

Air Quality Analysis

Technical Studies

- ✦ An air quality analysis was done to evaluate potential changes that likely could occur as the result of the proposed MD 197 project
- ✦ The analysis performed examines the potential for localized particulate matter (PM_{2.5}), primarily found in the exhaust of diesel-powered vehicles, and carbon monoxide (CO)
- ✦ A qualitative Mobile Source Air Toxics (MSAT) analysis was also prepared to predict the relative levels of six substances: Benzene, Acrolein, Formaldehyde, 1,3-Butadiene, Acetaldehyde and Diesel Exhaust
- ✦ Testing was conducted at the intersections of MD 197/MD 450 and MD 197/Kenhill Drive due to the heavier traffic volumes and levels of congestion

Fine Particulate Matter (PM_{2.5})

- ✦ The MD 197 project meets the requirements of the Clean Air Act and 40 CFR 93.109 of the Code of Federal Regulations for PM_{2.5} because it was found not to be a project of air quality concern
 - ✦ Neither of the Alternatives Retained for Detailed Study will result in a significant increase in the number of diesel-powered vehicles on MD 197
 - ✦ The MD 197 project is an expansion of an existing highway, which is primarily used by gasoline vehicles, to relieve congestion

Carbon Monoxide (CO)

- ✦ Existing levels of CO were measured using air quality receptors in close proximity to the project area, and a mathematical model developed by the EPA (CAL3QHC) was used to predict air quality conditions for the year 2030 using projected traffic volumes and roadway configuration
- ✦ Future CO levels resulting from this project would not exceed the National Ambient Air Quality Standards (NAAQS)
 - ✦ None of the peak hour CO concentrations would exceed the NAAQS threshold of 35 ppm
 - ✦ The maximum 8-hour average concentration of CO would not exceed the NAAQS threshold of 9 ppm

Mobile Source Air Toxics (MSAT)

- ✦ The MD 197 project is considered to be a Project with Low Potential MSAT Effects
 - ✦ It would be a minor widening project that would not add substantial new capacity or meaningfully increase emissions
 - ✦ When a highway is widened, the localized level of MSAT emissions for the Build Alternatives could be higher relative to the No-Build Alternative
 - ✦ This could be offset due to increases in speed and reductions in congestion, which are associated with lower MSAT emissions
- ✦ At both the project location and regionally, MSAT concentrations will decrease in the future due to EPA's vehicle emission and fuel regulations



