

REEVALUATION

PROJECT-LEVEL CONFORMITY DETERMINATION FOR THE

MD 32: MD 108 to I-70

SHA CONTRACT NO. HO391A22

HOWARD COUNTY, MARYLAND

PREPARED BY:

**THE WILSON T. BALLARD COMPANY
17 GWYNNS MILL COURT
OWINGS MILLS, MARYLAND
21117**

JANUARY 2010

TABLE OF CONTENTS

Introduction.....	1
A Brief History of the Project.....	1
Changes in Air Quality Analysis Regulations Relevant to the Project.....	1
Project Description.....	2
General Discussion.....	5
PM_{2.5} Analysis.....	5
Table 1.....	8
Table 2.....	9
Table 3.....	10
Figure 1.....	3
Figure 2.....	4
Figure 3.....	12

INTRODUCTION

The Maryland State Highway Administration (SHA) is continuing improvements to MD 32 (Patuxent Freeway) from MD 108 (Clarksville Pike) to I-70 (Baltimore National Pike). The project is located in Howard County, Maryland (see *Figure 1*). The MD 32: MD 108 to I-70 project involves dualizing the existing MD 32 from MD 108 to I-70. Interchanges would be located at Linden Church Road, the SHA Dayton Shop Complex, Burntwoods Road / Ten Oaks Road / Pfefferkorn Road, Rosemary Lane, and MD 144. In addition, two loop ramps would be added to the I-70 interchange.

A Brief History of the Project

A previous air quality analysis of the MD 32: MD 108 to I-70 project was completed in September, 2004, and a summary of findings was included in the subsequent environmental documents. Location Approval was granted on November 18, 2005, and Design approval was received on March 12, 2006. Both MSATs and PM_{2.5} analyses were added to the project documents in September and October of 2006. The project then proceeded to design, right-of-way acquisition; and construction as funding is programmed for these phases. The MD 32 Selected Alternative will be implemented in stages or break-out projects. The first of these projects, Burntwoods Road interchange, was begun in 2007 and completed in 2009. This reevaluation is for the Linden Church Road Interchange phase.

Changes in Air Quality Analysis Regulations Relevant to the Project

On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized impacts of particulate matter: *PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ 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 PM₁₀ and PM_{2.5} nonattainment and maintenance areas deemed to be *projects of air quality concern*. The project is in the Baltimore, MD PM_{2.5} nonattainment area. A PM_{2.5} Project-Level Hotspot analysis was submitted in October 2006. The PM_{2.5} analysis must now be reevaluated because it has been three years¹ since the previous analysis, and to include current air quality information and guidance.^{2, 3}

¹ **40CFR93.104(d)** : “FHWA/FTA projects must be found to conform before they are adopted, accepted, approved, or funded. Conformity must be redetermined for any FHWA/FTA project if one of the following occurs: a significant change in the project’s design concept and scope; three years elapse since the most recent major step to advance the project; or initiation of a supplemental environmental document for air quality purposes. Major steps include NEPA process completion; start of final design; acquisition of a significant portion of the right-of-way; and, construction (including Federal approval of plans, specifications and estimates).”

² **74 FR 23034** Transportation Conformity Rule PM_{2.5} and PM₁₀ Amendments; Proposed Rule: “EPA is proposing amendments to the transportation conformity rule that primarily affect conformity’s implementation in PM_{2.5} and PM₁₀ nonattainment and maintenance areas. EPA is proposing to update the transportation conformity regulation in light of the October 17, 2006 final rule that strengthened the 24-hour PM_{2.5} air quality standard and revoked the annual PM₁₀ standard. In addition, EPA is proposing to clarify the regulations concerning hot-spot analyses to address a remand from the Court of Appeals for the District of Columbia Circuit (*Environmental Defense v. EPA*, 509 F.3d 553 (DC Cir. 2007)).”

³ **Final PM Qualitative Guidance Clarification; June 12, 2009**: “On March 29, 2006, the Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA) issued joint guidance on how to perform qualitative hot-spot analyses in PM_{2.5} and PM₁₀ nonattainment and maintenance areas titled, “Transportation Conformity Guidance for Qualitative Hot-spot Analysis in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas” (March 2006 guidance). The guidance provides information for State and local agencies to meet the PM_{2.5} and PM₁₀ hot-spot analysis requirements established in the March 10, 2006, final transportation conformity rule (71 FR 12468)”

“Since issuing the March 2006 guidance, a lawsuit was filed challenging a project’s conformity determination, including the project’s PM_{2.5} hot-spot analysis that relied on method A (comparison to another location with similar characteristics). Method A is described in question 4.1 of the March 2006 guidance. As part of a settlement agreement on that lawsuit (*Environmental Defense, et al. v. USDOT, et al.*, No. 08-1107 (4th Cir., dismissed Nov. 17, 2008)), FHWA agreed to issue a clarification on a specific schedule, in coordination with EPA, to the March 2006 guidance. This clarification does not supersede the March 2006 guidance or the March 10, 2006 final transportation conformity rule; it only further explains how to implement the existing guidance and the hot-spot analysis requirements in the final rule. The clarification also does not create any new requirements and does not serve as guidance for PM_{2.5} and PM₁₀ quantitative hot-spot analyses.

