Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

JUN 2 4 2008

RE: Project No. PG288A11
US 301/MD 197
From north of Mount Oak Road to US 50
Prince George's County, Maryland
Request for Location Approval

Mr. Nelson J. Castellanos
Division Administrator
Federal Highway Administration
City Crescent Building
10 South Howard Street, Suite 2450
Baltimore, MD 21201

Attn: Mr. Phillip Bello

Dear Mr. Castellanos:

In accordance with the CEQ Regulations and 23 CFR 771, the Maryland State Highway Administration (SHA) is requesting Location Approval for proposed improvements to US 301/MD 197 from north of Mount Oak Road to US 50 in Prince George's County. The Federal Highway Administration (FHWA) concurred on a Categorical Exclusion (CE) classification for this project on April 5, 2002.

The project area is located east of the City of Bowie in Prince George's County, Maryland (Attachment 1). US 301 serves the area as a major regional transportation link, with MD 197 serving as a vital connection to areas north and west of Bowie, including the Cities of Laurel and Greenbelt.

A "tiered" Environmental Impact Statement (EIS) was utilized to address the National Environmental Policy Act requirements for this project in order to allow for the acquisition of right-of-way within a transportation corridor experiencing rapid growth and development. The Tier I FEIS was approved on December 21, 2000, and Corridor Approval was granted by FHWA on May 18, 2001. The proposed improvements to US 301 from north of Mount Oak Road to US 50 will be the first "breakout" project within the US 301 Northern Corridor Tier I EIS.

The project study area (Attachment 2) is located within the northernmost 1.5 miles of the US 301 Northern Corridor Tier I EIS, which includes MD 197 from US 301 west to Mitchellville Road. The study area limits include the US 301/US 50 ramps to the north, Mount Oak Road to the south, Northview Drive to the west and Prince George's Stadium to the east.

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Purpose and Need

The purpose of this project is to improve safety and existing and projected traffic operations along US 301 and MD 197 while minimizing environmental impacts. These improvements are also planned to accommodate local traffic patterns and access for existing and planned development in the corridor.

A primary need for this project is to support the residential and commercial growth that has occurred in this area of Prince George's County. Based on the Metropolitan Washington Council of Governments Round 7 Cooperative Forecast, population in the project area is predicted to increase approximately 14.5% by 2030, accompanied by a 67% increase in employment. This is reflective of the economic growth planned for the area in the *Bowie and Vicinity Master Plan and Sectional Map Amendments* (Maryland-National Capital Park and Planning Commission (MNCPPC) February 2006). The project area is included as part of the County's "Developing Tier" and portions of the project area are also part of the planned Bowie Regional Center, accommodating increased commercial retail and employment development.

Recent and planned residential/commercial development has increased current and projected future traffic volumes within the project area. Average daily traffic (ADT) volumes along US 301 are projected to increase from 75% to 88% between 2006 and 2030, with volumes along MD 197 increasing from 72% to 128% over the same time period.

Existing and Future Traffic Conditions

Current and projected average daily traffic (ADT) volumes indicate increases in traffic volumes between 72% and 128% between 2006 and 2030 for roadways within the project area (Table 1). While the highest numerical increase in ADT is predicted to occur along US 301, the highest percentage ADT increase is predicted to occur along MD 197 as this roadway directly serves increasing levels of commercial retail and employment in the project area. Since MD 197 and US 301 serve commercial retail and employment centers within the project area the truck traffic as a percentage of ADT and design hour volume (DHV) was calculated (Table 2).

Table 1: US 301/MD 197 Existing and Projected Average Daily Traffic

US 301/MD 197 Roadway Section	2006 Average Daily Traffic Volume	2030 Projected Average Daily Traffic Volume	Percent (%) Increase
US 301 from US 50 to Harbour Way	61,670	115,460	87%
US 301 from Harbour Way to Heritage Boulevard	55,580	104,580	88%
US 301 from Heritage Boulevard to MD 197	54,420	99,430	83%
US 301 from MD 197 to Excalibur Road	65,330	116,570	78%
US 301 south of Excalibur Road	62,220	108,920	75%
MD 197 from US 301 to Mitchellville Road	21,000	47,950	128%
MD 197 west of Mitchellville Road	32,490	56,730	72%

Table 2: US 301/MD 197 Existing and Projected Percent Truck Traffic

	US 301 from US 50 to Excalibur Road		MD 197 from US 301 to Mitchellville Road	
	2007 Existing	2030 Projected	2007 Existing	2030 Projected
Average Daily Traffic (ADT)	67,500	115,500	34,500	56,750
Design Hour Volume (DHV)	7%	6%	8%	7%
Directional Distribution	53%	53%	63%	63%
Percent Trucks – ADT	6%	6%	4%	4%
Percent Trucks - DHV	4%	4%	3%	3%

Level of services (LOS) were calculated for AM and PM peak periods at key intersections within the project area. LOS A through C indicate free-flowing to stable flowing conditions, while LOS D through F indicate moderate to severe stop-and-go conditions resulting in substantial traffic delays. With the increasing ADT, intersection LOS throughout the project area is predicted to decrease, from one failing intersection in 2006 (US 301 at Heritage Boulevard/Ball Park Road) to six failing intersections by 2030 (Table 3).

Two key intersections within the project area will not experience failing LOS by 2030, Mitchellville Road at Harbour Way and Mitchellville Road at Heritage Boulevard, and therefore are not in need of improvements. Mitchellville Road at Harbour Way projects to operate at LOS D or better in the design year of 2030 without geometric improvements. A new signal will be installed on Mitchellville Road at Heritage Boulevard to replace the existing stop-control, but no additional geometric improvements are required to achieve acceptable LOS.

Table 3: US 301/MD 197 Existing and Projected Level of Service

US 301/MD 197 Location	Analysis Type	AM (PM) LOS		Projected Year for Failing Condition
		2006 Existing	2030 Projected	
Mitchellville Road at Harbour Way	Signalized Intersection	A (A)	A (B)	NA
Mitchellville Road at Heritage Boulevard	All-Way Stop	A (B)	B (C)	NA
Mitchellville Road at MD 197	Signalized Intersection	A (A)	C (F)	2026
US 301 at Harbour Way/Governor Bridge Road	Signalized Intersection	C (E)	F (F)	2009
US 301 at Heritage Boulevard/Ball Park Road	Signalized Intersection	D (F)	F (F)	2006
US 301 at MD 197	Signalized Intersection	B (B)	F (F)	2016
US 301 at Excalibur Road/Mill Branch Road	Signalized Intersection	D (E)	F (F)	2009
US 301 at Mount Oak Road	Stop Controlled	C (C)	F (F)	2016

Safety

Crash data from 1997-1999 indicates that the statewide average crash rate for roadways similar to US 301 is 103 crashes per 100 million vehicle miles (MVM) driven. The 1997-1999 crash rate for US 301 between Mount Oak Road and MD 197 was 139 per 100 MVM. The segment of US 301 between MD 197 and US 50 exhibited an even higher crash rate of 296 per 100 MVM over that period. Currently the major types of crashes occurring on US 301 within the project area are rear-end and sideswipe crashes, indicating congested conditions and concerns with uncontrolled roadside access. Furthermore, rear-end crash rates along this roadway segment are currently above the statewide average for similar roadways.

