

**Ten Mile Creek Amendment  
Appendix 1**

**1994 Clarksburg Master Plan Excerpts**

## *Land Use Plan Recommendations by Geographic Area*

### **Town Center District (635 acres)**

The historic center of Clarksburg is located at MD 355 and MD 121. Buildings dating to the early 1800s still remain and newer uses, such as the Clarksburg Post Office and a bank, have continued the role of Clarksburg as a community center.

This Plan creates a Town Center, which includes the historic district as a focal point. Surrounding the historic district are mixed-use neighborhoods, office, and residential opportunities. A strong interrelationship between the historic district and new development is proposed to help blend the "old" with the "new."

As noted in the Environmental Plan chapter, portions of the Town Center are located in the headwaters of Ten Mile Creek. This environmental concern was considered during the Plan process and less constrained locations for the Town Center were evaluated. However, the advantages of locating the Town Center near the historic district in terms of fostering community identity and reinforcing the traditional center of Clarksburg are equally important Plan objectives. To help address environmental concerns, the Plan shows reduced densities for parcels closest to the headwaters of Ten Mile Creek.

An important feature of the Town Center is a transit stop located along a new proposed road west of the historic district. This stop is envisioned as the focal point of a small, medium density, mixed-use neighborhood. The Plan includes detailed guidelines regarding building heights near the historic district to help assure compatibility.

#### **Plan Objectives:**

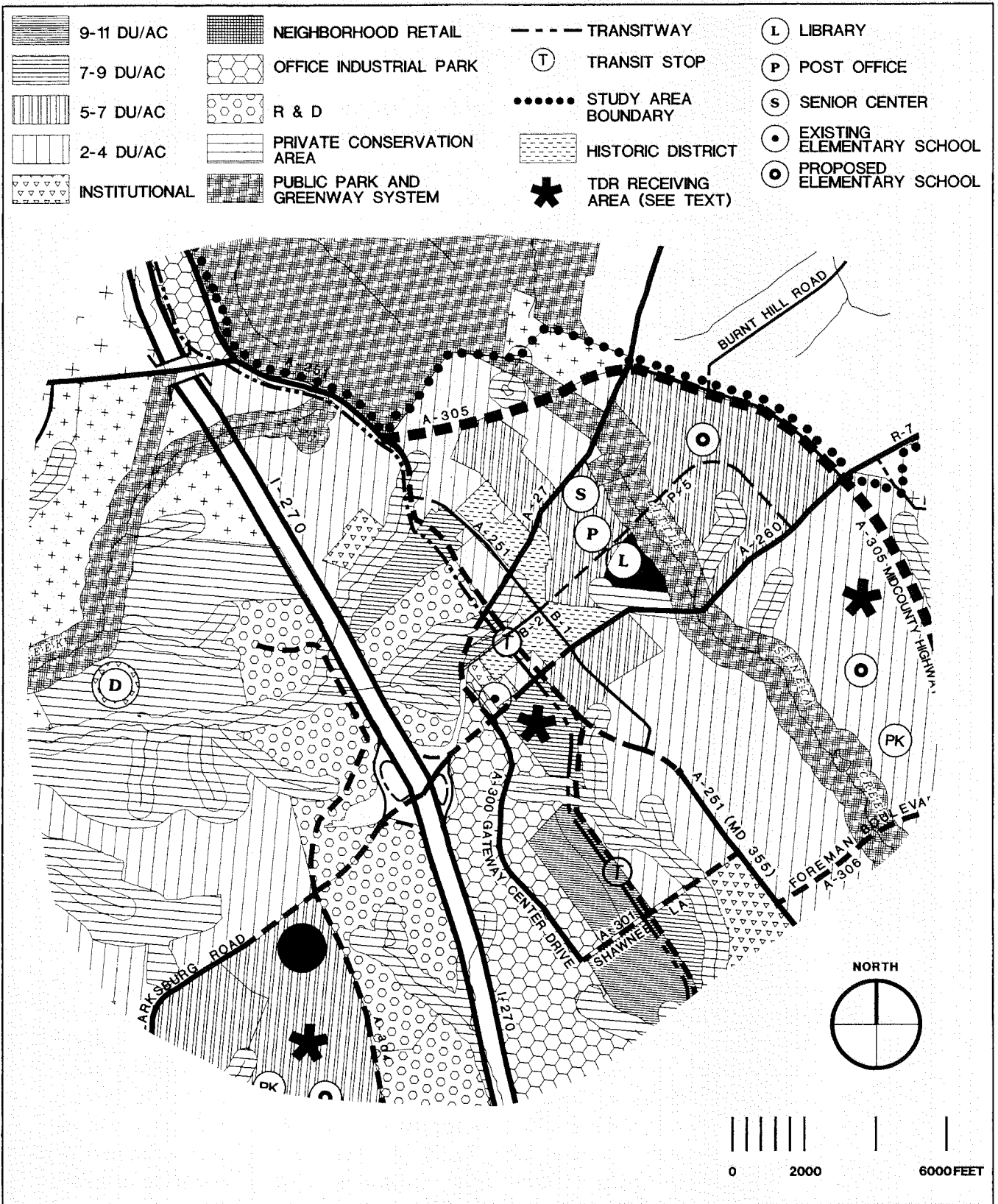
- **Create a Town Center which will be a strong central focus for the entire Study Area.**

The Land Use Plan for the Town Center is shown in Figure 19, page 43; the Town Center Concept Diagram is shown in Figure 12, page 27. This Plan proposes residential, retail, and office uses within the Town Center. Of equal importance is that the Plan recommends civic and public uses also be concentrated here.

An Illustrative Sketch has been prepared to provide one example of the pattern of development envisioned for the Town Center (see Figure 20, page 45). This Illustrative Plan is intended to provide only one example and not a prescription of future development. The important features shown in the Illustrative Plan include the patterns of small blocks, the use of an interconnected system of streets which avoids the use of dead-end streets and provides access to transit, the preservation and enhance-

# Town Center District Land Use Plan

Figure 19



ment through selective infill of the existing historic district, the street-orientation of buildings, and the provision of a variety of open spaces.

- Reinforce the concept of I-270 as a high tech employment corridor by designating a suitable site near I-270 for employment use.

The Land Use Plan recommends an employment site for up to 470,000 square feet in the Town Center District. The proposed site has the following characteristics:

- It is visible from I-270.
- It adjoins a future proposed transit stop.
- It has excellent access from the I-270/MD 121 interchange.

In accord with the Plan intent to foster a mix of uses and to promote an interrelated land use pattern, a zoning option which encourages the joint development of residential and employment uses is proposed. This approach is also intended to promote a more integrated overall Town Center concept and a better relationship between this property and portions of Town Center east of MD 355.

This zoning option (the MXPB Zone — see Zoning Plan chapter, page 95) would apply to all the acreage shown in Figure 38, page 97.

- Encourage a mixed-use development pattern in the Town Center to help create a lively and diverse place.