PROJECT DESCRIPTION

The study area, as shown on *Figures 1 and 2*, is located in Howard County, Maryland. The study limits begin approximately 2,000 feet north of MD 108 and ends approximately 1,000 feet north of I-70. The total length of the study limits is approximately 8.75 miles. It encompasses the last two-lane portion of a 40-mile stretch between I-70 and Annapolis called the "Patuxent Freeway". The existing roadway is a two-lane highway with at-grade intersections. The proposed roadway would be a four-lane, divided highway with access being provided by interchanges and service roads. Improvements to this section of MD 32 are necessary to help provide connectivity with the rest of the system. MD 32 south of the study area is currently a four to six lane, divided highway with interchanges. The proposed project is consistent with the 1990 Howard County General Land-Use Plan. Existing and future land use along the study portion of the MD 32 corridor consists of a mixture of rural residential, employment commercial and rural conservation.

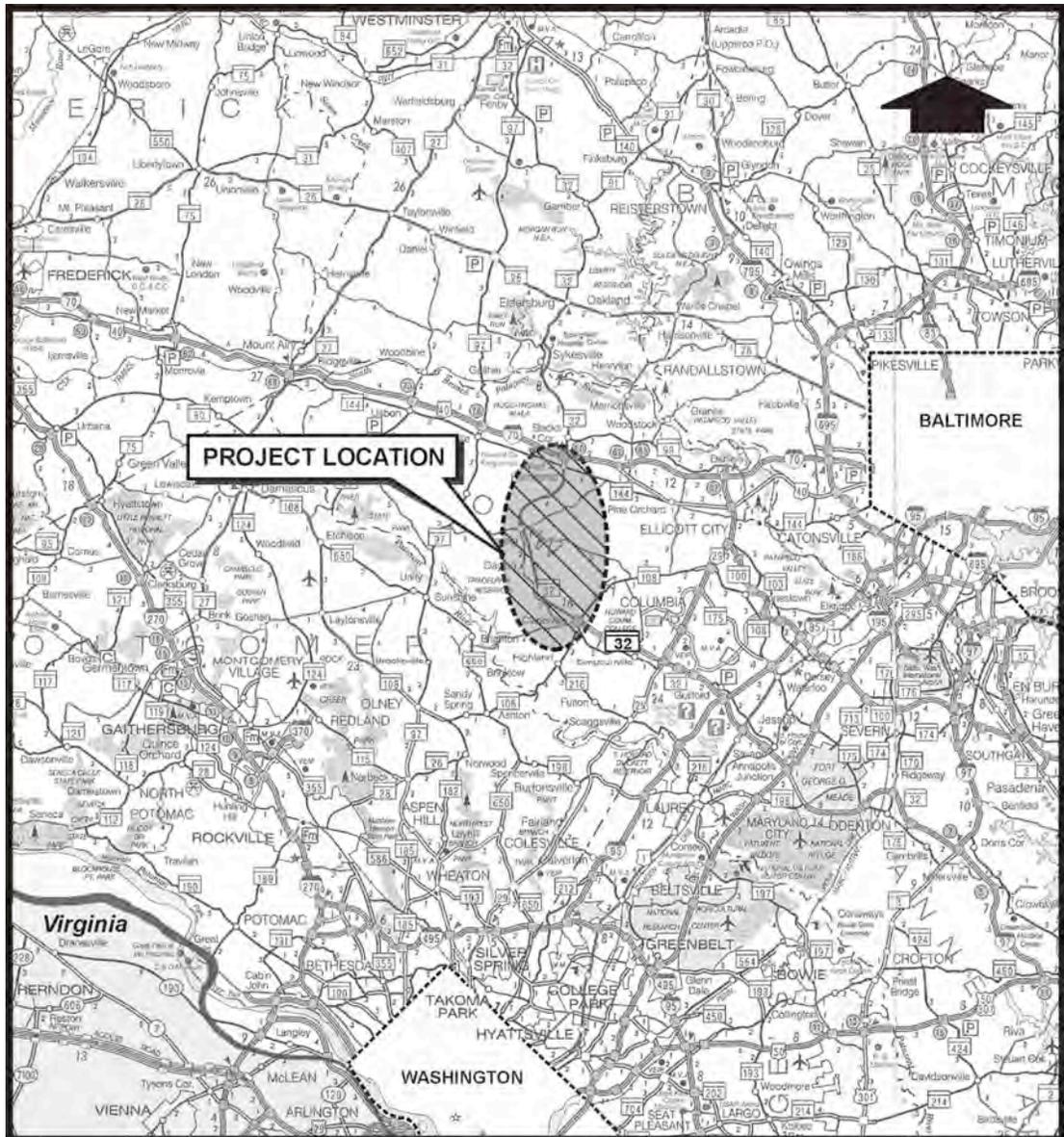
There are two alternatives under consideration: a No-Build Alternative and the Build Alternative. The Build Alternative consists of a four-lane divided highway with two lanes in both directions. The alternatives are as follows:

1. Alternative 1 (No-Build Alternative)

This alternative would make no changes to existing MD 32. Minor improvements that would be part of the maintenance and safety operations would occur, but they would not measurably affect the capacity of MD 32 or relieve congestion.

2. Alternative 2 (Build Alternative)

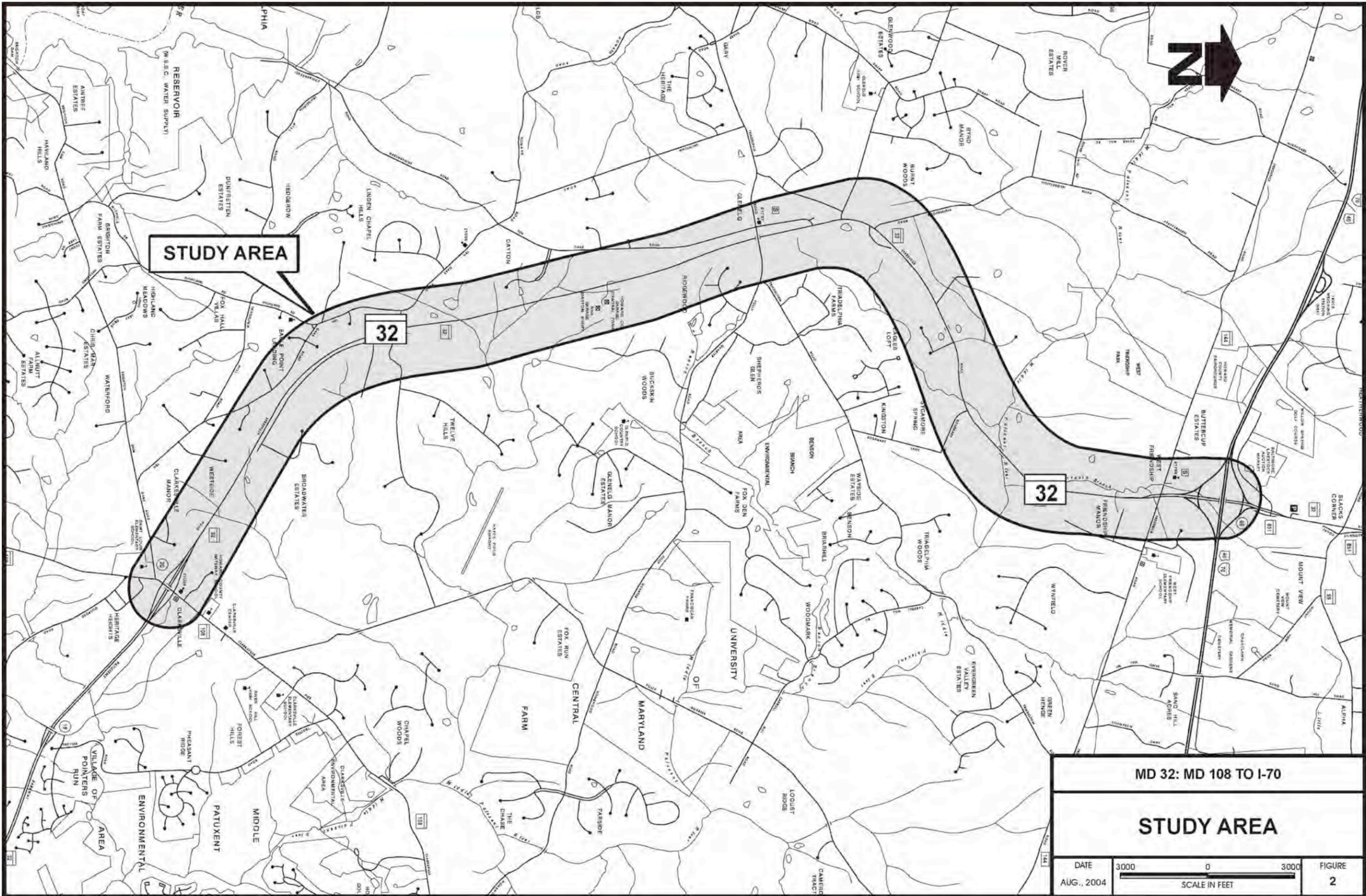
This alternative would dualize existing MD 32 from MD 108 to I-70. There would be interchanges at Linden Church Road, the SHA Dayton Shop Complex, Burntwoods Road / Ten Oaks Road / Pfefferkorn Road, Rosemary Lane, and MD 144. In addition, two loop ramps would be added to the I-70 interchange.