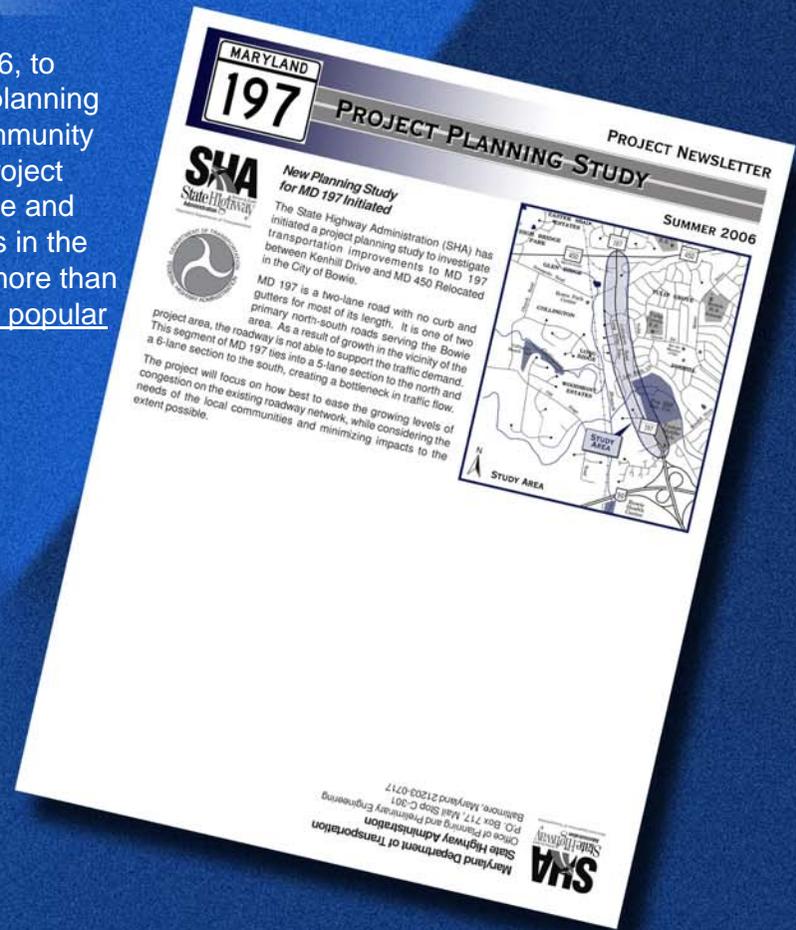


Project Planning Study

Project Newsletter - Summer 2006

A Project Newsletter was mailed out in the Summer of 2006, to introduce citizens in the MD 197 study area to the project planning study and to describe the project purpose and need. A community survey was included in the project newsletter so that the project team could receive feedback from the public on the purpose and need statement and learn more about transportation issues in the project area. Of the 10,866 newsletters that were mailed, more than 1,000 completed surveys were returned. Some of the most popular responses to the survey included the following comments:

- Project is long overdue
- Support for roadway widening
- Suggested alternatives or noted problem areas
- Support for Purpose and Need statement
- A desire to improve signal timing, or to add or remove signals



MARYLAND 197 PROJECT PLANNING STUDY

Please assist the Project Team by answering the following questions. To return the survey, simply detach and fold before dropping into the mail. All postage will be paid by the State Highway Administration.

- What are the top three transportation issues in the project area? (Circle three)
 - A. Too much traffic on MD 197
 - B. Traffic safety
 - C. Delays at signalized intersections
 - D. Difficulty crossing MD 197 and/or making left turns
 - E. Speeding
 - F. Insufficient transit service
 - G. Bicycle and pedestrian access / safety
 - H. Other _____
- When is the most difficult time to travel in the project area? (Circle one)
 - A. Morning rush hour
 - B. Evening rush hour
 - C. Weekends
 - D. All of the above
- What improvements do you think would help the most? (Circle one)
 - A. Intersection / traffic signal improvements
 - B. Reconstruction of certain segments of MD 197
 - C. Upgrade MD 197 to a multi-lane roadway
 - D. Do nothing
 - E. Other _____
- What types of "impacts" are you most concerned about? (Circle one)
 - A. Impacts to homes and businesses
 - B. Impacts to the natural environment
 - C. Impacts during construction
 - D. Noise
 - E. Other _____
- Please provide your comments on the Purpose and Need Statement: _____
- Please provide additional information about the study area (attach additional sheet(s) if needed): _____

PROJECT MAILING LIST - Please provide your name and address if you would like to be placed on the project mailing list for future updates and announcements:

Name: _____ Email: _____

Address: _____

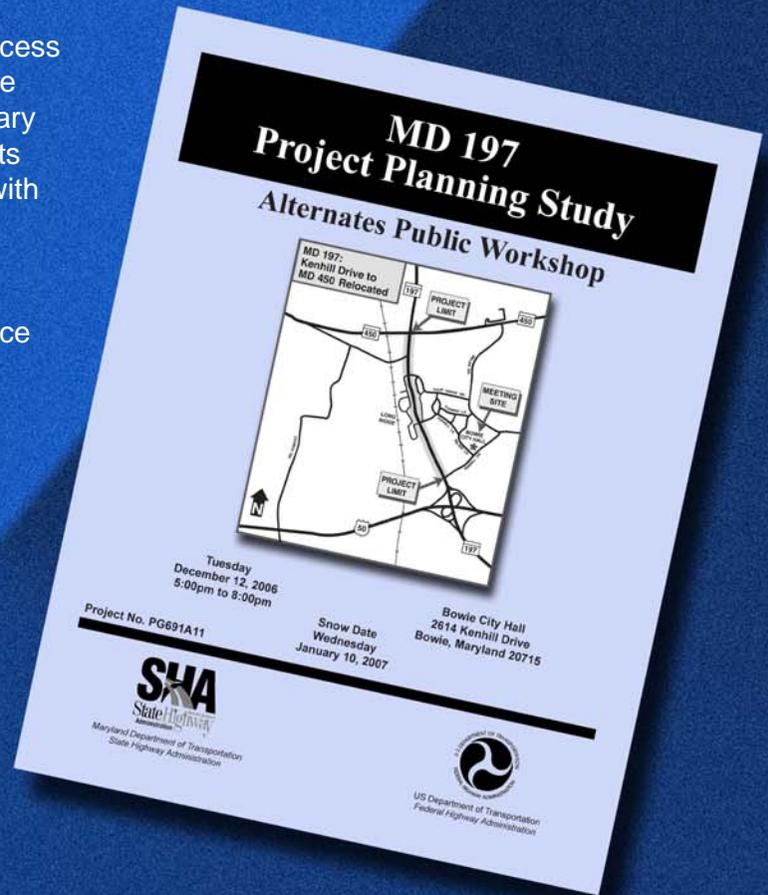
Additional survey responses SHA received reflected the concerns of some of the citizens, which included the following:

- Traffic volumes on MD 197
- Delays at signalized intersections
- Traffic Safety
- Difficulty crossing MD 197 and/or making left turns
- Speeding
- Traveling on MD 197 during rush hours and weekends
- Possible impacts to homes, businesses and the natural environment

Alternates Workshop - Winter 2006

An Alternates Workshop was held December 12, 2006 to familiarize interested citizens with the Project Planning process and the project's Purpose and Need Statement, present the findings of the environmental studies, and display preliminary alternatives. During this workshop residents offer comments and suggestions on the proposed alternatives and speak with SHA staff members. A comment card was included in the Alternates Workshop brochure that was mailed to property owners in the study area, and was also provided at the meeting. Based on the comment card responses, preference for each of the alternatives was as follows:

- Alternative 3 – Five-lane Undivided: 51%
- Alternative 4 – Four-lane Divided: 38%
- Alternative 2 – TSM/TDM: 6%
- Alternative 1 – No-Build: 5%



**STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS**

PG691A11
ALTERNATES PUBLIC WORKSHOP
MD 197 PROJECT PLANNING STUDY

TUESDAY
DECEMBER 12, 2006
5:00pm to 8:00pm

BOWIE CITY HALL
2614 KENHILL DRIVE
BOWIE, MARYLAND 20715

NAME _____ DATE _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____

TO HELP US IN EVALUATING THE ALTERNATIVES PRESENTED AT THE ALTERNATES PUBLIC WORKSHOP PLEASE ANSWER THE QUESTIONS BELOW:

1. What alternative do you like the most? 1 2 3 4

2. What alternative do you like the least? 1 2 3 4

3. Are there any additional alternatives you would like to be considered?

4. When using MD 197, where are you traveling? Washington, D.C. Areas North of Bowie
Areas South of Bowie Annapolis Baltimore Other _____

5. Do you use transit or ridesharing? Yes No If not, why? _____

6. If you do use transit, what mode do you use? Metrobus Metro Van Pool

7. Are you willing to participate in future surveys? Yes No

Please provide any additional comments here:

Please add my/our name(s) to the Mailing List.
 Please delete my/our name(s) from the Mailing List.

* Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

During the meeting, and through the comment card responses, citizens expressed concerns about several topics, including:

- The median width (with Alternative 4)
- The need for sixteen-foot outside bicycle-compatible lanes
- Traffic operation and safety of the study area intersections
- Roadway noise
- Impacts to residential properties, mature trees and the rural feel of the roadway corridor
- Drainage and stormwater management issues

Open House - Fall 2007

An Informational Open House was held November 14, 2007 to provide all stakeholders within the study area the opportunity to review and comment on the preliminary findings from the engineering and environmental impact analyses. In preparation for this meeting, the Fall 2007 Project Newsletter was mailed to property owners in the study area which included a community survey. Copies of this survey were also available during the Open House. The goal of the survey was to help the study team better understand potential community-related effects associated with the MD 197 project. Through their responses to the survey, community members expressed concerns over the following topics:

- Traffic Signals
- Stormwater management
- Right-of-Way
- Noise
- Pedestrian safety
- Turning left onto MD 197 from side streets
- Safety concerns over speeding, existing medians, and too few signals

Community Survey

Please help us better understand potential community-related effects associated with the MD 197 project by completing this questionnaire. Information from this survey will be taken into consideration as the study team refines project alternatives. To return this postage-paid survey, simply fold and seal before placing it in the mail. Surveys may also be returned in person during the November 14, 2007 Informational Open House.

- In which neighborhood or section of Bowie do you live? How long have you lived there?
- What features help define your community (e.g., landscaping, forested areas, historic district, roads, etc.)?
- What are the major community facilities where you live (e.g., religious, schools, parks, community centers, etc.)? Do you regularly visit these facilities?
- Do you regularly travel along MD 197 between US 50 and MD 450 for work, recreation, shopping, etc? Yes No
Do you use the pedestrian/bicycle trail beside MD 197? Yes No
If so, how often?
- To ensure nondiscrimination, the Project Planning Study will identify and address any disproportionately high or adverse impacts to minority and/or low-income populations. Please provide any information that will help us reach minority or low-income populations in or around your community.
- How do you think the improvements to MD 197 (described in the newsletter) will affect your community?

Please return completed questionnaires by November 14, 2007.
We value your comments!