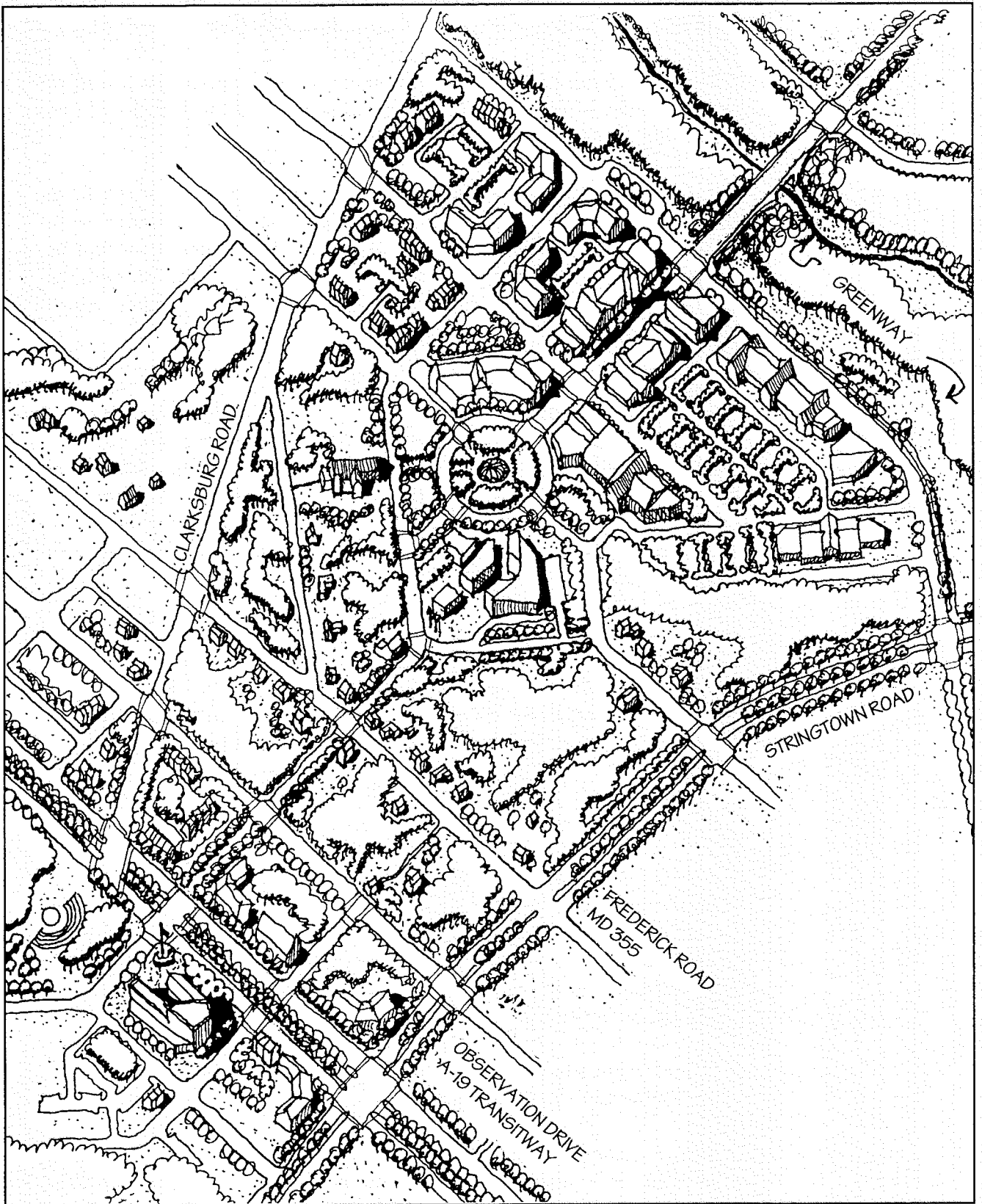
In terms of residential uses, the Plan assumes an ultimate build out of approximately 2,600 units in the Town Center. The recommended guidelines in terms of mix of units are as follows:

Multi-Family	–	25 to 45%
Attached	–	30 to 50%
Detached	–	10 to 20%

The total number of units in Town Center may be increased in the PD and RMX Zones up to 20 percent if carriage homes are accessory to a primary dwelling unit or they are a primary dwelling on a lot; however, the final determination regarding this increased number of units, their design, and placement (so as not to result in an adverse concentration and impact) will be made by the Planning Board at the time of Project Plan or Development Plan approval. These units will not count as Moderately-Priced Dwelling Units. The Planning Staff should continue to explore whether a text amendment allowing separate ownership of a carriage house or changes to the Montgomery County Code is necessary.

# Town Center Illustrative Sketch

Figure 20



All apartment buildings in the future Town Center will be four stories or less except within walking distance of the transit stop, where a building height of six to eight stories may be allowed if Master Plan recommendations concerning compatibility with the historic district can be achieved.

The Town Center District boundary bisects some properties; portions of the properties within Town Center are recommended for densities of two to four units per acre.

If density is clustered from the portions of the properties outside the Town Center, then a density of five to seven units per acre for the portions inside Town Center would be appropriate. Approval of this density would be dependent upon a proposed development achieving compatibility with the scale and intensity of neighboring uses and meeting Plan objectives regarding compatibility with the historic district.

In terms of **commercial uses**, up to 300,000 square feet are proposed. This recommendation exceeds the findings of the Planning Board retail studies (see Technical Appendix) that up to 153,000 square feet of neighborhood retail uses can be supported in the Town Center. Additional square footage would be desirable and would be consistent with the Plan if provided at a pedestrian scale and developed in accord with Plan policies regarding a mix of uses at the neighborhood level (see Policy 7: Transit- and Pedestrian-Oriented Neighborhoods).

This Plan recognizes that retail uses are critical to the vitality of the Town Center. A grocery store is particularly important since this type of use can serve as a magnet for other commercial operations (dry cleaners and banks, for example). One of the concerns about a retail center in the Town Center is how to integrate what has traditionally been an auto-oriented use in an area envisioned to be transit- and pedestrian-oriented.

This Plan addresses that concern as follows:

- A retail center designation is proposed east of the historic district as part of a large-scale mixed-use neighborhood (see Figure 19, page 43). By incorporating the retail center proposal into a larger planned development, there will be a greater opportunity to assure a strong integration of the retail center to adjoining residential and public uses and to assure a compatible relationship to the Clarksburg Historic District.
- A maximum square footage of the retail center is proposed (up to approximately 150,000 square feet).
- Design guidelines are included in this chapter to help assure that the location, size, and scale of the retail center are compatible with the Plan's vision for the Town Center.

The balance of proposed retail and office uses (70,000 to 105,000 square feet) is proposed to be located throughout the Town Center District and consists of infill retail within the historic district (in accord with historic preservation guidelines).

- **Encourage infill within the historic district in accord with the historic development patterns.**

The following design guidelines are recommended to help assure that infill development within the Clarksburg Historic District is supportive of historical development patterns.

