



# Howard County

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*Route 40 Enhancement Study*

# CHARACTERIZATION REPORT

Howard County Department of Planning and Zoning  
October 30, 2003

## **PREFACE: PURPOSE OF THE REPORT**

This report is a preliminary description of the Route 40 corridor - its history, its people, its land and its communities. It is meant to provide a quick snapshot of the area. It is prepared for use by the members of the Route 40 Task Force as it begins its investigation of the issues, opportunities and challenges that face the corridor. The Department of Planning and Zoning welcomes comments on this report. As the Route 40 Enhancement Study proceeds, more information will be added to the report. A series of maps are available as companion to this report.

## **ACKNOWLEDGMENTS**

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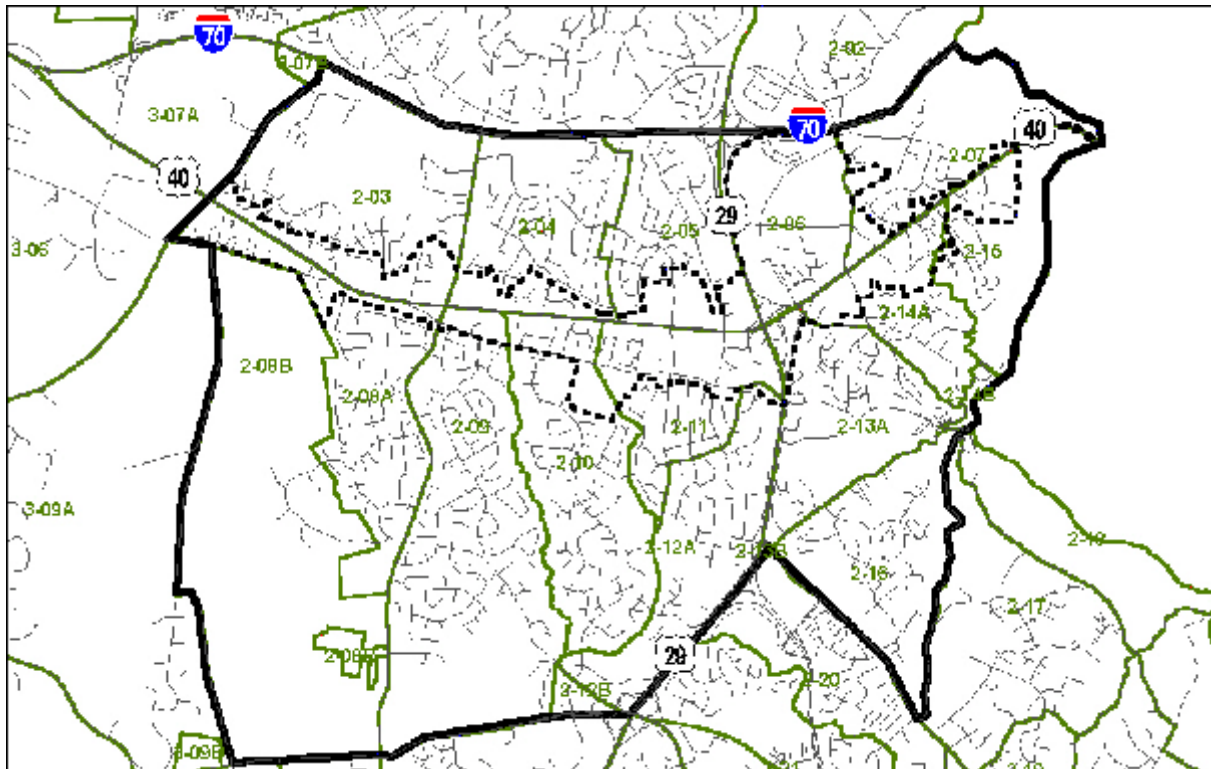
- Highway
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# INTRODUCTION

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## *Study Area*

The Route 40 corridor study area includes properties that are adjacent to or directly influenced by Route 40. An expanded study area will often be used to develop background information that will help the Task Force and others gain an understanding of the people, places and systems that are woven around this stretch of highway. Most sections of the report look at the broader geography that is defined by US Census Tracts and County Statistical Areas. These areas extend beyond the limits of the corridor both due to the ease of analysis (data that only includes the properties within the study area is generally unavailable) and because this expanded information plays an important role in determining the uses of the corridor. The map below depicts the corridor study area boundaries and the expanded area that is used throughout this report. The expanded area extends to I-70 to the north and New Cut Road, Montgomery Road, US 29 and MD 108 to the south.



Study Area Boundary and Expanded Statistical Area Boundary

This report will use snapshots of different times to characterize the corridor and to promote a deeper understanding of the corridor. The history of Route 40 is examined to understand the evolution of the corridor. Photos and year built data are used to examine how and when development occurred in the corridor. Census Data from 2000 is incorporated into this report to help understand the demographic make up of those who use the corridor on a day to day basis.

## *General Plan 2000 and the Route 40 Enhancement Study*

The *General Plan 2000*, in the chapter on Community Conservation and Enhancement, describes a

new community planning process for the County. The plan proposes that this community planning initiative include an enhancement study of the Route 40 area. Throughout the Plan a series of policies and actions describe the County's goals for this corridor. They can be summarized as four key areas:

1. *The Road and its Environment* - improving the transportation functions of Route 40, correcting unsafe conditions, addressing transit needs, traffic level of service, pedestrians, bicycles, trucks, etc.
2. *Redevelopment* - encouraging the renovation and redevelopment of older commercial sites and establishing guidelines for mixed use centers where appropriate.
3. *Environmental Conservation and Restoration* - protecting the natural environment and restoring environmentally degraded areas.

### Mixed Use Development

Previous to the adoption of zoning, which separated uses to minimize harmful effects of industrial and commercial uses especially on residential areas, many different kinds of uses were developed next to each other. The early development of nearby Historic Ellicott City offers the Route 40 corridor a model of what mixed use development can look like. The *General Plan 2000* supports using and creating mixed use developments for community focus. This approach is relevant to the Route 40 corridor as it would continue the development patterns already established in previous centuries rather than those patterns established in the last few decades.

*General Plan 2000* calls for small mixed use developments in the Route 40 corridor as a means to provide a stronger local identity and public environment for new or existing communities, and as a tool for revitalization of underused or obsolete sites. These smaller mixed use centers would include such uses as stores, services, offices, public, civic uses, recreation areas, green space and residences. An example of a more modern mixed use community is the Turf Valley Resort and Conference Center located at the western edge of the study area. Plans are being developed to enhance the density and mixed use nature of this community

### Citizen Task Force and Community Participation

To address the economic development and community enhancement potential of Route 40, the *General Plan 2000* calls for a corridor revitalization study. Howard County Department of Planning and Zoning (DPZ) will prepare the Route 40 Enhancement Study in collaboration with a citizen task force. The citizens chosen to serve on the Route 40 Enhancement Study Task Force represent many facets of the corridor: businesses, employers, residents, property owners and others. Their different perspectives are vital for a thorough consideration of topics to be covered by the study - the identification of major issues facing the corridor and the determination of acceptable solutions to those issues. In addition to the Task Force, the Department will also seek input from other county agencies as well as from regional and state agencies which have jurisdiction over aspects of the corridor. DPZ will coordinate the study with Baltimore County and its plans for Route 40 to the east of the county line. The study is projected to take approximately 10 months.