MD 197 PROJECT PLANNING STUDY
FALL 2007

Informational Open House

November 14, 2007
5:30pm to 8:30pm

Bowie City Hall
2614 Kenhill Drive
Bowie, Maryland 20715

Public feedback is essential in helping the study team understand how the community may be affected by proposed roadway improvements. The purpose of the Open House is to provide all stakeholders within the study area the opportunity to review and comment on the preliminary findings from the engineering and environmental impact analyses. Please plan to attend!

Community Survey
Help us learn more about your community and your concerns regarding potential project impacts by completing the questionnaire included in this newsletter. The study team values public insight and is seeking to understand more about ways in which the proposed improvements may affect the community. Information gathered from the survey will be used to complete the Community Effects Analysis (CEA) portion of the project impact the decision-making process and will refine the alternatives.

In This Issue:

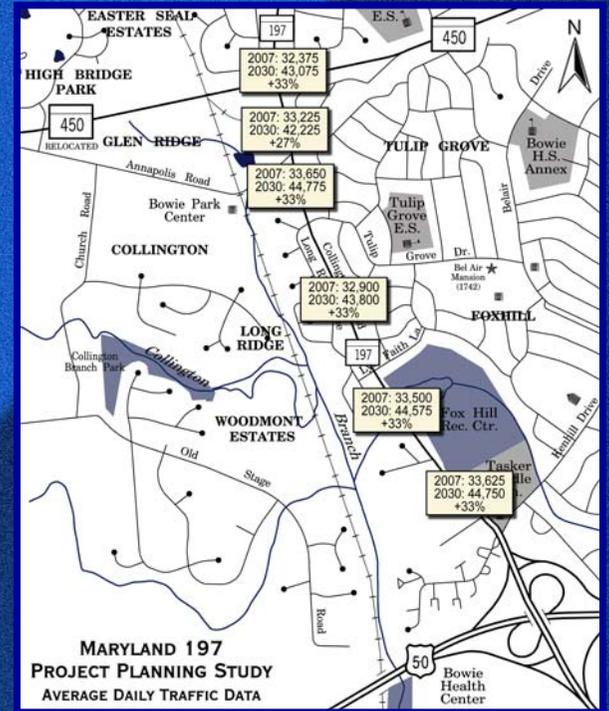
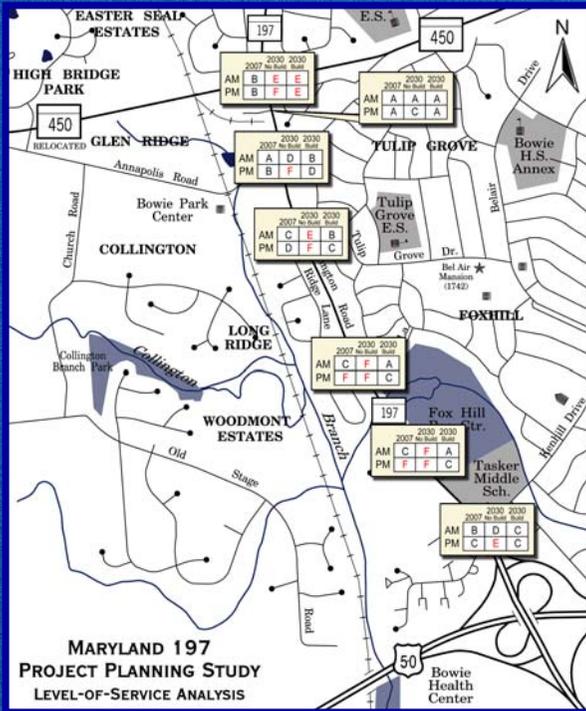
- Engineering Studies
- Environmental Studies
- Community Survey
- Next Steps

MD 197 Study Area Map

For the duration of the planning process, the study team responded to the various concerns raised by the community by taking the following actions:

- Working with SHA District 3 Engineers to coordinate traffic signals and perform signal warrant studies
- Developing more detailed stormwater management plans
- Minimizing the amount of right-of-way required from property owners, especially on the west side of MD 197
- Speaking with community members individually at the fall 2007 Open House to address concerns about potential noise impacts
- Including a way to bypass or accommodate turning vehicles in both Alternatives 3 and 4
- Developing one alternative with a median, and one without
- Proposing the enhancement and reconstruction of the existing bike/pedestrian trail beside MD 197 and crosswalks at all signalized intersections, as well as including bicycle-compatible lanes in both Alternatives 3 and 4

Traffic Analysis



2007 Existing

- Two failing intersections (Lyle Lane and Lerner Place) during the PM peak hours

