

Purpose and Need Summary

MD 197 from Kenhill Drive to MD 450 Relocated

PROJECT DESCRIPTION

The MD 197 study area is located within the City of Bowie and extends 1.4 miles from Kenhill Drive to the south and MD 450 Relocated to the north. The study area consists of primarily residential and commercial uses, and is within a Priority Funding Area. MD 197 is currently a two-lane open section roadway with shoulders. During the morning peak hours, London Lane/Kenhill Drive operates at a Level of Service (LOS) E, and during the evening peak hours, MD 450 Relocated, London Lane/Kenhill Drive and Lyle Lane/Faith Lane operate at LOS E, E, and F, respectively. These conditions cause traffic to slow which results in queues forming at intersections. Side street operations are adversely impacted, travel speeds are reduced, and traffic volumes on local streets are increasing as vehicles attempt to use alternative routes. North and south of the study area, MD 197 is a four-lane section. The transition to a two-lane section within the study area constricts both the local and regional traffic volumes.

PURPOSE OF THE PROJECT

The primary purpose of this study is to address the need for additional capacity to accommodate existing and future traffic volumes on MD 197. This study would also address safety issues and provide enhanced transportation network connectivity between Kenhill Drive and MD 450 Relocated. In addition, this project would address the pedestrian and bicycle safety and access issues to the residences, school and the community park within this section of MD 197; provide improved access to the business and residential communities in the City of Bowie; and, improve the north-south regional transportation network connectivity.

NEED FOR THE PROJECT

There has been tremendous growth in the vicinity of the project area since the 1980s. The commercial development of Bowie Crossing, Bowie New Town Center, Bowie Gateway Center and other developments to the south and residential development north of the project limits have greatly increased the volume of regional traffic on MD 197. At present, north and south of the project area, MD 197 is a four lane section. This transition from a four-lane section to a two-lane section constricts both local and regional traffic volumes.

Accident summary information was collected on MD 197 from Kenhill Drive/London Lane to Faith Lane/Lyle Lane, and from Faith Lane/Lyle Lane to Gallant Fox Lane during the time period of January 2001 through approximately June 2004. For the Kenhill Drive/London Lane to Faith Lane/Lyle Lane section, there were a total of 50 police reported accidents, of which rear end collisions (54%) were the most frequent type. None of the accident categories had a rate that was significantly high compared to respective statewide averages. For the Faith Lane/Lyle Lane to Gallant Fox Lane section, there were 98 total of police reported accidents, with rear-end (34%) and left turn (24%) collisions being the most prevalent collision types. Over half of the left turns for the study area occurred at Gallant Fox Lane which is an unsignalized intersection approximately 650 feet north of the Old MD 450. There were no Priority Candidate Safety Improvement Locations (CSIL's) within the study areas from 2001 through 2003.

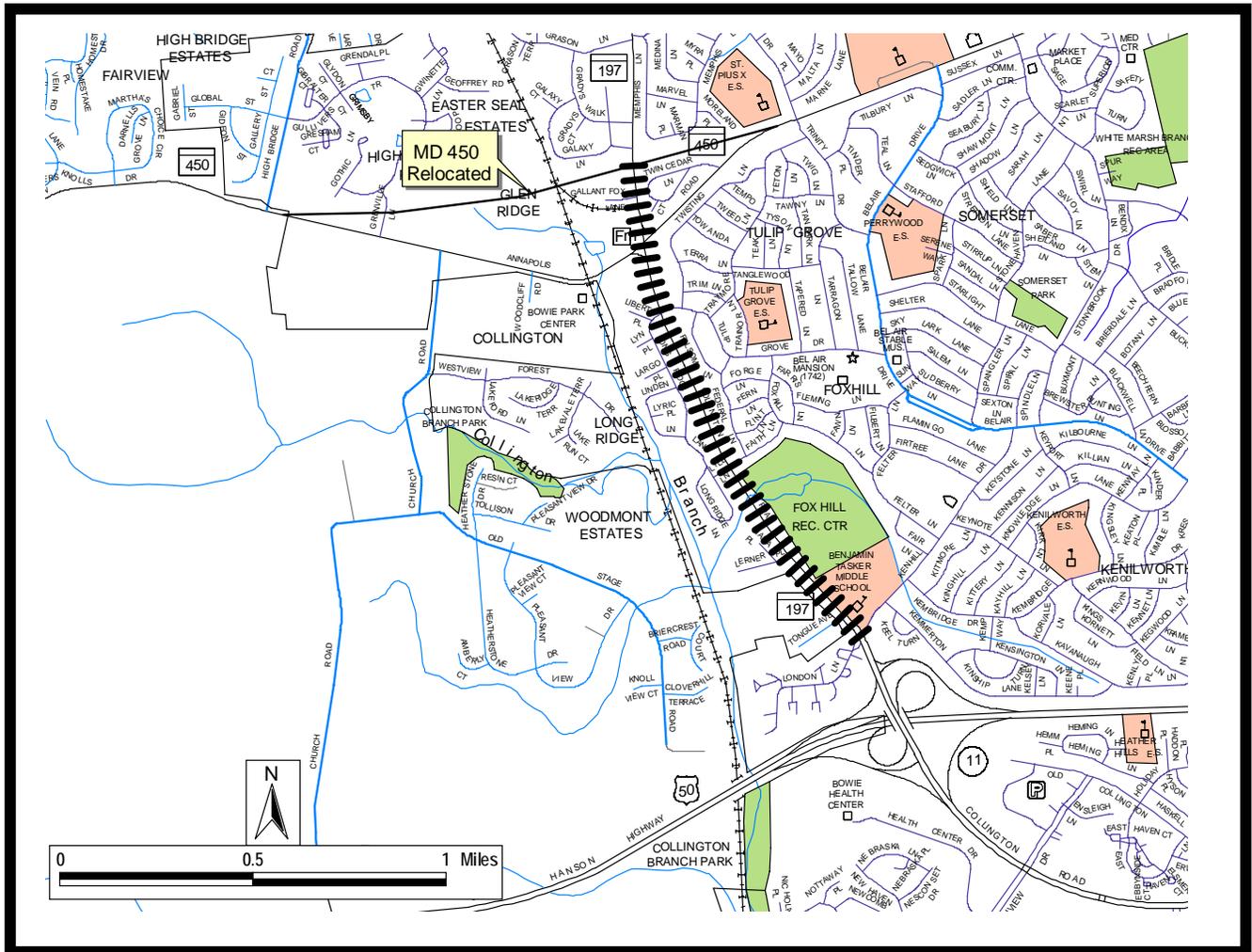
In 2005, Average Daily Traffic (ADT) volumes between Kenhill Drive and MD 450 Relocated ranged between 38,325 vehicles and 39,700 vehicles which also include truck volumes. Projections for the year 2030 show that ADT will range between 56,025 vehicles and 58,150 vehicles. This represents an approximate increase in ADT of 46% within the next 25 years. Intersecting roads with the greatest 2005 ADT include MD 450 Relocated (31,175), Tulip Grove Drive (2,975) and Kenhill Drive (16,200). Projections for the greatest 2030 ADT are MD 450 Relocated (56,375), Tulip Grove (5,350) and Kenhill Drive (21,575). These volumes represent an increase of 81%, 80% and 33% respectively.