Between 2003 and 2005 (Table 4), overall crash rates in the project area decreased below statewide averages for similar roadways. However, crash rates for opposite direction crashes along MD 197, especially at the Mitchellville Road intersection, were noted as significantly higher than the statewide average for similar roadways (23.5 crashes per 100 MVM compared to the statewide average of 4.2 crashes per 100 MVM). Other types of crashes along MD 197, such as angle, pedestrian, and parked vehicles also had higher than statewide average crash rates, although not defined as significantly higher.

For 2006 (Table 5), seven total crashes were reported along MD 197 in the project area, with angle collisions (2) being the most prevalent type. Along US 301, 63 total crashes were reported, with rear end crashes (27) being the most recurring crash type. None of these 2006 crash rates or percentages for the project area were significantly high in comparison to statewide average crash rates or percentages for similar roadways.

Table 4: US 301/MD 197 Crash Data for Years 2003 to 2005

US 301 from Mount Oak Road to US 50						
Year	2003	2004	2005	Total	Study Rate	Statewide Rate
Fatal	-	-	-	-	0.0	1.3
Number Killed	-	-	-	-	-	-
Injury	37	31	22	90	71.5	96.0
Number Injured	68	55	33	156	-	-
Property Damage	32	31	22	85	67.5	131.4
Total Crashes	69	62	44	175	138.9	228.8
Opposite Direction Crashes	-	2	-	2	1.6	4.2
MD 197 from US 301 to Holiday Lane						
Year	2003	2004	2005	Total	Study Rate	Statewide Rate
Fatal	-	-	-	-	0.0	1.3
Number Killed	-	-	-	-	-	-
Injury	8	4	4	16	93.9	96.0
Number Injured	22	6	7	35	-	-
Property Damage	7	6	6	19	111.6	131.4
Total Crashes	15	10	10	35	205.5	228.8
Opposite Direction Crashes	2	-	2	4	23.5	4.2

Table 5: US 301/MD 197 Crash Data for Year 2006

US 301 from Mount Oak Road to US 50			
Year	2006	Study Rate	Statewide Rate
Fatal	1	2.2	1.3
Number Killed	2	-	-
Injury	23	49.7	96.0
Number Injured	37	-	-
Property Damage	39	84.2	131.4
Total Crashes	63	136.1	228.8
Opposite Direction Crashes	2	4.3	4.2
MD 197 from US 301 to Holiday Lane			
Year	2006	Study Rate	Statewide Rate
Fatal	-	0.0	1.3
Number Killed	-	-	-
Injury	4	88.9	96.0
Number Injured	7	-	-
Property Damage	3	66.7	131.4
Total Crashes	7	155.5	228.8
Opposite Direction Crashes	1	22.2	4.2

Alternatives Considered

The alternatives presented at the Location/Design Public Hearing include Alternative 1 (No-Build) and build alternatives 2 Modified, Revised Alternative 2 Modified, Alternative 5A and Alternative 5B. The alternatives are described in detail below.

Alternative 1: No-Build Alternative

Under the No-Build Alternative, no new construction or substantial physical improvements to address increased traffic volumes and roadway congestion within the project area would occur. Existing maintenance activities would continue, and minor intersection improvements may be completed, including resurfacing, re-striping and signage and lighting improvements. These proposed activities would not provide substantial improvement to congestion levels or safety concerns and therefore do not meet the project purpose and need. The No-Build Alternative was carried through detailed studies to provide a context of existing conditions for the evaluation of impacts potentially generated by the proposed build alternatives.

Alternative 2 Modified

Under Alternative 2 Modified (Attachment 3), an urban diamond interchange would be constructed at the US 301/MD 197 intersection, with US 301 remaining at-grade on the existing alignment. Existing direct access to US 301 would be removed and replaced with a network of parallel service roads. An extended service road to the west of US 301 would serve existing residential and commercial development, including the Bowie Gateway Center and Collington Plaza. Excalibur Road and Harbour Way would be extended over US 301 to connect with Mill Branch Road and Governor Bridge Road, respectively, providing access to residential, commercial, and recreational development east of existing US 301 via a service road connection. Alternative 2 Modified would provide a controlled T-intersection between the east service road and Mill Branch Road.

Revised Alternative 2 Modified

This alternative (Attachment 4) is essentially identical to Alternative 2 Modified, with the exception that the proposed west-side service road would be separated from the MD 197 on-ramps carried under MD 197 and associated ramps at the MD 197/US 301 Interchange. Under Alternative Revised 2 Modified, access to and from MD 197 would be directly from US 301 rather than via the combined service road/ramp system proposed with Alternative 2 Modified. Additionally, single left and right turn lanes will feed the ramps to both northbound and southbound US 301 from MD 197, as opposed to the double turn lanes provided with Alternative 2 Modified. Improvements to the east of US 301 are the same for this alternative as those proposed under Alternative 2 Modified.

Alternative 5A

Under Alternative 5A (Attachment 5), an urban diamond interchange would be constructed at the US 301/MD 197 intersection, with US 301 remaining at-grade, but shifted approximately 100 to the east. Existing direct access to US 301 would be removed. An extended parallel service road to the west of US 301 to serve existing residential and commercial development would be constructed. Excalibur Road and Harbour Way would be extended over US 301 to connect with Mill Branch Road and Governor Bridge Road, respectively, providing access to residential, commercial, and recreational development east of existing US 301 via a service road connection. Alternative 5A would provide a controlled T-intersection between the east service road and Mill Branch Road.

Alternative 5B

This alternative (Attachment 6) is similar to Alternative 5A, except that the urban diamond interchange at US 301 and MD 197 would be reversed, with US 301 elevated over the at-grade MD 197. This alternative would require the west service road in the vicinity of the interchange to be elevated.

Preferred Alternative — Alternative 2 With Roundabouts

On November 20, 2002, a Location/Design Public Hearing was held in Bowie, Maryland to acquaint the public with the project and to provide an opportunity for all interested persons to present their views regarding the alternatives under consideration: the No-Build Alternative and Alternative 2 Modified, Revised Alternative 2 Modified, 5A and 5B. After the public hearing, the Core Study Team was asked by the Bowie City Council to develop a more cost-effective alternative that could be designed in phases. In response, the team re-designed Alternative 2 Modified and re-named it Alternative 2 with Roundabouts (Attachment 7). This new design is constructable in four phases arranged in a series that incrementally provides the traffic relief needed in the project area. The new alignment also has the advantage of a more cost-effective approach with fewer direct business and natural resource impacts than previous designs. Because of these advantages, this alternative was selected by SHA as the preferred alternative.

Under Alternative 2 with Roundabouts, US 301 would be expanded from two lanes to three lanes in each direction along the existing alignment, with a bridge carrying MD 197 over US 301 to eliminate the existing at-grade intersection. This alternative utilizes a traditional diamond interchange at MD 197, with two double-lane roundabouts at the ends of the directional ramps providing access to the parallel collector-distributor (CD) roadways. Approximately 1.5 miles of a one-way CD road would be constructed on each side of US 301 from just north of Mount Oak Road to just south of the US 50 Interchange.