With help from the Task Force, the County will develop recommendations for short term and long term priorities for the corridor. The Task Force will work with county staff to develop strategies that will focus on issues, such as incentives for revitalization and redevelopment. Incentives may include

additional permitted uses, increased flexibility in zoning bulk regulations, and financing incentives. Strategies identified in other corridor studies such as the creation of a local business improvement association could help to implement and manage coordinated improvements in landscaping, access, signs and facades. County or state capital projects may also be initiated to improve infrastructure and encourage and support private investment.

County Executive Jim Robey and Councilmen Chris Merdon and Alan Kittleman organized the Task Force that will guide DPZ on the Route 40 Enhancement Study. Although the Task Force will be the primary way diverse stakeholder input is captured, the initial plans developed by the Task Force will be presented to the public at a community workshop. The community workshop will provide interested citizens an opportunity to react to the draft enhancement plan. The Task Force can then alter the plan to incorporate the input from the greater community.

### ***Other Studies in the Route 40 Corridor***

Several studies of the Route 40 corridor or parts of the Route 40 corridor are currently ongoing. Howard County Department of Public Works (DPW), in cooperation with the State Highway Administration (SHA), is conducting a subarea traffic circulation/traffic operations study of Route 40 from US 29 to Rogers Avenue.

SHA has also completed a draft streetscape study for the area from the Baltimore County line to US 29. This small study identifies possible landscape and pedestrian improvements in the area. The preliminary findings are available at DPZ for review.

DPZ has hired a Bay Area Economics to complete a marketing study to determine current and future market for retail and office space in the corridor. This study will be a focus subject of an early Task Force meeting.

In the summer of 2001, Councilman Chris Merdon brought together a group of citizens from the Ellicott City Planning Area to develop a community-based Ellicott City Master Plan (ECMP). One of the four committees working on the ECMP focused on Route 40. The Route 40 Enhancement Study will build on the findings of this subcommittee.

## **HISTORY**

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Route 40 is just one of a series of roads that lead from the ports of the east to the “frontier” of the west. From Native American foot paths including Nemaquin’s Path to the “National Road” to Interstate 70, Americans have placed a high value on the east/west connection from seaports over the Appalachians to points west. Howard County has always played a part in providing those connections.

### ***The National Road***

The National Road served as one of the most significant predecessor roads for Route 40 - so much so that Route 40 is often times referred to as the “National Road.” The National Road was the first federally funded highway in the United States. In the early 1800's, Congress approved funds to connect the Port of Baltimore with the expanding lands in the Midwest. The purpose of the road was to create an overland route that cut directly across the Appalachian Mountains. In the early 1800's the federal government decided that Cumberland would be the eastern starting point of the National Road. Prior to this federal action, the State of Maryland had begun to build a network of turnpikes to connect points between Cumberland and Baltimore. These connecting points were not part of the federal mandate. The Baltimore and Frederick Turnpike Company began in 1805 and used an existing road (Frederick Road) from Baltimore to Ellicott City. In 1807, the next ten miles were completed. It is these ten miles that are today the portion of Frederick Road - MD 144 - that parallel Route 40 (MD 144, Frederick Road, approximates the southern edge of the Route 40 Enhancement Study area). Toll houses were established along the road every five or ten miles. Competition from the railroad, flooding and poor management led to a downturn in traffic and the road was not maintained in good condition. The turnpike was sold to the State Roads Commission in 1910 largely due to complaints about the condition of the road from the citizens of Catonsville.

In the early to mid 1800's the National Road was considered to be in its “heyday.” The National Road was the nation’s primary east-west road and the gateway to the Midwest. However, during the mid to late 1800's the National Road experienced a decline, mostly in part to the expansion of commerce and industry brought about by the railroads and the canal system. Many historical elements can still be found along the National Road from this era. Such elements include: mileposts, mile houses, inns and taverns (such as the Wayside Inn on Columbia Road) and stone arch bridges.

### ***Route 40***

With the increase in popularity of the automobile in the early to mid 1900's, Americans lobbied for the construction of transcontinental highways. One of these highways, the Old Trails Ocean-to-Ocean highway, followed a significant portion of the National Road. The Federal Highway System was formed in the late 1920's. With its formation came the creation of Route 40, a highway that went from Delaware to San Francisco, California. It was at this time that the current alignment of Route 40 was constructed.

The number of new businesses that located along the highway can attest to its popularity. Highway related services, such as motels (for example, the Brown’s Motel), tourist cabins, scenic overlooks, road houses, garages, commercial centers and diners were constructed along the roadway. Route 40 in Maryland is home to over 60 diners. The most famous may be the Double T Diner with the original

one located in Catonsville and a newer one constructed in 1998 in Ellicott City. Many of these auto-oriented uses are still prevalent today on Howard County's portion of Route 40.

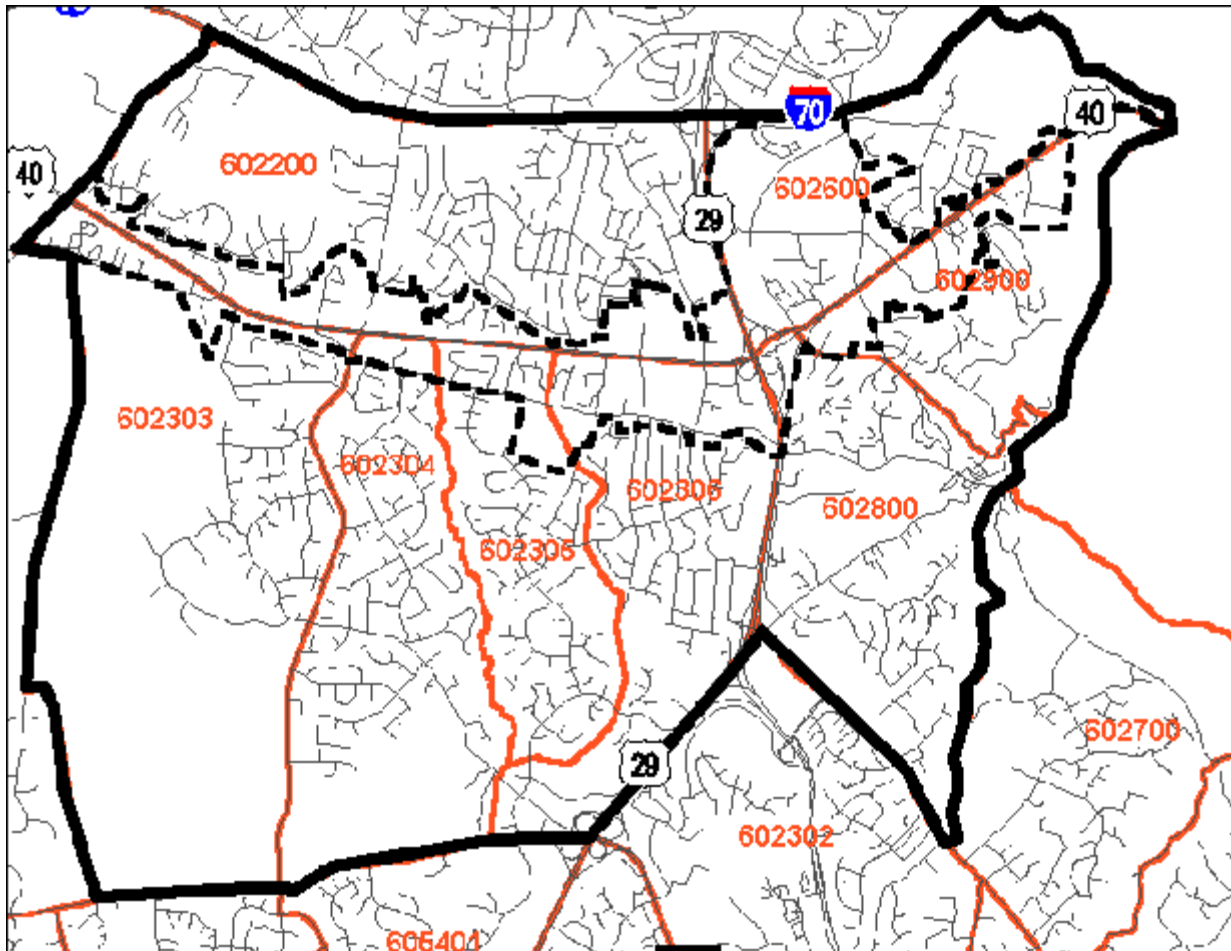
With the development of interstates such as I-70 the need for servicing travelers and motorists on roads such as Route 40 decreased. However, the Route 40 corridor developed into one of the County's main commercial corridors. The commercial strips along Route 40 are associated with the growth of bedroom communities after World War II. Stores and services spread along the arterial roads that led to metropolitan employment areas like Baltimore and Washington, D.C. Many residential communities such as Font Hill and Gray Rock were developed in the early 1960's and services such as grocery stores, restaurants, churches, schools, amusement areas and gas stations continued to be developed to serve the community.

