

Land Use and Design Objectives

A Vision of the Future

This Plan has been guided by certain aspirations about how the area should develop over the next 20 to 30 years.

These aspirations are presented here as a vision of the future. The vision statement is in the present tense, as if we were reading a description of the area in the year 2010.

Vision Statement

This Plan Envisions:

The Shady Grove Study Area as a major R&D center...

The Shady Grove "R&D Village" has evolved into a world-class biotech and high-tech research area. The presence of two major universities, Johns Hopkins University and the University of Maryland, has helped attract firms interested in basic and applied research. Strong transit linkages between the universities, the National Institute of Standards and Technology, and the National Institutes of Health make the R&D Village an integral part of the larger Montgomery County research community.

The R&D Village, which includes the 4.5-million square-foot mixed-use Washingtonian Center, also offers attractive office sites to meet a variety of R&D needs.

with a strong emphasis on transit serviceability...

A strong public transit system serves and supports the Shady Grove Study Area. Separate transitways through the area link development to Metro (service to the Shady Grove Metro station is provided on a regular basis and is substantially augmented during rush hour), the Life Sciences Center, and North Bethesda and Rockville. Within the Shady Grove Study Area, transit serviceability has been a major site planning concern. Clustering higher density residential and employment uses along designated transitways has promoted transit ridership. Bus service that links employment, residential, and retail uses is provided throughout the day so that residents and workers can shop and run errands via transit, reducing the dependency on the automobile.

that is a good place to work...

Special care has been taken to cluster buildings along "main streets" and to integrate a mix of uses into employment areas so that workers may walk or shuttle between buildings and reach restaurants, retail uses, and open space areas on foot during the lunch hour. The "employment neighborhoods" which have resulted offer an attractive alternative to more typical single use, auto dependent, office parks.

that is a good place to live...

The R&D Village includes well-defined residential neighborhoods that offer a variety of housing types and prices. Neighborhood retail uses have a "main street orientation" so that arrival by foot, by bicycle, or by bus is a pleasant experience. The integration of parks, open space, and schools within neighborhoods assures that opportunities for socializing, recreation, quiet, and solitude are all close at hand.

with a special cultural and recreational environment...

Unlike many large R&D parks, the R&D Village is an active place after work hours. The area includes a diversity of uses designed to be fully active both day and night. The universities offer nighttime classes and sponsor cultural events for students and the larger community. The Washingtonian Center, with its retail center, health club, and lakefront restaurants, is a lively place that encourages people to "come and stay awhile" and enjoy its amenities. In the residential areas, schools and libraries provide a focal point for community services as well as informal community activities in the evenings. Trees line walkways and major roadways, providing an attractive view from the road and reinforcing the special identity of the R&D Village. Public and private open spaces and parks offering an opportunity for rest and quiet are found throughout the R&D Village.

for people of different ages and different income levels...

The availability of low to moderate priced housing allows many technicians and service workers to live and work in the R&D Village. Many elderly seek housing in the area because of the excellent transit service and health-related programs offered by medical providers in the Life Sciences Center. Day care facilities, available in the residential neighborhoods as well as the employment centers, attract young families with children.

Plan Concepts

This Plan proposes that the portion of the Study Area west of I-270 be designated as the "R&D Village." The area east of I-270 bears a strong relationship to the Shady Grove Metro station and is identified as the "Metro Area." This Plan proposes a transit linkage between the two areas. (See Figure 4.1, page 22.)

Land Use and Design Objectives

To help realize the Plan's vision of the future, the following land use and design objectives have guided the Plan process:

OBJECTIVE 1:

Provide a comprehensive transit system that will reduce dependence upon the automobile.

This Plan proposes a comprehensive transit system which consists of three elements:

- A **northern transitway** provides a direct link to Shady Grove Metro station from the Study Area. Grade-separated crossings of I-270 and Shady Grove Road are proposed to strengthen this connection.
- A **southern transitway** provides a transit link between the Study Area and Rockville and North Bethesda. This link has been suggested in the Comprehensive Growth Policy Study and will require further study.
- A **Life Sciences Center transit spur** ties the County's bio-medical research park to both the northern and southern transitways.

Although the mode of transit along these transitways (bus vs. light rail, for example) will be determined by future studies, this Plan will assure that the necessary rights-of-way will be dedicated at time of subdivision.

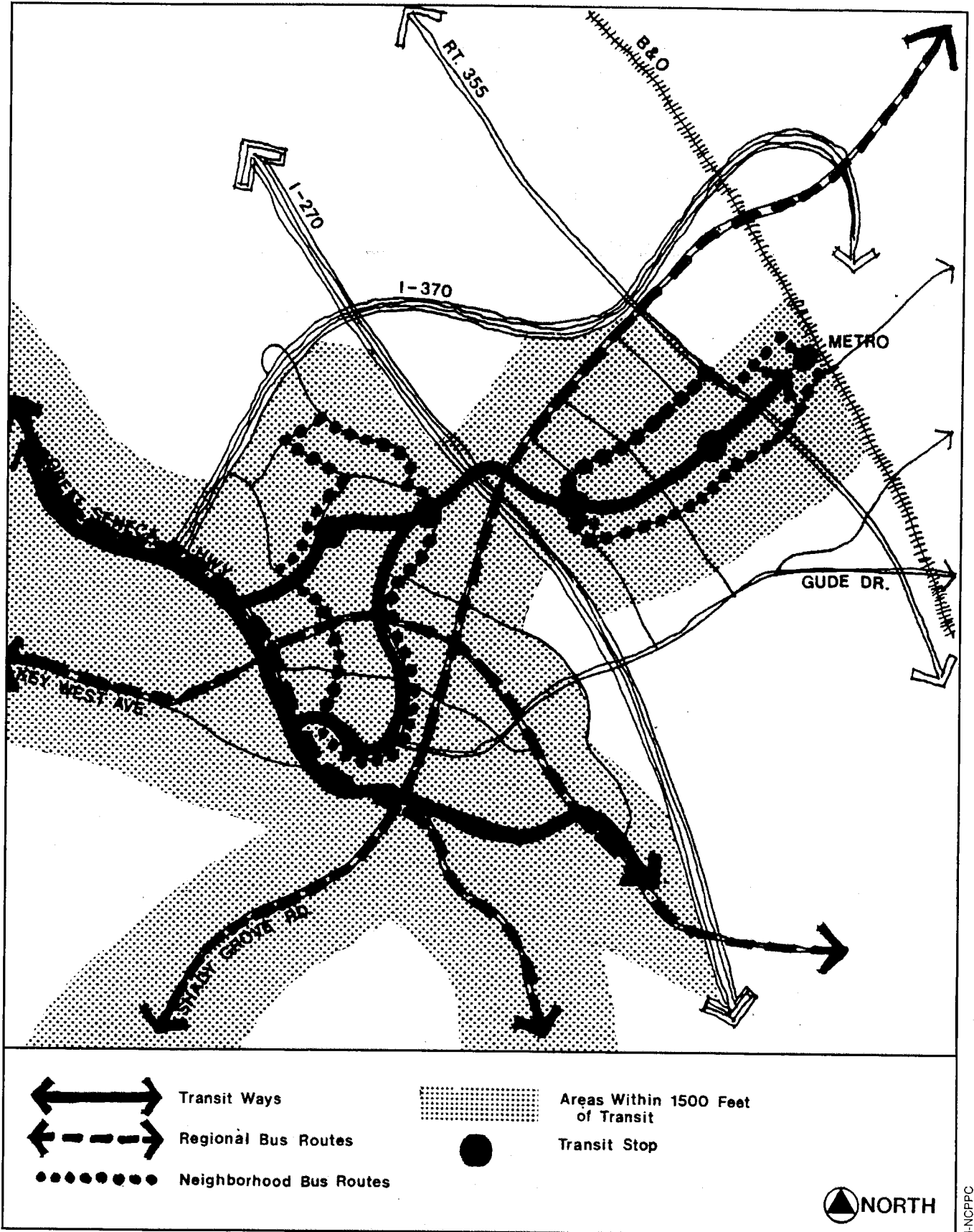
High Priority Regional Bus Routes. This Plan designates those roads which function as regional thoroughfares as high priority bus routes. Bus service along these roads, if planned in conjunction with Park-and-Ride lots outside the Study Area, could offer an attractive alternative to commuting by car to the Study Area.

Neighborhood Bus Loops. A number of neighborhood bus loops are proposed to serve the Metro area and one west of I-270 in the R&D Village. These loops are planned with the pedestrian in mind: workers and residents will walk to transit stops on the loop, board small buses (like Ride-On), and then transfer to either the regional bus networks or one of the transitways.

Interim Transit Strategy. It may not be possible for the three transitways designated by this Plan to become operational in the short-term due to a variety of funding and engineering issues which must be resolved. Therefore, this Plan recommends an

Transit System

Figure 4.1



“Interim Transit Strategy” to ensure that Shady Grove develops as a transit-oriented employment and residential community and to minimize any limitations on the ability of property owners to proceed with development. The Interim Transit Strategy would consist of intensive bus service on existing roads and would use the rights-of-way designated for the transitways wherever possible. An illustration of a potential interim strategy is shown in Appendix H.

OBJECTIVE 2:

Encourage a mix of employment uses and densities.

This Plan proposes a range of development densities and employment uses to provide for a variety of employment opportunities and centers in the Shady Grove Study Area. This is important in an “R&D” area; firms which start out requiring small scale “incubator” buildings may, over time, expand and require more traditional office space. Accommodating a firm’s changing spatial needs will allow employers to remain in the Study Area over a long period of time.

This Plan recommends higher density office uses along a Plan-designated transitway and clusters development at designated transit nodes.

Lower density, R&D employment uses are channeled to the southern portion of the Study Area in close proximity to the County’s Life Sciences Center. Zoning recommendations in this area will help assure that a significant portion of the development will be R&D related.

The pattern of employment uses proposed in the Plan is shown in Figure 4.2, page 24.

OBJECTIVE 3:

Provide for a broad mix of residential units, including affordable housing.