- Orient buildings to the streets, with parking behind to assure consistency with the character of the historic district.
- Preserve and enhance the existing rural character of streets by retaining existing pavement widths, locating street trees close to the edge of pavement, and providing sidewalks, lighting, and signage that are of a rural village character.
- Assure that all road improvements, including both changes to existing roads and creation of new roads, are sensitive to the historic character of the Clarksburg Historic District.
- Reaffirm and strengthen current historic building patterns, e.g., the pattern of houses built close to the road with long backyards and expanses of green space behind them — in particular, retain the deep backyards of the structures on the west side of Frederick Road as part of a green buffer between the historic district and the transit stop area.
- Encourage the renovation of existing buildings in the Clarksburg Historic District for both residential and compatible light commercial uses; e.g., professional offices, antique stores, tea rooms, small restaurants, bed-and-breakfasts, and small grocery stores.
- Encourage a limited amount of new construction, as long as the new buildings are compatible with the historic ones in terms of size, scale, rhythm, percentage of lot coverage, relationship to the street, and relationship to open space.
- Moving of historic structures is a “last resort” decision; however, if the Clarksburg Elementary School must be relocated due to the construction at the transit stop, the building must be retained within the historic district and should be situated in an appropriate, prominent location. If any other structures in the historic district must be relocated due to road construction or other capital improvements, they must be retained within the district and should be situated in appropriate, prominent locations.

- Assure that particularly prominent resources in the historic district (e.g., Hammer Hill and the Clarksburg Methodist Episcopal Church) are highlighted as focal points.
  - Encourage the maintenance of existing trees and major landscaping features in the historic district, while also planting new street trees in an informal pattern (not rigidly spaced, leaving room for views of historically or architecturally significant houses, and maintaining the rural character of the town).
  - Encourage the installation of historically appropriate sidewalks along both sides of Frederick Road.
  - Encourage appropriate lighting and street furniture, which will enhance Clarksburg's village character.
  - Encourage the creation of gateways at both the north and south entrances to the Clarksburg Historic District which will enhance the identity of the community and will help to interpret Clarksburg's history.
  - Encourage the continuation of open space in front of the Clarksburg United Methodist Church.
- **Assure that future development around the Historic District complements the District's scale and character.**

The relationship between the Clarksburg Historic District and the new Town Center is a sensitive one. The historic district must retain its integrity and identity while still blending smoothly with the new neighborhoods which will be created.

The idea of isolating the historic district from the new Town Center is unrealistic and defeats the purpose of having "new" Clarksburg grow naturally out of "old" Clarksburg. It is equally important, however, that the historic district not be subsumed by the new Town Center and that the character and identity of the district be preserved, while allowing for appropriate growth and change.

Figure 21, page 50, graphically represents the following Plan guidelines which will help assure a sympathetic relationship between "old" and "new."

1. An area between existing MD 355 and Relocated MD 355 to the west (an area of approximately 550 feet) is identified as a buffer zone, appropriate only for single-family detached housing with a maximum height of two stories. The maximum density of development should be two units per acre.



2. The area between Relocated MD 355 and the transitway (an area of approximately 550 feet) is shown as appropriate for housing with a maximum height of three stories. All structures greater in height than three stories should be identified as being west of the transitway (over 1,100 feet from the center of the historic district).
  3. On the east side of the historic district, all development 400 feet east of existing MD 355 and/or on land which is within the historic district should be single-family detached structures which are no higher than two stories.
  4. New development immediately to the west of the district should be low-rise to provide compatibility. New development near the church on Spire Street should be smaller in scale and sufficiently set back from the church.
  5. Pedestrian and bicycle linkages to and through the district should be appropriate in scale and character. Redgrave Place should serve as a direct link between the transit stop and the greenway. Where it traverses the district it should have minimum pavement widths, appropriate street trees, street furniture, lighting, and signage.
- **Make the Town Center a focal point for community services (such as libraries and postal services) as well as informal community activities.**

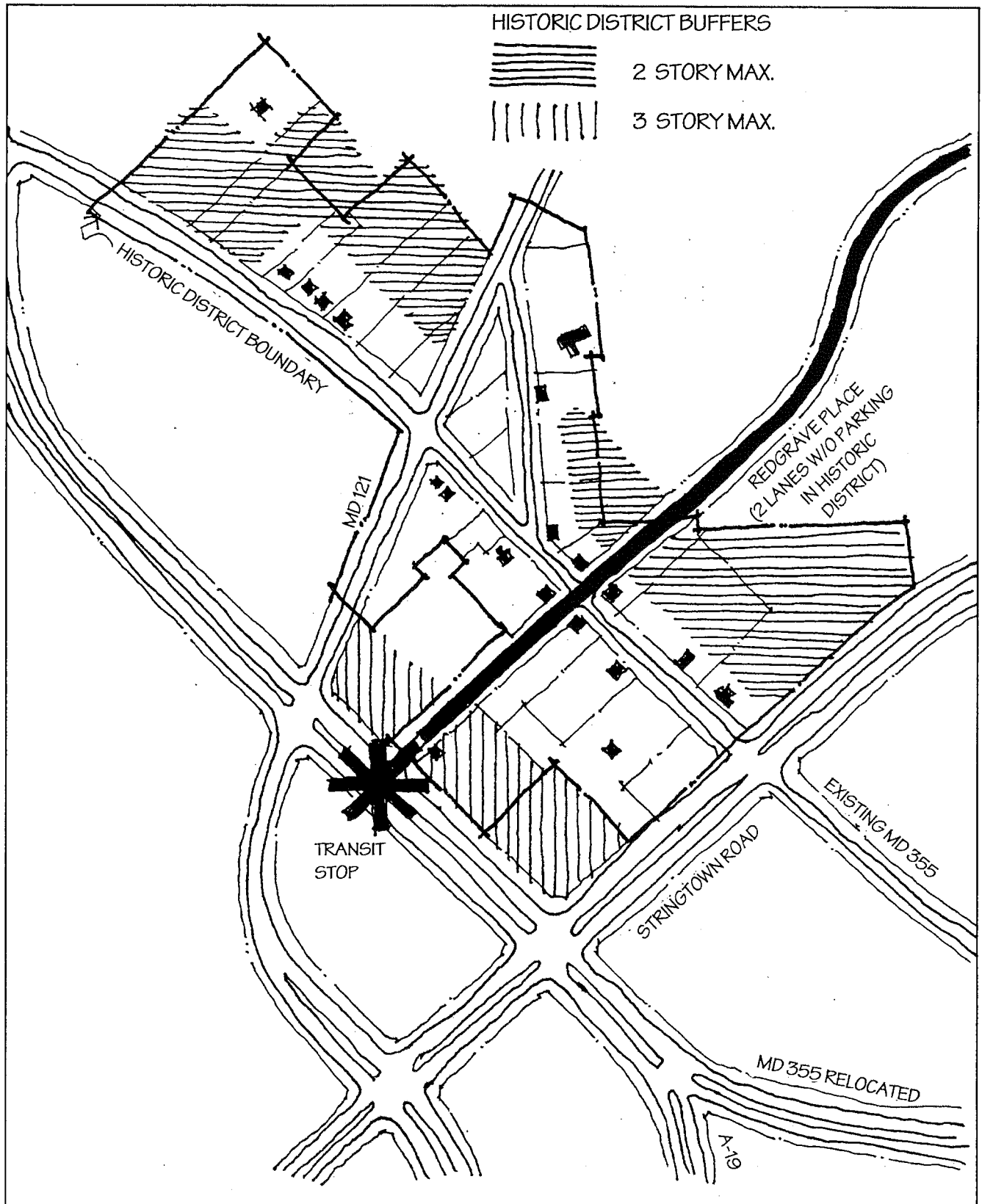
The Clarksburg Town Center should function as the “civic” center of the Study Area. To achieve this end, community and government related services should be located here. This Plan recommends that a high degree of public interaction be provided in the Town Center, in close proximity to the retail center, to encourage a post office, library, and community center. At the time of development, Planning Staff will identify the amenity required under the RMX Zone. A civic use may be an appropriate amenity for this area. Public functions that serve the community but which do not require day-to-day public access (such as fire stations and maintenance depots) should be located outside of the Town Center. Areas of the Town Center where civic and public spaces are encouraged include:

- The transit stop (a small civic space, approximately one-half acre in size is recommended).
- Redgrave Place.
- The open space element in the triangle formed by the intersection of Old Frederick Road, Clarksburg Road, and Spire Street.

The location, design, and size of community services and community facilities should reflect the more concentrated development pattern proposed for the Town Center. Facilities should be planned in this context and be

# Clarksburg Historic District Buffers

Figure 21



land intensive and pedestrian-oriented; the same Plan principles which guide private development should also guide public uses.

- **Create a transit-oriented land use pattern within the Town Center and link all portions of the Town Center with transitways, bus loops, bike-ways, and pedestrian-oriented streets.**

This Plan seeks to achieve a balance between transit-oriented densities and a town scale of development.

A **transit stop** is proposed in the Town Center west of the historic district on Redgrave Place and A-19. Clarksburg Elementary School is located here. Although this Plan endorses the long-term future replacement of this school at another location, the continued operation of the school is anticipated for many years to come (see Public Facilities chapter). Clustering residential uses close to the transit stop will allow residents to walk to transit. A portion of the historic district as well as the mixed-use neighborhood proposed east of the district will also be within walking distance.

In the balance of the Town Center, development will be oriented to streets which function as “neighborhood bus loops” so that residents in these areas will be within walking distance of bus stops. Buildings that allow access and frontage to be oriented to the street system should be provided.

Recreational bikeways should be provided along the Little Seneca Creek greenway. Additional bikeways should be provided along Stringtown Road, MD 121, and Observation Drive to provide access to the transit stop.

- **Create a land use pattern that is responsive to environmental concerns relating to traffic noise and protective of headwaters.**

The Land Use Plan for the Town Center balances community-building objectives with environmental concerns.

The key environmental constraints are located between MD 355 and I-270 and include noise affected areas along I-270 as well as the headwaters of the Ten Mile Creek (see Environmental Plan chapter). The land use and density pattern focuses development in a relatively small area around a proposed transit stop and proposes substantially reduced densities (2-4 units per acre) elsewhere in the headwaters area of Ten Mile Creek.

- **Encourage an interconnected street system as typically found in older towns.**

An important planning concern within the Town Center relates to the **roadway system**. The Town Center is a very large geographic area (about 635 acres; for purposes of comparison, the Germantown Town Center is about 350 acres). Roadways will be critical to the efficient movement of traffic through and within the Town Center. If too many of these roadways are

characterized by cross-sections which discourage pedestrian crossing, then the creation of a unified Town Center will be difficult. For this reason, the Land Use Plan Concept for the Town Center recommends a “high density” network of smaller roads. This strategy will foster an interconnected street system, so important to transit serviceability, and so essential to a “pedestrian-friendly” Town Center.

The Illustrative Sketch shows the pattern of small blocks and interconnected street systems that provide access for pedestrians, bicyclists, and vehicles to all areas of the Town Center including the transit facilities (see Figure 20, page 45).

Roadways designed to carry heavy volumes of traffic will still be needed and the Land Use Plan designates Observation Drive (A-19) and Midcounty Highway (A-305) to serve that function through the Town Center. I-270, which lies on the western edge, is envisioned as the major carrier of regional through traffic.

It is essential that the **character of the roadway network** is supportive of the Plan’s vision for the Town Center. The guidelines below will help assure that streets and highways are built in a manner that is compatible with land use and urban design objectives for the Town Center.

- **Arterials** — Because the arterials of Stringtown Road and Clarksburg Road serve as entrances to the Town Center, extensive landscaping, including medians, bikeways, and bus transit access facilities, must be provided. Setbacks from the Midcounty Highway (A-305) should be provided within the Town Center to establish a “parkway like” character.
- **Connecting Streets** — Observation Drive Extended and MD 355 serve as special streets in the Town Center. Figure 11 shows the character of Observation Drive. MD 355 should be located away from the existing historic resources to reduce the impact on the historic district. Revisions to the Road Code will be necessary to meet these guidelines.
- **Local Streets** — The local streets must provide a system of interconnected streets which allow on-street parking, close spacing of intersections, and enhancement of the areas outside the traffic lanes. Revisions to the Road Code will be necessary to meet this guideline. Two key local streets that require revisions to the Road Code include Old Frederick Road to maintain a narrow open section street appropriate in scale to the historic district, and the narrow Redgrave Place that provides access to the transit stop from the districts in the Town Center.
- **Create a special character for Redgrave Place as it traverses the Clarksburg Historic District.**

Redgrave Place will provide needed east-west movement through the historic district and help integrate the district into the larger Town Center.

However, it is essential that the scale, character, and location of this connection is developed appropriately.

The road should be a maximum of two lanes or 24 feet in width. It should have no parking lanes along the portions of the road which are in the historic district. The radius of the intersection corners should match the existing corners located on the west side of MD 355. Efforts should be made to design the road and the intersection as a low volume, local road which will not detract from the character of the historic district (see Figure 21, page 50).

Redgrave Place will provide access from a proposed mixed-use neighborhood east of the historic district to a future transit stop. This Plan supports this connection but emphasizes that auto access to the stop should be secondary to the Plan objective that Redgrave Place be a low-volume, local road. Redgrave Place should not provide through access beyond MD 355 to A-19.

- **Provide a variety of open space features.**

The Town Center is traversed by a portion of the Little Seneca greenway. This greenway will be a major open space feature in the Town Center, making it important that the greenway be visible and accessible to the public. Sidewalks and bikeways should be located outside the stream buffer along the greenway. A strong connection between the transit stop and the greenway is particularly critical to enhance pedestrian and bicycle access between the greenway and the transit stop. The width of the greenway should be the minimum width needed to provide a trail system, but should not be any wider than necessary in Town Center.

While the greenway is the dominant open space feature, other smaller open space areas are also proposed. These include:

- Forested conservation areas along streams.
- Green space within the historic district in front of the Clarksburg United Methodist Church, a highly visible entry point at the intersection of Clarksburg Road and MD 355.