2030 No-Build

- 4 of 7 intersections are projected to have a failing LOS during the AM peak
- 6 of 7 intersections are projected to have a failing LOS during the PM peak

2030 Build

- Intersection with MD 450 Relocated experiences LOS of E during AM and PM peak

Intersecting roads with the greatest 2007 Traffic Volume

- MD 450 Relocated (25,225)
- Tulip Grove Drive (3,075)
- Kenhill Drive (12,675)

Roads with the greatest projected 2030 Traffic Volume

- MD 450 Relocated (43,125)
- Tulip Grove Drive (3,700)
- Kenhill Drive (16,325)

MD 197 Level-of-Service Analysis

Intersection of:	2007 Existing (AM/PM Peak)	2030 No-Build (AM/PM Peak)	2030 Build (AM/PM Peak)
MD 197 at MD 450 Relocated	B/B	E/F	E/E
MD 197 at Gallant Fox Lane	A/A	A/C	A/A
MD 197 at Old MD 450	A/B	D/F	B/D
MD 197 at Long Ridge Lane	C/D	E/F	B/C
MD 197 at Lyle Lane	C/F	F/F	A/C
MD 197 at Lerner Place	C/F	F/F	A/C
MD 197 at Kehnill Drive	B/C	D/E	C/C

MD 197 Existing and Forecasted Average Daily Traffic (ADT) Data

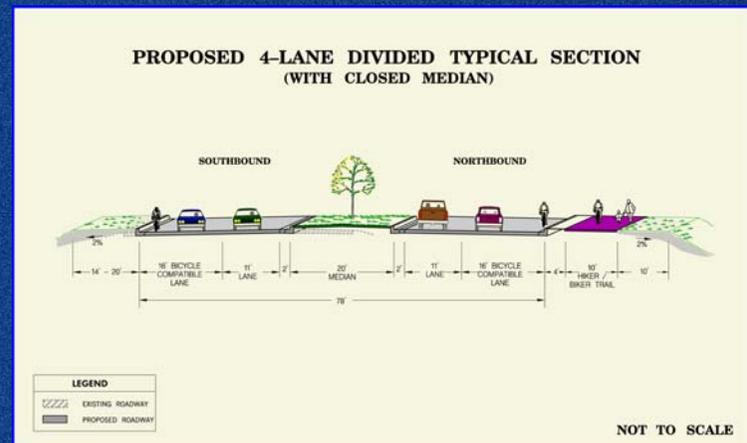
MD 197 Segment	2007 ADT	2030 No-Build ADT	Percent Increase
MD 450 Relocated to Gallant Fox Lane	32,375	43,075	33%
Gallant Fox Lane to Old MD 450	33,225	42,225	27%
Old MD 450 to Long Ridge Lane	33,650	44,775	33%
Long Ridge Lane to Lyle Lane	32,900	43,800	33%
Lyle Lane to Lerner Place	33,500	44,575	33%
Lerner Place to Kehnill Drive	33,625	44,750	33%

Pedestrian/Bicycle Trail

The existing pedestrian/bicycle trail along the eastern edge of MD 197, between Kenhill Drive and MD 450, is an important community feature used to connect other study area features such as Foxhill Park and Benjamin Tasker Middle School.

In order to maintain the connectivity and improve the safety and usage of the existing trail, both Alternatives 3 and 4 include the following enhancements:

- The existing trail will be reconstructed and improved
- A new or reconstructed 10-foot wide trail will be provided along the eastern edge of the reconstructed MD 197 roadway. In some locations the trail will meander further from the roadway, similar to the existing trail
- In addition to the off-road trail, each build alternative includes a 16-foot outside bicycle-compatible lane



Safety

The study team has analyzed the safety characteristics and crash data within the project limits and found:

- A total of 148 police reported accidents between 2001 and 2004 were recorded within the project limits
- Rear end collisions were the most frequently reported type of accident with a total of 60 incidences
- 23 left turn accidents at Gallant Fox Lane during the four year time period, which equated to a rate of 62.6 accidents per 100 million vehicle miles (mvm) and is significantly higher than the Maryland statewide average rate of 20.3 mvm for left turn accidents on similar highways
- There was one fatality between Kenhill Drive and Lyle Lane in 2003

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	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	276.7
MD 197 from Kenhill Drive/London Lane to Faith Lane/Lyle Lane							
Fatal	0	0	1	0	1	2.8	1
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	270.2
MD 197 from Faith Lane/Lyle Lane to Gallant Fox Lane							
Fatal	0	0	0	0	0	0	1.3
Injury	25	16	11	4	56	152.4**	99
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.

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.