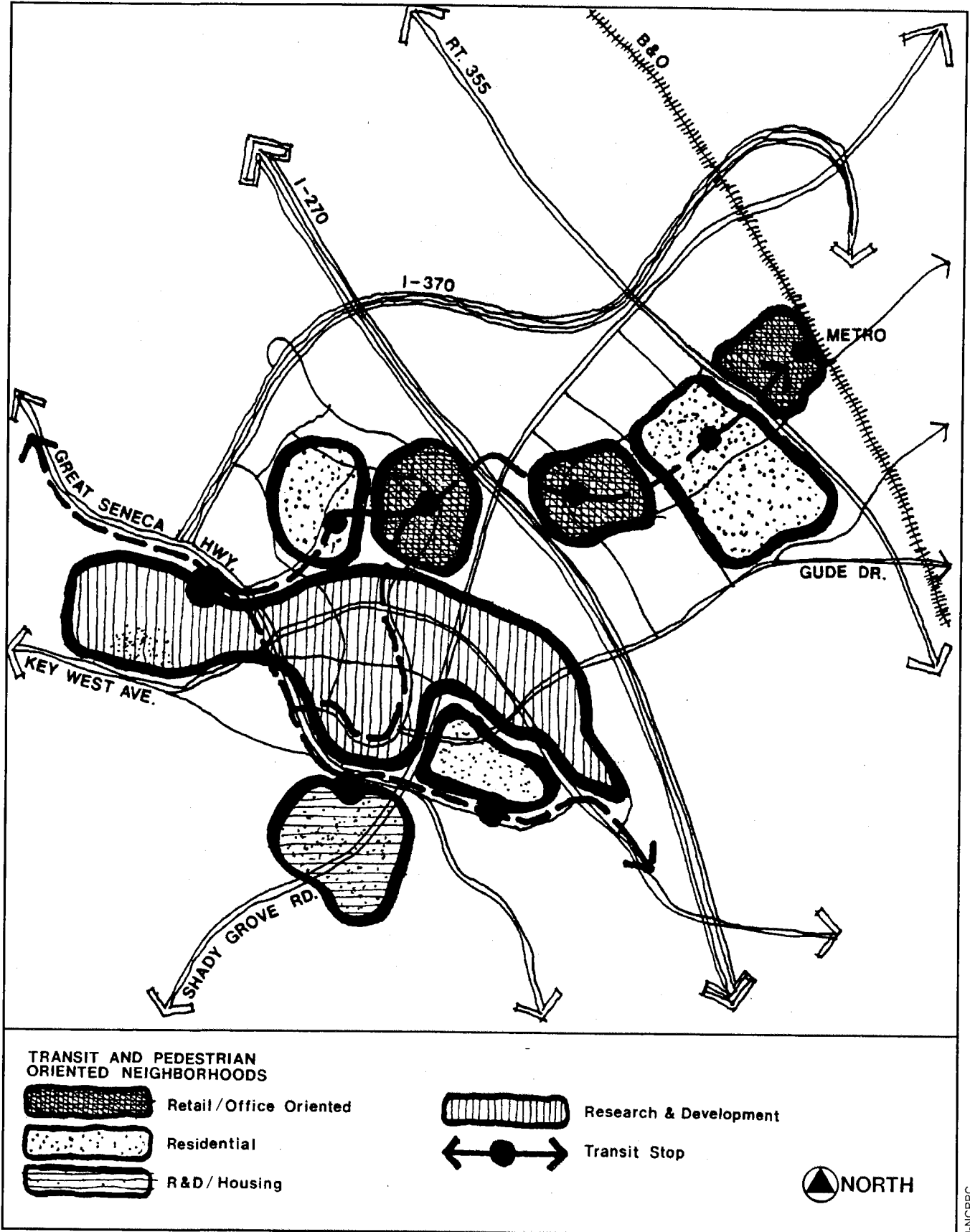
This Plan proposes a land use pattern which includes a variety of housing types: multi-family, attached, and detached. Rather than physically separating each unit type from another, this Plan envisions a mix of housing types at the neighborhood level. The number of units in each category varies depending on the scale, character, and density of development proposed for a given area.

This Plan strongly encourages the provision of affordable housing within the Study Area. Higher densities and a mix of detached multi-family unit types, along with the requirements of the Moderate Priced Dwelling Unit Ordinance, will help address this important need. To further ensure the availability of low- to moderate-income housing, the Plan proposes that higher density residential development on at least one property (Traville) be dependent on a mix of affordable and market rate housing.

The generalized locations of residential areas proposed in this Plan are shown in Figure 4.2, page 24.

Land Use and Design Concepts

Figure 4.2



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OBJECTIVE 4:***Create identifiable residential and employment neighborhoods.***

As part of this planning process, elements which contribute to a sense of place and which foster a sense of community at the neighborhood level have been identified. They are:

- mix of uses (retail, office, and housing);
- interconnected street system;
- diversity of housing types;
- street oriented buildings; and
- mix of active and passive open space areas.

These elements have been identified in response to a growing interest in neighborhoods which offer a greater variety of uses and which are less auto-dependent. As explained in *Envisioning Our Future*, the report of the Montgomery County Commission on the Future:

“We believe that small-scale, nearby service businesses are often integral to a neighborhood. Because the neighborhood businesses are so close and convenient, people are able to walk easily to them and thus are able to meet other neighbors Communities need a central location as a hub for neighborhood activities. It should be accessible not only by private auto but by public transportation and by foot and bicycle as well.”

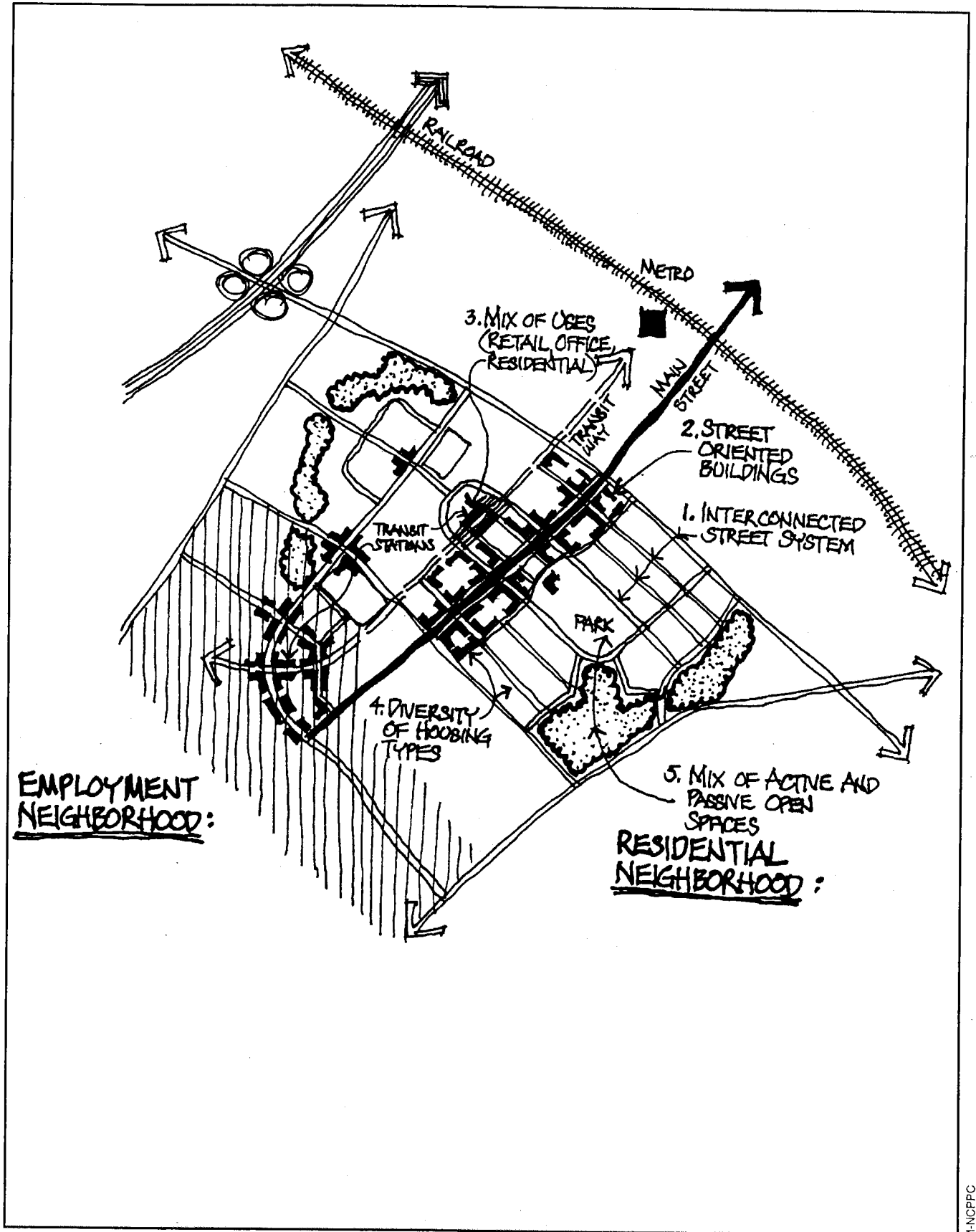
This Plan proposes a neighborhood development concept for the majority of vacant tracts in the Study Area. Employment, residential, retail uses, civic spaces, and parks relate to one another, and the street pattern supports pedestrian as well as auto and transit accessibility.

The one exception to the mixed use neighborhood concept is the Banks Farm, which will be developed as a research campus by Johns Hopkins University. Although no retail uses are proposed and only a small number of residences (50) will be provided, civic spaces and parkland are proposed to help create a sense of neighborhood.

The following pages illustrate the neighborhood elements which this Plan promotes.

