

Attachment A – Master Plan History and Environmental Legislation

1955 – Master Plan of Highways

The 1955 Master Plan of Highways did not include the Midcounty Highway because M-NCPPC's jurisdiction, the Maryland-Washington Regional District, did not extend to that area of Montgomery County. The remainder of Montgomery County was added to the M-NCPPC jurisdiction upon adoption of the 1964 General Plan.

1961 – A Plan for the Year 2000: The Nation's Capital

The National Capital Planning Commission and the National Capital Regional Planning Council developed a regional Plan, *A Plan for the Year 2000*, in 1961. It covered the District of Columbia, Montgomery, Prince George's, Arlington, Fairfax, Loudoun and Price William Counties, and the various cities within the geography including Alexandria. While not adopted by M-NCPPC, this document and its Radial Corridor Plan and Model Corridor Community designs inspired the Corridors and Corridor Cities in the 1964 General Plan.

The Plan recommends "a pattern of growth" to address the region's "problems—traffic congestion, water pollution, vanishing open space, crowded schools, rising taxes, obsolescence, blight." The recommended policies include:

- "The creation of relatively compact, well-planned suburban communities;
- "The concentration of the new communities in corridors radiating from the central city;
- "Greater reliance on mass transportation;
- "Limiting the freeway system largely to the routes already planned; ...
- "The reservation of major portions of the countryside as permanent open space..."

1964 – On Wedges and Corridors

A General Plan for the Maryland-Washington Regional District in Montgomery and Prince George's Counties, approved in 1964 and generally called *On Wedges and Corridors*, reflects the corridors for urban development established in the 1961 regional plan, *A Policies Plan for the Year 2000: The Nation's Capital*. The *Year 2000 Plan* emphasizes rapid transit, freeways, and the creation of complete new communities in the corridors, and recommends that areas outside the corridors should be kept open.

On Wedges and Corridors updated the 1957 General Plan, by expanding the M-NCPPC Planning Area Jurisdiction, and placed a strong emphasis on the development of mass transit as a necessary part of a comprehensive transportation network for the Washington D.C. region, with an emphasis on Montgomery County. Page 18 of the Plan states that

"An efficient system of transportation must include rapid transit designed to meet a major part of the critical rush-hour need. Without rapid transit, highways and parking garages will consume the downtown areas; the advantages of central locations will

decrease; the city will become fragmented and unworkable. The mental frustrations of congested highway travel will take its toll, not to mention the extra costs of second cars and soaring insurance rates. In Los Angeles where an automobile dominated transportation system reigns supreme, there is still a serious commuter problem even though 'Approximately two-thirds of the city's downtown section is given over to streets and parking and loading facilities.'¹ There is no future in permitting the Regional District to drift into such a 'solution.'"

Of the original six corridors in the region, only the I-270 Corridor is located in Montgomery County. *On Wedges and Corridors* describes two rapid transit routes in the I-270 Corridor, and two new corridor cities, Gaithersburg and Germantown. The map accompanying the Plan shows rapid transit following the current CSX line. No proposed road appears in the vicinity of the current Midcounty Highway alignment.

1966 – Germantown

The 1966 Germantown Master Plan's introduction begins, "This master plan for the development for Germantown is the first attempt to create a 'Corridor City' as proposed in the *Wedges and Corridors General Plan...*" As the Plan described them, "each new corridor city will have a densely built but well-designed core in the center, with a rapid transit station under a pedestrian plaza or perhaps an air-rights structure. Tall buildings around the station will house shopping facilities, offices, and apartments, all within easy walking distance."

This Plan anticipated the Metro being extended to Germantown along the then Baltimore and Ohio Railroad right-of-way. The station, and the area with Germantown's highest density, would be near the current MARC station, at MD118 and the railroad right-of-way, rather than near I-270 (referred to as I-70-S or 70-S in this Plan). Additional stations would include a "park and ride commuter station at Waring Station Road, and a terminal station near Little Seneca Creek. This facility could be a combination commuter and college stop station." In 1967, Montgomery College's Germantown Campus was proposed at Little Seneca Creek Lake.

An extensive roadway network was developed to serve the new Corridor City with this Plan, primarily using major highway classification for new circumferential "ring roads." North of Ridge Road, for example, MD 355 was proposed to curve south, crossing I-270 and the railroad/transit line, then curve east to cross MD118, before dropping to an arterial classification at Clopper Road.

M-5 (later M-83 and Midcounty Highway), was introduced to replace MD355: "Two new highways, M-3 and M-5, are proposed to serve as parallel routes to 70-S [now I-270] and to permit traffic to by-pass the two community centers. Route 355 is scheduled to serve as a

¹ "The Revolt Against Big-City Freeways," *U.S. News and World Report*, Jan. 1, 1962, p. 49.

portion of the ring road between Middlebrook and Neelsville and will be replaced as a major highway to the up-county area by M-5.”

Existing and proposed roads running parallel to I-270 included seven major highways or arterial roads:

No.	Name or Location	From	To
M-2	Clopper Road	Gaithersburg	Boyds
M-3	New highway	Darnestown	Toward Barnesville
M-5	M-83 and Midcounty Highway	Montgomery Village	Brink Road
A-1	Parallel to/east of MD 355 (becomes MD 355)	Middlebrook Road	MD 355 at Ridge Road
A-2	Near future Observation Drive--extended	MD 355 (Fox Chapel)	Old Baltimore Road
A-4	Near future Crystal Road Drive--extended	Father Hurley Blvd	Old Baltimore Road
A-5	Near future Wisteria Blvd—extended	Middlebrook Road	Clarksburg Road, Boyds

An alignment for the third beltway was not included in the Plan: “A route for the future third beltway was explored during the preparation of the plan, but was not considered as a possibility in the Germantown area as it would create substantial problems in community design and an interchange treatment at its intersection with 70-S [I-270].”

1967 Preliminary Master Plan of Highways

Although never adopted by the Commission, the *Preliminary Master Plan for Highways* shows M-83 beginning at Norbeck Road near Georgia Avenue, nearly paralleling Muncaster Mill, and then roughly paralleling MD355 through the future Montgomery Village area and Germantown, linking to Brink Road at MD27. The alignment then follows Brink Road and MD355 until it reaches Clarksburg where it diverges from but parallels MD355 briefly, then rejoins MD355 through Hyattstown to the Frederick County line. The road was classified as a major highway with a 120-foot right-of-way and six lanes.

1968 – Clarksburg and Vicinity

The Clarksburg and Vicinity Master Plan describes Clarksburg as a far less dense community than Germantown. While “transit service to 70-S employment centers should be used, where possible,” the Plan does not anticipate that Metro will extend past Germantown. The Plan’s transportation policies focus on roads:

“Transportation efficiency will be facilitated by encouraging and controlling high-density development close to major transportation routes and interchanges, by improving existing roads, and by adding new ones. Employment centers should have access to major transportation routes, but development should not be so intense as to cause congestion...

“...Two new arterial roads are proposed—A-19 and A-22. Connecting to the road network in Germantown, these arterials will parallel 70-S on the northeast and

southwest sides, providing an important link between the two communities and providing access to the industrial land along 70-S.”

In this Plan, Midcounty Highway joins Brink Road by the Germantown Plan boundary, and then becomes MD355. Within Clarksburg, MD355 is realigned slightly to the east to avoid the commercial area.

1969 – Updated General Plan

The 1969 update of the General Plan contained a chapter on Circulation which recognized the importance of rapid transit and locating roadways with consideration of environmental and conservation factors. Objective B called for providing a coordinated rail-bus transit system capable of shaping desirable growth patterns, and Objective E that specified that we “explore and utilize all known traffic engineering techniques before resorting to construction of major relief highways through such [urban built-up] areas.”