A Level of Service (LOS) analysis was developed for existing 2005 and forecasted 2030 no-build conditions in the study area. SHA's Critical Lane Volume (CLV) method was used for the intersection analyses. The 2005 Level of Service analysis shows that 43% (3 of 7) of the intersections have either a failing or near failing LOS during the PM peak hours, based on their volume to capacity (v/c) ratio. In the 2030 No-Build alternative, all intersections are projected to have a failing LOS during the PM peak hours, and 6 of 7 in the AM peak hours.

MD 197 (Collington Road) Kenhill Drive to MD 450 Relocated

Project Number PG691A11

PURPOSE & NEED STATEMENT



Maryland State Highway Administration
Office of Planning and Preliminary Engineering

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A. INTRODUCTION

MD 197 is currently a two-lane open section roadway with shoulders whose rural appearance is due to the growth of vegetation which has occurred over the 30 years since it was constructed. MD 197 is one of two primary north-south roads serving the Bowie area, extending from US 301, south of the US 50 interchange to MD 198 near Laurel. Six intersections (Kenhill Drive/London Lane, Lerner Place, Lyle Lane/Faith Lane, Long Ridge Lane/Tulip Grove Road, Old MD 450, and Gallant Fox Lane) are located along the 1.4 mile segment contained in the project area. Of these six intersections, three, Kenhill Drive/London Lane, Long Ridge Lane/Tulip Grove Road and Old MD 450, are signalized. A combination of seven commercial, public and private driveways have access to the road, just north of Kenhill Drive, including Tongue Avenue and the entrances to Benjamin Tasker Middle School and Foxhill Park. The road is functionally classified by the State Highway Administration (SHA) as a State Secondary Arterial, and Urban Other Principal Arterial by the Federal Highway Administration between US 50 and MD 450 Relocated.

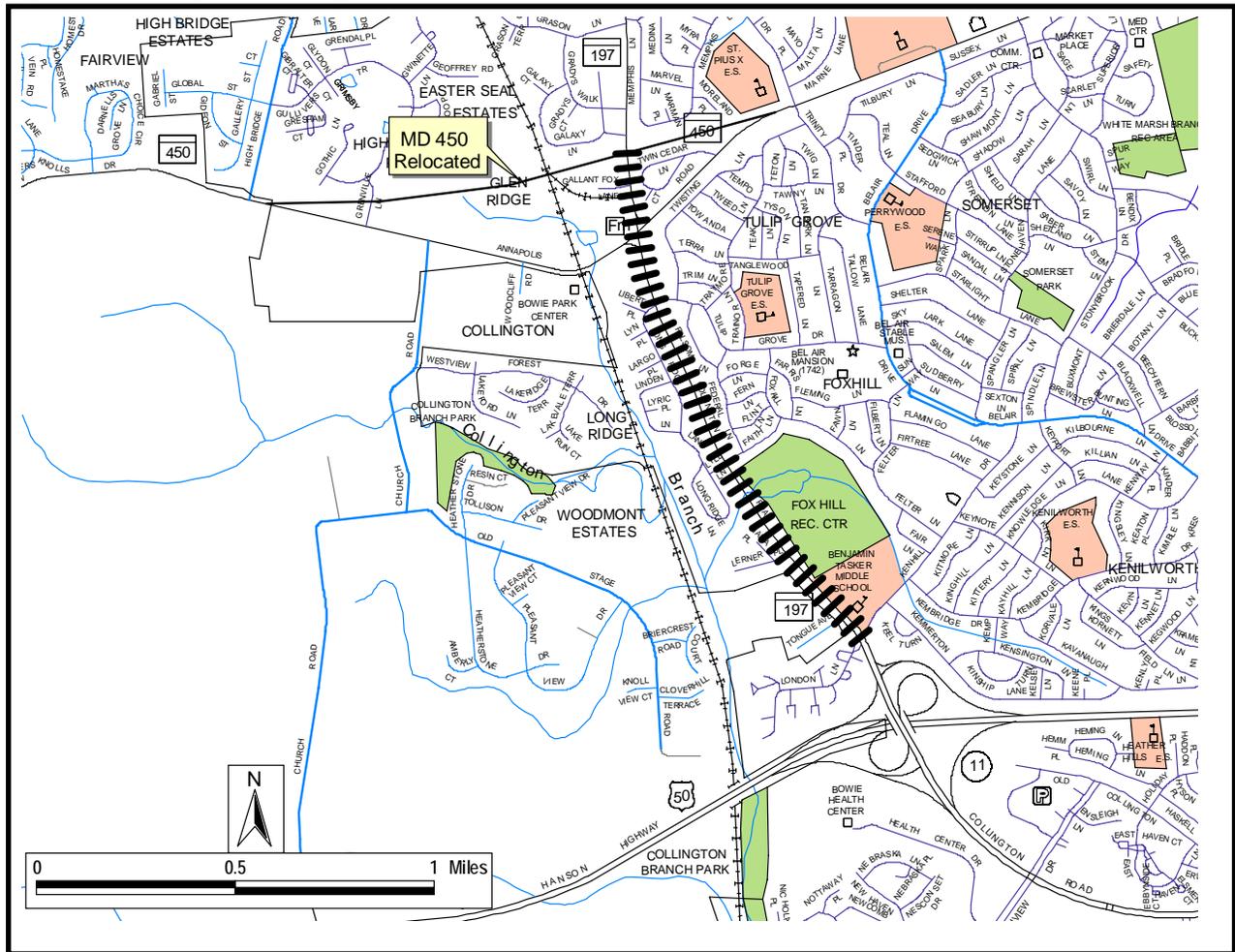
During the existing year 2005, some of the study intersections along MD 197 currently operate at capacity. During the morning peak hours, London Lane/Kenhill Drive operates at a Level of Service (LOS) E. and during the evening peak hours, MD 450 Relocated, London Lane/Kenhill Drive and Lyle Lane/Faith Lane operate at LOS E, E, and F, respectively. These conditions cause traffic to slow which results in queues forming at intersections. Side street operations are adversely impacted, travel speeds are reduced, and traffic volumes on local streets may increase as vehicles attempt to use alternative routes. North and south of the study area, MD 197 is a four lane section. The transition to a two lane section within the study area constricts both the local and regional traffic volumes. Along the two lane section in the study area, the AM and PM peak travel volumes are very identical in both directions. This could possibly hinder emergency vehicles in their effort to get onto MD 450.