MD 32: MD 108 TO I-70

LOCATION MAP

DATE AUG., 2004	<p>SCALE IN MILES</p>	FIGURE 1
--------------------	-----------------------	--------------------



General Discussion

On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized impacts of particulate matter: *PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ 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 PM₁₀ and PM_{2.5} nonattainment and maintenance areas deemed to be *projects of air quality concern*. The MD 32: MD 108 to I-70 project is in of the Baltimore, MD PM_{2.5} nonattainment area. As discussed in the Transportation Conformity Guidance, “*The March 10, 2006 final rule requires a qualitative PM_{2.5} hot-spot analysis to be completed for project-level conformity determinations for projects of air quality concern completed on or after April 5, 2006, when PM_{2.5} conformity requirements apply and the final rule is effective*”. On March 29, 2006, the FHWA published Guidance on Qualitative Hot-Spot Analysis for PM_{2.5} and PM₁₀ in nonattainment areas. A PM_{2.5} conformity determination for the MD 32: MD 108 to I-70 project was provided in October 2006. As previously referenced, on June 12, 2009 EPA issued a clarification to this guidance. Specifically, EPA clarified “*how to conduct a qualitative PM_{2.5} or PM₁₀ hot-spot analysis using method A (comparison to another location with similar characteristics)*”.⁴ Included hereinafter is a reevaluation of the previous PM_{2.5} for MD 32: MD 108 to I-70 study.

Federal regulations provide the requirements for determining the frequency of air quality conformity determinations. Specifically, 40CFR93.104(d) requires a redetermination of conformity “*if one of the following occurs: a significant change in the project's design concept and scope; three years elapse since the most recent major step to advance the project; or initiation of a supplemental environmental document for air quality purposes. Major steps include NEPA process completion; start of final design; acquisition of a significant portion of the right-of-way; and, construction (including Federal approval of plans, specifications and estimates).*”

PM_{2.5} Analysis

General

This project is located in Howard County, Maryland, which is in the Baltimore, MD PM_{2.5} maintenance area. The Baltimore, MD PM_{2.5} area was originally designated as nonattainment for PM_{2.5} on January 5, 2005 by the US EPA. 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. In October of 2009, the Baltimore, MD PM_{2.5} area was designated as maintenance. This redesignation will be published in the Federal Register and will then be considered effective. In the interim, the transportation conformity for the PM_{2.5} standards will remain the same as those set on April 5, 2006, until the one-year grace period from the date the new designations were published in the Federal Register. As discussed on FHWA's frequently asked questions website for “PM_{2.5} Project-Level Conformity and Hot-Spot Analyses,” if a project still requires a FHWA approval or authorization, a project-level conformity determination is required prior to the first such action on or after April 5, 2006, even if the project has already completed the NEPA process, or for multi-phase projects, even if other phases of the project have already been constructed. Therefore, the PM_{2.5} hot-spot analysis

⁴ Final PM Qualitative Guidance Clarification; June 12, 2009

for this reevaluation will focus on the current provided information for the Linden Church Road vicinity.

This assessment of localized impacts (i.e., "hotspot analysis") examines potential air quality impacts on a scale smaller than an entire nonattainment or maintenance area. Such an analysis is a means of demonstrating that a transportation project meets Clean Air Act conformity requirements to support State and local air quality goals.