At the north end of the project, an overpass would connect relocated Harbour Way on the west side of US 301 to Governor Bridge Road, which would be extended southward to function as a service road. Similarly, at the south end of the project, an overpass would connect Excalibur

Road to Mill Branch Road. Access to the Collington Plaza would still be available on the southbound CD road between MD 197 and Mill Branch Road. The intersection of MD 197 and Mitchellville Road would also be improved with additional through lanes and turn lanes. US 301 would be converted to a fully-access-controlled roadway between Mount Oak Road and US 50.

Public Involvement

From 2000-20001, a series of ten focus group meetings were held with a representative group of community and business interests in the study area. The intent of these activities was to solicit input into the development of preliminary project alternatives. An additional outreach workshop was conducted with representatives of the local business community and Chamber of Commerce in January 2001 regarding the need for a secondary economic analysis of the project. On November 20, 2002, a Location/Design Public Hearing was held in Bowie, Maryland to acquaint the public with the project and to provide an opportunity for all interested persons to present their views regarding the alternatives under consideration

Following the development of Alternative 2 with Roundabouts, SHA conducted five outreach meetings from March through May 2007, with civic and government leaders, homeowners' associations and the business community. Over seventy-five project stakeholders cumulatively attended these meetings. On May 9, 2007, SHA conducted another Informational Workshop reintroducing the project to the general public and soliciting input on Alternative 2 with Roundabouts.

The majority of comments and concerns received from the public during the outreach efforts in 2007 were regarding impacts, project cost, project construction, and access to the US 301 mainline. SHA representatives explained that the selection of Alternative 2 with Roundabouts decreases impacts and project cost over previously considered alternatives. Alternative 2 with Roundabouts can also be constructed in incremental phases.

Summary of Environmental Impacts

A comprehensive analysis has been conducted to determine the extent of the proposed socioeconomic, cultural and natural resources impacts for all Alternatives Retained for Detailed Study. The impacts associated with the SHA preferred alternative, Alternative 2 with Roundabouts, is discussed below. Alternative 2 with Roundabouts would impact both human and natural environmental resources within the project area, but would result in fewer overall impacts to these resources than the other build alternatives considered by SHA. A summary of the impacts associated with Alternative 2 with Roundabouts is described below and is shown on Table 6.

Table 6: US 301/MD 197 Preferred Alternative – Impacts and Cost

Impacts and Costs	Measurement Unit	Alternative 2 with Roundabouts
Natural Environment		
Wetlands	Acres	0.3
Stream Crossings	Number	3
Stream Impacts	Linear Feet	1,693
Stream Impacts	Square Feet	8,134
Soils of Statewide Importance (non-urbanized)	Acres	15
Prime Farmland Soils (non-urbanized)	Acres	4
Forest Impacts	Acres	13.35
Socio-Economic Environment		
Right-of-way Required	Acres	59.7
Properties Affected (for minor right-of-way acquisition)	Number	52
Parklands	Number	0
Residential Displacements	Number	0
Business Displacements	Number	1
Cultural Resources		
Historic/Archaeological Sites	Number	0
Cost		
Length	Miles	1.9
Construction Cost	$ Million	$150-170
Right-of-Way Cost	$ Million	$50-60
Total Cost	**$ Million**	**$230-260**

Natural Environmental Resources

According to the US Fish and Wildlife Service (USFWS), except for occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project impact area (Attachment 8). The Maryland Department of Natural Resources (DNR) indicated that there are no known records of federal or state rare, threatened or endangered plants or animals within the project area (Attachment 9). DNR indicated that current and historical records of seven state endangered plant species are known in areas adjacent to the project area. None of these species were noted during field observations and based on the urbanized character of the project area; it is unlikely that any of these species would occur within the project impact area.

Wetland impacts for the preferred alternative would be 0.29 acre — less than for any of the other alternatives. Only two wetlands would be impacted: a palustrine emergent and a palustrine forested wetland. Both these wetland systems have a water regime that is flooded for most of the growing season. Impacts to the emergent wetland would be 0.18 acre and 0.11 acre for the forested wetland. Using a 1:1 ratio for emergent and 2:1 ratio for forested wetlands, the total wetland mitigation requirement would be approximately 0.44 acre. The actual amount would be determined as a condition of the permit authorizing the project activities; said permit application would take place during the design phase at which time detailed construction plans are developed.

Stream impacts associated with the preferred alternative would predominately involve culvert construction affecting perennial channels, including the main stem and tributaries of Mill Branch and Green Branch. This would involve a total of 1,390 linear feet and 8,134 square feet of disturbance (for both streams). No impacts to Federal Emergency Management Agency (FEMA) designated floodplains would occur.

The majority of forested land exists east of US 301 along Green Branch and Mill Branch and their associated tributaries. The dominant forest type is deciduous, with a few scattered evergreens. A large/significant tree survey was performed on May 18, 2000 and June 5, 2000. A total of 31 significant trees were identified. Alternative 2 with Roundabouts would produce less overall impacts to riparian habitat than the other build alternatives, since it crosses stream channels perpendicularly rather than extending adjacent and parallel to them. This alternative would affect 13.35 acres of forest land and 7.6 acres of cropland. Five large/significant trees would be impacted by the preferred alternative.

In an effort to avoid and minimize impacts to natural and socioeconomic resources, several alignment modifications were made to Alternative 2 with Roundabouts, the SHA preferred alternative. The ramp from MD 197 east to US 301 south was moved in to reduce right-of-way impacts to Pin Oak Village. Relocated Harbour Way was also shifted to the south to avoid an existing stormwater management pond. In addition, a retaining wall was added along northbound US 301 in the vicinity of Green Branch to avoid 50 linear feet of stream impacts.

Adverse impacts to water quality during construction would be minimized through strict adherence to SHA sediment and erosion control procedures. To minimize impacts to water quality, plans for stormwater management, and sediment and erosion control will be developed in accordance with the Maryland Department of the Environment (MDE) stormwater and erosion and sediment control criteria. The plans will include measures to address both quality and quantity controls that capture and treat runoff from a storm event. Coordination with MDE occurred during the presentation of the Preferred Alternative and Conceptual Mitigation (PACM) package at the Interagency Review Meeting held September 19, 2007 as well as during the review of the PACM package. MDE also attended the mitigation sites field review meeting held May 15, 2007.

Cultural Resources

No cultural resources listed on or eligible for listing on the National Register of Historic Places (NHRP) were identified within the project area. One property, Rips Restaurant, was identified as potentially eligible but due to substantial alterations and loss of historic integrity, it was determined not eligible for NRHP listing.

Based on previous disturbance and the negative results of prior archeological surveys completed within the Area of Potential Effects, no further archeological investigations are warranted for the preferred alternative, and no significant archeological resources would be impacted. The Maryland Historical Trust concurred on September 27, 2007 that there will be no significant cultural resources affected by the proposed project (Attachment 10a).

Land Use and Socioeconomic Environment

No right-of-way would be required from any publicly-owned park, recreation area or wildlife refuge. Therefore, no Section 4(f) analysis under the US Department of Transportation Act of 1966 is required.

A minimal portion (less than 2%) of the total US 301/MD 197 project is located outside of the PFA. By applying COMAR 11.04.13 (Smart Growth) Linear Feature Regulation, and after consultation with the Maryland Department of Planning (MDP), a transportation project may be considered to be located within a PFA, even if segments of the project are physically located outside of the PFA.