Conceptual Neighborhood Diagram

Figure 4.3



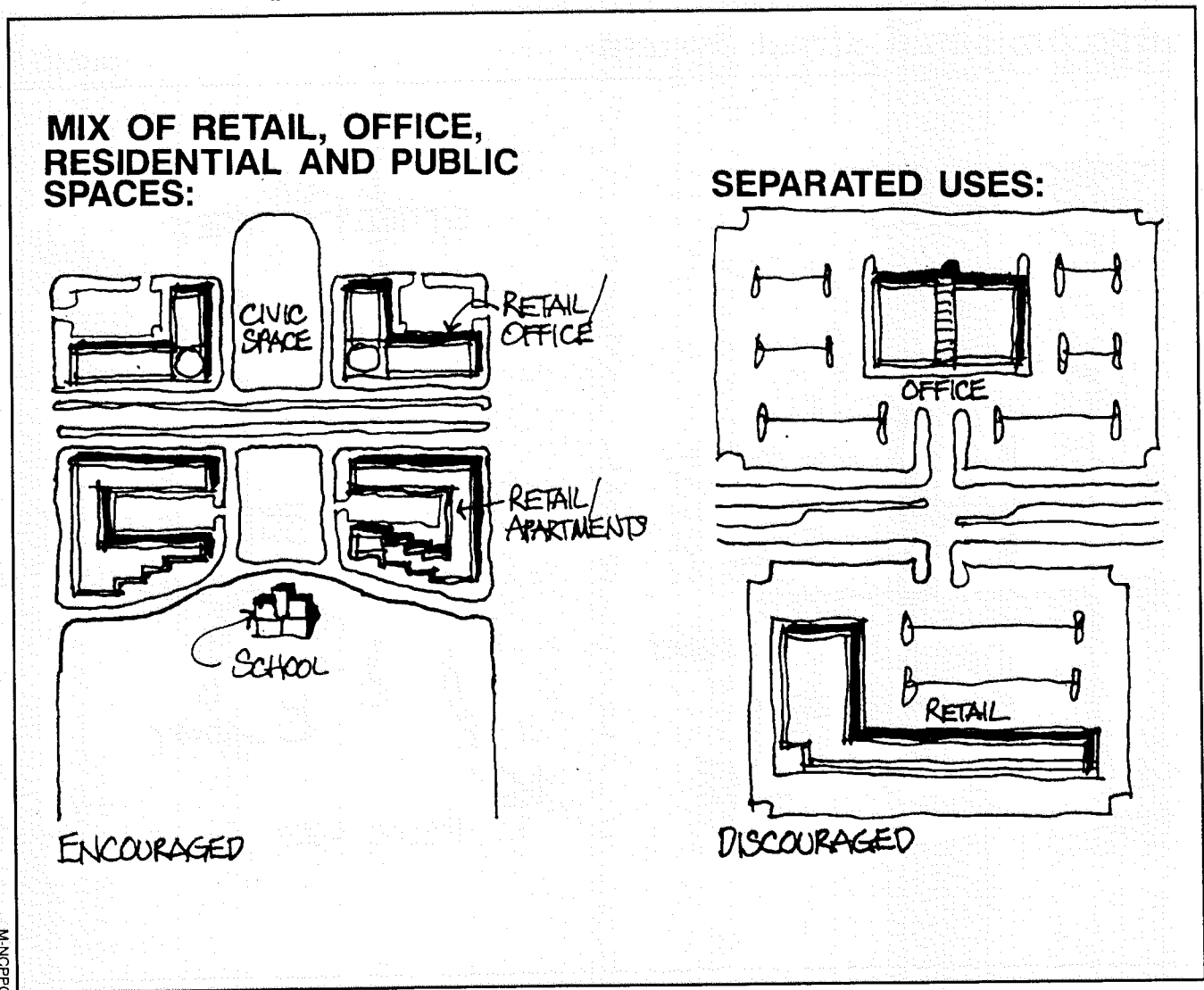
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Mix of Uses

Park sites, schools, and pathway systems are elements that foster a sense of community and encourage interaction among residents. Retail and professional services, if provided at a pedestrian scale and oriented to the needs of residents, would also function as focal points for the residential neighborhoods. By integrating retail uses and open spaces into the employment neighborhood, an environment which offers more than just work-related activity is provided. Establishing a mix of uses in each neighborhood will encourage pedestrian travel and reduce the dependence on the automobile. The intent of this Plan is to provide a mix of uses in close proximity for each neighborhood. Separation of uses will be discouraged.

Mix of Retail, Office, Residential and Public Spaces

Figure 4.4



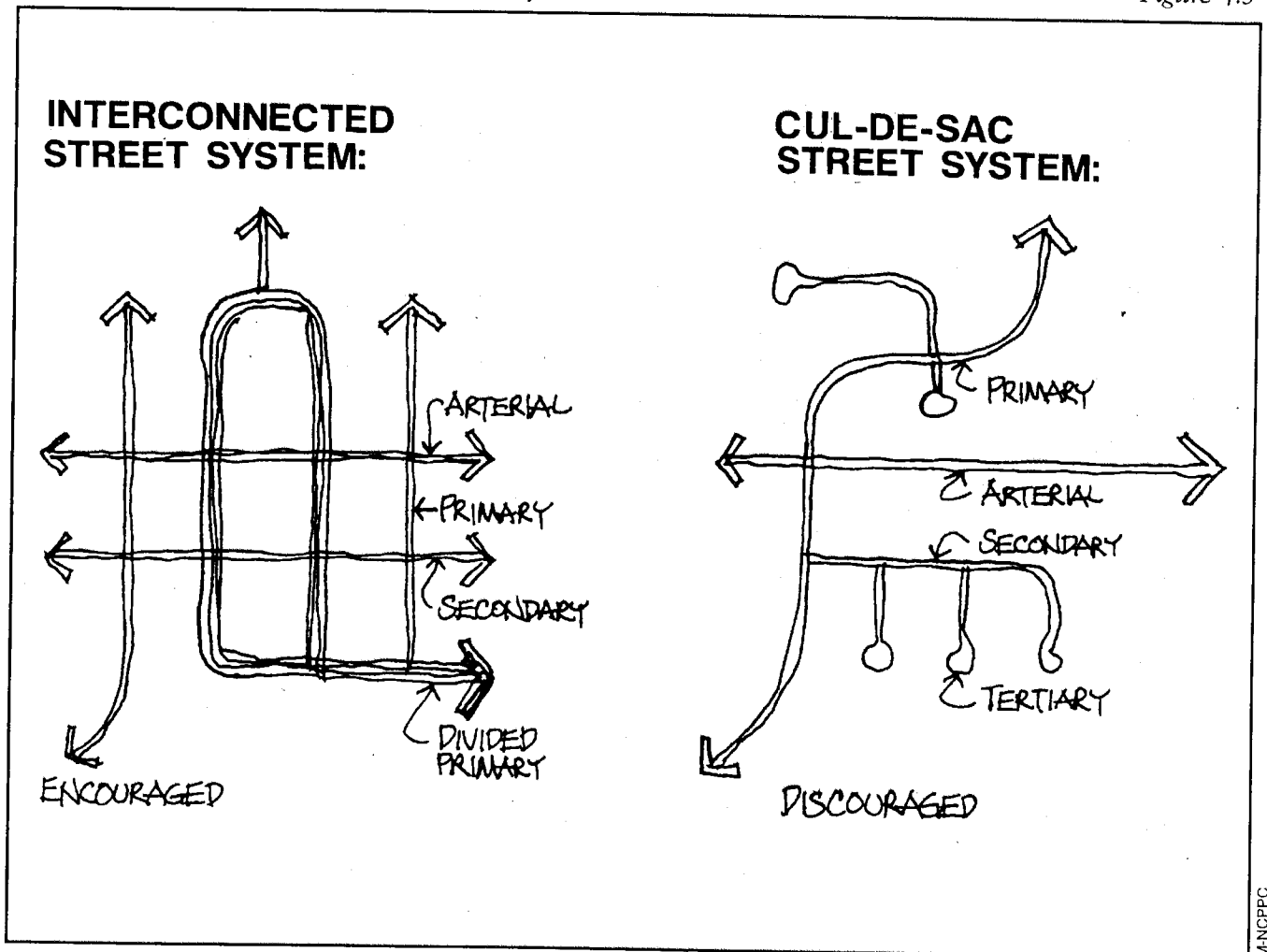
Interconnected Street System

A hierarchy of street sizes is critical to fostering a sense of place in both residential and employment neighborhoods. While some streets, such as I-370, must be designed primarily for the automobile and through traffic, internal neighborhood streets should be designed for pedestrians as well as vehicles. This Plan includes criteria for primary streets that will help assure a pleasing pedestrian environment while still accommodating local automobile traffic.

The interconnected system of streets proposed for use in this Plan will provide more direct access for pedestrians, bicyclists, and vehicles to all areas of the neighborhood, including transit stations, retail stores, civic space, and residences. Future developments in the Shady Grove Study Area will be encouraged to use the wide variety of road sections available in Montgomery County, which range from tree-lined boulevards (divided primary streets) to the more narrow residential streets (secondary streets) that are found in many of the older neighborhoods. Sidewalks will be provided along both sides of the streets and on-street parking will be encouraged. The use of a cul-de-sac system of streets with countless dead ends that isolate areas within neighborhoods and limit access will be strongly discouraged.

Interconnected Street System

Figure 4.5

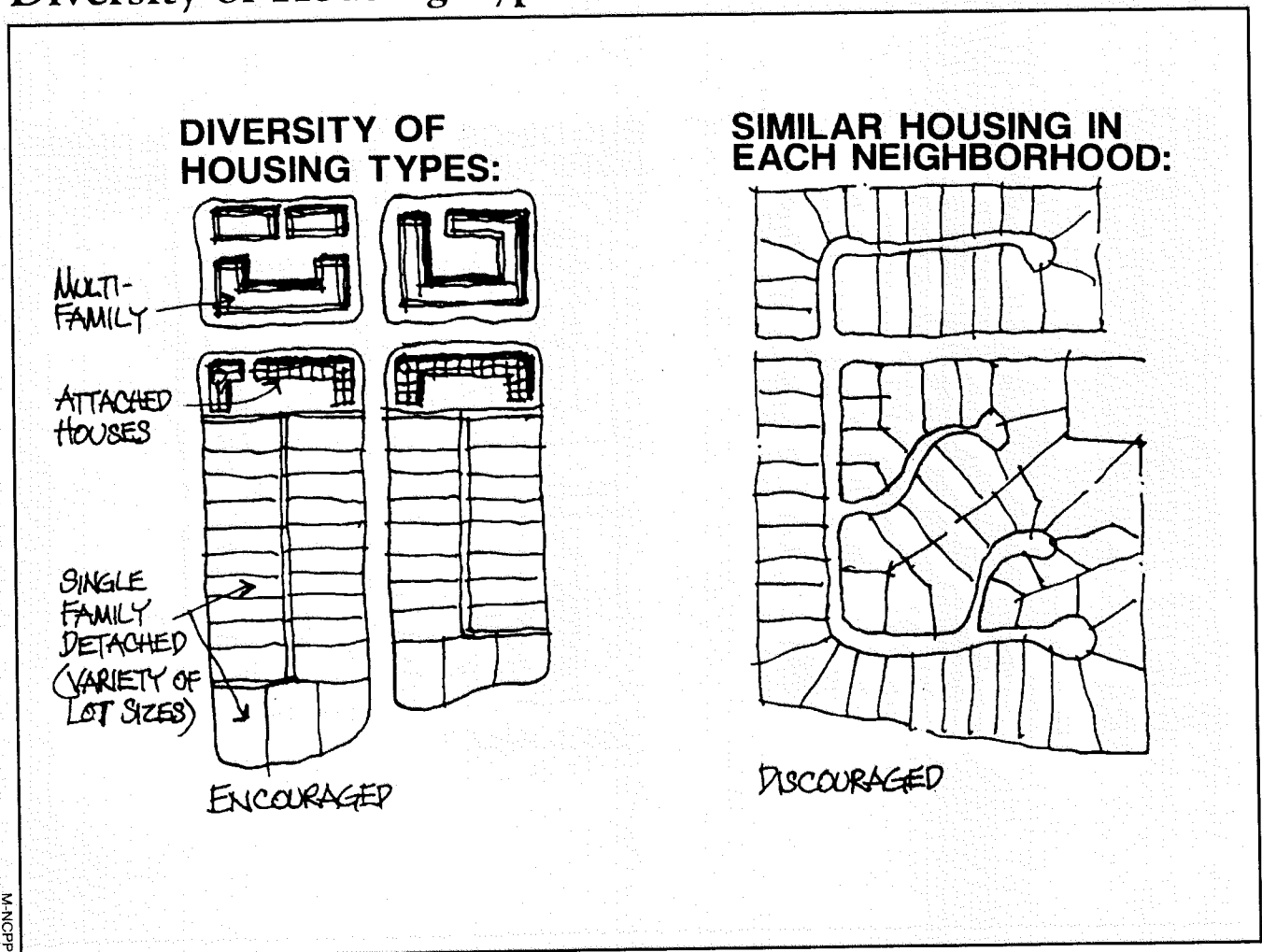


Diversity of Housing Types

As already noted, in the previous objective, this Plan endorses a mix of unit types at the neighborhood level. A wide range of housing types, including single-family attached and multi-family residences, will be encouraged within each neighborhood. Locating a mix of housing types within each block of development will also be encouraged to avoid large concentrations of any single type of housing within the neighborhood. Lack of diversity of housing types, as well as separation of housing types, will be discouraged within each neighborhood.