A qualitative hotspot analysis is required for these projects until EPA releases its future quantitative modeling guidance and announces that quantitative PM_{2.5} hotspot analyses are required under 40 CFR §93.123(b)(4). EPA requires hotspot findings to be based on directly emitted PM_{2.5}, since secondary particles take several hours to form in the atmosphere giving emissions time to disperse beyond the immediate area of concern. The Conformity Rule requires PM_{2.5} hot-spot analyses to include road dust emissions only if such emissions have been found significant by EPA or the state air agency prior to the PM_{2.5} SIP or as part of an adequate PM_{2.5} SIP motor vehicle emissions budget (40 CFR §93.102(b)(3)). Emissions resulting from construction of the project are not required to be considered in the hotspot analysis if such emissions are considered temporary according to 40 CFR §93.123(c)(5).

As discussed in the examples to the preamble to the March 10, 2006 *Final Rule for PM_{2.5} and PM₁₀ 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) 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.""*⁵

PM_{2.5} Hot Spot Analysis

The MD 32: MD 108 to I-70 project meets the criteria set forth in 40 CFR 93.123(b)(1) as amended for projects of air quality concern primarily because the project is an expanded highway project expected to result in a significant increase in diesel vehicles. The Build Alternative in the Linden Church Road vicinity is predicted to increase traffic volumes by 23,450 vehicles per day in 2030 as compared to the No-Build Alternative, an increase of 68 to 83 percent. The weighted truck percentage for all trucks in 2030 is 7 percent, which translates into 5,038 trucks per day.

Construction-related emissions for the project were considered to be temporary since construction-related emissions will last less than five years at any one site, meeting the criterion of section 93.123(c)(5). Therefore, construction emissions are not required to include in the hotspot analysis. EPA has not approved a PM_{2.5} SIP for Maryland, nor has EPA or the state air agency made any significance findings related to reentrained road dust for the Baltimore, MD PM_{2.5} nonattainment area. Therefore reentrained road dust is not considered in the analysis, per the Conformity Rule. In addition, as there is not an applicable PM_{2.5} SIP, there are no PM_{2.5} control measures and the project is in compliance with 40 CFR 93.117.

⁵ 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]

According to 40 CFR 93.123(b)(2) and (4), a quantitative analysis for applicable projects is not required until EPA releases modeling guidance in the Federal Register. However, a qualitative hot spot analysis is still required. For the MD 32: MD 108 to I-70 project, a qualitative project-level hotspot assessment was conducted in order to assess whether the project will cause or contribute to any new localized PM_{2.5} violations, or increase the frequency or severity of any existing violations, or delay timely attainment of the PM_{2.5} NAAQS.

Air Quality - Monitors

There are currently ten monitors in the Baltimore, MD PM_{2.5} nonattainment area: one in Anne Arundel County, two in Baltimore County, one in Harford County and six in Baltimore City. Based on 2008 air quality monitoring data, there is one monitor that exceeded the annual mean PM_{2.5} standard of 15.0 ug/m³. This monitor is located at 1701 East Patapsco Avenue in Baltimore City. This same monitor is also the only one in the PM_{2.5} nonattainment area that exceeds the current 24-hour PM_{2.5} standard of 35 ug/m³. The monitor that exceeds the PM_{2.5} standards is located near the Port of Baltimore and does not match the site conditions of the MD 32: MD 108 to I-70 Project. **Table 1** provides a summary of the air quality monitoring data for 2006-2008.

There are no monitors that are in close proximity to the MD 32: MD 108 to I-70 project. However, Monitor #240031003 is located in Glen Burnie, MD along Baltimore Annapolis Boulevard and has similar site characteristics to the MD 32: MD 108 to I-70 project area. Based on available data from the Maryland Department of Environment, the predominant wind path at the Glen Burnie monitor is from the southwest direction. This means that I-97 and MD 100 influence the monitor at this location. MD 2 was also included in the traffic impact volume due to its proximity to the monitor. The Glen Burnie monitor is currently below the NAAQS for PM_{2.5} (annual and 24-hour).