A park is already located in the Town Center (Kings Pond Local Park) which will provide active recreation opportunities.

## Ten Mile Creek Area (3,590 Acres)

As noted in the Environmental Plan chapter, the 3,590-acre Ten Mile Creek Area has characteristics which make it environmentally sensitive, including extensive woodlands, fragile stream banks, and steep slopes.

The Land Use Plan proposed for this area is shown in Figure 34, page 88.

### Plan Objectives:

- Recommend a land use pattern west of Ten Mile Creek which is supportive of the larger Agricultural Reserve.

The Ten Mile Creek Area adjoins a portion of the County-wide Agricultural Reserve described in the *Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County* as the "Central Sector." The central sector is described in the *Functional Master Plan for Agriculture and Open Space* as follows:

This 36,000-acre sector is the pivotal point in Montgomery County's agricultural and rural open space preservation program . . . Pressure to develop this area is expected to increase because of its natural beauty and as employment opportunities move northward along the I-270 corridor. An aggressive preservation program should be focused on this area.

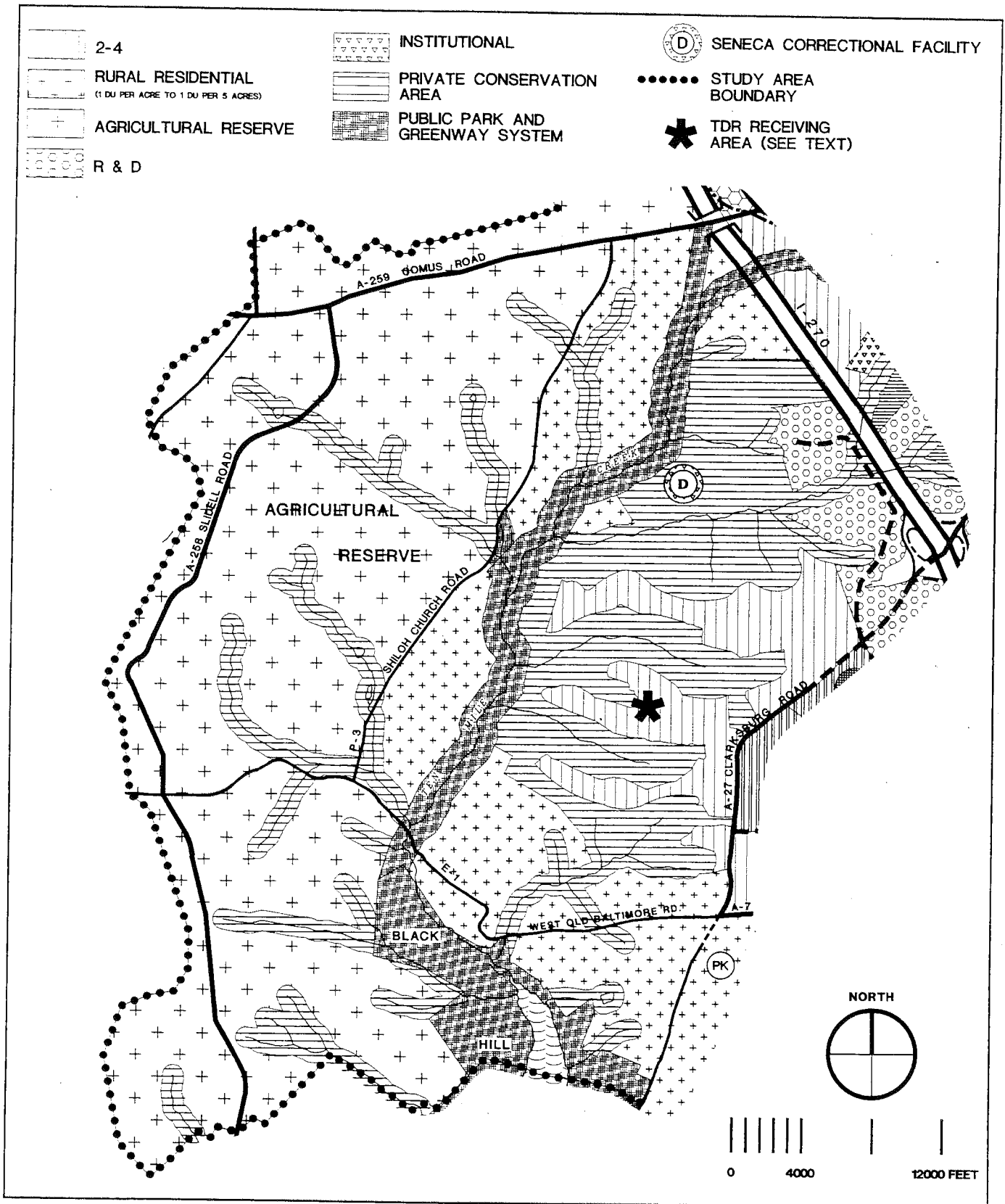
*The Functional Master Plan for Agriculture and Open Space* concludes that a new Master Plan for the Clarksburg Study Area should be prepared that "examines Clarksburg's potential for agricultural preservation."

This Plan focuses on the area west of Ten Mile Creek as the most critical in terms of helping to preserve the larger Agricultural Reserve. The existing land use pattern is dominated by very large parcels and has traditionally been a farming community. Although the suitability of soils for farming varies from poor to good (see Figure 35, page 90), the importance of this area to County-wide agricultural preservation is significant because it forms a critical transition from the I-270 Corridor to the very productive farmland of western Montgomery County. For this reason, this Plan recommends approximately 1,800 acres west of Ten Mile Creek be added to the County's Agricultural Reserve area.

Alternative rural land use patterns were considered in this area but rejected as being inconsistent with farmland preservation objectives.

# Ten Mile Creek Area Land Use Plan

Figure 34



- **Recommend a land use pattern east of Ten Mile Creek which balances environmental concerns, County housing needs, and the importance of I-270 as a high-technology employment corridor.**

Because this area is separated from the larger Agricultural Reserve by Ten Mile Creek, agricultural preservation is not the primary objective. The key land use objective in this area is to provide housing and job opportunities while mitigating water quality impacts in Ten Mile Creek. An open space pattern extensive enough to help protect the many natural attributes of the larger watershed is recommended by this Plan.

A more detailed discussion of the environmental characteristics and concerns in this area is included in the Environmental Plan chapter. During the Master Plan process, the importance of protecting these environmental resources was weighed against competing County needs, in particular, the long term County-wide need for additional areas for single-family detached housing and the future of I-270 as a significant employment corridor.

This Plan recommends an extensive level of environmental mitigation because all of the environmental studies done as part of this Master Plan process have identified Ten Mile Creek as a fragile stream due to its delicate ecosystem, low base flow, and highly erodible stream banks. In this respect, Ten Mile Creek differs from other streams in the Study Area and merits special consideration.

- **Recommend employment sites along I-270 and include development criteria to help address environmental concerns.**

Two employment sites are recommended in this area; both front I-270 and are in close proximity and have good access to the I-270/MD 121 interchange.