SHA applied the Linear Feature Regulation, and has determined that the US 301/MD 197 project is within a PFA and is in compliance because the segment outside the PFA comprises less than 5% of the lane mileage of the total project. The proposed US 301/MD 197 improvements are therefore consistent with the *Bowie and Vicinity Master Plan and Sectional Map Amendments* (MNCPPC February 2006). SHA received Smart Growth Regulations concurrence on January 7, 2008 (Attachment 10b).

Right-of-way impacts from the preferred alternative would be substantially less than under any of the alternatives previously considered. The previous alternatives required up to 64 acres of property from private owners, whereas the preferred alternative decreases this impact to 59.7 acres of right-of-way. One business displacement is anticipated, compared to two or four displacements with the previous alternatives, while access to the remaining businesses would be maintained via the CD roadways. No other displacements are anticipated.

Executive Order 12898 requires federal agencies to identify and address disproportionately high and adverse human health and environmental effects of its programs, policies and activities on minority and low-income populations. Based on 2000 Census data, minority individuals account for approximately 38% of residents of the project area, comprised

predominantly of residents of African-American ethnicity. Approximately 3.2% of the project area residents were determined to be living below the poverty level. Both of these measures are below the Prince George's County population averages of 73% minority population and 7.7% low-income. No minority or low-income communities or concentrations of residents were identified through the public involvement process, analysis of demographic data, or field assessment activities. Therefore, based on this information and minimal identified impacts, no disproportionately high or adverse effects on minority or low-income populations are anticipated as a result of the implementation of the proposed project.

Short-term (construction) impacts associated with the preferred alternative would be most prevalent to those businesses in the northern section of the Bowie Gateway Center (e.g. Comfort Inn, Precision Auto, Bob Evans, etc.) and Rips Restaurant. Access to the northern portion of the Bowie Gateway Center would only be available south of the business via Heritage Boulevard-Mitchellville Road. This change will provide a circuitous route (an approximately 1.0 mile added trip length for patrons southbound on US 301) to those businesses that rely on convenience trips for at least a portion of their business clientele.

Direct access to Rips Restaurant would no longer be available from US 301 (see Attachment 7, Plate 2 of 2). Patrons from US 301 would have to utilize the roundabouts with Collington Road extended and their connection to Ballpark Road to access the restaurant. While this is a major shift in access, it is projected as a short-term impact because this business is better positioned to attract local destination-oriented trips than many other restaurants in the area.

Noise Analysis

Four noise sensitive areas (NSA) were identified within the project area (Attachment 11). Based on design year noise levels associated with the referred alternative, three (3) of the four (4) NSAs (NSAs 2, 3, and 4) would experience noise levels which meet or exceed the FHWA/SHA noise impact criteria.

Feasibility and reasonableness of noise abatement was investigated for the build condition along the affected NSAs. Right-of-way constraints adjacent to US 301, MD 197 and Mitchellville Road preclude the construction of earthen berms for noise abatement. Therefore, the construction of sound barrier walls was evaluated for each impacted NSA. Sound barriers were evaluated based on SHA's feasibility and reasonableness criteria documented in SHA's *Sound Barrier Policy (May 1998).*

At NSA 2 Section 1 (represented by receptors 2-1 to 2-3), noise levels for the preferred alternative are projected to be between 62 dBA and 69 dBA. Noise levels of this magnitude exceed SHA impact criteria, and a sound barrier would typically be warranted. However, build noise levels with the preferred alternative would exceed no-build design year noise levels by less than 3dBA, and would actually be less than no-build design years within portions of the NSA. Design year noise levels would not exceed 72 dBA (Table 7). Since the communities

(Covington Knolls, Covington Towns, and Covington) were completed between 1997 and 2001 and there have been no improvements to US 301, MD 197 or Mitchellville Road since that time, there are no cumulative acoustic effects for this area resulting from prior improvements. Therefore, sound barriers within NSA 2 are not warranted based on SHA's feasibility and reasonableness criteria.

Table 7: Predicted Design Year Noise Levels

NSA	Receptor No.	Receptor Location	Existing Noise Levels	No-Build Alternative	Alternative 2 With Roundabouts
1	1-1	2802 Eliston Street	58	54	53
	1-2	16409 Ellesberry Court	64	61	61
	1-3	16504 Everdale Court	57	56	56
	1-4	3013 Eagles Nest Drive	63	62	61
	1-5	16505 Eloise Court	63	62	61
	1-6	2821 Eliston Street	51	52	50
	1-7	3010 Eagles Nest Drive	59	59	58
2	2-1	16610 Eastview Terrace	61	64	63
	2-2	4013 Estevez Court	68	71	69
	2-3	16501 Eastview Lane	59	63	62
	2-4	16511 Elkhorn Lane	57	64	62
	2-5	16417 Elkhorn Lane	56	62	60
	2-6	3931 Ettrick Court	65	72	67
	2-7	3910 Ettrick Court	60	65	66
	2-8	3907 Elkhorn Circle	56	56	54
	2-9 *	3924 Elan Court	56	56	54
3	3-1	16503B Governor Bridge	64	68	66
	3-2	Community Playground	66	67	65
	3-3	16409 Governor Bridge	63	68	67
	3-4	16507A Governor Bridge	54	61	60
	3-5	16411 Governor Bridge	58	60	58
4	4-1	Comfort Inn	71	73	71

Noise levels equal to or exceeding SHA impact criteria

* Site 2-9 Existing and No-Build noise levels derived from Site 2-8

At NSA 3, build noise levels associated with the preferred alternative will exceed the design year no-build noise levels by less than 3dBA and design year noise levels would be less than 72 dBA. Since the community was completed between 1999 and 2001 and there have been no subsequent improvements to US 301, there are no cumulative acoustic effects for this community resulting from prior improvements to US 301. Therefore, a sound barrier at NSA 3 is not consistent with SHA's feasibility and reasonableness criteria.

Although design year noise levels for the preferred alternative will approach or exceed the SHA impact criteria at noise receptor 4-1 within NSA 4 between a hotel building and US 301, there are no external use areas on this portion of the complex, which consists of parking areas for the hotel building. In addition, none of the hotel rooms facing US 301 has exterior balconies or patios. The only exterior use areas for the complex are located on the north side of the building and consist of an outdoor swimming pool and deck area. The swimming pool and deck area are shielded from US 301 by the eastern portion of the building. Predicted future build traffic noise levels will be less than 72 dBA and will not exceed no-build noise levels for the design year. There are no cumulative acoustic effects as a result of prior improvements. Therefore, a sound barrier at NSA 4 is not consistent with SHA's feasibility and reasonableness criteria.

Air Quality

The air quality analysis indicated that carbon monoxide impacts would result in no violations of the State and National Ambient Air Quality Standards (S/NAAQS) 8-hour concentration (9.0 parts per million (ppm)) or the S/NAAQS 1-hour concentration (35 ppm) for the preferred alternative.