B. PROJECT LOCATION

The study area is located within the City of Bowie and extends 1.4 miles from Kenhill Drive to the south and MD 450 Relocated to the north, the CSX Railroad track to the west and 0.25 mile to the east of MD 197 in the City of Bowie. The study area consists of primarily residential and commercial uses, and is within a Priority Funding Area.

The study corridor consists of 2,049 households and approximately 5,614 persons. Adjacent single-family neighborhoods include Long Ridge, Tulip Grove, Foxhill and Kenilworth. One townhouse community, Princeton Square, is located at the southern end of the corridor adjacent to US 50. One school, Benjamin Tasker Middle School, is located in the corridor. This school had a November 2004 enrollment of 1,489 students. A large community park, the Fox Hill Recreation Center, operated by The Maryland-National Capital Park and Planning Commission (M-NCPPC) is also located in the corridor, just north of the middle school. The 45-acre park offers a playground, picnic areas, ballfields, basketball courts, tennis courts and a lake. There is one BGE utility substation in the corridor, at the northern end. Four (4) transit routes operated by the Washington Area Metropolitan Transit Authority (WMATA) regularly provide service to the corridor (B-21, B-23, B-24 and B-25). There are 5 local bus stops along the study area with one stop on each side of the road in the north and south direction.

Figure 1: Study Area Map



B. PROJECT BACKGROUND

PROJECT HISTORY

MD 197 was constructed in 1966 as a 2-lane, undivided roadway from Kenhill Drive to MD 450. The existing lanes of MD 197 were originally intended to become the southbound roadway of a planned future undivided highway where the northbound lanes would be constructed to the east of the existing roadway. The project was included in previous versions of the CTP during the 1980s. In 1986, general obligation bonds provided the funding for the County's design and construction of a 4-lane, divided highway on MD 197 between Kenhill Drive and MD 450. However, the project was put on hold at the request of elected officials from the area. In the mid-1990s, concrete medians were added to address safety concerns at several locations. The project is now a top priority for both Prince George's County and the City of Bowie. The project is consistent with the approved (2006) Bowie- and Vicinity Master Plan and Sectional Map, which states that improvements to MD 197, between US 50 and MD 450 should be limited to four (4) lanes within the existing 150' right-of-way until forecasted travel demands warrant further expansion.

GROWTH AND DEVELOPMENT

MD 197 serves dual functions: as a regional arterial serving commuter routes and as a local access connector to residential and commercial areas. As rapid development continues in the Bowie Regional Center and in the area surrounding the project corridor, the dual nature of demands placed on this facility will continue. Concerns have been voiced by residents about pedestrian safety and access from the side streets. Traffic congestion occurs at all hours of the day, extending the normal peak hours. Shopping related traffic, associated with the area just south of the study area on MD 197, is extremely heavy on weekends. The road segment within the project area is a bottleneck, connecting to a 5-lane, undivided urban section to the north of MD 450, and to a 6-lane, divided urban section, south of US 50.

The study area is entirely contained within Prince George's County's Certified Priority Funding Area (PFA). The existing land use pattern for the study section of MD 197 consists of commercial, residential and institutional. This pattern is expected to continue in the foreseeable future.

The City of Bowie has experienced substantial growth due to construction of commercial and residential developments during the last 10 years, and it is expected that this trend will continue in the future. The city currently has 802 acres of commercial development and 10,742 units of residential development according to Maryland-National Capital Park and Planning Commission (M-NCPPC) statistics.

MASTER PLANS AND OTHER STUDIES

Widening of MD 197 to a four-lane divided highway, from Kenhill Drive to MD 450, was included in the Prince George's County Capital Improvement Program (CIP) in the mid-1980's. Prince George's County's 1986 General Obligation Bond provided funding for the design and construction of this project. Due to disagreement over the design parameters, including median width, elected officials requested deferral of the project. The County subsequently withdrew funding for the project.