A notable example of a post World War II roadside amusement park is the former Enchanted Forest Amusement Park. Built in 1954 in the style of a Mother Goose / Fairy Tale Theme Park, the park featured figures, exhibits and rides. In 1989 the park officially closed and today most of the site is the location of a retail center. Although the sign to the retail center pays homage to the former use, the amusement park is just one of many original uses along the corridor that have either disappeared or have transformed into other uses. Others of note include the former Roy Rogers restaurant that is now the Big Screen Store and the former Buell's Restaurant that is now a Rite Aid drugstore.

## DEMOGRAPHIC DATA

An analysis of the 2000 Census data for the eight census tracts immediately adjacent to the Route 40 reveal two characteristics of note. The first is that the expanded census tract area has the largest concentration of Asians in Howard County. Fifteen percent of the corridor's population is Asian and in some census tracts the Asian population is almost 25%.

The second characteristic is that the portion of the census tracts east of US 29 is significantly different than the portion of the census tracts to the west of US 29. The east side of the census tracts has a higher percentage of minorities, a higher percentage of attached dwelling units (mostly apartments) and a much lower household income than the western census tracts.



Study Area Boundary and Expanded Census Tract Area Boundary

### ***Population***

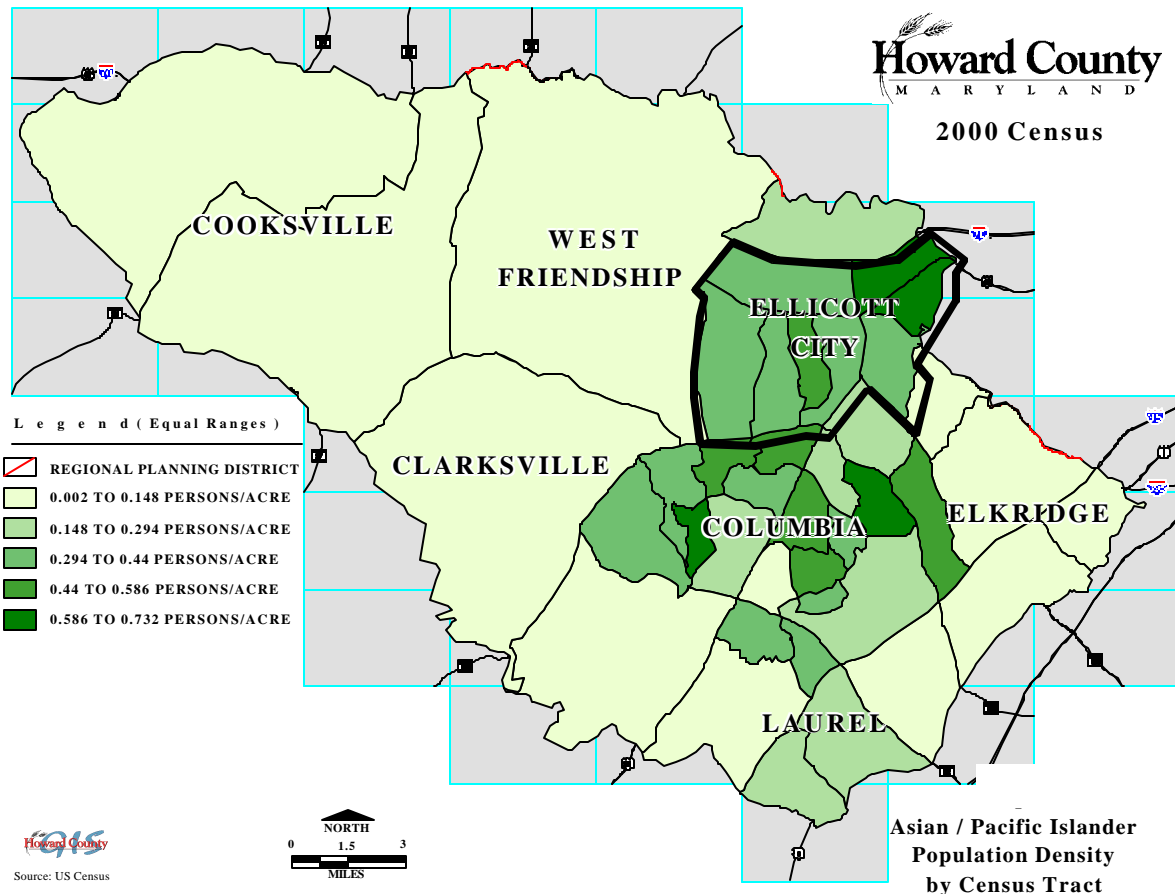
Howard County's population in 2000 was 242,207 as compared with 187,328 in 1990 - a 29% growth rate. The census tracts that abut the Route 40 corridor had a population of 33,138 in 2000 as compared with 27,634 in 1990 - a 20% growth rate. In 2000, the Route 40 expanded census tract area contained approximately 13% of the total County population.