No receptor locations are predicted to exceed the S/NAAQS for CO. Both 2007 and 2030 analysis years are predicted to have lower concentrations then the one-hour (35 ppm) and eight-hour (9.0 ppm) standards. The CAL3QHC model comparisons between the Build and No-Build Alternatives show that the highest No-Build CO concentrations decrease in the Build scenario. The Build CO concentrations range from slightly higher (generally those locations where new roadway will be built closer to the receptor location) to lower than the No-Build Alternative. The highest 1-hour CO concentration is 7.6 ppm at receptor SR10 in the 2030 No-Build PM scenario. This same receptor would have a 1-hour CO concentration of 6.2 ppm in the 2030 Build PM scenario. The highest 8-hour CO concentration is 4.3 ppm at receptors SR10 SR13 in the 2030 No-Build scenario. These same receptors would have an 8-hour CO concentration of 3.6 ppm and 3.8 ppm respectively in the 2030 Build scenario.

The US 301 Project is located in Prince George's County, Maryland which is in the Washington, DC-MD-VA $PM_{2.5}$ nonattainment area. This area was designated as nonattainment for $PM_{2.5}$ on January 5, 2005 by the U.S Environmental Protection Agency. This designation became effective on April 5, 2005, 90 days after EPA's published action in the Federal Register. Transportation conformity for the $PM_{2.5}$ standards applied on April 5, 2006, after the one-year grace period provided by the Clean Air Act.

On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized impacts of particulate matter: "$PM_{2.5}$ and PM_{10} Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New $PM_{2.5}$ and Existing PM_{10} National Ambient Air Quality Standards" (71 FR 12468). These rule amendments require the assessment of localized air quality impacts of Federally-funded or approved transportation projects in PM_{10} and $PM_{2.5}$ nonattainment and maintenance areas deemed to be *projects of air quality concern*[1]. Projects that require hotspot analysis for $PM_{2.5}$ are those projects that are *Projects of Air Quality Concern* as enumerated in 40 CFR 93.123(b)(1):

> *(i) New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;*
> *(ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;*
> *(iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;*
> *(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and*
> *(v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.*

As discussed in the examples to the preamble to the March 10, 2006 Final Rule for $PM_{2.5}$ and PM_{10} Hot-Spot Analyses in Project-Level Transportation Conformity Determinations (71FR12491), for projects involving the expansion of an existing highway, 40 CFR 93.123(b)(1)(i) has been interpreted as applying only to projects that would involve a significant increase in the number of diesel transit buses and diesel trucks on the existing facility. This has been further clarified in a proposed rule amendment as *"EPA is proposing to clarify this provision as ``New highway projects that have a significant number of diesel vehicles, and expanded projects that have a significant increase in the number of diesel vehicles."*[2]

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[1]Criteria for identifying *projects of air quality concern* is described in 40 CFR 93.123(b)(1), as amended.
[2] Transportation Conformity Rule Amendments to Implement Provisions Contained in the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) [Federal Register: May 2, 2007 (Volume 72, Number 84)] [Proposed Rules] [Page 24489]

SHA has prepared the following analysis of the proposed improvements:

- The proposed construction will improve the operation and safety of US 301 from MD 197 to Mount Oak Road through the addition of interchanges, ramps and C-D roads, but does not increase the through capacity of US 301 as a whole. Traffic data is presented for the Year of Opening (2012) and the Design Year (2030). The projected 2012 and 2030 No-Build and Build Average Daily Traffic (ADT) for US 301 and MD 197 as shown in Tables 2 and 3 (Attachment 11a pg. 8) represent the unconstrained user demand. The traffic data has been updated to provide worse case traffic volumes on critical roadway links. Based upon SHA staff interpretation of refined output from the regional travel demand model, travel demand forecasts were determined for No-Build and Build conditions; both of which were shown to be similar. With the lack of functionally comparable, parallel facilities to draw traffic from, and with the unimproved sections of US 301 at either study limits metering traffic on the Build section; ADT is not expected to significantly increase. The improvements along this section of US 301/MD 197 are designed to accommodate future peak period demand on the study segment solely; they are not anticipated to induce traffic in the uncongested off-peak periods. A review of the data in Tables 2 and 3 demonstrates that there will not be a significant increase in Average Daily Traffic (ADT) nor in the number of trucks nor from the No-build condition to the Build for the following reasons:

    - Users will take the shortest origin-destination path. In addition, user unfamiliarity with alternative routes and conditions encourages drivers to remain on US 301 despite the level of congestion and delay.
    - During peak traffic periods, diversion from what is the shortest path of travel between origin/destination points to alternate routes would not be attractive to the majority of users. Traffic conditions on these alternative routes are generally as bad as or worse during these peak travel periods, with significant congestion, slower speeds and numerous traffic lights, all factors translating into longer travel times. During off-peak periods, an uncongested interchange will be equally attractive to users for either the No-build or Build condition.
    - Trucks, which are the primary emitter of mobile source $PM_{2.5}$, will tend to stay on US 301 since the alternative routes would require frequent stop/start conditions due to traffic signals, and may not have lane widths, roadway grades, and curves that suit these types of vehicles. Similarly, other users primarily traveling alternative routes under the No-build condition will tend to remain on these alternative routes for local trip use due to non-congestion-related reasons such as route familiarity, and aggressive driving associated with higher speeds on US 301.

- The US 301 Project does not have a significant increase in diesel vehicles due to construction of the project. As shown in Tables 2 and 3, daily diesel truck traffic on US 301 will increase by 79 diesel trucks in 2012 and by 365 diesel trucks in 2030. The daily diesel truck traffic on MD 197 will increase by 22 diesel trucks in 2012 and by 100 diesel trucks in 2030. Also based on a memorandum from SHA dated April 5, 2007, the percent of truck traffic is not expected to change between the Build and No-Build conditions. Depicted truck percentages represent the amount of light, medium and heavy truck activity along a given roadway segment in accordance with FHWA's 13 vehicle classification guidelines. Existing percentages are derived from 48-hour portable classified count data. Without the addition of significant truck land use generators to the traffic influence area, truck percentages would remain relatively unchanged between the No-Build and Build conditions. Current truck origin-destination patterns will dictate future patterns, unless changes are made in policy or there is a significant influx in truck generators to the traffic influence area - neither of which has been assumed by the approved Regional Transportation model.

- The US301 Project also does not meet the criteria set forth in 40 CFR 93.123(b)(1)(ii), as amended, to be considered a *project of air quality concern* because it affects intersections that will not "change to Level-Of-Service D, E or F because of increased traffic volumes from a significant increase in number of diesel vehicles related to the project." The US 301 project will improve the operation and safety of affected intersections.

- Section 176(c) of the Clean Air Act and the federal conformity rule require that transportation plans and programs conform to the intent of the state implementation plan (SIP) through a regional emissions analysis in $PM_{2.5}$ nonattainment areas. The National Capital Region 2006 Constrained Long Range Transportation Plan (CLRP) and the 2007-2012 Metropolitan Transportation Improvement Program (TIP) have been determined to conform to the intent of the SIP. The CLRP is a comprehensive plan of transportation projects and strategies that the Transportation Planning Board realistically anticipates can be implemented over the next 30 years. The TIP is a 6-year program that describes the time frame for federal funds to be obligated to state and local projects. The U.S. Department of Transportation made a $PM_{2.5}$ conformity determination on the CLRP and the TIP on October 18, 2006; thus, there are a currently conforming transportation plan and TIP in accordance with 40 CFR 93.114. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. The US 301 project was included in the regional emissions analysis. There have been no significant changes in the project's design concept or scope from that used in the conformity analyses. Therefore, the project comes from a conforming plan and program in accordance with 40 CFR 93.115.