Diversity of Housing Types

Figure 4.6



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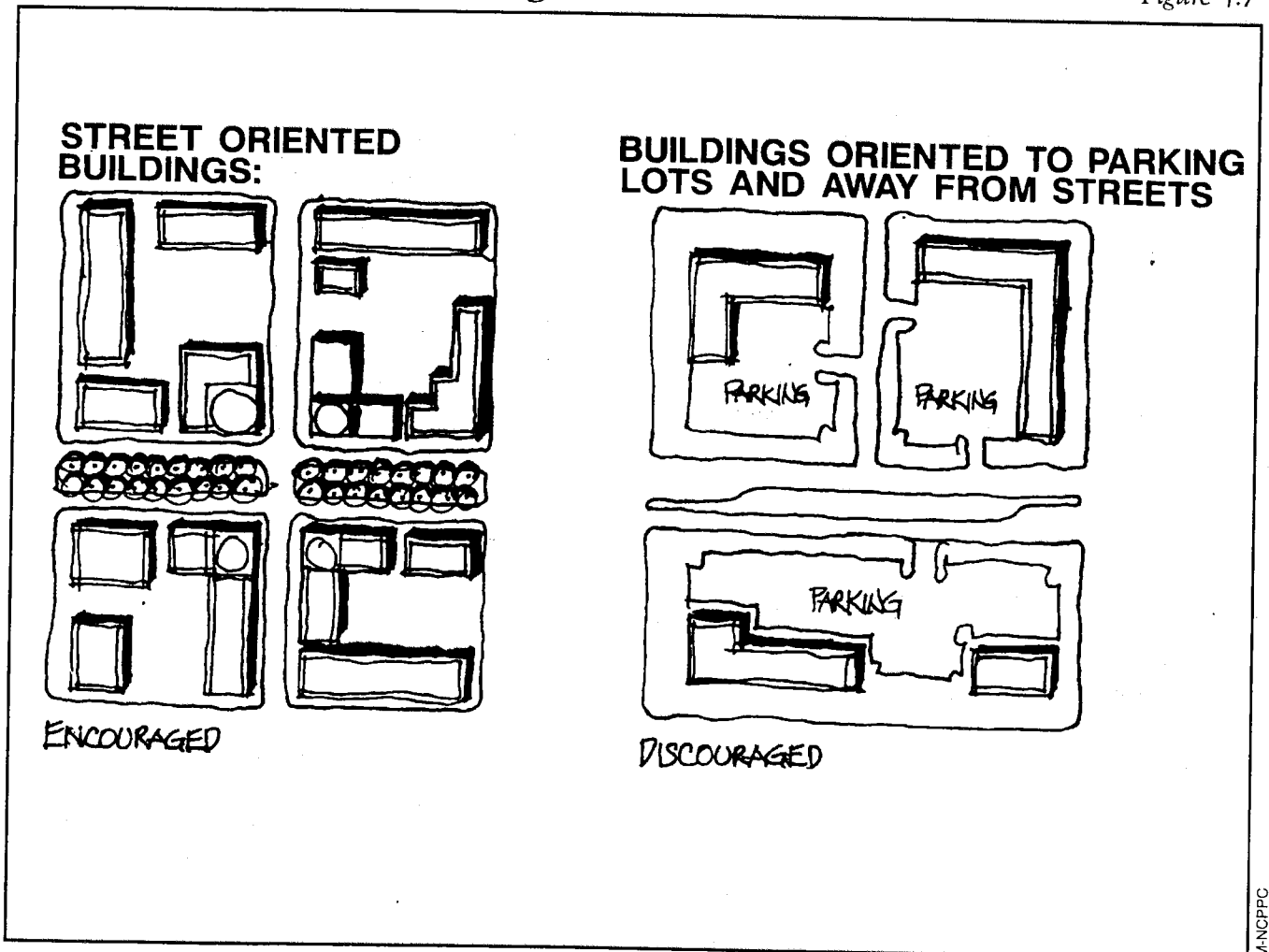
Street Oriented Buildings

To foster the creation of attractive neighborhoods, this Plan proposes that buildings be clustered along streets. This approach will help to create a pleasing street front and will facilitate pedestrian movement between buildings, and from buildings to transit stops.

Parking should be located to the rear of all structures. Single-family and multi-family residences should be oriented to streets to create a safe and attractive neighborhood environment that encourages pedestrian travel along the sidewalk. Office and retail structures should also be oriented to streets that are linked to all areas of the neighborhoods particularly by pedestrian paths. Isolated buildings oriented to parking lots and separated from the public streets will be discouraged.

Street Oriented Buildings

Figure 4.7



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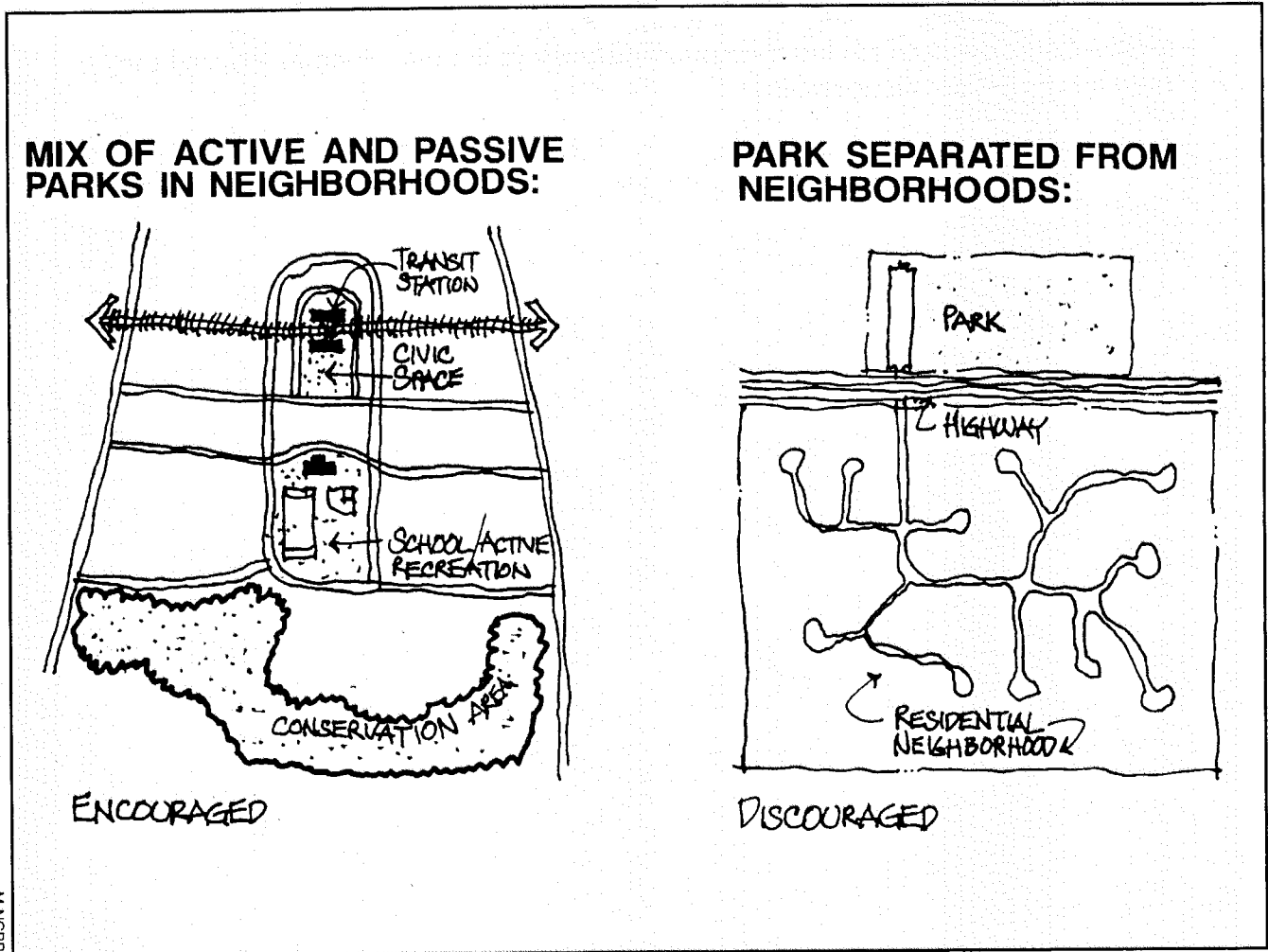
Mix of Active and Passive Open Space Areas

To foster the creation of residential neighborhoods with a strong sense of place, this Plan proposes that a mix of active and passive open space areas be carefully integrated into each neighborhood. Active open spaces include large open play fields, local parks, and small recreation areas. The location of civic open spaces adjacent to the transit stops with retail services and professional offices is encouraged. Passive open space areas should be primarily located near the boundaries of the neighborhoods to preserve natural features such as trees and small streams. Active and passive open spaces isolated from the neighborhood are discouraged.

To the maximum extent possible, active and passive open spaces should be located to encourage joint use by workers and residents.

Mix of Active and Passive Open Space Areas

Figure 4.8



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OBJECTIVE 5:

Identify key roads which should have a special identity to help foster a sense of place.