1971 – Gaithersburg Vicinity

The need for transportation systems that include both highways and transit are reflected in subsequent Master Plan recommendations. The 1971 *Gaithersburg Vicinity Master Plan* calls for construction of M-83: “A precise alignment was established several years ago, and portions of the right-of-way have already been reserved through the subdivision process. Some portions may actually be constructed as development occurs (in the Montgomery Village area, for example). The construction of the Eastern Arterial is designated as a State responsibility; and its improvement should be reprogrammed, so that a usable segment will be constructed within the next five years” (page 15). The 1971 plan also called for construction of the “Outer Beltway,” as well as the widening of Route 355 to six lanes, including “the flaring out of intersections and the installation of standby left-turn lanes” (page 15). The Plan also calls for rapid transit: “The provision of rail rapid transit at some future time is the key to the planning and development of the Gaithersburg corridor city. Even with a highly developed freeway system, the road system alone would be incapable of moving sufficiently large numbers of people with speed and comfort. The expectation that the population of the corridor city will increase to over 150,000 persons before the end of the Century is premised upon the supposition that rapid transit will be a reality long before that time” (page 20). The 1971 plan also recommended commuter rail, bus transportation, and pedestrian systems as part of the transportation system.

1974 – Germantown

The 1974 *Comprehensive Amendment to the Master Plan for Germantown* begins with an outline of the “deficiencies in the 1967 Master Plan for Germantown,” which include deficiencies in the transportation system. A consultant found that the single interchange at I-270 and MD 118 was insufficient for the projected traffic volumes, and that “the extent of mileage of major roads within the planning area is far in excess of that required for communities of comparable size and population.” Further, Metro would not be extended to Germantown “in the near future... The effect will be to cause overloading of the road network and to increase the need for alternative transportation modes and facilities.”

The *Amendment* makes several significant changes:

- A new, staged transit system is proposed:
 - first, upgrade commuter rail and bus service;
 - second, construct an exclusive bus transit right-of-way from north of Middlebrook Road, running parallel with I-270 to the Metro terminus; and
 - third, upgrade the bus transitway to an extension of Metro. The proposed alignment roughly follows the current CCT alignment. The Plan recommends the transitway continue to Frederick.
- The main transit node—the recommended densest portion of Germantown—is moved from the MARC station area to the current location near MD118 and Aircraft Drive, to coincide with the new transitway.
- Rather than creating a “loop” road system, create a “ladder” system.
- Abandon the interchange at I-270 and MD118. Add new interchanges at Middlebrook Road and MD27/Father Hurley Boulevard.

As part of the new ladder system, the MD355 loop alignment is abandoned and returned to the historic alignment to Clarksburg. The loop portion crossing I-270 is instead created by realigning MD27 and adding a new road—the future Father Hurley Boulevard.

Midcounty Highway is designated the Eastern Arterial in this plan. At the northern end, it still connects to Brink Road, which joins MD355 just outside of the Plan boundary. The Western Arterial also appears in this Plan; it will become Great Seneca Highway, connecting Darnestown Road to Middlebrook Road.

Roads removed from the Plan include the new major highway south of Clopper Road, the connection of Crystal Rock Drive to Clarksburg, and the connection of Wisteria Drive to Boyds. The proposed Observation Drive partly shifts west to Seneca Meadows Parkway, and the Observation Drive connection from MD118 to Middlebrook Road is removed. Instead, the relocated Montgomery College Germantown Campus will be built there.

1985 – Gaithersburg Vicinity (amended 1988 and 1990)

The 1985 *Gaithersburg Vicinity Master Plan*, including plan amendments in 1988 and 1990, listed the following Goals and Guidelines for transportation (page 73):

- Develop a highway network in coordination with the existing regional network.
- Develop quality public transportation systems and advance private ride-sharing and carpooling programs to reduce dependence upon single-occupancy automobile commuting.
- Encourage adequate residential and employment densities to support efficient public transit and carpool/vanpool programs.
- Encourage the provision of bikeways for commuter as well as recreational uses.
- Encourage the development of public and private pathways for pedestrian movement in concert with road design and construction.

The 1985 Plan recommended construction of Midcounty Highway (Eastern Arterial), as well as construction of I-370. An “Outer Beltway” having been rejected by the State of Virginia, plans for the Outer Beltway were modified, deleting construction west of I-270, and incorporating the remaining portions of the Outer Beltway into the ICC and the proposed Rockville Facility. The 1985 Plan also recommended a Mass Transit Plan (page 81) that would “include commuter rail, Metro, transit easements, and bus service.” There was also a Bikeway Plan and a proposed Equestrian Trails System (page 84). The 1985 *Gaithersburg Vicinity Master Plan*, with its subsequent amendments in 1988 and 1990, represents the latest area Master Plan guidance for the Gaithersburg Vicinity.

1989 – Germantown

The 1989 *Germantown Master Plan* was undertaken, in part, to “change land uses and residential densities recommended in the 1974 Master Plan in order to address environmental issues in certain areas, modify the housing mix by giving greater emphasis to detached dwelling units, and increase densities near transit,” among other items. The transit alignment straddling I-270 is proposed (one of the eight alignments being considered) and five transit station locations are recommended. The Plan notes that the rapid rail transit (Metro) envisioned in the General Plan has not been extended to the Corridor Cities, as envisioned in the General Plan.

The roadway system for the Plan includes three objectives:

- “Provide a roadway network that enhances the character of existing and new development.
- “Design roadway alignments that respect the quality of the existing natural environment.
- “Provide rights-of-way that are sufficiently wide to permit visual and acoustic buffers, both man-made and natural.”

The Plan describes four road types—limited access freeway, major highway, employment access road, and residential arterial. Midcounty Highway is a major highway:

“Eight major highways are located in Germantown, some of which are part of the historic road network, such as MD355 (Frederick Road), MD117 (Clopper Road), MD27 (Father Hurley Boulevard/Ridge Road) and MD118 (Germantown Road). Of the remaining major highways, Great Seneca and Midcounty Highways are commuter roads that link Germantown to employment areas beyond the planning area....”

This Plan proposes the realignment of Midcounty Highway at the north side of the plan area, crossing Brink Road and following the alignment of Wildcat Road (north of the Germantown Master Plan area), instead of following the alignment of Brink Road. Alignment change alternatives are also proposed for the Clarksburg Master Plan area. The Germantown Master Plan states, “This alignment change would increase the traffic capacity in Clarksburg.”

1993 – General Plan Refinement

The 1993 *General Plan Refinement of the Goals and Objectives for Montgomery County* reiterated the need for transit. Renaming the “Circulation Goal” in the 1964 *General Plan* to the “Transportation Goal” in the 1993 *General Plan Refinement*, the Plan noted that “One important conceptual change in this goal is the movement away from accommodating travel demand and towards managing travel demand and encouraging the availability of alternatives to the single-occupant vehicle. The Refinement effort thus abandons phrases such as “carry the required volume” and “accommodate travel demand” because the demand for single-occupant vehicle travel will usually outstrip the County’s ability to meet it” (pg. 61). The eight Objectives identified within the Transportation Goal (pages 63-65) are:

1. Develop an interconnected transportation system that provides choices in the modes and routes of travel.
2. Provide appropriate access to, around, and within communities by using a full range of travelways.
3. Improve the efficiency of the existing and planned transportation system by managing its supply and demand.
4. Provide a transit system in appropriate areas of the County that is a viable alternative to single-occupant vehicle travel.
5. Reduce traffic delays on the road system without eroding the quality of life in surrounding communities, unless alternatives to the single-occupant vehicle are not available.
6. Provide pedestrians and bicyclists safe, direct, and convenient means of travel for transportation and recreation.
7. Prevent degradation to the overall quality of the air, land, and water in the provision and use of the transportation system.
8. Maximize safety in the use of the transportation system.

1994 – Clarksburg and Hyattstown

The 1994 *Clarksburg Master Plan and Hyattstown Special Study Area* affirms the 1968 recommendation for a town scale of development, and “proposes a system of highways, transit routes, and bikeway/pathways to support future development. Major emphasis is placed on transit in accord with Plan objectives to make Clarksburg a transit-oriented community.” Three transit stops with higher recommended densities are proposed along the Corridor Cities Transitway alignment. The Plan also calls for improved MARC rail service and park-and-ride lots.

Midcounty Highway is listed among the Development Commitments in the Plan: “Midcounty Highway, a proposed highway that will link Clarksburg to Germantown and Gaithersburg, is part of the Plan but it is designated an arterial rather than a major highway through Clarksburg.” One of the realignments proposed in the 1989 Germantown Master Plan is adopted and refined as a four-lane divided arterial through Clarksburg, and as a six-lane divided limited access highway from Germantown to MD27. The Plan states, “M-83/A-305 is designed to:

- “Provide connections between Clarksburg, Germantown, and Gaithersburg.
- “Provide traffic capacity parallel to I-270, A-19, and MD 355.
- “Provide access to residential development in the eastern areas of Clarksburg, Germantown, and Gaithersburg.
- “Provide a bypass of the office and industrial areas along I-270.”