Table 1: Monitors in the Baltimore, MD PM_{2.5} Nonattainment Area⁶

Monitor Number and Name	Year	Number of Observations (24-hour)	98th Percentile (24-hour) ug/m³	Annual Mean (24-hour) ug/m³
240031003 Glen Burnie, MD (Comparison Site)	2006	118	31.7	13.8
	2007	111	34.8	13.4
	2008	93	34.8	13.5
240051007 Cockeysville, MD	2006	116	32.3	12.6
	2007	119	31.5	13.3
	2008	81	33	13
240053001 Essex, MD	2006	357	34.3	14.3
	2007	334	34.2	14
	2008	241	31.3	13.5
240251001 Edgewood, MD	2006	117	28.8	11.6
	2007	112	29.2	12.2
	2008	81	31.4	12.5
245100006 Baltimore, MD	2006	114	32.8	13.2
	2007	117	32.7	13.1
	2008	91	33.5	13.4
245100007 Baltimore, MD	2006	119	32.7	12.9
	2007	117	34.3	13.4
	2008	89	31.8	13.4
245100008 Baltimore, MD	2006	119	35.5	14.5
	2007	118	36.3	15
	2008	86	34.7	13.7
245100035 Baltimore, MD, # 1	2006	39	43.2	17
	2007	56	45.4	15
	2008	27	37.3	17
245100035 Baltimore, MD, # 2	2006	326	37.3	14.8
	2007	309	33.9	14.1
	2008	213	31.6	14.5
245100040 Baltimore, MD	2006	344	36.1	14.9
	2007	332	35.2	14.2
	2008	234	31.1	14

⁶ Maryland Data: Maryland Department of the Environment, Air Monitoring Program
 District of Columbia and Virginia Data: United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Information Transfer and Program Integration Information Transfer Group. AIRS Data website: <http://www.epa.gov/air/data/monvals.html>

Future Scenario

In the Baltimore Metropolitan Council (BMC) PM_{2.5} conformity assessment, regional emissions estimates of direct PM_{2.5} from on-road mobile sources show a continued decline through 2030. For the entire nonattainment area, direct on-road mobile sources PM_{2.5} annual emissions are expected to decrease by 46 percent in 2010 and 58 percent in 2030 from a 2002 baseline. The regional emissions estimates are shown on **Table 2**.

Table 2: Plan and TIP PM_{2.5} Conformity Mobile Source Emissions Results Network Based Analysis (tons/year)⁵

Year	Direct PM _{2.5}	% Decrease from 2002 baseline Direct PM _{2.5}
2002	1,043.51	-
2010	563.62	45.99%
2020	427.26	59.06%
2030	435.04	58.31%

According to EPA, the 2007 Heavy-duty engine standards will result in the introduction of new, highly effective control technologies for heavy-duty engines, beginning in 2007. Particulate matter emission levels are expected to be 90 percent lower on a per vehicle basis than 2000 standards levels due to the 2007 diesel engine and fuel program.⁶

Analytical Considerations

A comparison approach was used, in which the anticipated traffic volumes on roadways within the MD 32: MD 108 to I-70 project were compared to those on major roadways near existing air quality monitors. **Table 1** was reviewed in order to identify a monitoring site that was close to major roadways and was exposed to similar traffic counts and truck percentages as the MD 32: MD 108 to I-70 project.

As clarified in the preamble to the July 1, 2004 revision to the transportation conformity rule (64 FR 40056), the conformity rule requires that project-level analyses consider the year of expected peak emissions from the project. For PM_{2.5}, this is expected to be a near-term year, such as the first year of operation of the project, because emission rates from vehicles are predicted to decline between now and the design year (2030) due in part to improvements in tailpipe emissions and national vehicle emissions control programs. As indicated on **Table 2**, the regional PM_{2.5} emissions are much higher in 2010 than in 2020 and 2030. Since regional emissions are a good indicator of the overall emissions trends in the region, it is expected that 2010 would be the year of peak emissions from the project and other emissions sources that affect the project area. While regional direct PM_{2.5} emissions do appear to increase slightly between 2020 and 2030, emissions are lower in 2020 and 2030 than in 2010. EPA projects that all jurisdictions in Maryland will meet the annual and 24-hour

⁵ Data taken from: Conformity Determination of the 2004 Baltimore Regional Transportation Plan and FY 2006-2010 Transportation Improvement Program: Fine Particulate Matter Fine Particulates (PM_{2.5}), Baltimore Metropolitan Council 2005.

⁶ Heavy-duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements - Final Rule ("2007 Heavy-Duty Highway Final Rule") (Signed December 21, 2000)

PM_{2.5} standards by 2015⁷. Therefore, decreases in per vehicle emissions, coupled with other regional control programs both mobile and non-mobile, are expected to result in a continued decrease in emissions such that 2010 is the most likely year of peak emissions. Some of these programs include a series of national vehicle control programs that are expected to reduce vehicle emissions substantially, such as the Tier II vehicle and fuel sulfur standards for light-duty vehicles, the 2007 Highway Rule for heavy-duty diesel vehicles, and other related programs.⁸

In 2010 Build scenario, MD 32 is projected to carry 34,000 vehicles per day and Linden Church Road is projected to carry 4,275 vehicles per day. Traffic Volumes on MD 32 are expected to have an annual growth rate of approximately between one and a half and two percent. Therefore, a 2% annual growth rate was assumed for roadways where SHA did not project traffic volumes. Using this assumption, 10 Oaks Road is projected to carry 4,600 vehicles per day. Therefore, the total overall 2010 traffic volume in this area would be 42,875 vehicles per day. MD 32 has a truck percentage of eight percent. This truck percentage was provided by SHA was assumed to be constant over time. The local roads were assumed to have a truck percentage of three percent. The weighted average truck percentage for these three roadways is 6.9 percent, which is approximately 2,958 trucks per day. See *Table 3*.