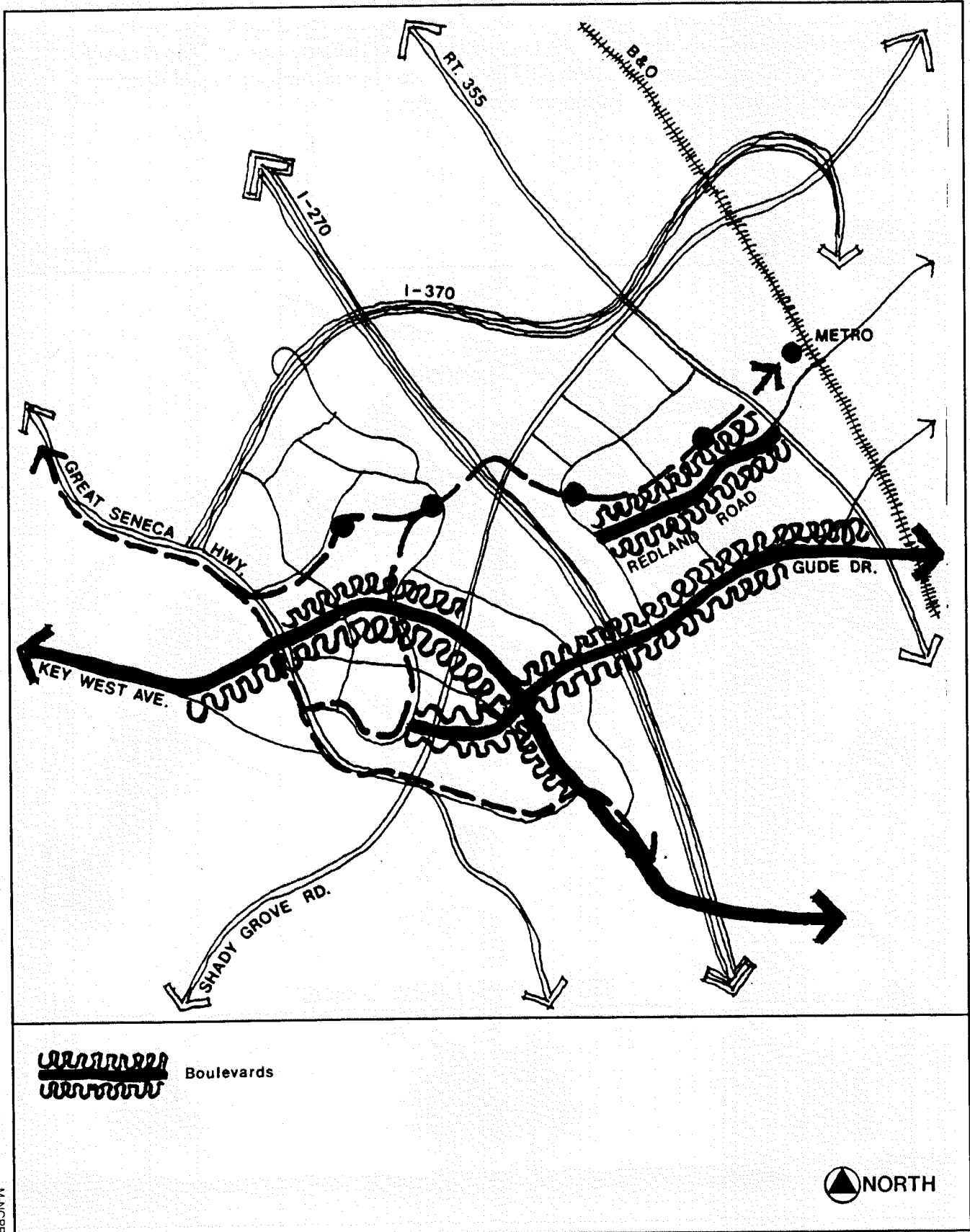
This Plan designates three roads for special design treatment. Key West Avenue in the R&D Village, Redland Road on the King Farm, and Gude Drive (a proposed road on the Thomas Farm) are recommended to be treated as landscaped boulevards. In addition, a road on the King Farm should be designed as a "main street" to focus shopping and community activities in conjunction with transit access. This road may be Redland Road or a new road to be determined at the time of subdivision. The special character proposed for each of these roads is shown in the following illustrations.

This Amendment will be followed by a townscape study to provide a link between the broad streetscape objectives identified here and the review of development plans, preliminary plans, and site plans. This townscape study will further define the urban design elements of the street environment both visually and functionally for all users of the streets, including pedestrians, bicyclists, and transit users. This study will be undertaken by the Planning Department.

The townscape study will also identify building height and setbacks from the public right-of-way to achieve compatibility, orientation of buildings to achieve transit serviceability, the need to cluster housing and employment uses along streets, and the need for open space along streets.

Key Roads Concept

Figure 4.9

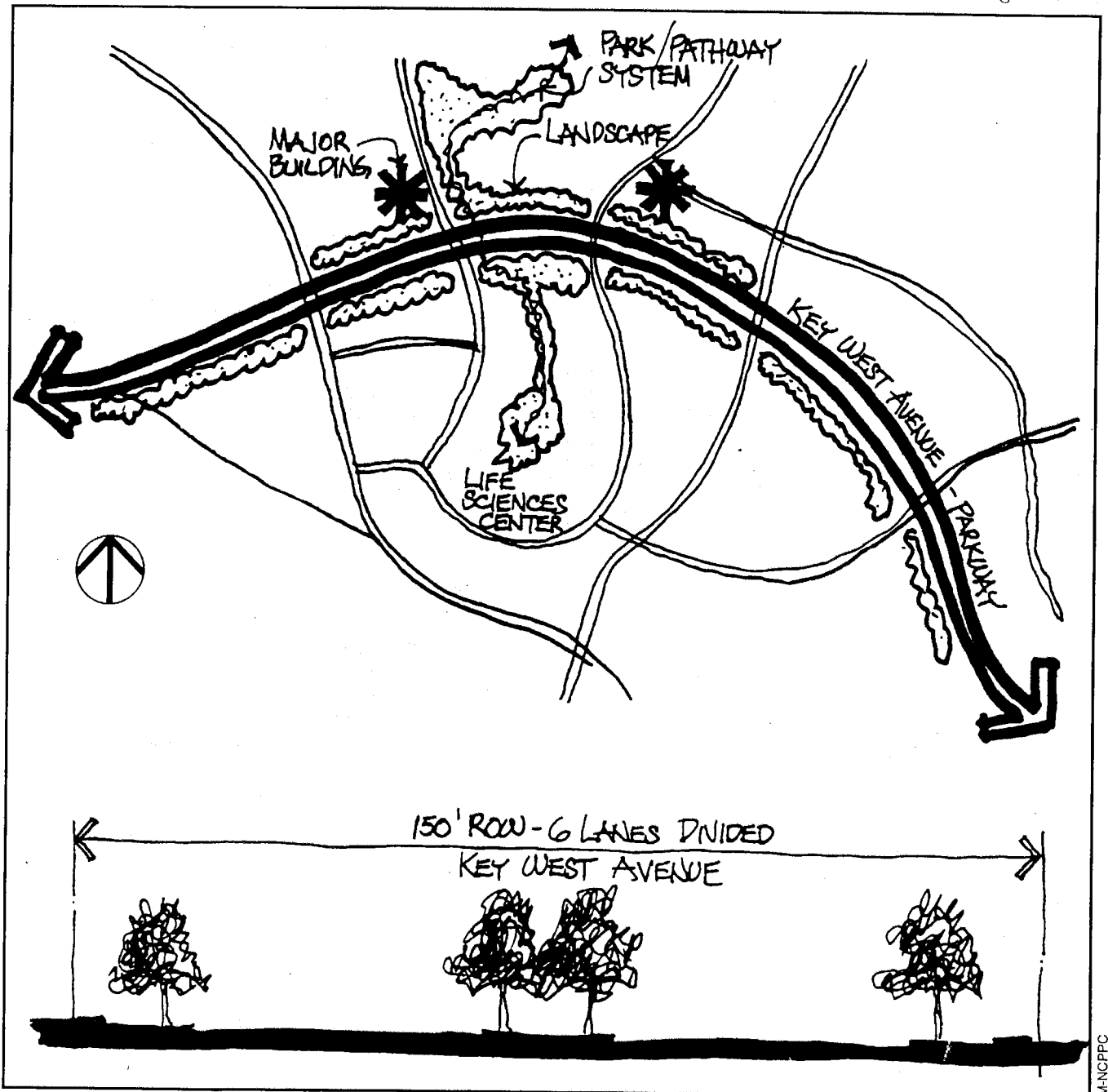


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Key West Avenue will serve as a landscaped boulevard that carries traffic through the southern portion of the Study Area and is a major point of arrival at the Life Sciences Center. The opportunity exists to make Key West Avenue a significant R&D parkway by clustering buildings and providing large areas for landscaping along it. The sense of arrival at the Life Sciences Center could be enhanced by encouraging higher density buildings on properties near entrances to the Center.

Key West Avenue

Figure 4.10



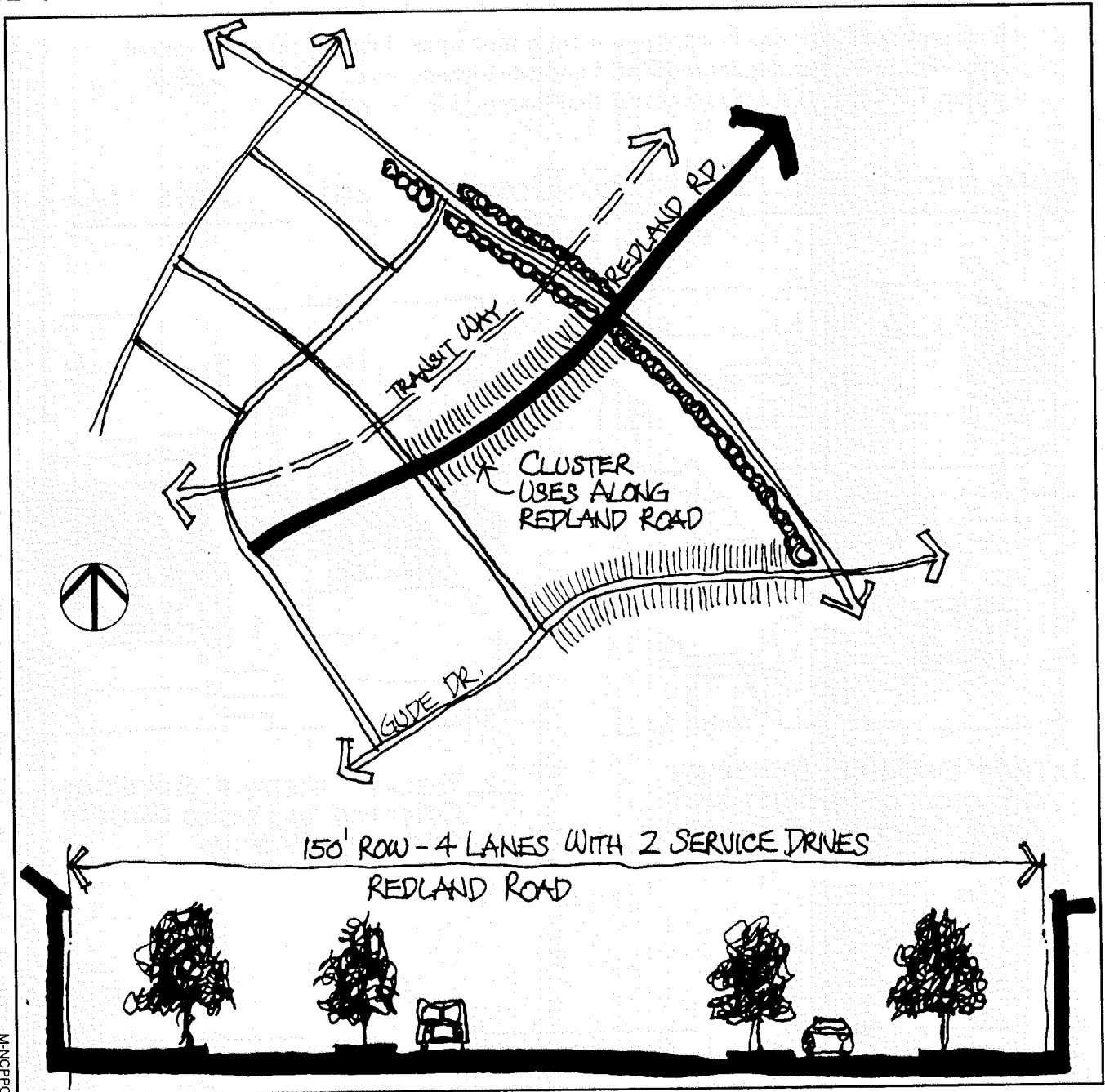
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Redland Road bisects the King Farm and offers a direct connection from the King Farm to the Shady Grove Metro station. A double row of street trees, continuous sidewalks, and buildings oriented to the street are all elements included in the "boulevard" concept for Redland Road. Access to the future transit line should be provided from this street and a new "main street." Redland Road or a new road will become the "main street" for the area east of I-270.