The Plan also notes: “M-83 will be designed to mitigate its impact on Wildcat Branch in the Great Seneca Creek watershed and its tributaries. The need for M-83 will be reexamined in the context of the next update to the *Germantown Master Plan*.”

2009 – Germantown Employment Corridor

The Germantown Employment Area Sector Plan examined a limited portion of Germantown, roughly between MD355 and the CSX tracks. The Plan will “complete the economic core envisioned in the General Plan, increase employment, [and] organize communities around transit. Key recommendations include:

- “Design and fund the Corridor Cities Transitway (CCT) as an essential feature of Germantown’s evolution. Transit, including the MARC station and bus service, is essential to addressing traffic congestion and building a sustainable community. The CCT will connect Germantown to the Metro Red Line and the County’s Life Sciences Center.
- “Create transit-served, mixed use neighborhoods that include public facilities, enhance existing communities and shape new ones, using references to Germantown’s history and natural features.”

Five CCT stations are included in the Sector Plan area. Germantown’s density is concentrated at those stations to create lively, walkable, transit-serviceable neighborhoods.

Midcounty Highway is outside of the Sector Plan boundaries, so recommendations were not part of its scope. One of the alternatives under study, the widening of MD355, would impact the Sector Area: “This Plan recommends a 250’ right-of-way for Frederick Road (MD355)

pending completion of the Midcounty Highway Extended (M-83) and Countywide Bus Rapid Transit facility planning studies. Following completion of these studies, the Council may by resolution set a smaller minimum right-of-way, but not less than 150'." This recommendation extends for the portion of MD355 from Great Seneca Creek to Little Seneca Creek.

2011 – Housing Elements of the General Plan

The 2011 Housing Element of the General Plan notes the shrinking supply of developable land, and states, "It is clear that County housing needs cannot be met by traditional patterns of low-density development that pushed ever outward. As transportation costs grow, the cost of commuting can cancel out any reduction in housing costs, not to mention the effect of increased miles of travel on both air quality and roadway congestion." The first objective listed in the Plan is:

"Housing and Neighborhood Connectivity: Concentrate most new housing near public transportation and provide easy, multi-modal connections to jobs, schools, shopping, recreation, and other leisure activities."

Protections are also recommended in the Plan—protection of existing affordable housing near transit routes, and protection of neighborhoods from excessive traffic and spill-over parking. The Plan includes multiple links between the needs of affordable housing and transit availability.

Environmental Legislation

Since M-83 was first proposed in the 1966 Germantown Master Plan, there have been dramatic changes in both our knowledge of ecology and in our understanding of threats to our environment. These changes have led to numerous pieces of legislation intended to protect our natural environment as our built environment continues to grow and develop. The following provides a framework for public agencies to assess potential impacts of projects, such as M-83, and provides guidance for Planning staff's recommendations on those projects.

On a Federal level, legislation enacted since Midcounty Highway was originally proposed includes the 1970 Clean Air Act (amended in 1990), the 1970 National Environmental Policy Act (NEPA), the 1973 Clean Water Act (amended in 1977), and the 1973 Endangered Species Act. Indeed, it is this Federal legislation that mandates the analysis of alternatives being considered for Midcounty Highway. Environmental legislation enacted by the State of Maryland includes the Maryland Economic Development, Resource Protection, and Planning Act of 1992, which strengthened protection of the Chesapeake Bay, Potomac and Patuxent Rivers, wetlands, tree cover, and other sensitive environmental features. At the local level, environmental initiatives in the County have resulted in legislation that includes the 2011 Forest Conservation law and 2007 Stormwater Management regulations. Advancements in ecological knowledge include an increased understanding of biological diversity and how biodiversity is being threatened, increased awareness of the environmental functions performed by wetlands, floodplains and forests, and an increased knowledge of the growing threat posed by Climate Change. Concern over Climate Change spawned several additional Montgomery County Bills in 2007, including bill number 32-07, which establishes a goal to stop increasing greenhouse gas emissions by the year 2010, and to reduce emissions to 20 percent of 2005 levels by the year 2050, and bill number 34-07, which requires the Planning Board to estimate the carbon footprint of areas being master planned, and to make recommendations in master plans for carbon emissions reductions. Continuing research on the growing effects of Climate Change makes it clear that reducing greenhouse gas emissions is imperative if we are to preserve a livable environment for succeeding generations of human beings.

Recommendations included in the 1993 Approved and Adopted *General Plan Refinement of the Goals and Objectives for Montgomery County* were shaped by an increased environmental awareness and many of the pieces of legislation described above. Among the Environmental Objectives established in the *Refinement* (pgs. 70-73) are:

- Preserve natural areas and features that are ecologically unusual, environmentally sensitive, or possess outstanding natural beauty.
- Protect and improve water quality.
- Conserve County waterways, wetlands, and sensitive parts of stream valleys to minimize flooding, pollution, sedimentation, and damage to the ecology and to preserve natural beauty and open space.
- Preserve and enhance a diversity of plant and animal species in self-sustaining concentrations.
- Protect and improve air quality.

- Increase and conserve the County's forests and trees.
- Protect residents and workers from unacceptable noise levels.
- Promote the efficient use of energy and plan for the County's long-term energy needs.

Under this last bullet, recommended strategies in the *Refinement* include:

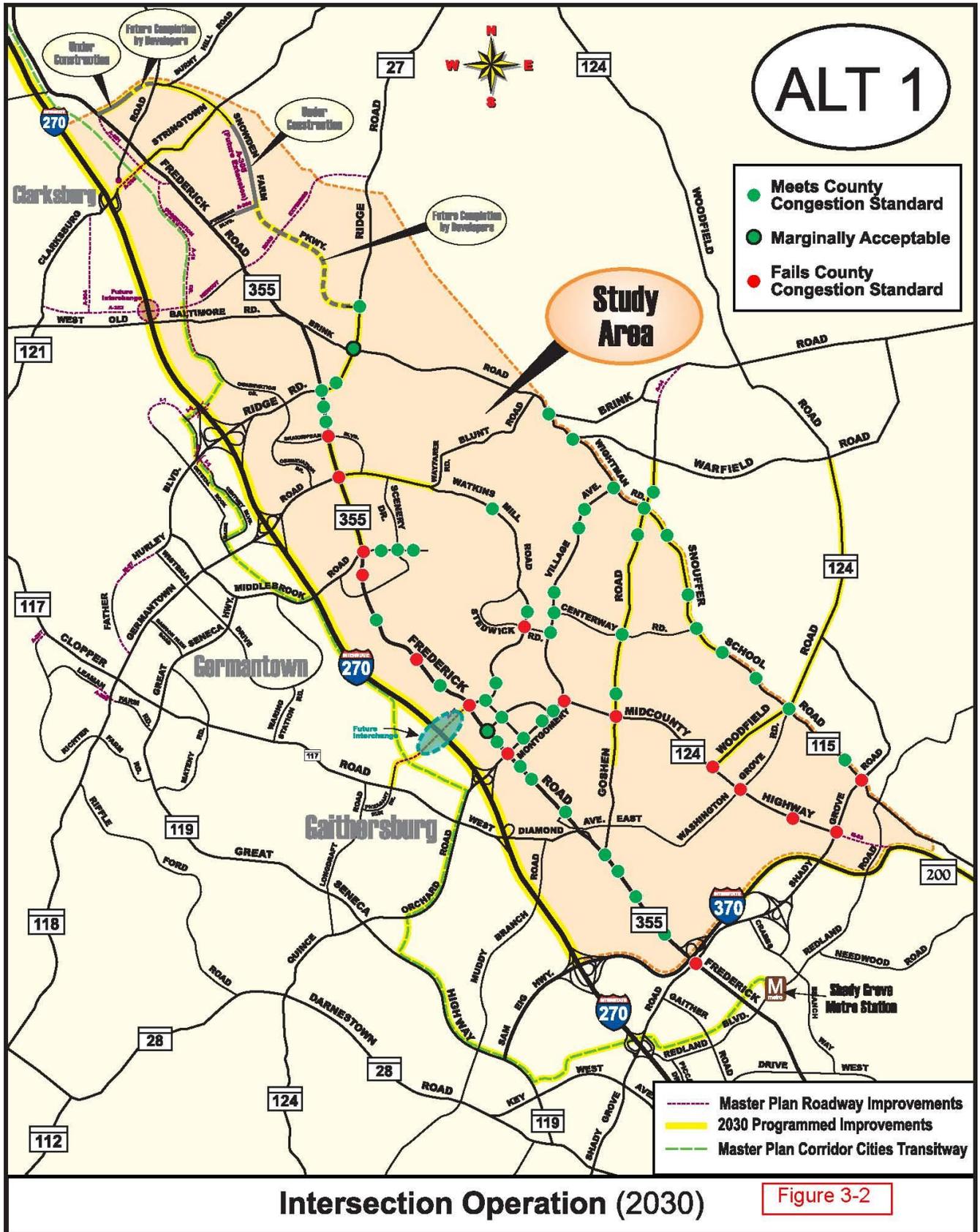
- Encourage the location of housing, employment, and shopping in proximity to each other and to transit facilities and services to reduce travel distances and promote energy conservation.
- Encourage environmentally preferable alternatives to fossil fuel consumption such as solar power.
- Promote the development of facilities that encourage cycling, walking, and the use of transit and other vehicles.