### Population by Age

Seven percent of the County's population was age 65 or older in 2000. The Route 40 census tracts had a significantly higher percent of residents 65 and older - 11% in the 2000 Census. Although, older populations live throughout the Route 40 census tracts, a few of the tracts show relatively large numbers of people over the age of 65. For example, 12% of the County's population 85 and over live in the census tract located in the northeast quadrant of the Route 40/US 29 intersection (Tract 6026). This is due in part to the retirement community Heartlands located south of I-70 and east of MD 29. In addition to this tract, the tract located in the southwest quadrant of the Route 40/US 29 intersection (Tract 6023.06) has a high percentage of seniors.

### Population by Race

Twenty three percent of Howard County's Asian population (4,410 people) live in the Route 40 Census Tract area, more than twice the number of African American residents in this area. The highest number of Asians live in the Centennial, Burleigh Manor and Howard's Ridge/Town and Country area neighborhoods.



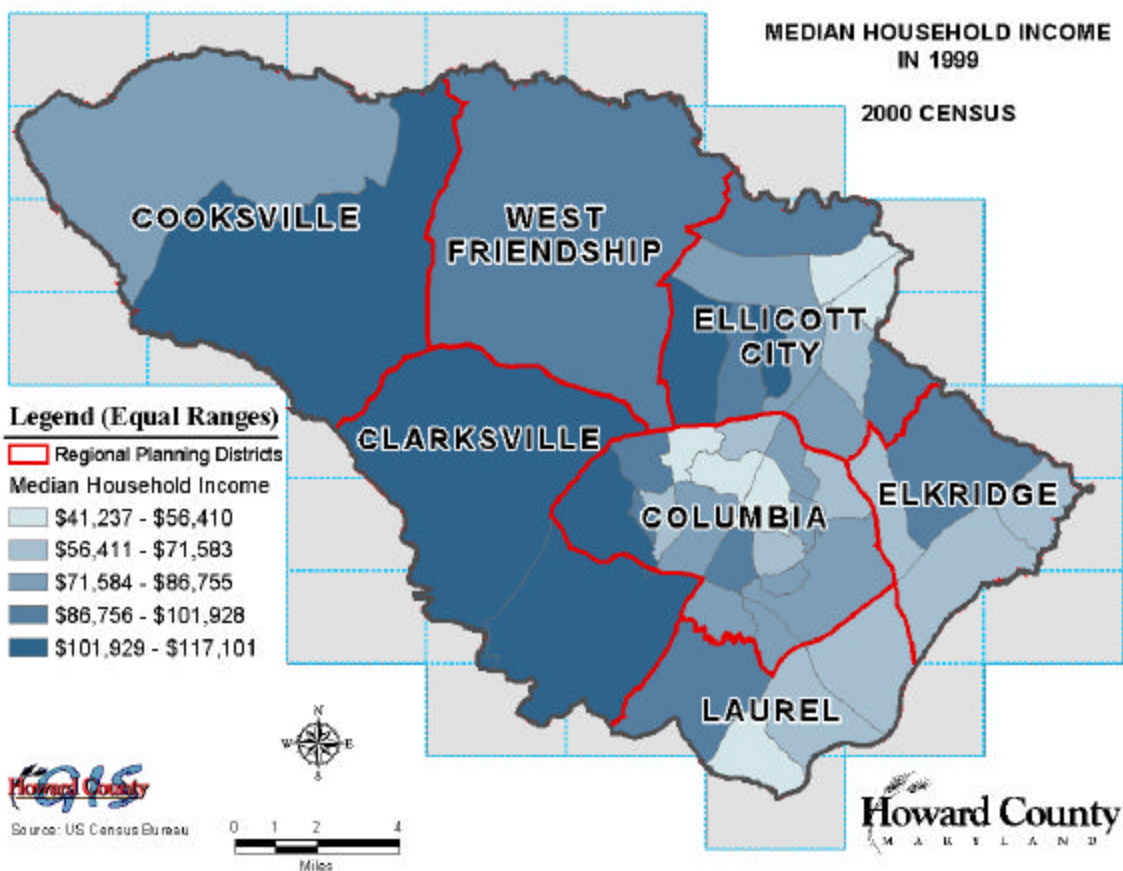
The percent of the Route 40 census tract area that is African American (7% or 1,999 people) is generally less than the county average (15%). Two areas where the percent of African American more

closely reflects that of the entire County are the Howard's Ridge/Town and Country area and the Great Oaks area (Tracts 6026 and 6029). The two census tracts east of US 29 that are dominated by apartment complexes are close to 40% minority. Of this minority population, 23% is Asian and 15% is African American.

The white percentage of the Route 40 census tract area's population closely approximates that of the entire County. Two areas, one north of Route 40 and east of Rogers Avenue and the Brinkleigh area just west of Greenway Drive, have the highest concentration of white population with 90% of these areas white.

**Household Income**

In 1999, Howard County's median household income was \$74,167. A wide range of median household income exists among Route 40 census tracts. The median income for the Dunloggin and Gray Rock neighborhoods, located west of US 29, is \$109,480 while the median income for the Town and Country and Normandy areas, located east of US 29, is \$41,237 and \$44,099 respectively. This dramatic difference may be attributed to the high concentration of apartment units in the Town and Country and Normandy neighborhoods.



**Housing Units**

As of January 2003, the total number of housing units in the Route 40 statistical areas (that follow census tract boundaries) was 15,263. The area is dominated by almost 10,000 single family dwelling units. Approximately 1/3 of all single family dwelling units are located south of Route 40 and west of MD 29 in the Gray Rock, Font Hill, Centennial and Burleigh Manor neighborhoods. There are almost 3,500 apartment units and over 1,600 single family attached units. Over 2,500 of the apartment units are located in just two of the statistical areas. In these two areas over 70% of the units in the census tracts are apartments. The corridor also contains 172 senior apartment units located in a new senior complex, Park View Apartments.

### ***Employment***

Thirteen percent of the jobs in Howard County are located in the Ellicott City area - an area slightly larger than the expanded census tract area. The retail nature of the Route 40 corridor can be seen in job statistics. Only 15% of the jobs in all of Howard County are classified as retail while 27% of the jobs in the are retail. The majority of other jobs in the Ellicott City area are classified in the Service; Finance, Insurance and Real Estate; and Governmental sectors.