The City of Bowie completed a traffic study for MD 197, from US 50 to MD 450, in November 1996. The study indicated that traffic was operating at Level of Service (LOS) "F" during morning and afternoon peak periods. According to the study, a four-lane divided highway would improve traffic operations through 2010, however, by 2020 a six-lane divided highway would be required to accommodate the projected traffic volumes at level of service D. The study called for a twenty foot median to allow for landscaping.

The 1991 Bowie-Collington-Mitchellville and Vicinity Master Plan is in the process of being updated, which is currently in the final stages. The Preliminary Bowie and Vicinity Master Plan reaffirmed the recommendation of the 1991 master plan for the roadway section of MD 197 between US 50 and MD 450. It also designated the link of MD 197 as part of a Transportation Policy Exception Area to reflect County land use and development pattern priorities as established in the 2002 General Plan and the updated Bowie master plan, and ensure that land use-based trip reduction measures do not deter or delay these priorities with other important policy objectives.

The preliminary master plan was adopted by the Prince George's County Planning Board on July 28th, 2005 and forwarded to the County's District Council for final approval. Final District Council's approval was given on February 7, 2006.

RELATED PROJECTS

- MD 450 – This corridor has four separate projects, from Whitefield Chapel Road to Seabrook Road and Seabrook Road to MD 193 which are both completed. The third project involves upgrading and widening the existing road between MD 193 and Stonybrook Drive (including a relocated section between High Bridge Road and MD 197) to a multi-lane divided highway, with sidewalks and a hiker/biker trail facility on the north side. Construction is 90% complete and is expected to be completed by the end of this year. The last related project along the corridor involves upgrading MD 450 to a multi-lane divided road between Stonybrook Drive and west of MD 3. This project is funded for engineering design only at this time. Design is 25% complete and is expected to be completed by Spring 2007.
- MD 450 Bridge Over CSX Railroad – This project involves reconstruction of the existing bridge to provide a wider span meeting current engineering standards. The new bridge will include wide shoulders to allow for the future installation of pedestrian facilities. Construction is 8% complete and is anticipated to be completed by late 2006.
- MD 197 North Median Landscaping – This Neighborhood Conservation Project involves creation of a concept plan for the corridor, from Relocated MD 450 to Rustic Hill Drive. A citizen task force created a proposal to convert the continuous center turn lane to a landscaped median and install other streetscape improvements to enhance the safety and appearance of the corridor.
- MD 197 South Landscaping Plan – This Neighborhood Conservation Project would involve installing landscaping in the median of MD 197, between US 50 and US 301, to improve the appearance of the roadway. A citizen task force created a landscape concept plan in 2000.

D. PURPOSE OF THE PROJECT

The primary purpose of this study is to address the need for additional capacity to accommodate existing and future traffic volumes on MD 197. This study would also address safety issues and provide enhanced transportation network connectivity between Kenhill Drive and MD 450 Relocated. In addition, this project would address the pedestrian and bicycle safety and access issues to the residences, school and the community park within this section of MD 197; provide improved access to the business and residential communities in the City of Bowie as well as improve the north-south regional transportation network connectivity.

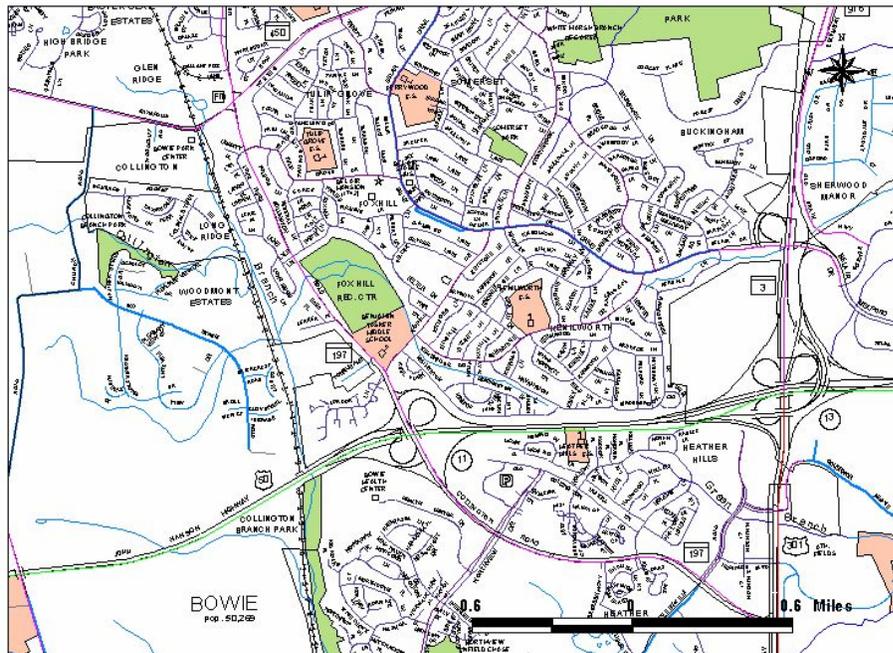
E. NEED FOR THE PROJECT

There has been tremendous growth in the vicinity of the project area since the 1980s, when this project was last included in the State's Consolidated Transportation Program (CTP). The project is currently listed in the Consolidated Transportation Program for 2006-2011.

The commercial development of Bowie Crossing, Bowie New Town Center, Bowie Gateway Center and other developments to the south of the project limits including US 301 have greatly increased the volume of regional traffic on MD 197. Residential development to the north of the project limits has also increased traffic on MD 197. Other improvements, such as the expansion of US 50 from four to eight lanes, including the HOV lanes, the construction of a Prince George's County-owned park-and-ride facility on Northview Drive approximately 1/4 mile south of the study corridor and the relocation/upgrade of MD 450 at the northern end of the study corridor have also led to additional traffic on MD 197. At present, north and south of the project area, MD 197 is a four lane section. This transition from a four lane section to a two lane section constricts both local and regional traffic volumes. In addition, with the removal of a master planned arterial roadway known as "A-44" or the Intercounty Connector from the Bowie Master Plan, a portion of future traffic volumes originally envisioned to use A-44 are now likely to use MD 197 instead. Please refer to Figure 2 for a larger scale of the areas just mentioned.