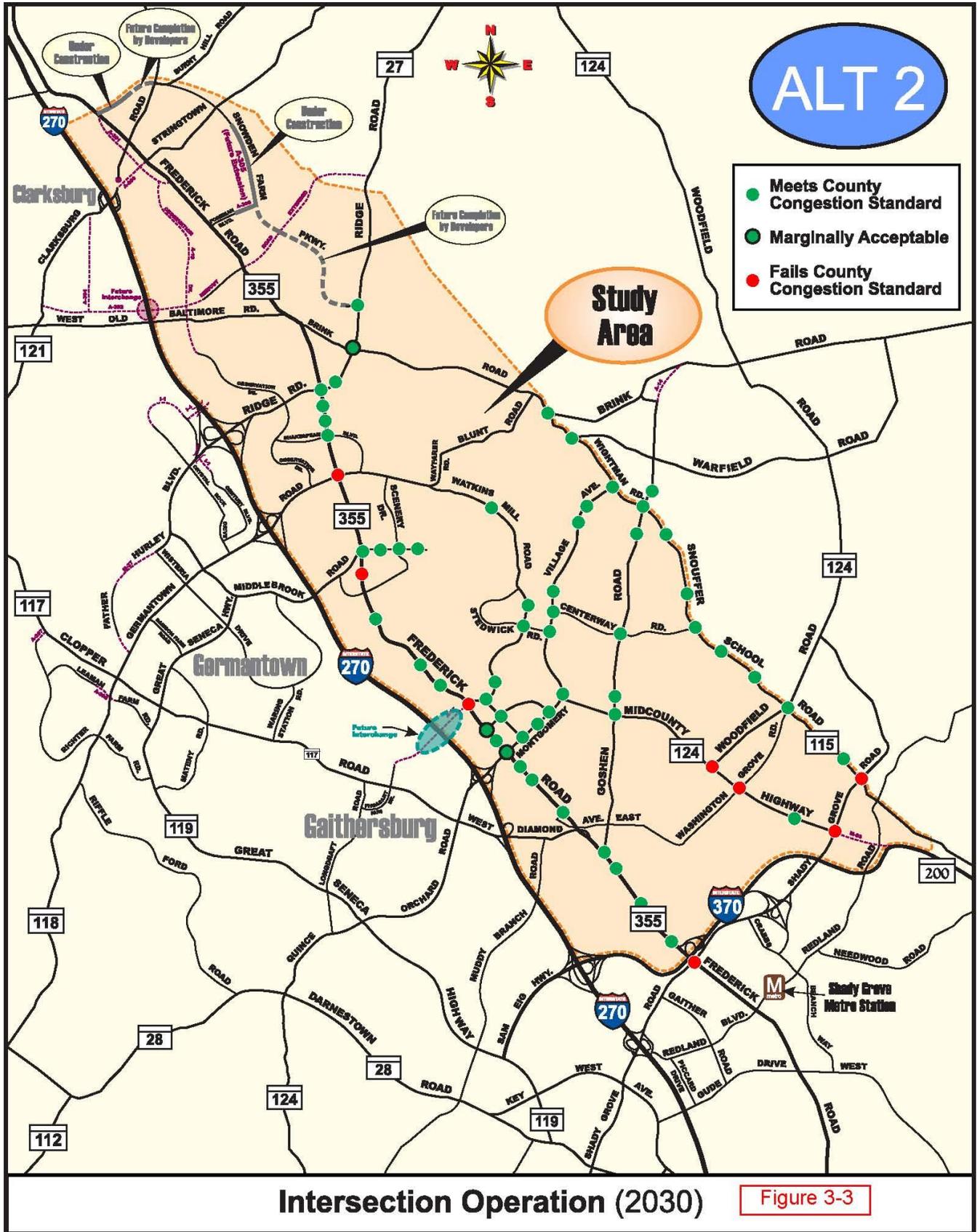
Recognizing that transportation facilities can negatively affect the environment, the Transportation Goal of the *Refinement* included an Objective (number 7, page 65) to protect the environment while developing transportation systems in Montgomery County:

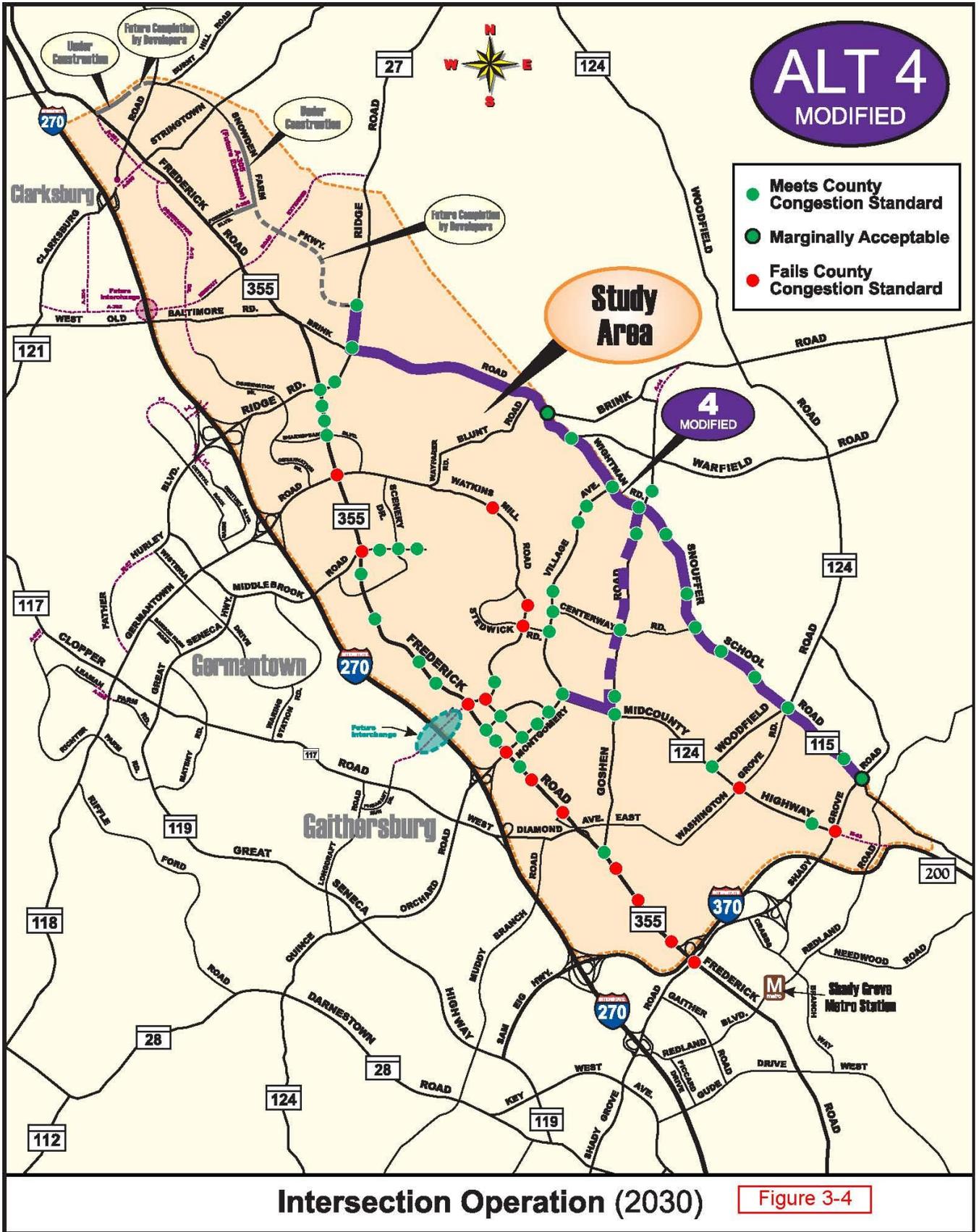
- Prevent degradation to the overall quality of the air, land, and water in the provision and use of the transportation system.