## **LAND USE AND ZONING**

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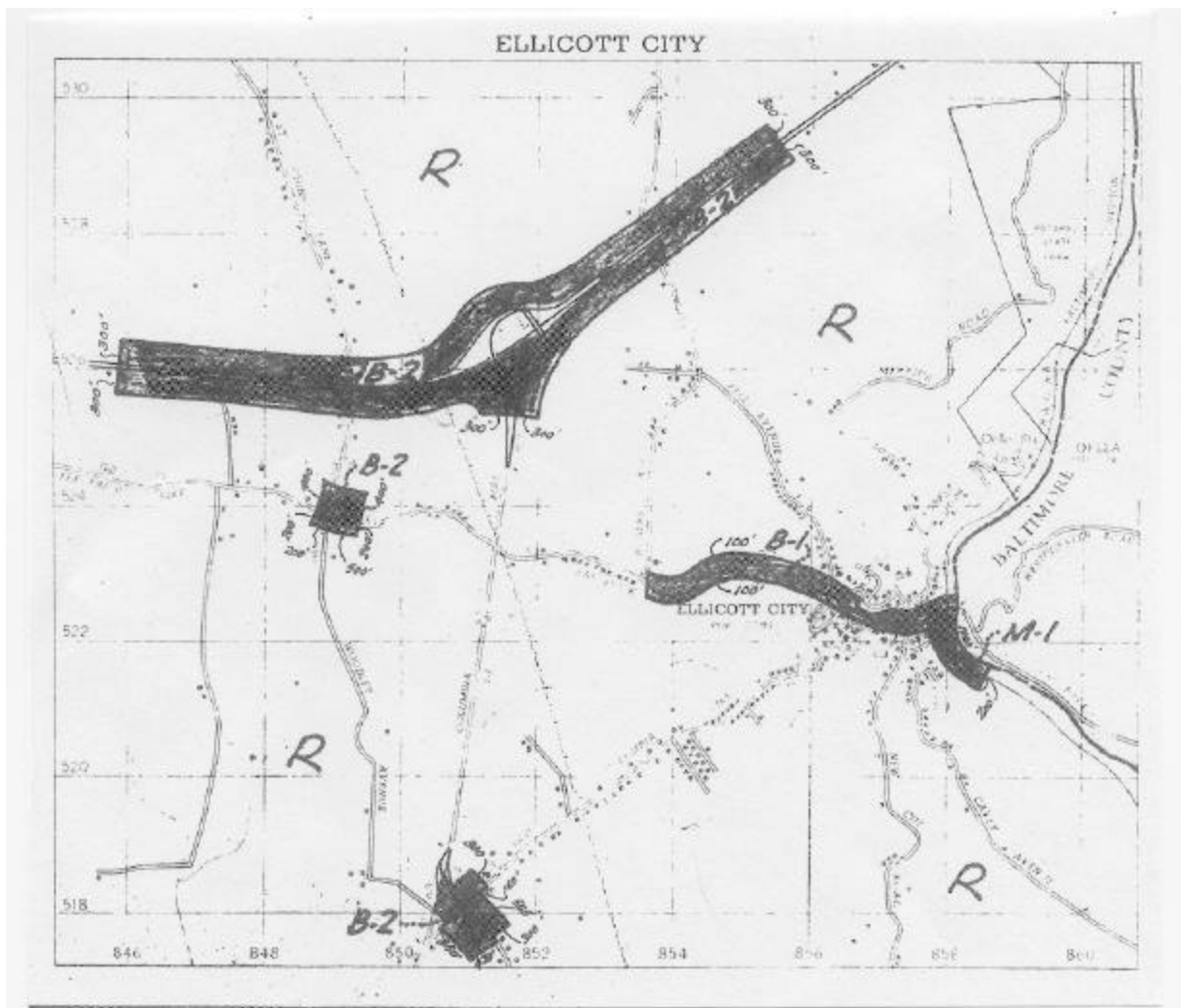
The Route 40 corridor has a great variety of development, dating from the construction of the road in the 1930s to the present. The corridor also includes a wide range of uses, from single-family detached houses to strip commercial development. Over time, many of the residential and commercial zoning patterns have remained relatively unchanged.

The Route 40 corridor has evolved from a rural community to suburban one. Some of the commercial uses that supported the motoring public were built before suburbanization took place. Much of the Route 40 corridor now is a typical auto-oriented commercial strip backed by 1970s and 1980s era subdivisions with curvilinear streets and cul-de-sacs that feed onto collector roads. Development on the macro scale may appear well planned - commercial uses are clustered on Route 40, the arterial highway, with high density residential development behind the commercial uses and single family neighborhoods behind them. It is at the micro level where development has not been constructed in a planned manner. Commercial uses have been built at different times creating awkward or nonexistent pedestrian and auto linkages between uses. Setbacks, landscaping and building types have also varied over time creating a hodge-podge appearance. Pedestrian linkages between the residential neighborhoods, shopping centers and services was rarely considered. Creating more livable, walkable communities in the corridor will require addressing ways to link residents with retail areas, schools, and services such as libraries and senior centers. Development in the future can provide a way for future residents to have access to retail and services within walking distance of where they live.

### ***Zoning History***

When zoning was originally instituted in the County in 1948, strips of Route 40 were designated for “Commercial A” zoning at the intersections of what is today Rogers Avenue, St. Johns Lane and Bethany Lane. The depth of the zoning was 200 feet and all other properties were zoned residential. The zoning was further refined in the 1954 map. This map showed B-2 Commercial areas 300 feet deep from Route 40 starting approximately 2000 feet east of Rogers Avenue to approximately 1200 feet west of Chatham Road. B-2 zoning was also shown further to the west at the intersection of Route 40 with Bethany Lane and on Route 40 between Pine Orchard and Frederick Road. B-2 Commercial Zoning was also located at the intersection of Frederick Road and St. Johns Lane.

The 1961 Zoning Map sets the stage for the modern zoning that the corridor has today. Three commercial areas are designated: one centered around the intersection of Rogers and Route 40, one at the Route 40/St. Johns intersection and one at the Bethany Lane and Route 40 intersection. That zoning map shows the S-C (Shopping Center) district and the higher density residential districts, R-A-1 (Apartment) and T-1(Townhouse), located behind the commercial nodes. In 1971, this pattern became the status quo, with properties adjacent to Route 40 primarily zoned commercial with residential zones designated for areas behind the commercial properties that lined the roadway. Higher density residential zones were located as a buffer between commercial zones and lower density residential zones. A major change occurred in the 1977 Comprehensive Zoning Plan. This plan increased the residential density near Patapsco River Road and designated more business and commercial zoning on Ridge Road north of Route 40. Few changes in the Route 40 corridor were made in the 1985 Zoning Map.



**1954 Zoning Map - Ellicott City**

***Current Zoning***

The 1993 Comprehensive Zoning Plan made few changes to those set out in the 1985 plan so that the Route 40 expanded statistical area remains primarily residential with commercial zoning along the frontage of Route 40.

***Nonresidential Zoning***

Only 1,100 acres in the expanded statistical area are zoned for nonresidential uses with a significant portion, close to 290 acres, zoned for PGCC-1 (Planned Golf Course Community) a mixed-use zone with a large residential component. This is the Turf Valley property. The majority of the remaining nonresidential zoning is in the B-2 (General Business) and POR (Planned Office Research) Districts. About 300 and 275 acres are in these districts, respectively.

Very little undeveloped nonresidentially zoned property remains in the expanded statistical area. Less than 30 acres of B-1 and B-2 are undeveloped. Most undeveloped nonresidentially zoned property falls into 110 acres of POR.

***Residential Zoning***

Currently, of the approximately 14,600 acres in the expanded statistical area, over 13,500 acres are zoned residential. The residential zones can be broken down into several categories:

Low density zones (RC-DEO, R-ED and R-20)	12,837 acres
Medium density zones (R-12 and R-SC)	317 acres
High density zones (R-SA-8, R-A-15 and R-VH)	430 acres

The Route 40 statistical area contains 30% of the County's R-ED (Residential: Environmental Development) zoned properties. This is due in large part to the steep topography of the land adjacent to Patapsco Valley State Park. Over 40% of the County's R-20 zoning is located in the Route 40 statistical area.