Currently, there is an existing bike path/trail which is used by the community to go from their residences to the park and school. The bike path and the landscape buffer were discussed as important features to the community. As this project moves through the planning study, maintaining pedestrian safety and this connection will be looked at during the design phase.

Figure 2: Regional Map



ACCIDENT STATISTICS

Accident summary information was collected on MD 197 from Kenhill Drive/London Lane (MP: 1.90) to Faith Lane/Lyle Lane (MP: 2.45), and from Faith Lane/Lyle Lane (MP: 2.45) to Gallant Fox Lane (MP: 3.20) during the time period of January 2001 through approximately June 2004. Table 1A illustrates the accidents along MD 197 within the study area by severity, year, and rate. A four year weighted statewide collision rate for this type of roadway design is also listed for comparison purposes.

Table 1A- Accidents on MD 197 from Kenhill Drive/London Lane to Gallant Fox Lane

Severity	2001	2002	2003	2004 Thru June	Total	Rate/100 mvm*	Statewide Avg. Rate
MD 197 from Northview Drive to Kenhill Drive/London Lane							
Fatal	0	0	0	0	0	0.0	1.7
Injury	9	8	21	1	39	84.9	123.4
Prop. Damage	6	9	20	5	40	87.1	151.7
Total	15	17	41	6	79	172.0	276.7
MD 197 from Kenhill Drive/London Lane to Faith Lane/Lyle Lane							
Fatal	0	0	1	0	1	2.8	1.0
Injury	8	7	6	1	22	60.7	121.4
Prop. Damage	3	4	15	5	27	74.5	147.8
Total	11	11	22	6	50	138.0	270.2
MD 197 from Faith Lane/Lyle Lane to Gallant Fox Lane							
Fatal	0	0	0	0	0	0.0	1.3
Injury	25	16	11	4	56	152.4**	99.0
Prop. Damage	16	14	10	2	42	114.3	117.7
Total	41	30	21	6	98	266.8**	218.1

*The rate is accident per one hundred million miles of travel.
 **Significantly higher than the statewide rate.

The key collision types within the study area are compared in Table 1B to their respective statewide average accident rates for roadways of similar design.

For the Kenhill Drive/London Lane to Faith Lane/Lyle Lane section, there were a total of 50 police reported accidents, of which rear end collisions (54%) were the most frequent type. None of the accident categories had a rate that was significantly high compared to respective statewide averages. For the Faith Lane/Lyle Lane to Gallant Fox Lane section, there were 98 a total of police reported accidents, with rear end (34%) and left turn (24%) collisions being the most prevalent collision types. Over half of the left turns for the study area occurred at Gallant Fox Lane which is an unsignalized intersection approximately 650 feet north of the Old MD 450. This is confirmed by the significantly higher than the statewide rate as noted in Table 1B.

Table 1B – Comparison of Collision Types

Collision Type	Number of Accidents 2001-2004	Accident Rate per 100 mvm*	Statewide Average Rate
MD 197 from Northview Drive to Kenhill Drive/London Lane			
Rear End	39	84.9	98.8
Sideswipe	3	6.5	18.9
Left Turn	2	4.4	31.3
Angle	14	30.5	45.7
Fixed Object	3	6.5	24.0
MD 197 from Kenhill Drive/London Lane to Faith Lane/Lyle Lane			
Rear End	27	74.5	83.3
Sideswipe	3	8.3	18.8
Left Turn	1	2.8	47.4
Angle	2	5.5	7.9
Fixed Object	3	8.3	32.1
MD 197 from Faith Lane/Lyle Lane to Gallant Fox Lane			
Rear End	33	89.8	71.2
Sideswipe	5	13.6	10.0
Left Turn	23	62.6**	20.3
Angle	9	24.5	37.9
Fixed Object	7	19.1	28.2

*The rate is accident per one hundred million miles of travel.

**Significantly higher than the statewide rate.

There were no Priority Candidate Safety Improvement Locations (CSIL's) within the study areas from 2001 through 2003. There are no CSIL's within the study area in the preliminary listings for 2004.

TRAFFIC VOLUMES

In 2005, Average Daily Traffic (ADT) volumes between Kenhill Drive and MD 450 Relocated ranged between 38,325 vehicles and 39,700 vehicles which also include truck volumes. Projections for the year 2030 show that ADT will range between 56,025 vehicles and 58,150 vehicles. This represents an approximate increase in ADT of 46% within the next 25 years. A lot of development is continually occurring at the Bowie New Town Center as well as at other locations throughout the study area. Shopping traffic constitutes for a lot of the area's growth.

Intersecting roads with the greatest 2005 ADT include MD 450 Relocated (31,175), Tulip Grove Drive (2,975) and Kenhill Drive (16,200). Projections for the greatest 2030 ADT are MD 450 Relocated (56,375), Tulip Grove (5,350) and Kenhill Drive (21,575). These volumes represent an increase of 81%, 80% and 33% respectively. The ADT volumes for 2005 and 2030 are presented in Figure 3 on page 11.

TRAFFIC ANALYSIS

A Level of Service (LOS) analysis was developed for existing 2005 and forecasted 2030 no-build conditions in the study area. Level of Service is a rating system for measuring the quality of traffic flow. SHA's Critical Lane Volume (CLV) method was used for the intersection analyses.