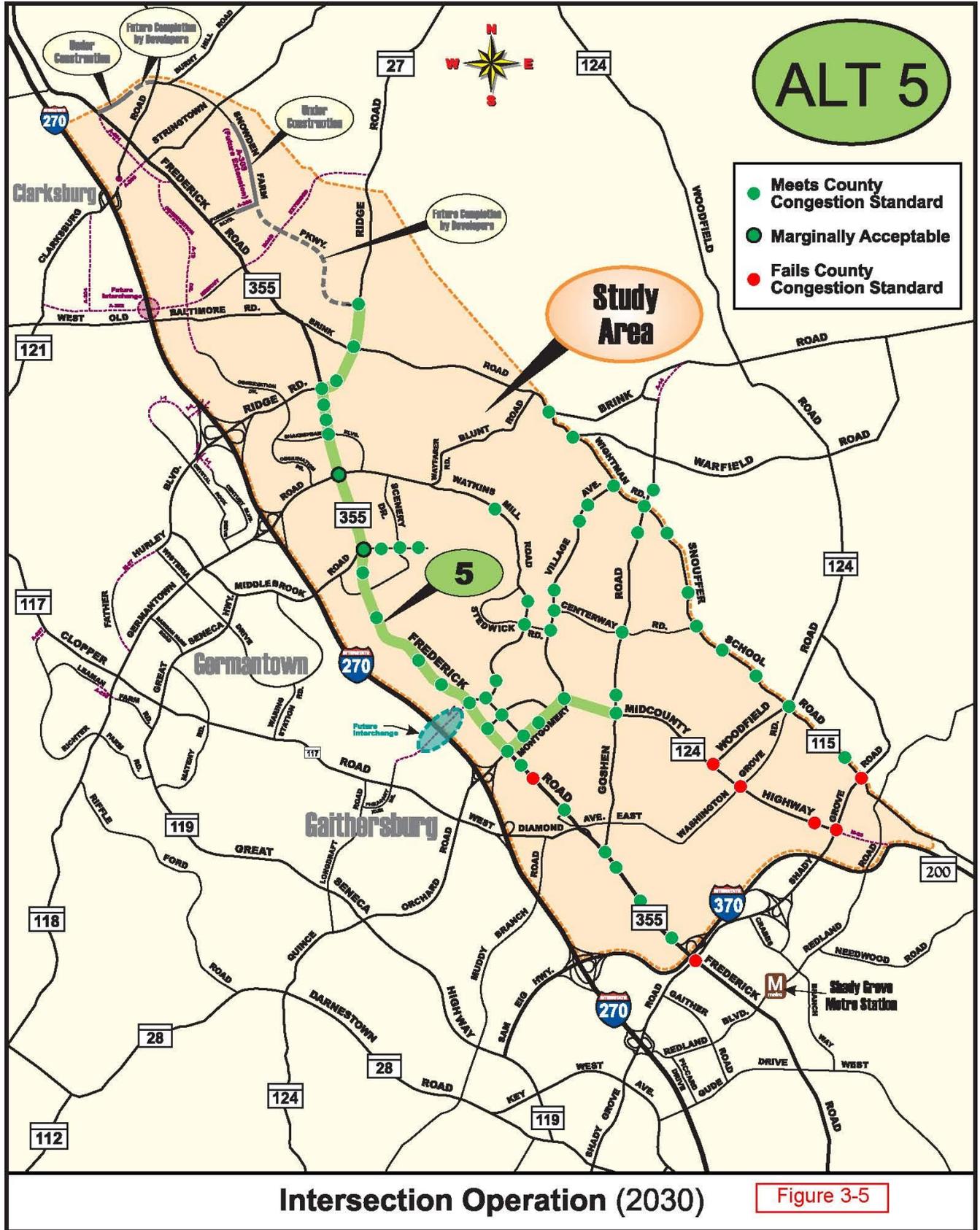
Strategies to implement this objective are:

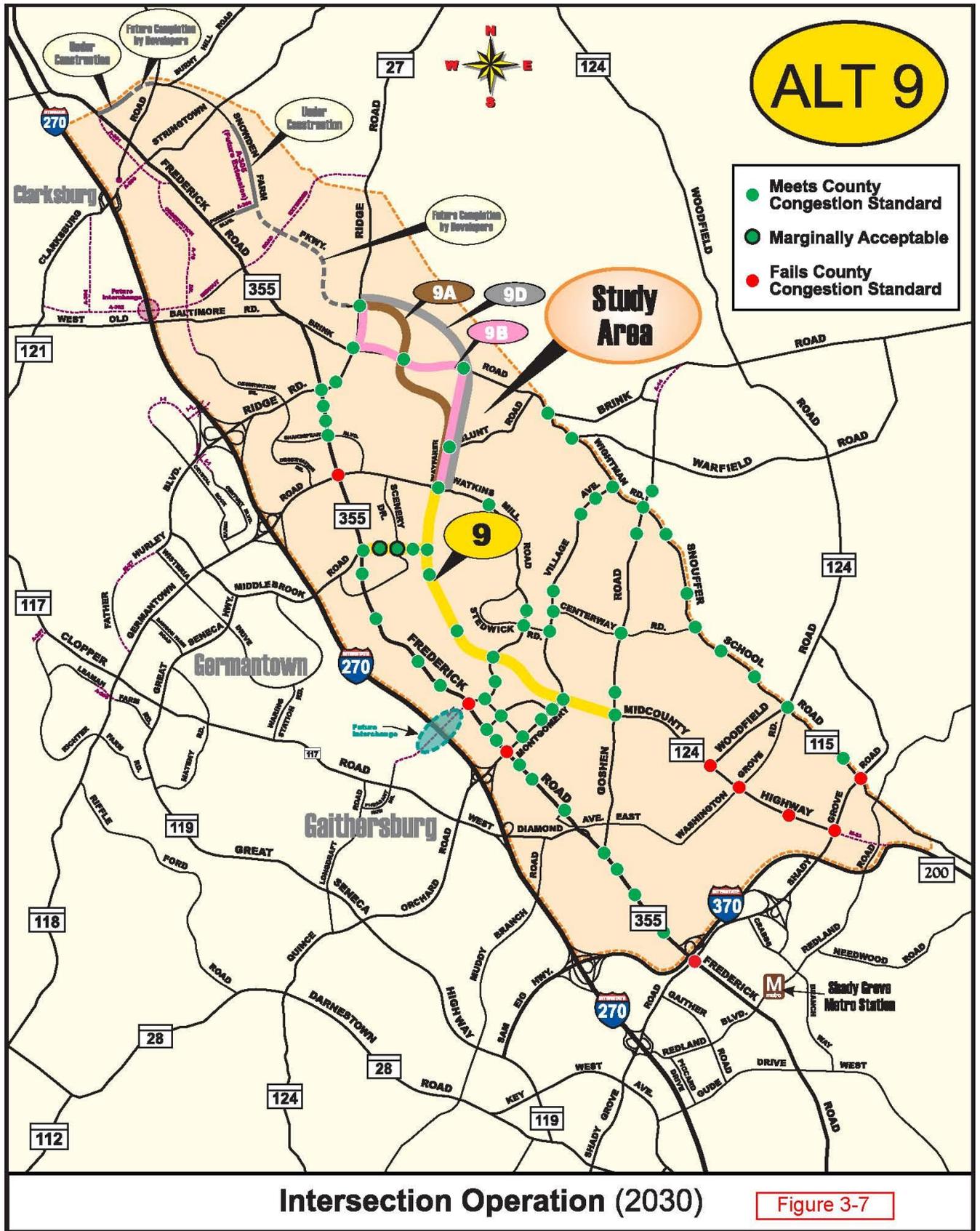
- Avoid, minimize, or mitigate impacts on wetlands, watersheds, forests, and other natural resources.
- Give priority to transportation projects and policies that promote efficient use of energy and attain clean air standards.
- Support land use decisions by encouraging alternatives to the internal combustion engine and the use of fossil fuels.
- Protect neighborhoods from excessive road noise.
- Support land use decisions by reducing negative impacts on water quality from water and chemical road runoff from pollutants emitted by the internal combustion engine.