Gude Drive traverses the Thomas Farm and will be the main access to employment and residential uses on the site.

Redland Road

Figure 4.11



M.N.C.P.C.

OBJECTIVE 6:

Enhance transit serviceability by orienting higher intensity development to designated busways and/or transitways.

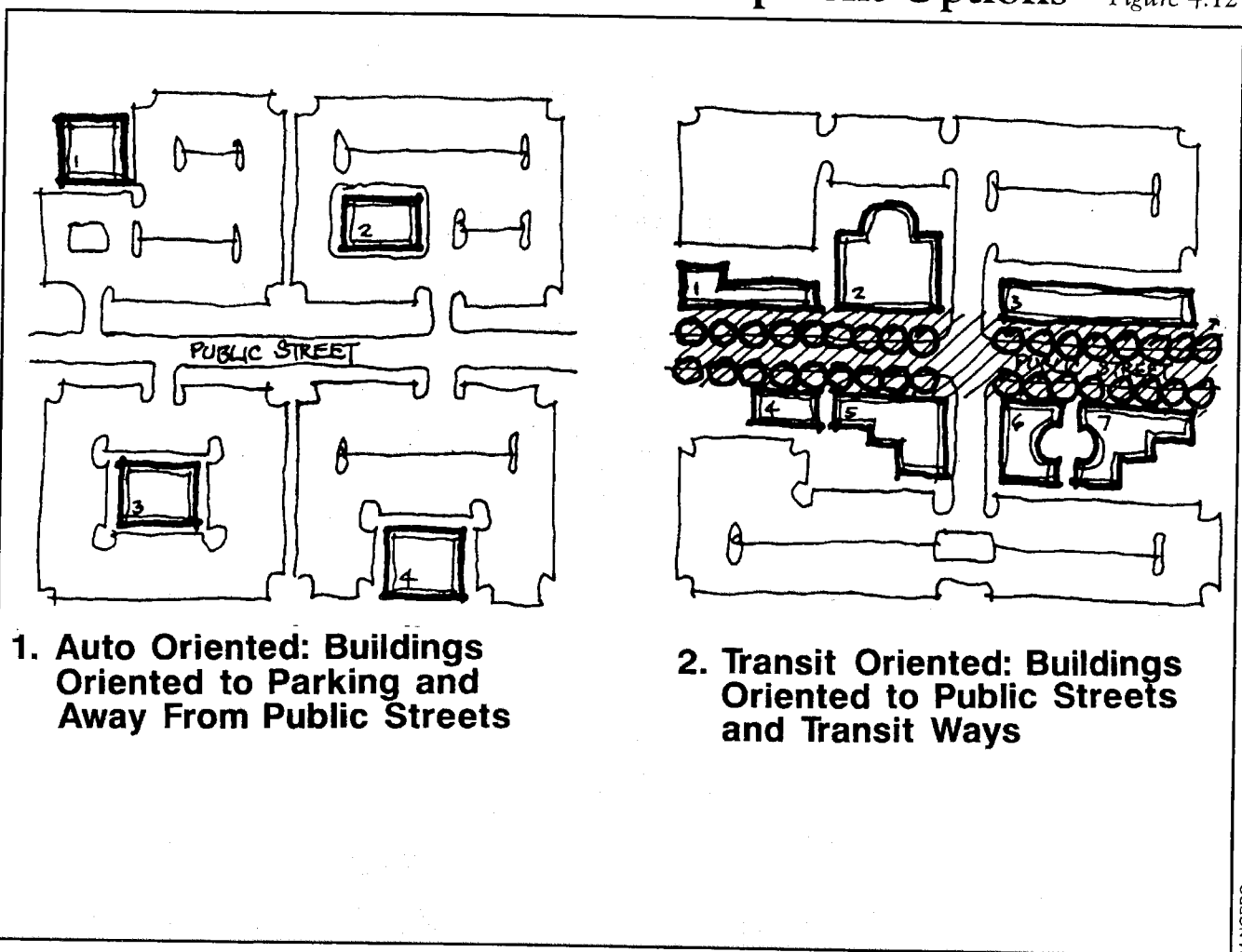
This Plan proposes a transit system consisting of three elements: transitways separate from streets, regional bus routes, and a system of neighborhood bus loops.

Development is proposed to be clustered toward these transit elements to enhance transit access.

The concept below demonstrates how the clustering of buildings along roadways can allow bus stops to be closer to buildings, thereby making bus service more convenient and efficient.

This same approach can be applied around transit stops along a separate bus or rail right-of-way. Higher density residential and employment uses should be clustered within 1,500 feet of these stops to maximize accessibility to transit.

Auto and Transit Oriented Development Options Figure 4.12



OBJECTIVE 7:

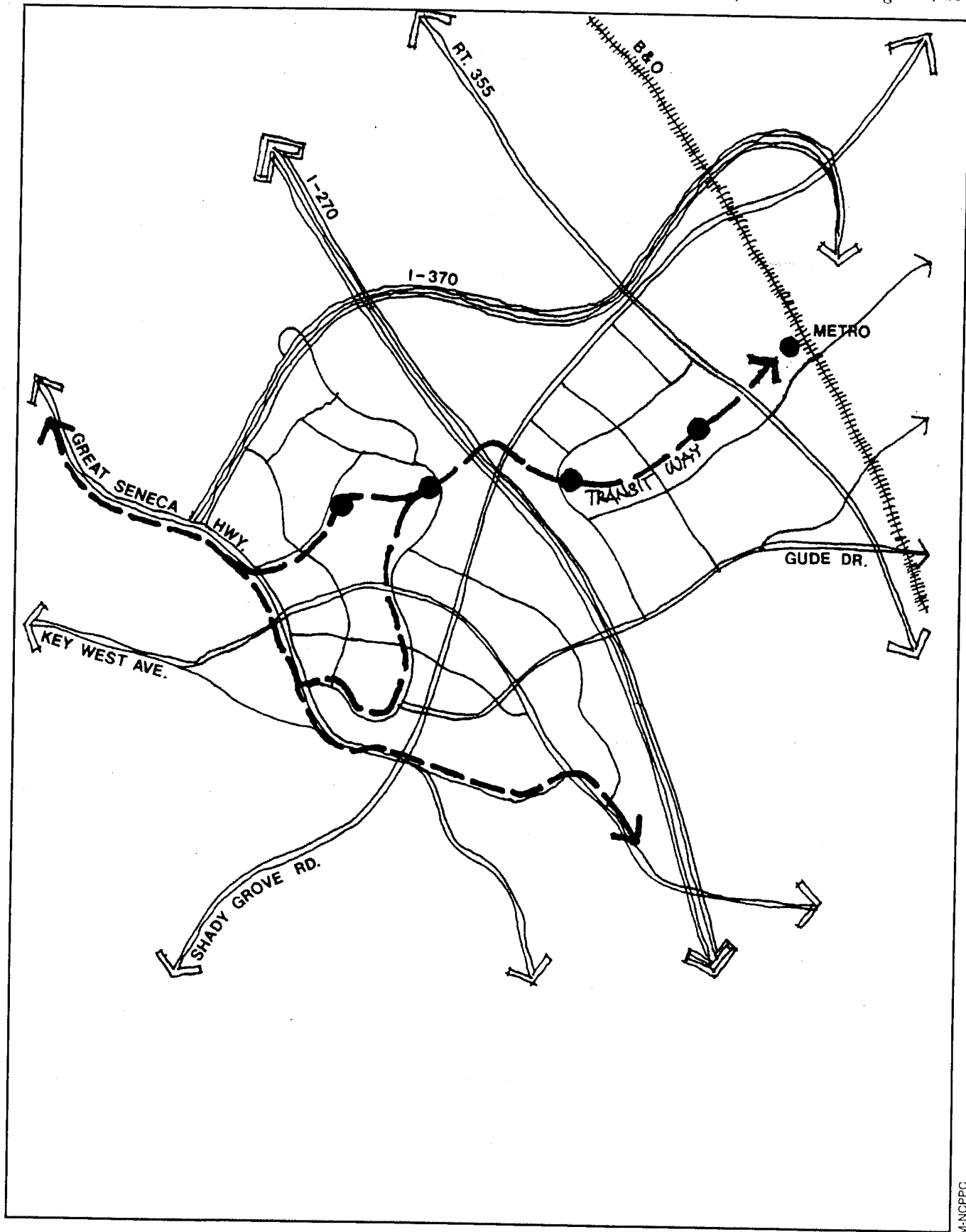
Provide a roadway network which, in conjunction with the proposed transit system, will adequately serve the planned land uses at acceptable levels of service.

A generalized map of the highway network proposed for the Study Area is shown in Figure 4.13, page 38.

