest and FIDS mitigation:

- **River Road Shale Barrens** – Poolesville, MD
- **Broad Run** – Dickerson, MD
- **Limestone Corridor of Broad Run** – Dickerson, MD
- **Hyattstown Forest** – Clarksburg, MD



- **Snow Property** – Damascus, MD
- **Wilson Property** – Germantown, MD
- **Bethel Church Property** – Germantown, MD

Mitigation of parkland, forest, and FIDS impacted by the Preferred Alternative will be developed through collaboration between MCDOT, M-NCPPC and the park owners – M-NCPPC, the City of Gaithersburg and the Montgomery Village Foundation. The park mitigation will be based on providing replacement value for the property impacted by the Preferred Alternative including resources that are of comparable usefulness and functionality to the resources impacted by the Preferred Alternative. Desirable features of the mitigation sites include mature forests, native species, wildlife habitat, streams, wetlands, FIDS habitat, recreational opportunities, and potential connectivity to other protected lands.

MCDOT and M-NCPPC have identified several options within the study area and in proximity to the proposed corridor. Many of the sites are adjacent to existing parks or would provide connectivity between publicly owned lands. The sites are varied in their natural resource composition and all present opportunities for active and passive recreational uses. Through continued coordination, MCDOT and M-NCPPC will work to finalize a parks, forests, and FIDS mitigation plan that includes one or more of the identified mitigation sites.

Summary/Conclusion

Alternative 9A completely satisfies each component of the project purpose and need. In addition, environmental impacts have been significantly reduced through a wide variety of avoidance and minimization measures developed during the project planning process, and an effective mitigation plan has been developed to mitigate unavoidable impacts. Alternative 9A is consistent with local master plans and is supported as the preferred alternative by the M-NCPPC Planning Board. In summary, Alternative 9A is the least environmentally damaging practicable alternative (LEDPA) and is the Preferred Alternative for the project.

This *PA/CM* presents the basis for MCDOT's recommendation of the **Preferred Alternative – Alternative 9A** and identifies the conceptual mitigation strategies to effectively mitigate unavoidable environmental impacts that may result from the project. Upon concurrence of the Preferred Alternative, the study process will conclude with a *Final EER* to document the following:

- the rationale for agency concurrence of the Preferred Alternative,
- the final impacts and detailed mitigation plan for the Preferred Alternative,
- responses to the comments received on the *PA/CM*, and
- environmental practices that will be employed in the design and construction of the project.



MCDOT will submit the *Final EER* along with final wetland and stream mitigation plans to the permit agencies for the concurred upon Preferred Alternative and request the issuance of wetland and waterway permits by the USACE and MDE.

Acknowledgement

MCDOT would like to thank the Study Team, citizens of Montgomery County, community leaders, elected officials, and agency representatives for the patience, expertise, and insights you have provided during the ten year study of this important transportation improvement for Montgomery County.