DEPARTMENT OF TRANSPORTATION

Isiah Leggett
County Executive

November 6, 2013

Arthur Holmes, Jr.
Director

Chairwoman Françoise Carrier
Montgomery County Planning Board
8787 Georgia Avenue
Silver Spring, Maryland 20910

RE: Planning Board Tour on October 3, 2013 for the Midcounty Corridor Study

Dear Chairwoman Carrier,

We thank you, the Commissioners, and staff for inviting the Department of Transportation (DOT) to join in the October 3, 2013 field tour of the Midcounty Corridor Study (MCS). Issues were raised and discussed during the tour including potential impacts to Watkins Mill Road, Dayspring Retreat Center and the North Germantown Greenway Stream Valley Park and Biodiversity Area. To help clarify the potential effects of Alternatives 8/9 at these locations and sites, below is information for the Board to consider in your evaluation and consideration.

Watkins Mill Road Intersection

Alternative 9 is the complete master plan alignment and includes a 4-leg signalized intersection at Watkins Mill Road. The improvements will not impact Whetstone Run, adjacent wetlands/floodplain, Watkins Mill Elementary School property, or the recreational facilities in South Valley Park. Roadway improvements north of Watkins Mill Road will impact the City of Gaithersburg's Blohm Park and some of its amenities. We will take necessary measures to minimize and mitigate impacts.

Dayspring Retreat Center

The Dayspring Retreat Center provides silent environment for reflection and prayer. The lodge and adjacent inn are the primary facilities used by patrons. Alternative 8/9 is planned within the existing dedicated right-of-way which is located to the east of existing Wayfarer Road (see attached map). The lodge is approximately 1400 feet from the limits of disturbance with approximately 400 feet of forest buffer.

Concerns were raised about the potential highway noise that the proposed improvements would create. The County's Highway Noise Abatement Policy (HNAP) recognizes that special consideration should be given to properties for which serenity and quiet are of significance but does not define a noise impact threshold. However, the Federal Highway Administration defines the threshold at 57 dBA. Our analysis indicates that the 57 dBA contour is located approximately 300 feet from the centerline of Alternative 8/9 and the 67 dBA is approximately 150 feet. Both contours are within the 400 foot forest buffer abutting Alternative 8/9. Consequently, we are confident that the 57 dBA threshold would unlikely be exceeded in the vicinity of the lodge, inn and outdoor reflecting area as a result of the proposed improvements related to Alternative 8/9. During design, we will perform further noise analysis and determine if abatement is necessary.

Division of Transportation Engineering

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North Germantown Greenway Stream Valley Park and Biodiversity Area

This portion of Dayspring Creek is characterized by a unique bedrock streambed and a wide variety of rare and uncommon plant species and contains the highest quality and variety of resources within the Park's Biodiversity Area.

The Alternative 8/9 bridge crossing of Dayspring Creek for all northern terminus options (A, B, D) would be located approximately 2,500 feet (1/2 mile) downstream of the visited location. We believe this portion of the stream valley is located within the Park's biodiversity area; however, the quality and variety of resources are not as significant as in the upstream portion of the stream valley. Streambed in this area is not the bedrock streambed as in the area of the walking tour.

Northern terminus Option D was developed at the request of the Parks Department to minimize impacts to the park and the highly valued biodiversity area. Unlike Option A, Option D's geometry does not impact the drainage area to the high quality streambed portion of the stream.

Mr. Charles Tilford, a local resident, provided a handout and identified the following:

M-83 Master Plan Alignment was designated on the Master Plan in 1966. All County parkland along the M-83 alignment was purchased by the County *after* the 1966 Master Plan. Much of the County parkland surrounding the Dayspring Retreat Center property was purchased by the County between 1979 and 1982, well after the M-83 alignment was published in the 1966/1974 Master Plans.

Historical aerial photographs show that significant parkland purchased along the master plan alignment at the northern terminus was prior agricultural fields. Since their purchase, these farmlands have naturally regenerated into mature forest. This natural regeneration of forest filled the open gaps within the surrounding forest and has enabled the park's forest to become suitable forest interior dwelling species (FIDS) habitat.

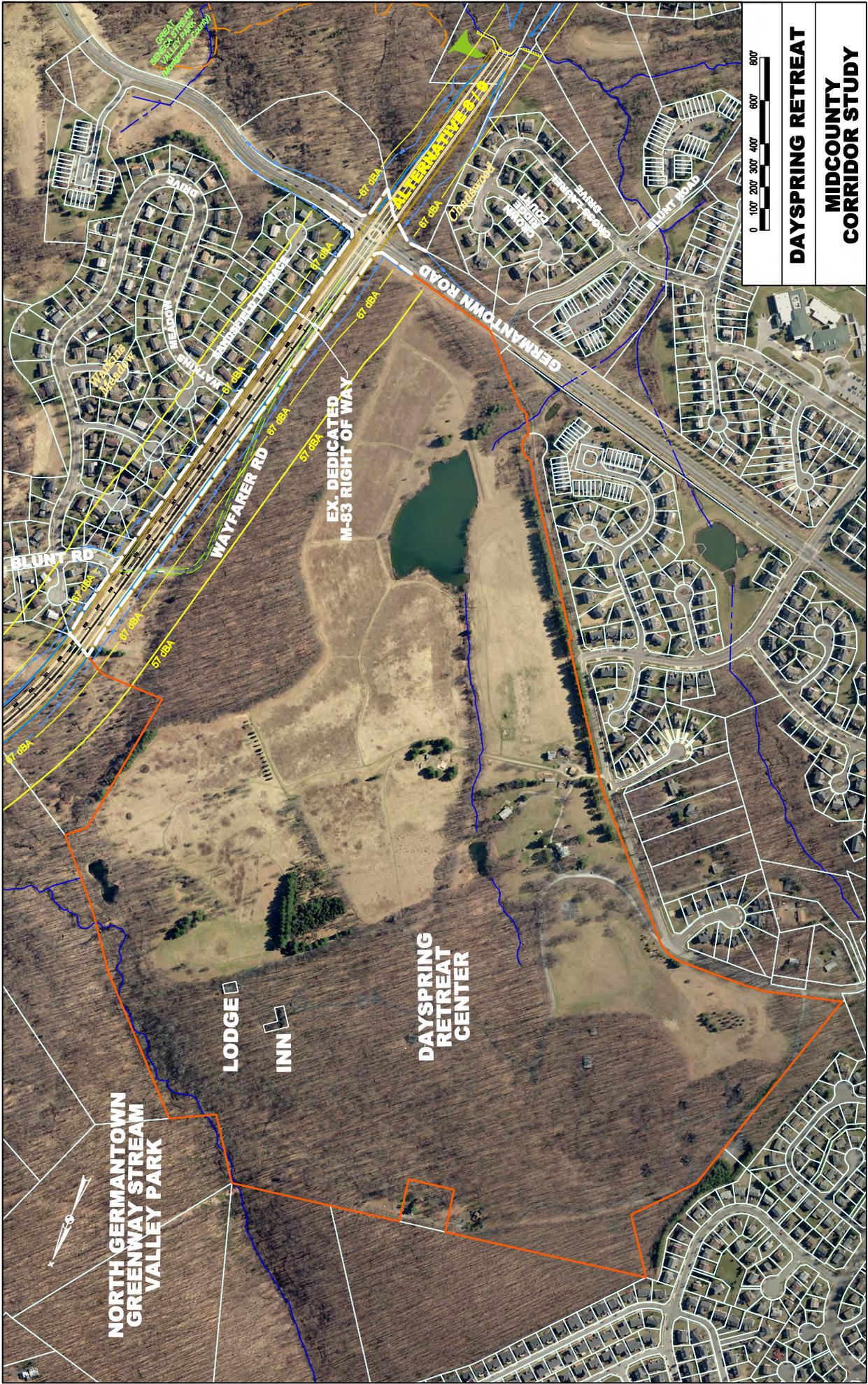
We look forward to continued coordination with the Planning Board and M-NCPPC staff as we develop our recommendations for a preferred alternative and a mitigation plan for impacted environmental resources and community facilities. Should you need any additional information, please contact Mr. Greg Hwang, Project Manager, by telephone at 240-777-7279 or by e-mail at Greg.Hwang@montgomerycountymd.gov.