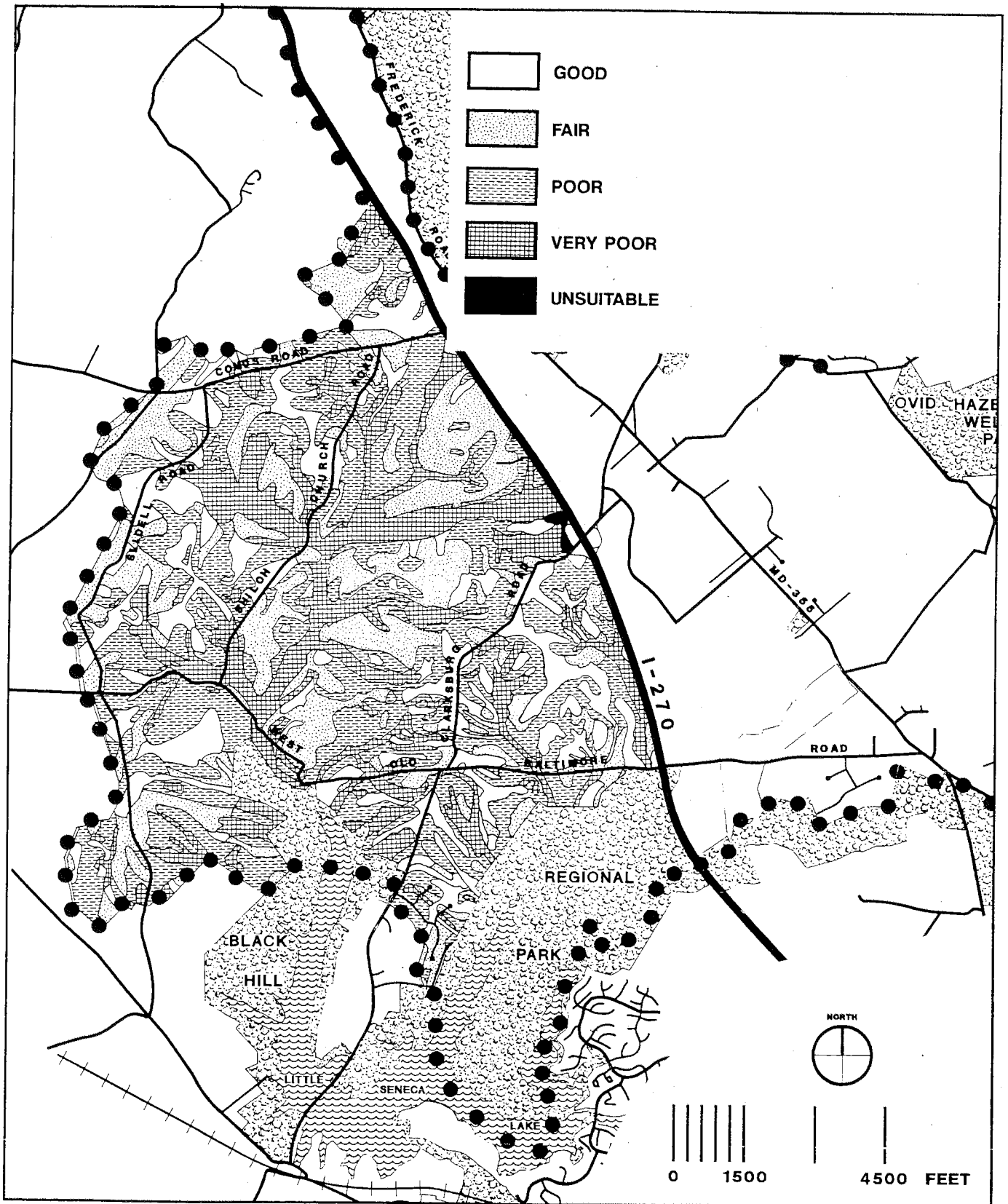
The character of development at these sites is very important given their location in the Ten Mile Creek Sub-basin. (See Environmental Plan chapter, page 137.) The following guidelines are intended to foster environmentally sensitive site plans when these sites develop:

- Each site shall have no more than 400,000 square feet of floor area.
- An imperviousness limit of 15 percent shall apply to the entirety of each site (this coverage shall be calculated over the entire property — not just the portion which is zoned for industrial, see Figure 36, page 93).
- Development plans should include tightly clustered buildings close to I-270 to promote transit serviceability.



# Soil Suitabilities for Agriculture West of I-270

Figure 35



- Both sites will require improved access from MD 121 once development occurs and I-270 improvements require relocation of Whelan Lane (the current access). The Master Plan recommends relocated Whelan Lane to be kept as close to the existing alignment as possible to minimize new stream crossings.
- **Recommend residential land uses west of MD 121 and include development guidelines to help address environmental concerns and to assure a predominance of single-family detached units.**

This Plan recommends that approximately 600 acres be designated RE-1/TDR with a base density of one unit per acre — the density recommended by the 1968 Clarksburg Master Plan but never implemented.

Up to 900 dwelling units would be appropriate through the purchase of TDR's if the following environmental and housing mix guidelines can be achieved.

- Development should achieve a minimum of 70 percent single-family detached units. The Montgomery County Office of Planning Implementation has documented the need for single-family detached lots to meet projected future market demand. Master Plan guidelines will help assure this type of development occurs in this area.
- The open space and conservation areas along Ten Mile Creek's mainstem and tributaries shown on the Master Plan should remain undeveloped and should be afforested.
- Dedication to M-NCPPC will be required for the open space and conservation areas along Ten Mile Creek's mainstem. At the time of subdivision, M-NCPPC will decide whether the open space along the tributaries will also be required for dedication to parkland or will become homeowners associations' common land.
- There may be a need for future study of possible water reservoir sites and Ten Mile Creek is identified as a potential study site. Therefore, this development should be able to accommodate a possible future reservoir within the open space shown on the Master Plan.
- **Provide general guidance in terms of future potential uses of County-owned land (Site 30).**

Montgomery County owns a 300-acre site known as Site 30.

This Plan recommends the following land use pattern for this site:

- The portion of the property fronting I-270 is recommended for office or R&D uses, not to exceed 400,000 square feet of floor area.

- A publicly owned facility could be accommodated elsewhere on the property. A detention center for minimum to medium security inmates (the Seneca Correctional Facility) is presently planned for Site 30. If the detention center is located elsewhere, then an alternative public use of similar scale and intensity may be appropriate.