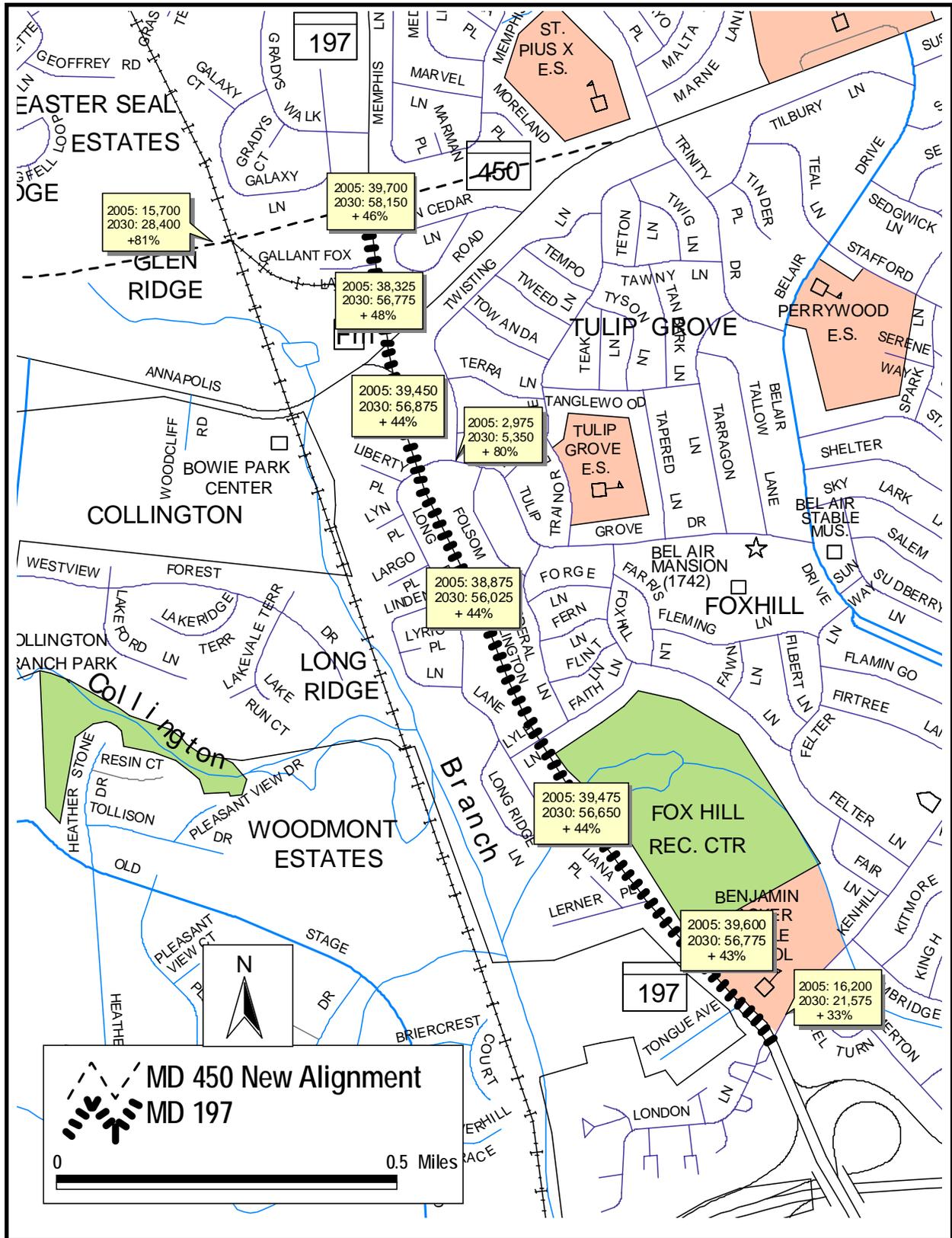
- LOS A: free traffic flow, low volumes, minimal delays.
- LOS B: stable traffic flow, minor delays.
- LOS C: stable traffic flow, higher volumes, more delay noticeable though still acceptable.
- LOS D: approaching unstable traffic flow, heavy traffic volumes, significant delays.
- LOS E: unstable traffic flow, unacceptable delays and vehicle back-ups, intersection warrants upgrade to address operations.
- LOS F: unstable traffic flow, excessive delays and significant back-ups, intersection warrants upgrade to address deficiencies.

The 2005 Level of Service analysis shows that 43% (3 of 7) of the intersections have either a failing or near failing LOS during the PM peak hours, based on their volume to capacity (v/c) ratio. In the 2030 No-Build alternative, all intersections are projected to have a failing LOS during the PM peak hours, and 6 of 7 in the AM peak hours. The intersections within the study area are shaded in gray in Table 2 below.

Table 2: MD 197 Level of Service (LOS) Analyses

MD 197 Intersection and Ramp Analyses				
Location	Year 2005		Year 2030	
	AM Peak LOS (v/c)	PM Peak LOS (v/c)	AM Peak LOS (v/c)	PM Peak LOS (v/c)
<i>Rustic Hill Drive</i>	A (0.53)	A (0.56)	F (1.01)	E (0.94)
<i>Westwind Drive</i>	A (0.46)	A (0.55)	E (0.92)	E (0.96)
<i>Bowie Plaza/Old Chapel Road</i>	C (0.76)	D (0.90)	F (1.26)	F (1.38)
<i>Millstream Drive</i>	B (0.65)	B (0.67)	F (1.12)	F (1.10)
<i>Lancaster Road</i>	A (0.43)	A (0.51)	B (0.71)	C (0.78)
<i>Grason Lane/Maddox Lane</i>	A (0.52)	A (0.58)	D (0.84)	E (0.95)
MD 450 Relocated	C (0.76)	E (0.96)	F (1.30)	F (1.73)
<i>Gallant Fox Lane</i>	A (0.59)	C (0.73)	D (0.82)	F (1.05)
<i>Old MD 450</i>	C (0.73)	D (0.87)	F (1.28)	F (1.25)
<i>Long Ridge Lane/Tulip Grove</i>	C (0.78)	C (0.81)	F (1.42)	F (1.41)
<i>Lyle Lane</i>	D (0.90)	F (1.15)	F (1.25)	F (1.52)
<i>Lerner Place</i>	B (0.70)	C (0.76)	F (1.23)	F (1.29)
<i>London Lane/Kenhill Drive</i>	E (0.91)	E (0.96)	F (1.57)	F (1.62)
<i>NB MD 197 to EB US 50 (merge)</i>	A	B	B	C
<i>NB MD 197 to WB US 50 (merge)</i>	C	B	C	B
<i>WB US 50 to NB/SB MD 197 (diverge)</i>	B	B	C	B
<i>SB MD 197 to WB MD 197 (merge)</i>	C	B	C	B
<i>SB MD 197 to EB US 50 (merge)</i>	B	B	B	C
<i>EB US 50 to NB/SB MD 197 (diverge)</i>	B	F	B	F

Figure 3: MD 197 ADT volumes for 2005 and 2030



F. ENVIRONMENTAL RESOURCES SUMMARY

The following summary of environmental features (see attached map) in the MD 197 study area were identified using the latest GIS database information and are shown on Figure 4.