### ***Land Use***

The Route 40 corridor contains many residential neighborhoods, subdivisions and apartment complexes anchored by three commercial areas (each approximately a mile in length) which are located at major north south intersections with Route 40. The Normandy commercial area is centered on the Rogers Avenue intersection and continues to the Ridge Road intersection where major destinations not directly located on the corridor, Wal-Mart and Lotte Plaza, are located. The Chatham commercial area is located at the Route 40/North Chatham Road intersection and the Enchanted Forest commercial area is located at the Route 40/Centennial Lane/Bethany Lane intersection.

Several single family residential neighborhoods are located in the Route 40 corridor. Some of these communities have active Home Owners Associations that advocate on behalf of the residential communities along the corridor. Neighborhoods of older construction include: Font Hill, Valley Mede, Brinkleigh, St. Johns, Dunloggin and Governor's Run. Newer additions to the area include: Turf Valley Overlook, The Fairways and Gray Rock Farm. Several apartment communities are also located in the corridor. They include: Town and Country, Charleston Manor (the former Normandy Woods), Chatham Gardens and Pine Orchard.

Although a zoning category is assigned to each property in the County, there are properties with uses that do not match those permitted by their zoning. In most cases, these irregular uses predate the adopted zoning for the property and are called nonconforming uses. Uses that don't match the parcels zoning may also be conditional uses (such as religious institutions) and government uses.

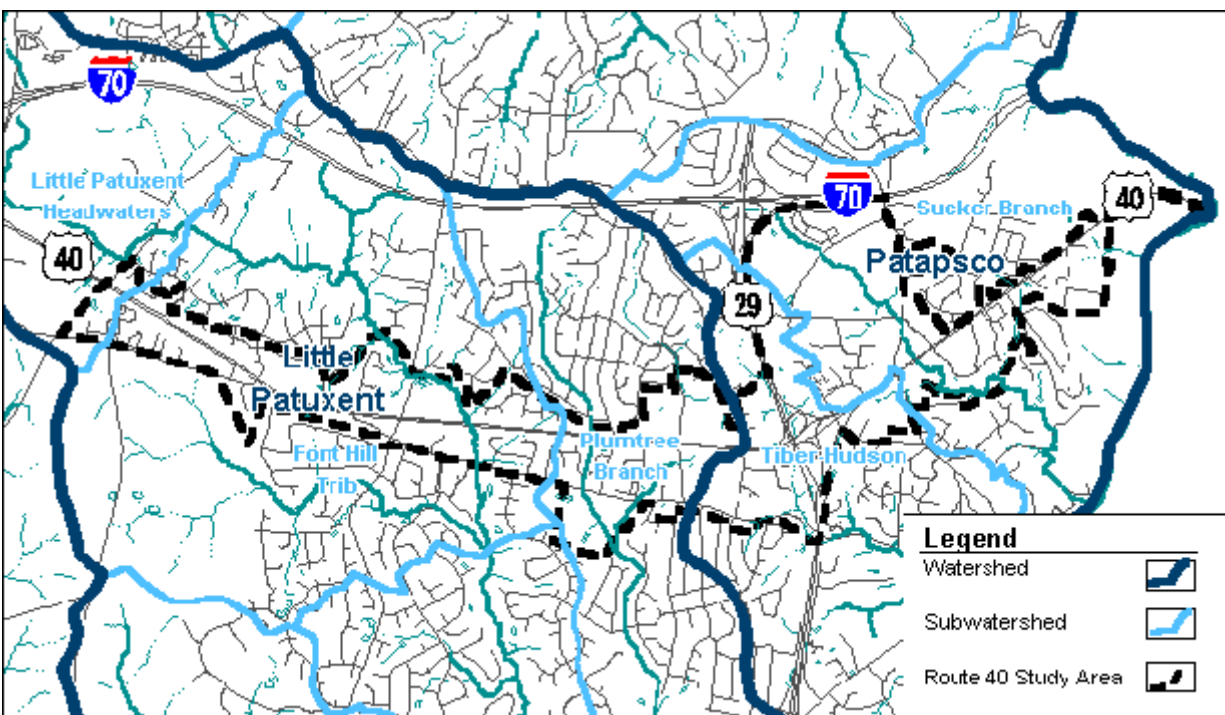
Over 90% of the statistical area, or 13,300 acres, is committed, leaving approximately 1,290 acres available for development. Committed land includes properties already developed, recorded but unbuilt parcels and proposed development currently in the development process as well as some protected, undeveloped land categories such as parkland and easements. Uncommitted land is sometimes identified as land available for development.

## ENVIRONMENTAL FEATURES

### *Streams and Watershed Management*

The Route 40 corridor lies within the watersheds of two major tributaries to the Chesapeake Bay - the Patapsco and the Patuxent Rivers. These main stem rivers are fed by a network of large and small tributary streams. These streams are often associated with wetlands and other environmental features. Stream valleys are extensive and encompass many of the most important of the County's natural resources – the waterways themselves, wetlands, floodplains, adjacent steep slopes and wildlife habitats.

The Route 40 corridor contains portions of two of the County's nine major watersheds. The east side of the corridor lies within the Patapsco River watershed and the west side lies within the Little Patuxent River watershed. St. Johns Lane generally follows the ridge line that separates the two watersheds. The County's major watersheds are further divided into subwatersheds. Within the Patapsco River watershed, the corridor contains portions of the Sucker Branch and Tiber-Hudson subwatersheds. Within the Little Patuxent River watershed, the corridor contains portions of the Little Patuxent Headwaters, the Font Hill Tributary, and the Plumtree Branch subwatersheds.



In 1999, the County and the US Army Corps of Engineers finalized a watershed restoration study for the Tiber-Hudson watershed. This study primarily focused on restoring stream corridor conditions through measures such as stream channel stabilization, enhancing in-stream and riparian habitat, wetland creation and stormwater management. This study identified one stream restoration and two stormwater management projects within the Route 40 corridor.

In 2001, the County worked with the Maryland Department of Natural Resources to develop a

Watershed Restoration Action Strategy (WRAS) for the Little Patuxent River watershed. The WRAS is a watershed restoration plan and implementation strategy that will serve as a workplan for restoring and protecting water quality and aquatic and terrestrial habitats, and for addressing community needs for environmental outreach and education. A WRAS will also be developed for the Lower Patapsco River watershed in 2004 through 2005.

### ***Stormwater Management and Flooding***

A substantial amount of the development within the Route 40 corridor occurred prior to 1974, when the County began requiring stormwater management. As more has been learned about the negative impacts stormwater runoff can have on water quality and habitat conditions in waterways, the requirements for stormwater management have increased.

Older areas of the County often require specialized stormwater management studies to address unique conditions and site constraints. Densely developed older areas were largely developed prior to stormwater management requirements and development sometimes occurred within the 100-year floodplain. In addition, most of the streams in this part of the County are on private land. However, open space parcels have been carved out of many of the subdivisions adjacent to the corridor to keep the streams and associated floodplains in common ownership .

As a requirement of the Federal Clean Water Act, Howard County has obtained a National Pollutant Discharge Elimination System (NPDES) permit for discharges from the County's stormwater management system. The NPDES permit has significant requirements for maintaining and improving the County's stormwater management system. Improvements to stormwater management systems can include retrofits of existing facilities to add water quality treatment and building new facilities to serve older areas built without stormwater management.