- Based on review and analysis as discussed above, it is determined that the US301MD 197 improvements meet the Clean Air Act and 40 CFR 93.109 requirements. These requirements are met for particulate matter without a project-level hot-spot analysis, since the project has **not been found to be a project of air quality concern** as defined under 40 CFR 93.123(b)(1). Since the project meets the Clean Air Act and 40 CFR 93.109 requirements, the project will not cause or contribute to a new violation of the $PM_{2.5}$ NAAQS, or increase the frequency or severity of a violation.

- Interagency Consultation was initiated by FHWA/SHA regarding the US 301/MD 197 Interchange PM 2.5 Conformity Determination (Attachment 11a) on February 26, 2008, with the Environmental Protection Agency (EPA), the Maryland Department of the Environment (MDE), and the Metropolitan Washington Council of Governments (MWCOG). These agencies have agreed with the conclusion that the US 301/MD 197 Interchange Project is **not a project of air quality concern under 40 CFR 93.123(b)(1)**. The Conformity Determination was placed on SHA's website for a 15-day pubic review and comment period: between May 13th thru 28th, 2008. No comments were received from the public.

FHWA *Guidance on Air Toxic Analysis in NEPA Documents*[1], requires analysis of Mobile Source Air Toxics (MSAT) under specific conditions. The EPA has designated six prioritized MSATs, which are known or probable carcinogens or can cause chronic respiratory effects. The six prioritized MSATs are: Benzene; Acrolein; Formaldehyde; 1,3-Butadiene, Acetaldehyde; and Diesel Exhaust (Diesel Exhaust Gases and Diesel Particulate Matter). Per SHA traffic analysis, as presented on a memorandum dated April 5, 2007 as summarized in Table 9 below the Build traffic volumes (ADT) and truck percentages are equal to the No-Build traffic volumes (ADT) and truck percentages. Therefore this would be a *"minor widening project[s] and new interchange[s, such as those] that replace(s) a signalized intersection on a surface street" ... "that serves to improve operations of highway.....without adding substantial new capacity or creating a facility that is likely to meaningfully increase emissions"*[2]. Therefore the US 301/ MD 197 project would be considered a **Project with Low Potential MSAT Effects**.

[1] Interim Guidance on Air Toxic Analysis in NEPA Documents, February 3, 2006
[2] ibid

Table 9: Percent of Diesel Powered Traffic and Average Annual Daily Traffic (AADT) for the Existing (2007), Year 2030 No-Build, and Year 2030 Build Conditions on the US 301 From US 50 to Excalibur Road and MD 197 from US 301 to Mitchellville Road.

Project Area	Existing	Year 2030 No-Build	Year 2030 Build
US 301			
Percent Diesel	5.05%	5.05%	5.05%
ADT	67,500	115,550	115,500
MD 197			
Percent Diesel	2.18%	2.18%	2.18%
ADT	34,500	56,750	56,750

Because SHA traffic analysis demonstrates that the Build traffic volumes (ADT) and truck percentages are equal to the No-Build traffic volumes (ADT), the US 301 Project will not result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in emissions impacts. As such, FHWA has determined that this project will generate minimal air quality impacts for the Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns.

Included herein is a basic analysis of the likely MSAT emission impacts of this project. However, available technical tools do not enable us to predict the project-specific health impacts of the emission changes associated with the Build Alternative. Due to these limitations, the following discussion is included in accordance with CEQ regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information.

Evaluating the environmental and health impacts from MSATs on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this project.

The EPA tools to estimate MSAT emissions from motor vehicles are not sensitive to key variables determining emissions of MSATs in the context of highway projects. The tools to predict how MSATs disperse are also limited. Even if emission levels and concentrations of MSATs could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude reaching meaningful conclusions about project-specific health impacts. Research into the health impacts of MSATs is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when

exposed to large doses. The EPA is in the process of assessing the risks of various kinds of exposures to these pollutants.

As discussed above, technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of MSATs at the project level, it is possible to qualitatively assess the levels of future MSAT emissions under the project. Although a qualitative analysis cannot identify and measure health impacts from MSATs, it can give a basis for identifying and comparing the potential differences among MSAT emissions-if any-from the Build Alternative.

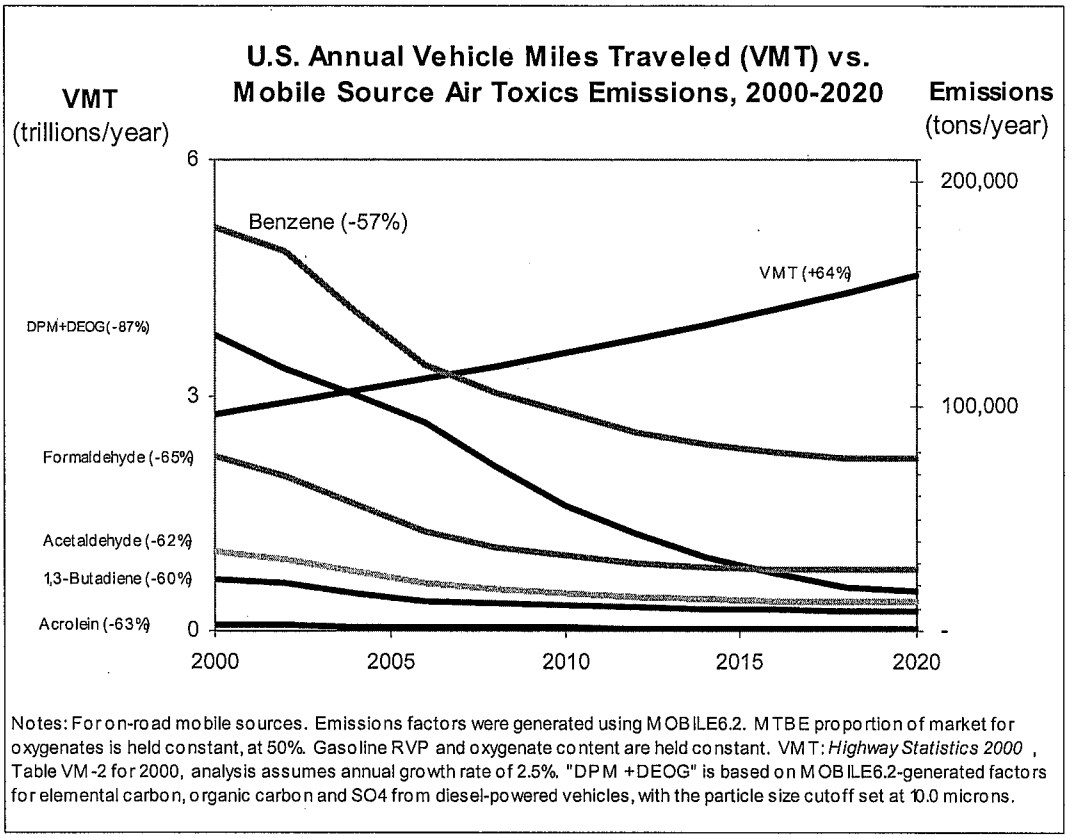
For each Alternative (No-Build and Build), the amount of MSATs emitted would be proportional to the annual average daily traffic (AADT), or vehicle miles traveled (VMT). Although the Build traffic volumes (ADT) and truck percentages are equal to the No-Build traffic volumes (ADT) and truck percentages, the Vehicle Miles Traveled (VMT) within the study area estimated for the Build Alternative may be slightly greater than that of the No-Build, because the Build Alternative will reduce congestion and increase efficiency of the roadway, and may to attract additional trips from elsewhere in the transportation network. This slight increase in VMT may lead to slightly higher MSAT emissions along the US 301 corridor for the Build Alternative. The emissions increase due to increased VMT is offset somewhat by lower MSAT emission rates due to increased speeds, since according to EPA's MOBILE6 emissions model, emissions of all of the priority MSATs, except for diesel particulate matter, decrease as speed increases. The extent to which these speed-related emissions decreases will offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