Site characteristics at these interchanges were also examined. The MD 32: MD 108 to I-70 project area is zoned either a Rural Conservation Area or Rural Residential Area.

Table 3: Worst-case Locations for Traffic and/or Truck Impact on MD 32 Corridor (2010)

	Roadway	ADT Count (year)	Projected 2010 ADT	Trucks (%)	Total Average Daily Traffic Impact (ADT)	Weighted Truck Average (%)
Linden Church Road vicinity	MD 32	28,423 (1999)	34,000	8	42,875	6.9
	Linden Church Road	3,938 (2006)	4,275	3		
	10 Oaks Road	3,711 (1999)	4,600	3		

Ten potential PM_{2.5} monitoring sites were examined.⁹ The monitoring site that best matched the overall traffic impact, truck percentage and similarity in traffic characteristics is a monitoring site in Glen Burnie, MD, Monitor #240031003 (see *Figure 3* for a map of this monitoring site). This monitor is located in proximity of three major roadways: I-97, with a 2004 average daily traffic (ADT) volume of 117,950 vehicles per day, MD 2 with a 2004 ADT of 33,325, and MD 100, with a 2004 ADT of 74,557 vehicles per day. The combined total traffic impact at this site is 225,832 vehicles per day. The truck percentage near this monitor is 12 percent on I-97, 3 percent on MD 2 and 6 percent on the MD 100. The weighted average truck percentage for these three roadways is 8.7 percent, which is approximately 19,627 trucks per day. In comparing the 2004 Glen Burnie monitoring site to the MD 32: MD 108 to I-70 project area, the MD 32 / I-70 Interchange has lower

⁷ www.epa.gov/pm/pdfs/20060921_2015maps.pdf

⁸ For more information on EPA's national vehicle control programs, please refer to EPA's Office of Transportation and Air Quality program information available at <http://www.epa.gov/otaq>.

⁹ Ten PM_{2.5} monitors exist in the nonattainment area; however, there are two monitors collocated at one site.

volumes and lower weighted truck percentage. It is presumed that an annual growth rate would occur in the Glen Burnie area and 2010 Glen Burnie monitoring site would be an even greater difference in volumes and weighted truck percentage.

The 2008 annual average PM_{2.5} concentration¹⁰ the Glen Burnie site was 13.5 ug/m³ based on 93 readings, which is below the annual NAAQS for PM_{2.5} of 15.0 ug/m³. In 2008, the 98th percentile reading for the 24-hour PM_{2.5} concentration¹¹ at this site was 34.8 ug/m³, which is below the 24-hour NAAQS of 35 ug/m³.

Compared to all the monitors in the nonattainment area, the Glen Burnie monitoring site similar to the proposed MD 32: MD 108 to I-70 project considering site characteristics and truck ADT. This monitor does not show any violation for PM_{2.5} NAAQS for either the annual or the 24-hour standard based on 2008 observations. The 2010 MD 32 truck impacts on a per vehicle basis should be less than as observed at this monitor in 2008, based on the implementation of national diesel engine and diesel sulfur fuel regulations that are expected to cut heavy-duty diesel emissions. It should also be noted that control programs for other sources in the region, geared toward meeting the 2010 attainment date for the PM_{2.5} standard, may likely improve air quality in the project area. EPA projects that all jurisdictions in Maryland will meet the annual and 24-hour PM_{2.5} standards by 2015 and regional modeling data currently show an expected 46 percent reduction in PM_{2.5} direct emissions by 2010, from a 2002 baseline.