As part of this planning process, the roadway network (in conjunction with the transit system) has been tested in relation to anticipated long-term development patterns. This analysis projects that levels of service for the entire Gaithersburg Vicinity area will be acceptable, assuming increased transit service. In other words, additional capacity in the future will largely hinge upon public transportation and transportation management measures that reduce congestion to acceptable levels of service.

Roadway Network

Figure 4.13



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OBJECTIVE 8:

Provide a meaningful park and open space system.

The park and open space system recommended for the Shady Grove Study Area consists of three elements that are designed to offer residents and workers a variety of outdoor settings:

Active Recreation Space: Public local parks and school sites will be the major sources of active open space. Local parks should be integrated into residential neighborhoods and linked, when possible, to school sites. Local parks can be an important source of community pride and identity; parks should be located and designed to foster these feelings. Local parks will generally be publicly owned active recreation spaces. The area of the local park will be 5 to 10 acres. A park and trail system connecting the Life Sciences Center to the Washingtonian Center will also be part of the active recreation spaces system.

Neighborhood and Civic Open Spaces: This Plan recommends that large, pedestrian-oriented private recreation areas (such as tennis courts and swimming pools), open play areas, playgrounds, tot lots, and sitting and picnic areas be included in all major development proposals as part of the open, green space requirement. These types of open spaces are particularly important in higher density residential neighborhoods. Neighborhood recreation sites to be provided by private developers and maintained by the future citizen associations should be in addition to the open spaces located between buildings. Civic open spaces should be located adjacent to each of the transit stops in the residential and employment neighborhoods. Retail and office uses will be located near these civic spaces to establish a focus for these neighborhoods. Civic open spaces will include major lawn areas, paved surfaces for outdoor events, benches, and pathways that connect to residential areas.

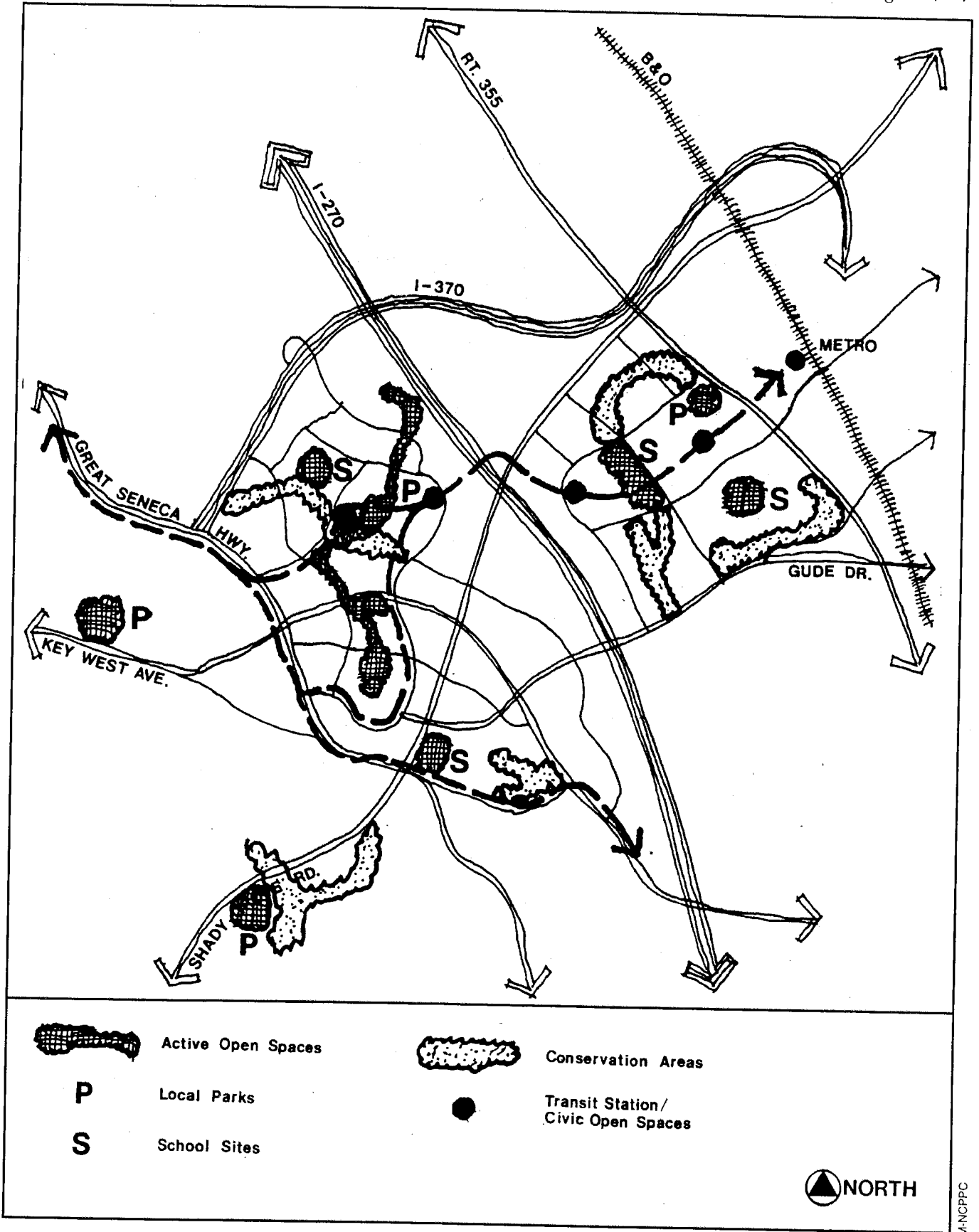
Conservation Areas: These areas should preserve stream beds and wetlands. Pathways may be part of these areas, but their primary function is to protect sensitive environmental features. The passive open space areas shown for the Shady Grove Study Area are intended to link up to similar open space areas in the cities of Rockville and Gaithersburg, as well as to stream valley conservation areas south of MD 28.

The park and open space concept for the Study Area is shown as Figure 4.14, page 40.

Traditional Farmsteads: To the extent possible, the homes, barns, and grounds that are the centers of the existing farms should be used to accommodate and locate many of the above facilities, as well as other public and private community facilities. In this manner, these traditional farmsteads can be preserved and become focal points for community life. (See Objective 9.)

Park and Open Space System

Figure 4.14



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OBJECTIVE 9:***Integrate designated historic sites into future development patterns.***

Two sites in the Shady Grove Study Area are included in the *Master Plan for Historic Preservation*. (See Figure 4.15, page 42.)

Site #20/17 – England/Crown Farm – 192 Fields Road:

- Victorian style structure with intricate bracket work and cornice along its main facade.
- Typical Maryland farmstead with log tenant house.
- The environmental setting is the entire 47.5-acre parcel.

Site #20/21 – Belward Farm/Ward House – 10425 Darnestown Road:

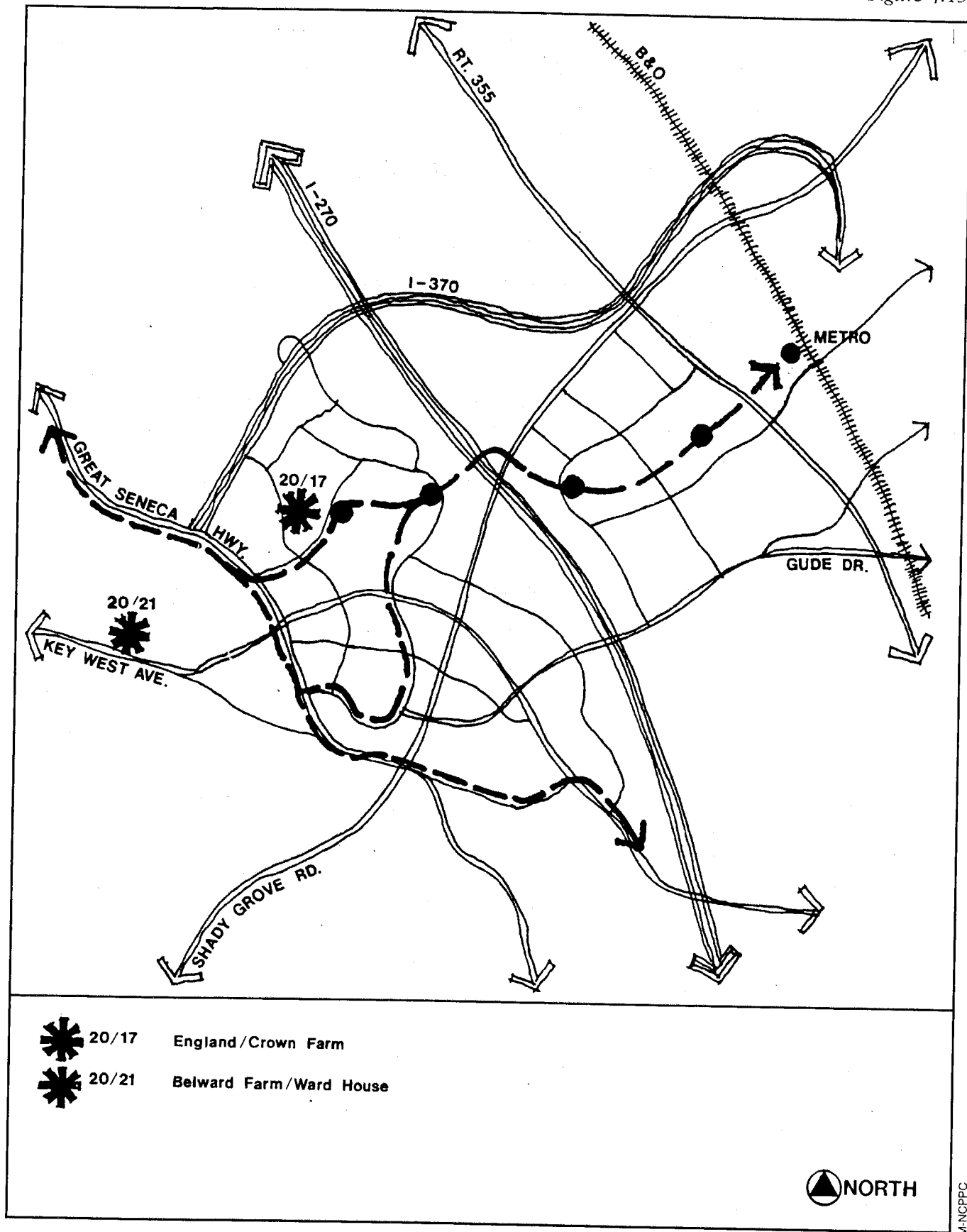
- 1891 – Significant as an example of a high style, late 19th century farmstead.
- Queen Anne House exemplifies high style Victorian architecture. This two-story frame house features shingled gables and a two-story porch with turned posts.
- Built by Ignatius B. Ward, farmer, storekeeper, and postmaster for Hunting Hill.
- The environmental setting is the entire 134.37-acre parcel. It includes the Queen Anne style house, some representative outbuildings, and the significant shade trees which combine to define the historic farmstead. The setting also includes the tree-lined drive to preserve the historic relationship of the farmstead to the road. At the time of development, special attention should be given to the siting of structures to provide a view of the house from MD 28.