The additional lanes and interchange ramps of the Build Alternative will have the effect of moving some traffic closer to nearby homes and businesses; therefore, there may be localized areas where ambient concentrations of MSATs could be higher under the Build Alternative than the No-Build Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the side where the roadways shift towards the residences and businesses. However, as discussed above, the magnitude and the duration of these potential increases compared to the No-Build alternative cannot be accurately quantified due to the inherent deficiencies of current models.

In summary, when a highway is widened and, as a result, moves closer to receptors, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No-Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSATs will be lower in other locations when traffic shifts away from them. Furthermore, at both the project location and regionally, MSAT concentrations will decease in future years due to EPA's vehicle emission and

fuel regulations. It has shown as a result of EPA's national emissions control programs that MSAT emissions are projected to be reduced by 57 to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases. Refer to Table 10.

Table 10



Notes: For on-road mobile sources. Emissions factors were generated using MOBILE6.2. MTBE proportion of market for oxygenates is held constant, at 50%. Gasoline RVP and oxygenate content are held constant. VMT: *Highway Statistics 2000* , Table VM-2 for 2000, analysis assumes annual growth rate of 2.5%. "DPM +DEOG" is based on MOBILE6.2-generated factors for elemental carbon, organic carbon and SO4 from diesel-powered vehicles, with the particle size cutoff set at 10.0 microns.

Reference: Interim Guidance on Air Toxic Analysis in NEPA Documents, February 3, 2006

Hazardous Materials

An Initial Site Assessment was conducted in 2002. The results of this assessment indicate that seven areas of potential environmental concern will be affected by Alternative 2 with Roundabouts. Two 55-gallon drums containing a hazardous material were identified at the intersection of US 301 and Governor Bridge Road in June of 1995. A field investigation of the area yielded no obvious soil staining or other remnants of contamination. A leaking UST was discovered at an XTRA Fuels service station. A remediation system has been installed and several monitoring wells are situated to the east and southeast of the station. A Phase II site assessment will be completed for these two sites during the final design of the preferred alternative.

Indirect and Cumulative Effects

In assessing the potential for indirect and cumulative effects (ICE) associated with the US 301/MD 197 project, past and current development trends within and surrounding the project area were studied, along with known future development activities. An assessment was then made as to what total effects the proposed action and anticipated future development could be expected to have on natural and cultural resources. In conducting this assessment, a boundary was established (Attachment 12) that included the project area, along with all parcels and subdivisions either directly impacted by the project or immediately adjacent to the project area. The time frame for this ICE analysis is 1973 to 2020.

The start date, 1973, is based on a data search which indicated that land use mapping prior to 1973 is not readily available, whereas the Maryland Department of Planning (MDP) has made available, in GIS format, land use mapping for that year. During the 1960's a population boom occurred in Bowie following the City's annexation of the Levitt & Sons residential development and Bowie's re-incorporation as a city in 1963. It was also in the 1960s that US 301 expanded to its current four-lane configuration. However, despite the concurrent build-out that occurred in Bowie during that period, the 1973 land use data shows that only minimal development occurred directly within the ICE analysis boundary. Therefore, 1973 functions well as a baseline for analyzing the extensive development that eventually did occur there. The end date for the analysis is the project design year, 2030, which represents the last year that any of the proposed road improvements are projected to operate at the desired level of service.

The 1973 Land Use is shown in Attachment 12 and detailed in Table 11. Despite the rapid growth that occurred generally within Bowie during the 1960s, by 1973 the ICE analysis area was still 84% undeveloped, with agricultural land comprising 58.5% and forest lands 29.8%. Total residential use was only 7.2%, while commercial use comprised only 4.5% of the land area.

Table 11: 1973 Land Use in the ICE Analysis area

Land Use Type	Acres	Percent (%) of ICE Analysis area
Agriculture	762.9	58.5%
Forest	388.1	29.8%
Commercial	59.2	4.5%
High density residential	54.5	4.2%
Medium density residential	39.6	3.0%
TOTAL	1,304.4	100%

Source: Area measurements obtained using Maryland Department of Planning 1973 Land Use GIS Data

Current land use is represented by 2002 MDP data, which is the most recent land use data available. This data is shown in Attachment 13 and detailed in Table 12. By 2002, residential land use, both medium and high density, had increased dramatically to a total of 21.8%, an increase of 18%. Likewise, commercial properties increased by nearly 14%, up to 18.2%, with another 2.4% of properties shifting to institutional and transportation-related uses. An additional 6.6% of the land area was designated open urban land. Conversely, agricultural use declined by 33%, down to 25.6%, and forest lands declined by 4.6%, down to 25.2%.

Table 12: 2002 Land Use in the ICE Analysis area

Land Use Type	Acres	Percent (%) of ICE Analysis area
Agriculture	334.6	25.6%
Forest	328.6	25.2%
Commercial	237.9	18.2%
Medium density residential	171.8	13.2%
High density residential	111.8	8.6%
Open urban land	85.8	6.6%
Institutional	24.4	1.9%
Transportation	6.7	0.5%
Water	2.8	0.2%
TOTAL	1,304.4	100%

Source: Area measurements obtained using Maryland Department of Planning 2002 Land Use GIS Data

Since 2002, considerable additional development has taken place and continues to take place within and surrounding the ICE Analysis area. Attachment 14 shows the ICE Analysis boundary superimposed over a map of ongoing and planned development sites. The map portion was extracted from a larger map created by the City of Bowie Department of Planning and Economic Development in January 11, 2007 and which was contained in their publication "City

of Bowie 2007 Development Sites & Highway Projects Outline." The sites most relevant to the US 301/MD 197 project are also listed in Table 13, together with some specific details, including acreages, planned land use, and status at the time the list was compiled. Note that while some of the listed properties are outside the analysis area, they are included to give a sense of the size and types of growth that are occurring nearby.

None of these developments are dependent on the US 301/MD 197 Project. Rather, they are going forward regardless of whether or not the proposed transportation improvements occur. In fact, as the "Status" column in Table 13 shows, some of the largest developments are already under construction and have been for a few years, with major portions of those projects already completed. It is estimated that once all of the sites identified in Table 13 are fully developed, available properties within the analysis area will be approximately 80% built out.