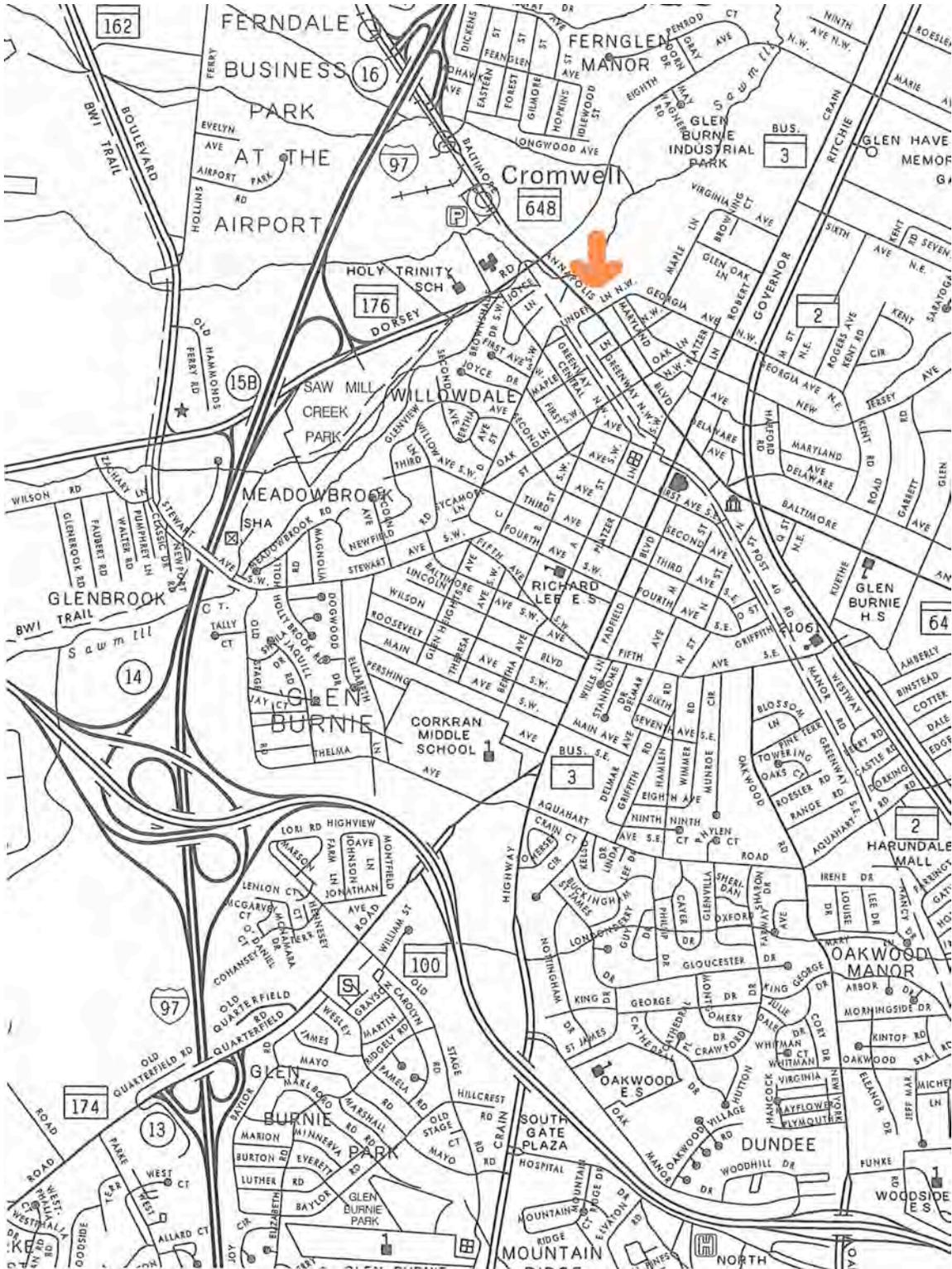
Conclusion

In summary, based on the analysis, it is determined that the MD 32: MD 108 to I-70 project met all the project level conformity requirements, and that the proposed MD 32: MD 108 to I-70 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 for the following reasons:

- A monitor with comparable traffic and site characteristics, and roadway influences to the project area is currently monitoring PM_{2.5} concentrations that are below the 24-hour and annual standards, with 2008 values 90% of the annual standard (15 ug/m³) and 99% of the current 24-hour standard (35 ug/m³).
- The traffic volumes and the weighted percentage of trucks are lower than the comparison monitor.
- PM_{2.5} emissions are expected to be reduced in the project area, as demonstrated by projected reductions in the regional emissions analysis, as well as by national projections by EPA reflecting the impacts of national emissions control programs, such as the 2007 Heavy-duty Diesel Rule.

¹⁰ The three year average for the Average Annual Concentration is 13.6 ug/m³

¹¹ The three year average for the 98th Percentile 24-hour concentration is 33.8 ug/m³



**Figure 3: Map of Glen Burnie PM_{2.5} Monitoring Site
7409 Baltimore Annapolis Boulevard, Glen Burnie, MD, 21061**