Land use in the study area is primarily residential, with medium density residential throughout, and both low and high density residential concentrated at the southern end as shown on Figure 5. Commercial uses are concentrated at the northern end, while an institutional use, the Benjamin Tasker Middle School, is located at the southern end. Future land use in the study area is expected to remain primarily residential and recreational.

The entire study area is located within the Prince George's County certified Priority Funding Area (PFA), and the Bowie-Collington-Mitchellville and Vicinity Approved Master Plan (1991) calls for widening of MD 197; therefore, the project is consistent with Smart Growth guidelines, as well as County master plans. Review of in-house resources indicates that there is one publicly-owned park, Fox Hill Park/Recreation Center, located at the southern end, as well as a hiker/biker trail located along the northbound side of MD 197 within the project area. SHA will coordinate with the Maryland-National Capitol Park and Planning Commission and the City of Bowie regarding these resources, and to ensure that there are no additional resources in the project area. Any encroachment on a publicly-owned and used park/recreation area/associated trail and/or a significant historic site/archeological resource that requires preservation in place will require development and evaluation of avoidance/minimization alternatives under Section 4(f) of the US DOT Act of 1966, as federal funds are being used for this project.

SHA owns 150 feet of right-of-way in the study area, however, SHA may need to purchase additional right-of-way and displacements may occur.

Based on an initial review of census data, Environmental Justice populations may be present in the study area. We will continue to research the socioeconomic characteristics of the project area to ensure that SHA is not disproportionately or adversely affecting any low-income or minority populations. Both air and noise detailed technical analysis will be conducted once detailed alternatives are developed.

One previously recorded archeological site was identified within the project area (18PR192), with several other sites recorded within one-half mile of the project area (approximately 60 feet from MD 197 on the southbound side). In addition, undisturbed areas have a high potential for undiscovered prehistoric archeological resources. A review of the project area by SHA staff identified one potential historic standing structure, a residence, at 4908 Collington Road. Once the project scope is further refined, the project area will be reassessed for archeological resources and historic structures, and coordination with the Maryland Historical Trust will continue throughout the project regarding eligibility and effects.

There are forested areas scattered throughout the project area, including forest buffers located on both northbound and southbound sides of MD 197. The study area is located within the Patuxent River watershed. A desktop search using Maryland Department of Natural Resources GIS information reveals the presence of palustrine, emergent, forested, and scrub/shrub wetlands in the

project area. One stream crossing, a tributary to Collington Branch, is located about half of a mile north of the US 50/MD 197 intersection in the form of a culvert under the roadway. Collington Branch is classified as Use 1 waters (Water Contact Recreation and Protection of Aquatic Life), and may require an instream construction restriction from March 1st through June 15th. The 100-year floodplain associated with Collington Branch approaches MD 197 in the middle of the study area and impacts to MD 197 will likely require some encroachment on the floodplain. Proposed modifications within wetland or in-stream areas may require permits from the Maryland Department of the Environment (MDE), and the US Army Corps of Engineers (COE).

G. CONCLUSION

The primary purpose of this study is to address the need for additional capacity to accommodate projected traffic volumes and address identified safety concerns on MD 197. The traffic volumes on this roadway are expected to increase significantly in the future due to regional growth and new development within the study area. This project would also this project would address the pedestrian safety issues of the study section of MD 197; provide improved access to the business and residential communities in the City of Bowie as well as improve the north-south regional transportation network connectivity. The growth of the City of Bowie is expected to continue and the operational aspects of MD 197 between Kenhill Drive and MD 450 Relocated are projected to be inadequate to handle the traffic generated by 2030.