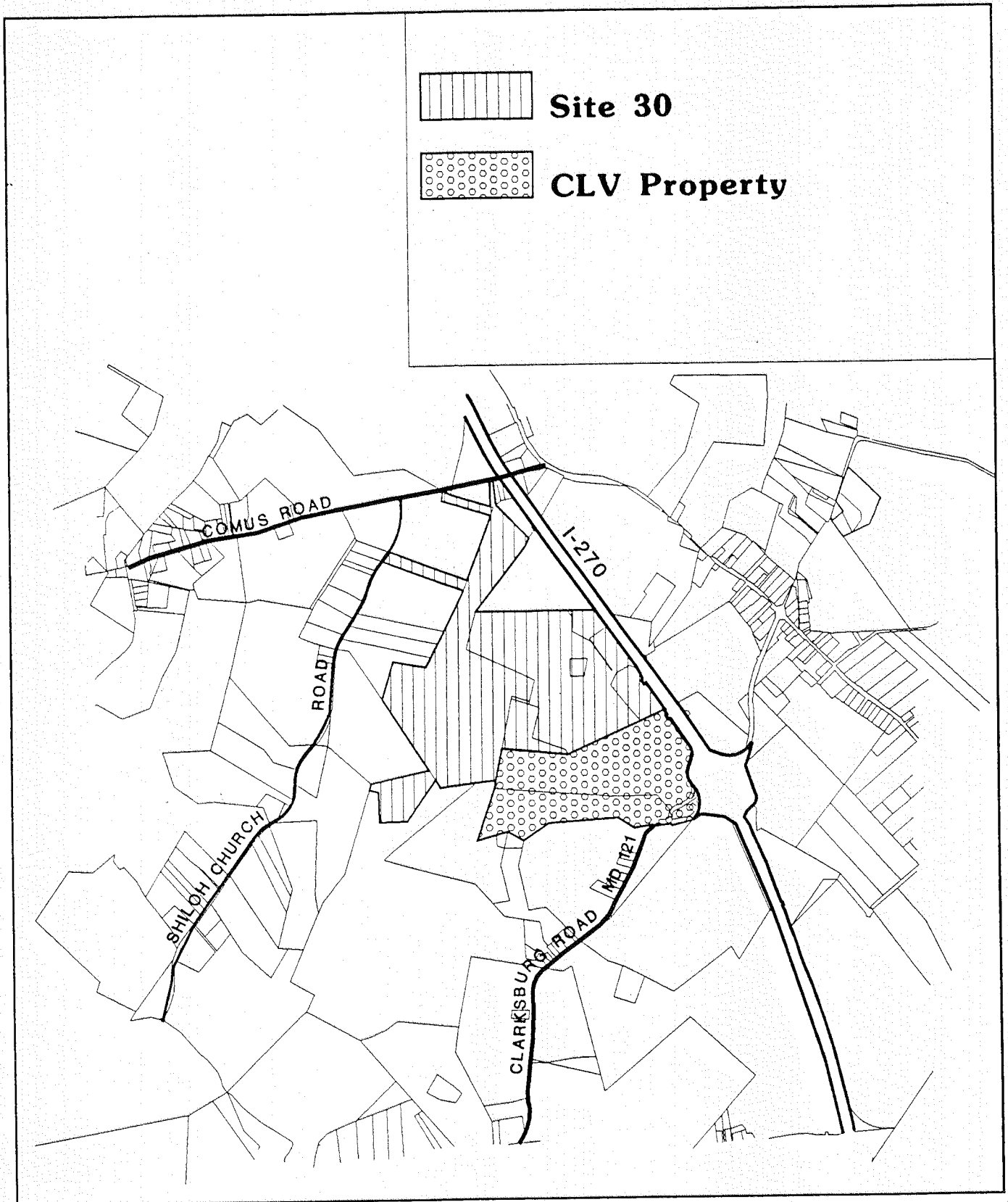
This Plan recommends that the ultimate development of Site 30 include the following elements:

- The greenway proposed along Ten Mile Creek.
- Preservation of the Moneysworth Farm historic site on the property (adaptive re-use of the building is encouraged).
- A compatible transition to surrounding rural and open space uses.
- No access to Shiloh Church because a significant stream crossing would be required.
- Designation of a significant portion of Site 30 as open space.
- Impervious surfaces shall not exceed 15 percent for the entirety of Site 30 (including public and private uses).

Because of the many environmental constraints on Site 30, its location in a sensitive watershed, and the rural/agricultural character of surrounding land uses, evaluating whether a particular public facility is suitable at Site 30 must occur as part of a well defined planning process. Such a process should include citizen participation and involve other governmental review agencies as early in the process as possible.

# Areas Affected by Master Plan Recommended 15% Impervious Limits

Figure 36



- All the Master Plan's environmental studies agree that Ten Mile Creek exhibits characteristics that make it most prone to environmental degradation from development.

In addition to the consultant studies, the Montgomery County Department of Parks produced its own assessment of the quality of natural resources in the Little Seneca Lake sub-watershed, based on existing data and some field work. The study found that the three sub-watersheds have markedly different characteristics in terms of tree cover, steep slopes, and habitat for birds and aquatic life. Overall, Ten Mile Creek was ranked as the most important watershed because it had the best or most extensive natural resources and the highest potential for undesirable development effects. Little Seneca Creek was ranked slightly behind Ten Mile Creek, and Cabin Branch was ranked third. This data reinforces the consultant study findings that this area is sensitive to degradation.

- Certain environmental features in this Study Area pose development constraints.

The map shown as Figure 45 ranks environmental constraints such as steep slopes, floodplains, and poor soils in terms of their effect on development potential.

The greatest constraints are in the stream valleys. The least constrained areas are located east of I-270. The Study Area west of I-270 with the exception of the Cabin Branch Neighborhood, displays a pattern of moderate to severe constraints. The Hyattstown Special Study Area is also highly constrained.

The sensitive areas required to be protected under the 1992 Maryland Planning Act (streams and their buffers, floodplains, steep slopes, and known habitats of threatened or endangered species or species in need of conservation) are included in the areas shown in Figure 46.

### *Plan Recommendations Relating to Watershed and Sensitive Areas Protection*

To protect and enhance the Little Seneca Lake watershed and its sensitive environmental areas, this Plan:

- Considers the special qualities of Ten Mile Creek Area.

About 64 percent of the Ten Mile Creek watershed is designated for farmland preservation or rural uses. This recommendation supports the environmental objectives which emphasize that low-density land use patterns and appropriate Best Management Practices (BMPs) are the most effective strategies for maintaining water quality. Elsewhere in the watershed, the

land use plan objectives make environmental mitigation the main focus. The following mitigation strategies are recommended in these areas:

1. In the Town Center District, residential densities beyond transit stop walking distances are lowered, and a limit is imposed on employment uses.
  2. West of I-270, a 15 percent imperviousness cap and a square footage cap are placed on employment uses.
  3. Extensive green space beyond standard stream buffers is recommended for the area bounded by Ten Mile Creek and MD 121 where substantial development is proposed. This expanded green space, as shown in the Land Use Plan, will become part of the undisturbed stream buffer and should be afforested/reforested by the developers during the subdivision process, if not earlier.
  4. Public parkland dedication will be required for the Ten Mile Creek mainstem stream buffers and possibly for buffers for the first and second order tributaries.
  5. Public uses on Site 30 are limited to a size and intensity similar to the County detention center now under consideration. Site 30 will be subject to the same environmental requirements and constraints as comparable development west of I-270 in Ten Mile Creek, including the employment limits and imperviousness cap mentioned above.
- **Designates a forested buffer along all streams.**

All development in the County is required to protect stream buffers along perennial and intermittent streams as part of the Planning Board approval of subdivisions. The Plan endorses public acquisition of key stream valleys along their mainstems. In Clarksburg, it is essential that these buffers be forested for the environmental reasons described earlier. The Master Plan strongly encourages landowners to allow stream buffer areas within 175 feet of the stream to remain undisturbed and to permit trees to regenerate if the area is not presently wooded.