Sincerely,



Bruce E. Johnston, P.E., Chief
Division of Transportation Engineering

cc: Commissioner Marye Wells-Harley, Planning Board Vice Chair
Commissioner Casey Anderson, Planning Board Member
Commissioner Norman Dreyfuss, Planning Board Member
Commissioner Amy Presley, Planning Board Member
Mary R. Bradford, Director, Parks Department
Rose Krasnow, Interim Director, Planning Department
Mary Dolan, M-NCPPC
Arthur Holmes, MCDOT
Al Roshdieh, MCDOT
Edgar Gonzalez, MCDOT



**NORTH GERMANTOWN
GREENWAY STREAM
VALLEY PARK**

LODGE
INN

**DAYSPRING
RETREAT
CENTER**

BLUNT RD

WAYFARER RD

GERMANTOWN ROAD

**EX. DEDICATED
M-83 RIGHT OF WAY**

ALTERNATIVE 1

DAYSPRING RETREAT

**MIDCOUNTY
CORRIDOR STUDY**



Midcounty Corridor Study

October 30, 2013

Alternative 1 (No-Build) Improvements Within the Study Area

Roadway Improvement	Location	Improvement	CLRP/CIP ID Number
Goshen Road South	South of Girard Street to 1,000 feet north of Warfield Road	Widen to a four-lane divided roadway with sidewalk and shared use path	CLRP 1226 CIP 501107
Snouffer School Road	Sweet Autumn Drive to Centerway Road	Widen to a five-lane (four through lanes and one center turn lane) undivided roadway with sidewalk and shared use path	CIP 501109 CLRP 1236 TIP MC34
Snouffer School Road	Centerway Road to Ridge Heights Drive	Widen to four-lane divided based on the traffic needs of the adjacent Webb Tract development which will include new facilities for several Montgomery County government agencies.	CIP 501119 CLRP TIP MC34
Ridge Road (MD 27)	Brink Road to proposed Snowden Farm Parkway (A-305)	Widen from four lanes to a six-lane divided roadway with sidewalk and shared use path. (developer funded)	CLRP 2620 TIP MS33
Snowden Farm Parkway (A-305)	Clarksburg Town Center to Ridge Road (MD 27)	Construct a new four-lane divided roadway with sidewalk and shared use path. (developer funded)	CLRP 1244 TIP MC11c
Watkins Mill Road Extended	I-270 to Frederick Road (MD 355)	Construct a new six-lane divided roadway with sidewalk and shared use path. Includes intersection improvements at MD 355.	CLRP TIP MC23a CIP 500724
I-270/Watkins Mill Road Interchange	I-270 at (new) Watkins Mill Road Extended	Construct a new interchange (SHA project)	CLRP TIP MI2q
Middlebrook Road Extended	Frederick Road (MD 355) to (new) Midcounty Highway (M-83)	Widen from three lanes to a four-lane divided roadway with sidewalk and shared use path	CLRP 1229 TIP MC14g
Woodfield Road (MD 124)	Midcounty Highway (MD 124) to Warfield Road	Widen to a six-lane divided roadway with sidewalk and shared use path. (SHA project)	CLRP 1206
Corridor Cities Transitway (CCT)	Shady Grove Metro Station to Comsat property	Construct a bus way with dedicated right-of-way	CLRP 1649
Observation Drive Extended	Dorsey Mill Road to Clarksburg Road	Construct a four-lane divided roadway	
Dorsey Mill Road Extended	Observation Drive to Crystal Rock Drive	Construct a four-lane roadway across I-270	
Little Seneca Parkway	Frederick Road to Ridge Road	Construct a four-lane divided roadway	
I-270 HOV Lanes	MD 121 to MD 85	Widen to provide a single HOV lanes in each direction.	

Sources: (1) Major Highway Improvements in the 2012 CLRP and FY2011-2016 TIP Air Quality Conformity Inputs, MWCOC Website www.mwcog.org/clrp; and (2) Montgomery County MD Master List of CIP Projects (FY11-16), Montgomery County Website www.montgomerycountymd.gov/omb.

Alternative 2 Improvements (in addition to all of the items listed in the Alternative 1 (No-Build) Table

Intersection	Improvements
Midcounty Highway at Montgomery Village Avenue	<ul style="list-style-type: none"> • Widen the WB Midcounty Hwy approach to provide a third travel lane, which would become one of the 3 existing left turn lanes • Widen EB Midcounty Hwy departing the intersection to provide a third travel lane • Convert the existing yield-controlled channelized right turn lane from NB Montgomery Village Ave into a free-flow right turn lane that becomes the third EB departing lane described above
Midcounty Highway at Goshen Road	<ul style="list-style-type: none"> • Widen the EB Midcounty Hwy approach to provide a third through lane • Widen the WB Midcounty Hwy approach to provide a third through lane • Widen the NB Goshen Road approach to provide a third through lane
Midcounty Highway/Woodfield Road	<ul style="list-style-type: none"> • Widen the EB Midcounty Hwy approach to provide a third through lane • Restripe the EB Midcounty Hwy approach to provide a second left turn lane using existing pavement
Midcounty Highway/Washington Grove Road	<ul style="list-style-type: none"> • Widen the NB Washington Grove Ln approach to provide a second through lane and a separate right turn lane • Widen the SB Washington Grove Ln approach to provide a second left turn lane, and convert the existing shared through/right turn lane into a separate right turn lane (leaving only one through lane) • Widen the EB Midcounty Hwy approach to provide a third through lane
Midcounty Highway/Miller Fall Road	<ul style="list-style-type: none"> • Widen the EB and WB Midcounty Hwy approaches to provide a third through lane in each direction
Midcounty Highway/Shady Grove Road	<ul style="list-style-type: none"> • Widen the EB Midcounty Hwy approach to provide a third left turn lane • Widen SB Shady Grove Rd departing the intersection by 2 lanes such that the channelized dual right turn lanes from EB Midcounty Hwy would be free-flowing instead of being signalized as they are under existing conditions

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Alternative 2 Improvements (in addition to all of the items listed in the Alternative 1 (No-Build) Table