There are approximately 100 stormwater management facilities located within the corridor. As development and redevelopment continue in the corridor, it is expected that this number will increase.

In the Route 40 corridor, areas in several older communities are prone to flooding problems. These include areas in the Nob Hill, Normandy, Valley Meade, and Chestnut Hill communities. The State Highway Administration along with the County Department of Public Works has been working to improve storm drains on Route 40 west of the Patapsco River to help alleviate flooding problems.

### ***Forest Cover***

Mixed hardwood forest cover is the condition that would prevail in most of Howard County if nature were allowed to take its course. Agricultural practices were the main cause of the loss of the original forest cover in the County through the mid 20th century. Today, development for new homes, stores and workplaces poses the biggest threat to the remaining woodlands.

Since 1993, Howard County's Forest Conservation Act has attempted to mitigate forest loss caused by development. This Act works to limit the area of forest that is cleared for new development and includes reforestation requirements for forest that is cleared, although not on an equal area basis. Afforestation (that is, the planting of forest on an area that is presently without forest cover) is also required on sites that do not meet a minimum forest cover specification.

Forest cover in the Route 40 corridor is located primarily within stream valley areas. Larger tracts of forest can be found in the eastern area in Patapsco Valley State Park and along Sucker Branch, and in the western area along the Little Patuxent River. Forest resource issues in the corridor include the continued loss of forest, fragmentation of the remaining forests, and degradation of forests by invasive exotic plants, excessive deer browse and overuse by humans.

### ***Soils and Steep Slopes***

Since 1989, County regulations have protected larger areas of steep slopes from disturbance. Protected steep slope areas are defined as contiguous areas greater than 20,000 square feet, with a slope of 25% or greater. In the Route 40 corridor, areas of steep slopes are found primarily in the east along the Patapsco River. Much of this area is located in the Patapsco Valley State Park or is zoned R-ED (Residential - Environmental Development), a district that establishes criteria for clustering development to protect sensitive environmental resources.

### ***Green Space and Greenways***

Several types of open space, easements, parks and other types of conservation areas have been designated within the County to protect specific environmental or landscape resources. Total open space and parkland, including state parkland, in the Route 40 corridor area is approximately 3,052 acres, as described below in Community Facilities and Amenities..

Ideally, the location and size of such protected “green space” areas should result in an extensive and continuous network of natural resources that protects critical ecosystem functions. Such a resource protection network should also be the basis for well-planned greenways. Greenways are protected corridors of green space maintained in a largely natural state for a variety of purposes, including safe passage for people and wildlife.

The Howard County Comprehensive Recreation, Parks and Open Space Plan for 1999, prepared by the Department of Recreation and Parks, guides green space planning. The Plan identifies two greenways that are partially located within the Route 40 corridor. On the eastern end of the corridor is the Patapsco regional greenway, and within the western portion of the corridor is the Little Patuxent County greenway. These greenways are located predominantly along stream valley corridors and are partially established.

## COMMUNITY FACILITIES AND AMENITIES

### *Parks and Green Space*

Howard County owns over 700 acres of parkland in the Route 40 statistical area. This includes Community Parks, Historic Parks, Neighborhood Parks, Regional Parks and Natural Resource Areas.

The Department of Recreation and Parks owns 1,568 acres of parks and open space in the statistical area.

The Route 40 statistical area also contains a large part of the Patapsco State Park. Over 1,300 acres of state park land is in the Route 40 statistical area. Patapsco State Park is located in the eastern part of the corridor and is actively used by many residents from around the region.

<b>2002 Green Space</b>	
<i>Route 40 - Corridor Area</i>	
Type	Acres
State Park Land	1,329.4
County Parks	722.5
County Open Space	845.9
HOA Open Space	110.1
CA Open Space	36.6
DPW Owned Land	7.7
<b>Route 40 TOTAL</b>	<b>3,052.1</b>
HC TOTAL	21,149.6
% of HC	14.4%

### *Police and Fire & Rescue Service*

The Ellicott City area which includes the Route 40 corridor is served by the Police Department's Northern District, housed with Police Headquarters in Ellicott City. In 2002, there were 357 police officers in the County with 129,180 Calls for Service. Crimes are divided into three parts. Part I offenses include murder, forcible sexual offenses, robbery, aggravated assault, burglary, larceny, (theft) and motor vehicle theft. Part II offenses encompass nineteen additional types of crime ranging from simple assault, to fraud and forgery, to disorderly conduct. Part III offenses are all other crime classifications outside those defined as Part I and Part II offenses. As can be

<b>Route 40 - Corridor Area</b>			
<b>Part I Crimes - 2002</b>		<b>Part II Crimes - 2002</b>	
Aggravated Assault	20	Drug Violation	112
Burglary	135	Vandalism	382
Rape	2	Weapon Violation	11
Robbery	17	Disorderly Conduct	44
Theft	635		
Vehicle Theft	36		
<b>Route 40 TOTAL</b>	<b>845</b>	<b>Route 40 Total</b>	<b>549</b>
HC TOTAL	7,784	HC Total	11,032

% of HC	11%	% of HC	5%
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seen from the table, the Route 40 statistical area has a smaller percentage of the crimes in Howard County than its percent of the population of the County (13%). This is especially true for Part II Crimes, of which only 5% occurred in the Route 40 corridor.

Two of the eleven fire stations in the County are located in the Route 40 statistical area. The Ellicott City and Bethany stations provide service to all residents throughout the area. Fire and rescue incidents consist of fire, Emergency Medical Service (EMS) and other calls such as hazardous materials or technical rescues. In 2002, the Ellicott City station had a total of 3,556 (Fire, EMS and other) calls or 13.7% of the County total. The Bethany station had 1,573 calls or 6% of the County total. Since these statistics are collected by station rather than area served, it is difficult to draw specific conclusions as to how fire and rescue service in the Route 40 corridor relates to the County as a whole.

<b>Route 40 - Corridor Area</b>			
<b>Station 2 - Ellicott City</b>		<b>Station 8 - Bethany</b>	
Fire	118	Fire	59
EMS	2,512	EMS	1,041
Other	926	Other	473
<b>Ellicott City TOTAL</b>	<b>3,556</b>	<b>Ellicott City TOTAL</b>	<b>1,573</b>
HC TOTAL	25,913	HC TOTAL	25,913
% of HC	13.7%	% of HC	6.1%

### **Schools**

There are two public elementary schools (St. John’s Lane and Hollifield Station), one public middle school (Patapsco), and one public high school (Mount Hebron) in the statistical area. One private school, Resurrection Elementary School, is located in the corridor area on North Chatham Road.

### **Libraries**

One library serves residents in the statistical area. The Miller Branch Library is located on Frederick Road.

### **Health and Human Services**

In May of 2002 Howard County completed the *Health and Human Services Study : Phase I Health and Human Services Needs Assessment*. This study found that the Ellicott City area, which includes the Route 40 corridor, has good access to health and human services. Several doctor’s offices are located along Route 40. The Ellicott City Senior Center is located just south of the Miller Library and the Roger Carter Center, a recreation center, is located on Ellicott Mills Drive.