- **Protects environmentally sensitive areas such as mature hardwood forests, wetlands, areas of unique vegetation, and prime wildlife habitat.**

Trees in the natural landscape filter groundwater, reduce surface runoff, help alleviate flooding, and supply necessary habitat for wildlife. Trees improve the quality of life within communities by providing for recreation, aesthetics, climate control, and beautification. They can reduce the cost of home cooling and heating, and also protect a temperature sensitive ecosystem by shading. The Master Plan's environmental analysis underscores the importance of tree cover to water quality in the form of continuous forested buffers along stream valleys. The Master Plan responds to the importance of

preserving large contiguous areas of trees by keeping the most heavily wooded areas, which are west of I-270, in low density rural and agricultural uses.

Recently adopted state and County legislation require that forest and tree conservation be a part of future development projects in the County and Clarksburg. Forest conservation measures include avoiding tree clearing, minimizing the amount of trees lost, and replacing trees that are unavoidably cleared. A major goal of the forest conservation program is to ensure that tree saving and tree planting (reforestation and afforestation) occur in priority areas on the developing properties. When this is not possible, the required planting can be done off-site within the same watershed, and as a last resort, payment of a fee to a tree fund in lieu of planting is acceptable. The tree fund would be used by the County for reforestation projects.

- **Supports a “no net loss of wetlands” policy.**

The Master Plan recognizes the critical role of wetlands by recommending a “no net loss” objective and endorsing the preparation of a Nontidal Wetlands Functional Assessment (NWFA). Montgomery County Planning Department staff and staff of the Nontidal Wetlands Division of the Maryland State Department of Natural Resources are working together to produce an NWFA for Clarksburg. The NWFA will identify the locations of existing wetlands and potential mitigation sites, and assess the functions and values of the wetlands. The NWFA will comprehensively consider potential impact areas and possible alternatives throughout Clarksburg prior to the piecemeal regulatory process with an emphasis on preserving the highest quality wetland resources.

- **Recommends modifications to the M-NCPPC “Environmental Guidelines” for the review of subdivisions to assure that existing high water quality standards can be maintained.**

The Master Plan strives to meet the state’s goals of maintaining or improving existing water quality by first minimizing new development as much as possible in the most sensitive watersheds. Where environmental impacts from significant development and/or major roads are expected, the Plan designates “Special Protection Areas” (SPA). The M-NCPPC “Guidelines for Environmental Management of Development in Montgomery County” should be amended to include additional objectives in Special Protection Areas. This will promote environmentally sensitive design and construction of development and infrastructure in Clarksburg. Water quality monitoring may also be a requirement for certain developments, as specified in the proposed Water Quality Review Process.

The type of amendments needed for the Guidelines for Environmental Management to implement this recommendation are discussed in the Implementation chapter.

- **Maintains the environmental qualities of headwater streams to prevent increases in water pollution, flooding, and stream erosion and sedimentation.**

Headwaters are the principal source of watercourses that can be defined as first and second order streams. They often originate from springs, seeps or other wetlands and they are found throughout the Study Area at the most upstream end of each stream segment. The result is that most sites are fairly close to a headwater area, which makes complete avoidance very difficult. These tiny streams are vulnerable to land use changes within their drainage basins because of their size and small dilution capacity, especially when the natural baseflow is overwhelmed by a much larger quantity of storm runoff. Degradation of a headwater area can adversely affect the water quality and aquatic habitat of the immediate area. It can also harm downstream reaches, especially if the effects occur near the top of the watershed. Headwaters that drain to the middle or bottom of a watershed can be buffered to a certain extent by the greater baseflow of the stream's mainstem. For these reasons, headwaters near the top of the watershed should receive the highest degree of protection possible.

Sensitive headwaters are affected in Ten Mile Creek by the development of the west side of Town Center and between I-270 and the Creek as well as a small portion of the Transit Corridor Area. Headwaters in Wildcat Branch in the Great Seneca Creek watershed are affected by M-83. These areas are included in the Special Protection Area (SPA) designation. (See Implementation Strategies chapter.)

- **Endorses agricultural BMPs in strict accord with the practices prescribed by the Maryland Department of Agriculture and Montgomery Soil Conservation District.**

One of the current sources of stream pollution in the Study Area is agricultural runoff. Although agricultural conservation practices are encouraged, speculative land ownership in the watershed has made the establishment of such practices very difficult. This arrangement maintains the landowner's agricultural assessment by making short term or annual farm leases until the land value proves profitable for development. The result is a resistance from farmers to spend time or money developing BMPs on land that they may not be using in the near future. In recent years, with the development of the Little Seneca Lake area, the number of speculative land holders has increased. Establishing a land use pattern with clearly defined agricultural areas will remove some of the incentive for speculative use of the land.

The Montgomery Soil Conservation District offers free technical assistance with the development and implementation of a soil conservation and water quality plan. This voluntary program relies on the renter/landowner to contact District staff, who visit the property to determine which BMPs might reduce agricultural non-point source pollution.



Popular practices such as conservation tillage, grass waterways, nutrient management systems, animal waste control structures, and planting of stream buffers are often used. If farming increases in the Clarksburg area, it will be even more important to stream quality that as many agricultural BMPs as possible are implemented.

Maryland is currently designing bay-wide tributary protection strategies as part of the initiatives for implementing nutrient reduction goals for the Chesapeake Bay. The Master Plan supports efforts by state and local agencies to offer more assistance in providing agricultural BMPs throughout the County and encourages farmers to participate in the many programs available. These agencies have shown that conservation and water quality plans can be significant cost-savers to farmers as well as very effective environmental management tools.

A summary of the key protection strategies for the watersheds is contained in Table 11.

### *Relation of Environmental Plan to 1992 Maryland Planning Act*

The 1992 Maryland Planning Act mandates that local plans include a “sensitive areas” element. The intent of the sensitive areas designation is to protect streams and their buffers, 100-year floodplains, habitats of threatened and endangered species, steep slopes, and any other areas identified as sensitive by a local plan. A generalized identification of these areas is shown in Figure 46.

Little Bennett Creek will be further protected because of the limited development proposed by this Plan. Due to its moderate land use density, most of the Cabin Branch watershed is expected to maintain existing conditions with use of fully forested stream buffers and appropriate stormwater management.

In those areas where substantial development is recommended, the Plan uses the Special Protection Area designation to buffer the function of sensitive areas from the effects of that development. This approach is discussed in more detail in the Implementation Strategies chapter and involves amending the M-NCPPC “Environmental Guidelines” for the review of subdivisions.

### *Plan Recommendations Relating to Area-Wide Environmental Concerns*

#### **Groundwater**

This Plan:

- Supports protecting the sole source aquifer from groundwater contamina-