Intersection	Improvements
MD 355/Shady Grove Road	<ul style="list-style-type: none"> • Reconstruct the NB Shady Grove Rd approach to consist of 3 separate left turn lanes, 2 separate through lanes, and 1 channelized free-flow right turn lane • Widen the SB Shady Grove Rd approach by 1 lane to consist of 3 separate left turn lanes, 4 separate through lanes, and 1 channelized right turn lane • Widen the NB MD 355 approach by 1 lane to provide a second left turn lane • Widen the SB MD 355 approach by 1 lane to provide a second left turn lane • Replace the existing split-phasing along NB & SB Shady Grove Rd with concurrent protected-only left turn phasing
MD 355/Montgomery Village Avenue	<ul style="list-style-type: none"> • Widen the southbound approach to provide a third left turn lane • Restripe the EB approach to convert 1 through lane into a left turn lane, providing 3 left turn lanes, 3 through lanes, and a channelized right turn lane • Widen the WB approach to provide a separate channelized right turn lane
MD 355/Watkins Mill Road	<ul style="list-style-type: none"> • Restripe the EB approach to consist of 2 left turn lanes, 2 through lanes, and 2 right turn lanes • Widen the NB approach to provide a second left turn lane
MD 355/Professional Drive	<ul style="list-style-type: none"> • Increase the storage length of the EB left turn lane
MD 355/Gunners Branch Road	<ul style="list-style-type: none"> • Widen the SB approach to provide a second left turn lane • Widen the EB approach to provide separate through and left turn lanes • Widen the WB approach to provide separate through and right turn lanes
MD 355/Middlebrook Road	<ul style="list-style-type: none"> • Widen the NB approach to provide a third through lane • Widen the EB approach by one lane to provide two separate left turn lanes and two separate through lanes • Replace the existing EB/WB split-phasing with concurrent protected-only left turn phasing
MD 355/Germantown Road	<ul style="list-style-type: none"> • Construct a second SB left turn lane • Construct a second WB left turn lane
MD 355/Shakespeare Boulevard	<ul style="list-style-type: none"> • Designate the existing NB & SB right turn lanes as shared through/right turn lanes
Watkins Mill Road/Stedwick Road	<ul style="list-style-type: none"> • Widen NB Stedwick Rd to provide a separate right turn lane
MD 115/Shady Grove Road/Airpark Road	<ul style="list-style-type: none"> • Convert one existing through lane on NB MD 115 to a third left turn lane • Widen SB Shady Grove Rd departing the intersection by one lane, and convert the existing yield-controlled channelized right turn lane from SB MD 115 to a free-flowing right turn into the new lane on Shady Grove Rd

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Alternative 5 Improvements (in addition to all of the items listed in the Alternative 1 (No-Build) Table

Roadway / Location	Improvements
Ex. Midcounty Highway between Montgomery Village Ave and Goshen Road	<ul style="list-style-type: none"> Widen EB and WB roadway to provide a third through lane
Midcounty Highway at Goshen Road	<ul style="list-style-type: none"> Widen the EB Midcounty Hwy approach to provide a third through lane Widen the WB Midcounty Hwy approach to provide a third through lane Widen the NB Goshen Road approach to provide a third through lane Widen the SB Goshen Road approach to provide a second through lane
MD 355/Montgomery Village Avenue	<ul style="list-style-type: none"> Widen the southbound approach to provide a third left turn lane Widen the WB approach to provide a separate channelized right turn lane Widen the NB approach to provide a third through lane
MD 355 at IBM (Sta 233)	<ul style="list-style-type: none"> Close median opening, eliminating lefts in and out Provide service road from Sta 233 to 237 along NB roadway
MD 355 at Kaiser Permanente (Sta 216)	<ul style="list-style-type: none"> Close median opening, eliminating lefts in and out Provide service road from Sta 216 to 221 along NB roadway
MD 355 at Watkins Mill Road	<ul style="list-style-type: none"> Widen the NB approach to provide a right turn lane Widen the WB approach to provide two exclusive left turn lanes (total of 2 Left, 2 Through, 1 Right) Restripe the SB approach to provide two right turn lanes Restripe the EB approach to provide two through lanes
MD 355 at Professional Drive	<ul style="list-style-type: none"> Widen the NB approach to provide a right turn lane Provide service road from Sta 180 to 191 along NB roadway
MD 355 at Wheatfield Drive	<ul style="list-style-type: none"> Widen the NB approach to provide a right turn lane
MD 355 at High Point Drive	<ul style="list-style-type: none"> Widen the SB approach to provide a right turn lane
MD 355 at Plummer Drive	<ul style="list-style-type: none"> Widen the NB and SB approaches to provide right turn lanes Consolidate entrances at Station 144+50 on the NB roadway
MD 355 at Scenery Drive/Gunners Branch Road	<ul style="list-style-type: none"> Widen the NB and SB approaches to provide right turn lanes Provide service road from Sta 127 to 140 along NB roadway Provide service road from Sta 117 to 125 along SB roadway

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Alternative 5 Improvements (in addition to all of the items listed in the Alternative 1 (No-Build) Table

Roadway / Location	Improvements
MD 355 at Gunners Branch Road	<ul style="list-style-type: none"> • Widen the SB approach to provide an additional left turn lane (two total), and right turn lane • Widen the NB approach to provide a through/right lane (in addition to three through lanes) • Widen the EB approach by two lanes (LT - T - T - RT) • Widen the WB approach by two lanes (LT - T - T - RT) • Reconfigure access behind businesses at Sta 115 to 120 along NB roadway
MD 355/Middlebrook Road	<ul style="list-style-type: none"> • Widen the NB approach to provide a third and fourth through lane • Widen the EB approach by three lanes to provide three left turn lanes and three through lanes • Widen the WB approach by two lanes to provide two left turn lanes and three through lanes • Replace the existing EB/WB split-phasing with concurrent protected-only left turn phasing
MD 355 between Ridge Road (MD 27) and Middlebrook Road	<ul style="list-style-type: none"> • Widen / Restripe roadway to provide three through lanes in NB and SB roadway. • This includes providing the third through lane along NB and SB MD 355 at intersections within these limits
MD 355 at Appledowre Way	<ul style="list-style-type: none"> • Widen the SB approach to provide a right turn lane • Provide service road Sta 88 to 97 along SB roadway • Reconfigure access behind residences Sta 77 to 88 along SB roadway, closing access from MD 355
MD 355 at Oxbridge Drive	<ul style="list-style-type: none"> • Widen the NB approach to provide a right turn lane
MD 355 at Germantown Road	<ul style="list-style-type: none"> • Widen the NB approach to provide a right turn lane • Widen the SB approach to provide a second left turn lane • Restripe the EB approach to provide a third through lane
MD 27 at Brink Road	<ul style="list-style-type: none"> • Widen the SB approach to provide a third through lane and second left turn lane • Widen the NB approach to provide a third through lane

Health Analysis

A Special Report from the Health Effects Institute synthesized the results of research literature examining the effects of traffic-related air pollution on human health¹. The research panel “concluded that the evidence is sufficient to support a causal relationship between exposure to traffic-related air pollution and exacerbation of asthma. It also found suggestive evidence of a causal relationship with onset of childhood asthma, nonasthma respiratory symptoms, impaired lung function, total and cardiovascular mortality, and cardiovascular morbidity, although the data are not sufficient to fully support causality.” The report also notes, “Based on a synthesis of the best available evidence, the Panel identified an exposure zone within a range of up to 300 to 500 m from a major road as the area most highly affected by traffic emissions (the range reflects the variable influence of background pollution concentrations, meteorologic conditions, and season).”

As a caveat, the report noted that “The Panel’s conclusions have to be considered in the context of the progress made to reduce emissions from motor vehicles. Since the epidemiology studies are based on past estimates of exposure from older vehicles, they may not provide an accurate guide to estimating health associations in the future. In light of the large number of people residing within 300 to 500 m of major roads, the Panel concludes that the sufficient and suggestive evidence for the health outcomes indicates that exposures to traffic-related pollution are like to be of public health concern and deserve public attention.”

In light of the results of this report and other studies, consideration must be given to the potential negative health effects of any Midcounty Highway alternatives that increase the number of vehicle miles travelled (VMT) in vehicles that burn fossil fuels to produce their motive power. While this issue can be complicated by the difference in vehicle emissions between moving and idling vehicles, any alternative that tends to shift people to non-auto driver modes of transportation should reduce the negative health effects of petroleum-fueled vehicles.

In general, the health impacts of Midcounty Highway alternatives will be most significant for portions of alignment options that introduce new major road segments next to homes, schools, parks and businesses that are not already affected by major roads. Alternative 2 would have the lowest impact, as it creates no new roads, followed by Alternative 5, which already contains a major road. Alternative 8 would have the next highest level of health impacts, followed by Alternative 9. These alignments introduce new major road segments into residential areas that are not currently affected by major roads. Health impacts are likely to be greatest for Alternative 4, which creates a major road along the length of what is currently a two-lane road through residential areas in many places.

¹ HEI Panel on the Health Effects of Traffic-Related Air Pollution. 2010. Traffic Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects. HEI Special Report 17. Health Effects Institute, Boston, MA.