### **Post Offices**

Three post offices can be found in the statistical area. A small post office is available in Historic Ellicott City while a second larger full service post office is located on Ridge Road. A small post office is also located in the Enchanted Forest shopping center.

### ***Religious Institutions***

There are several religious facilities representing many different religions located in the statistical area. Some of note that are located in the study area include First Lutheran, St. John's Episcopal, Resurrection Roman Catholic, Bethel Korean Presbyterian, and Baltimore First Adventist.

### ***Cemeteries***

There are a two large cemeteries in the statistical area - St. John's and Good Shepherd. In addition, scattered about the statistical area are several smaller cemeteries or grave sites.

### ***Historic Sites***

The Route 40 statistical area features 168 sites listed on the Howard County Historic Sites Inventory or 21% of the County's total inventory list. Many of these sites are historic homes located along Main Street and other streets in Historic Ellicott City. The historic sites include: homes, churches, the old fire house, the court house, and stone mile markers.

## ***TRANSPORTATION***

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Route 40 is a road of many uses. During the morning and evening rush hours, Route 40 serves as a significant commuter route. The concentration of commercial uses along the corridor means that the road serves as an access route to shopping destinations that serve local and some regional markets. Route 40 is also the relief route for I-70 when congestion or accidents create backups. These different demands often conflict with each other creating transportation issues that affect the function of the roadway.

There are three major categories of transportation issues in the Route 40 corridor - highway, transit, and pedestrian issues. The corridor study area is focused on Route 40 with I-70 just to the north. Both highways are national in scope, although Route 40 in Howard County has a more local orientation. Transit remains a modest yet important element of transportation in the Route 40 corridor. Bicycle and pedestrian access is extremely limited and in many cases non-existent.

### ***Highway***

Average daily traffic (ADT) volumes on Route 40 range from 16,000 west of Cemetery Lane to 56,000 east of US 29 - a wide range of ADT. The upper volumes are relatively high for a four lane arterial highway. Traffic volumes are highest in the eastern sections of the corridor with volumes dropping off significantly to the west of US 29. Daily traffic volumes on I-70 are approximately 74,000 to 95,000 vehicles. The major north/south road in the corridor, US 29, has a significant influence on the Route 40 corridor. Due in part to the influence of US 29, some of the highest traffic volume on Route 40 occurs between Rogers Avenue and St. Johns Lane. Route 40 experienced a dramatic increase in both ADT and peak hour traffic flow with the completion of MD 100 some 5 years ago. The increased traffic on Route 40 led to increased traffic on MD 144 (Frederick Road) and MD 99, which are parallel alternate routes to Route 40 and I-70.

### **Level of Service**

Level of Service (LOS) is a quantitative and qualitative measure of how well traffic flows on a highway. The measure ranges from LOS A, representing free flow conditions, to LOS F, representing highly congested or "gridlock" conditions. Generally, it is the LOS at intersections that determines the flow of traffic on the road links between intersections.

Route 40 typically functions in the LOS C to D range from St. Johns Lane west; however from Rogers Avenue to St. Johns Lane, Route 40 operates at LOS E to F during morning and evening peak periods. Three intersections in particular operate at congested LOS E to F conditions. These locations are:

- Route 40/Rogers Avenue
- Route 40/Ridge Road
- Route 40/St. Johns Lane

The State Highway Administration (SHA) has a coordinated signal system along Route 40 that is stressed to the limits of current technology. The next level is Traffic Adaptive Coordination, a very expensive upgrade requiring intensive traffic detection hardware and software.

I-70 from the Baltimore County line to Marriottsville Road generally operates at LOS D to E during peak periods representing heavy levels of congestion. Congestion during peak periods occurs along eastbound I-70 in Baltimore County as traffic approaches the Baltimore Beltway interchange.

North/south roads in the corridor generally operate at low (LOS A/B) to moderate (LOS C/D) levels of congestion with one notable exception. Traffic congestion occurs periodically near the US 29/MD 100 interchange. This situation has eased somewhat due to recent capacity improvements on US 29 from I-70 to south of MD 100 and on the ramps between MD 100 and US 29.

### Traffic Safety

Based on state standards which compare roads with similar design and access controls, Route 40 is considered a roadway with a high “accident experience.” Multiple accidents have occurred at numerous sites along Route 40 during the past two years. Contributing factors include:

- Multiple uncontrolled (unsignalized) access points.
- Lack of acceleration, deceleration and turn lanes.
- Lack of pedestrian/bicycle facilities, such as sidewalks and a dedicated signal phases.
- Complex merge/weave patterns because of lack of connections between adjacent uses and limited crossover options.

Accidents periodically cause congestion in the corridor, especially at high volume locations such as the intersections of Route 40 at Rogers Avenue and at Ridge Road. Red-light running cameras have been installed along both approaches of the Route 40/Rogers Avenue intersection. The next installation will occur at the Ridge Road intersection. This junction had 20 red-light running collisions during 2002. From 1999 to 2002, six pedestrian/bicycle related collisions occurred along Route 40. Two of these collisions involved bicycles while the other four involved pedestrians. In 2003 there have been two fatal collisions along Route 40 in the study area - one at Rogers Avenue and one at Valley Lane.

### Scenic Roads

Legislation to identify and protect the visual quality of scenic routes was enacted in 1994, with the intent to preserve the scenic quality of designated roads and/or scenic landscapes visible from those roads. Outside of historic Ellicott City, the only roadway section in the Route 40 corridor study area that is designated as scenic is Frederick Road from Turf Valley Road to Route 40.

### ***Transit***

The Route 40 corridor is served by two primary transit systems: Maryland Transit Administration (MTA) and Howard Transit bus services.

MTA operates one commuter bus route to Baltimore:

- *Route 150*, weekday service along Route 40 from US 29 to Baltimore City

Howard Transit, County-provided bus service, has three routes which serve portions of the Route 40 corridor:

- *Yellow Route* - weekday and Saturday service from Government Center to Columbia Mall via Historic Ellicott City, Long Gate Center, Red Branch Road and Dorsey’s Search Village

Center.

- *Yellow Express Route* - weekday service along Route 40 from the Normandy Shopping Center to Plumtree Drive. Includes stops at major attractors including the medical offices at Millennium, the government offices at the County office complex, Wal-Mart, Chatham Station and the Miller Library/Ellicott City Senior Center. The route also connects to Columbia Mall.
- *Silver Route* - weekday service to many of the stops served by the Yellow Express without the connection to Columbia Mall. Additional Saturday service extends to Normandy Shopping Center and Millennium assisted living and health care complex.

Planning for future transit service in the Route 40 corridor considers potential origin and destination points including transit transfer points, residential neighborhoods, major employment sites, shopping centers, senior centers and community facilities (libraries and schools).

### ***Bicycles and Pedestrians***

Although many residential developments do have sidewalks, the majority of arterial roads in the study area do not provide pedestrian access. Route 40 not only lacks sidewalks in most places but pedestrian activated crossing signals at traffic lights also do not exist except at the Normandy Woods intersection. The lack of convenient pedestrian connections between adjacent uses is a barrier to pedestrians and bicyclists.

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