Figure 4: Environmental Features Map

MD 197 Project Planning Study Environmental Features

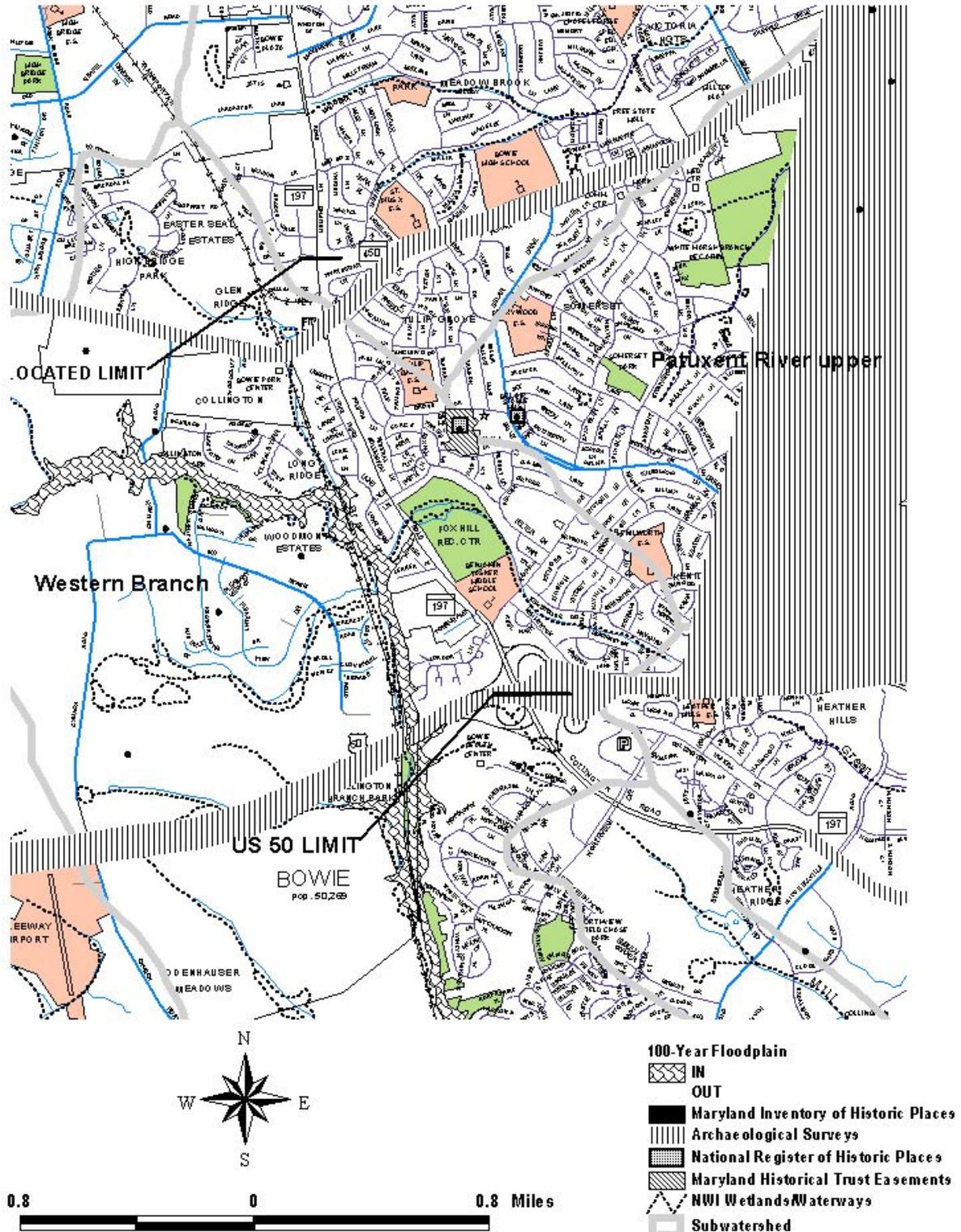
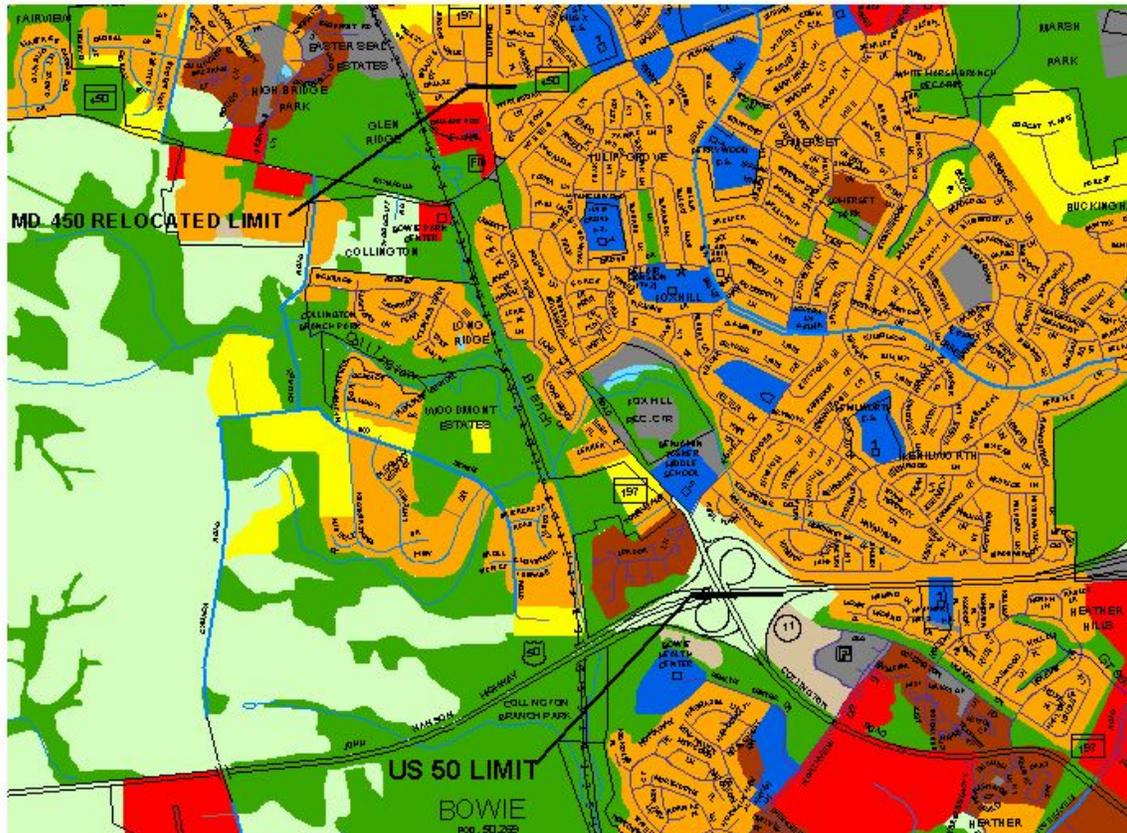


Figure 5: Land Use Map

MD 197 Project Planning Study Land Use Map



- 2002 Land Use**
- Low Density Residential
 - Medium Density Residential
 - High Density Residential
 - Commercial
 - Industrial
 - Institutional
 - Other Developed Land
 - Agriculture
 - Forest
 - Water
 - Wetlands
 - Barren Land