Table 13: Reasonably Foreseeable Future Projects

Development Project	Acres	Planned Land Use	Status
Auto Tech Car Care	0.5	2100 Sq. ft. addition to existing auto repair garage	Rezoned to C-M; Storm water management plan approved in 2006
Maryland Science Technology Center (Melford)	466	Mixed use development consisting of 425,000 sq.ft. of office space, 330,000 sq. ft. of flex space, 200,000 sq. ft. of retail space, and 866 residential dwelling units	Some commercial portions completed and some other commercial portions are under construction. Residential use is being disputed in court by City of Bowie as being a non-approved use under existing limiting covenants.
Patuxent Overlook	52	14 single family detached units	Concept Plan Approved 2006
Bowie Gateway Center	102	Up to 1 million sq. ft. of office and commercial space	752,784 sq. ft. of office and commercial space completed
Charles Carroll Property	unknown	Car wash and quick lube facility	Preliminary Subdivision Plan approved
Bowie Town Center	274	1.224 million sq. ft. of retail, 719.500 sq. ft. of office and 1365 multi-family and townhouse units	936,662 Sq. ft. commercial, 150,000 sq. ft. office, and 1,406 dwelling units completed
Pin Oak Office Building	2	20,000 sq. ft. commercial center	Property rezoned to C-O; grading easements and site plan under development
Mill Branch	99	38 single-family detached residential units	Preliminary Subdivision Plan approved
Canter Property	111	22 single-family detached residential units	Preliminary Subdivision Plan filed in 2006
St Edward S Church Expansion	unknown	15,600 sq. ft. addition	Storm water management plans under review

Table 13 cont.: Reasonably Foreseeable Future Projects

Development Project	Acres	Planned Land Use	Status
Bowie Nissan	6	29,700 sq. ft. automobile dealership	Preliminary Subdivision Plan and Detailed Site Plan approved, grading plan, erosion and sediment control plan and minor site plan revisions under review.
Amber Ridge Shopping Center	19	180,000 sq. ft. commercial shopping center	Preliminary Plan approved in 1998; various details appealed to Circuit Court by City of Bowie but upheld by Court of Special Appeals in 2004.
Bowie Market Place Zehner Property	unknown	Commercial retail and mixed use development, including residential (Zehner Property)	Owner reviewing use alternatives
Mill Branch Crossing Chesley Gibraltar	74	800,000 sq. ft. commercial and office mixed use	Property re-zoned to C-S-C. Plan Under review

The preferred alternative would not provide additional access to adjacent parcels, and would therefore not generate indirect effects on environmental resources. However, with the substantial level of development planned in the vicinity of the project (over 1,200 acres), there will be cumulative effects from the combination of highway improvements and planned developments.

The preferred alternative would only contribute minimally to those impacts, and the impacts from the developments would occur independent of those improvements. The preferred alternative would convert 13.35 acres of forest land and 7.6 acres of cropland to transportation infrastructure use. Some of the larger planned development sites will also reduce forest acreage to some extent, but will primarily reduce agricultural acreage. As mitigation for the direct impacts to forested lands, and in compliance with county and state forest conservation laws, reforestation will be included as a part of these development projects, as well as for the US 301/MD 197 project. Wetland impacts from the preferred alternative are expected to be minimal, affecting only 0.29 acre. Information regarding any impacts to wetlands from the development projects is not readily available. It is anticipated that regulatory agencies will require notification for impacts resulting from those development projects. No FEMA regulated floodplains and no significant historic or archeological sites were identified within the indirect and cumulative effects analysis area.

Mitigation

A preliminary identification of potential sites for wetland creation and stream restoration was performed to evaluate the potential for adequate compensatory mitigation. One potential wetland creation site was identified which could provide for up to seven acres of wetland

mitigation. Two stream restoration sites, one along Green Branch east of Rips Restaurant and one along Mill Branch near the crossing of Mill Branch Road were identified as candidate restoration sites.

Fifty-five potential sites were initially identified using GIS and other sources, including aerial photographs, soil surveys, and previous site search reports. These sites were field-verified, resulting in 26 potential sites, nine of these sites were considered acceptable for further review by regulatory agencies. Following an agency field review on May 15, 2007, two of these sites were of sufficient interest to merit additional consideration.

Site PR-270 – Wetland Creation

Site PR-270 consists of an area that is a former sand and gravel operation. The area of interest is located adjacent to a small wetland pocket, a pond, and a narrow intermittent stream channel. There is potential for creating up to seven acres or so of new wetlands on this site, although only a total of 0.44 acre of mitigation are likely to be required for this project. The land is presently owned by Anne Arundel County.

The creation of a compensatory wetland would involve constructing an equipment access road to the site, installing silt fencing and erosion/sediment controls, cutting and clearing existing trees, excavating to approximately two feet, spreading a layer of topsoil, and replanting a mixture of native emergent plants, shrubs, and trees. Stockpiling of excavated material can be accomplished with few problems on the surrounding, previously disturbed mining site. Water control structures should no be needed, as excess flow would runoff to the adjacent channel as it does presently. Site PR-270 is SHA's preferred mitigation site.

Site PR-397 – Stream Restoration

This site occurs on Mill Brach, just upstream of its crossing by Mill Branch Road. The stream flows through a forested area that at one time appears to have been a pasture. The right bank at Site PR397 is approximately 40-feet high and the channel is entrenched, with 6-foot banks along the left side of the channel. The mitigation project would involve restoring up to 1,400 linear feet of channel by relocating it away from the right bank to increase stability and decrease mass wasting.

The restoration would include improving the meander geometry of the channel, as well as changing the channel hydraulic dimensions to a more stable form to better transport its flow and sediment. In addition, grading would be done so that the channel would have better access to its floodplain.

Reforestation at a 1:1 ratio will occur within the same watershed where the improvements will take place. If sufficient open acreage for planting is not found within the project's watershed, payment will be made into the Maryland Reforestation Fund to compensate for the project's forest impacts.

Conclusion

Based upon the information presented, the proposed project will not involve any significant environmental impacts to socio-economic, natural, or cultural resources. It will not induce unplanned significant foreseeable alterations in land use or affect planned growth. As such, we request your concurrence in classifying this project as a Categorical Exclusion. Additionally, your signature below will constitute Location Approval for the proposed project.

Sincerely,

Neil J. Pederson
Administrator

by: _____
Raja Veeramachaneni, Director
Office of Planning and
Preliminary Engineering

We concur with your determination that this project meets the criteria for a Categorical Exclusion and hereby grant Location Approval.

_____ 6/24/08
Federal Highway Administration Date
For Division Administrator

Enclosure
cc: Ms. Felicia Alexander, Project Manager, Project Planning Division, SHA
Mr. Phillip Bello, Area Engineer, FHWA-Delmar Division
Ms. Theresa Christian, Environmental Manager, Project Planning Division, SHA
Mr. Bruce M.Grey, Deputy Director, Office of Planning and Preliminary Engineering, SHA
Ms. Denise King, Environmental Specialist, FHWA-Delmar Division
Mr. Joseph R. Kresslein, Assistant Division Chief, Project Planning Division, SHA
Mr. Darrell Mobley, District Engineer, SHA-D3
Mr. Donald Sparklin, Deputy Division Chief, Project Planning Division, SHA