This Plan assumes the preservation of the England/Crown Farm and the Belward Farm/Ward House. The potential exists for utilizing these historic resources in a way which would complement new development that may occur on the sites.

Any application to demolish or alter the exterior of these resources or their environmental settings must be reviewed by the Montgomery County Historic Preservation Commission (HPC), and a historic area work permit must be issued in accordance with the County's Historic Preservation Ordinance, Chapter 24A of the Montgomery County Code. The ordinance also empowers the County's Department of Environmental Protection and the HPC to prevent the demolition of historic buildings through neglect.

Historic Sites

Figure 4.15



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OBJECTIVE 10:***Reinforce the educational aspect of the R&D Village.***

The Shady Grove Study Area is unique in that it can claim the presence of two major universities (Johns Hopkins University and the University of Maryland) and a major biotechnical research and development center (Life Sciences Center). Johns Hopkins University has recently acquired the Banks Farm, which the University will develop as a research campus. A 35-acre parcel in the Life Sciences Center is already owned by Johns Hopkins University and is in use as an academic/research campus. The University of Maryland is developing the Center for Advanced Research in Biotechnology (CARB) on a site just south of the Life Sciences Center.

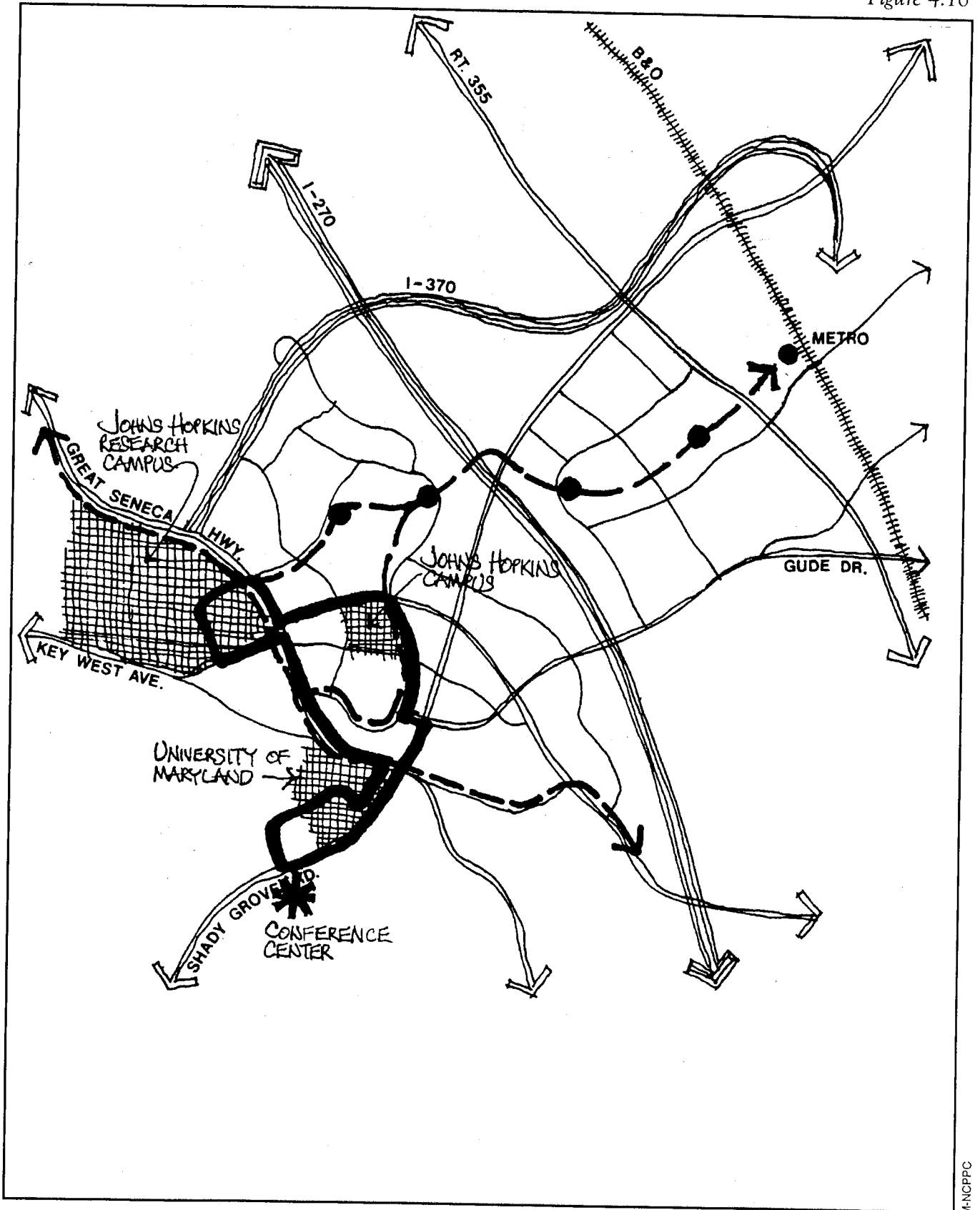
Every effort should be made to take advantage of these unique resources. For example, the Shady Grove Study Area may be an appropriate location for a joint public/private research and general circulation library specializing in science and technology.

Although the educational resources in the area are a significant presence, the distance between existing and potential future campuses precludes walking. As shown in Figure 4.17, one way to link these uses is through a bus or shuttle loop. Depending on demand, this bus loop could also provide service at specified times to the National Institute of Standards and Technology (formerly the National Bureau of Standards) and the Shady Grove Metro station (on the Red Line, which also serves the National Institutes of Health).

The feasibility for such a shuttle service, as well as the actual routing, would be determined by the Montgomery County Department of Transportation as development proceeds.

Potential Shuttle Bus Route to Link Educational Facilities

Figure 4.16



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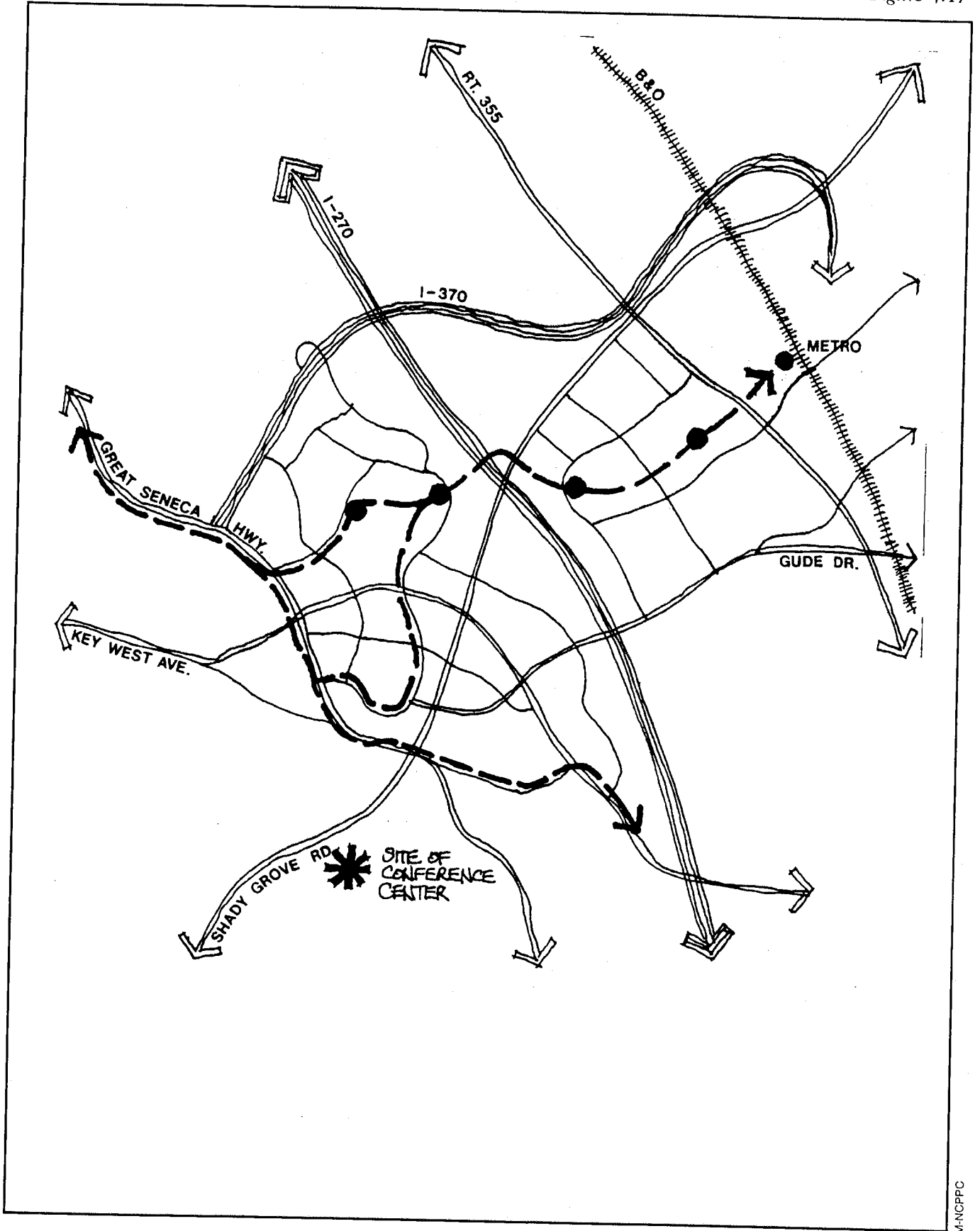
OBJECTIVE 11:***Locate an executive conference center in the Study Area.***

The *Gaithersburg Vicinity Master Plan* states that a conference center would be highly desirable to complement the Life Sciences Center and the University of Maryland Campus. A report prepared by the Executive Task Force on Conference Centers (March 1987) recommended the Shady Grove area as appropriate for an "executive conference center." A conference center is defined in that report as "a facility which is specifically designed for the meeting needs of professional and technical organizations. Such facilities, which normally include lodging, typically have large amounts of meeting space, sophisticated audio-visual and teleconferencing capabilities."

This Plan proposes an executive conference center on the Traville property south of Darnestown Road (MD 28). In accord with the neighborhood concept, this Plan recommends the conference center be part of a mixed use development which includes housing, parkland, retail uses, and employment.

Executive Conference Center

Figure 4.17



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